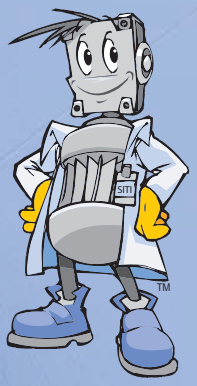
SITI SPA

SOCIETÀ ITALIANA TRASMISSIONI INDUSTRIALI

®

PL - PD



IT RIDUTTORI AD ASSI PARALLELI
RIDUTTORI PENDOLARI

EN PARALLEL SHAFT GEARBOXES
SHAFT MOUNTING GEARBOXES

DE STIRNRADGETRIEBE MIT PARALLEL ANGEORDNETEN WELLEN
AUFSTECKGETRIEBE

FR RÉDUCTEURS À AXES PARALLÈLES
RÉDUCTEURS PENDULAIRES

ES REDUCTORES DE EJES PARALELOS
REDUCTORES PENDULARES

PT REDUTORES DE EIXOS PARALELOS
REDUTORES PENDULARES

05.2014

IT

SITI S.p.A. La ringrazia per la fiducia accordata e Le ricorda che il Suo riduttore è il risultato di un lavoro di miglioramento del prodotto che i nostri tecnici perseguono continuamente, grazie ad una ricerca costante nel settore.

La rete di Assistenza è a Sua disposizione per aiutarLa a risolvere dubbi che potessero sorgere nella lettura di questa pubblicazione.

DATI DI IDENTIFICAZIONE DEL COSTRUTTORE

EN

We would like to thank you for the confidence shown in choosing our products. Our devotion to quality and innovation has allowed us to develop highly efficient gearboxes, able to fulfil even the most exacting requirements.

In case of any doubt, do not hesitate to contact our Customer Service Department or Service Centers for getting a more detailed information.

MANUFACTURER'S DATA

DE

Die Firma SITI S.p.A. bedankt sich für ihr Vertrauen und möchte Sie darauf aufmerksam machen, dass diese Getriebe das Ergebnis einer langen Verbesserungsarbeit sowie einer konstanten Forschung in diesem Bereich darstellt.

Unser kundendienst steht gern zu Ihrer Verfügung, um eventuelle Zweifel, die beim Lesen dieser Catalog aufsteigen können, zu beseitigen.

KENNZEICHNUNGSDATEN DES HERSTELLERS

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SITI S.p.A. ist erlaubt, Änderungen den technischen Merkmalen sowohl den Zubehören durchzuführen, die in diesem Katalog vorliegend sind.

FR

SITI S.p.A. vous remercie pour la confiance que vous lui avez accordée et vous rappelle que son réducteur est le résultat d'un travail d'amélioration continue du produit que nos techniciens poursuivent grâce à une recherche constante dans le secteur.

Le réseau du service Après vente est à votre disposition pour vous aider à résoudre les doutes éventuels qui pourraient survenir lors de la lecture de cette publication.

DONNÉES D'IDENTIFICATION DU FABRICANT

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ES

SITI S.p.A. le agradece la confianza mostrada y le recuerda que su reductor es el resultado de un trabajo de mejora continua del producto, fruto de un constante esfuerzo de investigación en el sector por parte de nuestros técnicos.

La red de Asistencia está a su disposición para ayudarle a resolver las dudas que puedan surgir en la lectura de esta publicación.

DATOS DE IDENTIFICACIÓN DEL FABRICANTE

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VARIADORES MECÁNICOS
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PT

SITI S.p.A. agradece pela confiança demonstrada e recorda que o seu redutor é o resultado de um trabalho de melhoramento do produto que os nossos técnicos buscam continuamente, graças a uma investigação constante no setor.

A rede de Assistência está à sua disposição para ajudar a resolver qualquer dúvida que possa surgir na leitura desta publicação.

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PREMESSA (IT)

Il presente catalogo è relativo ai riduttori ad assi paralleli serie PL-MPL ed ai riduttori pendolari serie PD-MPD, costruiti dalla SITI S.p.A.
I riduttori delle serie PL-MPL e PD-MPD hanno il corpo in ghisa G25 e sono dotati di rotismi a due o tre stadi di riduzione.

INTRODUCTION (EN)

This catalogue relates to parallel shaft gearboxes PL-MPL series and to shaft mounted helical PD-MPD series, manufactured by SITI S.p.A.
The PL-MPL and PD-MPD series gearboxes have a G25 cast iron housing and are fitted with two or three stage of reduction gears.

VORWORT (DE)

Dieser Katalog beschreibt die Stirnradgetriebe mit parallel angeordneten Wellen der Baureihe PL-MPL und die Aufsteckgetriebe der Baureihe PD-MPD von SITI S.p.A.
Die Getriebe der Baureihen PL-MPL und PD-MPD besitzen ein Gehäuse aus Gusseisen G25 und sind in zwei- oder dreistufiger Ausführung gebaut.

INTRODUCTION (FR)

Le catalogue présent concerne les réducteurs à axes parallèles série PL-MPL et les réducteurs pendulaires série PD-MPD, réalisés par la SITI S.p.A.
Les réducteurs de la série PL-MPL et PD-MPD affichent le corps en fonte G25 et sont équipés en rouages à deux ou trois étages de réduction.

PRÓLOGO (ES)

El presente catálogo hace referencia a los reductores de ejes paralelos de la serie PL-MPL y a los reductores pendulares de la serie PD-MPD fabricados por SITI S.p.A.
Los reductores de las series PL-MPL y PD-MPD tienen un cuerpo de fundición G25, y presentan engranajes con dos o tres etapas de reducción.

INTRODUÇÃO (PT)

O presente catálogo refere-se aos redutores de eixos paralelos série PL-MPL e aos redutores pendulares série PD-MPD, construídos pela SITI S.p.A.
Os redutores das séries PL-MPL e PD-MPD têm o corpo de ferro fundido G25 e possuem engrenagens de dois ou três estágios de redução.

PL - PD

CARATTERISTICHE COSTRUTTIVE (IT)

- Riduttori dotati di rotismi a due o a tre stadi di riduzione.
- Nei riduttori PL e PD, sia la prima che la seconda riduzione sono realizzate con ingranaggi cilindrici a denti elicoidali con profili accuratamente corretti.
  Il terzo stadio di riduzione è ottenuto aggiungendo a monte (entrata riduttore) un ulteriore stadio di riduzione formato da due ingranaggi cilindrici con dentatura corretta.
- Sono realizzati in 5 grandezze: 63 – 80 – 100 – 125 – 160 (il numero che definisce la grandezza rappresenta l'interasse della riduzione finale seconda la serie di Renard R10).
- Le coppie nominali trasmissibili sono comprese fra 100 Nm. e 4015 Nm.
- La capacità di carico delle dentature è stata verificata secondo le norme DIN 3990, UNI 8862, AGMA 2001 B88 ed il progetto ISO 6336, con calcolo della resistenza sia al pitting che a flessione al piede del dente, per una durata nominale accuratamente bilanciata ed estremamente elevata.
- Tutti gli ingranaggi sono costruiti in acciaio da cementazione (20MnCr5 o materiali di equivalente resistenza e temprabilità), e sottoposti a cementazione, tempra e distensione per elevata resistenza alle sollecitazioni statiche e dinamiche e all'usura.
- Gli alberi lenti cavi (soluzione standard) sono costruiti in ghisa sferoidale GS-400.
- Gli alberi lenti pieni, semplici o doppi (soluzione optional) sono costruiti in acciaio da bonifica 42CrMo4, o materiali di simili proprietà.
- Le carcasse sono costruite in ghisa G25 secondo UNI 5007.

DESIGN FEATURES (EN)

- Gearboxes provides with trains of gears at 2 or 3 stages of reduction.
- In the PL and PD gearboxes, the first and second stages of reduction are performed with helical toothed cylindrical gears with accurately corrected profiles.
  The third reduction stage is achieved by adding a further reduction stage upstream (gearbox input) consisting of two cylindrical gears with corrected toothing.
- They are manufactured in 5 sizes: 63 – 80 – 100 – 125 – 160 (the number relevant to gearbox size means the center-to-center distance of the final reduction stage according to the Renard series R10).
- The rated transmissible torques are included in the range from 100 Nm. to 4015 Nm.
- Load capacities of toothing comply with DIN 3990, UNI 8862, AGMA 2001 B88 norms and the ISO 6336 draft proposal, both with the surface pitting resistance and the tooth root bending strength calculation, in view of an accurately balances and extremely high nominal life.
- All gears are made in case-hardening steel (20MnCr5 or materials of equivalent strength and hardenability) and are submitted to case-hardening, quenching and stress-relieving, to give high resistance to static and dynamic stresses and to wear.
- Hollow output shafts (standard solution) are manufactured in nodular cast iron GS-400.
- The solid output shafts, with single or double extension (optional solution) are made in hardening and tempering steel 42CrMo4, or materials of similar properties.
- Housings are made in cast iron G25 according to UNI 5007 specification.

BAUEIGENSCHAFTEN (DE)

- Für diese Getriebe sind zwei oder drei Untersetzungsstufen vorgesehen.
- Bei den Getrieben PL und PD bestehen die erste und die zweite Stufe aus zylindrischen Zahnrädern mit Schrägverzahnung und korrigierten Profilen.
  Die dritte Stufe ist durch Vorschaltung (Getriebeeingang) einer weiteren Übersetzungsstufe, bestehend aus zwei zylindrischen Zahnrädern mit korrigierter Verzahnung erzeugt.
- Die Getriebe werden in fünf Größen gefertigt: 63 – 80 – 100 – 125 – 160 (Die Größe ist nach dem Achsabstand der Abtriebsstufe definiert, gemaess der Renard R10 Reihe).
- Die Abtriebsdrehmomente reichen von 100 bis 4015 Nm.
- Die spezifische Zahnbelastung ist nach DIN 3990, UNI 8862, AGMA 2001 B88 und dem Entwurf ISO 6336 festgelegt und dient der Berechnung der Festigkeit in Bezug auf Pitting und Biegefestigkeit im Zahngrund für eine ausgewogene, normal lange Lebensdauer.
- Alle Zahnräder sind aus Einsatzstahl gefertigt (20MnCr5 oder in Bezug auf Härte und Festigkeit ähnliche Werkstoffe). Um eine höhere Verschleißfestigkeit sowie höhere statische und dynamische Beanspruchungen zu ermöglichen, werden die Zahnräder einsatzgehärtet und spannungsfrei geglüht.
- Die Abtriebshohlwellen werden in der Standardausführung aus Sfäroguß GS-400 gefertigt.
- Die auf Wunsch lieferbaren, einseitigen und zweiseitigen Ábtriebsvollwellen sind aus Stahl 42CrMo4 oder aus einem vergleichbaren Werkstoff hergestellt.
- Das Gehäuse wird aus G25 (Guss) nach UNI 5007 gefertigt.

IT

- Tutti i riduttori offrono la possibilità di accettare elevati carichi esterni, sia radiali che assiali, comunque orientati: le nostre tabelle forniscono i valori applicabili senza problemi in tutte le condizioni, per casi speciali sarà comunque possibile valutare l'eventuale idoneità con calcolo specifico.
- I rendimenti dinamici sono molto elevati; 0,96 nelle versioni a due stadi e 0,92 nelle versioni a tre stadi.
- È possibile operare in condizioni di esercizio particolarmente severe garantendo ancora delle durate soddisfacenti; a questo proposito, raccomandiamo di riferirsi scrupolosamente alle indicazioni dei nostri cataloghi tecnici e, nei casi dubbi, riteniamo indispensabile interpellare il nostro servizio tecnico.

EN

- All the gearboxes offer a chance to accept high external loads, both radial and axial ones, wherever oriented: our tables give the ratings which can be applied with no troubles in any condition, for special application purposes it is however advisable to evaluate the possible suitability through a specific calculation.
- Dynamic efficiencies are very high: 0.96 in the two stage reduction versions and 0.92 in the three stage reduction versions.
- It is allowed to operate in particularly severe conditions of application, still saving sufficiently satisfactory life times; in connection with this, we recommend to strictly adhere to the indications of our technical catalogue and, if in doubt, to contact our technical dept.

DE

- Alle Getriebe haben den Vorteil, daß höhere radiale und axiale Belastungen übertragen werden können.
  Bei den in unseren Tabellen angegebenen Daten handelt sich um Standardangaben für allgemeine Anwendungen in sonderfällen können auf Wunsch projektspezifische Berechnungen durchgeführt werden.
- Der dynamische Wirkungsgrad dieser Getriebe ist sehr hoch: 0,96 bei den zweistufigen und 0,92 bei den dreistufigen Getrieben.
- Es ist möglich diese neue Getriebe auch bei anspruchsvollen Einsatzfällen zu verwenden und eine befriedigende Lebensdauer zu erzielen.
  Deshalb ist es ratsam, nach den Katalogangaben zu richten und bei auftretenden Unsicherheiten mit unserem technischen Büro Rücksprache zu nehmen.

FR

CARACTÉRISTIQUES DE CONSTRUCTION

- Réducteurs équipés en rouages à deux ou trois étages de réduction.
- Dans les réducteurs PL et PD, tant la première que la deuxième réduction est réalisée par engrenages cylindriques à dents hélicoïdales avec profils soigneusement corrigés.
  Le troisième étage de réduction est obtenu ajoutant en amont (entrée réducteur) un autre étage de réduction formé par deux engrenages cylindriques avec denture corrigée.
- Ils sont réalisés en 5 tailles : 63 - 80 - 100 - 125 - 160 (le numéro définissant la taille représente l'entraxe de la réduction finale selon la série de Renard R10).
- Les couples nominaux transmissibles sont compris entre 100 Nm et 4015 Nm.
- La capacité de charge des dentures a été vérifiée d'après les normes DIN 3990, UNI 8862, AGMA 2001 B88 et le projet ISO 6336, avec calcul de la résistance tant par pitting que par flexion au pied de la dent pour une durée nominale soigneusement équilibrée et extrêmement élevée.
- Tous les engrenages sont réalisés en acier pour cémentation (20MnCr5 ou matériaux de résistance et trempabilité équivalente) et soumis à cémentation, trempe et renvenu pour haute résistance aux sollicitations statiques et dynamiques et à l'usure.
- Les arbres petite vitesse creux (solution standard) sont réalisés en fonte sphéroïdale GS-400.
- Les arbres petite vitesse pleins, simples ou doubles (solution en option) sont réalisés en acier pour trempe et renvenu 42CrMo4 ou matériaux affichant des propriétés similaires.
- Les carcasses sont réalisées en fonte G25 d'après UNI 5007.

ES

CARACTERISTICAS CONSTRUCTIVAS

- Reductores dotados de engranajes con dos o tres etapas de reducción.
- En los reductores PL y PD, tanto la primera como la segunda reducción se realizan con engranajes cilíndricos de dientes helicoidales con perfiles corregidos con precisión.
  La tercera etapa de reducción se obtiene añadiendo en la entrada del reductor una etapa más de reducción formada por dos engranajes cilíndricos con dentado corregido.
- Están realizados en 5 tamaños: 63 - 80 - 100 - 125 - 160 (el número que define el tamaño representa la distancia entre ejes de la reducción final según la serie de Renard R10).
- Los pares nominales transmisibles están comprendidos entre 100 Nm y 4015 Nm.
- La capacidad de carga de los dentados se ha verificado según las normas DIN 3990, UNI 8862, AGMA 2001 B88 y el proyecto ISO 6336, con cálculo de la resistencia, tanto al pitting como a la flexión al pie del diente, para una duración nominal equilibrada con precisión y extremadamente elevada.
- Todos los engranajes están construidos en acero de cimentación (20MnCr5 o materiales de resistencia y temperabilidad equivalente), y sometidos a cimentación, templado y distensión para una elevada resistencia a las exigencias estáticas y dinámicas y al desgaste.
- Los ejes lentos huecos (solución estándar) están construidos en fundición esferoidal GS-400.
- Los ejes lentos macizos, simples o dobles (solución opcional) están construidos en acero bonificado 42CrMo4 o materiales con propiedades similares.
- Las carcasas están construidas en fundición G25 según UNI 5007.

PT

CARACTERÍSTICAS CONSTRUTIVAS

- Redutores com engrenagens de dois ou três estágios de redução.
- Nos redutores PL e PD, tanto a primeira quanto a segunda redução são realizadas com engrenagens cilíndricas com dentes helicoidais com perfis cuidadosamente melhorados.
  O terceiro estágio de redução é obtida pela adição na entrada (entrada do redutor) de uma fase de redução adicional formado por duas engrenagens cilíndricas com dentes corrigidos.
- São realizados em 5 tamanhos: 63 - 80 - 100 - 125 - 160 (o número que define o tamanho representa a distância entre a redução final segundo a série de Renard R 10).
- Os torques nominais transmissíveis estão compreendidos entre 100 Nm e 4015 Nm.
- A capacidade de carga dos dentes foi verificada segundo as normas DIN 3990, UNI 8862, AGMA 2001 B88 e o projeto ISO 6336, com cálculo da resistência tanto à corrosão quanto de flexão no pé do dente, para uma duração nominal cuidadosamente balanceada e extremamente elevada.
- Todas as engrenagens foram construídas em aço cementado (20MnCr5 ou materiais com resistência e temperabilidade equivalentes) e submetidos a cementação, têmpera e distensão para elevada resistência às solicitações estáticas e dinâmicas e ao desgaste.
- Os eixos de saída vazados (solução standard) são feitos de ferro fundido esferoidal GS-400.
- Os eixos de saída maciços, simples ou duplos (solução opcional), são construídos em aço de tratamento 42CrMo4 ou materiais com propriedades semelhantes.
- As carcaças são construídas em ferro fundido G25 segundo UNI 5007.

FR

- Tous les réducteurs offrent la possibilité d'accepter de hautes charges extérieures, tant radiales qu'axiales, de toute façon orientées : nos tableaux offrent les valeurs applicables sans problèmes dans toutes les conditions, pour des cas spéciaux il sera possible d'évaluer l'adéquation éventuelle par calcul spécifique.
- Les rendements dynamiques sont très élevés ; 0,96 dans les versions à deux étages et 0,92 dans les versions à trois étages.
- Il est possible d'œuvrer en conditions d'exercice particulièrement sévères en assurant encore des durées satisfaisantes ; à ce propos, nous recommandons de se référer scrupuleusement aux indications de nos catalogues techniques et, en cas de doute, nous estimons comme indispensable de contacter notre service technique.

ES

- Todos los reductores ofrecen la posibilidad de aceptar elevadas cargas externas, tanto radiales como axiales, aunque orientados: nuestras tablas proporcionan los valores aplicables sin problemas en todas las condiciones. Para casos especiales será posible valorar la idoneidad mediante un cálculo específico.
- Los rendimientos dinámicos son muy elevados: 0,96 en las versiones de dos etapas y 0,92 en las versiones de tres etapas.
- Es posible trabajar en condiciones particularmente severas sin dejar de garantizar duraciones satisfactorias. Para ello, recomendamos seguir al pie de la letra las indicaciones de nuestros catálogos técnicos y, en caso de duda, consideramos indispensable que se ponga en contacto con nuestro servicio técnico.

PT

- Todos os redutores oferecem a possibilidade de aceitar elevadas cargas externas, tanto radiais quanto axiais, de qualquer modo, orientadas: as nossas tabelas indicam os valores que podem ser aplicados sem problemas em todas as condições, para casos especiais será, de qualquer modo, possível avaliar a eventual idoneidade com cálculos específicos.
- Os rendimentos dinâmicos são muito elevados; 0,96 nas versões com dois estágios e 0,92 nas versões com três estágios.
- É possível trabalhar em condições de funcionamento particularmente severas garantindo, no entanto, uma duração satisfatória; para isso, recomendamos que siga rigorosamente as indicações dos nossos catálogos técnicos e, no caso de dúvidas, é indispensável que contate o nosso serviço técnico.

PECULIARITÀ COSTRUTIIVE (IT)

- Elevata compattezza ed estrema versatilità di impiego.
- Modularità costruttiva, che consente agevoli modifiche della posizione di installazione e montaggio.
- Carcassa principale monoblocco ed ulteriore carcassa per ospitare lo stadio di riduzione addizionale (precoppia), facilmente installabile e collegabile alla carcassa principale, utilizzata anche per le versioni PAM a due stadi.
- Struttura robusta e resistente, in grado di accettare motori di notevole grandezza e di trasmettere momenti torcenti, sia nominali che di spunto, molto elevati.
- Impiego di motori normalizzati, calettati direttamente sull'estremità cava dell'albero veloce.
- Elevata capacità di olio per una lubrificazione ottimale.
- Elevate capacità di scambio termico, con possibilità di operare anche in condizioni di servizio particolarmente gravose.
- Valori contenuti di rumorosità e ridotte possibilità di innesco di vibrazioni in virtù del tipo di costruzione e di montaggio modulare, che minimizza il rischio di montaggio mal eseguito e di allineamenti scorretti.
- Livello di qualità più affidabile e ripetitivo del prodotto assemblato.
- Ridotte necessità di manutenzione.

CONSTRUCTION PECULIARITIES (EN)

- High compactness and extreme versatility of usage.
- Modular construction, enabling easy changes in the installation and assembling positions.
- Main monobloc housing and a further housing used for locating the additional reduction stage (primary reduction stage), which can be easily installed and connected to the main housing, used even in the two stages versions equipped with PAM (motor prearrangement).
- Strong and highly resistant structure, suitable to fit even particularly powerful motors and to transmit remarkable torques, both rated and starting ones.
- Use of standardised motors, directly coupled on to the hollow end of the input shaft.
- High oil capacity, in view of a highly efficient lubrication.
- High thermal exchange capacity, with chances to operate even in heavy duty conditions of application.
- Cosiderably low sound levels and minimized vibration risks thank to the modular construction which prevents from the risk of wrong assembling and uncorrect alignments.
- More reliable and repeatable level of quality of the assembly.
- Reduced needs of maintenance.

KONSTRUKTLVE E/GENSCHAFTEN (DE)

- Kompakte Einheit und hohe Vielseitigkeit in der Anwendung.
- Einheitliche Bauform, so daß die Montage in allen Einbaulagen problemlos erfolgen kann.
- Das Hauptgehause (Monoblock) ist gleichzeitig für den Anbau einer Vorstufe für höhere Untersetzungen vorgesehen, die auch in der Version für Motoranbau (PAM) leicht zu montieren ist.
- Eine robuste Konzeption und Bauweise erlaubt den Anbau größerer Motoren, um höhere Anlauf - bzw. Nennmomente zu übertragen.
- Verwendung von Normmotoren die direkt mit der Antriebshohlwelle gekoppelt werden.
- Höhe Ölkapazitat für eine optimisierte Schmierung.
- Ausreichender Innenraum im Gehäuse erlaubt den Einsatz der Getriebe auch in extremen Einsatzfällen.
- Bedingt durch die Modul-Bauweise und Montage werden Geräusche und Vibration sowie Montagefehler vermindert.
- Gleichbleibend hohe Qualität des fertigen Produkts.
- Geringer Bedarf an Wartung.

SPÉCIFICITÉS DE CONSTRUCTION (FR)

- Haute compacité et versatilité d'utilisation élevée.
- Modularité de construction, permettant de simples modifications de la position d'installation et montage.
- Carcasse principale monobloc et ultérieure carcasse pour accueillir le étage de réduction additionnel (précouple), facile à installer et raccorder à la carcasse principale, utilisée également pour les versions PAM à deux étages.
- Structure robuste et résistante, en mesure d'accepter des moteurs de taille remarquable et de transmettre des moments de torsion, tant nominaux que de démarrage, très élevés.
- Utilisation de moteurs normalisés, emboîtés directement sur l'extrémité creuse de l'arbre grande vitesse.
- Haute capacité d'huile pour une lubrification optimale.
- Hautes capacités d'échange thermique, avec possibilité d'œuvrer même en conditions de service particulièrement lourdes.
- Valeurs contenues de bruit et possibilité réduites d'amorçage de vibrations en vertu du type de construction et de montage modulaire, minimisant le risque de montage mal effectué et d'alignements erronés.
- Niveau de qualité plus fiable et répétitif du produit assemblé.
- Nécessités d'entretien réduites.

PECULIARIDADES CONSTRUCTIVAS (ES)

- Muy compactos y con una extrema versatilidad de uso.
- Modularidad constructiva, que permite realizar modificaciones de la posición de instalación y montaje con rapidez.
- Carcasa principal monobloque y una carcasa más para alojar la etapa de reducción adicional (prerreductor), fácilmente instalable y conectable a la carcasa principal, utilizada también para las versiones PAM de dos etapas.
- Estructura robusta y resistente, capaz de funcionar con motores de grandes tamaños y de transmitir momentos de torsión muy elevados, tanto nominales como de arranque.
- Uso de motores normalizados, acoplados directamente en la extremidad hueca del eje rápido.
- Gran capacidad de aceite para una lubricación óptima.
- Grandes capacidades de intercambio térmico, con posibilidad de funcionamiento también en condiciones de servicio especialmente duras.
- Valores reducidos de ruido y escasas posibilidades de detonación de vibraciones gracias al tipo de construcción y al montaje modular, que minimiza el riesgo de montajes y alineaciones incorrectos.
- Nivel de calidad del producto ensamblado más fiable y duradero.
- Menor necesidad de mantenimiento.

PECULIARIDADES CONSTRUTIVAS (PT)

- Elevada compatibilidade e extrema versatilidade de utilização.
- Modularidade construtiva que permite modificar facilmente a posição de instalação e de montagem.
- Carcaça principal monobloco e carcaça adicional para acomodar o estágio de redução adicional (pré-redutor) e que pode ser facilmente instalada e ligada à carcaça principal, utilizada também para as versões PAM de dois estágios.
- Estrutura robusta e resistente, capaz de aceitar motores com tamanhos consideráveis e de transmitir momentos de torção, tanto nominais como de arranque, muito elevados.
- Emprego de motores normalizados, ligados diretamente na extremidade vazada do eixo de entrada.
- Alta capacidade de óleo para uma lubrificação ideal.
- Alta capacidade de troca térmica, com possibilidade de trabalhar também em condições de serviço particularmente severas.
- Valores com presença de ruído e possibilidade de surgimento de vibrações reduzida devido o tipo de construção e de montagem modular que minimiza o risco de montagem mal efetuada e de alinhamentos incorretos.
- Nível de qualidade mais confiável e repetitivo do produto acabado.
- Necessidade de manutenção reduzida.

DESIGNAZIONE (IT)

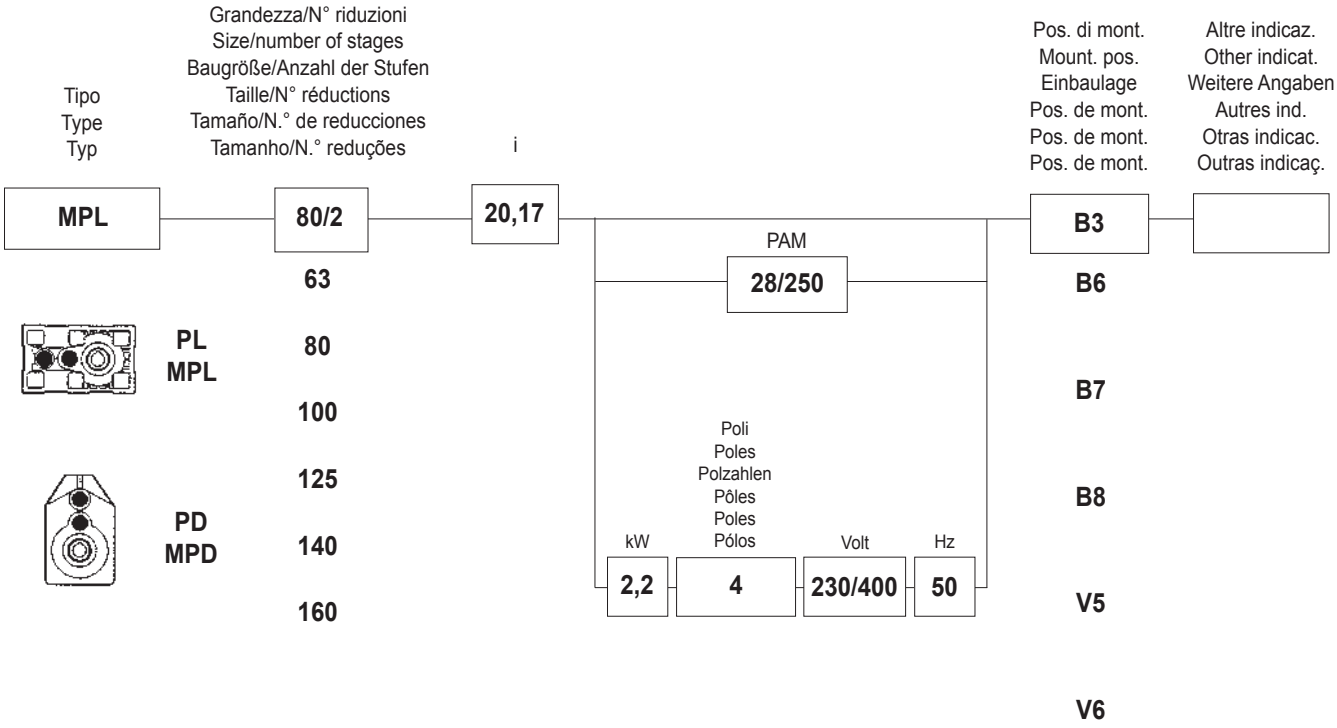
CONFIGURATION (EN)

TYPENBEZEICHNUNGEN (DE)

DÉNOMINATION (FR)

DENOMINACIÓN (ES)

CONFIGURAÇÃO (PT)



PL - PD

Precisare eventuali particolarità: (IT)
- albero lento semplice
- albero lento doppio
- flangia uscita
- ecc...

Clarify possible options: (EN)
- single output shaft
- double output shaft
- output flange
- etc...

Eventuelle Sonderausührungen zeigen: (DE)
- Einseitige Steckwelle
- Doppelseitige Steckwelle
- Abtriebsflansche
- etc...

Préciser d'éventuelles spécificités : (FR)
- arbre petite vitesse simple
- arbre petite vitesse double
- bride sortie
- etc...

Especificar posibles particularidades: (ES)
- Eje lento simple
- Eje lento doble
- Brida de salida
- etc...

Especificar eventuais particularidades: (PT)
- eixo de saída simples
- eixo de saída duplo
- flange saída
- etc...

SENSO DI ROTAZIONE (IT)

DIRECTION OF ROTATION (EN)

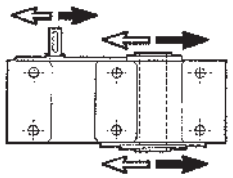
DREHRICHTUNG (DE)

SENS DE ROTATION (FR)

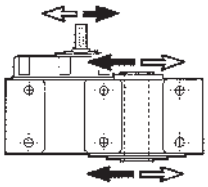
SENTIDO DE ROTACION (ES)

SENTIDO DE ROTAÇÃO (PT)

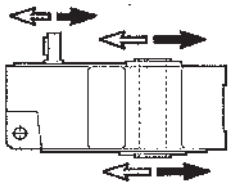
PL..



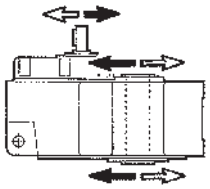
PL../3



PD..



PD../3



POSIZIONI DI MONTAGGIO (IT)

Si consiglia di prestare la massima attenzione alla posizione di montaggio in cui si troverà a lavorare il riduttore. Per molte posizioni, infatti, è prevista un'apposita lubrificazione del riduttore e dei cuscinetti, senza la quale non è garantita la normale durata del riduttore stesso. In mancanza di indicazioni specifiche il riduttore verrà fornito idoneo per il montaggio standard B3.

MOUNTING POSITION (EN)

We recommend to pay the greatest attention to the gearbox installation and operating position. Actually, for several mounting positions a specific lubrication of the gearbox and its bearings is required, otherwise the expected service life of the gearbox would not be assured. Without any specific indication by the customer, the gearbox will be supplied suitable for the B3 standard mounting position.

EINBAULAGEN (DE)

Man sollte immer sehr genau auf die Einbaulage beachten, wobei das Getriebe in Betrieb sein wird.
Tatsächlich, ist für viele Einbaulagen eine Sonderschmierung des Getriebes und seiner Lager vorgesehen, andernfalls kann die normale Lebensdauer des Getriebes nicht gewährleistet werden. Soweit eine spezifische Anfrage nicht vorhanden ist, wird das Getriebe für die Standard-Einbaulage B3 geliefert.

POSITIONS DE MONTAGE (FR)

Il est conseillé de prêter la plus haute attention à la position de montage dans laquelle le réducteur se trouvera à travailler. Pour beaucoup de positions, en effet, il faut prévoir une lubrification du réducteur et des roulements, sans quoi la durée de vie normale du réducteur n'est pas garantie. À défaut d'indications spécifiques le réducteur sera fourni adapté pour le montage standard B3.

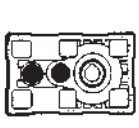
POSICIONES DE MONTAJE (ES)

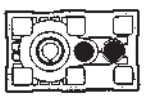
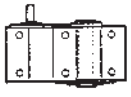
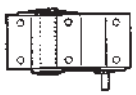
Se aconseja prestar la máxima atención a la posición de montaje en la que trabajará el reductor. Para muchas posiciones, de hecho, está prevista una correspondiente lubricación del reductor y de los cojinetes, sin la cual no se garantiza una duración normal del propio reductor. Si no existen indicaciones específicas, el reductor se suministra en condiciones idóneas para el montaje estándar B3.

POSIÇÕES DE MONTAGEM (PT)

Aconselhamos a prestar a máxima atenção para a posição de montagem onde o redutor irá trabalhar. Para muitas posições está prevista uma lubrificação própria do redutor e dos rolamentos sem a qual não é assegurada a normal duração do próprio redutor. Na falta de indicações específicas o redutor será fornecido pronto para a montagem standard B3.

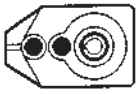
PL
PL.../3

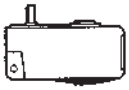


B3	B6	B7	B8	V5	V6

PD
PD.../3


B3	B6	B7	B8	V5	V6

LUBRIFICAZIONE (IT)

Tutti i riduttori PL e PD provvisti di precoppia (PL../3, e PD../3) vengono da noi forniti con la precoppia già lubrificata e quindi non richiedono alcun riempimento da parte dei clienti.
Viene utilizzato l'olio minerale tipo ISO VG 220.
I riduttori PL e PD a due stadi di riduzione, così come la carcassa principale nei riduttori con precoppia vengono invece forniti privi di olio, e la relativa lubrificazione è a cura dei clienti.
Per il tipo di olio, si raccomanda di attenersi scrupolosamente alle tabelle dei lubrificanti (vedi sezione "Informazioni tecniche generali").

LUBRICATION (EN)

All PL and PD gearboxes provided with the primary reduction (PL../3, and PD../3) are supplied with the primary reduction already pre-lubricated in-house, and therefore do not require any filling with oil by the customer.
It is used mineral oil type ISO VG 220.
On the contrary, PL and PD gearboxes with 2 stages of reduction, as well as the main housing in the versions with primary reduction are supplied without oil, and the relative lubrication is at customer's account.
For the selection of oil, we recommend to strictly adhere to the tables of lubricant (see section "General technical information").

SCHMIERUNG (DE)

Bei allen Getrieben der Type PL und PD mit Vorstufe (PL../3 und PD../3), wird die Vorstufe bereits vom Hersteller aus mit Schmiermittel geliefert, so daß von Kundenseite her kein zusätzliches Schmiermittel in die Vorstufe einzufüllen ist. Hierbei wird ein Mineralöl von Shell der Type ISO VG 220 verwendet.
Die zweistufigen PL und PD Getriebe sowie die Hauptgehäuse der Vorstufengetriebe werden alle ohne jegliches Schmiermittel geliefert. Es ist somit Aufgabe des Kunden, diese vor der Inbetriebnahme mit Öl zu füllen.
Fuer die Schmiermittelauslegung, empfehlen wir, vollstaendig die Schmiermitteltabellen zu beruecksichtigen (siehe die Sektion "Allgemeine technische Informationen").

LUBRIFICATION (FR)

Tous les réducteurs PL et PD équipés en précouple (PL../3 et PD../3) sont fournis avec le précouple déjà lubrifié et ils n'exigent donc aucun remplissage par les clients.
On utilise l'huile minérale type ISO VG 220.
Les réducteurs PL et PD à deux étages de réduction, tout comme la carcasse principale dans les réducteurs avec précouple sont fournis sans huile et la lubrification relative est à la charge des clients.
Pour le type d'huile, il est recommandé de suivre scrupuleusement les tableaux des lubrifiants (voir la section "Informations techniques générales").

LUBRICACIÓN (ES)

Todos los reductores PL y PD dotados de prerreductor (PL../3 y PD../3) se suministran con un prerreductor previamente lubricado, por lo que no requieren rellenado alguno por parte de los clientes.
Se emplea aceite mineral tipo ISO VG 220.
Sin embargo, los reductores PL y PD de dos etapas de reducción, así como la carcasa principal de los reductores con prerreductor, se suministran sin aceite, y su lubricación corre a cargo del cliente.
Se recomienda respetar al pie de la letra el tipo de aceite indicado en las tablas de lubricantes (véase la sección "Información técnica general").

LUBRIFICAÇÃO (PT)

Todos os redutores PL e PD com pré-redutores (PL../3, e PD../3) são fornecidos com o pré-redutor já lubrificado e, portanto, não requerem nenhum enchimento por parte dos clientes.
É utilizado o óleo mineral tipo ISO VG 220.
Os redutores PL e PD de dois estágios de redução, assim como a carcaça principal nos redutores com pré-redutor são fornecidos sem óleo e a respectiva lubrificação está a cargo dos clientes.
Para o tipo de óleo, recomendamos atentar-se rigorosamente a tabela dos lubrificantes (veja a seção "Informações técnicas gerais").

Quantità di olio (litri) (IT) / Amount of oil (litres) (EN) / Ölmenge (Liter) (DE)

Quantité d'huile (litres) (FR) / Cantidad de aceite (litros) (ES) / Quantidade de óleo (litros) (PT)

Pos. di mont. / Mount. pos. / Einbaulage / Pos. de mont. / Pos. de mont. / Pos. de mont.	PL... Carcassa principale / Main housing / Hauptgehäuse Carcasse principale / Carcasa principal / Carcaça principal				
	63	**80**	**100**	**125**	**160**
B3 - B8	0.9	1.5	2.8	5.6	10
B6	1.4	2.1	4.0	7.6	12.5
B7	1.1	1.8	3.6	7.0	11.7
V5 - V6	1.2	1.9	3.8	7.2	12.0

PL.../3 Precoppia prelubrificata / Pre-lubricated first reduction stage Bereits geschmierte Vorstufe / Précouple prélubrifié Prerreductor prelubricado / Pré-redutor pré-lubrificado				
63	**80**	**100**	**125**	**160**
0.2	0.3	0.4	0.6	0.8

Pos. di mont. / Mount. pos. / Einbaulage / Pos. de mont. / Pos. de mont. / Pos. de mont.	PD... Carcassa principale / Main housing / Hauptgehäuse Carcasse principale / Carcasa principal / Carcaça principal				
	63	**80**	**100**	**125**	**160**
B3	1.1	1.6	2.8	5.5	10
B6 - B7	0.8	1.4	2.6	5.3	9.8
B8	1.0	1.7	3.5	6.6	11.2
V5 - V6	1.1	1.8	3.6	6.8	11.6

PD.../3 Precoppia prelubrificata / Pre-lubricated first reduction stage Bereits geschmierte Vorstufe / Précouple prélubrifié Prerreductor prelubricado / Pré-redutor pré-lubrificado				
63	**80**	**100**	**125**	**160**
0.2	0.3	0.4	0.6	0.8

PRESTAZIONI E DIMENSIONI SERIE PL ORDINATE PER GRANDEZZA (IT)

PL SERIE PERFORMANCE AND DIMENSIONS IN ORDER OF MAGNITUDE (EN)

LEISTUNGEN UND ABMESSUNGEN DER SERIE PL IN DER GRÖSSENORDNUNG (DE)

PERFORMANCES ET DIMENSIONS RÉPARTIES PAR TAILLE SERIE PL (FR)

PRESTACIONES Y DIMENSIONES SERIE PL ORDENADAS POR TAMAÑO (ES)

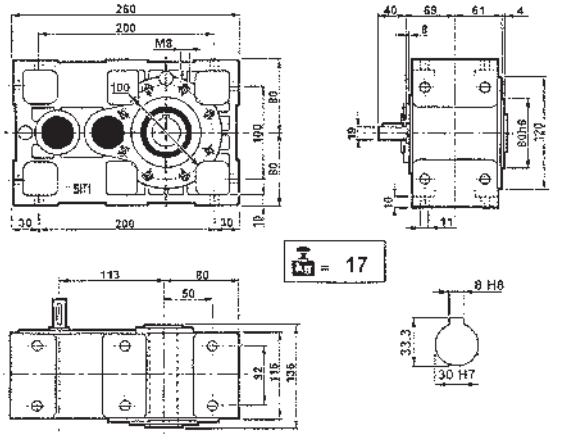
PERFORMANCE E DIMENSÕES SÉRIE PL ORDENADAS POR TAMANHO (PT)

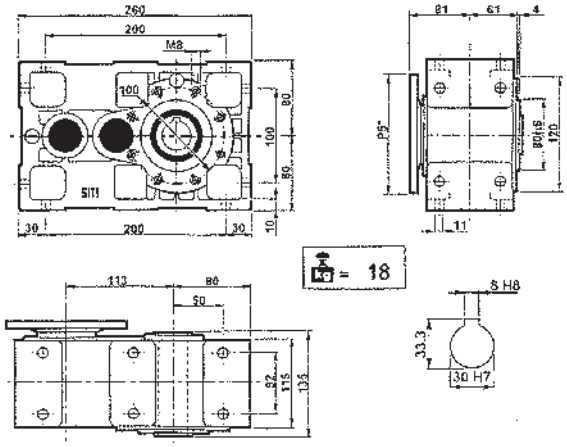
PL 63

n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	10.60	264	180	5.2	7.1	0.96
	13.65	205	180	4.0	5.5	0.96
	15.01	187	180	3.7	5.0	0.96
	17.97	156	216	3.7	5.0	0.96
	18.71	150	153	2.5	3.4	0.96
	23.12	121	207	2.7	3.7	0.96
	25.42	110	207	2.5	3.4	0.96
	31.69	88	162	1.6	2.1	0.96
1400	10.60	132	200	2.9	3.9	0.96
	13.65	103	200	2.2	3.0	0.96
	15.01	93	200	2.0	2.8	0.96
	17.97	78	240	2.0	2.8	0.96
	18.71	75	170	1.4	1.9	0.96
	23.12	61	230	1.5	2.1	0.96
	25.42	55	230	1.4	1.9	0.96
	31.69	44	180	0.9	1.2	0.96
900	10.60	85	220	2.0	2.8	0.96
	13.65	66	220	1.6	2.2	0.96
	15.01	60	220	1.4	2.0	0.96
	17.97	50	264	1.4	2.0	0.96
	18.71	48	187	1.0	1.3	0.96
	23.12	39	253	1.1	1.5	0.96
	25.42	35	253	1.0	1.3	0.96
	31.69	28	198	0.6	0.8	0.96

MPL 63

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	10.60	264	76	2.2	3	0.96	2.36	24/200 - 19/200
	13.65	205	98	2.2	3	0.96	1.83	24/200 - 19/200
	15.01	187	108	2.2	3	0.96	1.66	24/200 - 19/200
	17.97	156	129	2.2	3	0.96	1.67	24/200 - 19/200
	18.71	150	135	2.2	3	0.96	1.14	24/200 - 19/200
	23.12	121	167	2.2	3	0.96	1.24	24/200 - 19/200
	25.42	110	125	1.5	2	0.96	1.66	24/200 - 19/200
	31.69	88	156	1.5	2	0.96	1.04	24/200 - 19/200
1400	10.60	132	125	1.8	2.5	0.96	1.60	24/200 - 19/200
	13.65	103	161	1.8	2.5	0.96	1.24	24/200 - 19/200
	15.01	93	177	1.8	2.5	0.96	1.13	24/200 - 19/200
	17.97	78	212	1.8	2.5	0.96	1.13	24/200 - 19/200
	18.71	75	184	1.5	2	0.96	0.92	24/200 - 19/200
	23.12	61	227	1.5	2	0.96	1.01	24/200 - 19/200
	25.42	55	183	1.1	1.5	0.96	1.26	24/200 - 19/200
	31.69	44	156	0.75	1	0.96	1.16	24/200 - 19/200
900	10.60	85	119	1.1	1.5	0.96	1.85	24/200 - 19/200
	13.65	66	153	1.1	1.5	0.96	1.44	24/200 - 19/200
	15.01	60	168	1.1	1.5	0.96	1.31	24/200 - 19/200
	17.97	50	201	1.1	1.5	0.96	1.31	24/200 - 19/200
	18.71	48	210	1.1	1.5	0.96	0.89	24/200 - 19/200
	23.12	39	259	1.1	1.5	0.96	0.98	24/200 - 19/200
	25.42	35	194	0.75	1.	0.96	1.30	24/200 - 19/200
	31.69	28	178	0.55	0.75	0.96	1.12	24/200 - 19/200





P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung
P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible
Max. allowable external radial load
Carga radial externa admisible
Zulässige externe radiale Belastung
Carga radial externa admissível

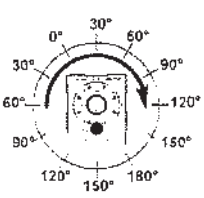
Albero veloce / Input shaft / Antriebswelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min $^{-1}$	PL 63	PL 63/3
	650	400

Albero lento / Output shaft / Abtriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída

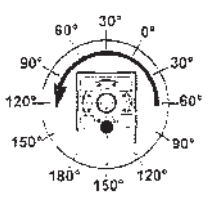
PL 63 - PL 63/3

min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	9205	9517	10327	11572	13002	14121	14562
40	6961	7276	8022	9267	10700	11880	12320
60	5911	6159	6907	8150	9582	10762	11259
80	5164	5413	6159	7404	8836	10079	10514
100	4666	4916	5598	6838	8271	9500	10016
120	4291	4480	5225	6409	7902	9145	9643
140	3982	4156	4848	5946	7332	8486	8948
160	3732	3896	4544	5574	6872	7954	8386

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

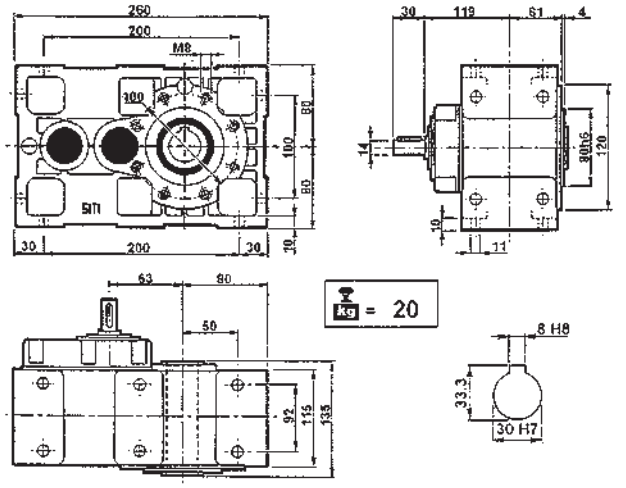


PL 63/3

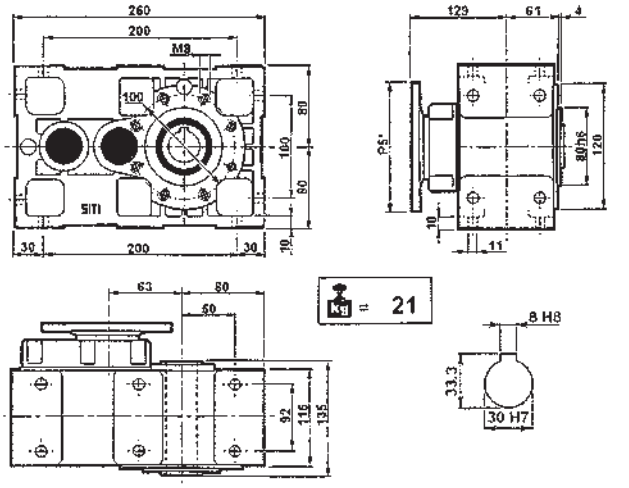
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	29.25	96	252	2.7	3.7	0.92
	37.68	74	270	2.3	3.1	0.92
	41.43	68	252	1.9	2.6	0.92
	47.53	59	180	1.2	1.6	0.92
	51.66	54	198	1.2	1.7	0.92
	58.72	48	270	1.5	2.0	0.92
	64.55	43	252	1.2	1.7	0.92
	67.37	42	198	0.9	1.3	0.92
	80.5	35	198	0.8	1.1	0.92
	83.22	34	270	1.0	1.4	0.92
	91.49	31	252	0.9	1.2	0.92
	114.09	25	198	0.6	0.8	0.92
1400	29.25	48	280	1.5	2.1	0.92
	37.68	37	300	1.3	1.7	0.92
	41.43	34	280	1.1	1.5	0.92
	47.53	29	200	0.7	0.9	0.92
	51.66	27	220	0.7	0.9	0.92
	58.72	24	300	0.8	1.1	0.92
	64.55	22	280	0.7	0.9	0.92
	67.37	21	220	0.5	0.7	0.92
	80.5	17	220	0.4	0.6	0.92
	83.22	17	300	0.6	0.8	0.92
	91.49	15	280	0.5	0.7	0.92
	114.09	12	220	0.3	0.4	0.92
900	29.25	31	308	1.1	1.5	0.92
	37.68	24	330	0.9	1.2	0.92
	41.43	22	308	0.8	1.0	0.92
	47.53	19	220	0.5	0.6	0.92
	51.66	17	242	0.5	0.7	0.92
	58.72	15	330	0.6	0.8	0.92
	64.55	14	308	0.5	0.7	0.92
	67.37	13	242	0.4	0.5	0.92
	80.5	11	242	0.3	0.4	0.92
	83.22	11	330	0.4	0.6	0.92
	91.49	10	308	0.3	0.5	0.92
	114.09	8	242	0.2	0.3	0.92

MPL 63/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	29.25	96	138	1.5	2	0.92	1.83	19/200 - 14/160
	37.68	74	177	1.5	2	0.92	1.52	19/200 - 14/160
	41.43	68	195	1.5	2	0.92	1.29	19/200 - 14/160
	47.53	59	112	0.75	1	0.92	1.61	14/160
	51.66	54	178	1.1	1.5	0.92	1.11	19/200 - 14/160
	58.72	48	138	0.75	1	0.92	1.95	14/160
	64.55	43	152	0.75	1	0.92	1.66	14/160
	67.37	42	53	0.25	0.34	0.92	3.75	11/140
	80.5	35	189	0.75	1	0.92	1.05	14/160
	83.22	34	65	0.25	0.34	0.92	4.14	11/140
	91.49	31	72	0.25	0.34	0.92	3.51	11/140
	114.09	25	89	0.25	0.34	0.92	2.21	11/140
1400	29.25	48	138	0.75	1	0.92	2.03	19/200 - 14/160
	37.68	37	177	0.75	1	0.92	1.69	19/200 - 14/160
	41.43	34	195	0.75	1	0.92	1.44	19/200 - 14/160
	47.53	29	110	0.37	0.5	0.92	1.81	14/160
	51.66	27	243	0.75	1	0.92	0.90	19/200 - 14/160
	58.72	24	136	0.37	0.5	0.92	2.20	14/160
	64.55	22	150	0.37	0.5	0.92	1.87	14/160
	67.37	21	76	0.18	0.25	0.92	2.89	11/140
	80.5	17	187	0.37	0.50	0.92	1.18	14/160
	83.22	17	94	0.18	0.25	0.92	3.19	11/140
	91.49	15	103	0.18	0.25	0.92	2.71	11/140
	114.09	12	129	0.18	0.25	0.92	1.71	11/140
900	29.25	31	157	0.55	0.75	0.92	1.96	19/200 - 14/160
	37.68	24	202	0.55	0.75	0.92	1.63	19/200 - 14/160
	41.43	22	222	0.55	0.75	0.92	1.38	19/200 - 14/160
	47.53	19	216	0.25	0.34	0.92	1.90	14/160
	51.66	17	277	0.55	0.75	0.92	0.87	19/200 - 14/160
	58.72	15	143	0.25	0.34	0.92	2.30	14/160
	64.55	14	158	0.25	0.34	0.92	1.96	14/160
	67.37	13	79	0.12	0.16	0.92	3.07	11/140
	80.5	11	196	0.25	0.34	0.92	1.23	14/160
	83.22	11	97	0.12	0.16	0.92	3.8	11/140
	91.49	10	107	0.12	0.16	0.92	2.87	11/140
	114.09	8	134	0.12	0.16	0.92	1.81	11/140



PL 63 /3



MPL 63 /3

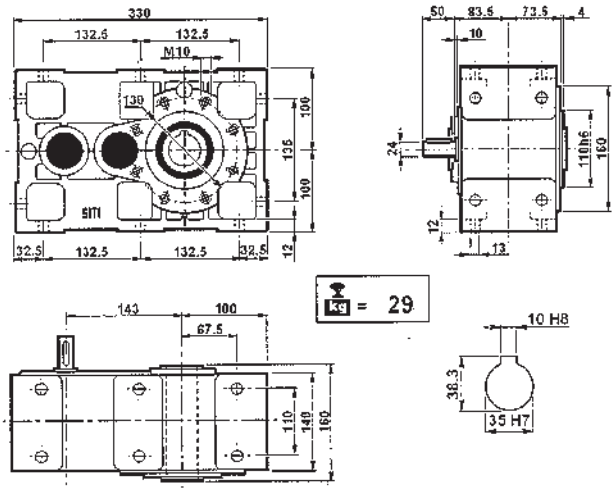
P$_5$*: Vedere i PAM per ogni singola versione
P$_5$*: See PAM size for each single version
P$_5$*: Siehe PAM Größe für jede Ausführung
P$_5$*: Voir les PAM pour chaque version simple
P$_5$*: Consulte los PAM de cada versión por separado
P$_5$*: Ver os PAM para cada versão

PL 80

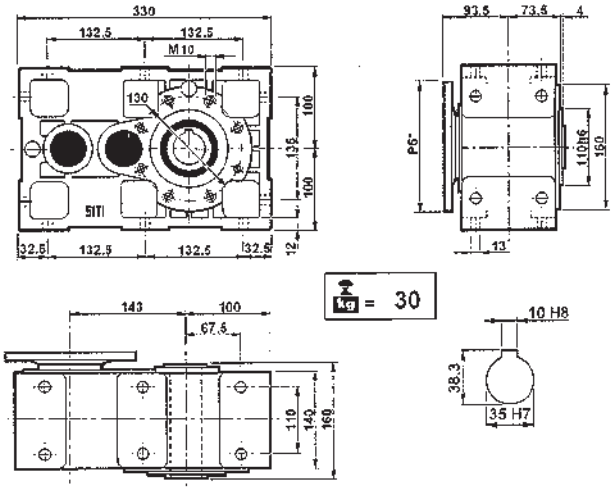
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	10.02	279	360	11.0	14.9	0.96
	12.94	216	360	8.5	11.6	0.96
	15.78	177	360	7.0	9.5	0.96
	17.95	156	441	7.5	10.2	0.96
	20.17	139	405	6.1	8.3	0.96
	23.17	121	378	5.0	6.8	0.96
	28.26	99	378	4.1	5.6	0.96
	36.13	77	360	3.0	4.1	0.96
1400	10.02	140	400	6.1	8.3	0.96
	12.94	108	400	4.7	6.4	0.96
	15.78	89	400	3.9	5.3	0.96
	17.95	78	490	4.2	5.7	0.96
	20.17	69	450	3.4	4.6	0.96
	23.17	60	420	2.8	3.8	0.96
	28.26	50	420	2.3	3.1	0.96
	36.13	39	400	1.7	2.3	0.96
900	10.02	90	440	4.3	5.9	0.96
	12.94	70	440	3.3	4.5	0.96
	15.78	57	440	2.7	3.7	0.96
	17.95	50	539	2.9	4.0	0.96
	20.17	45	495	2.4	3.3	0.96
	23.17	39	462	2.0	2.7	0.96
	28.26	32	462	1.6	2.2	0.96
	36.13	25	440	1.2	1.6	0.96

MPL 80

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	10.02	279	180	5.5	7.5	0.96	2.00	28/250 - 24/200
	12.94	216	233	5.5	7.5	0.96	1.54	28/250 - 24/200
	15.78	177	284	5.5	7.5	0.96	1.27	28/250 - 24/200
	17.95	156	323	5.5	7.5	0.96	1.36	28/250 - 24/200
	20.17	139	363	5.5	7.5	0.96	1.11	28/250 - 24/200
	23.17	121	303	4	5.5	0.96	1.25	28/250 - 24/200
	28.26	99	370	4	5.5	0.96	1.02	28/250 - 24/200
	36.13	77	260	2.2	3	0.96	1.38	28/250 - 24/200
1400	10.02	140	262	4	5.5	0.96	1.52	28/250 - 24/200
	12.94	108	339	4	5.5	0.96	1.18	28/250 - 24/200
	15.78	89	310	3	4	0.96	1.29	28/250 - 24/200
	17.95	78	470	4	5.5	0.96	1.04	28/250 - 24/200
	20.17	69	396	3	4	0.96	1.14	28/250 - 24/200
	23.17	60	334	2.2	3	0.96	1.26	28/250 - 24/200
	28.26	50	407	2.2	3	0.96	1.03	28/250 - 24/200
	36.13	39	365	1.5	2	0.96	1.13	28/250 - 24/200
900	10.02	90	225	2.2	3	0.96	1.96	28/250 - 24/200
	12.94	70	290	2.2	3	0.96	1.52	28/250 - 24/200
	15.78	57	354	2.2	3	0.96	1.24	28/250 - 24/200
	17.95	50	402	2.2	3	0.96	1.34	28/250 - 24/200
	20.17	45	452	2.2	3	0.96	1.10	28/250 - 24/200
	23.17	39	354	1.5	2	0.96	1.30	28/250 - 24/200
	28.26	32	432	1.5	2	0.96	1.07	28/250 - 24/200
	36.13	25	405	1.1	1.5	0.96	1.09	28/250 - 24/200



PL 80



MPL 80

P_{5}*: Vedere i PAM per ogni singola versione
P_{5}*: See PAM size for each single version
P_{5}*: Siehe PAM Größe für jede Ausführung
P_{5}*: Voir les PAM pour chaque version simple
P_{5}*: Consulte los PAM de cada versión por separado
P_{5}*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible

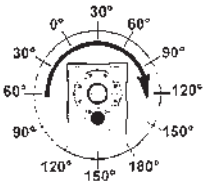
Max. Allowable external radial load
Carga radial externa admisible

Zulässige externe radiale Belastung
Carga radial externa admissível

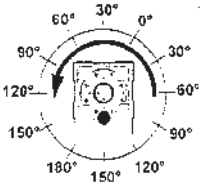
Albero veloce / Input shaft / Eingangwelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min^{-1}	**PL 80**	**PL 80/3**
	900	650

Albero lento / Output shaft / Seitigatriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída							
PL 80 - PL 80/3							
min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	9995	10333	11213	12565	14118	15332	15811
40	7558	7900	8710	10062	11618	12899	13377
60	6418	6687	7499	8849	10403	11685	12225
80	5607	5878	6687	8039	9594	10944	11416
100	5066	5337	6078	7425	8981	10314	10375
120	4659	4864	5673	6959	8580	9930	10470
140	4323	4513	5264	6457	7961	9214	9715
160	4052	4230	4934	6052	7462	8636	9106

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

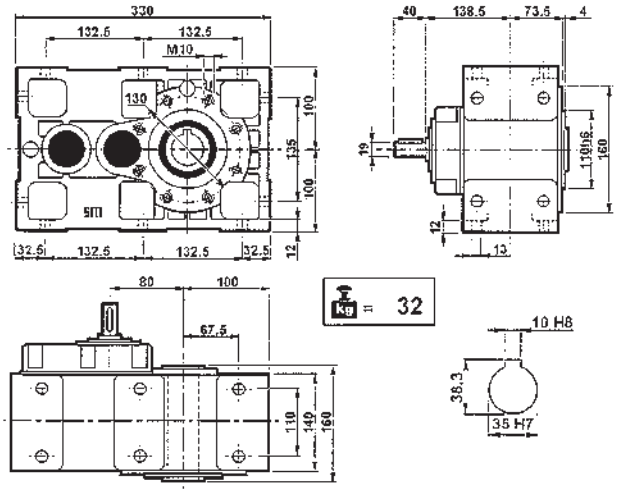


PL 80/3

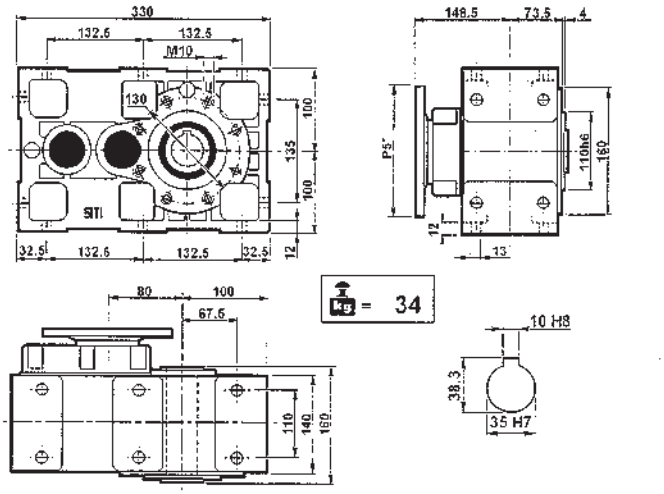
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	24.45	115	459	6.0	8.1	0.92
	31.57	89	459	4.6	6.3	0.92
	38.47	73	450	3.7	5.1	0.92
	46.91	60	432	2.9	4.0	0.92
	49.22	57	360	2.3	3.2	0.92
	56.54	50	459	2.6	3.5	0.92
	59.97	47	360	1.9	2.6	0.92
	68.95	41	441	2.0	2.8	0.92
	84.58	33	468	1.8	2.4	0.92
	88.15	32	378	1.4	1.9	0.92
	103.15	27	450	1.4	1.9	0.92
	131.86	21	378	0.9	1.2	0.92
1400	24.45	57	510	3.3	4.5	0.92
	31.57	44	510	2.6	3.5	0.92
	38.47	36	500	2.1	2.8	0.92
	46.91	30	480	1.6	2.2	0.92
	49.22	28	400	1.3	1.8	0.92
	56.54	25	510	1.4	2.0	0.92
	59.97	23	400	1.1	1.4	0.92
	68.95	20	490	1.1	1.5	0.92
	84.58	17	520	1.0	1.3	0.92
	88.15	16	420	0.8	1.0	0.92
	103.15	14	500	0.8	1.1	0.92
	131.86	11	420	0.5	0.7	0.92
900	24.45	37	561	2.4	3.2	0.92
	31.57	29	561	1.8	2.5	0.92
	38.47	23	550	1.5	2.0	0.92
	46.91	19	528	1.2	1.6	0.92
	49.22	18	440	0.9	1.2	0.92
	56.54	16	561	1.0	1.4	0.92
	59.97	15	440	0.8	1.0	0.92
	68.95	13	539	0.8	1.1	0.92
	84.58	11	572	0.7	0.9	0.92
	88.15	10	462	0.5	0.7	0.92
	103.15	9	550	0.5	0.7	0.92
	131.86	7	462	0.4	0.5	0.92

MPL 80/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	24.45	115	169	2.2	3	0.92	2.72	24/200 - 19/200
	31.57	89	218	2.2	3	0.92	2.11	24/200 - 19/200
	38.47	73	362	3	4	0.92	1.24	28/250 - 24/200
	46.91	60	442	3	4	0.92	0.98	28/250 - 24/200
	49.22	57	340	2.2	3	0.92	1.06	24/200 - 19/200
	56.54	50	390	2.2	3	0.92	1.18	24/200 - 19/200
	59.97	47	282	1.5	2	0.92	1.28	28/250 - 24/200
	68.95	41	325	1.5	2	0.92	1.36	24/200 - 19/200
	84.58	33	199	0.75	1	0.92	2.35	14/160
	88.15	32	304	1.10	1.5	0.92	1.24	24/200 - 19/200
	103.15	27	243	0.75	1	0.92	1.85	14/160
	131.86	21	310	0.75	1	0.92	1.22	14/160
1400	24.45	57	276	1.8	2.5	0.92	1.85	24/200 - 19/200
	31.57	44	357	1.8	2.5	0.92	1.43	24/200 - 19/200
	38.47	36	531	2.2	3	0.92	0.94	28/250 - 24/200
	46.91	30	442	1.5	2	0.92	1.09	28/250 - 24/200
	49.22	28	340	1.1	1.5	0.92	1.18	24/200 - 19/200
	56.54	25	390	1.1	1.5	0.92	1.31	24/200 - 19/200
	59.97	23	414	1.1	1.5	0.92	0.97	28/250 - 24/200
	68.95	20	476	1.1	1.5	0.92	1.03	24/200 - 19/200
	84.58	17	196	0.37	0.5	0.92	2.65	14/160
	88.15	16	415	0.75	1	0.92	1.01	24/200 - 19/200
	103.15	14	240	0.37	0.5	0.92	2.09	14/160
	131.86	11	306	0.37	0.5	0.92	1.37	14/160
900	24.45	37	263	1.1	1.5	0.92	2.14	24/200 - 19/200
	31.57	29	339	1.1	1.5	0.92	1.65	24/200 - 19/200
	38.47	23	563	1.5	2	0.92	0.98	28/250 - 24/200
	46.91	19	504	1.1	1.5	0.92	1.05	28/250 - 24/200
	49.22	18	360	0.75	1	0.92	1.22	24/200 - 19/200
	56.54	16	414	0.75	1	0.92	1.36	24/200 - 19/200
	59.97	15	439	0.75	1	0.92	1.00	28/250 - 24/200
	68.95	13	505	0.75	1	0.92	1.07	24/200 - 19/200
	84.58	11	206	0.25	0.34	0.92	2.77	14/160
	88.15	10	473	0.55	0.75	0.92	0.89	24/200 - 19/200
	103.15	9	252	0.25	0.34	0.92	2.18	14/160
	131.86	7	322	0.25	0.34	0.92	1.44	14/160



PL 80 /3



MPL 80/3

P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung

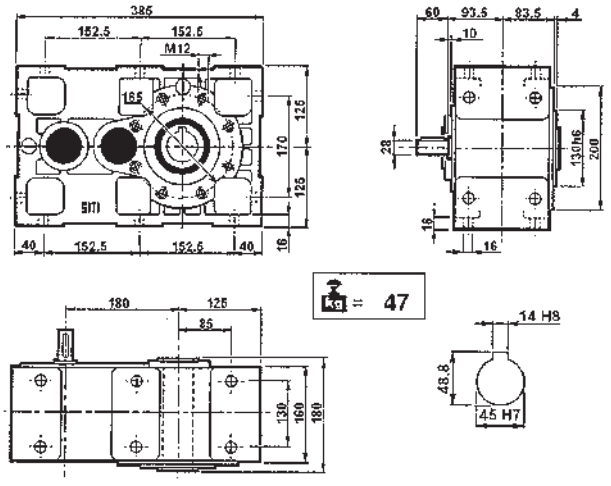
P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

PL 100

n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	9.98	281	720	22.0	30.0	0.96
	12.89	217	720	17.1	23.2	0.96
	15.47	181	855	16.9	23.0	0.96
	15.72	178	720	14.0	19.0	0.96
	19.98	140	810	12.4	16.8	0.96
	20.49	137	675	10.1	13.7	0.96
	24.36	115	810	10.2	13.8	0.96
	31.75	88	675	6.5	8.8	0.96
1400	9.98	140	800	12.2	16.6	0.96
	12.89	109	800	9.5	12.9	0.96
	15.47	90	950	9.4	12.8	0.96
	15.72	89	800	7.8	10.6	0.96
	19.98	70	900	6.9	9.4	0.96
	20.49	68	750	5.6	7.6	0.96
	24.36	57	900	5.6	7.7	0.96
	31.75	44	750	3.6	4.9	0.96
900	9.98	90	880	8.7	11.8	0.96
	12.89	70	880	6.7	9.1	0.96
	15.47	58	1045	6.6	9.0	0.96
	15.72	57	880	5.5	7.5	0.96
	19.98	45	990	4.9	6.6	0.96
	20.49	44	825	4.0	5.4	0.96
	24.36	37	990	4.0	5.4	0.96
	31.75	28	825	2.6	3.5	0.96

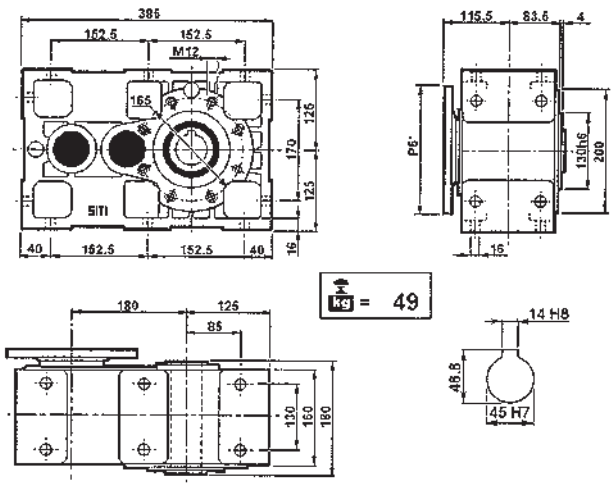
MPL 100

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	9.98	281	359	11	15	0.96	2.01	38/300 - 28/250
	12.89	217	464	11	15	0.96	1.55	38/300 - 28/250
	15.47	178	557	11	15	0.96	1.54	38/300 - 28/250
	15.72	137	566	11	15	0.96	1.27	38/300 - 28/250
	19.98	181	720	11	15	0.96	1.13	38/300 - 28/250
	20.49	140	604	9	12.5	0.96	1.12	38/300 - 28/250
	24.36	115	718	9	12.5	0.96	1.13	38/300 - 28/250
	31.75	88	672	5.5	7.5	0.96	1.18	38/300 - 28/250
1400	9.98	140	719	11	15	0.96	1.11	38/300 - 28/250
	12.89	109	777	9.2	12.5	0.96	1.03	38/300 - 28/250
	15.47	90	932	9.2	12.5	0.96	1.02	38/300 - 28/250
	15.72	89	772	7.5	10	0.96	1.04	38/300 - 28/250
	19.98	70	720	5.5	7.5	0.96	1.25	38/300 - 28/250
	20.49	68	738	5.5	7.5	0.96	1.02	38/300 - 28/250
	24.36	57	877	5.5	7.5	0.96	1.03	38/300 - 28/250
	31.75	44	624	3	4	0.96	1.20	38/300 - 28/250
900	9.98	90	559	5.5	7.5	0.96	1.57	38/300 - 28/250
	12.89	70	722	5.5	7.5	0.96	1.22	38/300 - 28/250
	15.47	58	867	5.5	7.5	0.96	1.21	38/300 - 28/250
	15.72	57	881	5.5	7.5	0.96	1.00	38/300 - 28/250
	19.98	45	814	4	5.5	0.96	1.22	38/300 - 28/250
	20.49	44	835	4	5.5	0.96	0.99	38/300 - 28/250
	24.36	37	993	4	5.5	0.96	1.00	38/300 - 28/250
	31.75	28	712	2.2	3	0.96	1.16	38/300 - 28/250



kg = 47

PL 100



kg = 49

MPL 100

P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung

P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible

Max. Allowable external radial load
Carga radial externa admisible

Zulässige externe radiale Belastung
Carga radial externa admissível

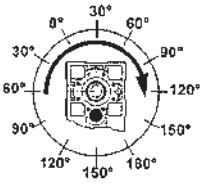
Albero veloce / Input shaft / Eingangwelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min $^{-1}$	**PL 100**	**PL 100/3**
	1400	1000

Albero lento / Output shaft / Seitigatriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída

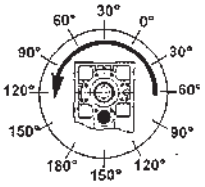
PL 100 - PL 100/3

min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	13186	13632	14793	16577	18625	20227	20859
40	9972	10422	11491	13274	15327	17017	17646
60	8467	8822	9893	11674	13725	15415	16128
80	7397	7754	8822	10606	12657	14438	15060
100	6684	7041	8019	9795	11848	13607	14347
120	6147	6417	7485	9180	11319	13100	13813
140	5704	5954	6945	8518	10502	12155	12817
160	5346	5580	6509	7984	9844	11393	12013

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

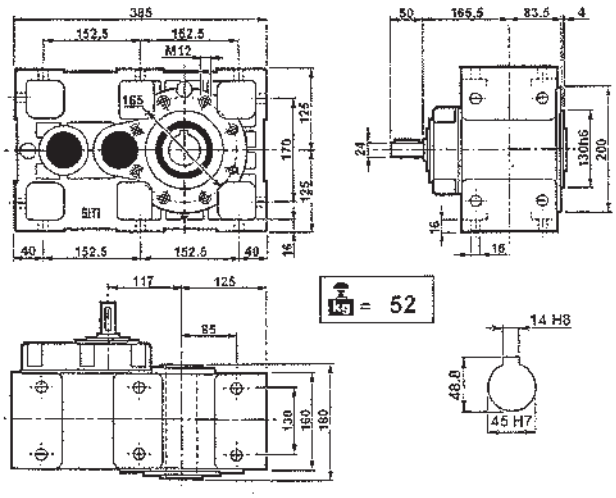


PL 100/3

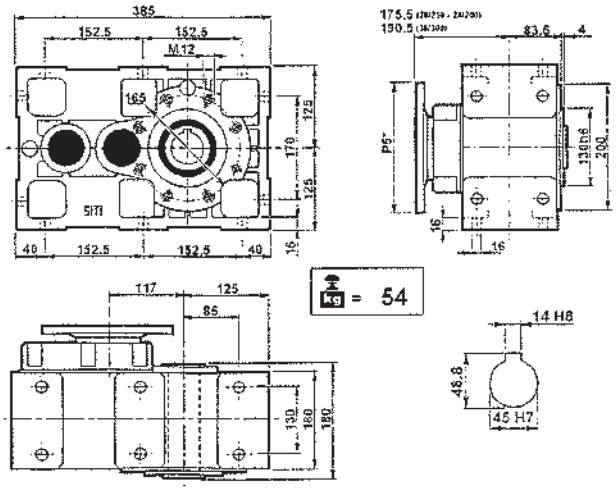
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	21.40	131	810	12.1	16.4	0.92
	25.68	109	900	11.2	15.2	0.92
	33.16	84	882	8.5	11.5	0.92
	37.74	74	918	7.8	10.5	0.92
	40.44	69	882	7.0	9.5	0.92
	48.74	57	900	5.9	8.0	0.92
	52.70	53	720	4.4	5.9	0.92
	59.44	47	900	4.8	6.6	0.92
	72.91	38	918	4.0	5.5	0.92
	77.47	36	720	3.0	4.0	0.92
	88.91	31	918	3.3	4.5	0.92
	115.88	24	720	2.0	2.7	0.92
1400	21.40	65	900	6.7	9.1	0.92
	25.68	55	1000	6.2	8.4	0.92
	33.16	42	980	4.7	6.4	0.92
	37.74	37	1020	4.3	5.9	0.92
	40.44	35	980	3.9	5.3	0.92
	48.74	29	1000	3.3	4.4	0.92
	52.70	27	800	2.4	3.3	0.92
	59.44	24	1000	2.7	3.6	0.92
	72.91	19	1020	2.2	3.0	0.92
	77.47	18	800	1.6	2.2	0.92
	88.91	16	1020	1.8	2.5	0.92
	115.88	12	800	1.1	1.5	0.92
900	21.40	42	990	4.7	6.4	0.92
	25.68	35	1100	4.4	6.0	0.92
	33.16	27	1078	3.3	4.5	0.92
	37.74	24	1122	3.0	4.1	0.92
	40.44	22	1078	2.7	3.7	0.92
	48.74	18	1100	2.3	3.1	0.92
	52.70	17	880	1.7	2.3	0.92
	59.44	15	1100	1.9	2.6	0.92
	72.91	12	1122	1.6	2.1	0.92
	77.47	12	880	1.2	1.6	0.92
	88.91	10	1122	1.3	1.8	0.92
	115.88	8	880	0.8	1.1	0.92

MPL 100/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	21.40	131	369	5.5	7.5	0.92	2.19	28/250 - 24/200
	25.68	109	443	5.5	7.5	0.92	2.03	28/250 - 24/200
	33.16	84	572	5.5	7.5	0.92	1.54	28/250 - 24/200
	37.74	74	261	2.2	3	0.92	3.52	24/200 - 19/200
	40.44	69	698	5.5	7.5	0.92	1.26	28/250 - 24/200
	48.74	57	336	2.2	3	0.92	2.67	24/200 - 19/200
	52.70	53	661	4	5.5	0.92	1.09	28/250 - 24/200
	59.44	47	410	2.2	3	0.92	2.19	24/200 - 19/200
	72.91	38	343	1.5	2	0.92	2.68	14/160
	77.47	36	535	2.2	3	0.92	1.35	24/200 - 19/200
	88.91	31	418	1.5	2	0.92	2.19	14/160
	115.88	24	545	1.5	2	0.92	1.32	14/160
1400	21.40	65	537	4	5.5	0.92	1.68	28/250 - 24/200
	25.68	55	645	4	5.5	0.92	1.55	28/250 - 24/200
	33.16	42	832	4	5.5	0.92	1.18	28/250 - 24/200
	37.74	37	426	1.8	2.5	0.92	2.39	24/200 - 19/200
	40.44	35	1015	4	5.5	0.92	0.97	28/250 - 24/200
	48.74	29	551	1.8	2.5	0.92	1.82	24/200 - 19/200
	52.70	27	728	2.2	3	0.92	1.10	28/250 - 24/200
	59.44	24	671	1.8	2.5	0.92	1.49	24/200 - 19/200
	72.91	19	343	0.75	1	0.92	2.97	14/160
	77.47	18	729	1.5	2	0.92	1.10	24/200 - 19/200
	88.91	16	418	0.75	1	0.92	2.44	14/160
	115.88	12	545	0.75	1	0.92	1.47	14/160
900	21.40	42	460	2.2	3	0.92	2.15	28/250 - 24/200
	25.68	35	552	2.2	3	0.92	1.99	28/250 - 24/200
	33.16	27	712	2.2	3	0.92	1.51	28/250 - 24/200
	37.74	24	405	1.1	1.5	0.92	2.77	24/200 - 19/200
	40.44	22	869	2.2	3	0.92	1.24	28/250 - 24/200
	48.74	18	523	1.1	1.5	0.92	2.10	24/200 - 19/200
	52.70	17	926	1.8	2.5	0.92	0.95	28/250 - 24/200
	59.44	15	638	1.1	1.5	0.92	1.72	24/200 - 19/200
	72.91	12	391	0.55	0.75	0.92	2.87	14/160
	77.47	12	832	1.1	1.5	0.92	1.06	24/200 - 19/200
	88.91	10	477	0.55	0.75	0.92	2.35	14/160
	115.88	8	622	0.55	0.75	0.92	1.41	14/160



PL 100/3



MPL 100/3

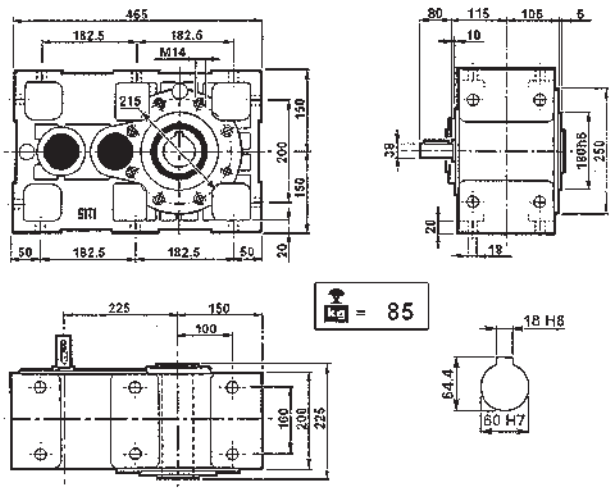
P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung
P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

PL 125

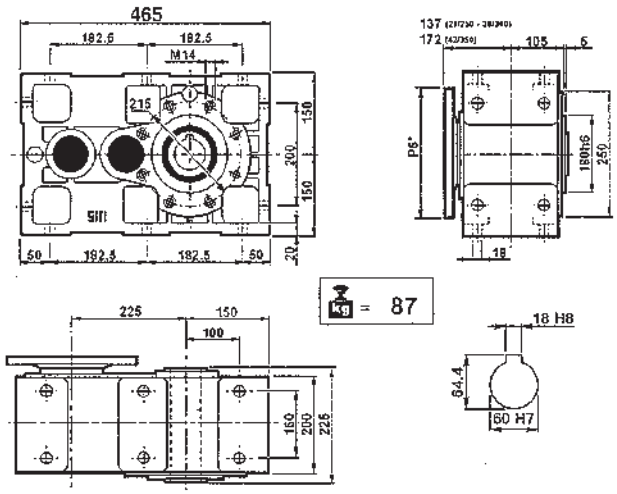
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	10.48	267	1440	42.0	57.1	0.96
	13.49	208	1440	32.6	44.3	0.96
	16.28	172	1440	27.0	36.7	0.96
	16.43	170	1305	24.3	33.0	0.96
	18.60	151	1620	26.6	36.2	0.96
	20.96	134	1530	22.3	30.3	0.96
	25.52	110	1485	17.8	24.2	0.96
	28.90	97	1305	13.8	18.8	0.96
1400	10.48	134	1600	23.3	31.7	0.96
	13.49	104	1600	18.1	24.6	0.96
	16.28	86	1600	15.0	20.4	0.96
	16.43	85	1450	13.5	18.3	0.96
	18.60	75	1800	14.8	20.1	0.96
	20.96	67	1700	12.4	16.8	0.96
	25.52	55	1650	9.9	13.4	0.96
	28.90	48	1450	7.7	10.4	0.96
900	10.48	86	1760	16.5	22.4	0.96
	13.49	67	1760	12.8	17.4	0.96
	16.28	55	1760	10.6	14.4	0.96
	16.43	55	1595	9.5	13.0	0.96
	18.60	48	1980	10.5	14.2	0.96
	20.96	43	1870	8.8	11.9	0.96
	25.52	35	1815	7.0	9.5	0.96
	28.90	31	1595	5.4	7.4	0.96

MPL 125

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	10.48	267	635	18.5	25	0.96	2.27	42/350 - 38/300
	13.49	208	817	18.5	25	0.96	1.76	42/350 - 38/300
	16.28	172	986	18.5	25	0.96	1.46	42/350 - 38/300
	16.43	170	995	18.5	25	0.96	1.31	42/350 - 38/300
	18.60	151	1127	18.5	25	0.96	1.44	42/350 - 38/300
	20.96	134	1270	18.5	25	0.96	1.21	42/350 - 38/300
	25.52	110	1253	15	20	0.96	1.18	42/350 - 38/300
	28.90	97	1041	11	15	0.96	1.25	42/350 - 38/300
1400	10.48	134	1029	15	20	0.96	1.55	42/350 - 38/300
	13.49	104	1325	15	20	0.96	1.21	42/350 - 38/300
	16.28	86	1599	15	20	0.96	1.00	42/350 - 38/300
	16.43	85	1184	11	15	0.96	1.23	42/350 - 38/300
	18.60	75	1827	15	20	0.96	0.99	42/350 - 38/300
	20.96	67	1510	11	15	0.96	1.13	42/350 - 38/300
	25.52	55	1537	9.2	12.5	0.96	1.07	42/350 - 38/300
	28.90	48	1419	7.5	10	0.96	1.02	42/350 - 38/300
900	10.48	86	1174	11	15	0.96	1.50	42/350 - 38/300
	13.49	67	1512	11	15	0.96	1.16	42/350 - 38/300
	16.28	55	1824	11	15	0.96	0.96	42/350 - 38/300
	16.43	55	1255	7.5	10	0.96	1.27	42/350 - 38/300
	18.60	48	2084	11	15	0.96	0.95	42/350 - 38/300
	20.96	43	1601	7.5	10	0.96	1.17	42/350 - 38/300
	25.52	35	1430	5.5	7.5	0.96	1.27	42/350 - 38/300
	28.90	31	1619	5.5	7.5	0.96	0.99	42/350 - 38/300



PL 125



MPL 125

P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung

P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible

Max. Allowable external radial load
Carga radial externa admisible

Zulässige externe radiale Belastung
Carga radial externa admissível

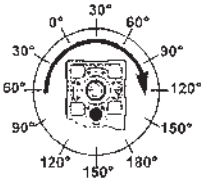
Albero veloce / Input shaft / Eingangwelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min $^{-1}$	**PL 125**	**PL 125/3**
	2100	1600

Albero lento / Output shaft / Seitigatriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída

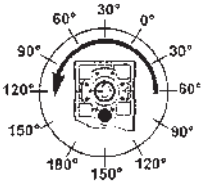
PL 125 - PL 125/3

min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	18837	19474	21133	23681	26607	28896	29799
40	14245	14889	16415	18963	21896	24310	25211
60	12096	12604	14133	16678	19607	22022	23041
80	10567	11078	12604	15152	18081	20626	21515
100	9548	10059	11456	13993	16926	19439	20496
120	8782	9167	10693	13115	16170	18715	19733
140	8148	8505	9921	12168	15003	17364	18309
160	7637	7972	9299	11405	14063	16275	17161

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

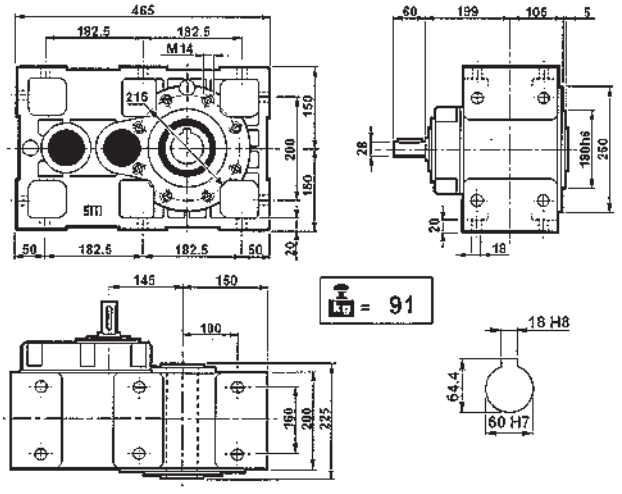


PL 125/3

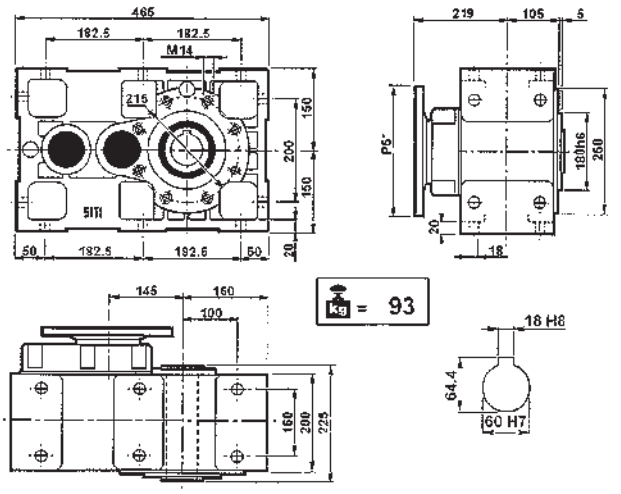
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	26.47	106	1890	22.8	30.9	0.92
	30.32	92	1395	14.7	19.9	0.92
	34.08	82	1800	16.8	22.9	0.92
	38.46	73	1656	13.7	18.7	0.92
	41.49	67	1620	12.4	16.9	0.92
	47.25	59	1395	9.4	12.8	0.92
	53.11	53	1818	10.9	14.8	0.92
	59.60	47	1890	10.1	13.7	0.92
	64.66	43	1638	8.1	11.0	0.92
	73.22	38	1395	6.1	8.3	0.92
	93.42	30	1665	5.7	7.7	0.92
	105.79	26	1395	4.2	5.7	0.92
1400	26.47	53	2100	12.6	17.2	0.92
	30.32	46	1550	8.1	11.1	0.92
	34.08	41	2000	9.4	12.7	0.92
	38.46	36	1840	7.6	10.4	0.92
	41.49	34	1800	6.9	9.4	0.92
	47.25	30	1550	5.2	7.1	0.92
	53.11	26	2020	6.1	8.2	0.92
	59.60	23	2100	5.6	7.6	0.92
	64.66	22	1820	4.5	6.1	0.92
	73.22	19	1550	3.4	4.6	0.92
	93.42	15	1850	3.2	4.3	0.92
	105.79	13	1550	2.3	3.2	0.92
900	26.47	34	2310	8.9	12.2	0.92
	30.32	30	1705	5.8	7.8	0.92
	34.08	26	2200	6.6	9.0	0.92
	38.46	23	2024	5.4	7.3	0.92
	41.49	22	1980	4.9	6.6	0.92
	47.25	19	1705	3.7	5.0	0.92
	53.11	17	2222	4.3	5.8	0.92
	59.60	15	2310	4.0	5.4	0.92
	64.66	14	2002	3.2	4.3	0.92
	73.22	12	1705	2.4	3.2	0.92
	93.42	10	2035	2.2	3.0	0.92
	105.79	9	1705	1.7	2.2	0.92

MPL 125/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	26.47	106	914	11	15	0.92	2.07	38/300
	30.32	92	1047	11	15	0.92	1.33	38/300
	34.08	82	1176	11	15	0.92	1.53	38/300
	38.46	73	664	5.5	7.5	0.92	2.49	19/200
	41.49	67	1432	11	15	0.92	1.13	38/300
	47.25	59	815	5.5	7.5	0.92	1.71	28/250
	53.11	53	917	5.5	7.5	0.92	1.98	28/250
	59.60	47	1029	5.5	7.5	0.92	1.84	19/200
	64.66	43	1116	5.5	7.5	0.92	1.47	28/250
	73.22	38	1264	5.5	7.5	0.92	1.10	28/250
	93.42	30	1612	5.5	7.5	0.92	1.03	19/200
	105.79	26	1328	4	7.5	0.92	1.05	19/200
1400	26.47	53	1827	11	15	0.92	1.15	38/300
	30.32	46	1751	9.2	12.5	0.92	0.89	38/300
	34.08	41	1968	9.2	12.5	0.92	1.02	38/300
	38.46	36	965	4	5.5	0.92	1.91	19/200
	41.49	34	1432	5.5	7.5	0.92	1.26	38/300
	47.25	30	1188	4	5.5	0.92	1.31	28/250
	53.11	26	1333	4	5.5	0.92	1.52	28/250
	59.60	23	1496	4	5.5	0.92	1.40	19/200
	64.66	22	1623	4	5.5	0.92	1.12	28/250
	73.22	19	1379	3	4	0.92	1.12	28/250
	93.42	15	1759	3	4	0.92	1.05	19/200
	105.79	13	1461	2.2	3	0.92	1.06	19/200
900	26.47	34	1421	5.5	7.5	0.92	1.63	38/300
	30.32	30	1628	5.5	7.5	0.92	1.05	38/300
	34.08	26	1830	5.5	7.5	0.92	1.20	38/300
	38.46	23	826	2.2	3	0.92	2.45	19/200
	41.49	22	1620	4	5.5	0.92	1.22	38/300
	47.25	19	1015	2.2	3	0.92	1.68	28/250
	53.11	17	1141	2.2	3	0.92	1.95	28/250
	59.60	15	1280	2.2	3	0.92	1.80	19/200
	64.66	14	1389	2.2	3	0.92	1.44	28/250
	73.22	12	1573	2.2	3	0.92	1.08	28/250
	93.42	10	2006	2.2	3	0.92	1.01	19/200
	105.79	9	1549	1.5	2	0.92	1.10	19/200



PL 125/3



MPL 125/3

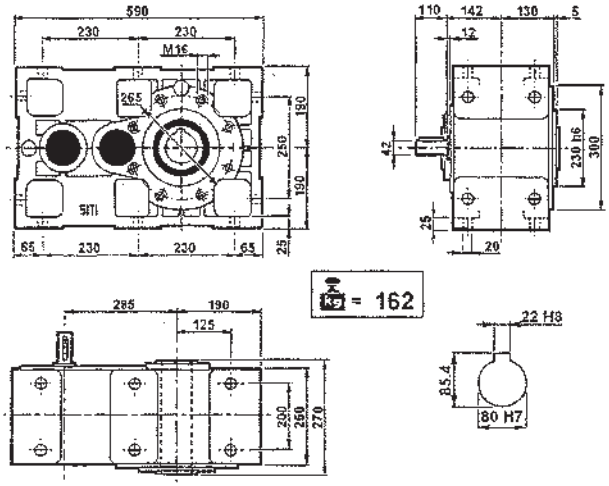
P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung
P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

PL 160

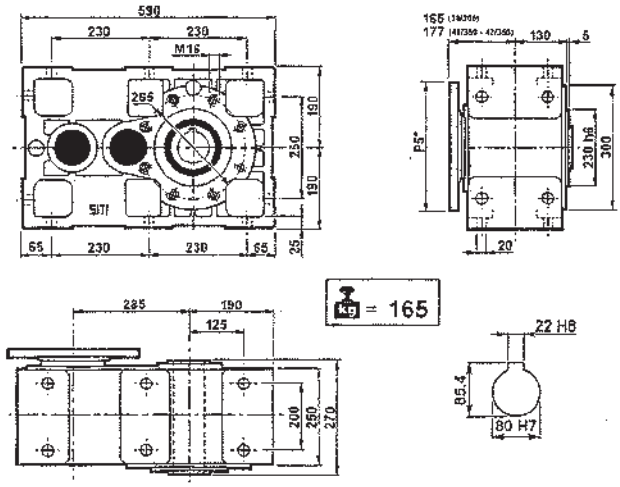
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	9.87	284	2700	83.5	113.6	0.96
	12.74	220	2880	69.0	93.9	0.96
	15.54	180	2880	56.6	77.0	0.96
	16.27	172	3150	59.1	80.4	0.96
	19.87	141	2610	40.1	54.6	0.96
	21.01	133	3150	45.8	62.3	0.96
	25.62	109	2880	34.3	46.7	0.96
	32.75	85	2700	25.2	34.2	0.96
1400	9.87	142	3000	46.4	63.1	0.96
	12.74	110	3200	38.4	52.2	0.96
	15.54	90	3200	31.4	42.8	0.96
	16.27	86	3500	32.8	44.7	0.96
	19.87	70	2900	22.3	30.3	0.96
	21.01	67	3500	25.4	34.6	0.96
	25.62	55	3200	19.1	25.9	0.96
	32.75	43	3000	14.0	19.0	0.96
900	9.87	91	3300	32.8	44.6	0.96
	12.74	71	3520	27.1	36.9	0.96
	15.54	58	3520	22.2	30.2	0.96
	16.27	55	3850	23.2	31.6	0.96
	19.87	45	3190	15.8	21.4	0.96
	21.01	43	3850	18.0	24.5	0.96
	25.62	35	3520	13.5	18.3	0.96
	32.75	27	3300	9.9	13.5	0.96

MPL 160

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	9.87	284	808	25	34	0.96	3.34	48/350 - 42/350
	12.74	220	1043	25	34	0.96	2.76	48/350 - 42/350
	15.54	180	1272	25	34	0.96	2.26	48/350 - 42/350
	16.27	172	1332	25	34	0.96	2.37	48/350 - 42/350
	19.87	141	1627	25	34	0.96	1.60	48/350 - 42/350
	21.01	133	1720	25	34	0.96	1.83	48/350 - 42/350
	25.62	109	2097	25	34	0.96	1.37	48/350 - 42/350
	32.75	85	2681	25	34	0.96	1.01	48/350 - 42/350
1400	9.87	142	1422	22	30	0.96	2.11	48/350 - 42/350
	12.74	110	1835	22	30	0.96	1.74	48/350 - 42/350
	15.54	90	2239	22	30	0.96	1.43	48/350 - 42/350
	16.27	86	2344	22	30	0.96	1.49	48/350 - 42/350
	19.87	70	2863	22	30	0.96	1.01	48/350 - 42/350
	21.01	87	3027	22	30	0.96	1.16	48/350 - 42/350
	25.62	55	3104	18.5	25	0.96	1.03	48/350 - 42/350
	32.75	43	3217	15	20	0.96	0.93	48/350 - 42/350
900	9.87	91	1508	15	20	0.96	2.19	48/350 - 42/350
	12.74	71	1947	15	20	0.96	1.61	48/350 - 42/350
	15.54	58	2375	15	20	0.96	1.48	48/350 - 42/350
	16.27	55	2486	15	20	0.96	1.55	48/350 - 42/350
	19.87	45	3036	15	20	0.96	1.05	48/350 - 42/350
	21.01	43	3210	15	20	0.96	1.20	48/350 - 42/350
	25.62	35	2871	11	15	0.96	1.23	48/350 - 42/350
	32.75	27	2502	7.5	10	0.96	1.32	48/350 - 42/350



PL 160



MPL 160

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P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible
Max. Allowable external radial load
Carga radial externa admisible
Zulässige externe radiale Belastung
Carga radial externa admissível

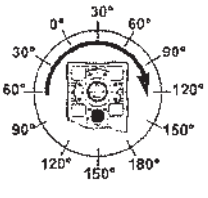
Albero veloce / Input shaft / Eingangwelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min $^{-1}$	**PL 160**	**PL 160/3**
	3200	2300

Albero lento / Output shaft / Seitigatriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída

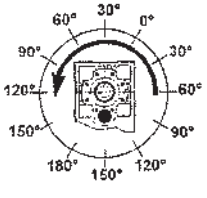
PL 160- PL 160/3

min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	26910	27820	30190	33830	38010	41280	42570
40	20350	21270	23450	27090	31280	34729	36015
60	17280	18005	20190	23825	28010	31460	32915
80	15095	15825	18005	21645	25830	29465	30735
100	13640	14370	16365	19990	24180	27770	29280
120	12545	13095	15275	18735	23100	26735	28190
140	11640	12150	14173	17383	21434	24806	26156
160	10910	11388	13284	16293	20089	23251	24516

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

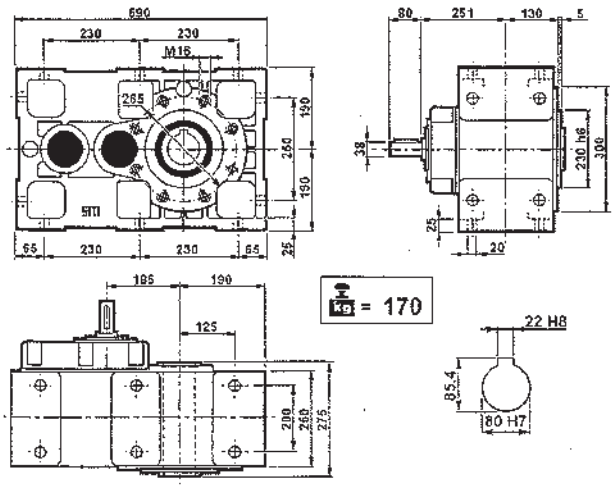


PL 160/3

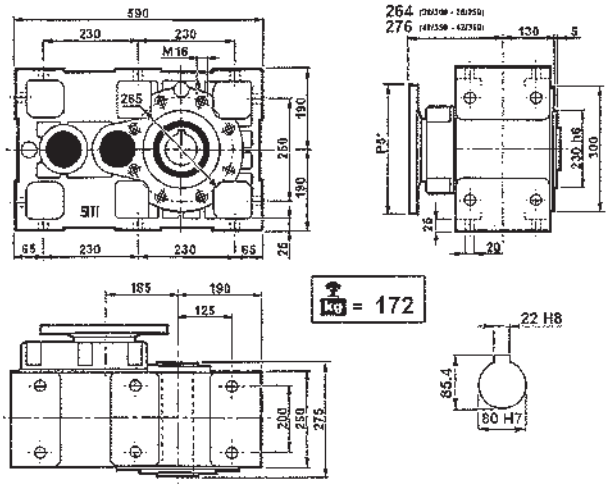
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	34.24	82	3240	30.2	41.0	0.92
	39.47	71	2988	24.1	32.8	0.92
	41.78	67	3240	24.7	33.6	0.92
	50.46	55	2880	18.2	24.7	0.92
	53.36	52	3258	19.5	26.5	0.92
	58.57	48	3015	16.4	22.3	0.92
	65.07	43	3258	16.0	21.7	0.92
	71.52	39	2880	12.8	17.5	0.92
	75.63	37	3285	13.8	18.8	0.92
	83.19	34	2880	11.0	15.0	0.92
	92.23	30	3285	11.4	15.4	0.92
	117.9	24	2880	7.8	10.6	0.92
1400	34.24	41	3600	16.8	22.8	0.92
	39.47	35	3320	13.4	18.2	0.92
	41.78	34	3600	13.7	18.7	0.92
	50.46	28	3200	10.1	13.7	0.92
	53.36	26	3620	10.8	14.7	0.92
	58.57	24	3350	9.1	12.4	0.92
	65.07	22	3620	8.9	12.1	0.92
	71.52	20	3200	7.1	9.7	0.92
	75.63	19	3650	7.7	10.5	0.92
	83.19	17	3200	6.1	8.3	0.92
	92.23	15	3650	6.3	8.6	0.92
	117.9	12	3200	4.3	5.9	0.92
900	34.24	26	3960	11.8	16.1	0.92
	39.47	23	3652	9.5	12.9	0.92
	41.78	22	3960	9.7	13.2	0.92
	50.46	18	3520	7.1	9.7	0.92
	53.36	17	3982	7.6	10.4	0.92
	58.57	15	3685	6.4	8.8	0.92
	65.07	14	3982	6.3	8.5	0.92
	71.52	13	3520	5.0	6.9	0.92
	75.63	12	4015	5.4	7.4	0.92
	83.19	11	3520	4.3	5.9	0.92
	92.23	10	4015	4.5	6.1	0.92
	117.9	8	3520	3.1	4.2	0.92

MPL 160/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	34.24	82	2686	25	34	0.92	1.21	48/350 - 42/350
	39.47	71	1362	11	15	0.92	2.19	38/300
	41.78	67	3276	25	34	0.92	0.99	48/350 - 42/350
	50.46	55	1742	11	15	0.92	1.65	38/300
	53.36	52	1842	11	15	0.92	1.77	38/300
	58.57	48	1011	5.5	7.5	0.92	2.98	28/250
	65.07	43	2246	11	15	0.92	1.45	38/300
	71.52	39	1234	5.5	7.5	0.92	2.33	28/250
	75.63	37	1305	5.5	7.5	0.92	2.52	28/250
	83.19	34	2871	11	15	0.92	1.00	38/300
	92.23	30	1592	5.5	7.5	0.92	2.06	28/250
	117.9	24	2035	5.5	7.5	0.92	1.42	28/250
1400	34.24	41	3223	10	20	0.92	1.12	48/350 - 42/350
	39.47	35	2725	11	15	0.92	1.22	38/300
	41.78	34	3931	15	20	0.92	0.92	48/350 - 42/350
	50.46	28	2913	9.2	12.5	0.92	1.10	38/300
	53.36	26	3081	9.2	12.5	0.92	1.18	38/300
	58.57	24	1470	4	5.5	0.92	2.28	28/250
	65.07	22	3063	7.5	10	0.92	1.18	38/300
	71.52	20	1795	4	5.5	0.92	1.78	28/250
	75.63	19	1899	4	5.5	0.92	1.92	28/250
	83.19	17	2871	5.5	7.5	0.92	1.11	38/300
	92.23	15	2315	4	5.5	0.92	1.58	28/250
	117.9	12	2960	4	5.5	0.92	1.08	28/250
900	34.24	26	3677	11	15	0.92	1.08	48/350 - 42/350
	39.47	23	2119	5.5	7.5	0.92	1.72	38/300
	41.78	22	3058	7.5	10	0.92	1.30	48/350 - 42/350
	50.46	18	2709	5.5	7.5	0.92	1.30	38/300
	53.36	17	2865	5.5	7.5	0.92	1.39	38/300
	58.57	15	1258	2.2	3	0.92	2.93	28/250
	65.07	14	3494	5.5	7.5	0.92	1.14	38/300
	71.52	13	1536	2.2	3	0.92	2.29	28/250
	75.63	12	1624	2.2	3	0.92	2.47	28/250
	83.19	11	3248	4	5.5	0.92	1.08	38/300
	92.23	10	1981	2.2	3	0.92	2.03	28/250
	117.9	8	2532	2.2	3	0.92	1.39	28/250



PL 160/3



MPL 160/3

P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
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PRESTAZIONI E DIMENSIONI SERIE PD ORDINATE PER GRANDEZZA (IT)

PD SERIE PERFORMANCE AND DIMENSIONS IN ORDER OF MAGNITUDE (EN)

LEISTUNGEN UND ABMESSUNGEN DER SERIE PD IN DER GRÖSSENORDNUNG (DE)

PERFORMANCES ET DIMENSIONS RÉPARTIES PAR TAILLE SERIE PD (FR)

PRESTACIONES Y DIMENSIONES SERIE PD ORDENADAS POR TAMAÑO (ES)

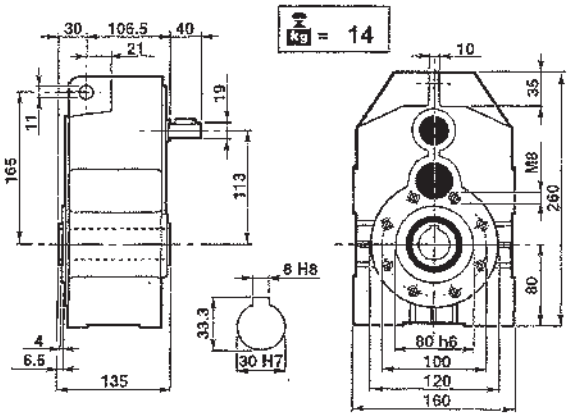
PERFORMANCE E DIMENSÕES SÉRIE PD ORDENADAS POR TAMANHO (PT)

PD 63

n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	10.60	264	180	5.2	7.1	0.96
	13.65	205	180	4.0	5.5	0.96
	15.01	187	180	3.7	5.0	0.96
	17.97	156	216	3.7	5.0	0.96
	18.71	150	153	2.5	3.4	0.96
	23.12	121	207	2.7	3.7	0.96
	25.42	110	207	2.5	3.4	0.96
	31.69	88	162	1.6	2.1	0.96
1400	10.60	132	200	2.9	3.9	0.96
	13.65	103	200	2.2	3.0	0.96
	15.01	93	200	2.0	2.8	0.96
	17.97	78	240	2.0	2.8	0.96
	18.71	75	170	1.4	1.9	0.96
	23.12	61	230	1.5	2.1	0.96
	25.42	55	230	1.4	1.9	0.96
	31.69	44	180	0.9	1.2	0.96
900	10.60	85	220	2.0	2.8	0.96
	13.65	66	220	1.6	2.2	0.96
	15.01	60	220	1.4	2.0	0.96
	17.97	50	264	1.4	2.0	0.96
	18.71	48	187	1.0	1.3	0.96
	23.12	39	253	1.1	1.5	0.96
	25.42	35	253	1.0	1.3	0.96
	31.69	28	198	0.6	0.8	0.96

MPD 63

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	10.60	264	76	2.2	3	0.96	2.36	24/200 - 19/200
	13.65	205	98	2.2	3	0.96	1.83	24/200 - 19/200
	15.01	187	108	2.2	3	0.96	1.66	24/200 - 19/200
	17.97	156	129	2.2	3	0.96	1.67	24/200 - 19/200
	18.71	150	135	2.2	3	0.96	1.14	24/200 - 19/200
	23.12	121	167	2.2	3	0.96	1.24	24/200 - 19/200
	25.42	110	125	1.5	2	0.96	1.66	24/200 - 19/200
	31.69	88	156	1.5	2	0.96	1.04	24/200 - 19/200
1400	10.60	132	125	1.8	2.5	0.96	1.60	24/200 - 19/200
	13.65	103	161	1.8	2.5	0.96	1.24	24/200 - 19/200
	15.01	93	177	1.8	2.5	0.96	1.13	24/200 - 19/200
	17.97	78	212	1.8	2.5	0.96	1.13	24/200 - 19/200
	18.71	75	184	1.5	2.0	0.96	0.92	24/200 - 19/200
	23.12	61	227	1.5	2.0	0.96	1.01	24/200 - 19/200
	25.42	55	183	1.1	1.5	0.96	1.26	24/200 - 19/200
	31.69	44	156	0.75	1.0	0.96	1.16	24/200 - 19/200
900	10.60	85	119	1.1	1.5	0.96	1.85	24/200 - 19/200
	13.65	66	153	1.1	1.5	0.96	1.44	24/200 - 19/200
	15.01	60	168	1.1	1.5	0.96	1.31	24/200 - 19/200
	17.97	50	201	1.1	1.5	0.96	1.31	24/200 - 19/200
	18.71	48	210	1.1	1.5	0.96	0.89	24/200 - 19/200
	23.12	40	259	1.1	1.5	0.96	0.98	24/200 - 19/200
	25.42	35	194	0.75	1.0	0.96	1.30	24/200 - 19/200
	31.69	28	178	0.55	0.75	0.96	1.12	24/200 - 19/200



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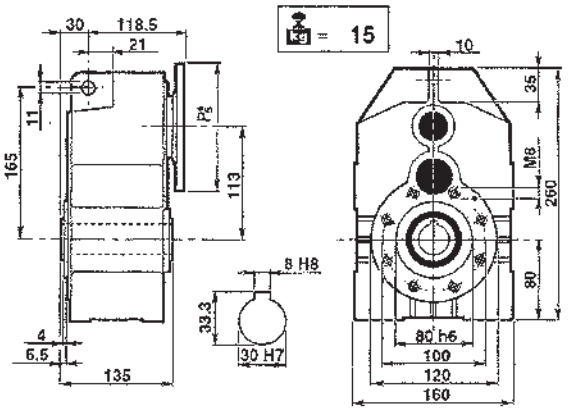
PD 63



= 15

MPD 63

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P_5*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible

Max. Allowable external radial load
Carga radial externa admisible

Zulässige externe radiale Belastung
Carga radial externa admissível

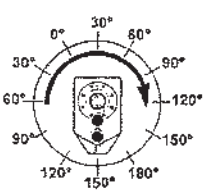
Albero veloce / Input shaft / Eingangwelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min $^{-1}$	**PD 63**	**MPD 63**
	650	400

Albero lento / Output shaft / Seitigatriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída

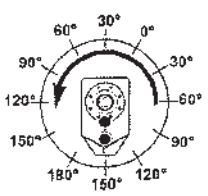
PD 63 - PD 63/3

min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	9205	9517	10327	11572	13002	14121	14562
40	6961	7276	8022	9267	10700	11880	12320
60	5911	6159	6907	8150	9582	10762	11259
80	5164	5413	6159	7404	8836	10079	10514
100	4666	4916	5598	6838	8271	9500	10016
120	4291	4480	5225	6409	7902	9145	9643
140	3982	4156	4848	5946	7332	8486	8948
160	3732	3896	4544	5574	6872	7954	8386

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

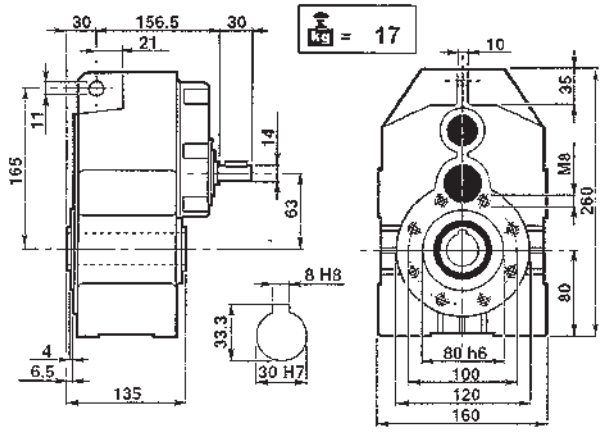


PD 63/3

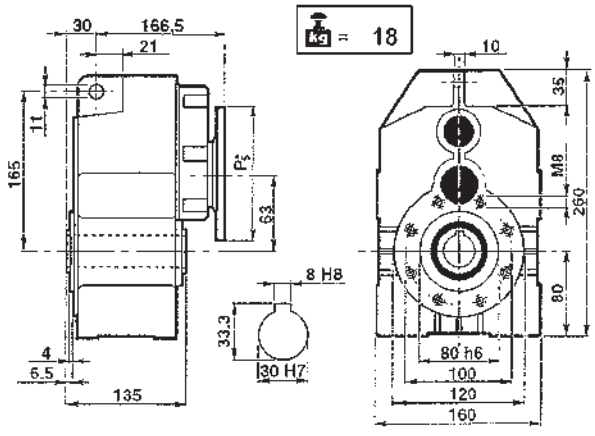
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	29.25	96	252	2.7	3.7	0.92
	37.68	74	270	2.3	3.1	0.92
	41.43	68	252	1.9	2.6	0.92
	47.53	59	180	1.2	1.6	0.92
	51.66	54	198	1.2	1.7	0.92
	58.72	48	270	1.5	2.0	0.92
	64.55	43	252	1.2	1.7	0.92
	67.37	42	198	0.9	1.3	0.92
	80.5	35	198	0.8	1.1	0.92
	83.22	34	270	1.0	1.4	0.92
	91.49	31	252	0.9	1.2	0.92
	114.09	25	198	0.6	0.8	0.92
1400	29.25	48	280	1.5	2.1	0.92
	37.68	37	300	1.3	1.7	0.92
	41.43	34	280	1.1	1.5	0.92
	47.53	29	200	0.7	0.9	0.92
	51.66	27	220	0.7	0.9	0.92
	58.72	24	300	0.8	1.1	0.92
	64.55	22	280	0.7	0.9	0.92
	67.37	21	220	0.5	0.7	0.92
	80.5	17	220	0.4	0.6	0.92
	83.22	17	300	0.6	0.8	0.92
	91.49	15	280	0.5	0.7	0.92
	114.09	12	220	0.3	0.4	0.92
900	29.25	31	308	1.1	1.5	0.92
	37.68	24	330	0.9	1.2	0.92
	41.43	22	308	0.8	1.0	0.92
	47.53	19	220	0.5	0.6	0.92
	51.66	17	242	0.5	0.7	0.92
	58.72	15	330	0.6	0.8	0.92
	64.55	14	308	0.5	0.7	0.92
	67.37	13	242	0.4	0.5	0.92
	80.5	11	242	0.3	0.4	0.92
	83.22	11	330	0.4	0.6	0.92
	91.49	10	308	0.3	0.5	0.92
	114.09	8	242	0.2	0.3	0.92

MPD 63/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	29.25	96	138	1.50	2	0.92	1.83	19/200 - 14/160
	37.68	74	177	1.50	2	0.92	1.52	19/200 - 14/160
	41.43	68	195	1.50	2	0.92	1.29	19/200 - 14/160
	47.53	59	112	0.75	1	0.92	1.61	14/160
	51.66	54	178	1.10	1.5	0.92	1.11	19/200 - 14/160
	58.72	48	138	0.75	1	0.92	1.95	14/160
	64.55	43	152	0.75	1	0.92	1.66	14/160
	67.37	42	53	0.25	0.34	0.92	3.75	11/140
	80.5	35	189	0.75	1	0.92	1.05	14/160
	83.22	34	65	0.25	0.34	0.92	4.14	11/140
	91.49	31	72	0.25	0.34	0.92	3.51	11/140
	114.09	25	89	0.25	0.34	0.92	2.21	11/140
1400	29.25	48	138	0.75	1	0.92	2.03	19/200 - 14/160
	37.68	37	177	0.75	1	0.92	1.69	19/200 - 14/160
	41.43	34	195	0.75	1	0.92	1.44	19/200 - 14/160
	47.53	29	110	0.37	0.5	0.92	1.81	14/160
	51.66	27	243	0.75	1	0.92	0.90	19/200 - 14/160
	58.72	24	136	0.37	0.5	0.92	2.20	14/160
	64.55	22	150	0.37	0.5	0.92	1.87	14/160
	67.37	21	76	0.18	0.25	0.92	2.89	11/140
	80.5	17	187	0.37	0.50	0.92	1.18	14/160
	83.22	17	94	0.18	0.25	0.92	3.19	11/140
	91.49	15	103	0.18	0.25	0.92	2.71	11/140
	114.09	12	129	0.18	0.25	0.92	1.71	11/140
900	29.25	31	157	0.55	0.75	0.92	1.96	19/200 - 14/160
	37.68	24	202	0.55	0.75	0.92	1.63	19/200 - 14/160
	41.43	22	222	0.55	0.75	0.92	1.38	19/200 - 14/160
	47.53	19	216	0.25	0.34	0.92	1.90	14/160
	51.66	17	277	0.55	0.75	0.92	0.87	19/200 - 14/160
	58.72	15	143	0.25	0.34	0.92	2.30	14/160
	64.55	14	158	0.25	0.34	0.92	1.96	14/160
	67.37	13	79	0.12	0.16	0.92	3.07	11/140
	80.5	11	196	0.25	0.34	0.92	1.23	14/160
	83.22	11	97	0.12	0.16	0.92	3.8	11/140
	91.49	10	107	0.12	0.16	0.92	2.87	11/140
	114.09	8	134	0.12	0.16	0.92	1.81	11/140



PD 63/3



MPD 63/3

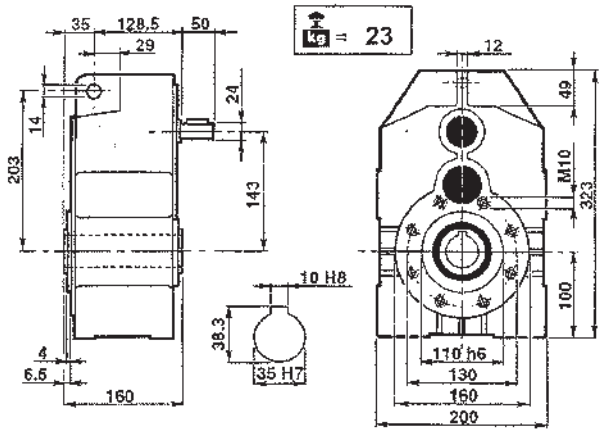
P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung
P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

PD 80

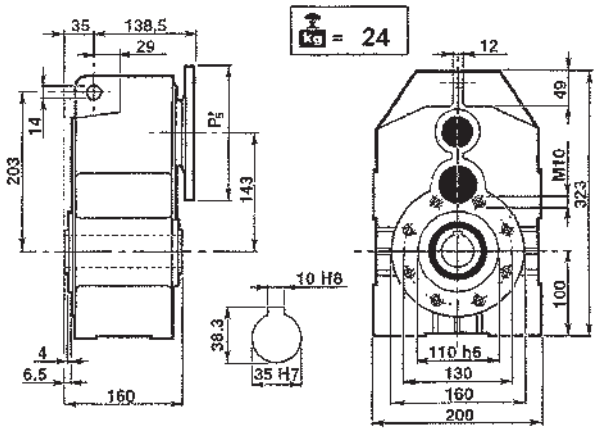
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	10.02	279	360	11.0	14.9	0.96
	12.94	216	360	8.5	11.6	0.96
	15.78	177	360	7.0	9.5	0.96
	17.95	156	441	7.5	10.2	0.96
	20.17	139	405	6.1	8.3	0.96
	23.17	121	378	5.0	6.8	0.96
	28.26	99	378	4.1	5.6	0.96
	36.13	77	360	3.0	4.1	0.96
1400	10.02	140	400	6.1	8.3	0.96
	12.94	108	400	4.7	6.4	0.96
	15.78	89	400	3.9	5.3	0.96
	17.95	78	490	4.2	5.7	0.96
	20.17	69	450	3.4	4.6	0.96
	23.17	60	420	2.8	3.8	0.96
	28.26	50	420	2.3	3.1	0.96
	36.13	39	400	1.7	2.3	0.96
900	10.02	90	440	4.3	5.9	0.96
	12.94	70	440	3.3	4.5	0.96
	15.78	57	440	2.7	3.7	0.96
	17.95	50	539	2.9	4.0	0.96
	20.17	45	495	2.4	3.3	0.96
	23.17	39	462	2.0	2.7	0.96
	28.26	32	462	1.6	2.2	0.96
	36.13	25	440	1.2	1.6	0.96

MPD 80

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	10.02	279	180	5.5	7.5	0.96	2.00	28/250 - 24/200
	12.94	216	233	5.5	7.5	0.96	1.54	28/250 - 24/200
	15.78	177	284	5.5	7.5	0.96	1.27	28/250 - 24/200
	17.95	156	323	5.5	7.5	0.96	1.36	28/250 - 24/200
	20.17	139	363	5.5	7.5	0.96	1.11	28/250 - 24/200
	23.17	121	303	4.0	5.5	0.96	1.25	28/250 - 24/200
	28.26	99	370	4.0	5.5	0.96	1.02	28/250 - 24/200
	36.13	77	260	2.2	3.0	0.96	1.38	28/250 - 24/200
1400	10.02	140	262	4.0	5.5	0.96	1.52	28/250 - 24/200
	12.94	108	339	4.0	5.5	0.96	1.18	28/250 - 24/200
	15.78	89	310	3.0	4.0	0.96	1.29	28/250 - 24/200
	17.95	78	470	4.0	5.5	0.96	1.04	28/250 - 24/200
	20.17	69	396	3.0	4	0.96	1.14	28/250 - 24/200
	23.17	60	334	2.2	3	0.96	1.26	28/250 - 24/200
	28.26	49	407	2.2	3	0.96	1.03	28/250 - 24/200
	36.13	39	365	1.5	2	0.96	1.13	28/250 - 24/200
900	10.02	90	225	2.2	3	0.96	1.96	28/250 - 24/200
	12.94	70	290	2.2	3	0.96	1.52	28/250 - 24/200
	15.78	57	354	2.2	3	0.96	1.24	28/250 - 24/200
	17.95	50	402	2.2	3	0.96	1.34	28/250 - 24/200
	20.17	45	452	2.2	3	0.96	1.10	28/250 - 24/200
	23.17	39	354	1.5	2	0.96	1.30	28/250 - 24/200
	28.26	32	432	1.5	2	0.96	1.07	28/250 - 24/200
	36.13	25	405	1.1	1.5	0.96	1.09	28/250 - 24/200



PD 80



MPD 80

P_{5}*: Vedere i PAM per ogni singola versione
P_{5}*: See PAM size for each single version
P_{5}*: Siehe PAM Größe für jede Ausführung

P_{5}*: Voir les PAM pour chaque version simple
P_{5}*: Consulte los PAM de cada versión por separado
P_{5}*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible
Max. Allowable external radial load
Carga radial externa admisible
Zulässige externe radiale Belastung
Carga radial externa admissível

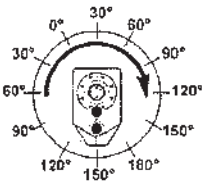
Albero veloce / Input shaft / Eingangwelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min $^{-1}$	**PD 80**	**PD 80/3**
	900	650

Albero lento / Output shaft / Seitigatriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída

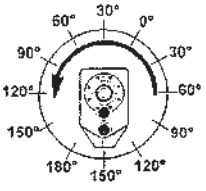
PD 80 - PD 80/3

min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	9995	10333	11213	12565	14118	15332	15811
40	7558	7900	8710	10062	11618	12899	13377
60	6418	6687	7499	8849	10403	11685	12225
80	5607	5878	6687	8039	9594	10944	11416
100	5066	5337	6078	7425	8981	10314	10375
120	4659	4864	5673	6959	8580	9930	10470
140	4323	4513	5264	6457	7961	9214	9715
160	4052	4230	4934	6052	7462	8636	9106

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

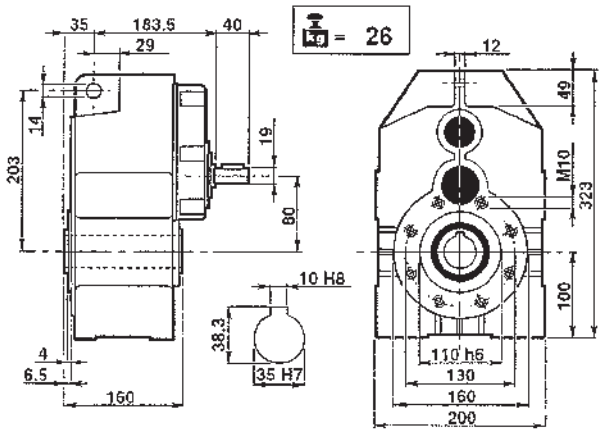


PD 80/3

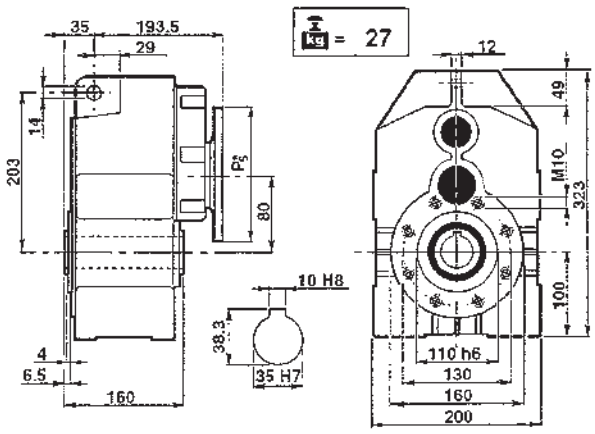
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	24.45	115	459	6.0	8.1	0.92
	31.57	89	459	4.6	6.3	0.92
	38.47	73	450	3.7	5.1	0.92
	46.91	60	432	2.9	4.0	0.92
	49.22	57	360	2.3	3.2	0.92
	56.54	50	459	2.6	3.5	0.92
	59.97	47	360	1.9	2.6	0.92
	68.95	41	441	2.0	2.8	0.92
	84.58	33	468	1.8	2.4	0.92
	88.15	32	378	1.4	1.9	0.92
	103.15	27	450	1.4	1.9	0.92
	131.86	21	378	0.9	1.2	0.92
1400	24.45	57	510	3.3	4.5	0.92
	31.57	44	510	2.6	3.5	0.92
	38.47	36	500	2.1	2.8	0.92
	46.91	30	480	1.6	2.2	0.92
	49.22	28	400	1.3	1.8	0.92
	56.54	25	510	1.4	2.0	0.92
	59.97	23	400	1.1	1.4	0.92
	68.95	20	490	1.1	1.5	0.92
	84.58	17	520	1.0	1.3	0.92
	88.15	16	420	0.8	1.0	0.92
	103.15	14	500	0.8	1.1	0.92
	131.86	11	420	0.5	0.7	0.92
900	24.45	37	561	2.4	3.2	0.92
	31.57	29	561	1.8	2.5	0.92
	38.47	23	550	1.5	2.0	0.92
	46.91	19	528	1.2	1.6	0.92
	49.22	18	440	0.9	1.2	0.92
	56.54	16	561	1.0	1.4	0.92
	59.97	15	440	0.8	1.0	0.92
	68.95	13	539	0.8	1.1	0.92
	84.58	11	572	0.7	0.9	0.92
	88.15	10	462	0.5	0.7	0.92
	103.15	9	550	0.5	0.7	0.92
	131.86	7	462	0.4	0.5	0.92

MPD 80/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	24.45	115	169	2.2	3	0.92	2.72	24/200 - 19/200
	31.57	89	218	2.2	3	0.92	2.11	24/200 - 19/200
	38.47	73	362	3.0	4	0.92	1.24	28/250 - 24/200
	46.91	60	442	3.0	4	0.92	0.98	28/250 - 24/200
	49.22	57	340	2.2	3	0.92	1.06	24/200 - 19/200
	56.54	50	390	2.2	3	0.92	1.18	24/200 - 19/200
	59.97	47	282	1.5	2	0.92	1.28	28/250 - 24/200
	68.95	41	326	1.5	2	0.92	1.36	24/200 - 19/200
	84.58	33	199	0.75	1	0.92	2.35	14/160
	88.15	32	304	1.1	1.5	0.92	1.24	24/200 - 19/200
	103.15	27	243	0.75	1	0.92	1.85	14/160
	131.86	21	310	0.75	1	0.92	1.22	14/160
1400	24.45	57	276	1.8	2.5	0.92	1.85	24/200 - 19/200
	31.57	44	357	1.8	2.5	0.92	1.43	24/200 - 19/200
	38.47	36	531	2.2	3.0	0.92	0.94	28/250 - 24/200
	46.91	30	442	1.5	2.0	0.92	1.09	28/250 - 24/200
	49.22	28	340	1.1	1.5	0.92	1.18	24/200 - 19/200
	56.54	25	390	1.1	1.5	0.92	1.31	24/200 - 19/200
	59.97	23	414	1.1	1.5	0.92	0.97	28/250 - 24/200
	68.95	20	476	1.1	1.5	0.92	1.03	24/200 - 19/200
	84.58	17	196	0.37	0.5	0.92	2.65	14/160
	88.15	16	415	0.75	1.0	0.92	1.01	24/200 - 19/200
	103.15	14	240	0.37	0.5	0.92	2.09	14/160
	131.86	11	306	0.37	0.5	0.92	1.37	14/160
900	24.45	37	263	1.1	1.5	0.92	2.14	24/200 - 19/200
	31.57	29	339	1.1	1.5	0.92	1.65	24/200 - 19/200
	38.47	23	563	1.5	2.0	0.92	0.98	28/250 - 24/200
	46.91	19	504	1.1	1.5	0.92	1.05	28/250 - 24/200
	49.22	18	360	0.75	1.0	0.92	1.22	24/200 - 19/200
	56.54	16	414	0.75	1.0	0.92	1.36	24/200 - 19/200
	59.97	15	439	0.75	1.0	0.92	1.00	28/250 - 24/200
	68.95	13	505	0.75	1.0	0.92	1.07	24/200 - 19/200
	84.58	11	206	0.25	0.34	0.92	2.77	14/160
	88.15	10	473	0.55	0.75	0.92	0.89	24/200 - 19/200
	103.15	9	252	0.25	0.34	0.92	2.18	14/160
	131.86	7	322	0.25	0.34	0.92	1.44	14/160



PD 80 /3



MPD 80/3

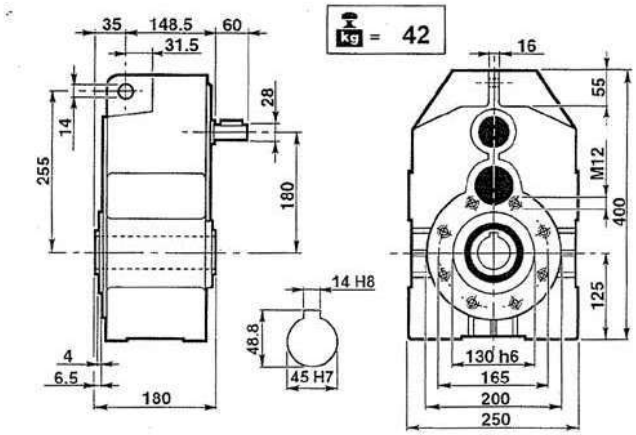
P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung
P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

PD 100

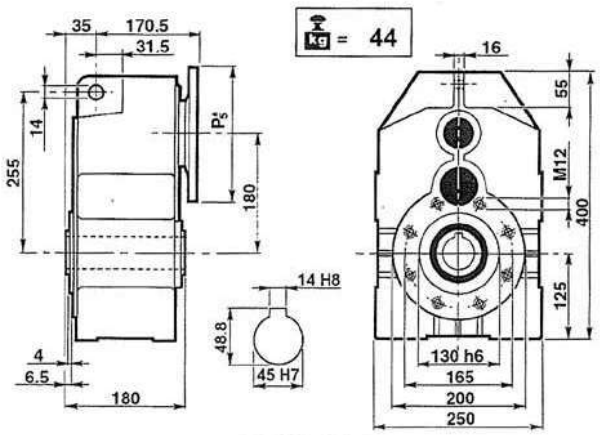
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	9.98	281	*720*	22.0	30.0	0.96
	12.89	217	*720*	17.1	23.2	0.96
	15.47	181	*855*	16.9	23.0	0.96
	15.72	178	*720*	14.0	19.0	0.96
	19.98	140	*810*	12.4	16.8	0.96
	20.49	137	*675*	10.1	13.7	0.96
	24.36	115	*810*	10.2	13.8	0.96
	31.75	88	*675*	6.5	8.8	0.96
1400	9.98	140	*800*	12.2	16.6	0.96
	12.89	109	*800*	9.5	12.9	0.96
	15.47	90	*950*	9.4	12.8	0.96
	15.72	89	*800*	7.8	10.6	0.96
	19.98	70	*900*	6.9	9.4	0.96
	20.49	68	*750*	5.6	7.6	0.96
	24.36	57	*900*	5.6	7.7	0.96
	31.75	44	*750*	3.6	4.9	0.96
900	9.98	90	*880*	8.7	11.8	0.96
	12.89	70	*880*	6.7	9.1	0.96
	15.47	58	*1045*	6.6	9.0	0.96
	15.72	57	*880*	5.5	7.5	0.96
	19.98	45	*990*	4.9	6.6	0.96
	20.49	44	*825*	4.0	5.4	0.96
	24.36	37	*990*	4.0	5.4	0.96
	31.75	28	*825*	2.6	3.5	0.96

MPD 100

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	9.98	281	*359*	11	15	0.96	2.01	38/300 - 28/250
	12.89	217	*464*	11	15	0.96	1.55	38/300 - 28/250
	15.47	178	*557*	11	15	0.96	1.54	38/300 - 28/250
	15.72	137	*566*	11	15	0.96	1.27	38/300 - 28/250
	19.98	181	*720*	11	15	0.96	1.13	38/300 - 28/250
	20.49	140	*604*	9	12.5	0.96	1.12	38/300 - 28/250
	24.36	115	*718*	9	12.5	0.96	1.13	38/300 - 28/250
	31.75	88	*672*	5.5	7.5	0.96	1.18	38/300 - 28/250
1400	9.98	140	*719*	11	15	0.96	1.11	38/300 - 28/250
	12.89	109	*777*	9.2	12.5	0.96	1.03	38/300 - 28/250
	15.47	90	*932*	9.2	12.5	0.96	1.02	38/300 - 28/250
	15.72	89	*772*	7.5	10	0.96	1.04	38/300 - 28/250
	19.98	70	*720*	5.5	7.5	0.96	1.25	38/300 - 28/250
	20.49	68	*738*	5.5	7.5	0.96	1.02	38/300 - 28/250
	24.36	57	*877*	5.5	7.5	0.96	1.03	38/300 - 28/250
	31.75	44	*624*	3.0	4	0.96	1.20	38/300 - 28/250
900	9.98	90	*559*	5.5	7.5	0.96	1.57	38/300 - 28/250
	12.89	70	*722*	5.5	7.5	0.96	1.22	38/300 - 28/250
	15.47	58	*867*	5.5	7.5	0.96	1.21	38/300 - 28/250
	15.72	57	*881*	5.5	7.5	0.96	1.00	38/300 - 28/250
	19.98	45	*814*	4.0	5.5	0.96	1.22	38/300 - 28/250
	20.49	44	*835*	4.0	5.5	0.96	0.99	38/300 - 28/250
	24.36	37	*993*	4.0	5.5	0.96	1.00	38/300 - 28/250
	31.75	28	*712*	2.2	3.0	0.96	1.16	38/300 - 28/250



PD 100



MPD 100

P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung

P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible

Max. Allowable external radial load
Carga radial externa admisible

Zulässige externe radiale Belastung
Carga radial externa admissível

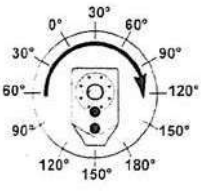
Albero veloce / Input shaft / Eingangwelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min $^{-1}$	**PD 100**	**PD 100/3**
	1400	1000

Albero lento / Output shaft / Seitigatriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída

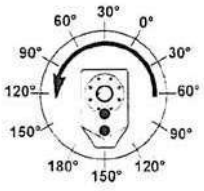
PD 100 - PD 100/3

min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	13186	13632	14793	16577	18625	20227	20859
40	9972	10422	11491	13274	15327	17017	17646
60	8467	8822	9893	11674	13725	15415	16128
80	7397	7754	8822	10606	12657	14438	15060
100	6684	7041	8019	9795	11848	13607	14347
120	6147	6417	7485	9180	11319	13100	13813
140	5704	5954	6945	8518	10502	12155	12817
160	5346	5580	6509	7984	9844	11393	12013

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

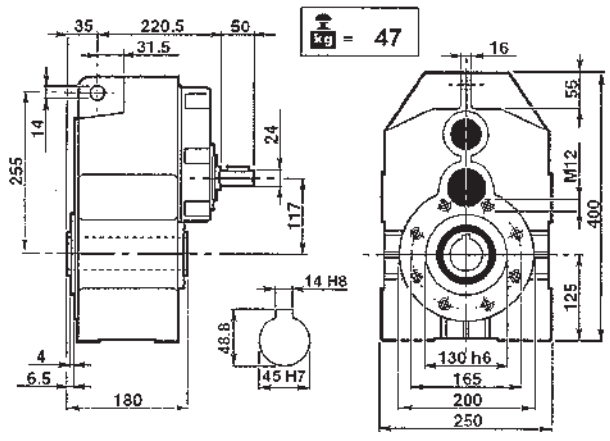


PD 100/3

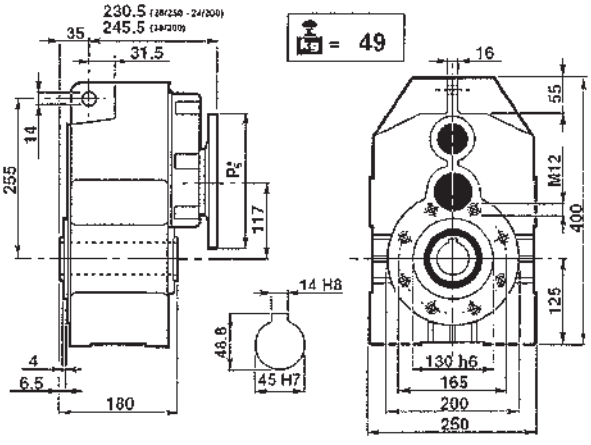
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	21.40	131	810	12.1	16.4	0.92
	25.68	109	900	11.2	15.2	0.92
	33.16	84	882	8.5	11.5	0.92
	37.74	74	918	7.8	10.5	0.92
	40.44	69	882	7.0	9.5	0.92
	48.74	57	900	5.9	8.0	0.92
	52.70	53	720	4.4	5.9	0.92
	59.44	47	900	4.8	6.6	0.92
	72.91	38	918	4.0	5.5	0.92
	77.47	36	720	3.0	4.0	0.92
	88.91	31	918	3.3	4.5	0.92
	115.88	24	720	2.0	2.7	0.92
1400	21.40	65	900	6.7	9.1	0.92
	25.68	55	1000	6.2	8.4	0.92
	33.16	42	980	4.7	6.4	0.92
	37.74	37	1020	4.3	5.9	0.92
	40.44	35	980	3.9	5.3	0.92
	48.74	29	1000	3.3	4.4	0.92
	52.70	27	800	2.4	3.3	0.92
	59.44	24	1000	2.7	3.6	0.92
	72.91	19	1020	2.2	3.0	0.92
	77.47	18	800	1.6	2.2	0.92
	88.91	16	1020	1.8	2.5	0.92
	115.88	12	800	1.1	1.5	0.92
900	21.40	42	990	4.7	6.4	0.92
	25.68	35	1100	4.4	6.0	0.92
	33.16	27	1078	3.3	4.5	0.92
	37.74	24	1122	3.0	4.1	0.92
	40.44	22	1078	2.7	3.7	0.92
	48.74	18	1100	2.3	3.1	0.92
	52.70	17	880	1.7	2.3	0.92
	59.44	15	1100	1.9	2.6	0.92
	72.91	12	1122	1.6	2.1	0.92
	77.47	12	880	1.2	1.6	0.92
	88.91	10	1122	1.3	1.8	0.92
	115.88	8	880	0.8	1.1	0.92

MPD 100/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	21.40	131	369	5.5	7.5	0.92	2.19	28/250 - 24/200
	25.68	109	443	5.5	7.5	0.92	2.03	28/250 - 24/200
	33.16	84	572	5.5	7.5	0.92	1.54	28/250 - 24/200
	37.74	74	261	2.2	3.0	0.92	3.52	24/200 - 19/200
	40.44	69	698	5.5	7.5	0.92	1.26	28/250 - 24/200
	48.74	57	336	2.2	3.0	0.92	2.67	24/200 - 19/200
	52.70	53	661	4.0	5.5	0.92	1.09	28/250 - 24/200
	59.44	47	410	2.2	3	0.92	2.19	24/200 - 19/200
	72.91	38	343	1.5	2	0.92	2.68	14/160
	77.47	36	535	2.2	3	0.92	1.35	24/200 - 19/200
	88.91	31	418	1.5	2	0.92	2.19	14/160
	115.88	24	545	1.5	2	0.92	1.32	14/160
1400	21.40	65	537	4.0	5.5	0.92	1.68	28/250 - 24/200
	25.68	55	645	4.0	5.5	0.92	1.55	28/250 - 24/200
	33.16	42	832	4.0	5.5	0.92	1.18	28/250 - 24/200
	37.74	37	426	1.8	2.5	0.92	2.39	24/200 - 19/200
	40.44	35	1015	4.0	5.5	0.92	0.97	28/250 - 24/200
	48.74	29	551	1.8	2.5	0.92	1.82	24/200 - 19/200
	52.70	27	728	2.2	3.0	0.92	1.10	28/250 - 24/200
	59.44	24	671	1.8	2.5	0.92	1.49	24/200 - 19/200
	72.91	19	343	0.75	1.0	0.92	2.97	14/160
	77.47	18	729	1.50	2.0	0.92	1.10	24/200 - 19/200
	88.91	16	418	0.75	1.0	0.92	2.44	14/160
	115.88	12	545	0.75	1.0	0.92	1.47	14/160
900	21.40	42	460	2.2	3.0	0.92	2.15	28/250 - 24/200
	25.68	35	552	2.2	3.0	0.92	1.99	28/250 - 24/200
	33.16	27	712	2.2	3.0	0.92	1.51	28/250 - 24/200
	37.74	24	405	1.1	1.5	0.92	2.77	24/200 - 19/200
	40.44	22	869	2.2	3	0.92	1.24	28/250 - 24/200
	48.74	18	523	1.1	1.5	0.92	2.10	24/200 - 19/200
	52.70	17	926	1.8	2.5	0.92	0.95	28/250 - 24/200
	59.44	15	638	1.1	1.5	0.92	1.72	24/200 - 19/200
	72.91	12	391	0.55	0.75	0.92	2.87	14/160
	77.47	12	832	1.1	1.5	0.92	1.06	24/200 - 19/200
	88.91	10	477	0.55	0.75	0.92	2.35	14/160
	115.88	8	622	0.55	0.75	0.92	1.41	14/160



PD 100/3



MPD 100/3

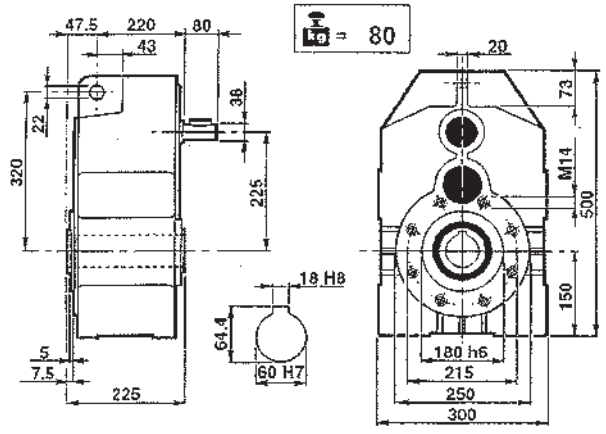
P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung
P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

PD 125

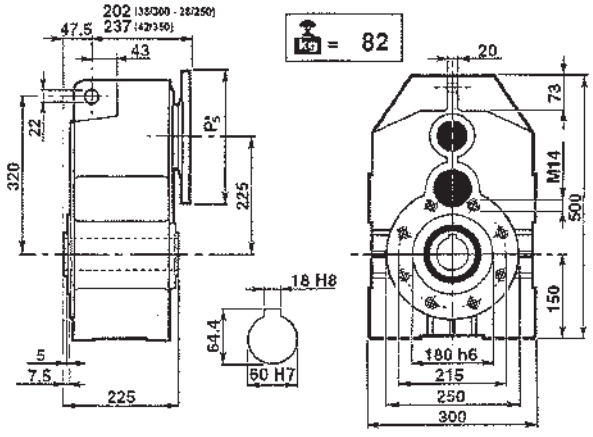
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	10.48	267	1440	42.0	57.1	0.96
	13.49	208	1440	32.6	44.3	0.96
	16.28	172	1440	27.0	36.7	0.96
	16.43	170	1305	24.3	33.0	0.96
	18.60	151	1620	26.6	36.2	0.96
	20.96	134	1530	22.3	30.3	0.96
	25.52	110	1485	17.8	24.2	0.96
	28.90	97	1305	13.8	18.8	0.96
1400	10.48	134	1600	23.3	31.7	0.96
	13.49	104	1600	18.1	24.6	0.96
	16.28	86	1600	15.0	20.4	0.96
	16.43	85	1450	13.5	18.3	0.96
	18.60	75	1800	14.8	20.1	0.96
	20.96	67	1700	12.4	16.8	0.96
	25.52	55	1650	9.9	13.4	0.96
	28.90	48	1450	7.7	10.4	0.96
900	10.48	86	1760	16.5	22.4	0.96
	13.49	67	1760	12.8	17.4	0.96
	16.28	55	1760	10.6	14.4	0.96
	16.43	55	1595	9.5	13.0	0.96
	18.60	48	1980	10.5	14.2	0.96
	20.96	43	1870	8.8	11.9	0.96
	25.52	35	1815	7.0	9.5	0.96
	28.90	31	1595	5.4	7.4	0.96

MPD 125

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	10.48	267	635	18.5	25	0.96	2.27	42/350 - 38/300
	13.49	208	817	18.5	25	0.96	1.76	42/350 - 38/300
	16.28	172	986	18.5	25	0.96	1.46	42/350 - 38/300
	16.43	170	995	18.5	25	0.96	1.31	42/350 - 38/300
	18.60	151	1127	18.5	25	0.96	1.44	42/350 - 38/300
	20.96	134	1270	18.5	25	0.96	1.21	42/350 - 38/300
	25.52	110	1253	15	20	0.96	1.18	42/350 - 38/300
	28.90	97	1041	11	15	0.96	1.25	42/350 - 38/300
1400	10.48	134	1029	15	20	0.96	1.55	42/350 - 38/300
	13.49	104	1325	15	20	0.96	1.21	42/350 - 38/300
	16.28	86	1599	15	20	0.96	1.00	42/350 - 38/300
	16.43	85	1184	11	15	0.96	1.23	42/350 - 38/300
	18.60	75	1827	15	20	0.96	0.99	42/350 - 38/300
	20.96	67	1510	11	15	0.96	1.13	42/350 - 38/300
	25.52	55	1537	9.2	12.5	0.96	1.07	42/350 - 38/300
	28.90	48	1419	7.5	10	0.96	1.02	42/350 - 38/300
900	10.48	86	1174	11	15	0.96	1.50	42/350 - 38/300
	13.49	67	1512	11	15	0.96	1.16	42/350 - 38/300
	16.28	55	1824	11	15	0.96	0.96	42/350 - 38/300
	16.43	55	1255	7.5	10	0.96	1.27	42/350 - 38/300
	18.60	48	2084	11	15	0.96	0.95	42/350 - 38/300
	20.96	43	1601	7.5	10	0.96	1.17	42/350 - 38/300
	25.52	35	1430	5.5	7.5	0.96	1.27	42/350 - 38/300
	28.90	31	1619	5.5	7.5	0.96	0.99	42/350 - 38/300



PD 125



MPD 125

P_{5}*: Vedere i PAM per ogni singola versione
P_{5}*: See PAM size for each single version
P_{5}*: Siehe PAM Größe für jede Ausführung
P_{5}*: Voir les PAM pour chaque version simple
P_{5}*: Consulte los PAM de cada versión por separado
P_{5}*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible

Max. Allowable external radial load
Carga radial externa admisible

Zulässige externe radiale Belastung
Carga radial externa admissível

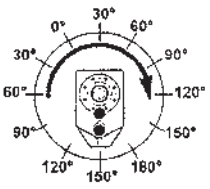
Albero veloce / Input shaft / Eingangwelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min $^{-1}$	PD 125	PD 125/3
	2100	1600

Albero lento / Output shaft / Seitigatriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída

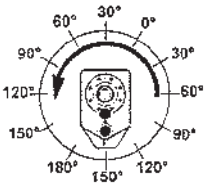
PD 125 - PD 125/3

min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	18837	19474	21133	23681	26607	28896	29799
40	14245	14889	16415	18963	21896	24310	25211
60	12096	12604	14133	16678	19607	22022	23041
80	10567	11078	12604	15152	18081	20626	21515
100	9548	10059	11456	13993	16926	19439	20496
120	8782	9167	10693	13115	16170	18715	19733
140	8148	8505	9921	12168	15003	17364	18309
160	7637	7972	9299	11405	14063	16275	17161

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

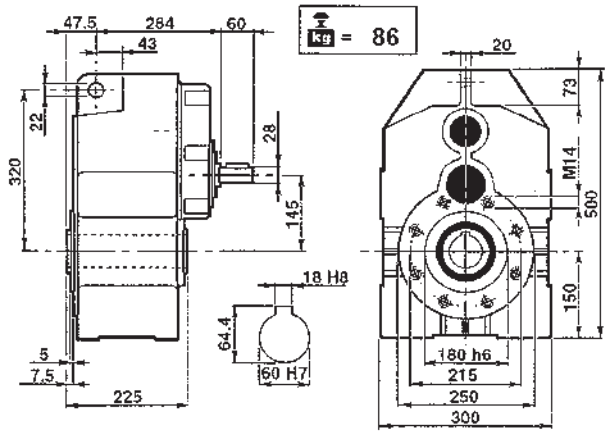


PD 125/3

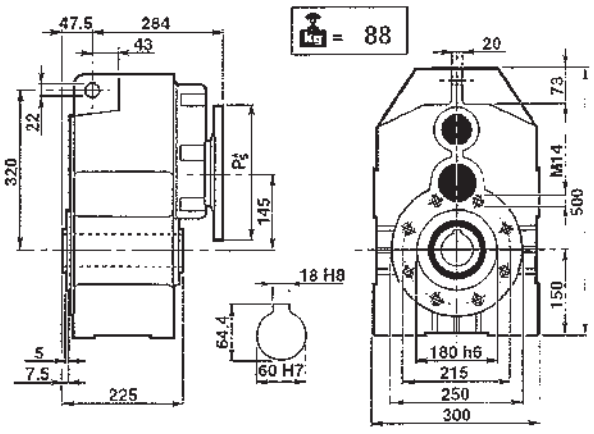
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	26.47	106	1890	22.8	30.9	0.92
	30.32	92	1395	14.7	19.9	0.92
	34.08	82	1800	16.8	22.9	0.92
	38.46	73	1656	13.7	18.7	0.92
	41.49	67	1620	12.4	16.9	0.92
	47.25	59	1395	9.4	12.8	0.92
	53.11	53	1818	10.9	14.8	0.92
	59.60	47	1890	10.1	13.7	0.92
	64.66	43	1638	8.1	11.0	0.92
	73.22	38	1395	6.1	8.3	0.92
	93.42	30	1665	5.7	7.7	0.92
	105.79	26	1395	4.2	5.7	0.92
1400	26.47	53	2100	12.6	17.2	0.92
	30.32	46	1550	8.1	11.1	0.92
	34.08	41	2000	9.4	12.7	0.92
	38.46	36	1840	7.6	10.4	0.92
	41.49	34	1800	6.9	9.4	0.92
	47.25	30	1550	5.2	7.1	0.92
	53.11	26	2020	6.1	8.2	0.92
	59.60	23	2100	5.6	7.6	0.92
	64.66	22	1820	4.5	6.1	0.92
	73.22	19	1550	3.4	4.6	0.92
	93.42	15	1850	3.2	4.3	0.92
	105.79	13	1550	2.3	3.2	0.92
900	26.47	34	2310	8.9	12.2	0.92
	30.32	30	1705	5.8	7.8	0.92
	34.08	26	2200	6.6	9.0	0.92
	38.46	23	2024	5.4	7.3	0.92
	41.49	22	1980	4.9	6.6	0.92
	47.25	19	1705	3.7	5.0	0.92
	53.11	17	2222	4.3	5.8	0.92
	59.60	15	2310	4.0	5.4	0.92
	64.66	14	2002	3.2	4.3	0.92
	73.22	12	1705	2.4	3.2	0.92
	93.42	10	2035	2.2	3.0	0.92
	105.79	9	1705	1.7	2.2	0.92

MPD 125/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	26.47	106	914	11	15	0.92	2.07	38/300
	30.32	92	1047	11	15	0.92	1.33	38/300
	34.08	82	1176	11	15	0.92	1.53	38/300
	38.46	73	664	5.5	7.5	0.92	2.49	19/200
	41.49	67	1432	11	15	0.92	1.13	38/300
	47.25	59	815	5.5	7.5	0.92	1.71	28/250
	53.11	53	917	5.5	7.5	0.92	1.98	28/250
	59.60	47	1029	5.5	7.5	0.92	1.84	19/200
	64.66	43	1116	5.5	7.5	0.92	1.47	28/250
	73.22	38	1264	5.5	7.5	0.92	1.10	28/250
	93.42	30	1612	5.5	7.5	0.92	1.03	19/200
	105.79	26	1328	4.0	7.5	0.92	1.05	19/200
1400	26.47	53	1827	11	15	0.92	1.15	38/300
	30.32	46	1751	9.2	12.5	0.92	0.89	38/300
	34.08	41	1968	9.2	12.5	0.92	1.02	38/300
	38.46	36	965	4.0	5.5	0.92	1.91	19/200
	41.49	34	1432	5.5	7.48	0.92	1.26	38/300
	47.25	30	1188	4.0	5.5	0.92	1.31	28/250
	53.11	26	1333	4.0	5.5	0.92	1.52	28/250
	59.60	23	1496	4.0	5.5	0.92	1.40	19/200
	64.66	22	1623	4.0	5.5	0.92	1.12	28/250
	73.22	19	1379	3.0	4.0	0.92	1.12	28/250
	93.42	15	1759	3.0	4.0	0.92	1.05	19/200
	105.79	13	1461	2.2	3.0	0.92	1.06	19/200
900	26.47	34	1421	5.5	7.5	0.92	1.63	38/300
	30.32	30	1628	5.5	7.5	0.92	1.05	38/300
	34.08	26	1830	5.5	7.5	0.92	1.20	38/300
	38.46	23	826	2.2	3.0	0.92	2.45	19/200
	41.49	22	1620	4.0	5.5	0.92	1.22	38/300
	47.25	19	1015	2.2	3	0.92	1.68	28/250
	53.11	17	1141	2.2	3	0.92	1.95	28/250
	59.60	15	1280	2.2	3	0.92	1.80	19/200
	64.66	14	1389	2.2	3	0.92	1.44	28/250
	73.22	12	1573	2.2	3	0.92	1.08	28/250
	93.42	10	2006	2.2	3	0.92	1.01	19/200
	105.79	9	1549	1.5	2	0.92	1.10	19/200



PD 125/3



MPD 125/3

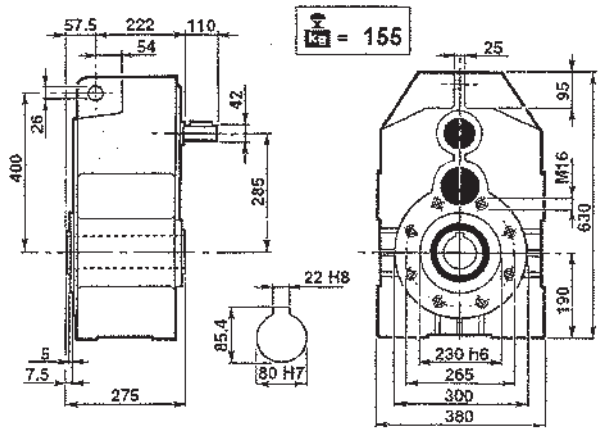
P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung
P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

PD 160

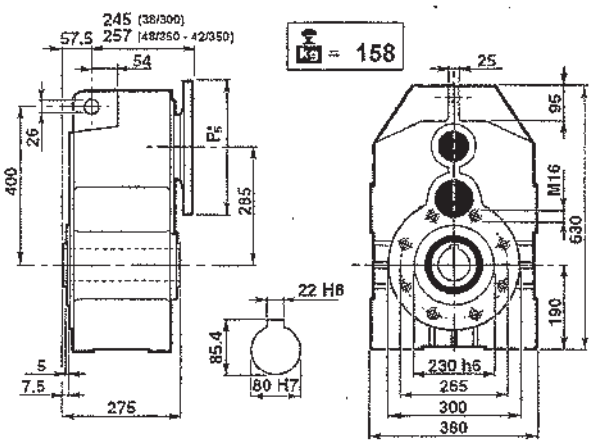
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	9.87	284	2700	83.5	113.6	0.96
	12.74	220	2880	69.0	93.9	0.96
	15.54	180	2880	56.6	77.0	0.96
	16.27	172	3150	59.1	80.4	0.96
	19.87	141	2610	40.1	54.6	0.96
	21.01	133	3150	45.8	62.3	0.96
	25.62	109	2880	34.3	46.7	0.96
	32.75	85	2700	25.2	34.2	0.96
1400	9.87	142	3000	46.4	63.1	0.96
	12.74	110	3200	38.4	52.2	0.96
	15.54	90	3200	31.4	42.8	0.96
	16.27	86	3500	32.8	44.7	0.96
	19.87	70	2900	22.3	30.3	0.96
	21.01	67	3500	25.4	34.6	0.96
	25.62	55	3200	19.1	25.9	0.96
	32.75	43	3000	14.0	19.0	0.96
900	9.87	91	3300	32.8	44.6	0.96
	12.74	71	3520	27.1	36.9	0.96
	15.54	58	3520	22.2	30.2	0.96
	16.27	55	3850	23.2	31.6	0.96
	19.87	45	3190	15.8	21.4	0.96
	21.01	43	3850	18.0	24.5	0.96
	25.62	35	3520	13.5	18.3	0.96
	32.75	27	3300	9.9	13.5	0.96

MPD 160

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	9.87	284	808	25	34	0.96	3.34	48/350 - 42/350
	12.74	220	1043	25	34	0.96	2.76	48/350 - 42/350
	15.54	180	1272	25	34	0.96	2.26	48/350 - 42/350
	16.27	172	1332	25	34	0.96	2.37	48/350 - 42/350
	19.87	141	1627	25	34	0.96	1.60	48/350 - 42/350
	21.01	133	1720	25	34	0.96	1.83	48/350 - 42/350
	25.62	109	2097	25	34	0.96	1.37	48/350 - 42/350
	32.75	85	2681	25	34	0.96	1.01	48/350 - 42/350
1400	9.87	142	1422	22	30	0.96	2.11	48/350 - 42/350
	12.74	110	1835	22	30	0.96	1.74	48/350 - 42/350
	15.54	90	2239	22	30	0.96	1.43	48/350 - 42/350
	16.27	86	2344	22	30	0.96	1.49	48/350 - 42/350
	19.87	70	2863	22	30	0.96	1.01	48/350 - 42/350
	21.01	67	3027	22	30	0.96	1.16	48/350 - 42/350
	25.62	55	3104	18.5	25	0.96	1.03	48/350 - 42/350
	32.75	43	3217	15	20	0.96	0.93	48/350 - 42/350
900	9.87	91	1508	15	20	0.96	2.19	48/350 - 42/350
	12.74	71	1947	15	20	0.96	1.81	48/350 - 42/350
	15.54	58	2375	15	20	0.96	1.48	48/350 - 42/350
	16.27	55	2486	15	20	0.96	1.55	48/350 - 42/350
	19.87	45	3036	15	20	0.96	1.05	48/350 - 42/350
	21.01	43	3210	15	20	0.96	1.20	48/350 - 42/350
	25.62	35	2871	11	15	0.96	1.23	48/350 - 42/350
	32.75	27	2502	7.5	10	0.96	1.32	48/350 - 42/350



PD 160



MPD 160

P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung

P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

Carico radiale esterno ammissibile
Charge radiale externe admissible

Max. Allowable external radial load
Carga radial externa admisible

Zulässige externe radiale Belastung
Carga radial externa admissível

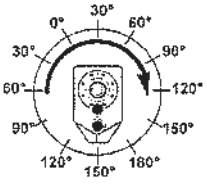
Albero veloce / Input shaft / Eingangwelle / Arbre grande vitesse / Eje rápido / Eixo de entrada		
1400 min $^{-1}$	**PD 160**	**PD 160/3**
	3200	2300

Albero lento / Output shaft / Seitigatriebswelle / Arbre petite vitesse / Eje lento / Eixo de saída

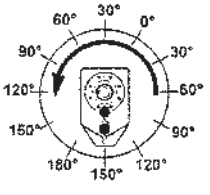
PD 160- PD 160/3

min^{-1}	0°	30°	60°	90°	120°	150°	180°
20	26910	27820	30190	33830	38010	41280	42570
40	20350	21270	23450	27090	31280	34729	36015
60	17280	18005	20190	23825	28010	31460	32915
80	15095	15825	18005	21645	25830	29465	30735
100	13640	14370	16365	19990	24180	27770	29280
120	12545	13095	15275	18735	23100	26735	28190
140	11640	12150	14173	17383	21434	24806	26156
160	10910	11388	13284	16293	20089	23251	24516

Rotazione oraria
Clockwise rotation
Uhrzeigersinn
Rotation dans le sens des aiguilles d'une montre
Rotación en sentido horario
Rotação horária



Rotazione antioraria
Anticlockwise rotation
Gegenuhrzeigersinn
Rotation dans le sens contraire des aiguilles d'une montre
Rotación en sentido antihorario
Rotação anti-horária

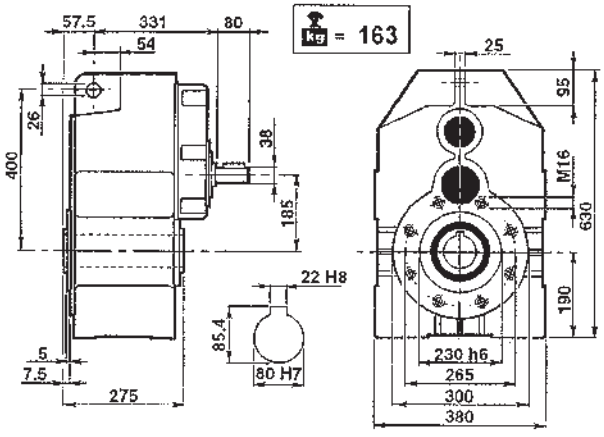


PD 160/3

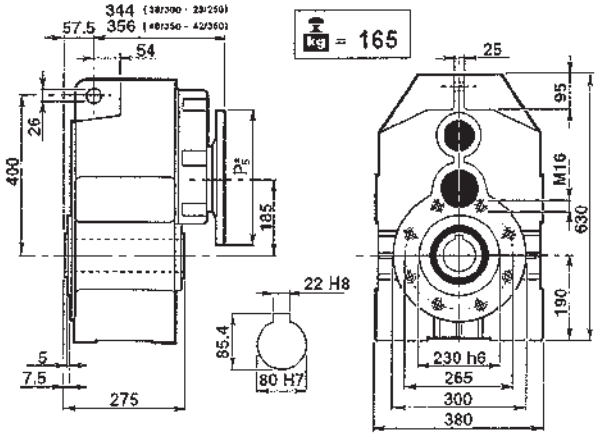
n_1	i	n_2	M_2	kW_1	HP_1	RD
2800	34.24	82	3240	30.2	41.0	0.92
	39.47	71	2988	24.1	32.8	0.92
	41.78	67	3240	24.7	33.6	0.92
	50.46	55	2880	18.2	24.7	0.92
	53.36	52	3258	19.5	26.5	0.92
	58.57	48	3015	16.4	22.3	0.92
	65.07	43	3258	16.0	21.7	0.92
	71.52	39	2880	12.8	17.5	0.92
	75.63	37	3285	13.8	18.8	0.92
	83.19	34	2880	11.0	15.0	0.92
	92.23	30	3285	11.4	15.4	0.92
	117.9	24	2880	7.8	10.6	0.92
1400	34.24	41	3600	16.8	22.8	0.92
	39.47	35	3320	13.4	18.2	0.92
	41.78	34	3600	13.7	18.7	0.92
	50.46	28	3200	10.1	13.7	0.92
	53.36	26	3620	10.8	14.7	0.92
	58.57	24	3350	9.1	12.4	0.92
	65.07	22	3620	8.9	12.1	0.92
	71.52	20	3200	7.1	9.7	0.92
	75.63	19	3650	7.7	10.5	0.92
	83.19	17	3200	6.1	8.3	0.92
	92.23	15	3650	6.3	8.6	0.92
	117.9	12	3200	4.3	5.9	0.92
900	34.24	26	3960	11.8	16.1	0.92
	39.47	23	3652	9.5	12.9	0.92
	41.78	22	3960	9.7	13.2	0.92
	50.46	18	3520	7.1	9.7	0.92
	53.36	17	3982	7.6	10.4	0.92
	58.57	15	3685	6.4	8.8	0.92
	65.07	14	3982	6.3	8.5	0.92
	71.52	13	3520	5.0	6.9	0.92
	75.63	12	4015	5.4	7.4	0.92
	83.19	11	3520	4.3	5.9	0.92
	92.23	10	4015	4.5	6.1	0.92
	117.9	8	3520	3.1	4.2	0.92

MPD 160/3

n_1	i	n_2	M_2	kW_1	HP_1	RD	sf	PAM
2800	34.24	82	2686	25	34	0.92	1.21	48/350 - 42/350
	39.47	71	1362	11	15	0.92	2.19	38/300
	41.78	67	3276	25	34	0.92	0.99	48/350 - 42/350
	50.46	55	1742	11	15	0.92	1.65	38/300
	53.36	52	1842	11	15	0.92	1.77	38/300
	58.57	48	1011	5.5	7.5	0.92	2.96	28/250
	65.07	43	2246	11	15	0.92	1.45	38/300
	71.52	39	1234	5.5	7.5	0.92	2.33	28/250
	75.63	37	1305	5.5	7.5	0.92	2.52	28/250
	83.19	34	2871	11	15	0.92	1.00	38/300
	92.23	30	1592	5.5	7.5	0.92	2.06	28/250
	117.9	24	2035	5.5	7.5	0.92	1.42	28/250
1400	34.24	41	3223	15	20	0.92	1.12	48/350 - 42/350
	39.47	35	2725	11	15	0.92	1.22	38/300
	41.78	34	3931	15	20	0.92	0.92	48/350 - 42/350
	50.46	28	2913	9.2	12.5	0.92	1.10	38/300
	53.36	26	3081	9.2	12.5	0.92	1.18	38/300
	58.57	24	1470	4.0	5.5	0.92	2.28	28/250
	65.07	22	3063	7.5	10	0.92	1.18	38/300
	71.52	20	1795	4.0	5.5	0.92	1.78	28/250
	75.63	19	1899	4.0	5.5	0.92	1.92	28/250
	83.19	17	2871	5.5	7.5	0.92	1.11	38/300
	92.23	15	2315	4.0	5.5	0.92	1.58	28/250
	117.9	12	2960	4.0	5.5	0.92	1.08	28/250
900	34.24	26	3677	11	15	0.92	1.08	48/350 - 42/350
	39.47	23	2119	5.5	7.5	0.92	1.72	38/300
	41.78	22	3058	7.5	10	0.92	1.30	48/350 - 42/350
	50.46	18	2709	5.5	7.5	0.92	1.30	38/300
	53.36	17	2865	5.5	7.5	0.92	1.39	38/300
	58.57	15	1258	2.2	3.0	0.92	2.93	28/250
	65.07	14	3494	5.50	7.5	0.92	1.14	38/300
	71.52	13	1536	2.2	3.0	0.92	2.29	28/250
	75.63	12	1624	2.2	3.0	0.92	2.47	28/250
	83.19	11	3248	4.0	5.5	0.92	1.08	38/300
	92.23	10	1981	2.2	3.0	0.92	2.03	28/250
	117.9	8	2532	2.2	3.0	0.92	1.39	28/250



PD 160/3



MPD 160/3

P_5*: Vedere i PAM per ogni singola versione
P_5*: See PAM size for each single version
P_5*: Siehe PAM Größe für jede Ausführung
P_5*: Voir les PAM pour chaque version simple
P_5*: Consulte los PAM de cada versión por separado
P_5*: Ver os PAM para cada versão

ACCESSORI (IT)

ACCESSOIRES (FR)

ACCESSORIES (EN)

ACCESORIOS (ES)

ZUBEHÖRE (DE)

ACESSÓRIOS (PT)

FLANGE IN USCITA (IT)

Tutti i riduttori delle serie PL e PD possono essere equipaggiati, su richiesta, con flange in uscita di dimensioni unificate (flange B5). Si è optato per la forma quadrata sulle grandezze 63 - 80 - 100 e per la forma circolare sulle grandezze 125 e 160. Si assume come standard la posizione destra guardando il riduttore dal lato dell'entrata nella posizione di montaggio B3.

OUTPUT FLANGES (EN)

Upon request all units of the PL and PD series can be equipped with standardized output flanges (B5 flanges).
it has been preferred the squared shape for sizes 63 - 80 - 100 and circular shape for sizes 125 and 160. Standard position is on the right looking at the gearbox from input side in mounting position B3.

ABTRIEBSFLANSCHE (DE)

Alle Getriebe der Baureihe PL und PD können auf Anfrage mit Abtriebsflanschen mit genormten Abmessungen ausgestattet werden (B5 Flansche).
Für die Getriebegrößen 63- 80 -100 hat man für die erwähnten Abtriebsflansche die richtige gestalt ausgelegt, wahrend für die übrigen Größen hat man runde Flansche vorgesehen.
In der Standardausführung liegt der Flansch bei der Einbaulage B3 (Antriebswelle unten, Abtriebswelle oben) auf die Antriebswelle gesehen rechts.

BRIDES EN SORTIE (FR)

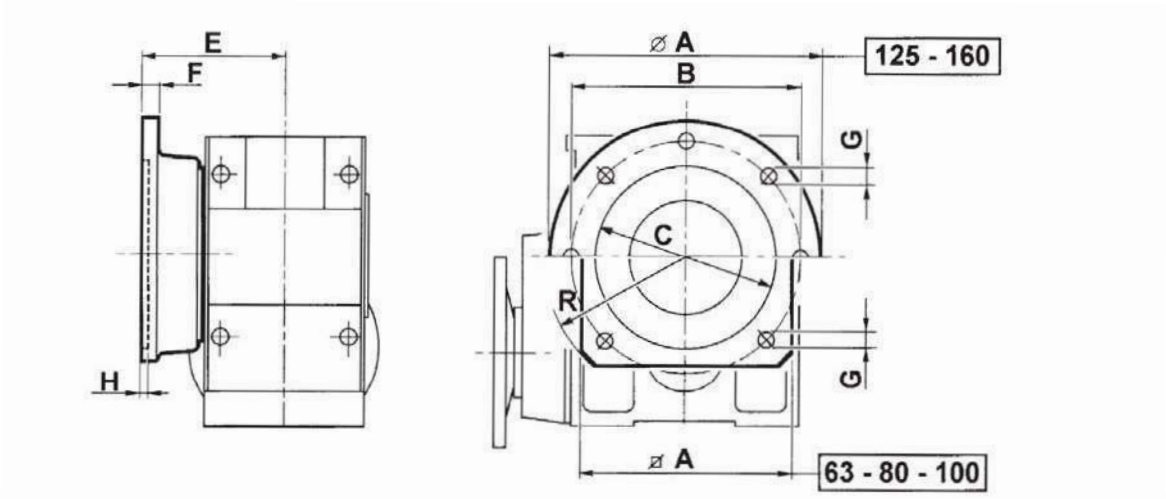
Tous les réducteurs de la série PL et PD peuvent être équipés, sur demande, en brides de sortie de dimensions unifiées (brides B5). On a opté pour la forme carrée sur les tailles 63 - 80 - 100 et pour la forme circulaire sur les tailles 125 et 160. On prend comme standard la position droite regardant le réducteur du côté de l'entrée dans la position de montage B3.

BRIDAS EN SALIDA (ES)

Los reductores de las series PL y PD pueden ir equipados, bajo solicitud, con bridas en salida de dimensiones unificadas (bridas B5). Se ha optado por la forma cuadrada en los tamaños 63 - 80 - 100 y por la forma circular en los tamaños 125 y 160. Se asume como estándar la posición derecha viendo el reductor desde el lado de la entrada en la posición de montaje B3.

FLANGE DE SAÍDA (PT)

Todos os redutores série PL e PD podem ser equipados, a pedido, com flange de saída com dimensões unificadas (flange B5). Optou-se pela forma quadrada para os tamanhos 63 - 80 - 100 e para a forma circular para os tamanhos 125 e 160. Assume-se como standard a posição direita olhando o redutor do lado da entrada na posição de montagem B3.



	○ A	□ A	B	C	E	F	G	H	R
63	-	150	165	130	113	12	4x11	5	100
80	-	190	215	180	132.5	14	4x14	6	125
100	-	240	265	230	150.5	16	4x16	5	150
125	350	-	300	250	174	18	8x16	6	-
160	450	-	400	350	195	20	8x18	7	-

ALBERI LENTI (IT)

Tutti i riduttori delle serie PL e PD possono essere equipaggiati, su richiesta, con alberi lenti semplici o con alberi lenti doppi.
Per l'albero lento semplice è realizzata la versione con spallamento, mentre sul lato opposto all'uscita della parte sporgente, il cannotto è chiuso da apposita rondella.
L'albero lento doppio è invece realizzato, per semplicità costruttiva, con unico diametro, restando la funzione di spallamento affidata all'organo utilizzatore che sarà fissato alle estremità libere dell'albero.

OUTPUT SHAFTS (EN)

All PL and PD gearboxes can be equipped, on request, with single or double output shafts.
The single output shaft is accomplished in the version with shoulder, while on the opposite side the hollow shaft is closed by a suitable washer.
The double output shaft is, on the contrary, accomplished with a single diameter, for ease of manufacture.The function of shouldering is developed by the connection piece which will be placed on the free shaft ends.

ABTRIEBSWELLEN (DE)

Alle PL und PD Getriebe können, auf Anfrage, mit einseitiger oder doppelseitiger Steckwelle ausgerüstet werden.
Die einseitige Ausführung is mit einer Schulter ausgeführt, und die Hohlwelle ist bei einer Scheibe auf der gegenüberliegenden Seite geschlossen.
Die doppelseitige Steckwelle ist, für einfacheren Bau, mit einzelnem Durchmesser ausgeführt, und die Schulterungsfunktion ist direkt von dem zusammenpassenden Maschinenteil entwickelt.

ARBRES PETITE VITESSE (FR)

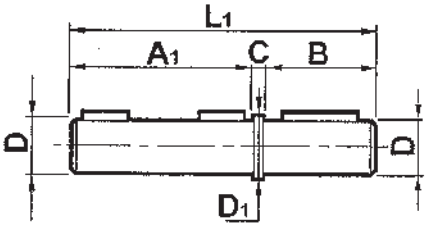
Tous les réducteurs de la série PL et PD peuvent être équipés, sur demande, en arbres petite vitesse simples ou arbres petite vitesse doubles.
Pour l'arbre petite vitesse simple la version est réalisée avec épaulement tandis que sur le côté opposé à la sortie du bout de l'arbre, l'arbre creux en sortie est fermé par rondelle prévue.
L'arbre petite vitesse double est par contre réalisé, pour simplicité de construction, avec diamètre unique, restant la fonction d'épaulement confiée à l'organe d'utilisation qui sera fixé aux extrémités libres de l'arbre.

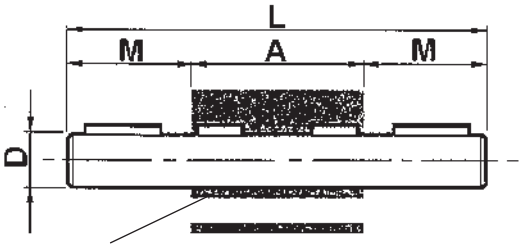
EJES LENTOS (ES)

Todos los reductores de las series PL y PD pueden ir equipados, bajo solicitud, con ejes lentos simples o dobles.
Para el eje lento simple se realiza la versión gradual, mientras que, en el lado opuesto a la salida de la parte sobresaliente, el tubo queda cerrado por la correspondiente arandela.
Por el contrario, el eje lento doble está realizado, por simplicidad constructiva, con un único diámetro, y la función de graduación corresponde al elemento usuario fijado a los extremos libres del eje.

EIXOS DE SAÍDA (PT)

Todos os redutores série PL e PD podem ser equipados, a pedido, com eixos de saída simples ou com eixos de saída duplos.
Para o eixo de saída simples é realizada a versão com encosto, enquanto que no lado oposto à saída da parte saliente, o tubo de conexão está fechado por uma anilha apropriada.
O eixo de saída duplo é por sua vez realizado, por simplicidade construtiva, com um único diâmetro, permanecendo a função de encosto entregue ao órgão utilizador que será fixado nas extremidades livres do eixo.





Riduttore / Gearbox / Getriebe / Réducteur / Reductor / Redutor

	D	B	D1	A1	C	L1
56	25	50	30	115	5	170
63	30	60	35	125	5	190
80	35	60	40	150	5	215
100	45	90	50	170	8	268
125	60	110	70	210	10	330
160	80	140	90	255	15	410

	D	A	L	M
56	25	120	220	50
63	30	135	255	60
80	35	160	280	60
100	45	180	360	90
125	60	225	445	110
160	80	275	555	140

BRACCI DI REAZIONE PER RIDUTTORI SERIE PD (IT)

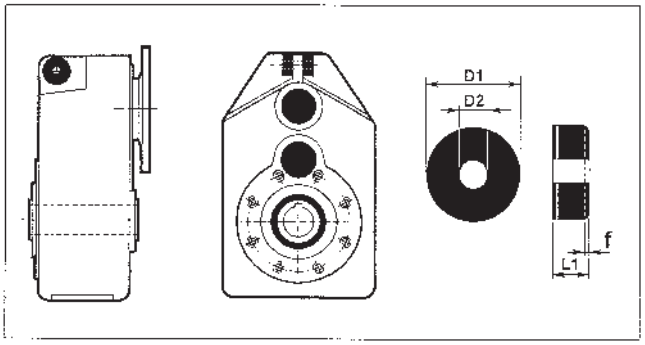
TORQUE ARMS FOR PD SERIES GEARBOX (EN)

DREHMOMENTSTÜTZEN FÜR GETRIEBE SERIE PD (DE)

BRAS DE RÉACTION POUR RÉDUCTEURS SÉRIE PD (FR)

BRAZOS DE REACCIÓN PARA REDUCTORES DE LA SERIE PD (ES)

BRAÇOS DE TORÇÃO PARA REDUTORES SÉRIE PD (PT)



	63	80	100	125	160
D1	30	40	40	60	80
L1	15	20	20	30	40
D2	11	12.5	12.5	21	25
f min	-	1.5	1.5	3	3.7
f max	-	2.3	2.3	4	6

DISPOSITIVO ANTIRETRO (IT)

A richiesta, è possibile fornire i riduttori delle serie PL e PD provvisti di dispositivo antiretro, per evitare il moto retrogrado, ovvero il fatto che il riduttore possa essere azionato attraverso l'albero lento dal carico resistente divenuto carico motore.
L'antiretro è previsto per l'installazione sulla seconda sporgenza dell'albero veloce.
I cuscinetti antiretro sono stati ampiamente dimensionati in funzione della massima coppia permessa da ogni riduttore, e pertanto ne è consentito l'impiego con qualsiasi rapporto di riduzione, anche particolarmente veloce.
Dovrà essere sempre precisato in fase d'ordine per quale senso di rotazione deve essere consentita la rotazione libera.

BACKSTOP DEVICE (EN)

Upon request, PL and PD series gearboxes can be supplied with the backstop device. Said device is used for preventing back drive motion, meaning that the gearbox would run in opposite motion and would be driven by the resistance load on output shaft which has become a driving load, like a motor.
The backstop device can be applied to the second end of the fast shaft.
The irreversible bearing have been largely oversized according to the maximum torque allowed by each gearbox so that backstop devices are suitable for any reduction ratio.
The direction of free rotation must be specified when the order is placed.

RÜCKLAUFSPERRE (DE)

Auf Anfrage können die Getriebe der Baureihe PL und PD mit Rücklaufsperre geliefert werden, um den Rückwärtslauf zu vermeiden, dass heißt um zu verhindern, dass das Getriebe durch die Steckwelle von der Widerstandslast, die sich als Motorlast verhält, angetrieben werden kann.
Die Rücklaufsperre ist für den Einbau auf den zweiten Absatz der Antriebswelle vorgesehen.
Die Rücklaufsperre ist ausreichend dimensioniert und kann an jedem Getriebe sowohl mit hohen als auch mit niedrigen Untersetzungen angebaut werden.
Bei Bestellung muß der Drehsinn stets angegeben werden.

DISPOSITIF ANTI-RETOUR (FR)

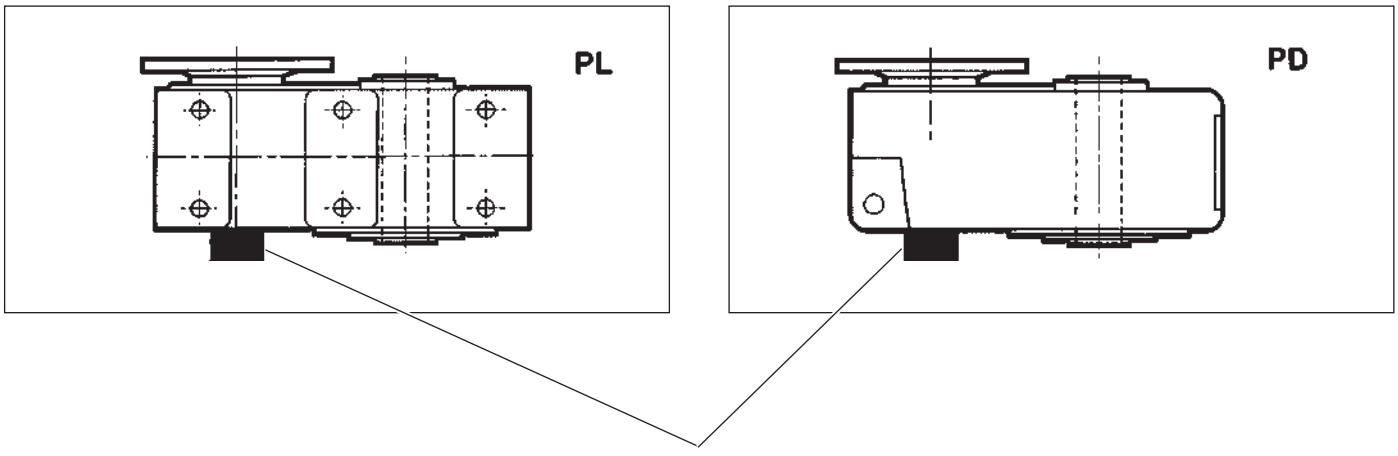
Sur demande, il est possible de fournir les réducteurs de la série PL et PD équipés en dispositif anti-retour pour éviter le mouvement rétrograde, soit le fait que le réducteur peut être actionné à travers l'arbre petite vitesse par la charge résistante devenue charge motrice.
L'anti-retour est prévu pour l'installation sur le deuxième bout de l'arbre grande vitesse.
Les roulements anti-retour ont été largement dimensionnés selon le couple maximal permis par chaque réducteur et leur utilisation est donc permise avec tout rapport de réduction, même particulièrement rapide.
Il faudra toujours préciser lors de la commande pour quel sens de rotation la rotation libre doit être permise.

DISPOSITIVO ANTIRRETORNO (ES)

Bajo pedido, pueden suministrarse los reductores de las series PL y PD dotados de dispositivo antirretorno, para evitar el movimiento de retorno, o el hecho de que el reductor pueda accionarse a través del eje lento mediante la carga resistente convertida en carga motriz.
El antirretorno está previsto para la instalación en la segunda parte sobresaliente del eje rápido.
Los cojinetes antirretorno se han dimensionado en gran medida en función del par máximo permitido por cada reductor, y por tanto está permitido su uso con cualquier relación de reducción, incluso aunque sea particularmente rápida.
Deberá especificarse siempre durante el pedido para qué sentido de rotación debe permitirse la rotación libre.

DISPOSITIVO ANTI-RETORNO (PT)

Se solicitado, é possível fornecer os redutores das séries PL e PD com dispositivo anti-retorno, para evitar o movimento de retrocesso, isto é, que o redutor possa ser acionado através do eixo de saída pela carga resistente transformada em carga motor.
O anti-retorno está previsto para a instalação no segundo veio do eixo de entrada.
Os rolamentos anti-retorno foram superdimensionados em função do torque máximo permitido para cada redutor e, portanto, é consentida a utilização com qualquer razão de redução, mesmo que particularmente veloz.
Deverá ser sempre especificado no momento da encomenda, para qual sentido de rotação deve ser permitida a rotação livre.



Dispositivo antiretro / Backstop device / Rücklaufsperre
Dispositif anti-retour / Dispositivo antirretorno / Dispositivo anti-retorno

PARTI DI RICAMBIO (IT)

Per consultare il catalogo ricambi rivolgersi all'Assistenza Tecnica della SITI S.p.A. e richiedere la documentazione cartacea o il CD-ROM interattivo (quando disponibile).

SPARE PARTS (EN)

To check the spare parts catalogue, contact the SITI S.p.A. Technical Service Department and require a hard copy of the documentation or the interactive CD-ROM (when available).

ERSATZTEILE (DE)

Für den Ersatzteilkatalog wenden Sie sich bitte an unsere technische Abteilung; auf dieser Weise erhalten Sie die Papierunterlagen oder die interaktive CD-ROM (falls verfügbar).

PIÈCES DE RECHANGE (FR)

Pour consulter le catalogue pièces de rechange, veuillez vous adresser à l'Assistance Technique de SITI S.p.A. et demander la documentation sur papier ou le CD-ROM interactif (si disponible).

PIEZAS DE REPUESTO (ES)

Para consultar el catálogo de recambios diríjase a la Oficina de asistencia técnica de SITI S.p.A. y solicite la documentación en papel o el CD-ROM interactivo (cuando esté disponible).

PEÇAS DE REPOSIÇÃO (PT)

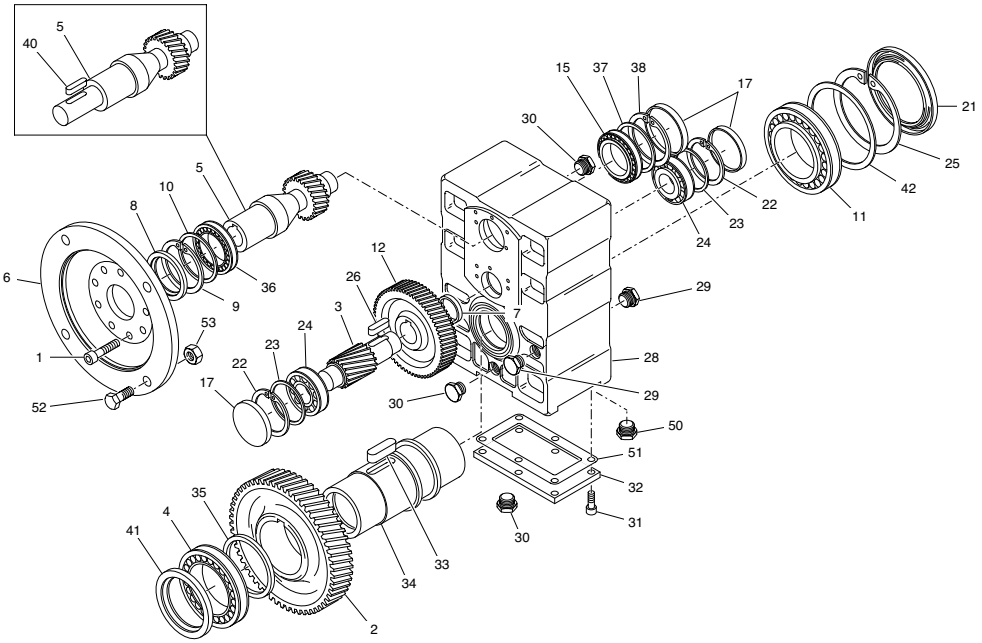
Para consultar o catálogo das peças de reposição entre em contato com a Assistência Técnica da SITI S.p.A. e solicite a documentação em catálogo ou CD-ROM interativo (quando disponível).

SITI SPA SOCIETÀ ITALIANA TRASMISSIONI INDUSTRIALI

RIDUTTORI AD ASSI PARALLELI - PARALLEL SHAFT GEARBOXES - STIRNRADGETRIEBE MIT PARALLEL-ANGEORDNETEN WELLEN - RÉDUCTEURS À AXES PARALLÈLES REDUCTORES DE EJES PARALELOS - REDUTORES DE EIXOS PARALELOS

PL - MPL.../2

PL

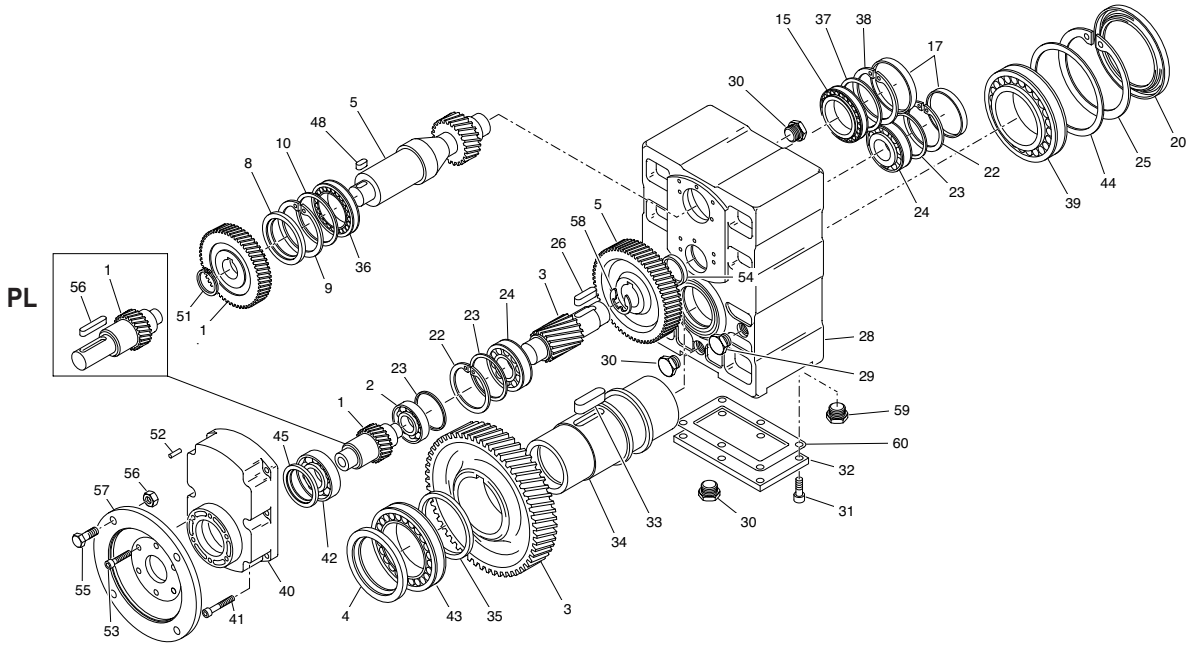


SITI SPA SOCIETÀ ITALIANA TRASMISSIONI INDUSTRIALI

RIDUTTORI AD ASSI PARALLELI - PARALLEL SHAFT GEARBOXES - STIRNRADGETRIEBE MIT PARALLEL-ANGEORDNETEN WELLEN - RÉDUCTEURS À AXES PARALLÈLES REDUCTORES DE EJES PARALELOS - REDUTORES DE EIXOS PARALELOS

PL - MPL.../3

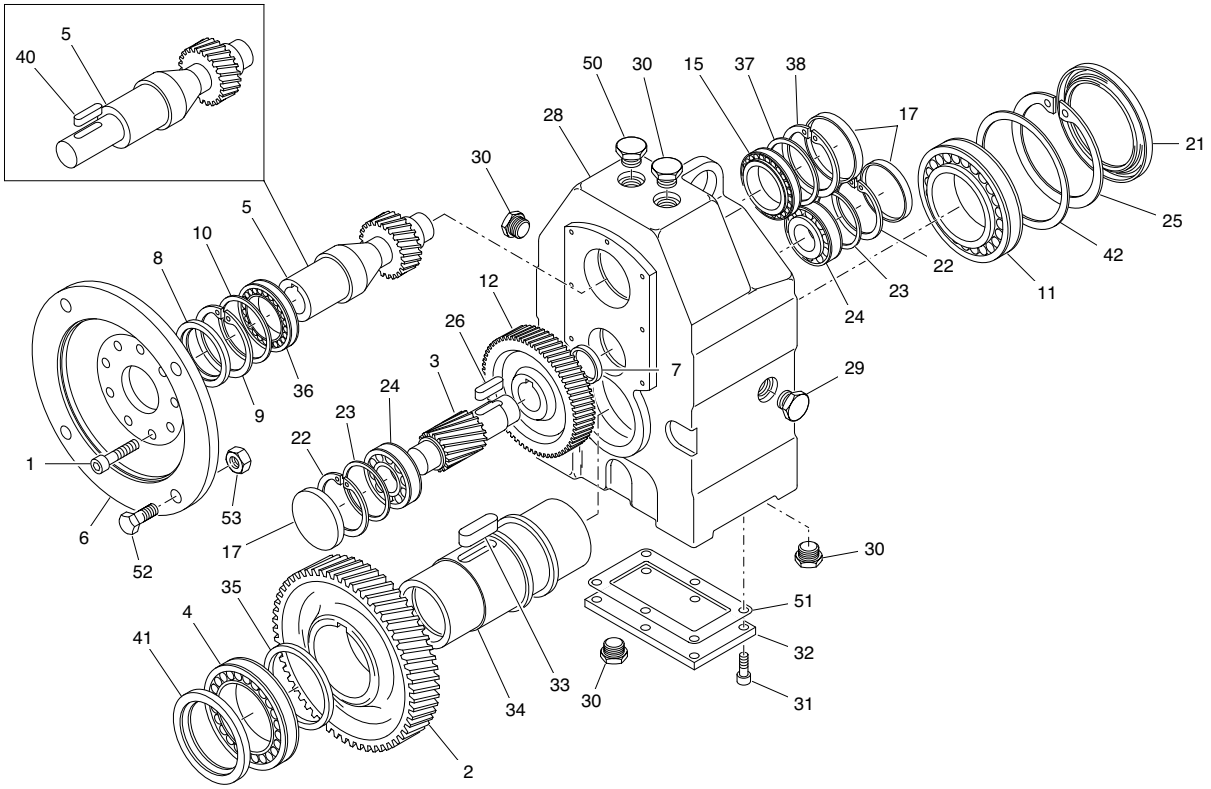
PL



RIDUTTORI PENDOLARI - SHAFT MOUNTING GEARBOXES - AUFSTECKGETRIEBE
RÉDUCTEURS PENDULAIRES - REDUCTORES PENDULARES - REDUTORES PENDULARES

PD - MPD.../2

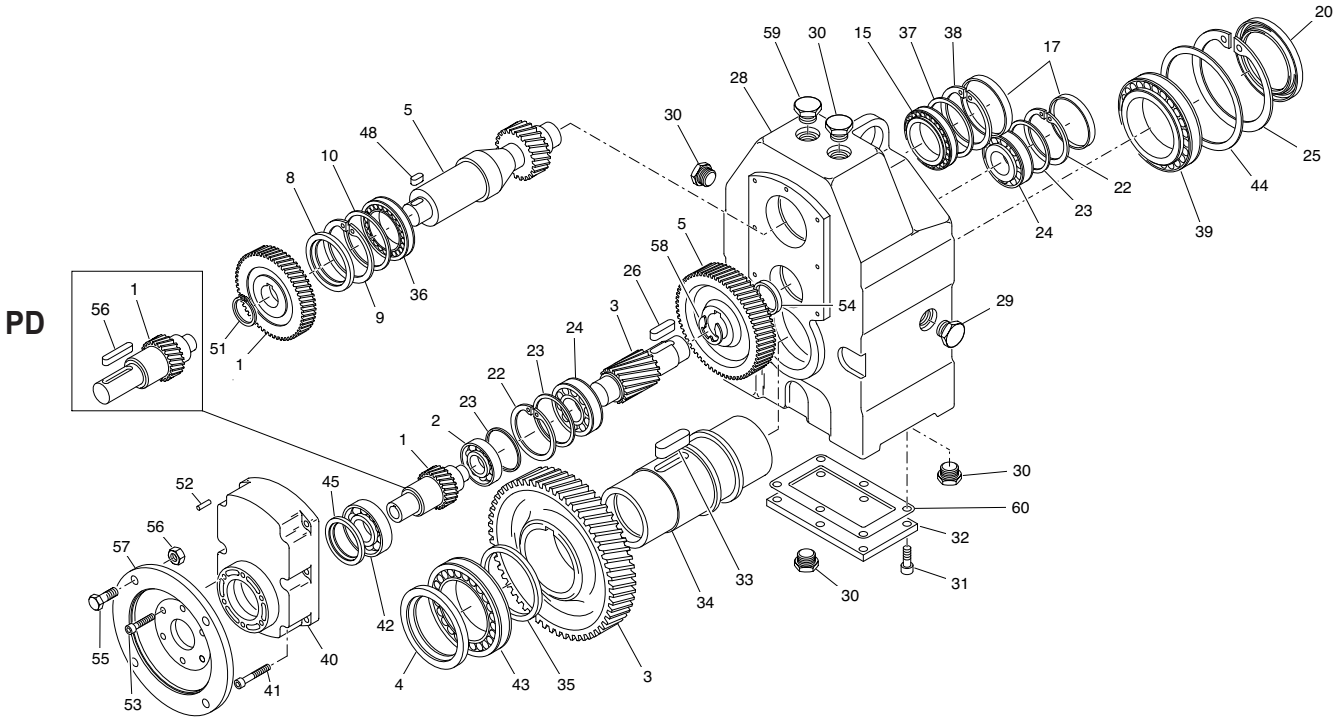
PD



RIDUTTORI PENDOLARI - SHAFT MOUNTING GEARBOXES - AUFSTECKGETRIEBE
RÉDUCTEURS PENDULAIRES - REDUCTORES PENDULARES - REDUTORES PENDULARES

PD - MPD.../3

PD



NOTE	NOTES	ANMERKUNG
NOTES	NOTAS	NOTAS

CONDIZIONI GENERALI DI VENDITA

1) GARANZIA
a) La ns. garanzia ha la durata di anni uno dalla data di fatturazione del prodotto. Essa è limitata esclusivamente alla riparazione o alla sostituzione gratuita dei pezzi da noi riconosciuti come difettosi; le verifiche per il riconoscimento della garanzia saranno sempre eseguite presso lo stabilimento del Venditore o sue filiali. Il reclamo non potrà mai dar luogo all'annullamento od alla riduzione delle ordinazioni o alla sospensione dei pagamenti da parte del committente né tanto meno alla corresponsione di indennizzi di sorta da parte ns.
La ns. garanzia decade se i pezzi resi come difettosi sono stati comunque manomessi o riparati senza nostra autorizzazione scritta; decade inoltre nel caso in cui il compratore venga meno ad uno dei qualsiasi obblighi contrattuali, in particolare con riguardo alle condizioni di pagamento;
b) La ns. garanzia non copre danni o difetti dovuti ad agenti esterni, deficienza di manutenzione, sovraccarico, lubrificante inadatto, scelta inesatta del tipo, errore di montaggio, causati da componenti esterni e componenti soggetti ad usura o deterioramento e danni derivati in seguito a trasporto da parte del committente o trasportatore designato, essendo la spedizione sempre a spese e rischio del committente;
c) Le spese (come per esempio lo smontaggio, la manodopera, il rimontaggio, il trasporto, il vitto e l'alloggio) per intervento esterno di personale del Venditore, anche a garanzia riconosciuta, sono sempre a carico del Committente. Restano a carico del Venditore esclusivamente i componenti riconosciuti in garanzia e ed il tempo necessario alla sostituzione degli stessi;
d) Ogni sorta di indennizzo è escluso, né potranno essere reclamati danni diretti ed indiretti (anche in confronto di terzi);
e) Richieste di riparazioni in garanzia e/o fuori garanzia dovranno essere comunicate per iscritto tramite apposito modulo SITI per accettazione riparazione.
Il materiale da riparare o in garanzia o comunque soggetto ad anomalie, sarà da noi ritirato solo se ci perverrà in porto franco a seguito di ns. autorizzazione scritta, e sarà reso in porto assegnato.

2) TRASPORTO - Ad ogni effetto, anche di legge, la merce si ritiene accettata dal cliente all'uscita dalla ns. sede o magazzini. Il trasporto della merce si intende sempre per conto, rischio e pericolo dell'acquirente anche se la merce è venduta franco destino.

3) CONSEGNE - Il mancato o ritardato pagamento ci riconosce la facoltà di sospendere od annullare qualsiasi altra consegna. Ci riserviamo inoltre la facoltà, senza dover sottostare ad alcun addebito, di non consegnare residui di ordine pari od inferiori al 15% dell'ordine stesso. La ns. società non sarà ritenuta responsabile in alcun modo in caso di danni diretti o indiretti derivati da ritardi di consegna.

4) RESI - Non si accettano resi di merce se non precedentemente autorizzati per iscritto dalla ns. Società.

5) PREZZI - La ns. società si riserva di modificare in qualsiasi momento la proprie quotazioni (anche se confermate) se ciò si rendesse necessario in conseguenza a mutevoli condizioni di mercato o produzione. Il listino prezzi si riferisce a merce franco ns. stabilimento, escluso imballaggio ed ogni eventuale altra spesa.

6) RECLAMI - Eventuali contestazioni sul prodotto fornito o ammanchi dovranno essere comunicate per iscritto entro e non oltre i 15 gg dal ricevimento della merce. E' convenuto espressamente che eventuali reclami o contestazioni da farsi, a pena di nullità, sempre in forma scritta ed entro i termini di legge non danno comunque diritto all'acquirente di sospendere o ritardare i pagamenti. Se entro 8 gg. dal ricevimento del presente documento non ci perverrà alcuna contestazione, lo stesso si intenderà accettato in tutte le sue parti.

7) INTERESSI - Resta espressamente convenuto che gli interessi verranno fissati ed accettati, in ogni sede di ritardato pagamento, secondo il D.LGS N. 231/2002.

8) RISERVA DI PROPRIETA' - La merce viene venduta con riserva di proprietà finchè non sarà effettuato il pagamento dell'intero prezzo, di eventuali interessi e accessori. Il rilascio di cambiali o altri titoli ed eventuali loro rinnovi, anche parziali, non potranno considerarsi quale novazione né quale pagamento definitivo del prezzo, se non a buon fine delle stesse, né potranno comunque pregiudicare la riserva di proprietà.

9) LISTINO - Il listino attualmente in vigore annulla e sostituisce tutti i precedenti.

10) FORO COMPETENTE - Si accetta espressamente che qualsiasi controversia, comunque nascente o discendente dalla vendita deve essere rimessa, anche in via derogativa, al giudizio dell'Autorità Giudiziaria di Bologna, quale unico Foro competente.

TERMS AND CONDITIONS OF SALES

1) WARRANTY
a) Our warranty expires after one year from invoice date of the product. Our warranty only covers the replacement or free-of-charge repair of the defective units or parts of them, provided that said faults or defects have been ascribed by us to manufacturing processes. Defective material previously supplied may not lead either to cancellation or reduction of outstanding orders, or to suspension of payments. We will not be responsible for the payment of any charges related to goods to be replaced or repaired under warranty. Our warranty becomes null and void if units result altered or repaired by the user without our written authorization, as well as in the case of non-performance of even just one of the contractual obligations assumed, specifically with regards to the conditions of payment;
b) Our warranty does not cover defects or faults which are to be attributed to external factors, insufficient maintenance, overloads, inadequate or ineffective lubrication, incorrect or improper choice of the items, assembly errors, deriving from external components and parts subject to fast wear or deterioration, as well as shipping damages occurred during shipment, since deliveries are always at risk and expense of the customer, even when the agreed shipment condition is free final destination or the transport is carried out on our own account;
c) Expenses relating to operations (such as, e.g., labour, dismantling, reassembly, transport, board and lodging) by the seller's personnel to outside locations are to the account of the customer, even in case repair under warranty has been acknowledged. The seller will be accountable only for the costs of replaced parts and the time needed to replace them;
d) Any other kind of damage compensation is excluded under this warranty agreement, neither can damages of any kind, be claimed direct or indirect (including by third parties);
e) Requests for repair under and/or not under warranty must be submitted in writing through the official SITI Claim Report for repair acceptance. Return of material to be repaired, in warranty or not, or not conform of any kind, will only be accepted if both back and forth transport charges are covered by the customer.

2) SHIPMENT - Material is considered accepted by the customer once it leaves our warehouse. Shipment of goods is considered at buyer's risk even if shipment is effected free domicile at customer or through the shipper's means of transport or forwarding agents appointed by the shipper.

3) DELIVERIES - A missing or delayed payment may suspend or cancel any residual order. We have the faculty at no charge, to arrange partial shipments and to cancel a residual order, the amount of which is equal or less than 15% of whole order amount. The seller shall under no circumstances be held responsible for any direct or indirect damage to the customer on account of late delivery.

4) RETURNS - Return goods will be accepted only if previously authorized in writing by the seller.

5) PRICES - Our company reserve the right to modify their own quotations (even if confirmed) in case necessary due to unsteady market and production conditions. The price list refers to ex-works prices, neither including packing nor any other additional costs.

6) COMPLAINTS - Complaints for defective material or shortage of goods must be effected in writing and within the legal terms (15 days upon receipt of the goods) or they will be considered null. In case of complaints, the buyer is not anyhow entitled to stop or delay payments.
Any claim concerning the present document should be notified within 8 days from its receipt, otherwise it will be considered accepted in all its parts.

7) INTERESTS - It is understood that interests have to be agreed and accepted in case of late payments, according to legal decree D.LGS N. 231/2002.

8) CONDITIONAL SALE - We reserve the right of property on the goods sold until the whole payment has been effected together with the settlement of eventual interests and accessories. The grant of a bill or its eventual renewal cannot be considered as a definite payment of the price and will be subjected to final collection.

9) PRICE LIST - This current price list cancels and replaces all the previous ones.

10) LAW - All disputes which may arise in relation to the sale shall be governed by the Italian Law and the Law Court of Bologna shall have the sole jurisdiction.

ALLGEMEINE VERKAUFSBEDINGUNGEN

1) GARANTIEBEDINGUNGEN
a) Wir gewähren eine Garantie, die ein Jahr ab dem Rechnungsdatum des Produkts gültig ist.
Diese Garantie beschränkt sich ausschließlich auf die kostenlose Reparatur bzw. den kostenlosen Ersatz der von uns als defective anerkannten Teile.
Bei Reklamation entsteht dem Käufer kein Recht auf Stornierung bzw. Reduzierung der Aufträge und ebenso kein Anspruch auf die irgendwelche Entschädigungen unsererseits. Die Rücknahme in Garantie des zu reparierenden bzw. defekten Materials erfolgt nur, wenn uns die Ware frachtfrei zurückgesandt wird. Der Kunde erhält das Material dann per Nachnahme zurück. Der Garantieanspruch verfällt, wenn die als defekt zurückgesandten Teile bei dem Käufer manipuliert oder repariert wurden. Unter Manipulation versteht man auch die Montage des Motors außerhalb unseres Werks;
b) Unsere Garantie bedeckt keine Schäden oder Defekte, die in Folge von äußeren Einflüssen, Wartungsmängeln, Überlastungen, ungeeigneten Schmierstoffen verursacht wurden;
c) Fehler wie eine falsche Wahl des Getriebetyps, Montagefehler und Transportschäden, die durch den Auftraggeber oder den von diesem beauftragten Transporteur verursacht werden, da der Versand stets auf Kosten und Gefahr des Auftraggebers erfolgt;
d) Alle andere mögliche Schadenentschadigungen werden nicht bei den anwesenden Garantiebedingungen berücksichtigt, und Beschädigungen von jeder Sorte können nicht direkt oder indirekt reklamiert werden, darin ein Dritte eingeschlossen;
e) Jede Reparatur Anfrage, unter Garantie oder außer Garantie, muß immer durch das dazu bestimmte SITI-Formular in einer schriftlichen Form gesandt werden.
Die Zurücksendung der Materialien, die repariert sein sollen, unter Garantie oder außer Garantie, kann nur akzeptiert werden, wenn alle Frachkosten von dem Kunden bezahlt werden.

2) TRANSPORT - Die Ware versteht sich in jeder Hinsicht - auch rechtsmäßig - bei Verlassen unseres Werks oder unserer Lager als vom Kunden angenommen (ausgeliefert). Der Transport der Ware steht zu Lasten und Gefahr des Käufers, auch bei Verkauf der Ware mit der Klausel "frei Bestimmungsort" und auch bei Auslieferung mit Transportmitteln und Transportführern des Verkäufers.

3) LIEFERUNGEN - Die unerfüllte oder verspätete Bezahlung be dem Kunden anerkennt uns die Erlaubnis, jede folgende Lieferung zu verschieben oder annullieren. Wir bewähren das Recht auf, ohne uns keine Belastung zu unterziehen, die restlichen Teile eines Auftrages nicht zu liefern, deren Betrag gleich oder kleiner als 15% des gesamten Auftrages darstellt. Unsere Firma ist nicht von allen Gesichtpunkten vorantwortlich für eventuelle Schäden der Kunde wegen der verspäteten Lieferung erleiden möchte.

4) RÜCKGABEN - Rückgaben von Materialien werden nur angenommen, wenn dafür eine schriftliche Genehmigung unserer Firma erteilt wurde.

5) PREISE - Unsere Firma behält sich das Recht vor, die Preise (auch wenn bestätigt) jederzeit zu ändern, wenn dies in Folge von Schwankungen der Markt- und Produktionslage erforderlich sein sollte. Die Preisliste bezieht sich auf Ware ab unser Werk exklusive Verpackung oder sonstige Kosten.

6) REKLAMATIONEN - Eventuelle Reklamationen oder Beanstandungen werden nur akzeptiert, wenn sie in schriftlicher Form und innerhalb der gesetzlich vorgesehenen Fristen erfolgen (innerhalb 15 Tage nach Erhalt der Ware). Der Käufer kann daraus nicht das Recht ableiten, die Zahlungen einzustellen oder zu verschieben. Anlastungen von Entschädigungen aufgrund von Personen- und Sachschäden oder Lieferverzögerungen werden nicht akzeptiert. Wenn innerhalb von 8 Tagen ab Erhalt unserer Auftragsbestätigung keine Reklamation eingeht, gilt die Lieferung in all ihren Teilen als angenommen.

7) ZINSEN - Es gilt als ausdrücklich vereinbart, dass die Zinsen laut der Rechtsverordnung D.LGS N. 231/2002 bei jedem Zahlungsverzug festgesetzt und akzeptiert werden.

8) EIGENTUMSVORBEHALT - Die Ware steht bis zur Zahlung des gesamten Kaufpreises nebst eventueller Zinsen und Nebenkosten unter Eigentumsvorbehalt. Die Ausstellung von Wechseln und eventuelle, auch teilweise Verlängerungen dürfen weder als Novation noch als endgültige Zahlung des Kaufpreises, außer bei effektiver Einlösung, angesehen werden, noch gilt dadurch der Eigentumsvorbehalt als beeinträchtigt.

9) PREISLISTE - Die derzeit gültige Preisliste annulliert und ersetzt alle vorhergehenden Preislisten

10) AUSTÄNDIGES GERICHTESHOF - Es ist inbegrifflich anerkannt, daß jede Rechtfrage, irgendwie verursacht oder vom dem Verkauf abhängig, jedenfalls, auch in abweichender Weise, von dem Gerichtgewalt von Bologna als einziges ausständiges Gerichthof, erledigt sein muß.

CONDITIONS GENERALES DE VENTE

1) GARANTIE
a) La durée de notre garantie est de un an à partir de la date de facturation du produit. Elle se limite exclusivement à la réparation ou au remplacement gratuit des pièces reconnues défectueuses par nos soins et les contrôles pour établir la validité de la garantie seront toujours effectués chez l'établissement du Vendeur ou dans ses filiales. La réclamation ne pourra jamais donner lieu à l'annulation ou à la réduction des commandes de la part de l'acquéreur, et encore moins à des indemnisations de notre part.
Notre garantie est annulée si les pièces défectueuses retournées ont été modifiées ou réparées sans notre autorisation écrite ; La garantie est nulle si l'acheteur n'observe pas n'importe quelle obligation contractuelle, en particulier en ce qui concerne les modalités de paiement ;
b) La garantie ne couvre pas les dommages ou les défauts dus à des agents extérieurs, manque d'entretien, surcharge, lubrifiant inadapté, choix inexact du type de réducteur, erreur de montage et dommages causés par le transport de la part de l'acquéreur ou du transporteur désigné, du moment que l'expédition est toujours aux risques et périls du commettant.
c) Toutes les frais (par exemple de démontage, de main-d'œuvre, de remontage, de transport, de logement et de nourriture) nécessaires pour l'intervention externe du personnel du Vendeur, même si la marchandise est sous garantie, sont toujours à la charge de l'Acquéreur.
Sont à la charge du Vendeur exclusivement les frais des composants reconnus sous garantie et du temps nécessaire à les remplacer ;
d) Toute forme d'indemnisation est excluée ; on pourra pas réclamer des dommages directes ou indirectes (même à l'égard de tiers) ;
e) Les demandes de réparations sous et/ou hors de garantie doivent être soumises par écrit en utilisant le formulaire spécialement prévu par SITI pour l'acceptation de la réparation.
Nous retirerons le matériel à réparer sous garantie ou quand même sujet à des anomalies, uniquement s'il nous sera expédié en port franc après notre autorisation écrite et il sera retourné en port dû.

2) TRANSPORT - A tous les effets, y compris de loi, la marchandise est considérée comme acceptée par le client à la sortie de notre siège ou entrepôt. Le transport de la marchandise s'entend pour le compte, et aux risques et périls de l'acheteur, même lorsque la marchandise est vendue franco destination.

3) LIVRAISONS - Nous sommes autorisé à suspendre ou à annuler toute autre livraison en cas de non-paiement ou de paiement retardé. Nous nous réservons également le droit de ne pas livrer les restants de commande pour une valeur égale ou inférieure à 15% de la commande même, sans être soumis à aucun débit. Notre société ne sera pas tenu responsable en aucune façon en cas des dommages directs ou indirects en cas des retards dans la livraison.

4) RENDUS - Nous n'acceptons pas la marchandise rendue, sans l'autorisation écrite préalable de notre Société.

5) PRIX - Notre société se réserve le droit de modifier ses prix à tous moments (même s'ils ont été confirmés) en cas de nécessité suite à des conditions de marché ou de production changeantes. Le catalogue des prix se réfère à des marchandises franco notre usine, à l'exclusion de l'emballage et de tous autres frais éventuels.

6) RECLAMATIONS - Les éventuelles contestations concernant le produit fourni ou les manquants doivent être faites par écrit dans les 15 jours suivant la livraison de la marchandise.Il est expressément convenu que les éventuelles réclamations ou contestations doivent être faites par écrit, sous peine de nullité, dans les délais établis par la lois ; dans tous les cas, elles ne donnent pas le droit à l'acheteur de suspendre ou de retarder les paiements. Si, dans les 8 jours suivant la réception de ce document, aucune contestation ne nous parvient, celui-ci s'entend accepté dans sa totalité.

7) INTERETS - Il reste expressément convenu que les intérêts seront fixés et payés en cas de retard de paiement, selon les conditions du Décret-loi N. 231/2002.

8) RESERVE DE PROPRIETE - La marchandise est vendue avec réserve de propriété jusqu'à ce que le paiement total de la pièce, des éventuels intérêts et accessoires soit effectué. La délivrance de lettres de change et leur éventuel renouvellement, même partiel, ne seront pas considérés en tant que novation ni comme paiement définitif du prix, avant qu'elles soient arrivées à bonne fin, et, dans tous les cas, ne pourront diminuer la réserve de propriété.

9) CATALOGUE DES PRIX - Le catalogue des prix actuellement en vigueur annule et remplace tous les précédents.

10) TRIBUNAL COMPETENT - On accepte expressément que pour toute contestation pouvant survenir, en aval ou en amont du vendeur, même par derogation, attribution est faite aux Tribunaux de Bologne, reconnu seul Tribunal compétent.

CONDICIONES GENERALES DE VENTA

1) GARANTÍA
a) La duración de nuestra garantía será de un año a partir de la fecha de facturación del producto. Dicha garantía está limitada exclusivamente a la reparación o sustitución gratuita de las piezas que reconozcamos como defectuosas. Las comprobaciones de aplicabilidad de la garantía se llevarán a cabo siempre en el establecimiento del Vendedor o sus filiales. La reclamación no dará lugar en ningún caso a la anulación o a la reducción de los pedidos, así como tampoco a la suspensión de los pagos por parte del Cliente, ni otorgará derecho a indemnizaciones de ningún tipo por nuestra parte.
Nuestra garantía no será aplicable si las piezas consideradas defectuosas se han manipulado o reparado sin nuestra autorización escrita. Tampoco será aplicable en caso de que el comprador no cumpla alguna de sus obligaciones contractuales, en particular las relativas a las condiciones de pago;
b) Nuestra garantía no cubre daños o defectos debidos a agentes externos, mantenimiento deficiente, sobrecarga, lubricante inadecuado, selección de tipo inexacta, fallos en el montaje, causados por componentes externos y componentes sujetos a desgaste o deterioro, y daños derivados del transporte por parte del Cliente o de la compañía de transporte escogida, corriendo el envío siempre por cuenta y riesgo del Cliente;
c) Los gastos (como, por ejemplo, el desmontaje, la mano de obra, el nuevo montaje, el transporte, las dietas y el alojamiento) en caso de intervención externa de personal del Vendedor, incluso aunque se reconozca la garantía, siempre correrán a cargo del Cliente.
El Vendedor correrá exclusivamente con los gastos de los componentes que se reconozcan en garantía y el tiempo necesario para su sustitución;
d) Se excluye cualquier tipo de indemnización, y no podrán reclamarse daños directos ni indirectos (ni siquiera en caso de comparación con terceros).
e) Las solicitudes de reparación en garantía y/o fuera de ella deberán comunicarse por escrito mediante el correspondiente formulario SITI para su aceptación para la reparación.
Solo recogeremos el material a reparar, en garantía o sujeto a anomalías, si se nos envía a un puerto franco tras nuestra autorización escrita, y se entregará en el puerto asignado.

2) TRANSPORTE - A todos los efectos, incluidos los legales, la mercancía se considerará aceptada por el Cliente desde la salida de nuestra sede o de nuestros almacenes. El transporte de la mercancía se considera siempre por cuenta y riesgo del adquiriente, incluso si la mercancía se vende franco domicilio.

3) ENTREGAS - El impago o retraso en el pago nos concede el derecho a suspender o anular cualquier otra entrega. Asimismo, nos reservamos el derecho, sin obligación de realizar débito alguno, a no entregar restos de pedidos iguales o inferiores al 15% del propio pedido. Nuestra empresa no se considerará responsable bajo ningún concepto por daños directos o indirectos derivados de retrasos en la entrega.

4) DEVOLUCIONES - No se aceptan devoluciones de mercancía a menos que nuestra Sociedad las haya autorizado previamente por escrito.

5) PRECIOS - Nuestra sociedad se reserva el derecho a modificar en cualquier momento nuestros presupuestos (aunque se hayan confirmado) si fuese necesario en caso de cambios en las condiciones del mercado o de la producción. El listado de precios hace referencia a la mercancía franco en nuestro establecimiento, excluido el embalaje y cualquier otro posible gasto.

6) RECLAMACIONES - Las posibles quejas acerca del producto suministrado o deficiencias del mismo deberán comunicarse por escrito en un plazo no superior a 15 días tras la recepción de la mercancía. Se acuerda expresamente que las posibles quejas o reclamaciones, presentadas siempre por escrito y de conformidad con los términos legales (de lo contrario se considerarán nulas), no confieren al adquiriente el derecho a suspender o retrasar sus pagos. Si en un plazo de 8 días tras la recepción del presente documento no recibimos notificación alguna, éste se considerará aceptado en todas sus partes.

7) INTERESES - Se acuerda expresamente que los intereses se fijarán y aceptarán, en caso de retraso en el pago, según el D. LGS N. 231/2002 (Decreto Ley italiano que regula los intereses).

8) RESERVA DE PROPIEDAD - Tras la venta de la mercancía, su propiedad queda reservada hasta que se efectúe el pago de su precio total, los posibles intereses y otros costes. La entrega de letras de cambio u otros títulos y sus posibles renovaciones, incluso parciales, no se considerarán novación ni pago definitivo del precio, hasta que lleguen a buen término, ni supondrán perjuicio alguno para la reserva de la propiedad.

9) LISTADO - El listado actualmente en vigor anula y sustituye a todos los anteriores.

10) FUERO COMPETENTE - Se acepta expresamente que cualquier controversia, dimanante o derivada de la venta, se someterá, incluso por vía derogativa, al juicio de la Autoridad Judicial de Bologna, que será el único Fuero competente.

CONDIÇÕES GERAIS DE VENDA

1) GARANTIA
a) A ns. garantia tem a duração de um ano a contar da data da factura do produto. A mesma é limitada exclusivamente à reparação ou à substituição das peças que reconhecemos como defeituosas, os controlos para o reconhecimento da garantia serão sempre efectuados no estabelecimento do Vendedor ou nas suas filiais. A reclamação não poderá levar à anulação ou à redução dos pedidos ou à suspensão dos pagamentos por parte do comitente nem ao pagamento de qualquer tipo de indemnizações da nossa parte.
A ns. garantia decai se as peças restituídas como defeituosas tiverem sido alteradas ou reparadas sem uma nossa autorização escrita; além disso, caduca também quando o comprador não cumpre qualquer uma das obrigações contratuais, em particular, em relação às condições de pagamento;
b) A ns. garantia não cobre danos ou defeitos provocados por agentes externos, deficiência na manutenção, sobrecarga, lubrificante inadequado, escolha errada do tipo, erro de montagem, provocados por componentes externos e componentes sujeitos a desgaste ou deterioração e danos provocados pelo transporte por parte do comitente ou do transportador encarregado, sendo o envio sempre por conta e risco do comitente;
c) As despesas (como por exemplo, a desmontagem, a mão-de-obra, a remontagem, o transporte, a alimentação e o alojamento) inerentes à intervenção externa do pessoal do Vendedor, mesmo com garantia reconhecida, correm sempre por conta do Comitente.
São por conta do Vendedor exclusivamente os componentes reconhecidos em garantia e o tempo necessário para substituir os mesmos;
d) Está excluído qualquer tipo de indemnização, nem sequer poderão ser reclamados os danos directos e indirectos (mesmo perante terceiros);
e) Pedidos de reparação em garantia e/ou fora de garantia deverão ser feitos por escrito mediante específico impresso SITI para que a reparação possa ser aceite.
O material que deverá ser reparado ou em garantia ou, de qualquer modo, que apresenta anomalias, será retirado por nós se nos for enviado como porto franco após nossa autorização escrita; e será restituído como franco transportador.

2) TRANSPORTE - Para todos os efeitos, também de lei, a mercadoria considera-se aceite pelo cliente à saída da nossa sede ou armazéns. O transporte da mercadoria entende-se sempre por conta, risco e perigo do comprador mesmo se a mercadoria for vendida franco destino.

3) ENTREGAS - O não pagamento ou o atraso no mesmo dá-nos a faculdade de suspender ou anular qualquer outra entrega. Além disso, reservamo-nos a faculdade, sem nos sujeitarmos a nenhuma dívida, de não entregar restos de ordens equivalentes ou inferiores a 15% da própria ordem. A ns. sociedade não assume nenhuma responsabilidade em caso de danos directos ou indirectos derivantes do atraso da entrega.

4) RESTITUIÇÕES - Não aceitamos restituição de mercadorias se não for precedentemente autorizada por escrito pela ns. Sociedade.

5) PREÇOS - A ns. sociedade reserva-se o direito de modificar em qualquer momento as próprias cotações (mesmo se confirmadas) se tal for necessário na sequência de mutadas condições de mercado ou de produção. A lista de preços refere-se à mercadoria franco ns. estabelecimento, excluída a embalagem e qualquer eventual outra despesa.

6) RECLAMAÇÕES - Eventuais contestações sobre o produto fornecido ou falta de peças deverão ser comunicadas por escrito no arco de 15 dias da recepção da mercadoria. Fica expressamente aceite que eventuais reclamações ou contestações que devem ser feitas, pena a nulidade, sob a forma escrita e nos termos de lei, não dão, de qualquer modo, o direito ao comprador de suspender ou atrasar os pagamentos. Se no prazo de 8 dias da recepção do presente documento não nos for enviada nenhuma contestação, o mesmo entender-se-á aceite em todas as suas partes.

7) JUROS - Fica expressamente concordado que os juros serão estabelecidos e aceites em qualquer momento de atraso no pagamento, conforme o D.LGS N. 231/2002.

8) RESERVA DE PROPRIEDADE - A mercadoria é vendida com reserva de propriedade até ao pagamento total do preço, de eventuais juros e acessórios. A emissão de letras ou de outros títulos e eventuais renovações, mesmo parciais, não poderão ser consideradas como novações nem como pagamento definitivo do preço, senão a bom fim das mesmas, nem poderão, de qualquer modo, prejudicar a reserva de propriedade.

9) CATÁLOGO - O catálogo actualmente em vigor anula e substitui todos os anteriores.

10) FORO COMPETENTE - Aceita-se expressamente que qualquer controvérsia que possa surgir ou ser consequente da venda deve ser remetida, mesmo em via derrogatória, ao juízo da Autoridade Judiciária de Bolonha, enquanto único Foro competente.

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SOCIETÀ ITALIANA TRASMISSIONI INDUSTRIALI ®

RIDUTTORI	*GEARBOXES*
MOTORIDUTTORI	*GEARED MOTORS*
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GIUNTI ELASTICI	*FLEXIBLE COUPLINGS*

ITALIA *ITALY*
SEDE e STABILIMENTO *HEADQUARTERS*

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COMPACT GEARS

Edition 2024

HYDRO·MEC

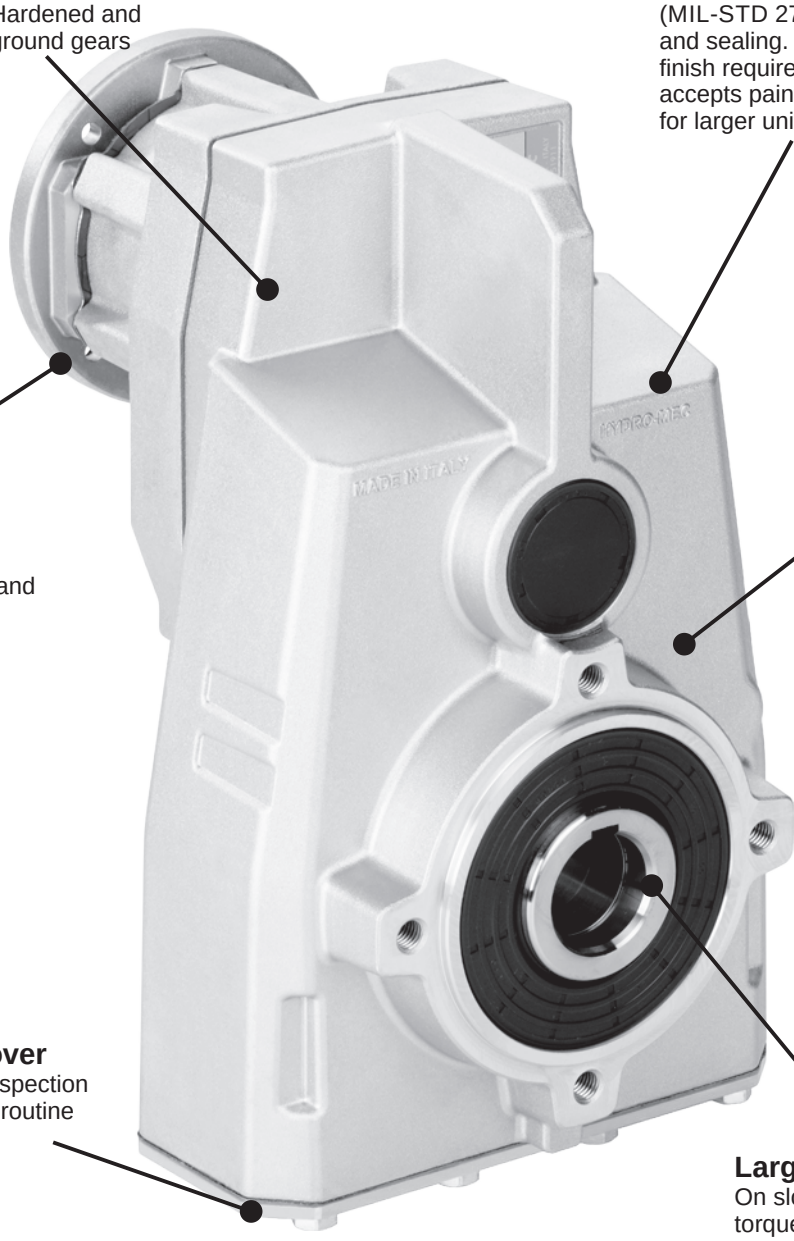
HIGH EFFICENCY GEARBOXES

Aluminum & cast iron shaft mounted gearboxes

A modular and compact product

Gears
Hardened and ground gears

Alloy housing
Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint or cast iron for larger units.



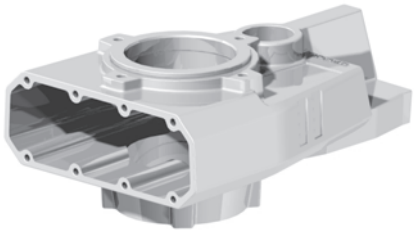
Flange
Fully modular to IEC and Compact integrated motor.
NEMA C flange

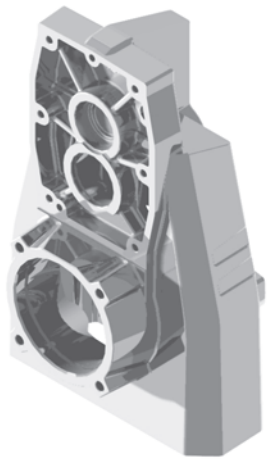
Large center distance

Removable inspection cover
Allows periodic inspection of gearing during routine maintenance

Large center distance
On slow gears for safe torque trasmission.

Single-piece aluminum / Cast Iron housing
Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing





Painting
Cast iron gearboxes are painted RAL 7046

World wide sales network.

Specific type datasheet on page...

On page / A pagina / Auf Seite / À la page / En la página

3 Stage

7-5	7-7
FS10 60Nm	**FS20** 90Nm

Types / Tipi / Tipen / Types / Tipos

On page / A pagina /Auf Seite / À la page / En la página

1 Stage

7-13	7-23	7-29	7-35
FA41 225Nm	**FC61** 380Nm	**FC71** 670Nm	**FC81** 1175Nm

Types / Tipi / Tipen / Types / Tipos

On page / A pagina / Auf Seite / À la page / En la página

2 and 3 Stage

7-9	7-11	7-15	7-17	7-19	7-21	7-25	7-27	7-31	7-33	7-37	7-39
FA32 150Nm	**FA33** 150Nm	**FA42** 320Nm	**FA43** 320Nm	**FA52** 490Nm	**FA53** 510Nm	**FC62** 675Nm	**FC63** 675Nm	**FC72** 900Nm	**FC73** 900Nm	**FC82** 2100Nm	**FC83** 2100Nm

Types / Tipi / Tipen / Types / Tipos

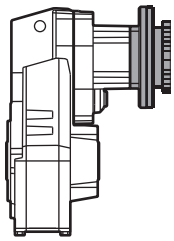
On page / A pagina / Auf Seite / À la page / En la página

M-1									
56A 56B	**63A 63B**	**71A 71B**	**80A 80B**	**90S 90L**	**100LA 100LB**	**112M**	**132S 132M**	**160M 160L**	**180M 180L**

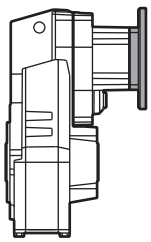
Types / Tipi / Tipen / Types / Tipos

Type - Tipo - Typ Type - Tipo	**Size** - Grandezza - Grösse Taille - Tamaño	**Mounting** - Montaggio Montage - Fixation Tipo de montaje	**Rapporto** - Ratio Untersetzung Reduction - Relacion	**Output shaft** Albero uscita Abtriebswelle Arbre de sortie Eje en salida
M	FA42	C	10.04	-D

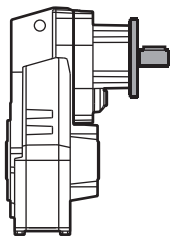
Shaft mounted helical
Riduttori ad assi paralleli



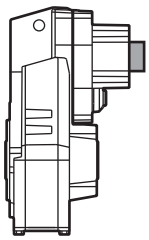
With IEC motor
M



With motor flange
P

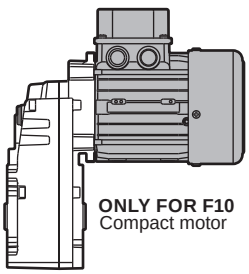


With male input shaft
R



Modular base
B

Not available
for: FC61, FC71,
FC81, FC82 .



ONLY FOR F10
Compact motor
C

1 Stage Riduzione Stufe Trains Etapa

2 Stages Riduzioni Stufen Trains Etapas

3 Stages Riduzioni Stufen Trains Etapas

Aluminum/Alluminio/Aluminium/Aluminio

FA41

FA32
FA42
FA52

FS10
FS20

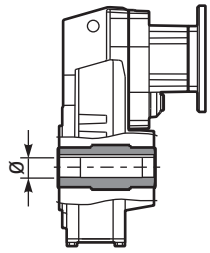
FA33
FA43
FA53

Cast Iron/Ghisa/Grauguss/Fonte/Fundicion

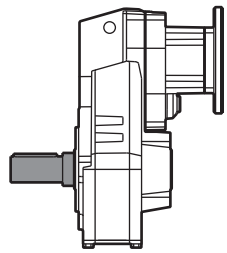
FC61
FC71
FC81

FC62
FC72
FC82

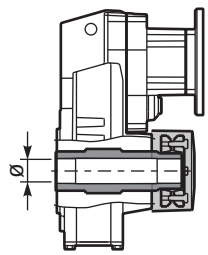
FC63
FC73
FC83



Hollow output shaft
C



Single output shaft
A



Shrink Disk
D

Only on request for Q.ty
A richiesta per quantità

See technical data table

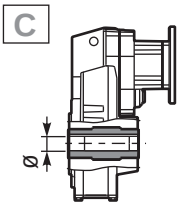
Vedi tabelle dati tecnici.

Technisches Datenblatt beachten

Voir Tableau données techniques

Ver tabla datos técnicos

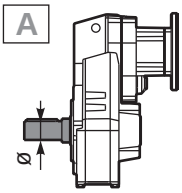
C



➡ STANDARD
⇨ Only on request for Q.ty
A richiesta per quantità

FS10
-J ➡ ø17
FS20
-B ➡ ø20
FA32-3
-C ➡ ø25
FA41 FA42 FA43
-C ⇨ ø25
-D ➡ ø30
-E ⇨ ø35
FA52 FA53 FC61 FC62 FC63
-E ➡ ø35
-F ⇨ ø40
FC71 FC72 FC73
-F ➡ ø40
-G ⇨ ø45
FC81 FC82 FC83
-H ➡ ø50
-I ⇨ ø55

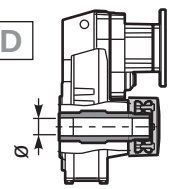
A



Single output shaft

-L FA32/3 ⇨ø25
-M FA41/2/3⇨ø30
-N FA52/3 FC61/2/3⇨ø35
-O FC71/2/3⇨ø40
-K FC81/2/3⇨ø50

D



Shrink disk

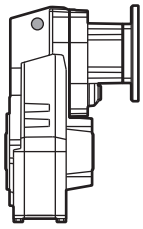
-Q FA42/3 ⇨ø30
-T FA52/3 FC62/3 ⇨ø35
-U FC72/3 ⇨ø40
-V FC82/3 ⇨ø50

On request we can deliver our products according to the ATEX
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern
Sur demande nos produits peuvent se conformer à la réglementation ATEX
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

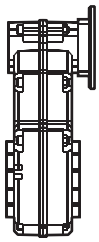
Type - Tipo - Typ
Types - Tipo

ST



ST

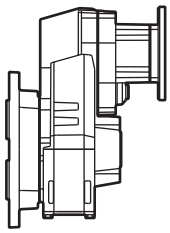
Foro standard
Standard bore



only for FS10 / FS20

ST

Senza braccio
di reazione
Without reaction arm

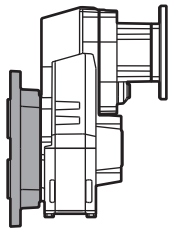


-F

Whit output flange
con flangia uscita

Output flange
Flangia uscita
Ausgangsflansch
Bride de sortie
Brida en salida

N



N Senza flangia
Without flange

FS20

1 ➡ **ø140**

FA32-3 FA41-2-3

2 ➡ **ø160**
3 ⇨ ø200
4 ⇨ ø250

FA52 FA53
FC61 FC62 FC63

4 ➡ **ø250**

FC71 FC72 FC73

4 ➡ **ø250**
5 ⇨ ø300

FC81 FC82 FC83

5 ➡ **ø300**
6 ⇨ ø350

Motor size - Grandezza motore
Motor Grösse
Grandeur moteur - Tamaño motor

-C

Flange
Flangia

B5

-A=56 (ø120)
-B=63 (ø140)
-C=71 (ø160)
-D=80 (ø200)
-E=90 (ø200)
-F=100 (ø250)
-G=132 (ø300)
-H=160 (ø350)
-I=180 (ø350)

B14

-O=56 (ø80)
-P=63 (ø90)
-Q=71 (ø105)
-R=80 (ø120)
-T=90 (ø140)
-U=100 (ø160)
-V=132 (ø200)

Brushless

BB=50/70-M5
BC=60/75-M5
BD=70/90-M6
BE=80/100-M6
BF=95/115-M8
BG=110/145-M8
BH=130/165-M8

Type R
Tipo R

FA33 FA43
FS10 FS20

-1 ⇨ ø14

FA32 FA42
FA53 FC63 FC73

-2 ⇨ ø19

FA52 FC62
FC72 FC83

-3 ⇨ ø24

FC82

-4 ⇨ ø28

Without flange
Senza flangia

-M ⇨ With coupling

FA33 FA43
FS10 FS20

-Z ⇨ ø9 (56B5)
-0 ⇨ ø11 (63B5)
-1 ⇨ ø14 (71B5)

FA32 FA42 FA53
FC63 FC73

-1 ⇨ ø14 (71B5)
-2 ⇨ ø19 (80B5)
-3 ⇨ ø24 (90B5)

FA52 FC62
FC72 FC83

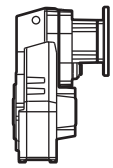
-2 ⇨ ø19 (80B5)
-3 ⇨ ø24 (90B5)
-4 ⇨ ø28 (100B5)

FA41

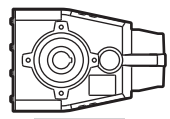
-4 ⇨ ø28 (100B5)

Mounting position
Posizione montaggio
Einbaulage
Position de montage
Position de montaje

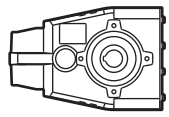
H1



H1
STANDARD

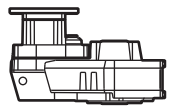


H4

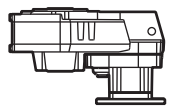


H3

H2



H5



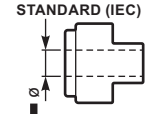
H6

Input bore
Foro entrata
Eingangshohlwelle
Trou d'entree
Eje hueco de entrada

ST

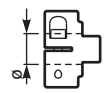
ST
standard bore
foro standard

COUPLING
STANDARD (IEC)



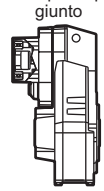
-A = 9mm
-B = 11mm
-C = 14mm
-D = 19mm
-E = 24mm
-F = 28mm

BRUSHLESS *



-2 = 11mm
-3 = 14mm
-4 = 19mm
-5 = 22mm
-6 = 24mm

-0
Ready for input
coupling
Predisposto per
giunto



* With reduction bushing
where applicable
Con bussola di riduzione
dove prevista

Terminal box position
Posizione morsettiera
Klemmkastenlage
Position boîte à bornes
Posición caja de bornes

With Type M specify terminal box position

Con tipo M specificare
posizione morsettiera

A

B
STANDARD

C

D

7

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

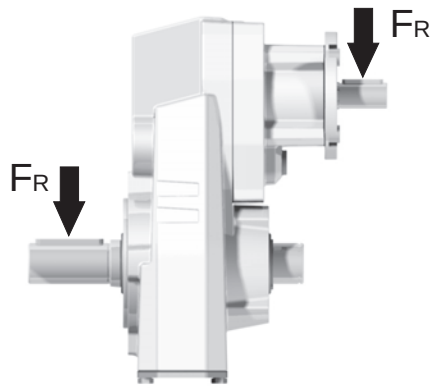
Lifting / sollevamento / hubantriebe / levage / elevactión	$\mathbf{P}\ [KW] = \frac{\mathbf{M}\ [Kg] \cdot \mathbf{g}\ [9.81] \cdot \mathbf{v}\ [m/s]}{\mathbf{1000}}$
Rotation / rotazione / drehung / rotation / rotaction	$\mathbf{P}\ [KW] = \frac{\mathbf{M}\ [Nm] \cdot \mathbf{n}\ [rpm]}{\mathbf{9550}}$
Linear movement / traslazione / linearbewegung / translation / translacion	$\mathbf{P}\ [KW] = \frac{\mathbf{F}\ [N] \cdot \mathbf{v}\ [m/s]}{\mathbf{1000}}$

TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

	$\mathbf{M}\ [Nm] = \frac{\mathbf{9550} \cdot \mathbf{P}[KW]}{\mathbf{n}\ [rpm]}$
	$\mathbf{M}\ [lb\ in] = \frac{\mathbf{63030} \cdot \mathbf{P}[HP]}{}$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



$\mathbf{F_R}\ [N] = \frac{\mathbf{M}\ [Nm] \cdot \mathbf{2000}}{\mathbf{d}\ [mm]} \cdot \mathbf{f_K}$	$\mathbf{F_R}\ [N] = \frac{\mathbf{M}\ [lb\ in] \cdot \mathbf{8.9}}{\mathbf{d}\ [in]} \cdot \mathbf{f_K}$

M	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo
$\mathbf{f_K}$	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión **1.15** Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje **1.25** Catena / Chain sprochets / Antriebskette / Chaîne / Cadena **1.75** Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal **2.50** Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana

— If your application requires higher radial loads, contact our technical office. Higher load may be possible.
— Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
— Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
— Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
— En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

B Output speed / Velocità in uscita / Abtriebsdrehzahl / Vitesse de sortie / Velocidad de salida

Nominal power / Potenza nominale / Max. mögliche Leistung / Poissance nominale / Potencia nominal

Gear size / Grandezza riduttore / Getriebegröße / Taille réducteur / Tamaño reductor

Motor power / Potenza motore / Motorleistung / Puissance moteur / Potencia motor

A Nominal torque / Momento torcente nominale / Nenn Drehmoment / Couple nominal / Par de torsión nominal

Flange code / Codice flangia / Flanschtype / Code bride / Código bridas

Input speed / Velocità in entrata / Eintriebsdrehzahl / Vitesse en entrée / Velocidad de entrada

FA42 Compact- Gear 320Nm

Rating - Aluminum
SHAFT MOUNTED HELICAL

QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	-C 71	-D 80	-E 90	-F 100 112	Available B14 motor flanges -Q 71	-R 80	-T 90	-U 100 112		Output Shaft ø	Ratios code
167	**8.38**	4	215	1.0	4.1	225	B					C	C			2821		01
139	**10.04**	3	194	1.2	3.7	240	B					C	C			2818		02
114	**12.33**	3	238	1.1	3.2	260	B					C	C			2813		03
92	**15.16**	2.2	216	1.2	2.6	260	B					C	C			1921		04

C Ratio / Rapporto / Untersetzung / Rapport de réduction / Relación

Transmitted torque / Momento torcente trasmesso / Mögliche Drehmomente / Couple de sortie / Par transmitido

Service factor / Fattore di servizio / Betriebsfaktor / Facteur de service / Factor de servicio

Output shaft diam. / Diam. albero uscita / Durchmesser abtriebswelle / Diametre arbre lent / Diametro eje de salida

Notes / Note / Anmerkungen / Note / Notas

fs

Type of load and starts per hour / Tipo di carico e avviamenti per ora		Oper. hours per day / Ore di funz. giorn. 3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora **10**	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora **> 10**	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

D Motor flange available / Flange disponibili / Erhältliche Motorflansche / Brides disponibles / Bridas disponibles

B) Mounting with reduction ring / Montaggio con boccola di riduzione / Reduzierhülsen / Montage avec douille de réduction / Montaje con casquillo de reducción

C) Motor flangeholes position/terminal box position / Posizione fori flangia/basetta motore / Bohrungsposition am Motorflansch/-sockel / Position trous bride/barrette à bornes moteur / Posición agujeros brida / base motor

B) Available without reduction bushes / Disponibile anche senza boccola / Auch ohne Reduzierbuchse verfügbar / Disponible aussi sans douille de réduction / Disponible tambien sin casquillo

A	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select ouput speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
C	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	Available B5 motor flanges -C 71	Available B14 motor flanges -O 56	Available B14 motor flanges -P 63	Available B14 motor flanges -Q 71		Hollow Shaft	Ratios code
72	**19.42**	0.37	46	1.3	**0.48**	**60**			C	C		281713	**standard ø17**	01
51	**27.21**	0.37	65	0.9	**0.34**	**60**			C	C		281313		02
36.4	**38.49**	0.25	62	1.0	**0.24**	**60**			C	C		191713		03
31.7	**44.12**	0.18	54	1.1	**0.21**	**60**			C	C		171713		04
26.7	**52.50**	0.18	64	0.9	**0.18**	**60**			C	C		151713		05
22.6	**61.82**	0.12	49	1.2	**0.15**	**60**			C	C		171313		06
19.0	**73.56**	0.12	58	1.0	**0.13**	**60**			C	C		151313		07
15.9	**88.13**	0.09	56	1.1	**0.11**	**60**			C	C		101713		08
12.0	**116.67**	0.06	48	1.2	**0.08**	**60**			C	C		91713		09
11.3	**123.48**	0.06	51	1.2	**0.08**	**60**			C	C		101313		10
9.0	**155.37**	0.06	64	0.9	**0.06**	**60**			C	C		71713		11
8.6	**163.47**	0.06	68	0.9	**0.06**	**60**			C	C		91313		12
7.6	**184.39**	0.06	76	0.8	**0.05**	**60**			C	C		61713		13
6.4	**217.68**	0.06*	90	0.7	**0.04**	**60**			C	C		71313		14
5.4	**258.34**	0.06*	107	0.6	**0.04**	**60**			C	C		61313		15

The dynamic efficiency is **0.94** for all ratios

*** Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M_{2R}**
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2R}

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

EN Unit **FS10** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FS10** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FS10** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FS10** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FS10** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

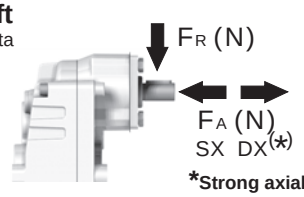
▪ LUBRICATION FS10 Oil Quantity 0.35 Lt.

SHELL Omala S4 WE 320	**ENI** Telium VSF 320

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL LOADS

Input shaft
Albero in entrata



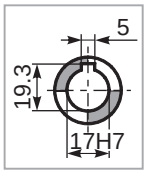
n_1	FA	FR
1400	140	700
900	160	800

***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

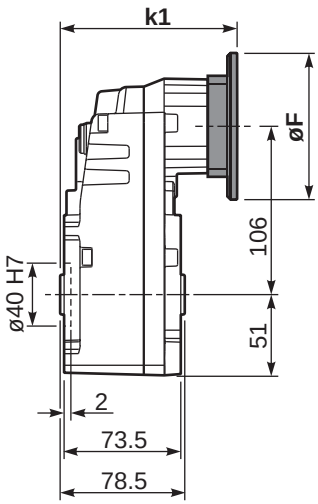
tab. 2

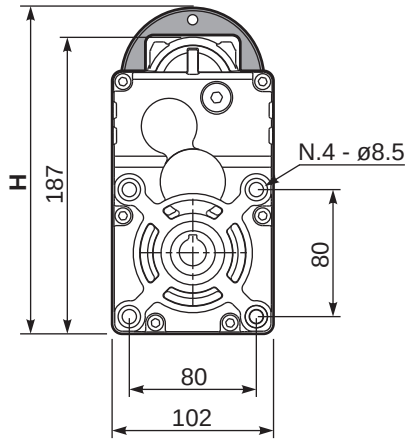
PFS10... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	3.1 kg



Standard
Hollow shaft

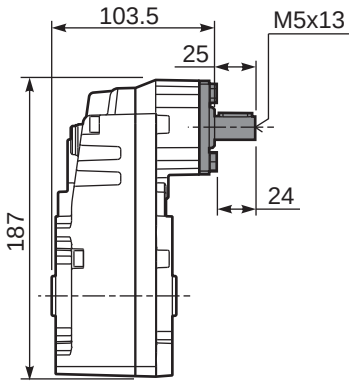


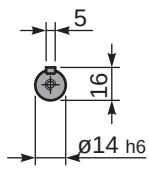


B14 Motor Flanges	H	øF	k1	kit code
56 B14	197	80	109.3	KC40.4.049
63 B14	202	90	111.8	K050.4.047
71 B14	209.5	105	109.3	K050.4.045

B5 Motor Flanges	H	øF	k1	kit code
63 B5	226	138	111.8	K050.4.041
71 B5	237	160	109.3	K050.4.042

RFS10... Input Shaft
Albero in entrata





▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	Available B5 motor flanges -C 71	Available B14 motor flanges -O 56	Available B14 motor flanges -P 63	Available B14 motor flanges -Q 71		Hollow Shaft	Ratios code
24.2	**57.95**	0.25	93	1.0	**0.24**	**90**			C	C		2844		01
13.4	**104.80**	0.12	83	1.1	**0.13**	**90**			C	C		1954		02
11.5	**121.47**	0.12	96	0.9	**0.12**	**90**			C	C		1756		03
9.8	**142.59**	0.09	90	1.0	**0.10**	**90**			C	C		1558	**standard ø20**	04
8.2	**170.20**	0.06	70	1.3	**0.08**	**90**			C	C		1360		05
6.0	**232.32**	0.06	96	0.9	**0.06**	**90**			C	C		1063		06
4.6	**303.20**	0.06*	126	0.7	**0.05**	**90**			C	C		974		07
3.5	**400.37**	0.06*	166	0.5	**0.04**	**90**			C	C		776		08

The dynamic efficiency is **0.94** for all ratios *** Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M_{2R}**
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2R}

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FS20** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FS20** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FS20** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FS20** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FS20** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

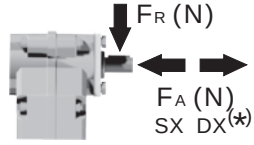
▪ LUBRICATION FS20 Oil Quantity 0.50 Lt.

SHELL Omala S4 WE 320	**ENI** Telium VSF 320

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL LOADS

Input shaft
Albero in entrata



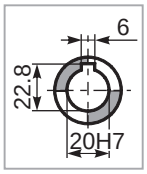
n_1	FA	FR
1400	140	700
900	160	800

***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

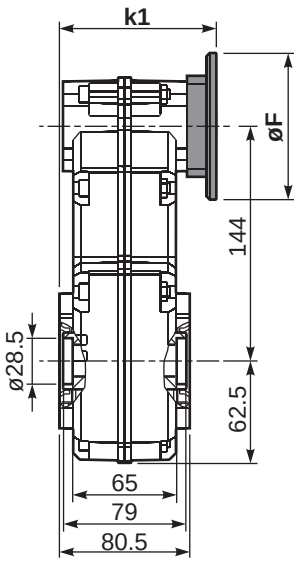
tab. 2

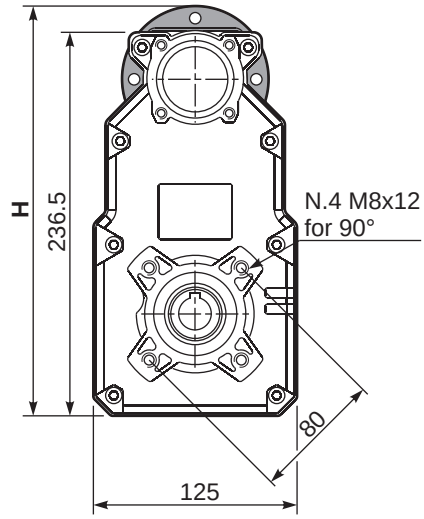
PFS20... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	4.3 kg



Standard
Hollow shaft

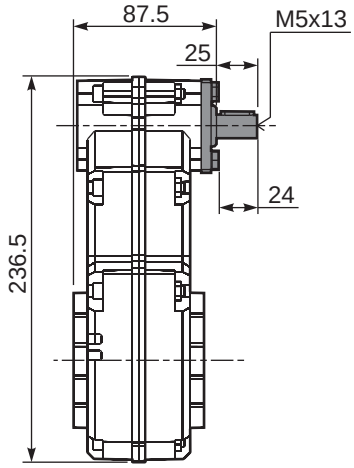


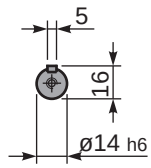


B14 Motor Flanges	H	øF	k1	kit code
56 B14	246.5	80	94.3	KC40.4.049
63 B14	251.5	90	96.8	K050.4.047
71 B14	259	105	94.3	K050.4.045

B5 Motor Flanges	H	øF	k1	kit code
63 B5	275.5	138	96.8	K050.4.041
71 B5	286.5	160	94.3	K050.4.042

RFS20... Input Shaft
Albero in entrata





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▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	-C 71	-D 80	-E 90	-F 100 112	Available B14 motor flanges -Q 71	-R 80	-T 90	-U 100 112		Output Shaft ø	Ratios code
231	**6.06**	2.2	86	0.9	**2.02**	**80**	B					C	C			2821		01
150	**9.31**	1.5	91	1.0	**1.48**	**90**	B					C	C			2813		02
128	**10.96**	1.5	107	1.0	**1.53**	**110**	B					C	C			1921		03
110	**12.71**	1.5	124	1.0	**1.50**	**125**	B					C	C			1721		04
94	**14.91**	1.5	146	1.0	**1.45**	**142**	B					C	C			1521		05
83	**16.83**	1.5	165	0.9	**1.36**	**150**	B					C	C			1913		06
79	**17.80**	1.1	127	1.2	**1.29**	**150**	B					C	C			1321		07
72	**19.51**	1.1	140	1.1	**1.17**	**150**	B					C	C			1713		08
61	**22.90**	1.1	164	0.9	**1.00**	**150**	B					C	C			1513		09
58	**24.30**	1.1	174	0.9	**0.94**	**150**	B					C	C			1021		10
54	**26.15**	0.75	128	1.2	**0.88**	**150**	B					C	C			1910	**standard**	11
51	**27.34**	0.75	134	1.1	**0.84**	**150**	B					C	C			1313	**ø25**	12
46.2	**30.31**	0.75	149	1.0	**0.76**	**150**	B					C	C			1710		13
44.1	**31.71**	0.75	156	1.0	**0.72**	**150**	B					C	C			921		14
39.4	**35.57**	0.75	175	0.9	**0.64**	**150**	B					C	C			1510		15
37.5	**37.32**	0.55	135	1.1	**0.61**	**150**	B					C	C			1013		16
33.0	**42.46**	0.55	154	1.0	**0.54**	**150**	B					C	C			1310		17
28.7	**48.70**	0.55	176	0.9	**0.47**	**150**	B					C	C			913		18
24.2	**57.96**	0.37	140	1.1	**0.40**	**150**	B					C	C			1010		19
21.8	**64.31**	0.37	156	1.0	**0.36**	**150**	B					C	C			713		20
18.5	**75.64**	0.25	124	1.2	**0.30**	**150**	B					C	C			910		21
14.0	**99.89**	0.25	163	0.9	**0.23**	**150**	B					C	C			710		22

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

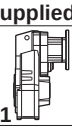
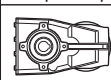
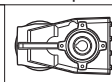
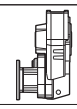
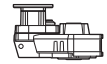
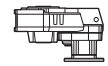
EN Unit **FA32** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA32** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA32** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA32** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

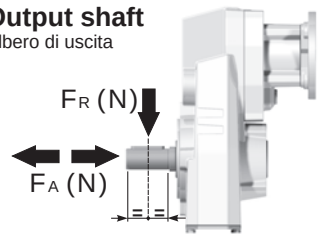
E El reductor tamaño **FA32** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
0.65 LT	0.50 LT	0.50 LT	0.60 LT	0.80 LT	0.65 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

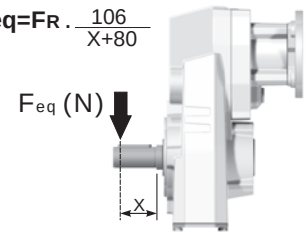
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



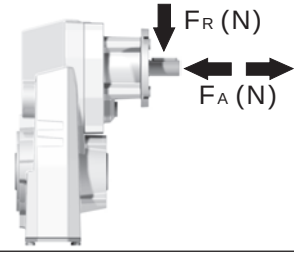
$$Feq = FR \cdot \frac{106}{X+80}$$



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	250	1250	**140**	360	1800	**70**	470	2350
250	270	1350	**120**	380	1900	**40**	550	2750
200	320	1600	**85**	440	2200	**15**	560	2800

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



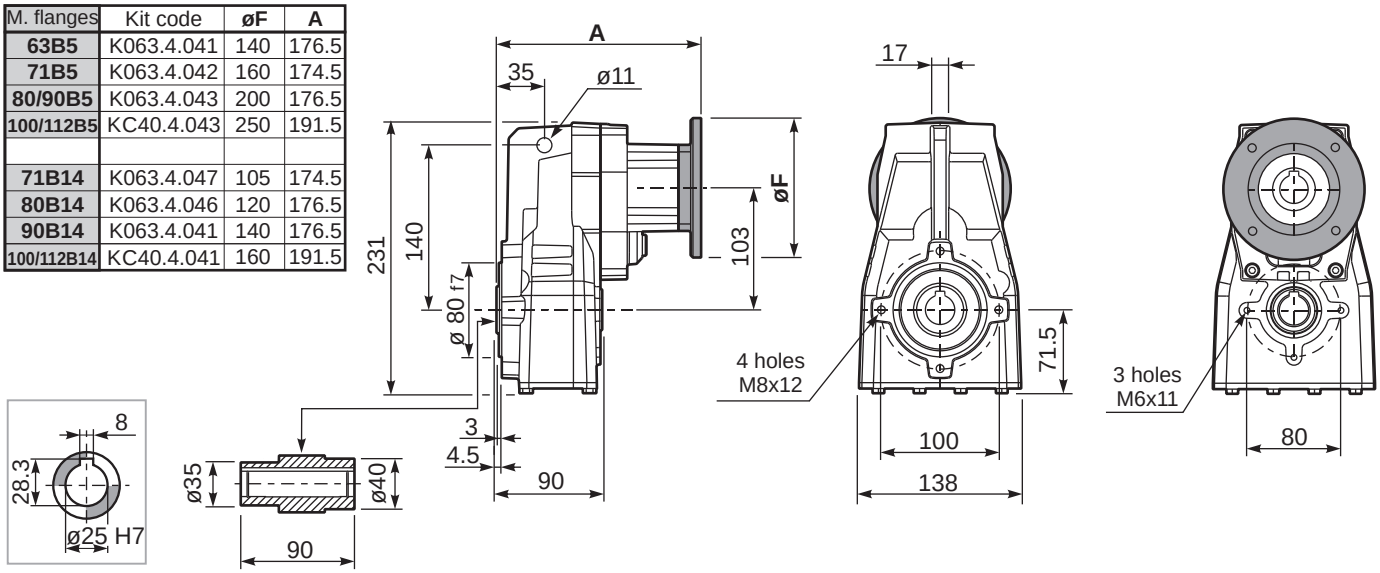
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

PFA32C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	7.0 kg

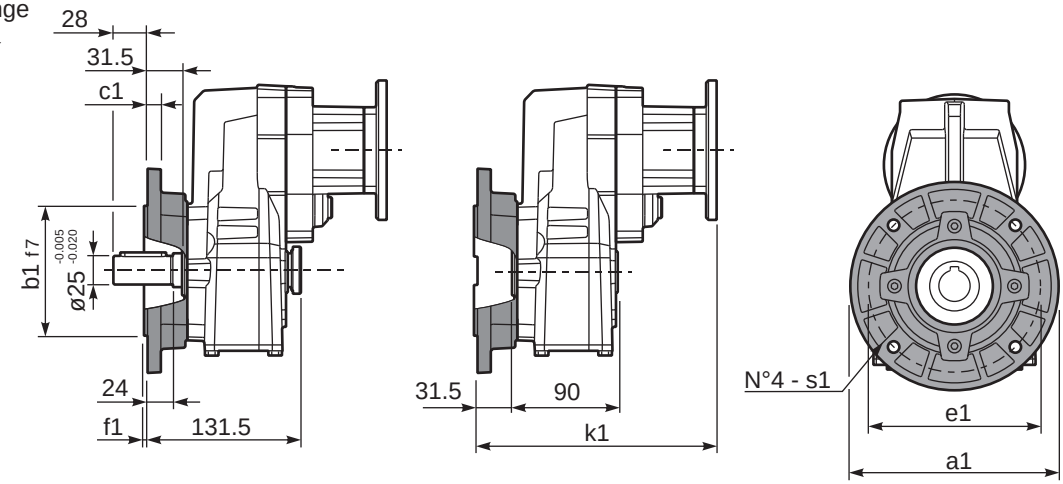
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	176.5
71B5	K063.4.042	160	174.5
80/90B5	K063.4.043	200	176.5
100/112B5	KC40.4.043	250	191.5
71B14	K063.4.047	105	174.5
80B14	K063.4.046	120	176.5
90B14	K063.4.041	140	176.5
100/112B14	KC40.4.041	160	191.5



Standard
Hollow shaft

PFA32...-F... Output flange
Flangia uscita

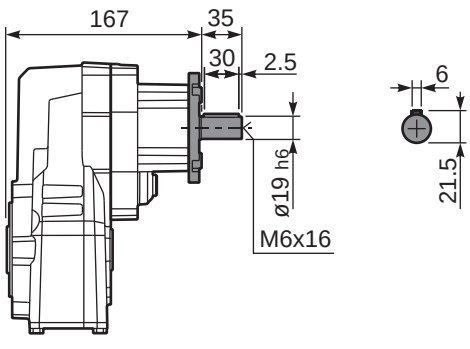
Motor Flange	k1
63B5	208
71B5	206
80/90B5	208
100/112B5	223
71B14	206
80B14	208
90B14	208
100/112B14	223



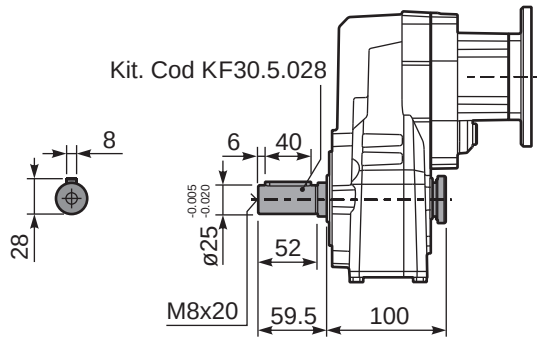
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX4A.9.010
200	130	11	165	3.5	11	KX4A.9.011
-	-	-	-	-	-	-

RFA32C... Input Shaft
Albero in entrata



PFA32 A... Single output shaft
Albero uscita semplice



7

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	Available B5 motor flanges -C 71	Available B14 motor flanges -O 56	Available B14 motor flanges -P 63	Available B14 motor flanges -Q 71		Output Shaft ø	Ratios code
13.6	**102.57**	0.25	164	0,9	**0.23**	**150**			C	C		131710		01
12.6	**110.77**	0.18	136	1.1	**0.21**	**150**			C	C		91321		02
11.8	**118.89**	0.18	145	1.0	**0.20**	**150**			C	C		151310		03
10.9	**128.49**	0.18	157	1.0	**0.18**	**150**			C	C		101313		04
9.7	**143.72**	0.18	176	0.9	**0.16**	**150**			C	C		131310		05
8.7	**161.67**	0.12	128	1.2	**0.14**	**150**			C	C		71713		06
8.2	**170.10**	0.12	134	1.1	**0.14**	**150**			C	C		91313		07
7.4	**188.57**	0.12	149	1.0	**0.12**	**150**			C	C		91710	**standard**	08
7.0	**199.57**	0.12	158	1.0	**0.12**	**150**			C	C		101310	**ø25**	09
6.2	**226.51**	0.09	143	1.1	**0.10**	**150**			C	C		71313		10
5.6	**251.11**	0.09	158	0.9	**0.09**	**150**			C	C		71710		11
5.3	**264.21**	0.09	167	0.9	**0.09**	**150**			C	C		91310		12
4.7	**298.01**	0.06	123	1.2	**0.08**	**150**			C	C		61710		13
4.0	**351.82**	0.06	146	1.0	**0.07**	**150**			C	C		71310		14
3.4	**417.54**	0.06	173	0.9	**0.06**	**150**			C	C		61310		15

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

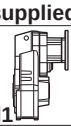
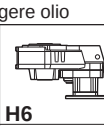
EN Unit **FA33** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA33** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA33** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA33** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

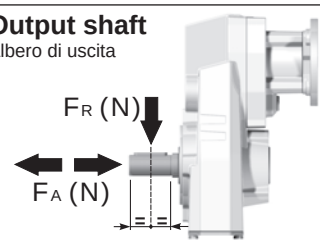
E El reductor tamaño **FA33** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
0.90 LT	0.55 LT	0.55 LT	0.65 LT	0.95 LT	0.70 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

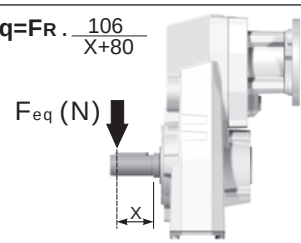
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



Feq=FR . $\frac{106}{X+80}$



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	250	1250	**140**	360	1800	**70**	470	2350
250	270	1350	**120**	380	1900	**40**	550	2750
200	320	1600	**85**	440	2200	**15**	560	2800

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

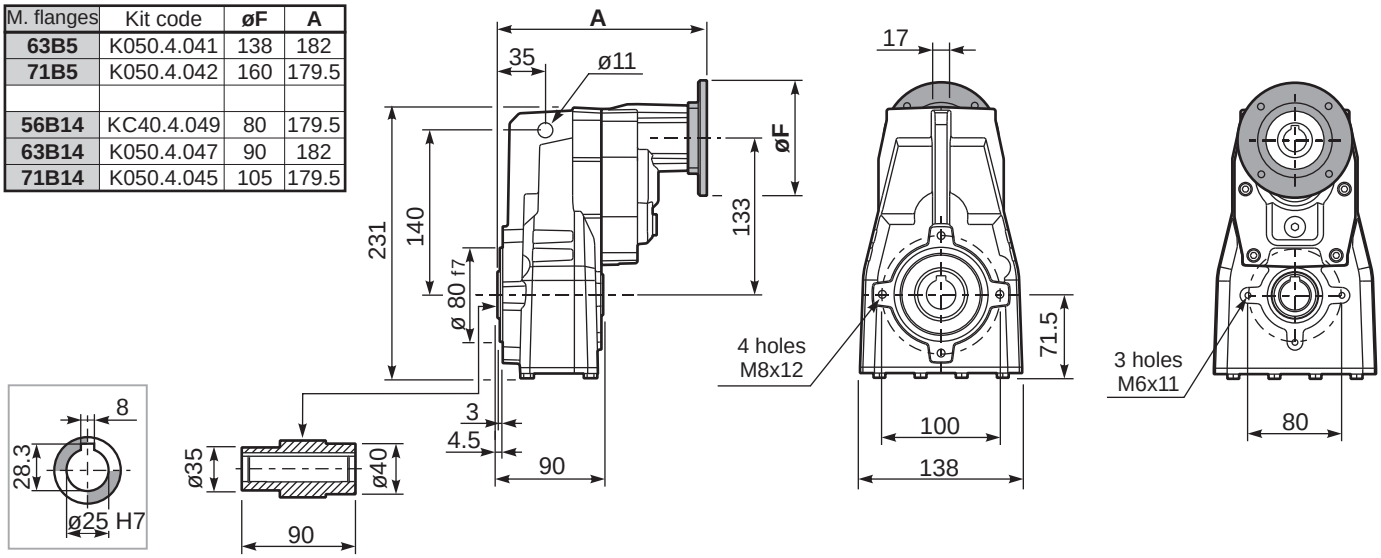
n_1	FA	FR
1400	140	700
900	160	800
500	190	950

tab. 2

PFA33C... Basic gearbox
Riduttore base

Gearbox weight / peso riduttore	7.0 kg

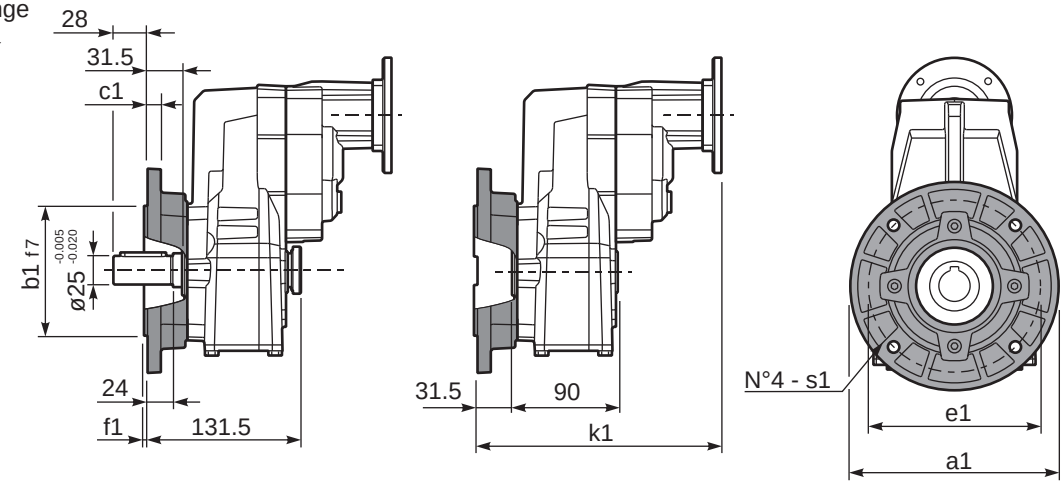
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	182
71B5	K050.4.042	160	179.5
56B14	KC40.4.049	80	179.5
63B14	K050.4.047	90	182
71B14	K050.4.045	105	179.5



Standard
Hollow shaft

PFA33...-F... Output flange
Flangia uscita

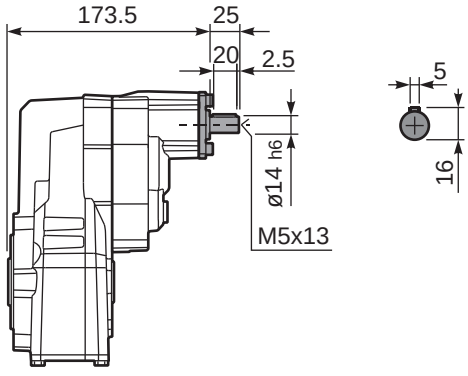
Motor Flange	k1
63B5	213.5
71B5	211
56B14	211
63B14	213.5
71B14	211



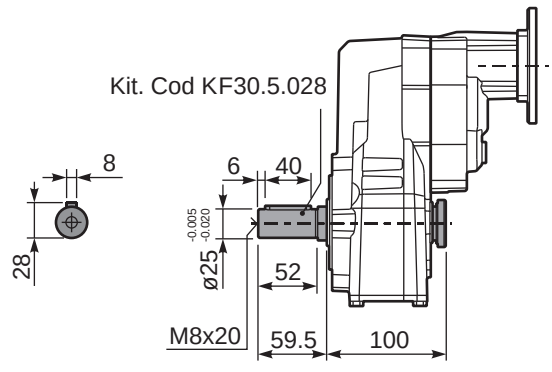
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX4A.9.010
200	130	11	165	3.5	11	KX4A.9.011
-	-	-	-	-	-	-

RFA33C... Input Shaft
Albero in entrata



PFA33 A... Single output shaft
Albero uscita semplice



7

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -D 80	-E 90	-F 100 112	Available B14 motor flanges -R 80	-T 90	-U 100 112		Output Shaft	Ratios code
481	**2.91**	4	76	1.8	**7.2**	**140**	B	B		B	B		3499	**standard**	01
373	**3.75**	4	98	1.6	**6.4**	**160**	B	B		B	B		28105	**ø30**	02
263	**5.33**	4	140	1.2	**4.8**	**170**	B	B		B	B		21112		03
219	**6.39**	4	167	1.0	**4.0**	**170**	B	B		B	B		18115	ø25	04
178	**7.85**	4	205	1.1	**4.3**	**225**	B	B		B	B		13102	ø35	05
														On request	

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

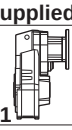
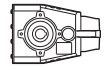
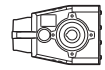
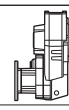
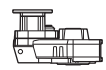
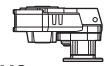
EN Unit **FA41** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA41** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA41** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA41** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

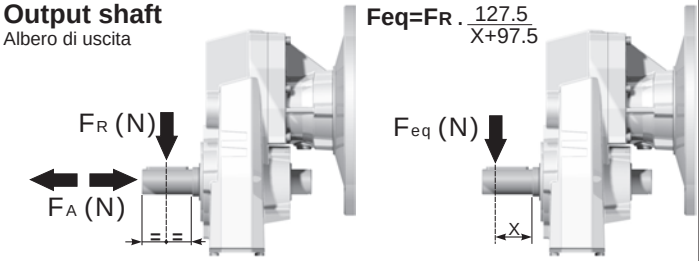
E El reductor tamaño **FA41** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
1.10 LT	0.65 LT	0.65 LT	0.65 LT	1.15 LT	0.80 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	300	1500	**140**	390	1950	**70**	490	2450
250	320	1600	**120**	410	2050	**40**	590	2950
200	350	1750	**85**	460	2300	**15**	800	4000

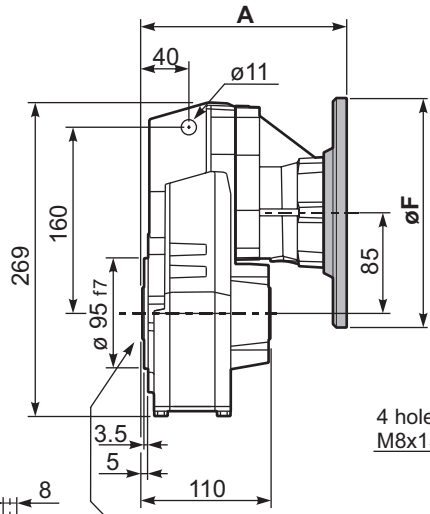
On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

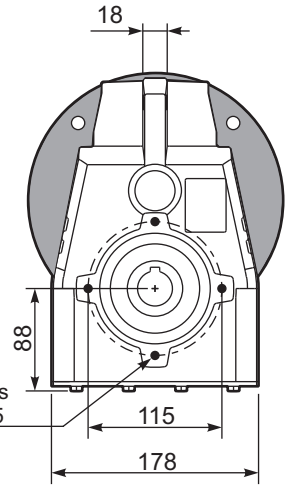
tab. 2

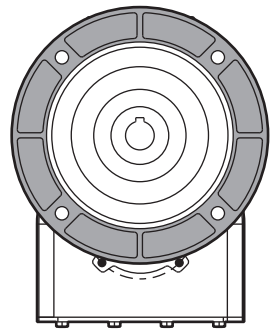
PFA41C... Basic gearbox
Riduttore base

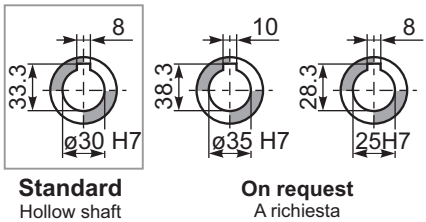
Gearbox weight peso riduttore **12.1 kg**

M. flanges	Kit code	øF	A
80/90B5	K023.4.042	200	179.5
100/112B5	K023.4.043	250	188.5
80B14	K085.4.046	120	179.5
90B14	K085.4.045	140	179.5
100/112B14	K085.4.047	160	188.5







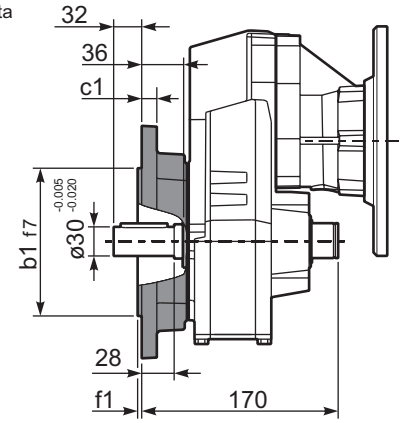


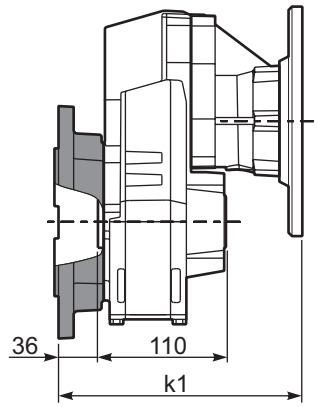
Standard
Hollow shaft

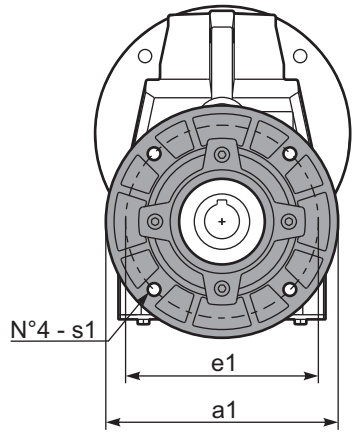
On request
A richiesta

PFA41...**-F**... Output flange
Flangia uscita

M. flanges	k1
80/90B5	215.5
100/112B5	221.5
80B14	213.5
90B14	213.5
100/112B14	224.5



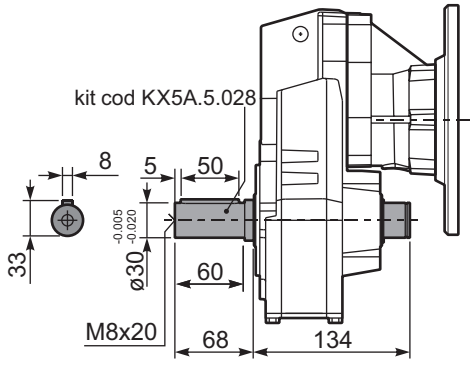




Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012

PFA41 **A**... Single output shaft
Albero uscita semplice



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	-C 71	-D 80	-E 90	-F 100 112	Available B14 motor flanges -Q 71	-R 80	-T 90	-U 100 112		Output Shaft ø	Ratios code
167	**8.38**	4	215	1.0	4.1	225	B					C	C			2821		01
139	**10.04**	3	194	1.2	3.7	240	B					C	C			2818		02
114	**12.33**	3	238	1.1	3.2	260	B					C	C			2813		03
92	**15.16**	2.2	215	1.2	2.6	260	B					C	C			1921		04
80	**17.57**	2.2	250	1.1	2.3	270	B					C	C			1721		05
77	**18.16**	2.2	258	1.1	2.4	290	B					C	C			1918		06
67	**21.05**	2.2	299	1.1	2.3	320	B					C	C			1718		07
63	**22.30**	2.2	317	1.0	2.2	320	B					C	C			1913	**standard**	08
57	**24.70**	1.5	242	1.3	2.0	320	B					C	C			1518	**ø30**	09
54	**25.85**	1.5	253	1.3	1.9	320	B					C	C			1713		10
47.5	**29.49**	1.5	289	1.1	1.7	320	B					C	C			1318	ø25	11
46.1	**30.34**	1.5	297	1.1	1.6	320	B					C	C			1513	ø35	12
41.7	**33.60**	1.1	240	1.0	1.1	250	B					C	C			1021	On request	13
38.7	**36.21**	1.1	259	1.2	1.3	320	B					C	C			1313		14
34.8	**40.25**	1.1	288	1.0	1.1	300	B					C	C			1018		15
28.3	**49.43**	1.1	354	0.9	0.99	320	B					C	C			1013		16
26.7	**52.53**	0.75	258	1.0	0.76	260	B					C	C			918		17
21.7	**64.51**	0.75	317	1.0	0.75	315	B					C	C			913		18
20.2	**69.37**	0.37	168	1.1	0.42	190	B					C	C			718		19
16.4	**85.19**	0.37	206	1.1	0.41	230	B					C	C			713		20

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

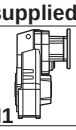
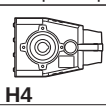
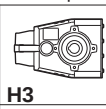
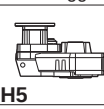
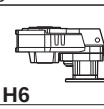
EN Unit **FA42** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA42** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA42** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA42** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

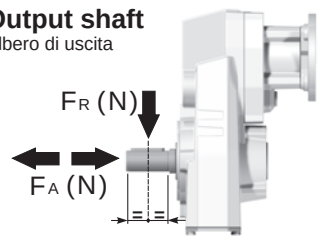
E El reductor tamaño **FA42** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
1.15 LT	0.70 LT	0.70 LT	0.70 LT	1.20 LT	0.80 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

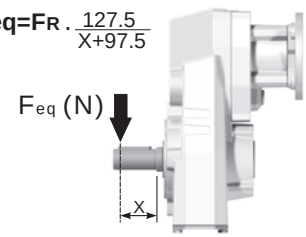
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



$F_{eq} = F_R \cdot \frac{127.5}{X+97.5}$



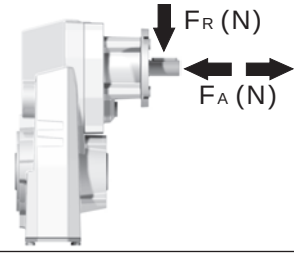
n_2 [min^{-1}]	FA	FR
300	300	1500
250	320	1600
200	350	1750

n_2 [min^{-1}]	FA	FR
140	390	1950
120	410	2050
85	460	2300

n_2 [min^{-1}]	FA	FR
70	490	2450
40	590	2950
15	800	4000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



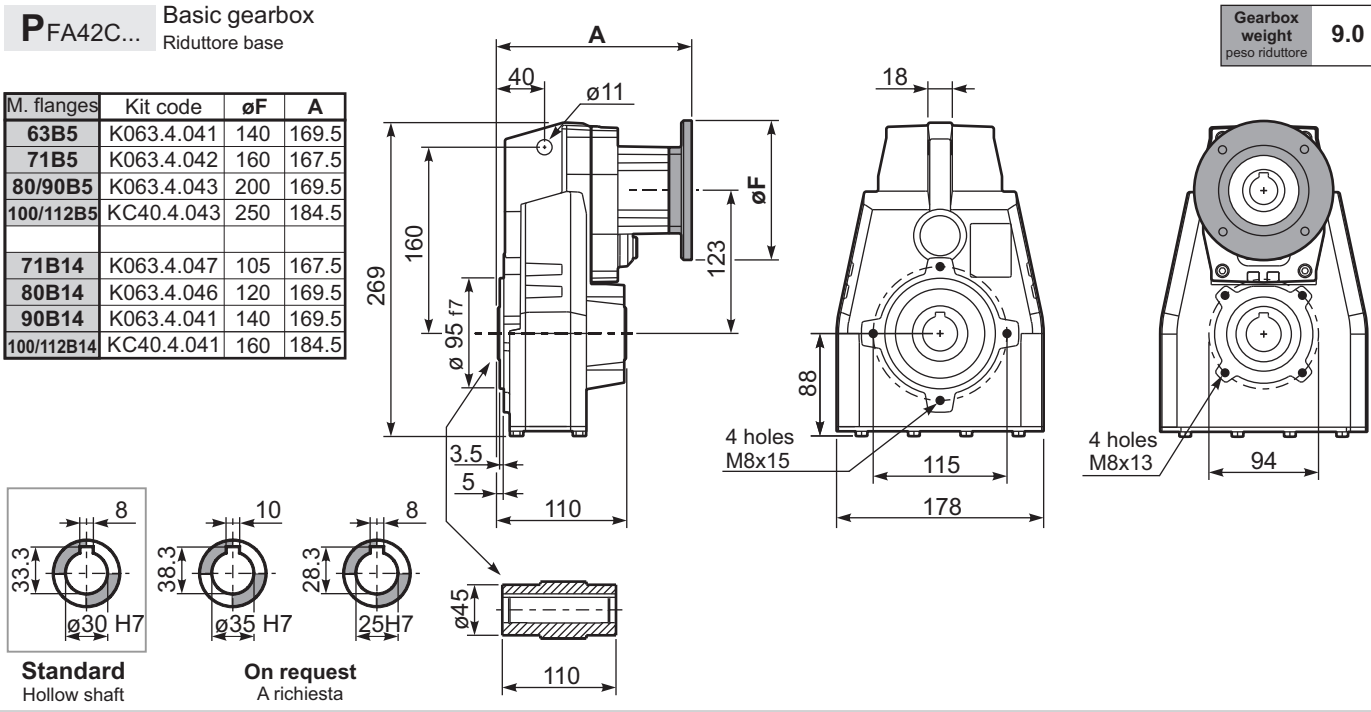
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

PFA42C... Basic gearbox
Riduttore base

Gearbox weight / peso riduttore	9.0 kg

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	169.5
71B5	K063.4.042	160	167.5
80/90B5	K063.4.043	200	169.5
100/112B5	KC40.4.043	250	184.5
71B14	K063.4.047	105	167.5
80B14	K063.4.046	120	169.5
90B14	K063.4.041	140	169.5
100/112B14	KC40.4.041	160	184.5

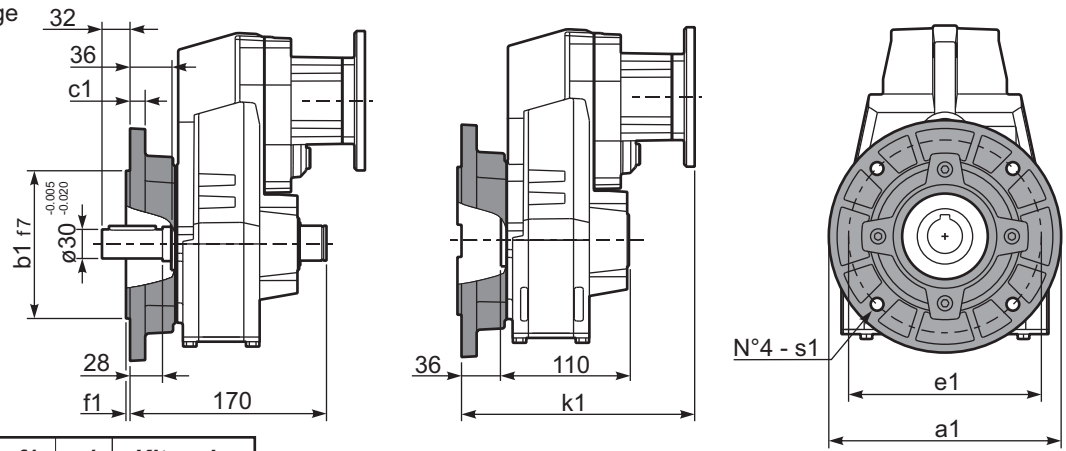


Standard
Hollow shaft

On request
A richiesta

PFA42...-F... Output flange
Flangia uscita

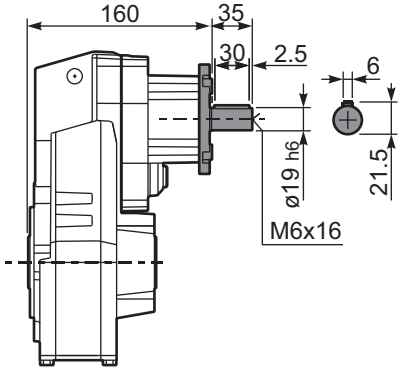
Motor Flange	k1
63B5	205.5
71B5	203.5
80/90B5	205.5
100/112B5	220.5
71B14	203.5
80B14	205.5
90B14	205.5
100/112B14	220.5



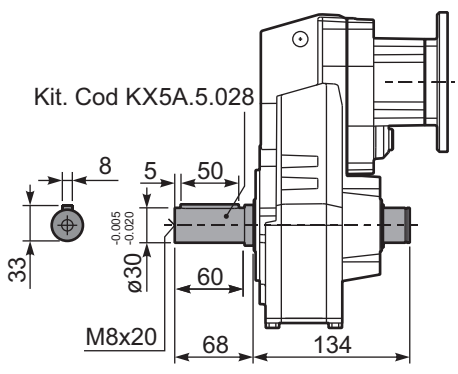
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012

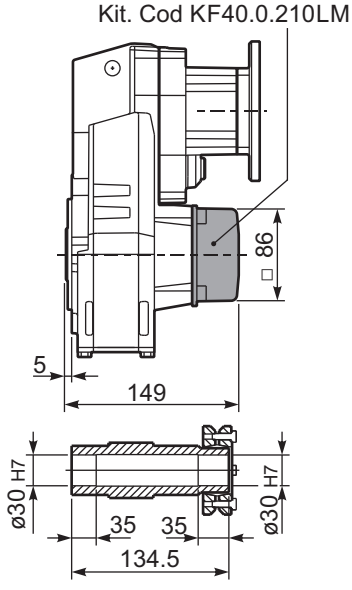
RFA42C... Input Shaft
Albero in entrata



PFA42A... Single output shaft
Albero uscita semplice



PFA42D... Shrink disk
Calettatore



7

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	Available B5 motor flanges -C 71	Available B14 motor flanges -O 56	Available B14 motor flanges -P 63	Available B14 motor flanges -Q 71		Output Shaft ø	Ratios code
18.8	**74.33**	0.37	176	1.8	**0.67**	**320**			C	C		191313		01
17.0	**82.56**	0.37	196	1.6	**0.60**	**320**			C	C		151318		02
16.0	**87.48**	0.37	207	1.5	**0.57**	**320**			C	C		131713		03
13.8	**101.40**	0.37	240	1.3	**0.49**	**320**			C	C		151313		04
11.4	**122.57**	0.37	291	1.1	**0.41**	**320**			C	C		131313		05
10.1	**138.59**	0.37	329	1.0	**0.36**	**320**			C	C		101318	**standard**	06
8.7	**160.82**	0.25	257	1.2	**0.31**	**320**			C	C		91713	**ø30**	07
8.2	**170.20**	0.25	272	1.2	**0.29**	**320**			C	C		101313		08
7.6	**183.48**	0.25	294	1.1	**0.27**	**320**			C	C		91318	ø25	09
6.5	**214.15**	0.18	262	1.2	**0.23**	**320**			C	C		71713	ø35	10
6.2	**225.33**	0.18	276	1.2	**0.22**	**320**			C	C		91313	On request	11
5.7	**244.32**	0.18	299	1.1	**0.20**	**320**			C	C		71318		12
5.5	**254.15**	0.18	311	1.0	**0.20**	**320**			C	C		61713		13
4.8	**289.96**	0.18	355	0.9	**0.17**	**320**			C	C		61318		14
4.7	**300.05**	0.18	367	0.9	**0.17**	**320**			C	C		71313		15
3.9	**356.09**	0.12	282	1.1	**0.14**	**320**			C	C		61313		16

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

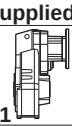
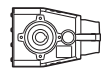
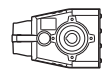
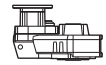
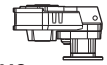
EN Unit **FA43** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA43** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA43** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA43** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

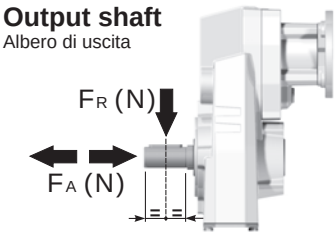
E El reductor tamaño **FA43** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
1.30 LT	0.70 LT	0.70 LT	0.70 LT	1.35 LT	0.90 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



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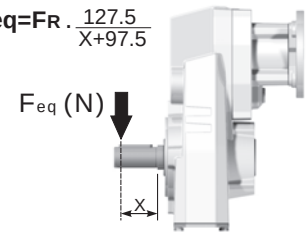
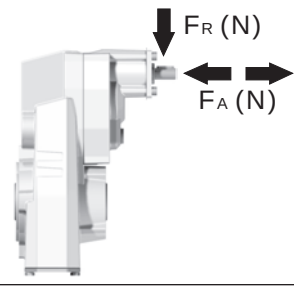


n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	300	1500	**140**	390	1950	**70**	490	2450
250	320	1600	**120**	410	2050	**40**	590	2950
200	350	1750	**85**	460	2300	**15**	800	4000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



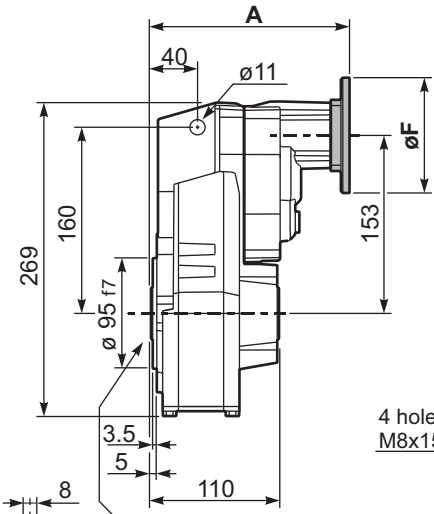
n_1	FA	FR
1400	140	700
900	160	800
500	190	950

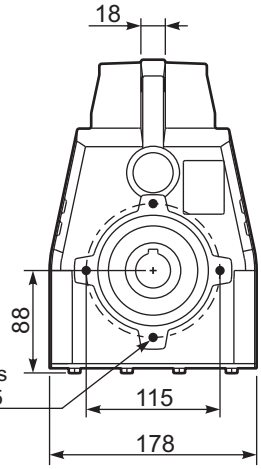
tab. 2

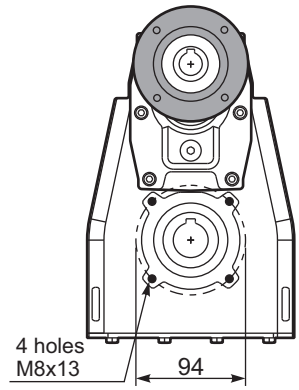
PFA43C... Basic gearbox
Riduttore base

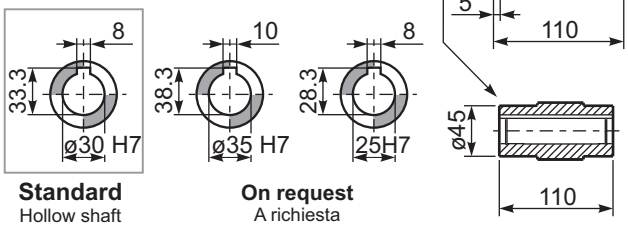
Gearbox weight / peso riduttore	8.9 kg

M. flanges	Kit code	øF	A
63B5	K050.4.041	138	175
71B5	K050.4.042	160	172.5
56B14	KC40.4.049	80	172.5
63B14	K050.4.047	90	175
71B14	K050.4.045	105	172.5







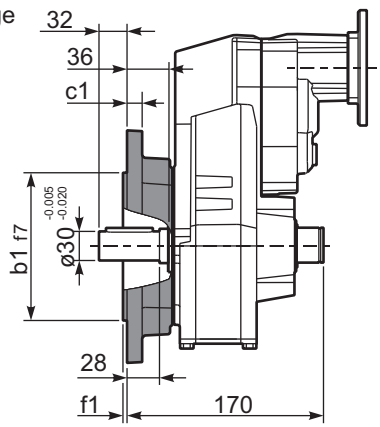


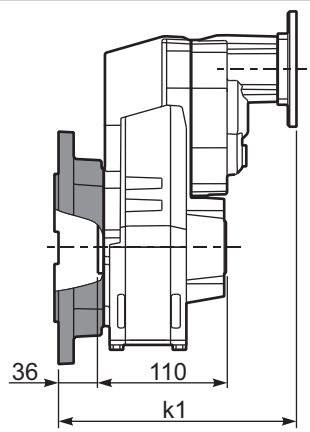
Standard
Hollow shaft

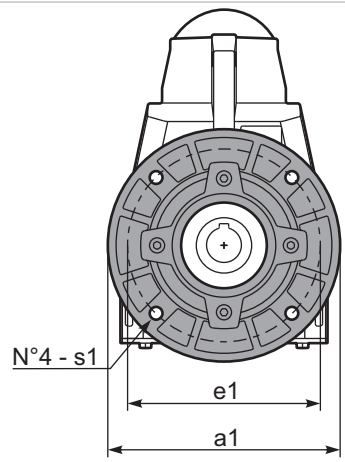
On request
A richiesta

PFA43...-F... Output flange
Flangia uscita

Motor Flange	k1
63B5	211
71B5	208.5
56B14	208.5
63B14	211
71B14	208.5



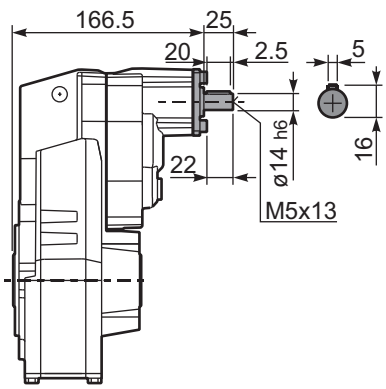




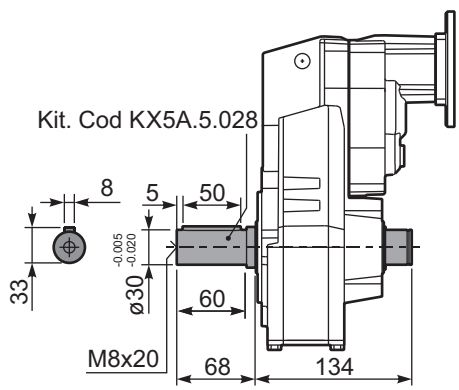
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012

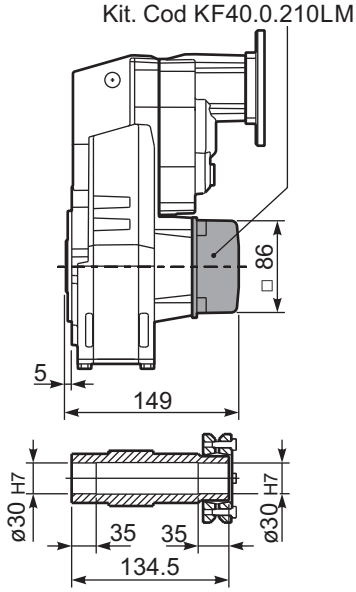
RFA43C... Input Shaft
Albero in entrata



PFA43A... Single output shaft
Albero uscita semplice



PFA43D... Shrink disk
Calettatore



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
213	**6.57**	5.5	230	1.2	6.5	280	B									3018		01
185	**7.56**	5.5	265	1.1	5.9	290	B									3016		02
159	**8.82**	5.5	309	1.0	5.5	320	B									3014		03
113	**12.39**	5.5	434	1.0	5.5	450	B									2018		04
98	**14.24**	5.5	499	0.9	4.8	450	B									2016		05
84	**16.75**	4	429	1.1	4.3	470	B									1618		06
73	**19.25**	4	494	1.0	3.9	490	B									1616	**standard ø35**	07
64	**21.78**	4	558	0.9	3.4	490	B									1318		08
56	**25.04**	3	483	1.0	3.0	490	B									1316	ø40 On request	09
47.9	**29.23**	3	564	0.9	2.6	490	B									1314		10
45.7	**30.65**	2.2	436	1.1	2.4	490	B									1116		11
39.1	**35.78**	2.2	509	1.0	2.1	490	B									1114		12
36.3	**38.55**	2.2	548	0.9	1.9	490	B									818		13
31.6	**44.32**	1.5	434	1.1	1.7	490	B									816		14
27.1	**51.74**	1.5	507	1.0	1.4	490	B									814		15
22.9	**61.03**	1.1	437	1.1	1.2	480	B									616		16
19.6	**71.25**	1.1	510	1.0	1.1	490	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

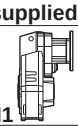
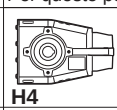
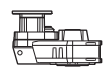
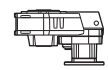
EN Unit **FA52** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA52** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA52** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA52** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

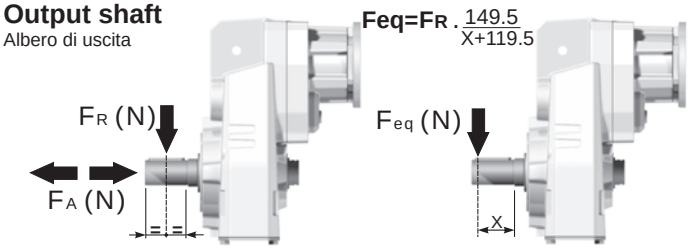
E El reductor tamaño **FA52** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
1.85 LT	1.15 LT	1.15 LT	1.30 LT	2.10 LT	1.30 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

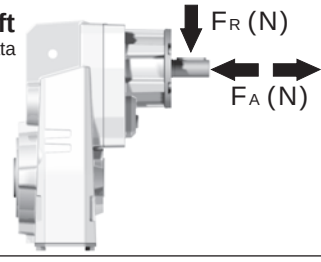
Output shaft
Albero di uscita



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	400	2000	**140**	460	2300	**70**	580	2900
250	420	2100	**120**	500	2500	**40**	780	3900
200	440	2200	**85**	550	2750	**15**	1140	5700

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



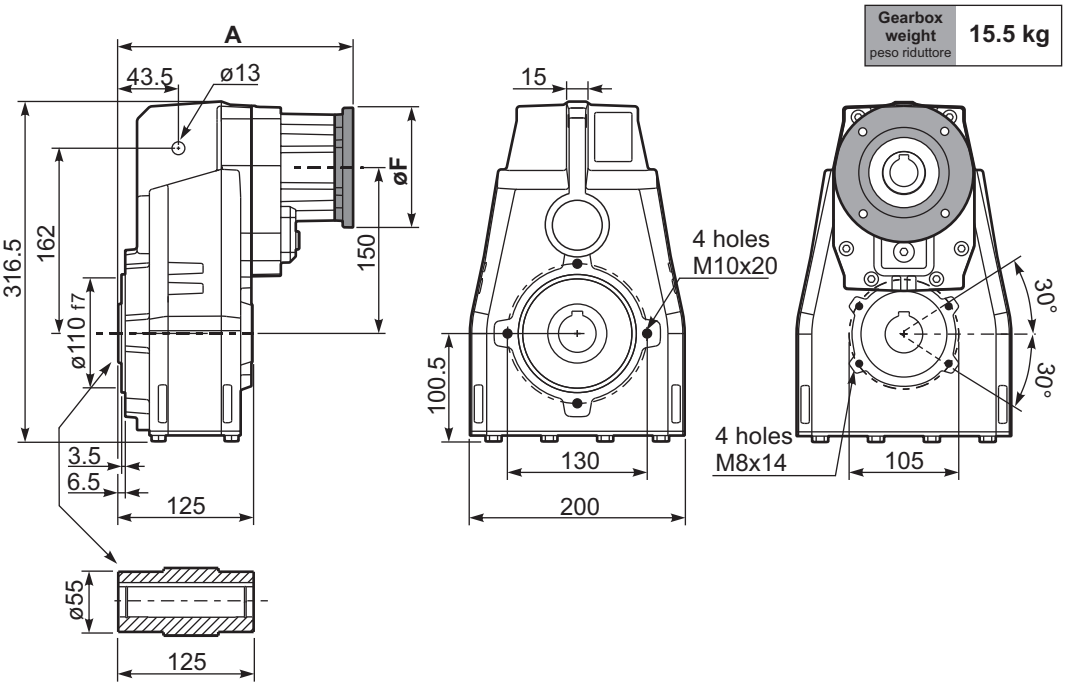
n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

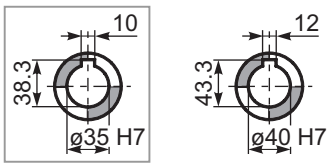
tab. 2

PFA52C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore **15.5 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC51.4.043	300	259
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC51.4.041	200	259



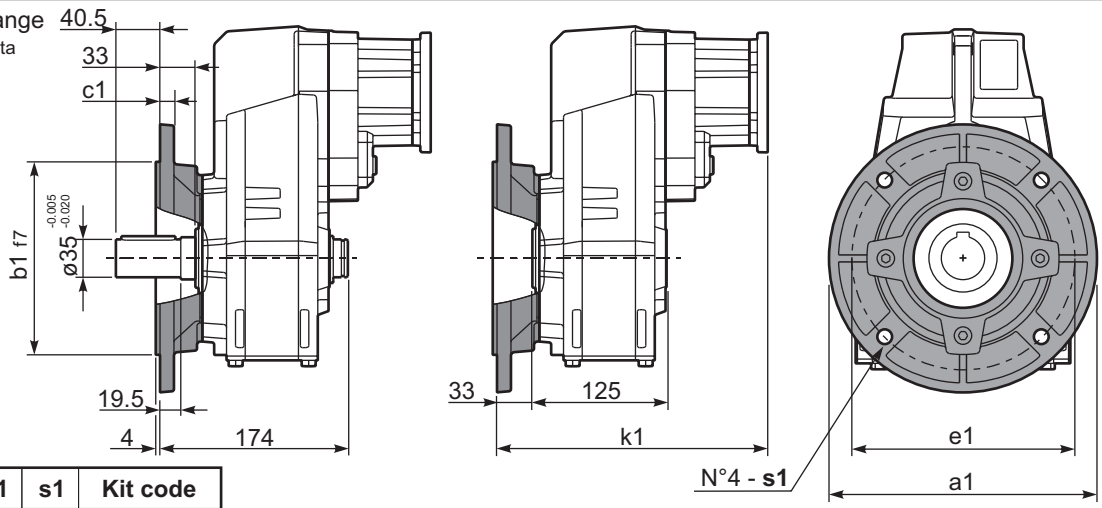


Standard
Hollow shaft

On request
A richiesta

PFA52...**-F**... Output flange
Flangia uscita

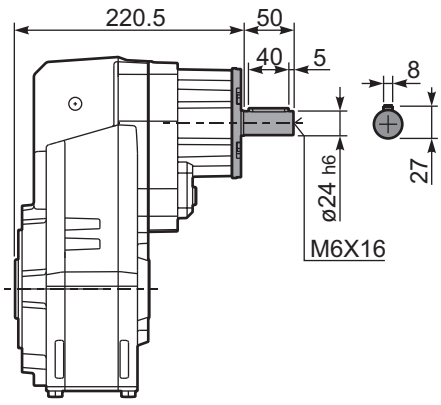
M. flanges	k1
71B5	260
80/90B5	262
100/112B5	271
132B5	289
80B14	262
90B14	262
100/112B14	271
132B14	289



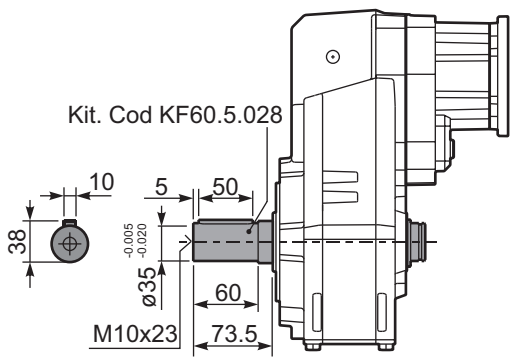
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

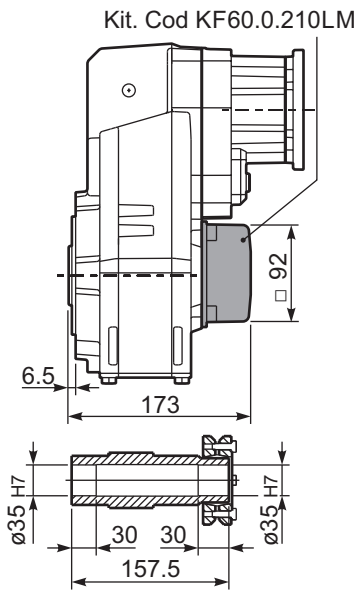
RFA52C... Input Shaft
Albero in entrata



PFA52 **A**... Single output shaft
Albero uscita semplice



PFA52**D**... Shrink disk
Calettatore



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▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft	Ratios code
22.6	**61.89**	1.1	434	1.2	**1.3**	**510**	B				C	C		191318		01
19.7	**71.16**	1.1	499	1.0	**1.1**	**510**	B				C	C		191316		02
17.0	**82.48**	1.1	578	0.9	**0.96**	**510**	B				C	C		171316		03
14.5	**96.29**	0.75	463	1.1	**0.83**	**510**	B				C	C		171314		04
13.9	**100.51**	0.75	483	1.1	**0.79**	**510**	B				C	C		131318		05
12.1	**115.56**	0.55	410	1.2	**0.69**	**510**	B				C	C		131316		06
11.1	**125.96**	0.55	447	1.1	**0.63**	**510**	B				C	C		190816		07
10.4	**134.91**	0.55	479	1.1	**0.59**	**510**	B				C	C		131314	**standard ø35**	08
9.5	**147.05**	0.55	522	1.0	**0.54**	**510**	B				C	C		190814		09
8.2	**170.44**	0.37	404	1.3	**0.47**	**510**	B				C	C		170814		10
7.6	**184.15**	0.37	437	1.2	**0.43**	**510**	B				C	C		101314	ø40	11
6.8	**205.87**	0.37	488	1.0	**0.39**	**510**	B				C	C		91316	On request	12
5.8	**240.34**	0.37	570	0.9	**0.33**	**510**	B				C	C		91314		13
5.0	**279.22**	0.25	447	1.1	**0.28**	**510**	B				C	C		100816		14
4.3	**325.97**	0.25	522	1.0	**0.24**	**510**	B				C	C		100814		15
3.8	**364.41**	0.18	446	1.1	**0.22**	**510**	B				C	C		90816		16
3.3	**425.43**	0.18	521	1.0	**0.19**	**510**	B				C	C		90814		17
2.9	**481.19**	0.18	589	0.9	**0.17**	**510**	B				C	C		70816		18
2.5	**561.76**	0.12	444	1.1	**0.14**	**510**	B				C	C		70814		19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

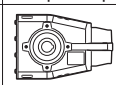
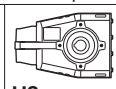
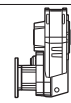
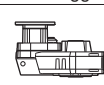
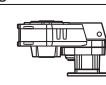
EN Unit **FA53** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA53** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA53** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA53** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

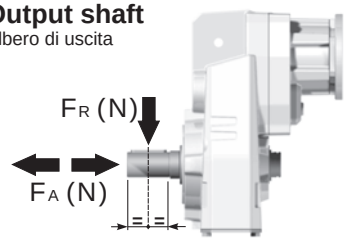
E El reductor tamaño **FA53** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
2.15 LT	1.25 LT	1.25 LT	1.45 LT	2.35 LT	1.45 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

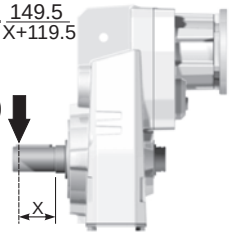
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



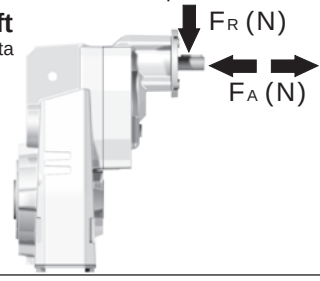
$$Feq = FR \cdot \frac{149.5}{X+119.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	400	2000	**140**	460	2300	**70**	580	2900
250	420	2100	**120**	500	2500	**40**	780	3900
200	440	2200	**85**	550	2750	**15**	1140	5700

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



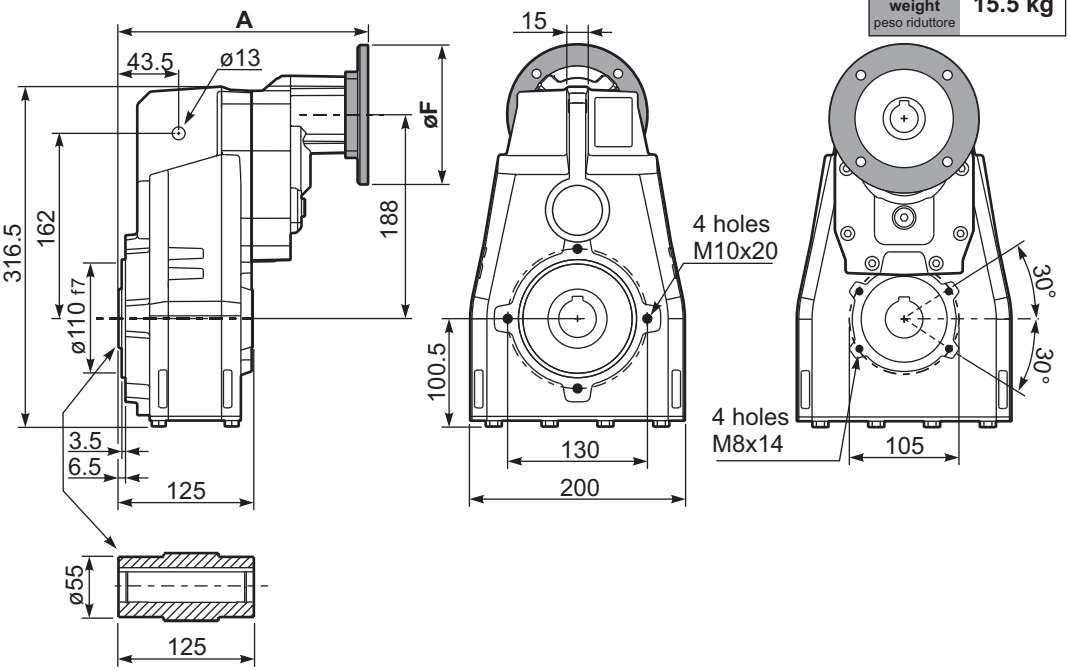
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

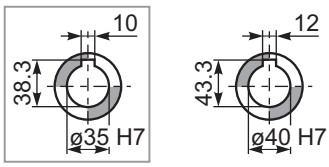
tab. 2

PFA53C... Basic gearbox
Riduttore base

Gearbox weight / peso riduttore	15.5 kg

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239



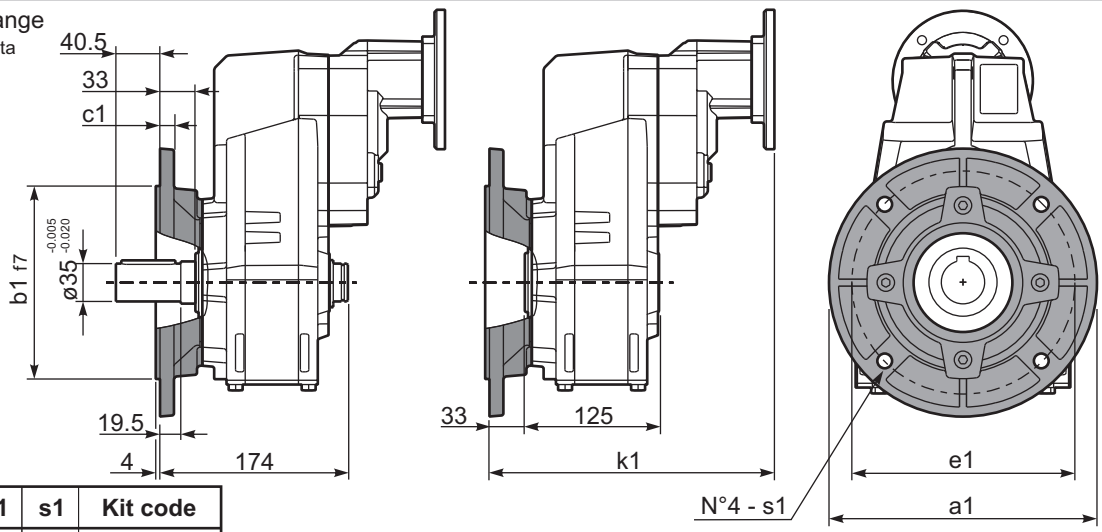


Standard
Hollow shaft

On request
A richiesta

PFA53...-F... Output flange
Flangia uscita

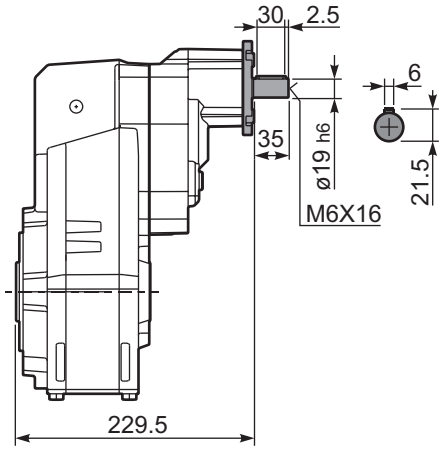
Motor Flange	k1
63B5	272
71B5	270
80/90B5	272
71B14	270
80B14	272
90B14	272



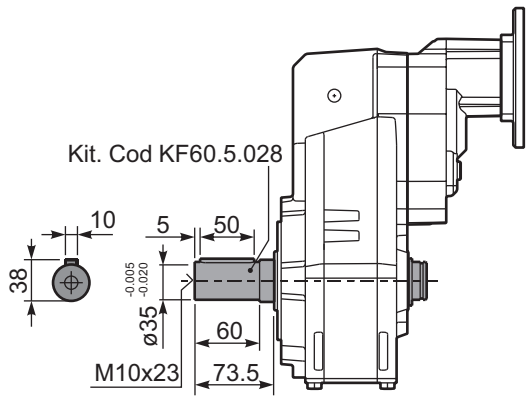
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

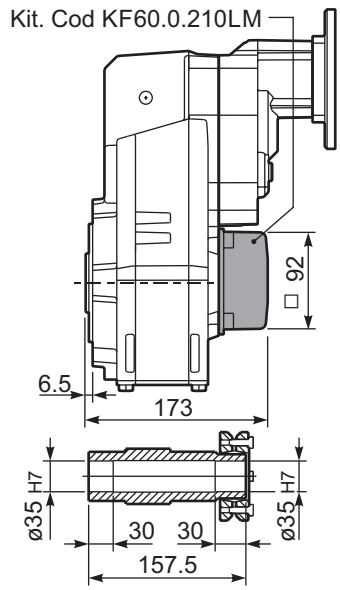
RFA53C... Input Shaft
Albero in entrata



PFA53 A... Single output shaft
Albero uscita semplice



PFA53D... Shrink disk
Calettatore



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -G	Available B5 motor flanges 132	B14 motor flanges - - - -	B14 motor flanges - - - -	Output Shaft	Ratios code
507	**2.76**	9	166	1.6	**14.4**	**265**					2980	**standard**	01
395	**3.54**	9	213	1.3	**11.6**	**275**					2485	**ø35**	02
277	**5.06**	9	304	1.0	**8.6**	**290**					1891		03
241	**5.81**	7.5	281	1.2	**8.5**	**330**			**not available**		1693	ø40	04
206	**6.79**	7.5	329	1.2	**8.4**	**380**					1495	On request	05

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

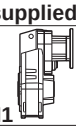
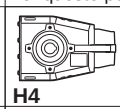
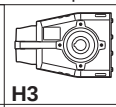
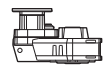
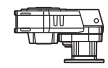
EN Unit **FC61** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FC61** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FC61** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FC61** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FC61** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

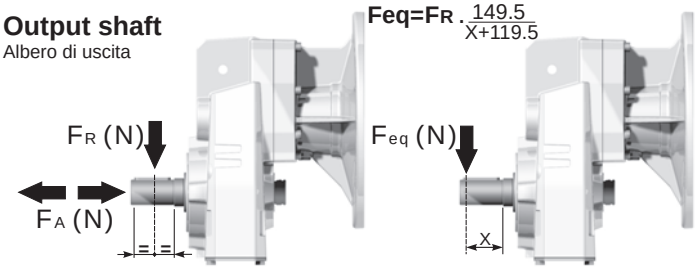
Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
2.05 LT	1.25 LT	1.25 LT	1.40 LT	2.05 LT	1.40 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$



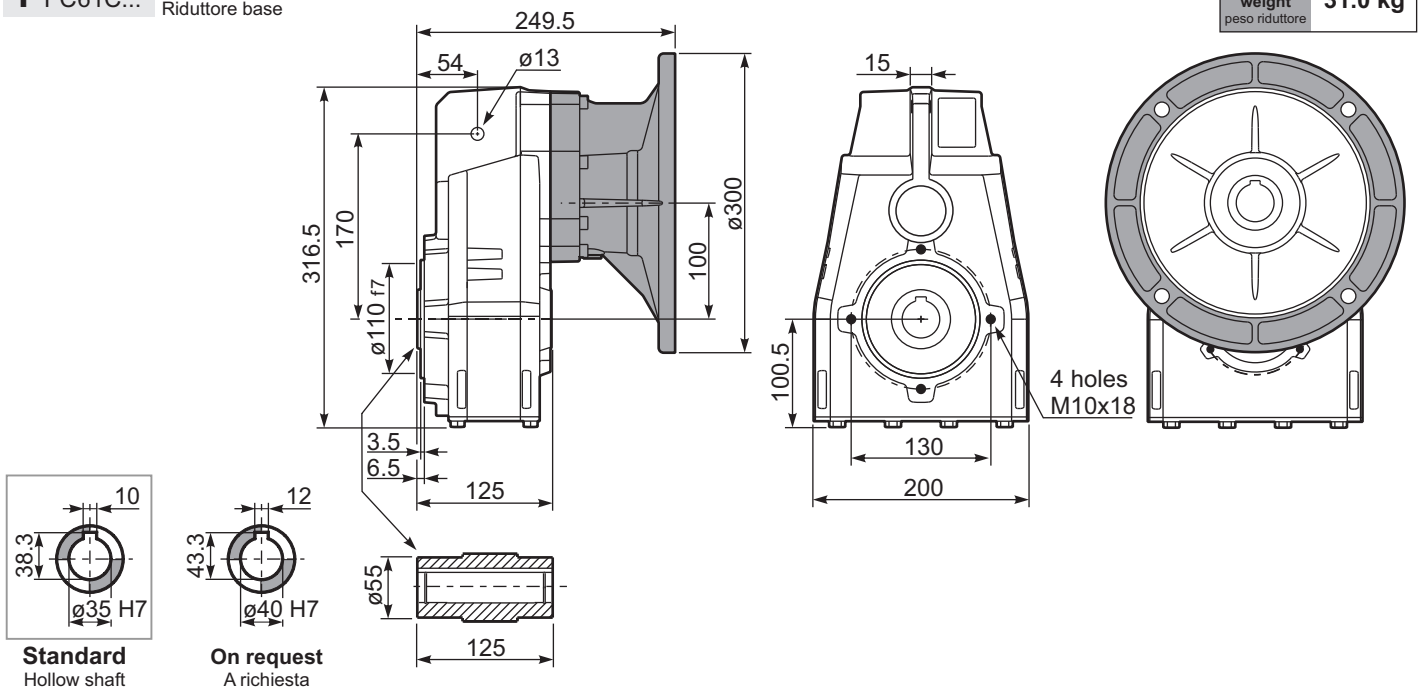
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

PFC61C... Basic gearbox
Riduttore base

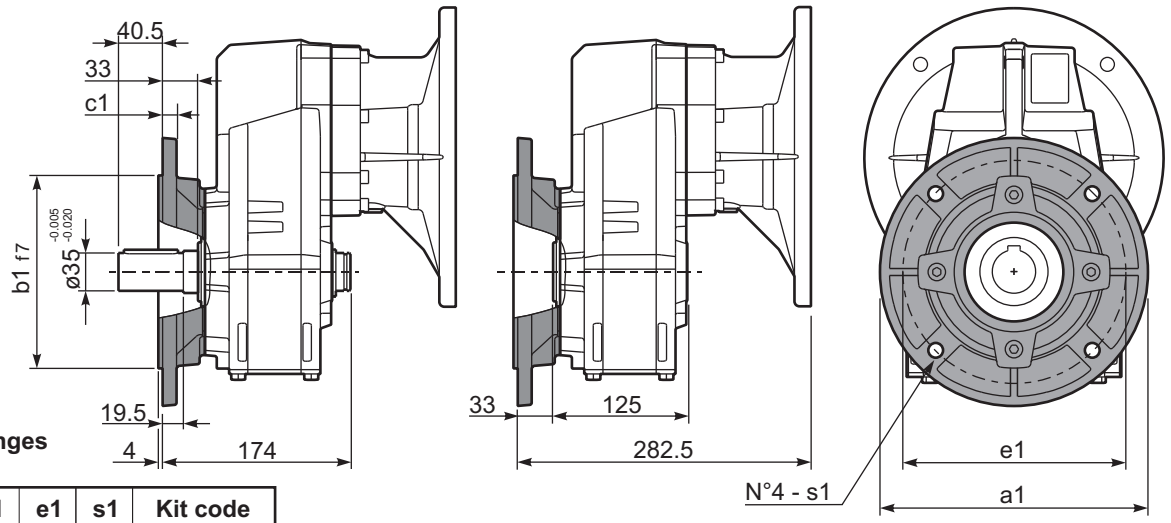
Gearbox weight peso riduttore	31.0 kg



Standard
Hollow shaft

On request
A richiesta

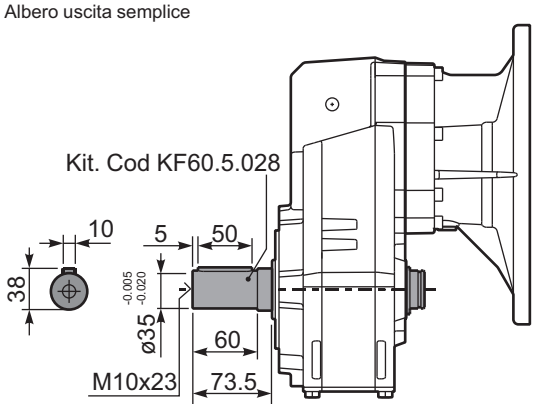
PFC61...-F... Output flange
Flangia uscita



Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

PFC61 A... Single output shaft
Albero uscita semplice



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▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
213	**6.57**	7.5	312	1.2	8.8	380	B									3018		01
185	**7.56**	7.5	358	1.1	7.9	390	B									3016		02
159	**8.82**	7.5	419	1.0	7.1	410	B									3014		03
113	**12.39**	7.5	588	1.0	7.2	580	B									2018		04
98	**14.24**	5.5	499	1.2	6.4	600	B									2016		05
84	**16.75**	5.5	587	1.1	6.1	665	B									1618		06
73	**19.25**	5.5	675	1.0	5.4	675	B									1616	**standard ø35**	07
64	**21.78**	4	558	1.2	4.7	675	B									1318		08
56	**25.04**	4	642	1.1	4.1	675	B									1316		09
47.9	**29.23**	4	750	0.9	3.5	675	B									1314	ø40 On request	10
45.7	**30.65**	3	592	1.1	3.4	675	B									1116		11
39.1	**35.78**	3	691	1.0	2.9	675	B									1114		12
36.3	**38.55**	2.2	548	1.1	2.3	580	B									818		13
31.6	**44.32**	2.2	630	1.1	2.3	665	B									816		14
27.1	**51.74**	2.2	735	0.9	2.0	675	B									814		15
22.9	**61.03**	1.1	437	1.1	1.2	480	B									616		16
19.6	**71.25**	1.1	510	1.1	1.2	560	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

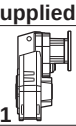
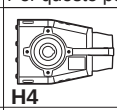
EN Unit **FC62** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FC62** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FC62** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FC62** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

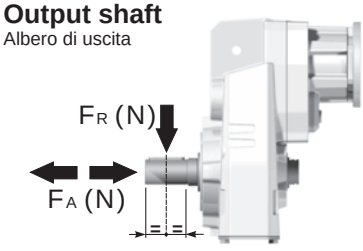
E El reductor tamaño **FC62** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 H1	 H4	 H3	 H2	 H5	 H6
2.05 LT	1.25 LT	1.25 LT	1.40 LT	2.20 LT	1.40 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

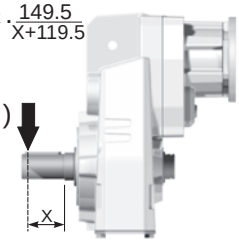
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



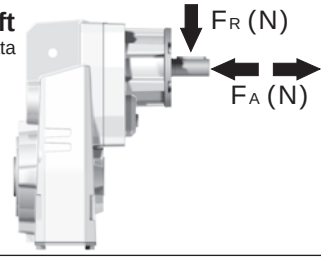
$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



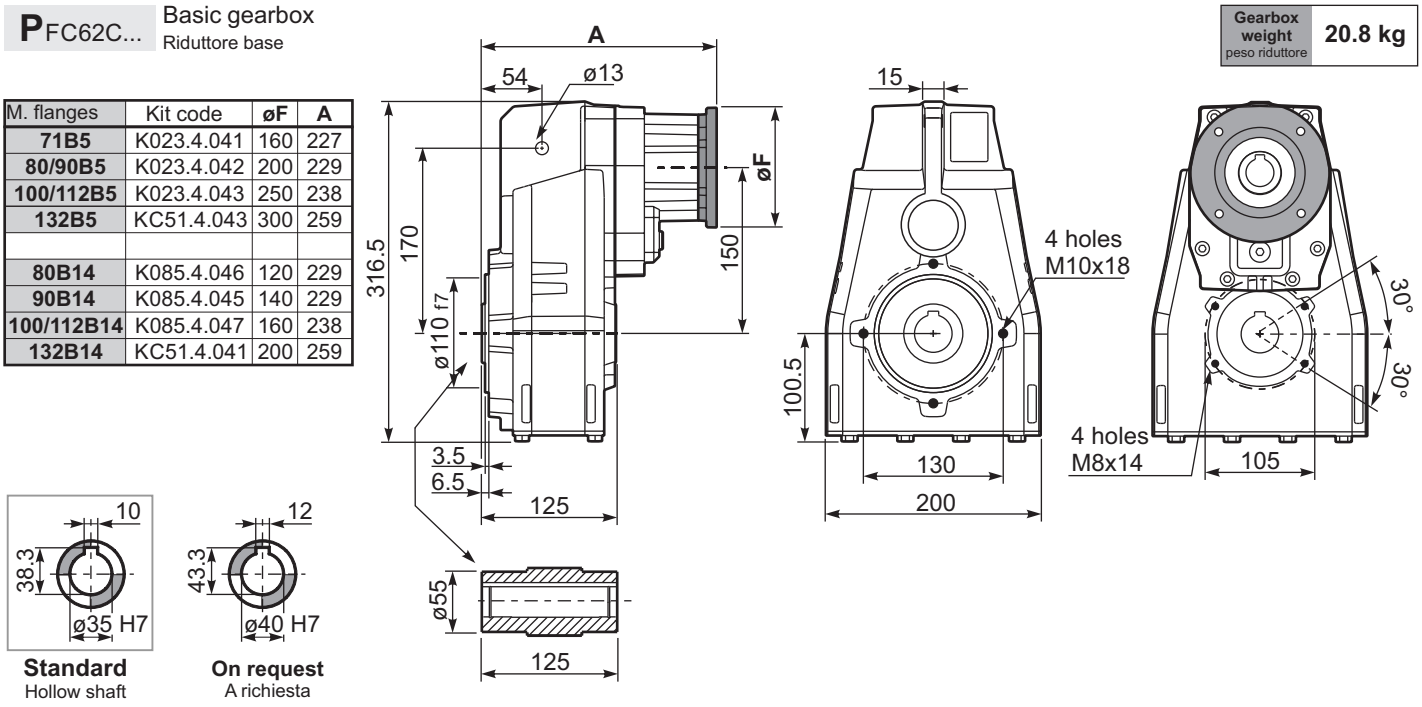
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

PFC62C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore **20.8 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC51.4.043	300	259
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC51.4.041	200	259

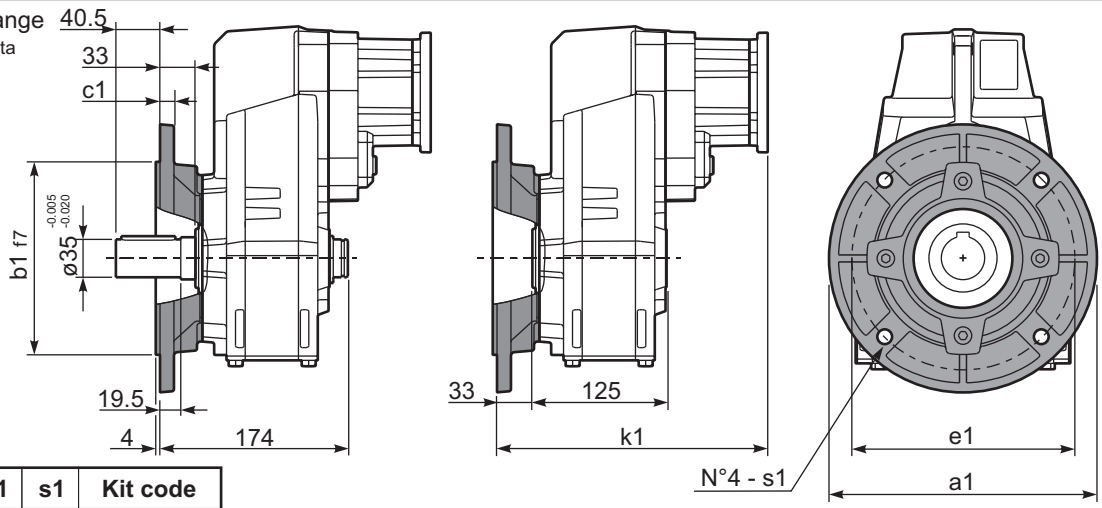


Standard
Hollow shaft

On request
A richiesta

PFC62...-F... Output flange
Flangia uscita

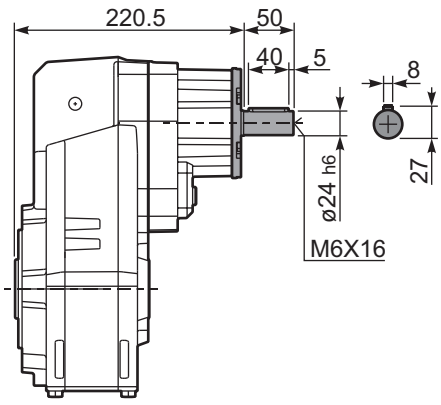
M. flanges	k1
71B5	260
80/90B5	262
100/112B5	271
132B5	289
80B14	262
90B14	262
100/112B14	271
132B14	289



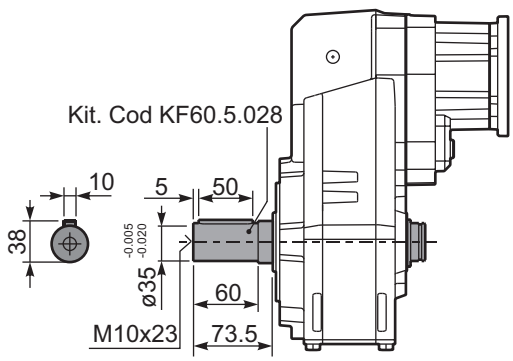
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

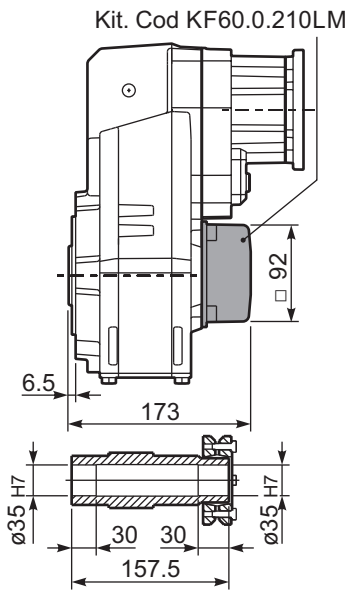
RFC62C... Input Shaft
Albero in entrata



PFC62 A... Single output shaft
Albero uscita semplice



PFC62D... Shrink disk
Calettatore



7

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft	Ratios code
22.6	**61.89**	1.5	594	1.1	**1.7**	675	B				C	C		191318		01
19.7	**71.16**	1.5	683	1.0	**1.5**	675	B				C	C		191316		02
17.0	**82.48**	1.5	792	0.9	**1.3**	675	B				C	C		171316		03
14.5	**96.29**	1.1	675	1.0	**1.1**	675	B				C	C		171314		04
13.9	**100.51**	1.1	705	1.0	**1.0**	675	B				C	C		131318		05
12.1	**115.56**	0.75	556	1.2	**0.91**	675	B				C	C		131316		06
11.1	**125.96**	0.75	606	1.1	**0.82**	665	B				C	C		190816		07
10.4	**134.91**	0.75	649	1.0	**0.78**	675	B				C	C		131314	**standard ø35**	08
9.5	**147.05**	0.75	707	1.0	**0.72**	675	B				C	C		190814		09
8.2	**170.44**	0.55	605	1.1	**0.62**	675	B				C	C		170814	ø40	10
7.6	**184.15**	0.55	653	1.0	**0.57**	675	B				C	C		101314	On request	11
6.8	**205.87**	0.55	730	0.9	**0.51**	675	B				C	C		91316		12
5.8	**240.34**	0.37	570	1.2	**0.44**	675	B				C	C		91314		13
5.0	**279.22**	0.37	662	1.0	**0.37**	665	B				C	C		100816		14
4.3	**325.97**	0.37	773	0.9	**0.32**	675	B				C	C		100814		15
3.8	**364.41**	0.25	583	1.1	**0.28**	665	B				C	C		90816		16
3.3	**425.43**	0.25	681	1.0	**0.25**	675	B				C	C		90814		17
2.9	**481.19**	0.18	589	1.1	**0.22**	665	B				C	C		70816		18
2.5	**561.76**	0.18	687	1.0	**0.19**	675	B				C	C		70814		19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

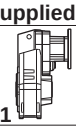
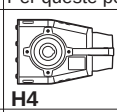
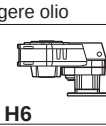
EN Unit **FC63** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FC63** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FC63** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FC63** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

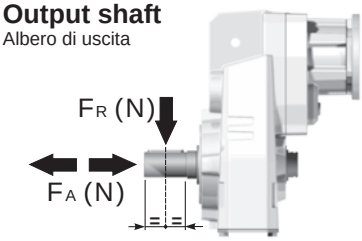
E El reductor tamaño **FC63** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
2.30 LT	1.35 LT	1.35 LT	1.55 LT	2.45 LT	1.55 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

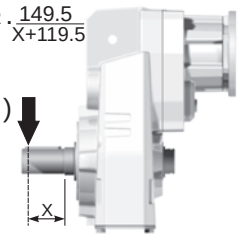
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



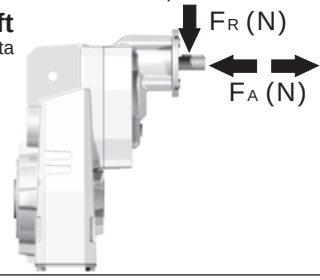
Feq=FR . 149.5 / X+119.5



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



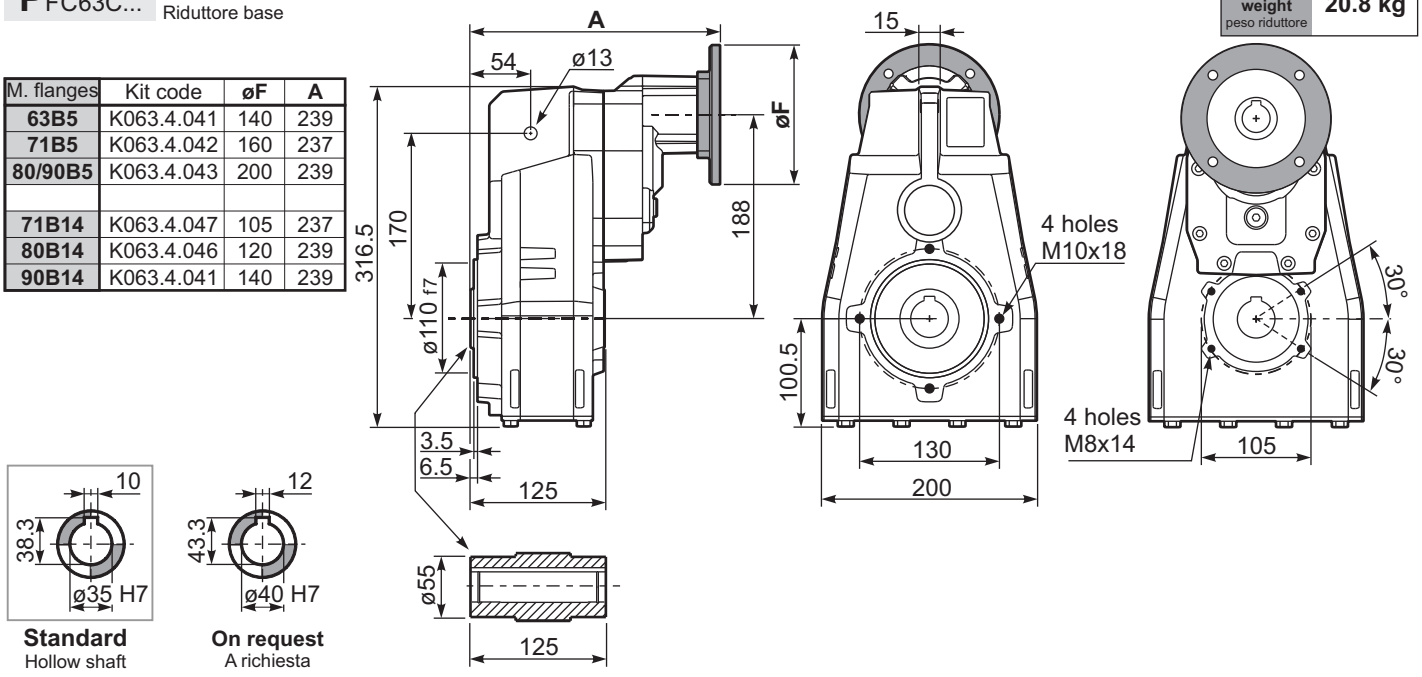
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

PFC63C... Basic gearbox
Riduttore base

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239

Gearbox weight / peso riduttore **20.8 kg**

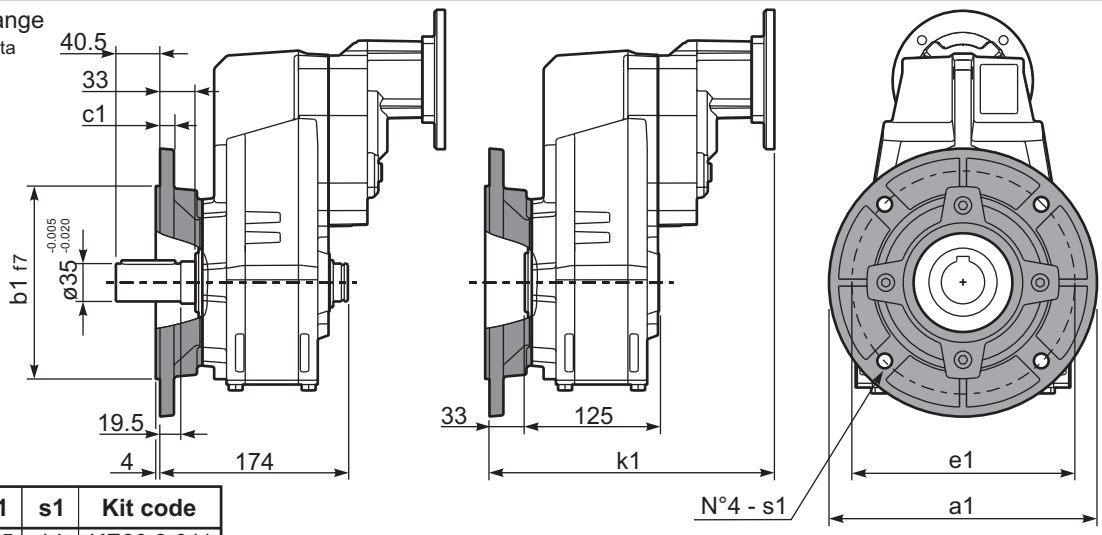


Standard
Hollow shaft

On request
A richiesta

PFC63...-F... Output flange
Flangia uscita

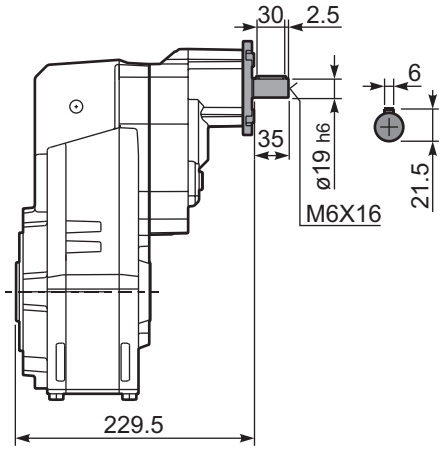
Motor Flange	k1
63B5	272
71B5	270
80/90B5	272
71B14	270
80B14	272
90B14	272



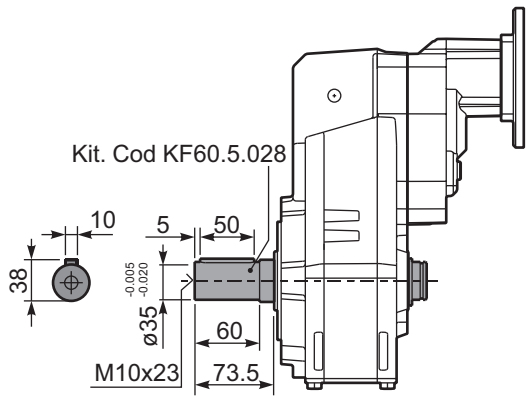
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

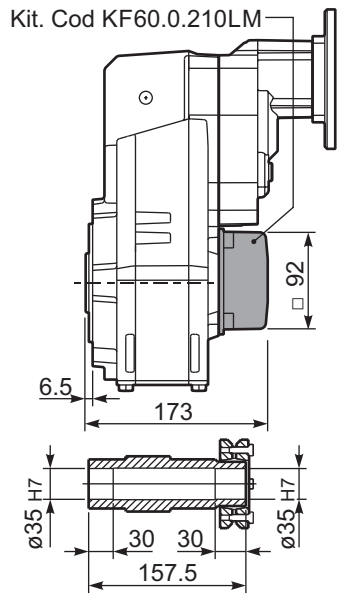
RFC63C... Input Shaft
Albero in entrata



PFC63 A... Single output shaft
Albero uscita semplice



PFC63D... Shrink disk
Calettatore



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -G	Available B5 motor flanges 132	B14 motor flanges - - - -	B14 motor flanges - - - -	Output Shaft	Output Shaft ø	Ratios code
227	**6.17**	9	371	1.2	**10.9**	**450**					18111	**standard**	01
198	**7.06**	9	425	1.4	**12.7**	**600**			**not available**		16113	**ø40**	02
170	**8.21**	9	494	1.4	**12.2**	**670**					14115	ø45	03
												On request	

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC71** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC71** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC71** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC71** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC71** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

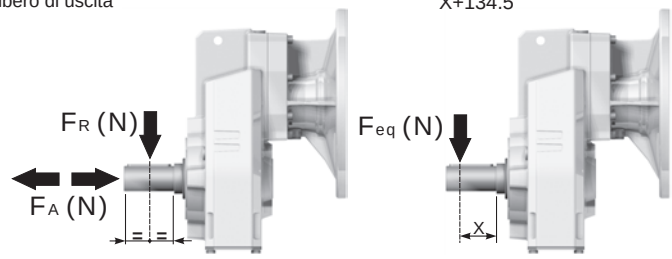
H1	H4	H3	H2	H5	H6
3.30 LT	1.90 LT	1.90 LT	1.80 LT	3.30 LT	1.90 LT
SHELL Omala S2 GX 460			**ENI** Blasia 460		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$Feq = FR \cdot \frac{174.5}{X+134.5}$$



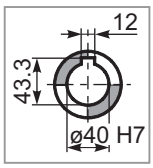
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

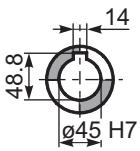
tab. 2

PFC71C... Basic gearbox
Riduttore base

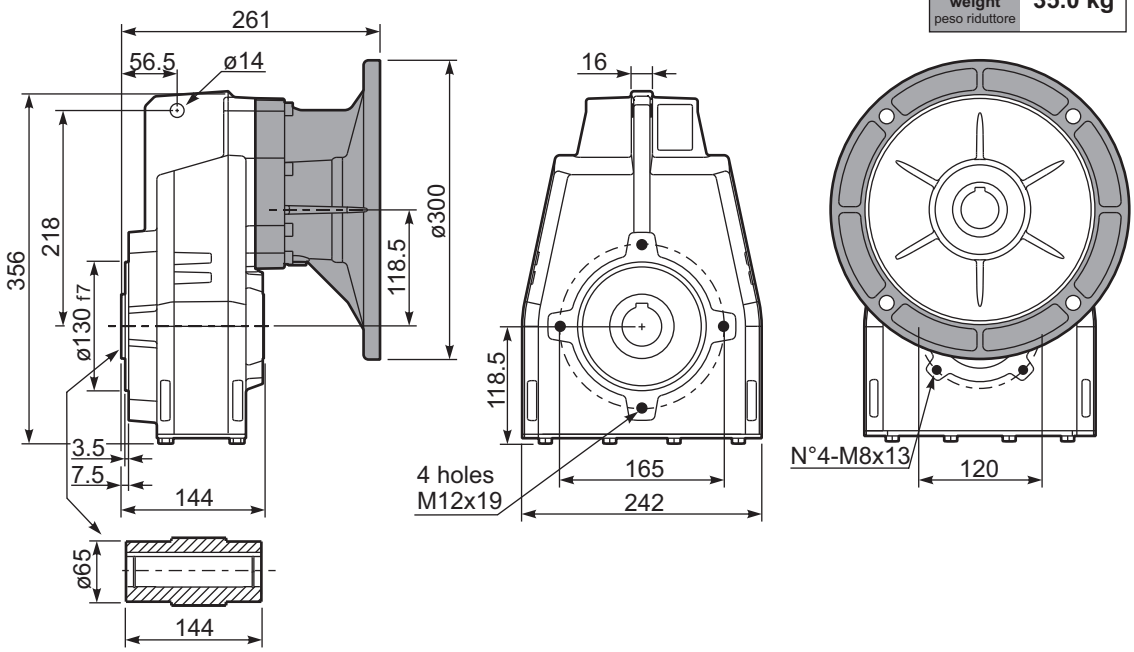
Gearbox weight peso riduttore	35.0 kg



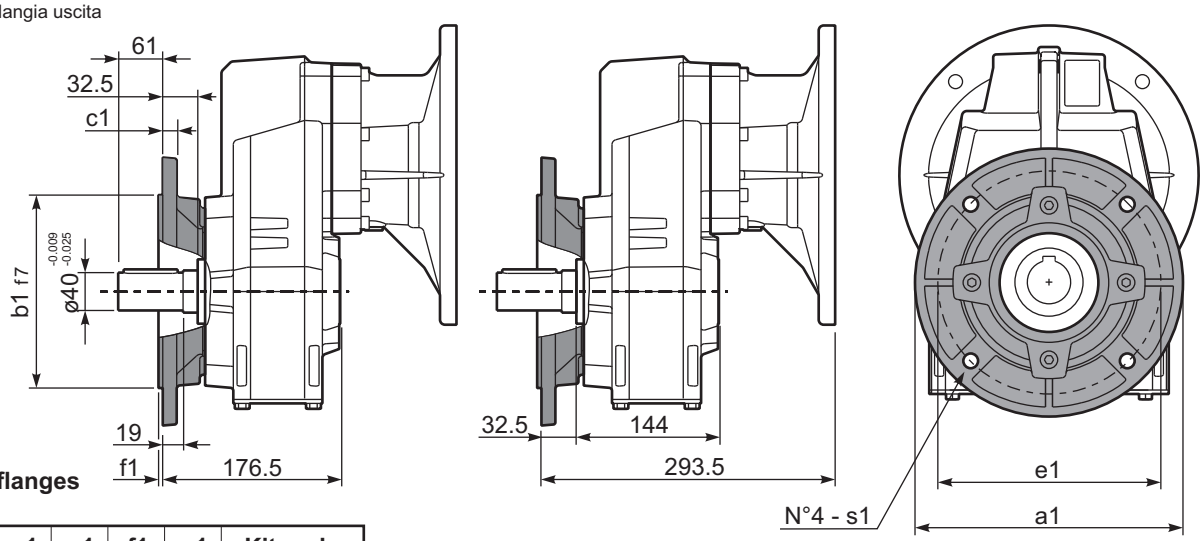
Standard
Hollow shaft



On request
A richiesta



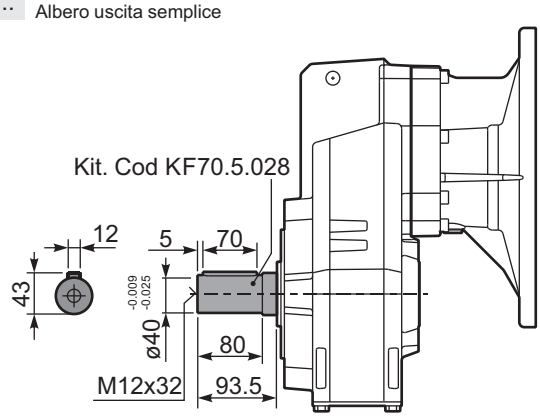
PFC71...-F... Output flange
Flangia uscita



Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

PFC71 A... Single output shaft
Albero uscita semplice



7

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
175	**8.02**	9	473	1.1	**9.9**	**520**	B									3018		01
152	**9.18**	9	541	1.1	**9.8**	**590**	B									3016		02
131	**10.68**	9	630	1.1	**9.7**	**680**	B									3014		03
93	**15.11**	7.5	717	1.1	**7.8**	**775**	B									2018		04
81	**17.30**	7.5	821	1.1	**7.8**	**885**	B									2016		05
70	**20.13**	7.5	955	0.9	**6.8**	**900**	B									2014		06
60	**23.39**	5.5	820	1.1	**5.9**	**900**	B									1616	**standard ø40**	07
51	**27.21**	5.5	954	0.9	**5.1**	**900**	B									1614		08
46.0	**30.42**	4	780	1.2	**4.5**	**900**	B									1316	ø45 On request	09
39.6	**35.38**	4	907	1.0	**3.9**	**900**	B									1314		10
37.6	**37.24**	3	719	1.2	**3.7**	**895**	B									1116		11
32.3	**43.31**	3	836	1.1	**3.2**	**900**	B									1114		12
29.8	**47.02**	2.2	668	1.1	**2.3**	**705**	B									818		13
26.0	**53.85**	2.2	765	1.1	**2.3**	**810**	B									816		14
22.4	**62.63**	2.2	890	1.0	**2.2**	**900**	B									814		15
18.9	**74.16**	1.1	531	1.1	**1.2**	**585**	B									616		16
16.2	**86.25**	1.1	617	1.1	**1.2**	**680**	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC72** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC72** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC72** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC72** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC72** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

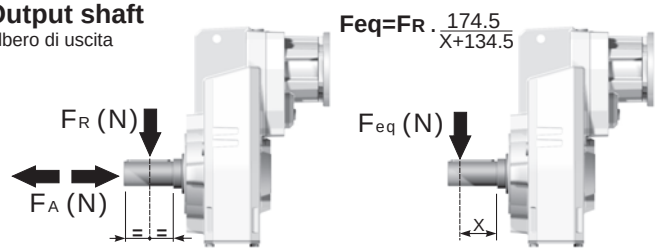
H1	H4	H3	H2	H5	H6
3.50 LT	1.90 LT	1.90 LT	1.80 LT	3.60 LT	1.90 LT
SHELL Omala S2 GX 460			**ENI** Blasia 460		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

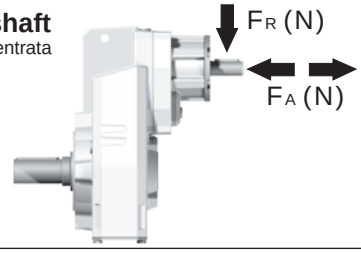
$$Feq = FR \cdot \frac{174.5}{X+134.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

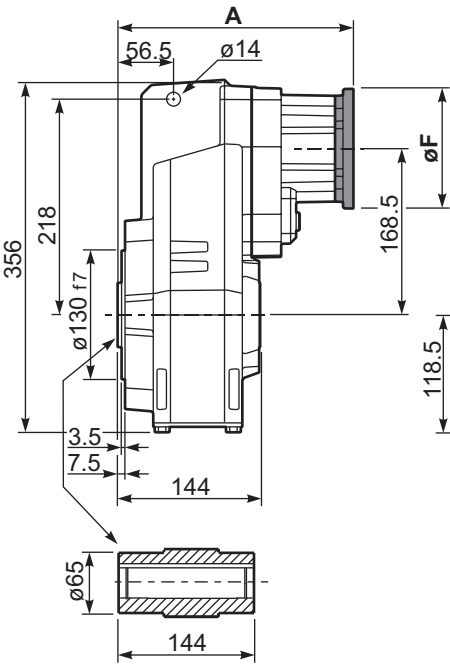


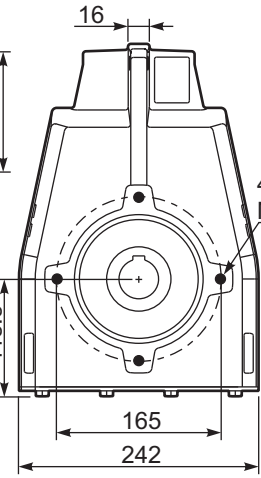
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

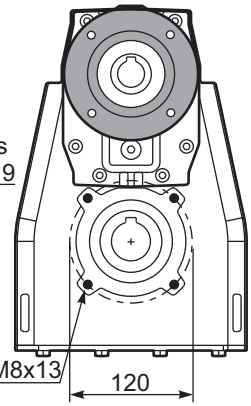
tab. 2

PFC72C... Basic gearbox
Riduttore base

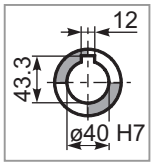
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	238.5
80/90B5	K023.4.042	200	240.5
100/112B5	K023.4.043	250	249.5
132B5	KC51.4.043	300	270.5
80B14	K085.4.046	120	240.5
90B14	K085.4.045	140	240.5
100/112B14	K085.4.047	160	249.5
132B14	KC51.4.041	200	270.5



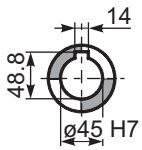




Gearbox weight / peso riduttore: **30.5 kg**



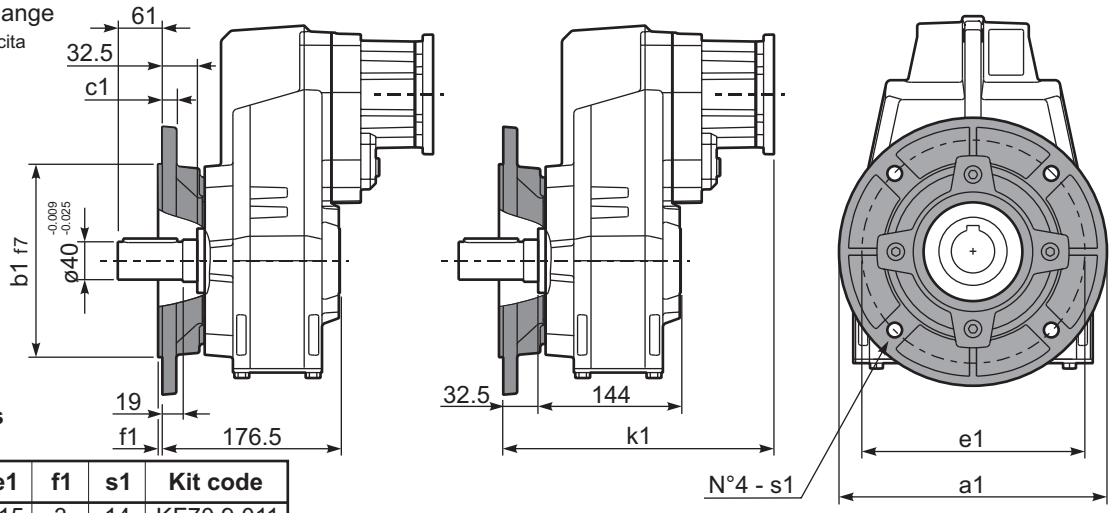
Standard
Hollow shaft



On request
A richiesta

PFC72...-F... Output flange
Flangia uscita

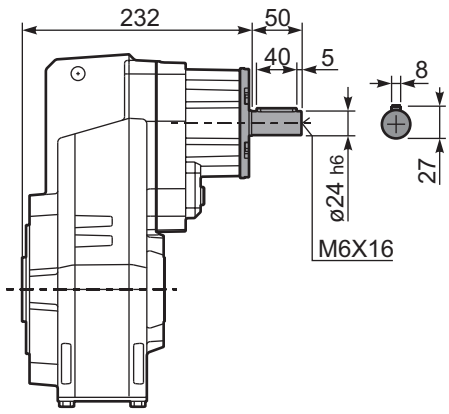
M. flanges	k1
71B5	271
80/90B5	273
100/112B5	282
132B5	300
80B14	273
90B14	273
100/112B14	282
132B14	300



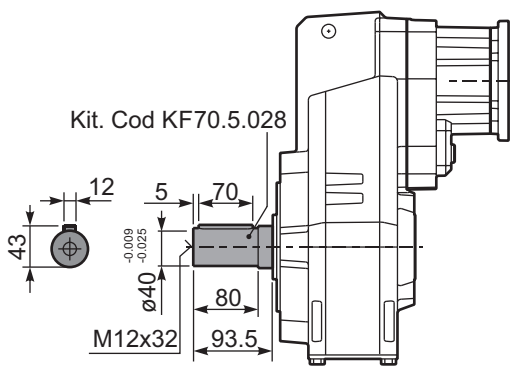
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

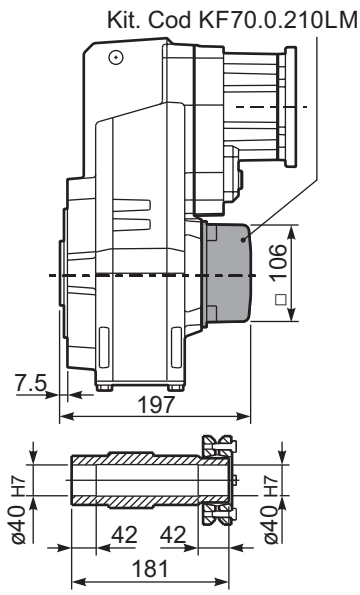
RFC72C... Input Shaft
Albero in entrata



PFC72 A... Single output shaft
Albero uscita semplice



PFC72D... Shrink disk
Calettatore



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft ø	Ratios code
18.5	**75.50**	1.5	725	1.1	**1.7**	**825**	B				C	C		191318		01
16.2	**86.47**	1.5	830	1.1	**1.6**	**900**	B				C	C		191316		02
14.0	**100.22**	1.5	962	0.9	**1.4**	**900**	B				C	C		171316		03
12.0	**116.56**	1.1	817	1.1	**1.2**	**900**	B				C	C		171314		04
10.2	**136.82**	1.1	959	0.9	**1.0**	**900**	B				C	C		151314		05
9.1	**153.05**	0.75	736	1.1	**0.83**	**810**	B				C	C		190816		06
8.6	**163.31**	0.75	785	1.1	**0.86**	**900**	B				C	C		131314	**standard ø40**	07
7.9	**178.01**	0.75	856	1.1	**0.79**	**900**	B				C	C		190814		08
7.3	**191.67**	0.75	922	1.0	**0.73**	**900**	B				C	C		101316		09
6.8	**206.32**	0.75	992	0.9	**0.68**	**900**	B				C	C		170814	ø45 On request	10
6.3	**222.92**	0.55	791	1.1	**0.63**	**900**	B				C	C		101314		11
5.8	**242.18**	0.55	859	1.0	**0.58**	**900**	B				C	C		150814		12
5.6	**250.15**	0.55	888	1.0	**0.56**	**900**	B				C	C		91316		13
4.8	**289.08**	0.55	1026	0.9	**0.49**	**900**	B				C	C		130814		14
4.2	**330.31**	0.37	783	1.1	**0.42**	**890**	B				C	C		71316		15
3.5	**394.59**	0.37	936	1.0	**0.36**	**900**	B				C	C		100814		16
2.7	**514.99**	0.25	824	1.1	**0.27**	**900**	B				C	C		90814		17
2.1	**680.03**	0.18	832	1.1	**0.21**	**900**	B				C	C		70814		18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

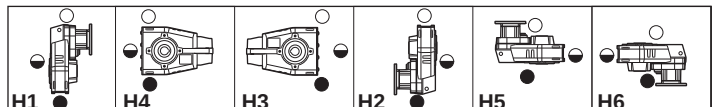
EN Unit **FC73** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC73** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC73** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC73** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC73** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.



H1	H4	H3	H2	H5	H6
3.55 LT	1.95 LT	1.95 LT	1.95 LT	3.75 LT	2.00 LT

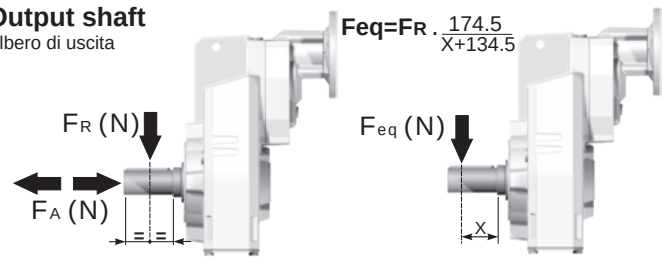
SHELL Omala S2 GX 460	**ENI** Blasia 460

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

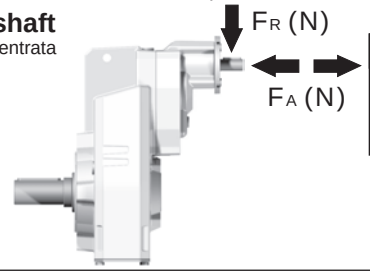
$$Feq = FR \cdot \frac{174.5}{X+134.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



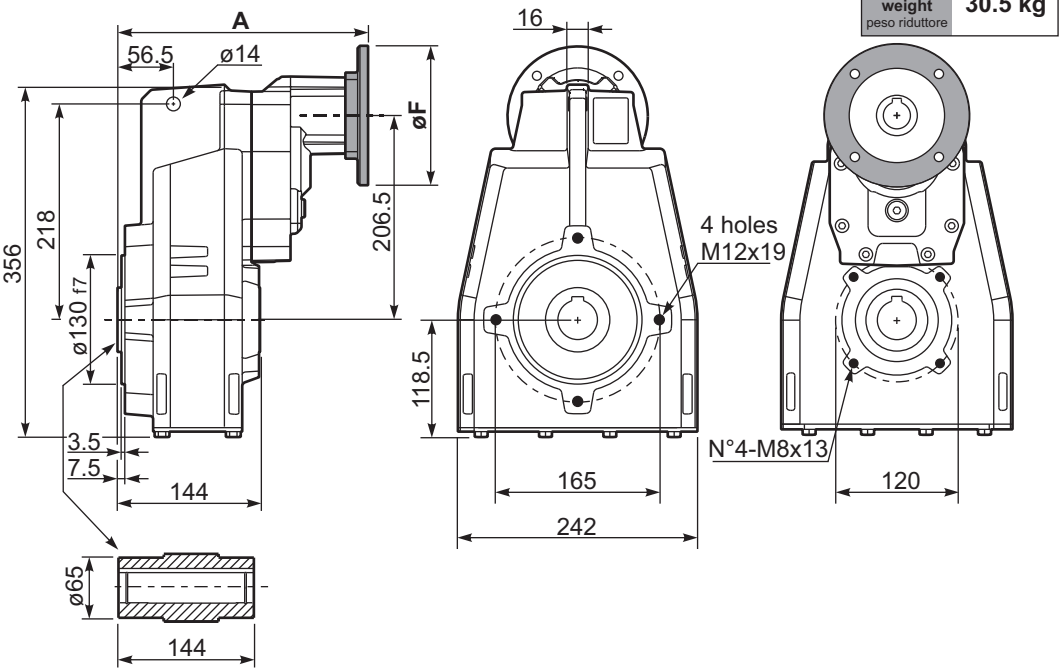
n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

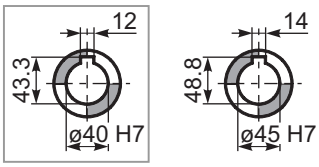
tab. 2

PFC73C... Basic gearbox
Riduttore base

Gearbox weight / peso riduttore: **30.5 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	250.5
71B5	K063.4.042	160	248.5
80/90B5	K063.4.043	200	250.5
71B14	K063.4.047	105	248.5
80B14	K063.4.046	120	250.5
90B14	K063.4.041	140	250.5



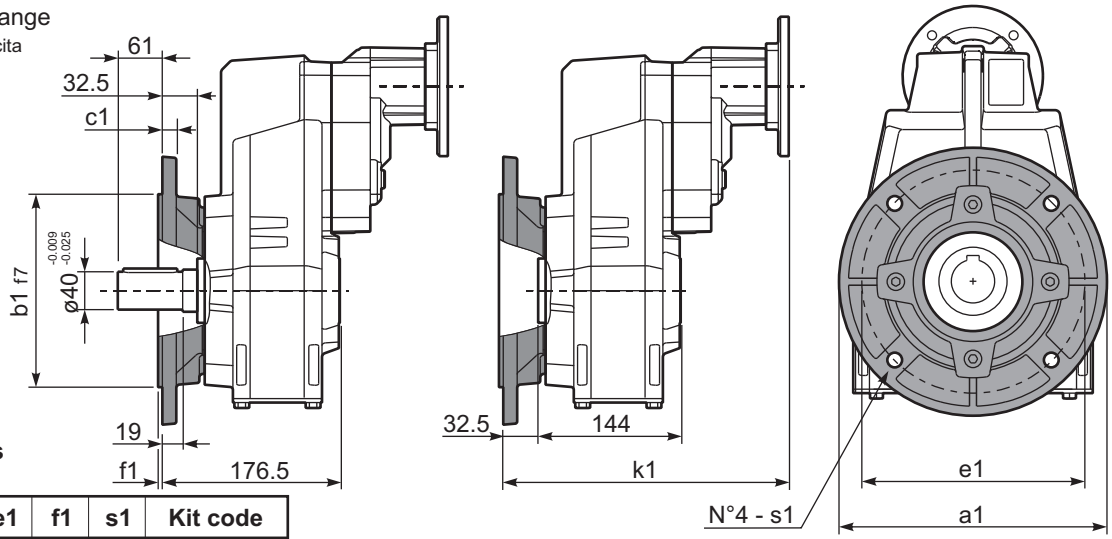


Standard
Hollow shaft

On request
A richiesta

PFC73...-F... Output flange
Flangia uscita

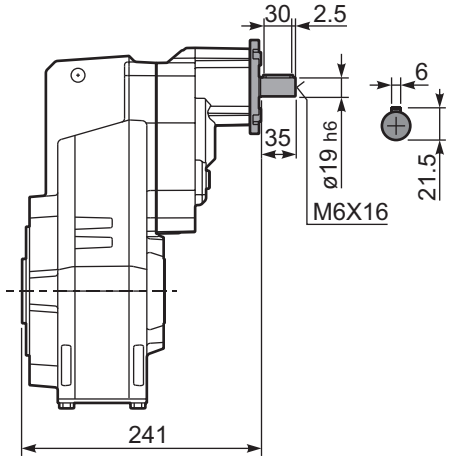
M. flanges	k1
63B5	283
71B5	281
80/90B5	283
71B14	281
80B14	283
90B14	283



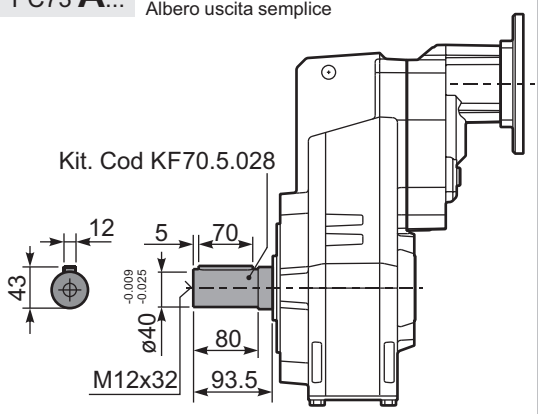
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

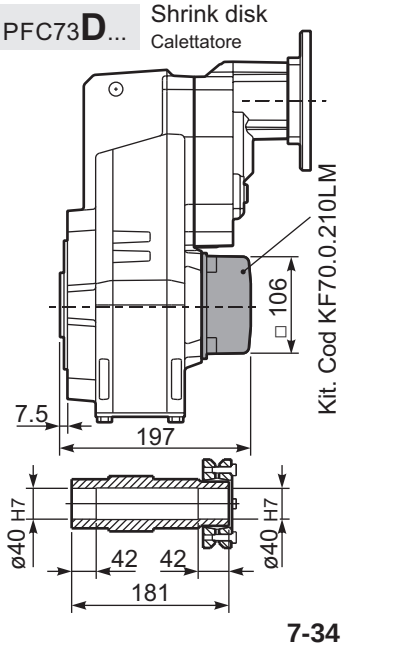
RFC73C... Input Shaft
Albero in entrata



PFC73 A... Single output shaft
Albero uscita semplice



PFC73D... Shrink disk
Calettatore



7

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -H	Available B5 motor flanges -I	B14 motor flanges				Output Shaft		Ratios code
528	**2.65**	22	374	1.7	**36.7**	**650**							2361	**standard**	01
409	**3.42**	22	483	1.6	**32.8**	**750**							1965	**ø50**	02
304	**4.60**	22	649	1.5	**30.9**	**950**							1569		03
256	**5.46**	22	771	1.3	**27.4**	**1000**							1371	ø55	04
211	**6.64**	22	937	1.3	**26.5**	**1175**							1173	On request	05
							160	180	-	-	-	-			
									-	-	-	-			

not available

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

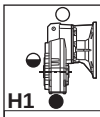
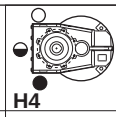
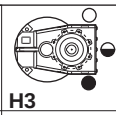
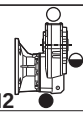
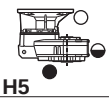
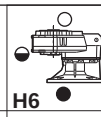
EN Unit **FC81** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC81** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC81** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC81** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC81** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

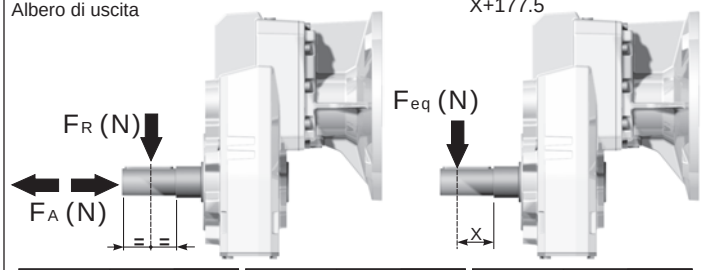
 H1	 H4	 H3	 H2	 H5	 H6
5.50 LT	3.50 LT	3.50 LT	3.50 LT	6.20 LT	4.40 LT
SHELL Omala S2 GX 460			**ENI** Blasia 460		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

Feq=FR . 227.5 / X+177.5



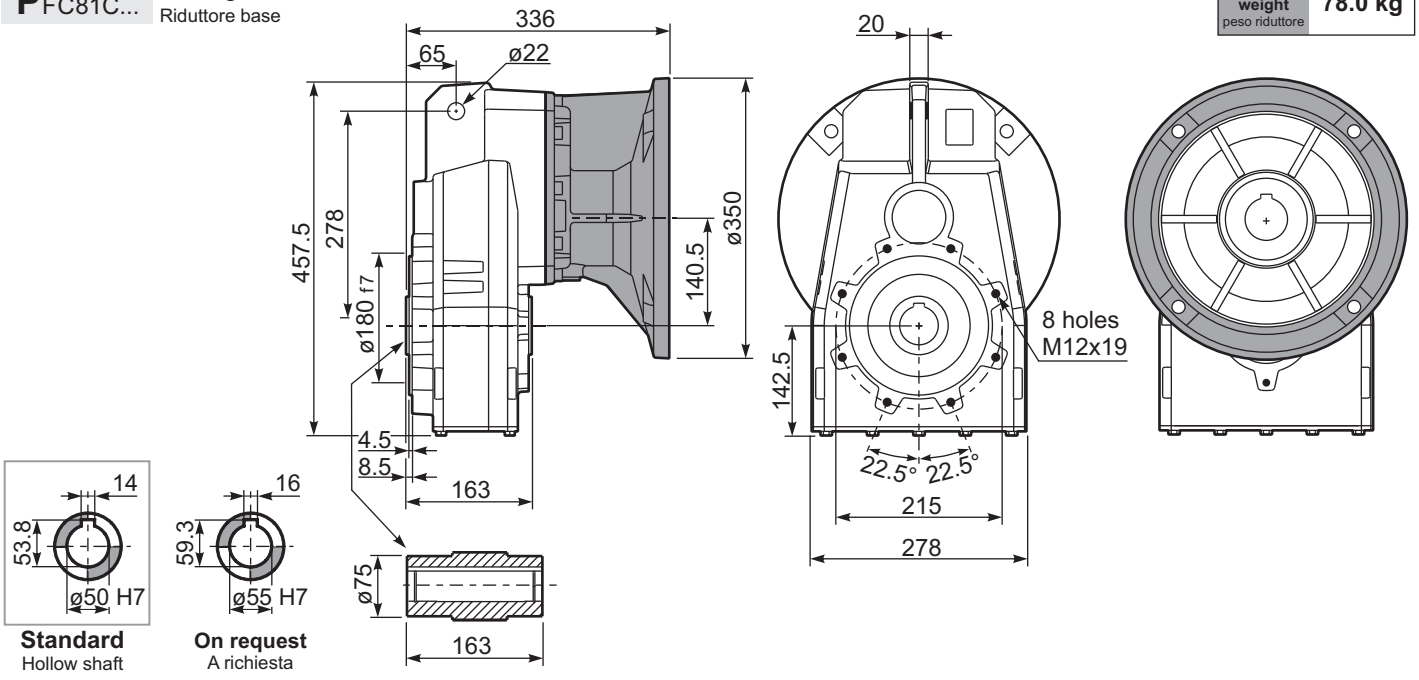
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

PFC81C... Basic gearbox
Riduttore base

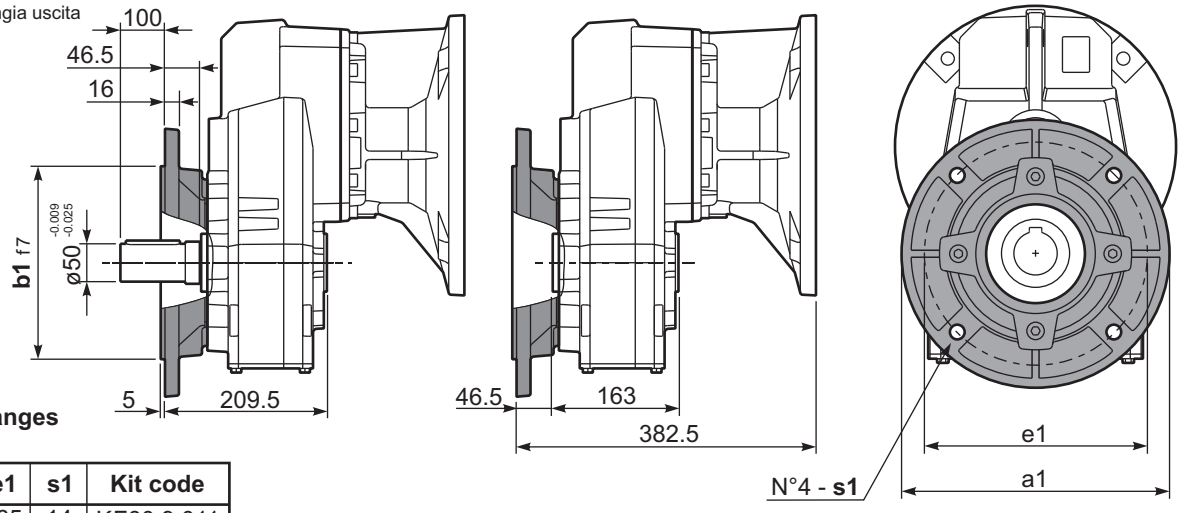
Gearbox weight peso riduttore	78.0 kg



Standard
Hollow shaft

On request
A richiesta

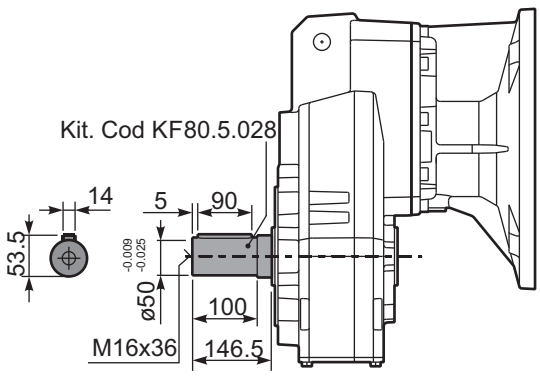
PFC81...**-F**... Output flange
Flangia uscita



Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

PFC81**A**... Single output shaft
Albero uscita semplice



7

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges -F	-G	-H	-I	B14 motor flanges -U	-V		Output Shaft ø	Ratios code
							100 112	132	160	180	100 112	132			
234	**5.98**	22	827	1.2	**25.5**	**1000**							3015		01
197	**7.10**	22	982	1.2	**25.3**	**1175**							3013		02
162	**8.63**	22	1193	1.1	**23.9**	**1350**							3011		03
124	**11.27**	18.5	1310	1.1	**20.3**	**1500**							2015		04
105	**13.38**	18.5	1555	1.1	**19.4**	**1700**							2013		05
92	**15.24**	18.5	1771	1.1	**19.0**	**1900**							1615		06
86	**16.26**	18.5	1889	1.1	**19.7**	**2100**							2011	**standard ø50**	07
77	**18.09**	18.5	2102	1.0	**17.7**	**2100**							1613		08
71	**19.82**	15	1865	1.1	**15.9**	**2060**							1315		09
64	**21.98**	15	2069	1.0	**14.6**	**2100**							1611	ø55 On request	10
60	**23.53**	15	2214	0.9	**13.6**	**2100**							1313		11
58	**24.25**	11	1677	1.2	**12.2**	**1940**							1115		12
48.6	**28.80**	11	1991	1.1	**11.1**	**2100**							1113		13
40.0	**34.99**	9	2063	1.0	**9.2**	**2100**							1111		14
33.6	**41.64**	7.5	1976	1.0	**7.2**	**1960**							813		15
27.7	**50.60**	5.5	1774	1.2	**6.3**	**2100**							811		16

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

EN Unit **FC82** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC82** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC82** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC82** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile.
L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC82** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

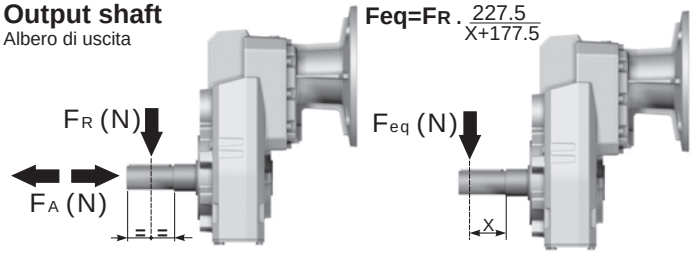
H1	H4	H3	H2	H5	H6
5.70 LT	3.60 LT	3.60 LT	3.60 LT	6.60 LT	4.50 LT
SHELL Omala S2 GX 460			**ENI** Blasia 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

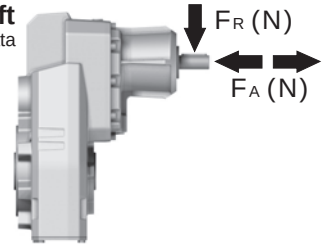
Output shaft
Albero di uscita



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



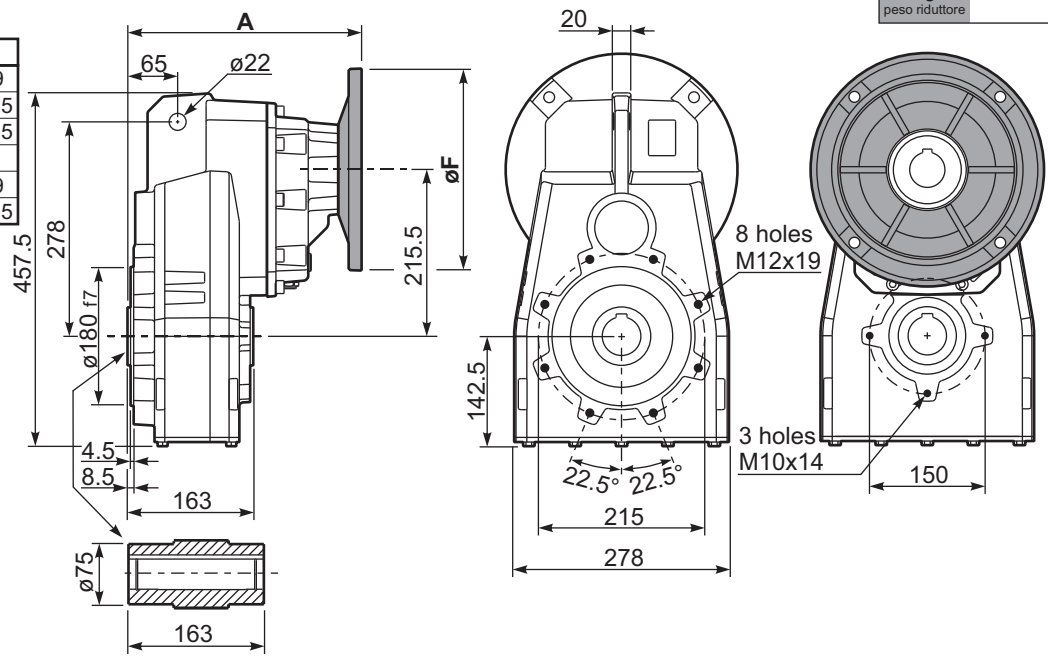
n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

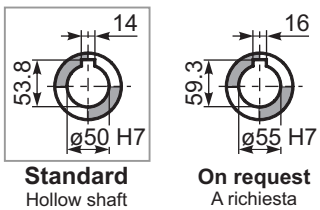
tab. 2

PFC82C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	82.5 kg

M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	299
132B5	KC51.4.043C	300	320.5
160/180B5	KC86.4.0.43	350	352.5
100/112B14	K085.4.047	160	299
132B14	KC51.4.041C	200	320.5



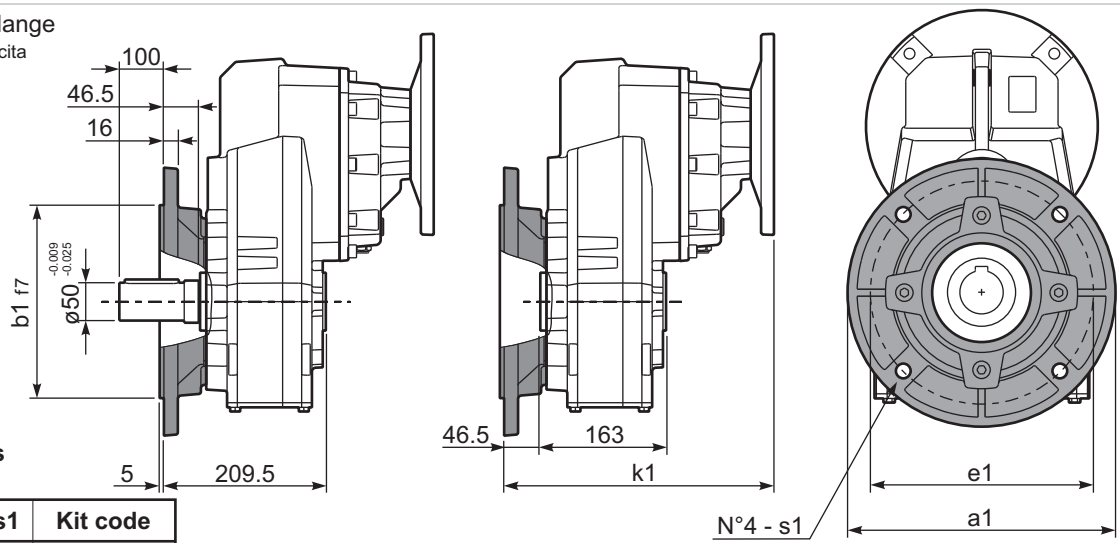


Standard
Hollow shaft

On request
A richiesta

PFC82...-F... Output flange
Flangia uscita

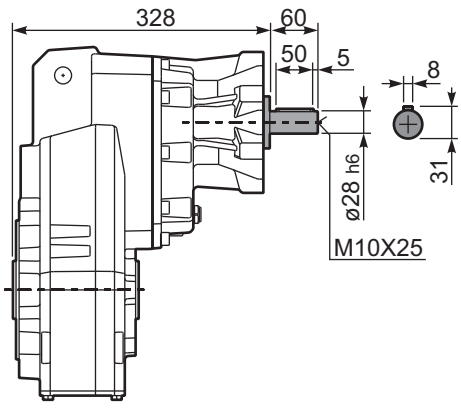
M. flanges	k1
100/112B5	345.5
132B5	367
160/180B5	399
100/112B14	345.5
132B14	367



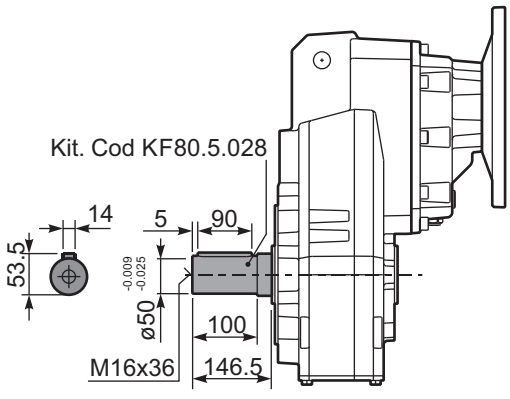
Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

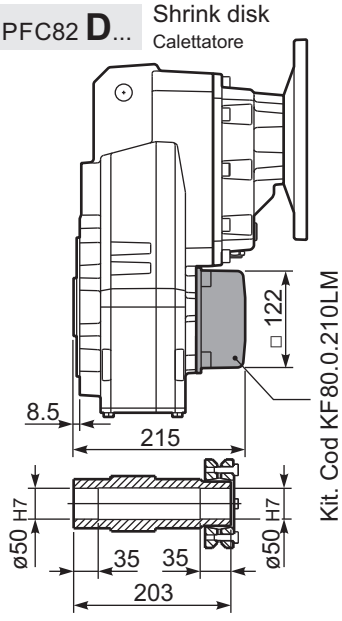
RFC82C... Input Shaft
Albero in entrata



PFC82 A... Single output shaft
Albero uscita semplice



PFC82 D... Shrink disk
Calettatore



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -C (71)	-D (80)	-E (90)	-F (100 112)	-G (132)	Available B14 motor flanges -R (80)	-T (90)	-U (100 112)	-V (132)		Output Shaft	Ratios code
28.8	**48.55**	7.5	2257	0.9	6.7	2100	B									201315		01
24.3	**57.64**	5.5	1980	1.1	5.7	2100	B									201313		02
21.3	**65.64**	5.5	2255	0.9	5.0	2100	B									161315		03
20.0	**70.04**	4	1760	1.2	4.7	2100	B									201311		04
18.0	**77.93**	4	1958	1.1	4.2	2100	B									161313		05
16.4	**85.36**	4	2145	1.0	3.8	2100	B									131315	**standard ø50**	06
14.8	**94.70**	4	2380	0.9	3.5	2100	B									161311		07
13.8	**101.35**	3	1917	1.1	3.2	2100	B									131313		08
11.4	**123.15**	3	2330	0.9	2.7	2100	B									131311	ø55 On request	09
9.3	**150.73**	2.2	2100	1.0	2.2	2100	B									111311		10
7.8	**179.39**	1.5	1722	1.2	1.8	2100	B									81313		11
6.4	**217.98**	1.5	2093	1.0	1.5	2100	B									81311		12
5.7	**247.03**	1.1	1732	1.1	1.2	1950	B									61313		13
4.7	**300.17**	1.1	2105	1.0	1.1	2100	B									61311		14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC83** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC83** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC83** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC83** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC83** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

H1	H4	H3	H2	H5	H6
5.80 LT	3.90 LT	3.90 LT	3.90 LT	6.80 LT	4.90 LT

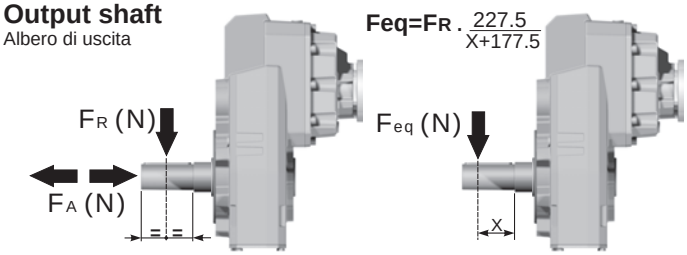
SHELL Omala S2 GX 460	**ENI** Blasia 460

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

Feq=FR . 227.5 / X+177.5



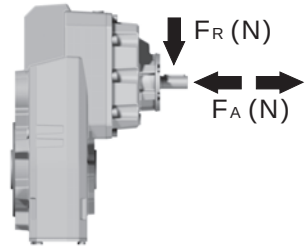
n_2	FA	FR
300	920	4600
250	1000	5000
200	1060	5300

n_2	FA	FR
140	1120	5600
120	1140	5700
85	1300	6500

n_2	FA	FR
70	1400	7000
40	1800	9000
15	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



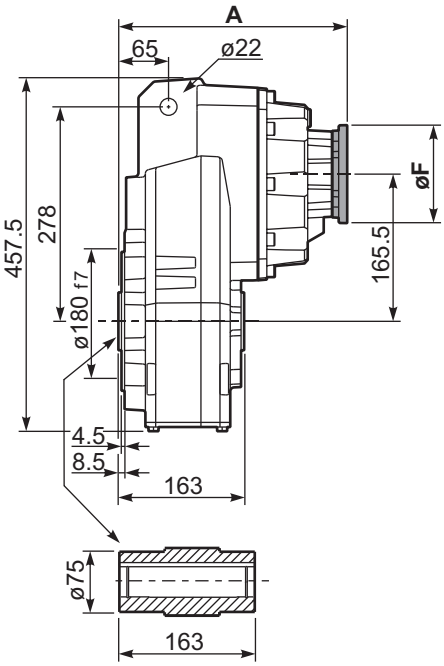
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

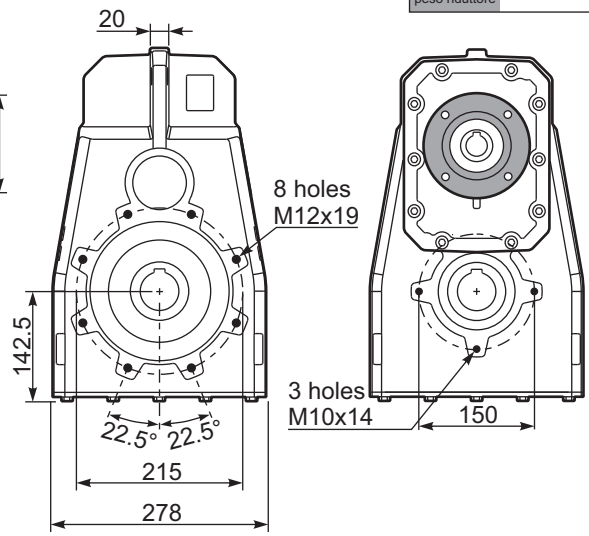
tab. 2

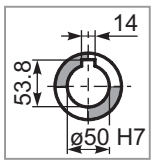
PFC83C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore **68.5 kg**

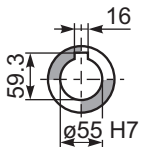
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	292.5
80/90B5	K023.4.042	200	294.5
100/112B5	K023.4.043	250	303.5
132B5	KC51.4.043	300	324.5
80B14	K085.4.046	120	294.5
90B14	K085.4.045	140	294.5
100/112B14	K085.4.047	160	303.5
132B14	KC51.4.041	200	324.5







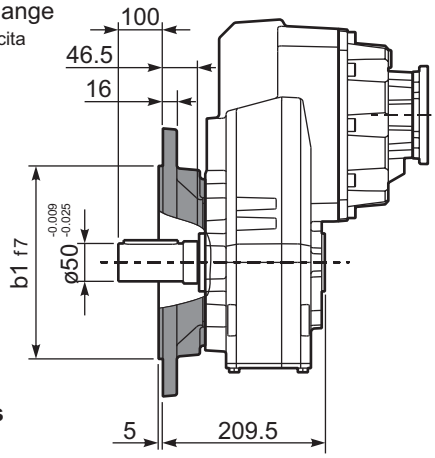
Standard
Hollow shaft

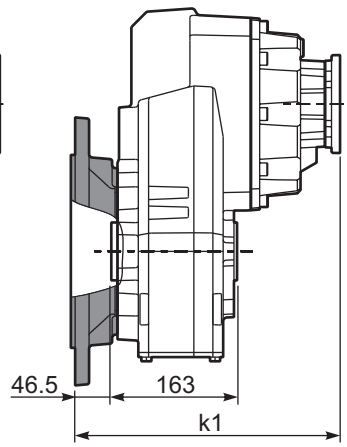


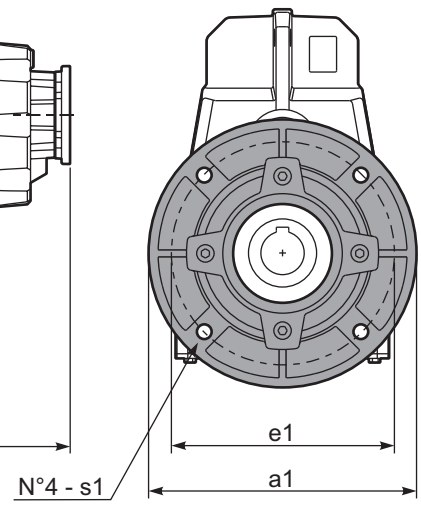
On request
A richiesta

PFC83...-F... Output flange
Flangia uscita

M. flanges	k1
71B5	339
80/90B5	341
100/112B5	350
132B5	368
80B14	341
90B14	341
100/112B14	350
132B14	368



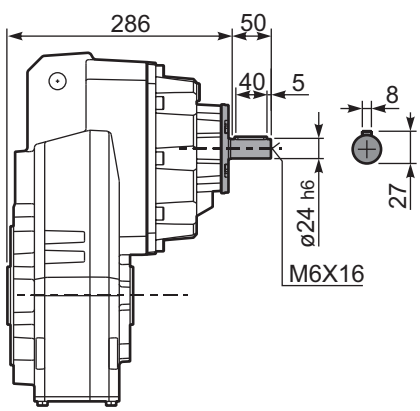




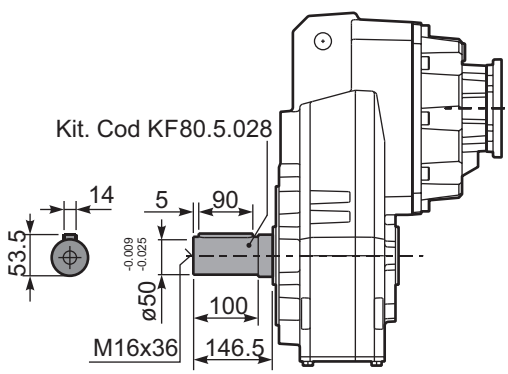
Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

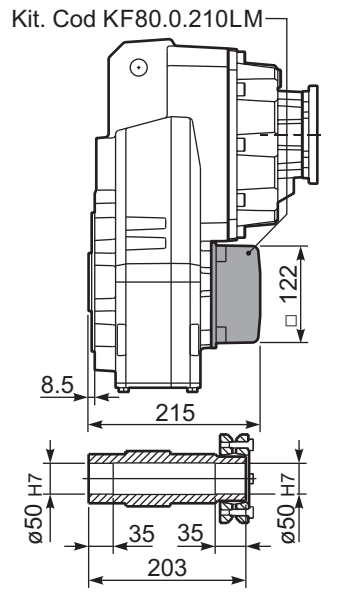
RFC83C... Input Shaft
Albero in entrata



PFC83 A... Single output shaft
Albero uscita semplice



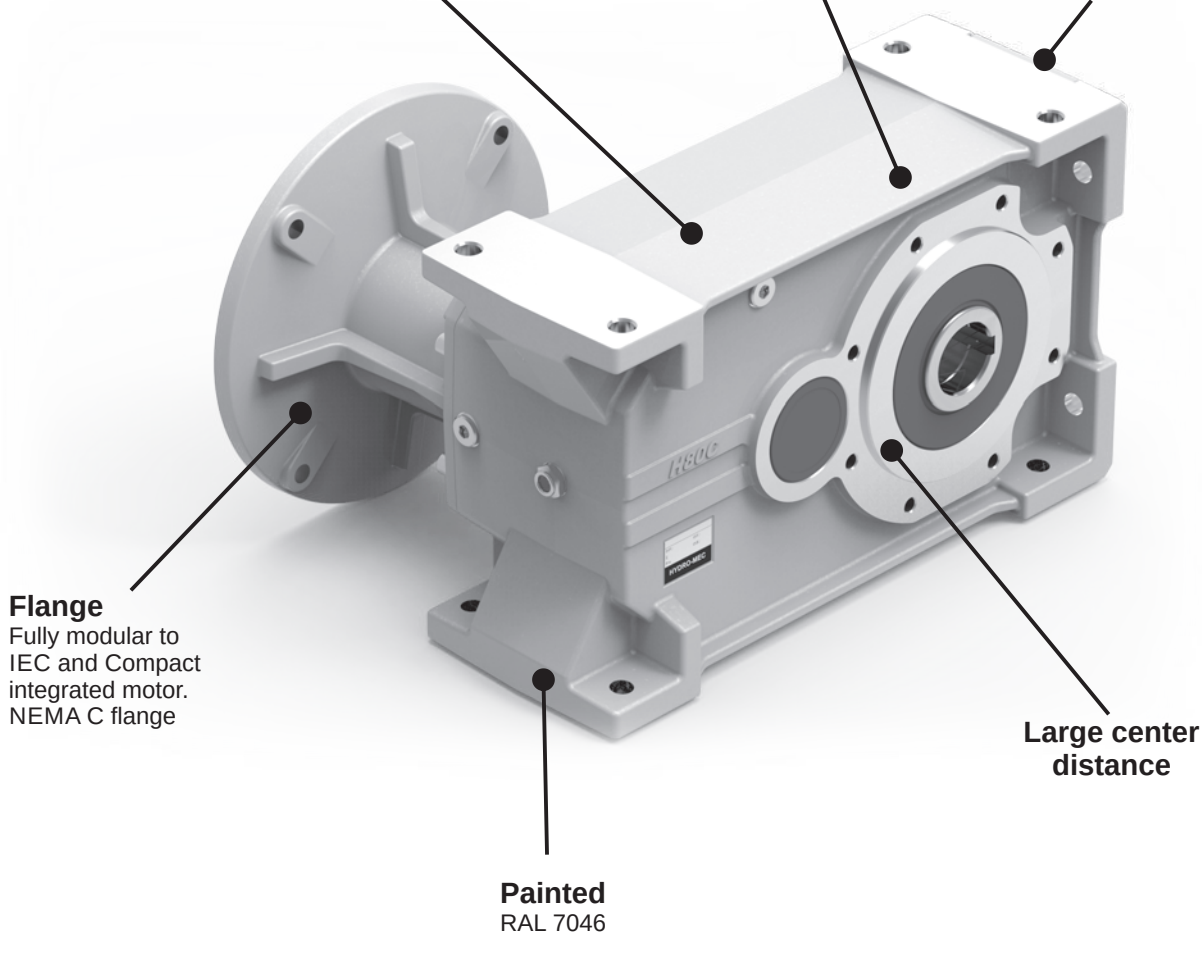
PFC83D... Shrink disk
Calettatore



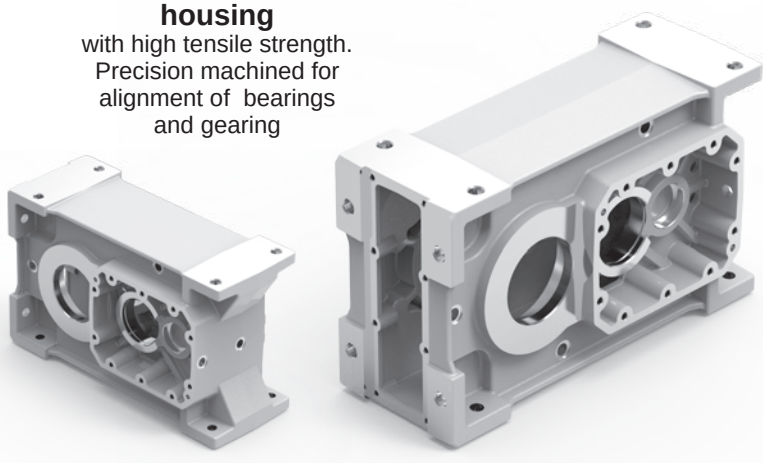
7

Cast iron parallel shaft gearboxes

A modular and compact product



Single-piece Cast Iron housing
with high tensile strength. Precision machined for alignment of bearings and gearing

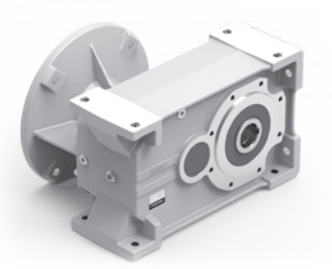


World wide sales network.

Specific type datasheet on page...

On page / A pagina /Auf Seite / À la page / En la página

1 Stage



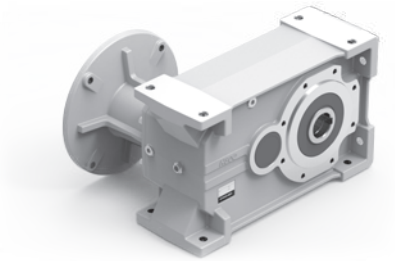
8-5	8-11	8-17

Types / Tipi / Tipen / Types / Tipos ⇨

H61C	H71C	H81C
380Nm	670Nm	1175Nm

On page / A pagina / Auf Seite / À la page / En la página

2 and 3 Stage

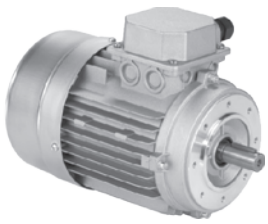


8-7	8-9	8-13	8-15	8-19	8-21

Types / Tipi / Tipen / Types / Tipos ⇨

H62C	H63C	H72C	H73C	H82C	H83C
675Nm	675Nm	900Nm	900Nm	2100Nm	2100Nm

On page / A pagina / Auf Seite / À la page / En la página

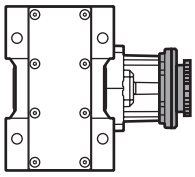


Types / Tipi / Tipen / Types / Tipos

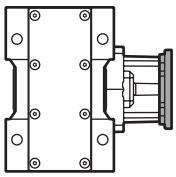
M-1									
56A 56B	63A 63B	71A 71B	80A 80B	90S 90L	100LA 100LB	112M	132S 132M	160M 160L	180M 180L

Type - Tipo - Typ Type - Tipo	**Size** - Grandezza - Grösse Taille - Tamaño	**Mounting** - Montaggio Montage - Fixation Tipo de montaje	**Rapporto** - Ratio Untersetzung Reduction - Relacion	**Output shaft** Albero uscita Abtriebswelle Arbre de sortie Eje en salida
M	H62C	C	12.39	-E

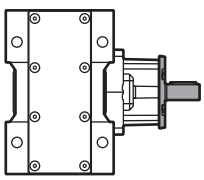
Parallel shaft helical
Riduttori ad assi paralleli



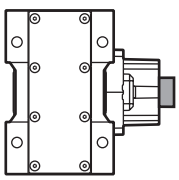
With IEC motor
M



With motor flange
P



With male input shaft
R



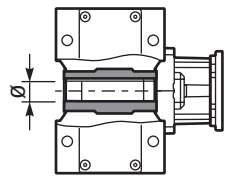
Modular base
B

Not available for:
H61C, H71C, H81C, H82C

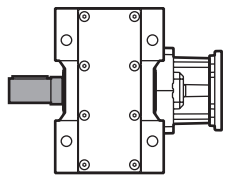
1 Stage Riduzione Stufe Trains Etapa
2 Stages Riduzioni Stufen Trains Etapas
3 Stages Riduzioni Stufen Trains Etapas

Cast Iron/Ghisa/Grauguss/Fonte/Fundicion

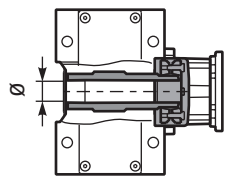
H61C H71C H81C
H62C H72C H82C
H63C H73C H83C



Hollow output shaft
C



Single output shaft
A



Shrink Disk
D

Only on request for Q.ty
A richiesta per quantità

See technical data table

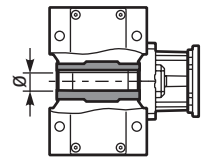
Vedi tabelle dati tecnici.

Technisches Datenblatt beachten

Voir Tableau données techniques

Ver tabla datos técnicos

C



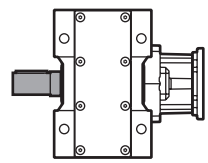
➡ **STANDARD**
⇨ Only on request for Q.ty
A richiesta per quantità

H61C H62C H63C
-E ➡ **ø35**
-F ⇨ ø40

H71C H72C H73C
-F ➡ **ø40**
-G ⇨ ø45

H81C H82C H83C
-H ➡ **ø50**
-I ⇨ ø55

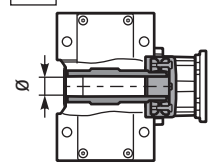
A



Single output shaft

-N H61/2/3C ⇨ ø35
-O H71/2/3C ⇨ ø40
-K H81/2/3C ⇨ ø50

D



Shrink disk

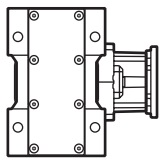
-T H62/3C ⇨ ø35
-U H72/3C ⇨ ø40
-V H82/3C ⇨ ø50

On request we can deliver our products according to the ATEX
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern
Sur demande nos produits peuvent se conformer à la réglementation ATEX
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

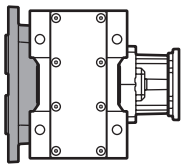
Type - Tipo - Typ
Types - Tipo

-N



-N

Senza flangia
Without flange

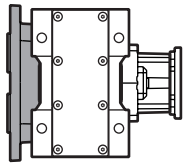


-F

Whit output flange
con flangia uscita

Output flange
Flangia uscita
Ausgangsflansch
Bride de sortie
Brida en salida

N



N Senza flangia
Without flange

H61C H62C H63C
4 ➡ **ø250**

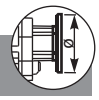
H71C H72C H73C
4 ➡ **ø250**
5 ⇨ ø300

H81C H82C H83C
5 ➡ **ø300**
6 ⇨ ø350

Motor size - Grandezza motore
Motor Grösse
Grandeur moteur - Tamaño motor

-C

Flange
Flangia



B5

-A=56 (ø120)
-B=63 (ø140)
-C=71 (ø160)
-D=80 (ø200)
-E=90 (ø200)
-F=100 (ø250)
-G=132 (ø300)
-H=160 (ø350)
-I=180 (ø350)

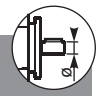
B14

-O=56 (ø80)
-P=63 (ø90)
-Q=71 (ø105)
-R=80 (ø120)
-T=90 (ø140)
-U=100 (ø160)
-V=132 (ø200)

Brushless

BB=50/70-M5
BC=60/75-M5
BD=70/90-M6
BE=80/100-M6
BF=95/115-M8
BG=110/145-M8
BH=130/165-M8

Type R
Tipo R



H63C H73C
-2 ⇨ ø19

H62C
H72C H83C
-3 ⇨ ø24

H82C
-4 ⇨ ø28

Without flange
Senza flangia

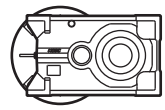
-M ⇨ With coupling

H63C H73C
-1 ⇨ ø14 (71B5)
-2 ⇨ ø19 (80B5)
-3 ⇨ ø24 (90B5)

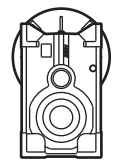
H62C
H72C H83C
-2 ⇨ ø19 (80B5)
-3 ⇨ ø24 (90B5)
-4 ⇨ ø28 (100B5)

Mounting position
Posizione montaggio
Einbaulage
Position de montage
Position de montaje

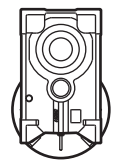
B3



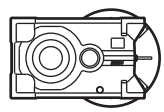
B3
STANDARD



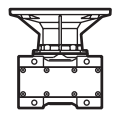
B6



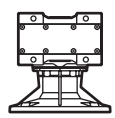
B7



B8



V5



V6

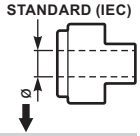
V8

Input bore
Foro entrata
Eingangshohlwelle
Trou d'entree
Eje hueco de entrada

ST

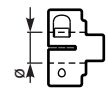
ST
standard bore
foro standard

COUPLING
STANDARD (IEC)



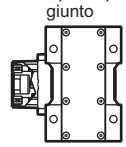
-A = 9mm
-B = 11mm
-C = 14mm
-D = 19mm
-E = 24mm
-F = 28mm

BRUSHLESS *



-3 = 14mm
-4 = 19mm
-5 = 22mm
-6 = 24mm

-0
Ready for input coupling
Predisposto per giunto



* With reduction bushing where applicable
Con bussola di riduzione dove prevista

Terminal box position
Posizione morsettiera
Klemmkastenlage
Position boîte à bornes
Posición caja de bornes

With Type M specify terminal box position

Con tipo M specificare posizione morsettiera

A

B
STANDARD

C

D

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

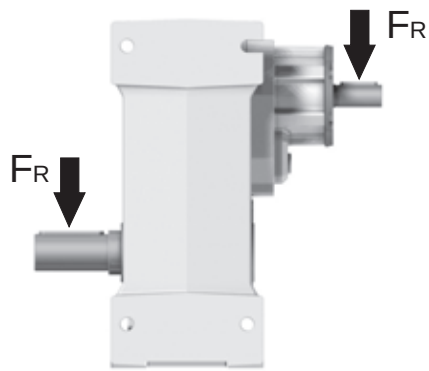
Lifting / sollevamento / hubantriebe / levage / elevactión	$\mathbf{P}\ [KW] = \frac{\mathbf{M}\ [Kg] \cdot \mathbf{g}\ [9.81] \cdot \mathbf{v}\ [m/s]}{\mathbf{1000}}$
Rotation / rotazione / drehung / rotation / rotaction	$\mathbf{P}\ [KW] = \frac{\mathbf{M}\ [Nm] \cdot \mathbf{n}\ [rpm]}{\mathbf{9550}}$
Linear movement / traslazione / linearbewegung / translation / translacion	$\mathbf{P}\ [KW] = \frac{\mathbf{F}\ [N] \cdot \mathbf{v}\ [m/s]}{\mathbf{1000}}$

TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

	$\mathbf{M}\ [Nm] = \frac{\mathbf{9550} \cdot \mathbf{P}[KW]}{\mathbf{n}\ [rpm]}$
	$\mathbf{M}\ [lb\ in] = \frac{\mathbf{63030} \cdot \mathbf{P}[HP]}{\mathbf{n}\ [rpm]}$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



$\mathbf{F_R}\ [N] = \frac{\mathbf{M}\ [Nm] \cdot \mathbf{2000}}{\mathbf{d}\ [mm]} \cdot \mathbf{f_K}$	$\mathbf{F_R}\ [N] = \frac{\mathbf{M}\ [lb\ in] \cdot \mathbf{8.9}}{\mathbf{d}\ [in]} \cdot \mathbf{f_K}$

M	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo
$\mathbf{f_K}$	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión **1.15** Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje **1.25** Catena / Chain sprochets / Antriebskette / Chaîne / Cadena **1.75** Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal **2.50** Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana

— If your application requires higher radial loads, contact our technical office. Higher load may be possible.
— Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
— Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
— Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
— En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

B Output speed / Velocità in uscita / Abtriebsdrehzahl / Vitesse de sortie / Velocidad de salida

Nominal power / Potenza nominale / Max. mögliche Leistung / Poissance nominale / Potencia nominal

Gear size / Grandezza riduttore / Getriebegröße / Taille réducteur / Tamaño reductor

Motor power / Potenza motore / Motorleistung / Puissance moteur / Potencia motor

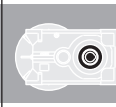
A Nominal torque / Momento torcente nominale / Nenn Drehmoment / Couple nominal / Par de torsión nominal

Flange code / Codice flangia / Flanschtype / Code bride / Código bridas

Input speed / Velocità in entrata / Eintriebsdrehzahl / Vitesse en entrée / Velocidad de entrada

H62C Cube gear 675Nm

Rating - Cast Iron
PARALLEL SHAFT GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
213	**6.57**	7.5	312	1.2	8.8	380	B									3018		01
185	**7.56**	7.5	358	1.1	7.9	390	B									3016		02
159	**8.82**	7.5	419	1.0	7.1	410	B									3014		03
113	**12.39**	7.5	588	1.0	7.2	580	B									2018		04

C Ratio / Rapporto / Untersetzung / Rapport de réduction / Relación

Transmitted torque / Momento torcente trasmesso / Mögliche Drehmomente / Couple de sortie / Par transmitido

Service factor / Fattore di servizio / Betriebsfaktor / Facteur de service / Factor de servicio

Output shaft diam. / Diam. albero uscita / Durchmesser abtriebswelle / Diametre arbre lent / Diametro eje de salida

Notes / Note / Anmerkungen / Note / Notas

fs

Type of load and starts per hour / Tipo di carico e avviamenti per ora		Oper. hours per day / Ore di funz. giorn. 3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora **10**	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora **> 10**	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

D Motor flange available / Flange disponibili / Erhältliche Motorflansche / Brides disponibles / Bridas disponibles

B) Mounting with reduction ring / Montaggio con boccola di riduzione / Reduzierhülsen / Montage avec douille de réduction / Montaje con casquillo de reducción

C) Motor flangeholes position/terminal box position / Posizione fori flangia/basetta motore / Bohrungsposition am Motorflansch/-sockel / Position trous bride/barrette à bornes moteur / Posición agujeros brida / base motor

B) Available without reduction bushes / Disponibile anche senza boccola / Auch ohne Reduzierbuchse verfügbar / Disponible aussi sans douille de réduction / Disponible tambien sin casquillo

A	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select ouput speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
C	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges	B14 motor flanges	Output Shaft	Ratios code
							-G	- - - -		
							132	- - - -	ø	
507	**2.76**	9	166	1.6	**14.4**	**265**			2980	**standard**	01
395	**3.54**	9	213	1.3	**11.6**	**275**			2485	**ø35**	02
277	**5.06**	9	304	1.0	**8.6**	**290**		**not available**	1891		03
241	**5.81**	7.5	281	1.2	**8.5**	**330**			1693	ø40	04
206	**6.79**	7.5	329	1.2	**8.4**	**380**			1495	On request	05

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

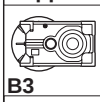
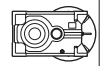
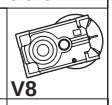
EN Unit **H61C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **H61C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **H61C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **H61C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **H61C** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

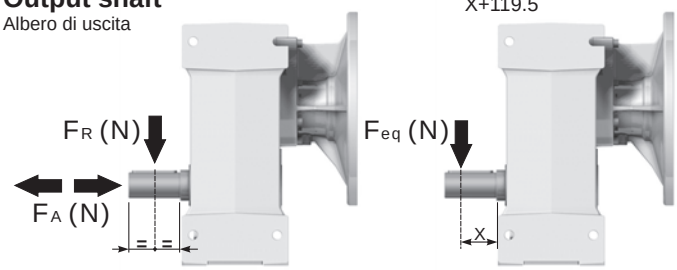
Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio					
 **B3**	 **B6**	 **B7**	 **B8**	 **V5**	 **V6**	 **V8**
2.25 LT	3.20 LT	3.00 LT	2.25 LT	4.35 LT	2.35 LT	Ask
SHELL Omala S4 WE 320			**ENI** Telium VSF 320			

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

Feq=FR . 149.5 / X+119.5



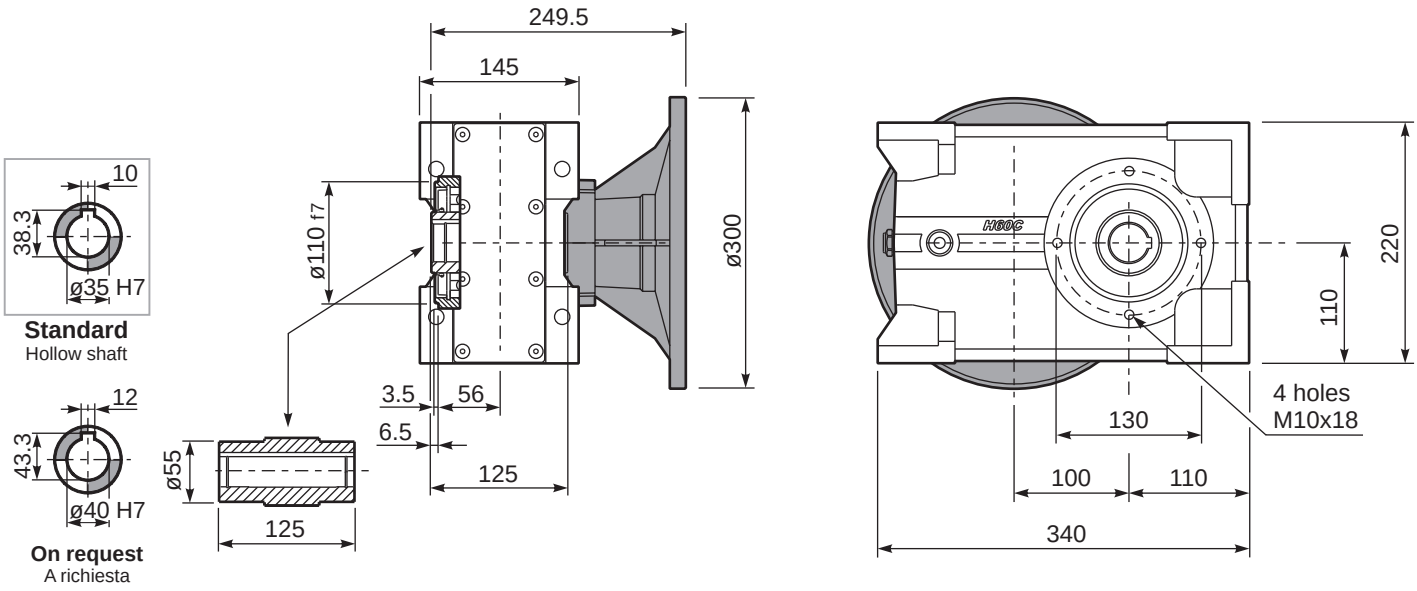
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

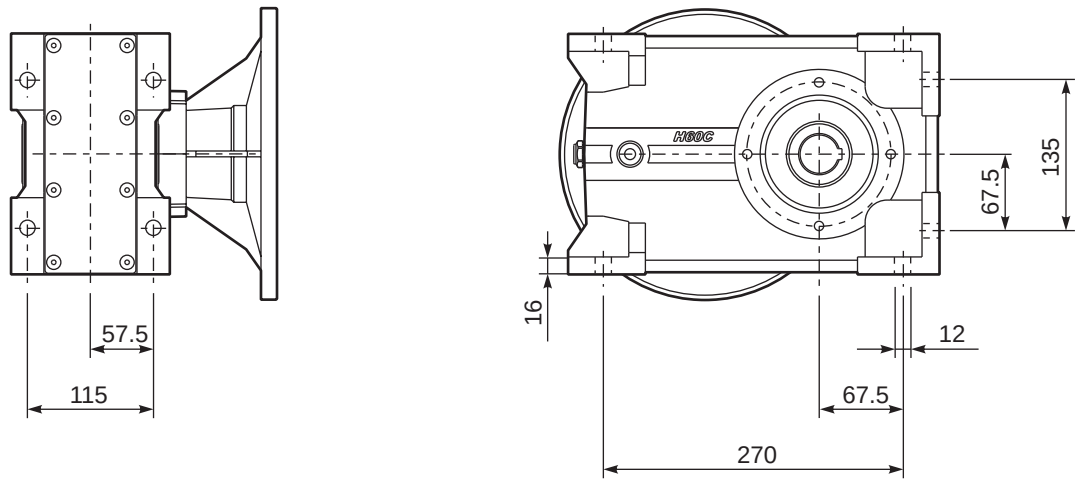
tab. 2

PH61C... Basic gearbox
Riduttore base

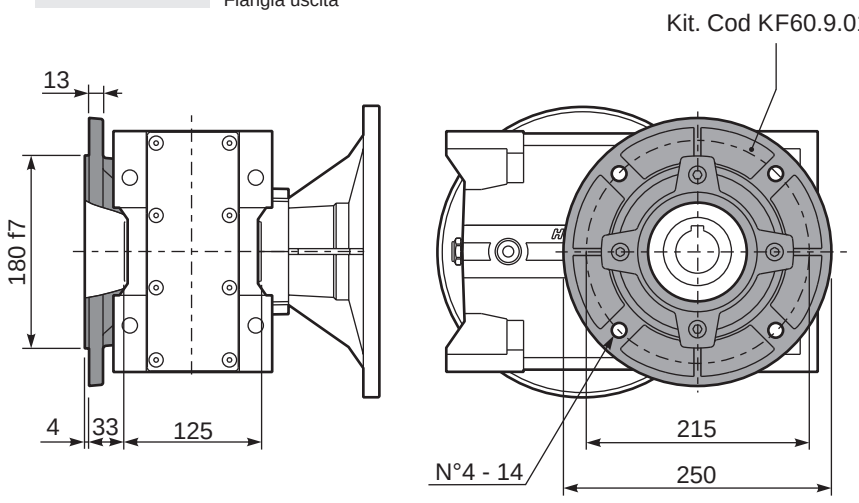
Gearbox weight peso riduttore	40.0 kg



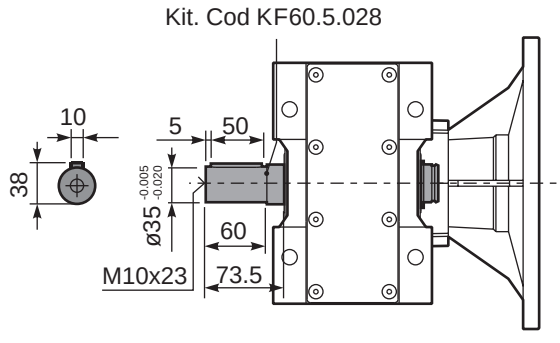
PH61C...**-N** Feet
Piedini



PH61C...**-F** Output flange
Flangia uscita



PH61C **A**... Single output shaft
Albero uscita semplice



8

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
213	**6.57**	7.5	312	1.2	8.8	380	B									3018		01
185	**7.56**	7.5	358	1.1	7.9	390	B									3016		02
159	**8.82**	7.5	419	1.0	7.1	410	B									3014		03
113	**12.39**	7.5	588	1.0	7.2	580	B									2018		04
98	**14.24**	5.5	499	1.2	6.4	600	B									2016		05
84	**16.75**	5.5	587	1.1	6.1	665	B									1618		06
73	**19.25**	5.5	675	1.0	5.4	675	B									1616	**standard ø35**	07
64	**21.78**	4	558	1.2	4.7	675	B									1318		08
56	**25.04**	4	642	1.1	4.1	675	B									1316		09
47.9	**29.23**	4	750	0.9	3.5	675	B									1314	ø40 On request	10
45.7	**30.65**	3	592	1.1	3.4	675	B									1116		11
39.1	**35.78**	3	691	1.0	2.9	675	B									1114		12
36.3	**38.55**	2.2	548	1.1	2.3	580	B									818		13
31.6	**44.32**	2.2	630	1.1	2.3	665	B									816		14
27.1	**51.74**	2.2	735	0.9	2.0	675	B									814		15
22.9	**61.03**	1.1	437	1.1	1.2	480	B									616		16
19.6	**71.25**	1.1	510	1.1	1.2	560	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

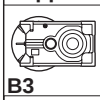
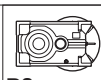
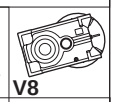
EN Unit **H62C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **H62C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **H62C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **H62C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **H62C** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio					
 **B3**	 **B6**	 **B7**	 **B8**	 **V5**	 **V6**	 **V8**
2.25 LT	3.20 LT	3.00 LT	2.25 LT	4.35 LT	2.35 LT	Ask
SHELL Omala S4 WE 320				**ENI** Telium VSF 320		

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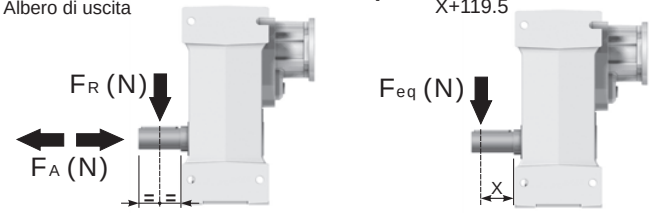
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

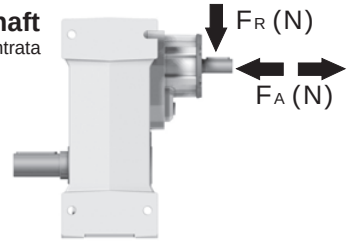
Feq=FR . 149.5 / X+119.5



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



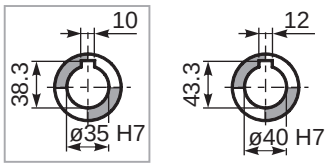
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

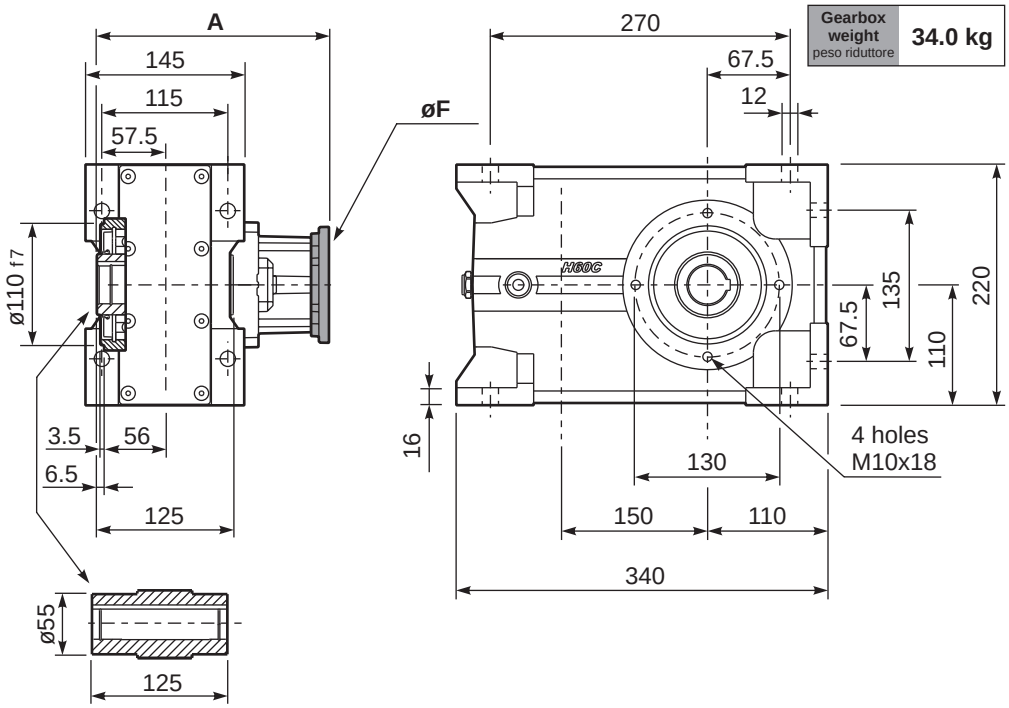
tab. 2

PH62C... Basic gearbox
Riduttore base

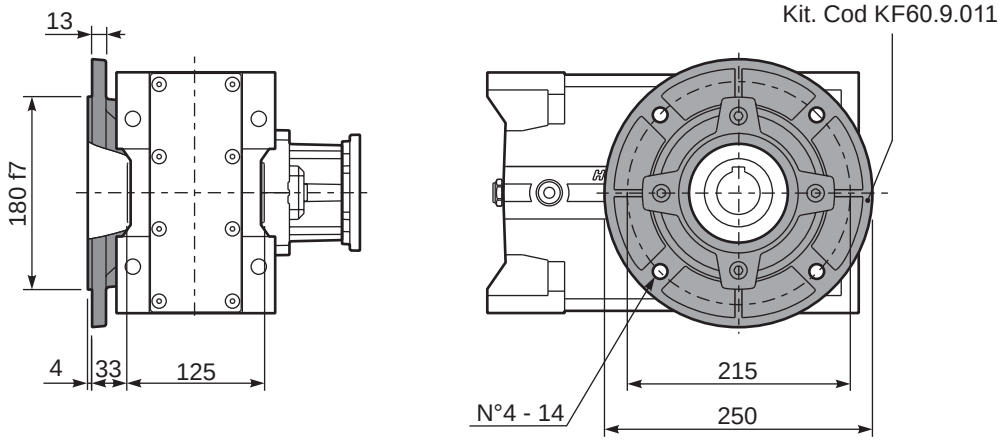
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC51.4.043	300	259
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC51.4.041	200	259

Gearbox weight peso riduttore **34.0 kg**

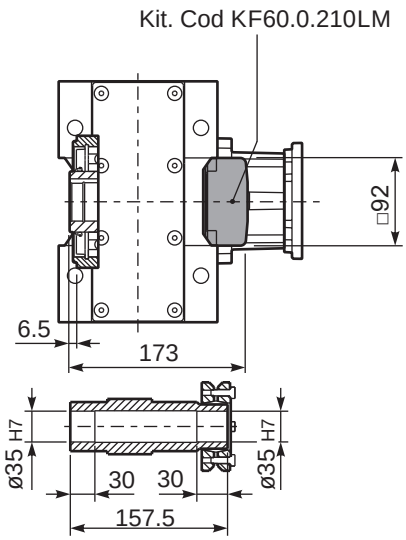




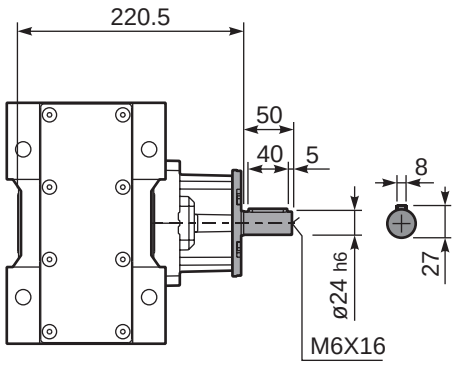
PH62C...-F Output flange
Flangia uscita



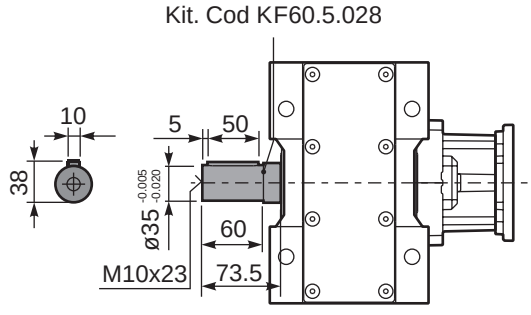
PH62C D... Shrink disk
Calettatore



RH62C... Input Shaft
Albero in entrata



PH62C A... Single output shaft
Albero uscita semplice



8

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft ø	Ratios code
22.6	**61.89**	1.5	594	1.1	**1.7**	**675**	B				C	C		191318		01
19.7	**71.16**	1.5	683	1.0	**1.5**	**675**	B				C	C		191316		02
17.0	**82.48**	1.5	792	0.9	**1.3**	**675**	B				C	C		171316		03
14.5	**96.29**	1.1	675	1.0	**1.1**	**675**	B				C	C		171314		04
13.9	**100.51**	1.1	705	1.0	**1.0**	**675**	B				C	C		131318		05
12.1	**115.56**	0.75	556	1.2	**0.91**	**675**	B				C	C		131316		06
11.1	**125.96**	0.75	606	1.1	**0.82**	**665**	B				C	C		190816		07
10.4	**134.91**	0.75	649	1.0	**0.78**	**675**	B				C	C		131314	**standard ø35**	08
9.5	**147.05**	0.75	707	1.0	**0.72**	**675**	B				C	C		190814		09
8.2	**170.44**	0.55	605	1.1	**0.62**	**675**	B				C	C		170814	ø40	10
7.6	**184.15**	0.55	653	1.0	**0.57**	**675**	B				C	C		101314	On request	11
6.8	**205.87**	0.55	730	0.9	**0.51**	**675**	B				C	C		91316		12
5.8	**240.34**	0.37	570	1.2	**0.44**	**675**	B				C	C		91314		13
5.0	**279.22**	0.37	662	1.0	**0.37**	**665**	B				C	C		100816		14
4.3	**325.97**	0.37	773	0.9	**0.32**	**675**	B				C	C		100814		15
3.8	**364.41**	0.25	583	1.1	**0.28**	**665**	B				C	C		90816		16
3.3	**425.43**	0.25	681	1.0	**0.25**	**675**	B				C	C		90814		17
2.9	**481.19**	0.18	589	1.1	**0.22**	**665**	B				C	C		70816		18
2.5	**561.76**	0.18	687	1.0	**0.19**	**675**	B				C	C		70814		19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

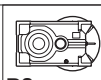
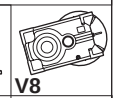
EN Unit **H63C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **H63C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **H63C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **H63C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **H63C** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio					
 **B3**	 **B6**	 **B7**	 **B8**	 **V5**	 **V6**	 **V8**
2.35 LT	3.85 LT	3.15 LT	2.35 LT	4.55 LT	2.50 LT	Ask
SHELL Omala S4 WE 320				**ENI** Telium VSF 320		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

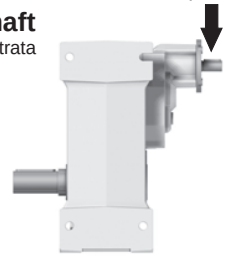
Output shaft
Albero di uscita

$$Feq = FR \cdot \frac{149.5}{X+119.5}$$

n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



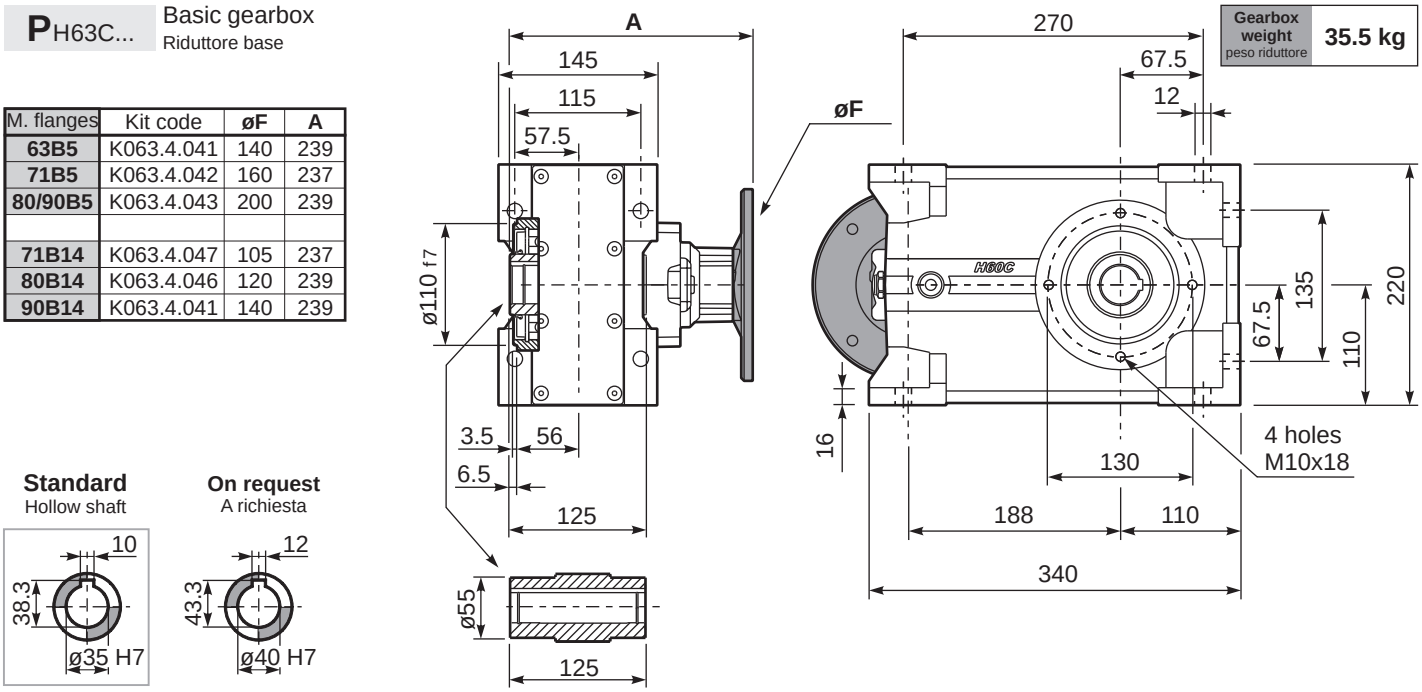
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

PH63C... Basic gearbox
Riduttore base

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239

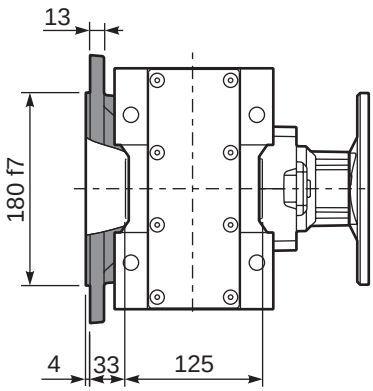
Gearbox weight peso riduttore **35.5 kg**



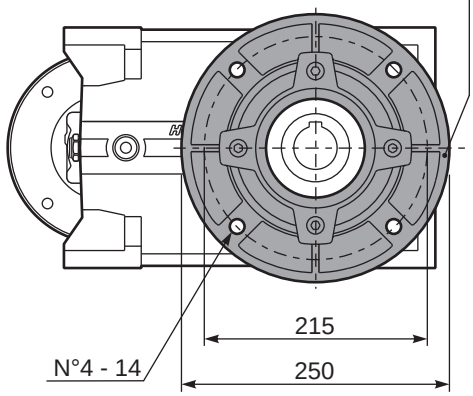
Standard
Hollow shaft

On request
A richiesta

PH63C...-F Output flange
Flangia uscita

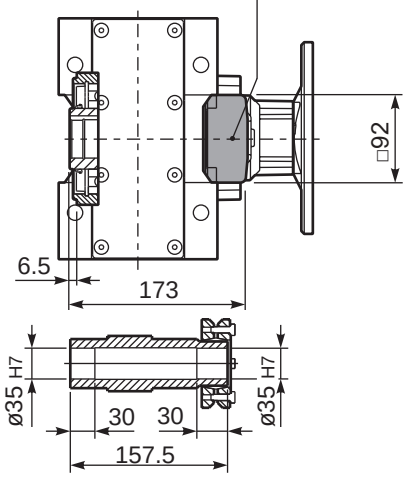


Kit. Cod KF60.9.011

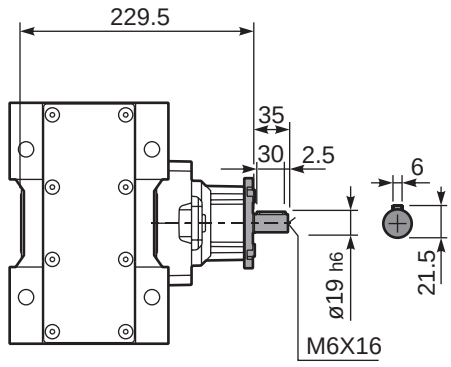


PH63C D... Shrink disk
Calettatore

Kit. Cod KF60.0.210LM

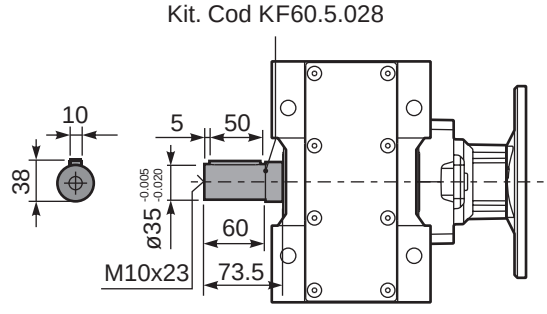


RH63C... Input Shaft
Albero in entrata



PH63C A... Single output shaft
Albero uscita semplice

Kit. Cod KF60.5.028



8

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -G	Available B5 motor flanges 132	B14 motor flanges	Output Shaft	Ratios code
227	**6.17**	9	371	1.2	10.9	450			not available	18111	**standard**	01
198	**7.06**	9	425	1.4	12.7	600				16113	**ø40**	02
170	**8.21**	9	494	1.4	12.2	670				14115	ø45	03
											On request	

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H71C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H71C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H71C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H71C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile.
L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H71C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes.
Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.20 LT	4.65 LT	4.00 LT	3.20 LT	6.00 LT	3.10 LT	Ask

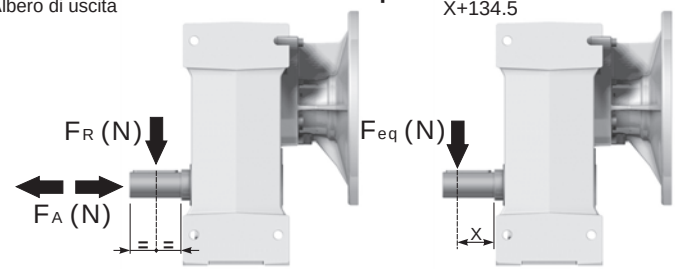
SHELL Omala S2 GX 460 | **ENI** Blasia 460

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$Feq = FR \cdot \frac{174.5}{X+134.5}$$



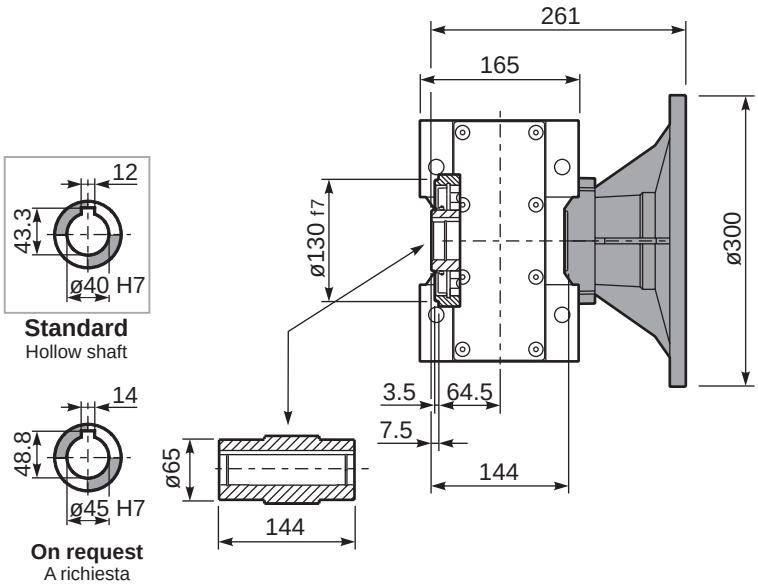
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

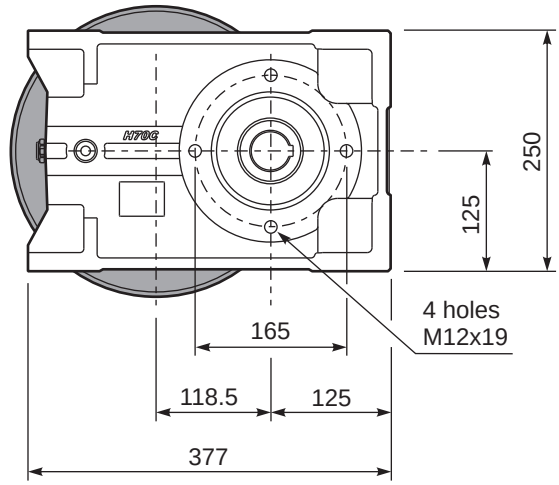
On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

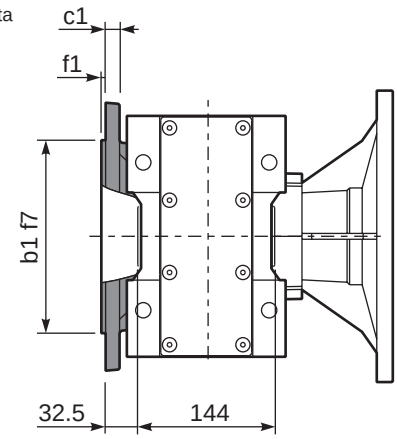
PH71C... Basic gearbox
Riduttore base

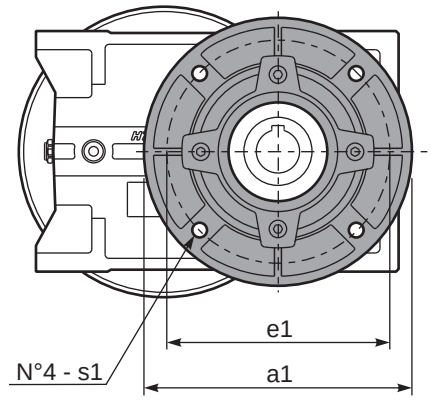
Gearbox weight peso riduttore	51.0 kg





PH71C...-F Output flange
Flangia uscita

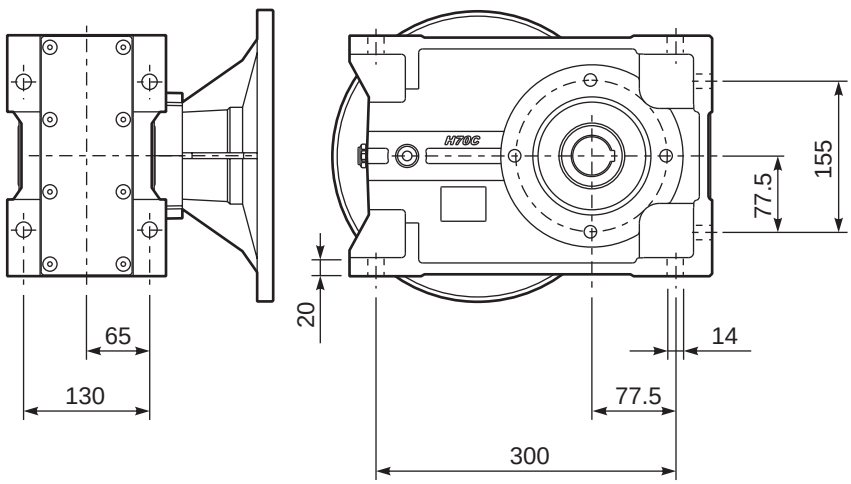




Available output flanges
Flange di uscita

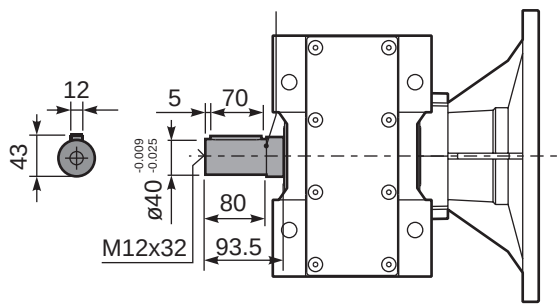
a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

PH71C...-N Feet
Piedini



PH71C A... Single output shaft
Albero uscita semplice

Kit. Cod KF70.5.028



8

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
175	**8.02**	9	473	1.1	**9.9**	**520**	B									3018		01
152	**9.18**	9	541	1.1	**9.8**	**590**	B									3016		02
131	**10.68**	9	630	1.1	**9.7**	**680**	B									3014		03
93	**15.11**	7.5	717	1.1	**7.8**	**775**	B									2018		04
81	**17.30**	7.5	821	1.1	**7.8**	**885**	B									2016		05
70	**20.13**	7.5	955	0.9	**6.8**	**900**	B									2014		06
60	**23.39**	5.5	820	1.1	**5.9**	**900**	B									1616	**standard ø40**	07
51	**27.21**	5.5	954	0.9	**5.1**	**900**	B									1614		08
46.0	**30.42**	4	780	1.2	**4.5**	**900**	B									1316	ø45 On request	09
39.6	**35.38**	4	907	1.0	**3.9**	**900**	B									1314		10
37.6	**37.24**	3	719	1.2	**3.7**	**895**	B									1116		11
32.3	**43.31**	3	836	1.1	**3.2**	**900**	B									1114		12
29.8	**47.02**	2.2	668	1.1	**2.3**	**705**	B									818		13
26.0	**53.85**	2.2	765	1.1	**2.3**	**810**	B									816		14
22.4	**62.63**	2.2	890	1.0	**2.2**	**900**	B									814		15
18.9	**74.16**	1.1	531	1.1	**1.2**	**585**	B									616		16
16.2	**86.25**	1.1	617	1.1	**1.2**	**680**	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

EN Unit **H72C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H72C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H72C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H72C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H72C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.20 LT	4.65 LT	4.00 LT	3.20 LT	6.20 LT	3.10 LT	Ask

SHELL Omala S2 GX 460 | **ENI** Blasia 460

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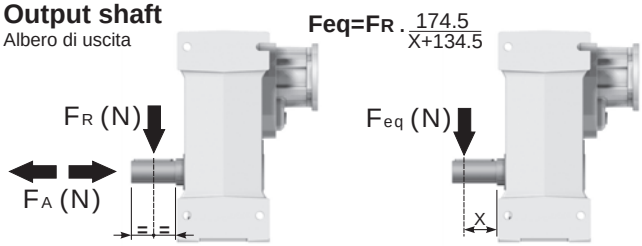
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

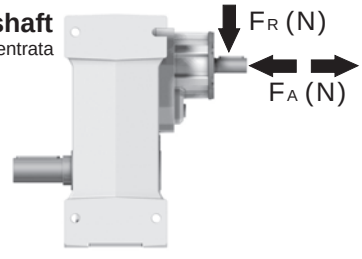
$$Feq = FR \cdot \frac{174.5}{X+134.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

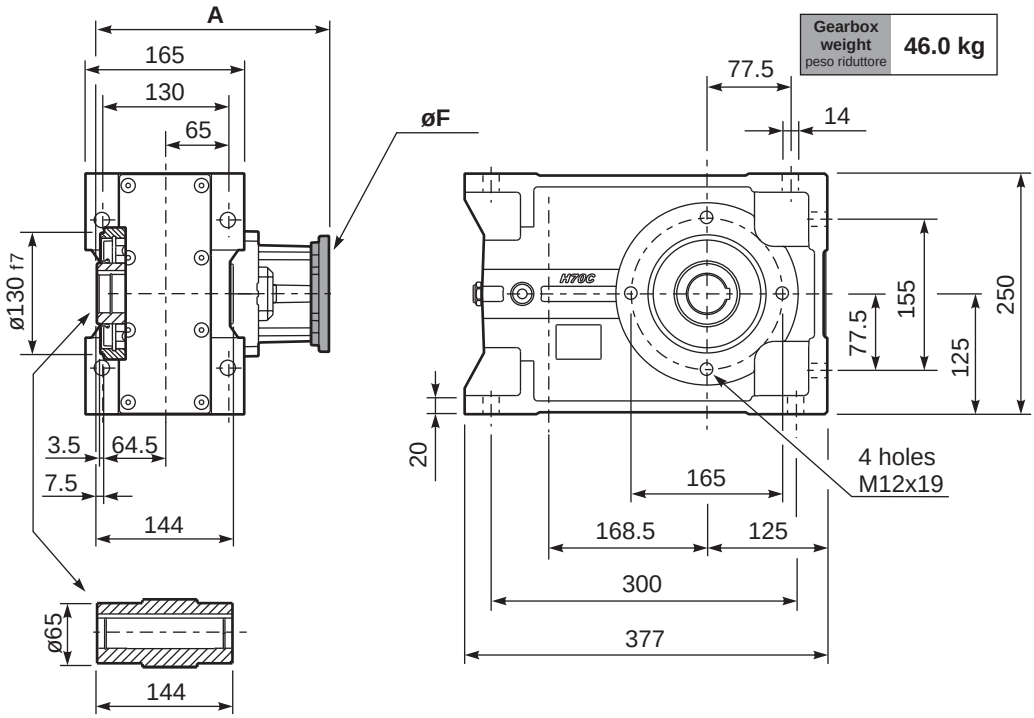


n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

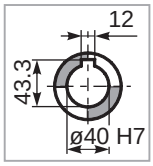
tab. 2

PH72C... Basic gearbox
Riduttore base

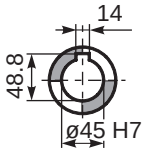
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	238.5
80/90B5	K023.4.042	200	240.5
100/112B5	K023.4.043	250	249.5
132B5	KC51.4.043	300	270.5
80B14	K085.4.046	120	240.5
90B14	K085.4.045	140	240.5
100/112B14	K085.4.047	160	249.5
132B14	KC51.4.041	200	270.5



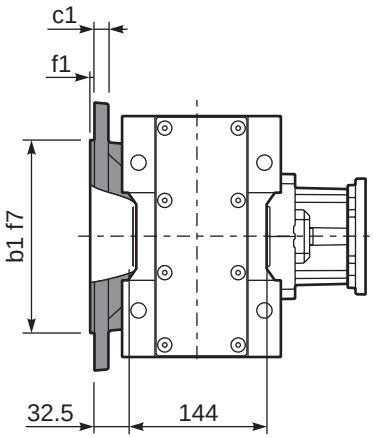
Standard
Hollow shaft

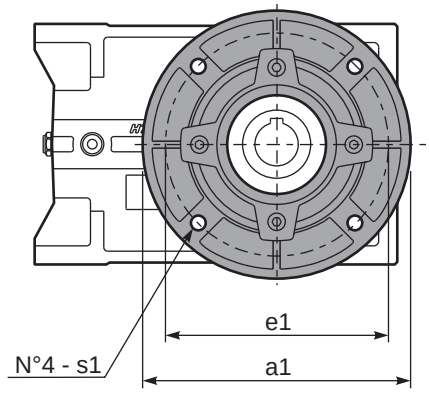


On request
A richiesta



PH72C...-F Output flange
Flangia uscita

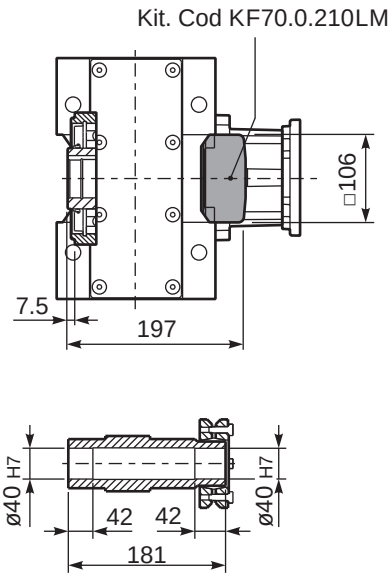




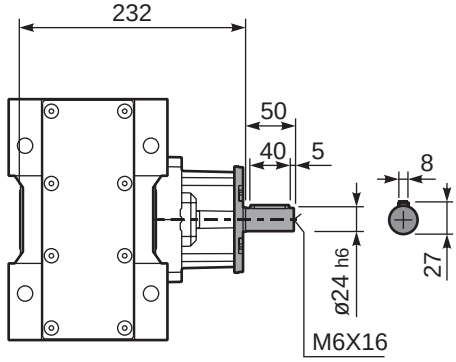
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

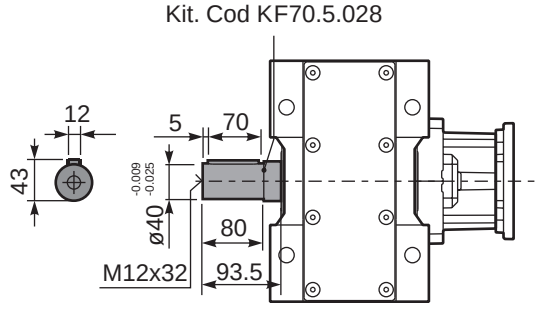
PH72C D... Shrink disk
Calettatore



RH72C... Input Shaft
Albero in entrata



PH72C A... Single output shaft
Albero uscita semplice



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft ø	Ratios code
18.5	**75.50**	1.5	725	1.1	**1.7**	**825**	B				C	C		191318		01
16.2	**86.47**	1.5	830	1.1	**1.6**	**900**	B				C	C		191316		02
14.0	**100.22**	1.5	962	0.9	**1.4**	**900**	B				C	C		171316		03
12.0	**116.56**	1.1	817	1.1	**1.2**	**900**	B				C	C		171314		04
10.2	**136.82**	1.1	959	0.9	**1.0**	**900**	B				C	C		151314		05
9.1	**153.05**	0.75	736	1.1	**0.83**	**810**	B				C	C		190816		06
8.6	**163.31**	0.75	785	1.1	**0.86**	**900**	B				C	C		131314	**standard ø40**	07
7.9	**178.01**	0.75	856	1.1	**0.79**	**900**	B				C	C		190814		08
7.3	**191.67**	0.75	922	1.0	**0.73**	**900**	B				C	C		101316	ø45	09
6.8	**206.32**	0.75	992	0.9	**0.68**	**900**	B				C	C		170814	On request	10
6.3	**222.92**	0.55	791	1.1	**0.63**	**900**	B				C	C		101314		11
5.8	**242.18**	0.55	859	1.0	**0.58**	**900**	B				C	C		150814		12
5.6	**250.15**	0.55	888	1.0	**0.56**	**900**	B				C	C		91316		13
4.8	**289.08**	0.55	1026	0.9	**0.49**	**900**	B				C	C		130814		14
4.2	**330.31**	0.37	783	1.1	**0.42**	**890**	B				C	C		71316		15
3.5	**394.59**	0.37	936	1.0	**0.36**	**900**	B				C	C		100814		16
2.7	**514.99**	0.25	824	1.1	**0.27**	**900**	B				C	C		90814		17
2.1	**680.03**	0.18	832	1.1	**0.21**	**900**	B				C	C		70814		18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

B3	B6	B7	B8	V5	V6	V8
3.30 LT	5.70 LT	4.15 LT	3.30 LT	6.40 LT	3.25 LT	Ask

SHELL Omala S2 GX 460	**ENI** Blasia 460

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

EN Unit **H73C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H73C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H73C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

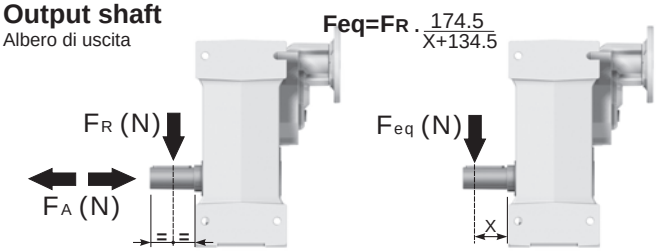
F Le réducteur de type **H73C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H73C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

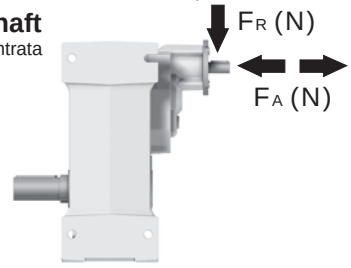
$$Feq = FR \cdot \frac{174.5}{X+134.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

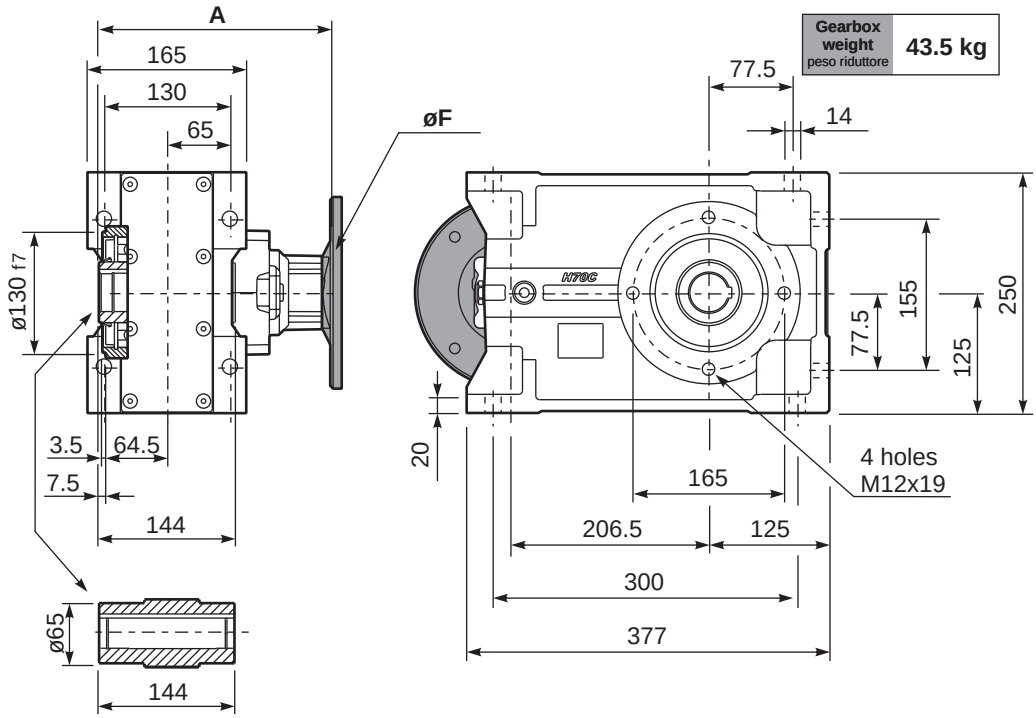


n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

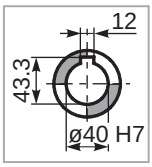
tab. 2

PH73C... Basic gearbox
Riduttore base

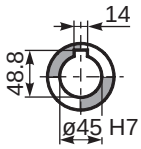
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	250.5
71B5	K063.4.042	160	248.5
80/90B5	K063.4.043	200	250.5
71B14	K063.4.047	105	248.5
80B14	K063.4.046	120	250.5
90B14	K063.4.041	140	250.5



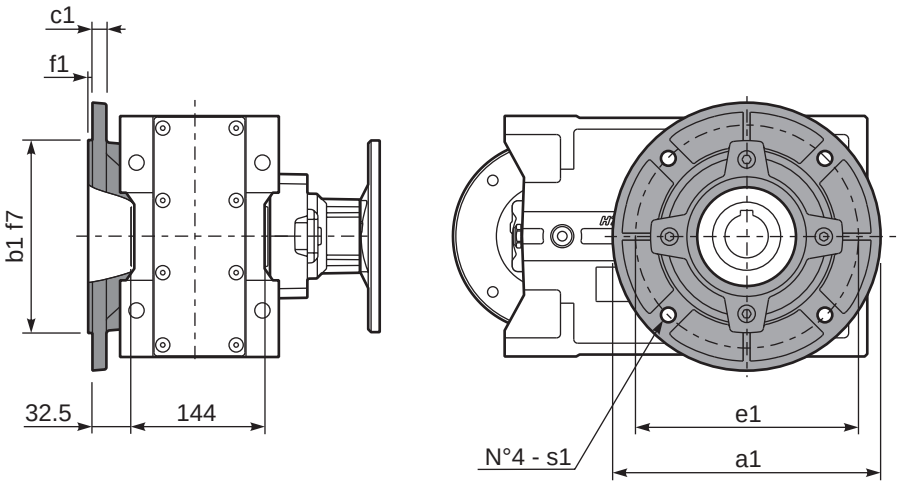
Standard
Hollow shaft



On request
A richiesta



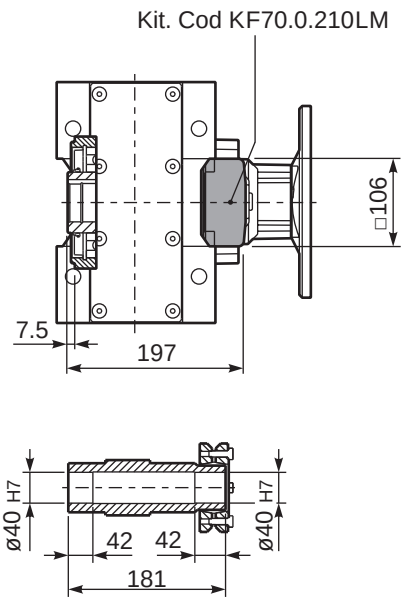
PH73C...-F Output flange
Flangia uscita



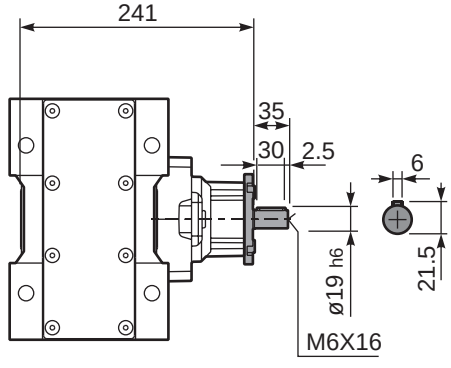
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

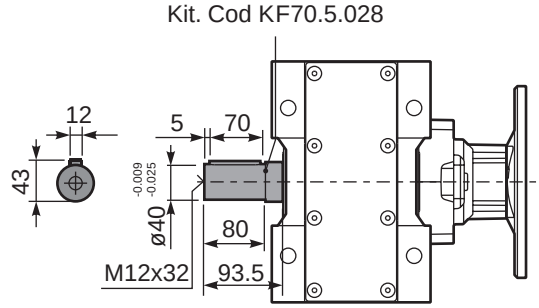
PH73C D... Shrink disk
Calettatore



RH73C... Input Shaft
Albero in entrata



PH73C A... Single output shaft
Albero uscita semplice



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -H	Available B5 motor flanges -I	B14 motor flanges				Output Shaft		Ratios code
528	**2.65**	22	374	1.7	**36.7**	**650**							2361	**standard**	01
409	**3.42**	22	483	1.6	**32.8**	**750**							1965	**ø50**	02
304	**4.60**	22	649	1.5	**30.9**	**950**							1569		03
256	**5.46**	22	771	1.3	**27.4**	**1000**							1371	ø55	04
211	**6.64**	22	937	1.3	**26.5**	**1175**							1173	On request	05
							160	180	-	-	-	-			
									-	-	-	-			

not available

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) **Available on Request without reduction bushing**
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

EN Unit **H81C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H81C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H81C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H81C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H81C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.70 LT	7.00 LT	7.90 LT	5.70 LT	10.20 LT	5.60 LT	Ask

SHELL Omala S2 GX 460 | **ENI** Blasia 460

For all details on lubrication and plugs check our website **tab. 1**
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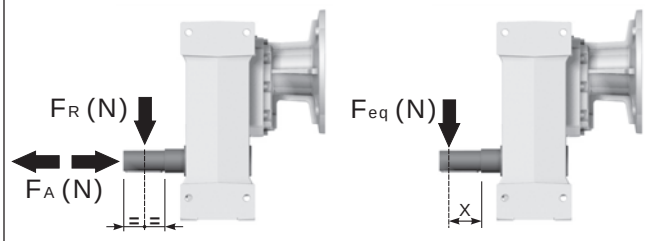
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$Feq = FR \cdot \frac{227.5}{X+177.5}$$



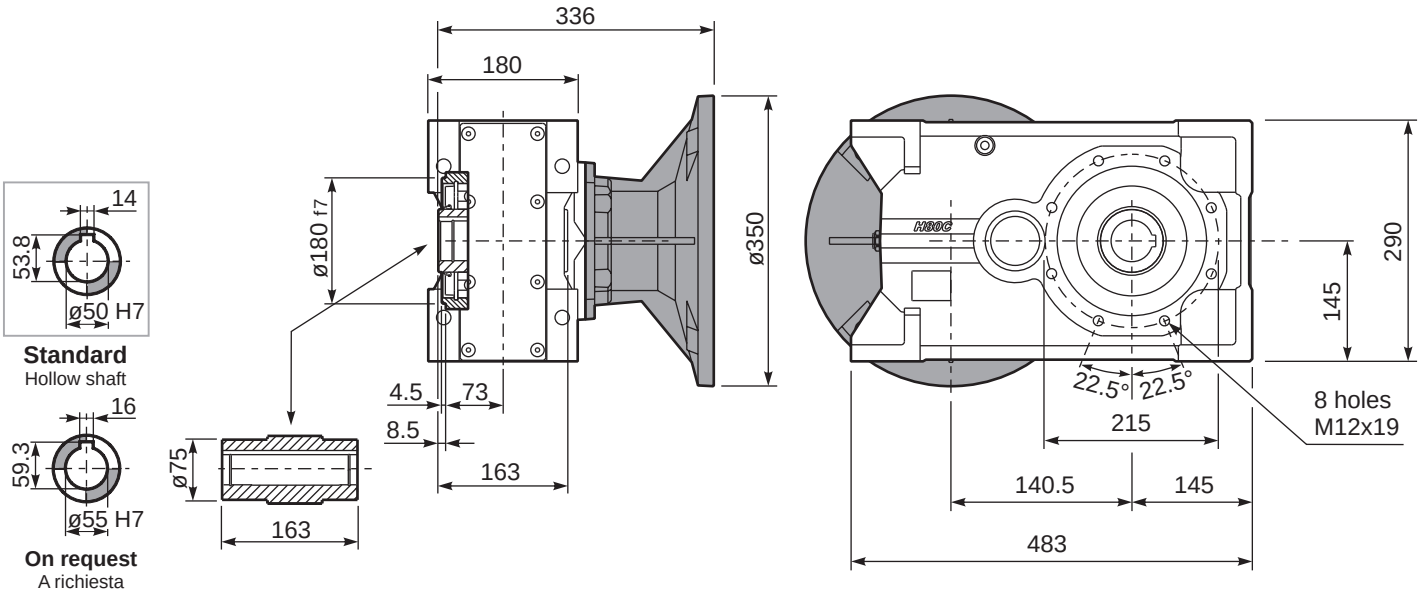
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

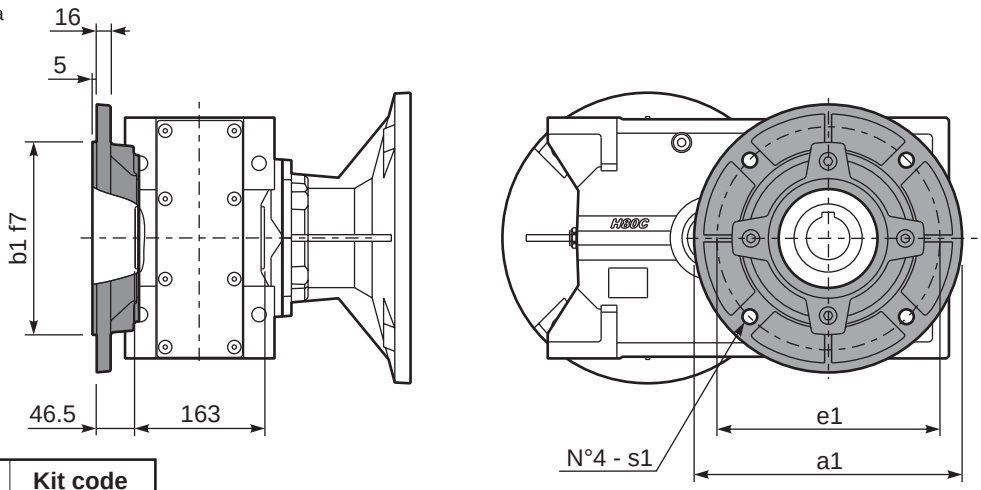
tab. 2

PH81C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	89.0 kg



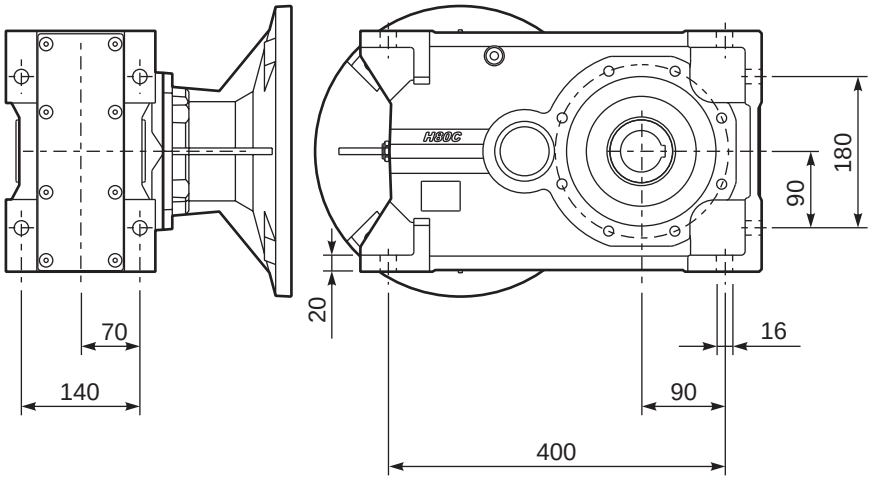
PH81C...-F Output flange
Flangia uscita



Available output flanges
Flange di uscita

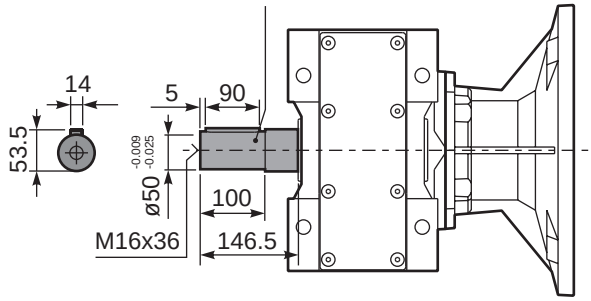
a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

PH81C...-N Feet
Piedini



PH81C A... Single output shaft
Albero uscita semplice

Kit. Cod KF80.5.028



8

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges -F	B5 -G	B5 -H	B5 -I	B14 motor flanges -U	B14 -V		Output Shaft	Ratios code
							100 112	132	160	180	100 112	132			
234	**5.98**	22	827	1.2	**25.5**	**1000**							3015		01
197	**7.10**	22	982	1.2	**25.3**	**1175**							3013		02
162	**8.63**	22	1193	1.1	**23.9**	**1350**							3011		03
124	**11.27**	18.5	1310	1.1	**20.3**	**1500**							2015		04
105	**13.38**	18.5	1555	1.1	**19.4**	**1700**							2013		05
92	**15.24**	18.5	1771	1.1	**19.0**	**1900**							1615		06
86	**16.26**	18.5	1889	1.1	**19.7**	**2100**							2011	**standard ø50**	07
77	**18.09**	18.5	2102	1.0	**17.7**	**2100**							1613		08
71	**19.82**	15	1865	1.1	**15.9**	**2060**							1315		09
64	**21.98**	15	2069	1.0	**14.6**	**2100**							1611	ø55 On request	10
60	**23.53**	15	2214	0.9	**13.6**	**2100**							1313		11
58	**24.25**	11	1677	1.2	**12.2**	**1940**							1115		12
48.6	**28.80**	11	1991	1.1	**11.1**	**2100**							1113		13
40.0	**34.99**	9	2063	1.0	**9.2**	**2100**							1111		14
33.6	**41.64**	7.5	1976	1.0	**7.2**	**1960**							813		15
27.7	**50.60**	5.5	1774	1.2	**6.3**	**2100**							811		16

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) **Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position**
Posizione Fori Flangia Motore

EN Unit **H82C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H82C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H82C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H82C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile.
L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H82C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.60 LT	6.80 LT	7.80 LT	5.60 LT	10.00 LT	5.50 LT	Ask

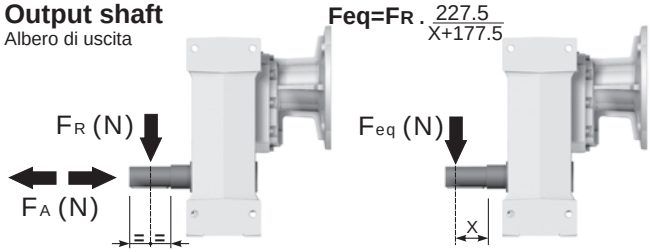
SHELL Omala S2 GX 460	**ENI** Blasia 460

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

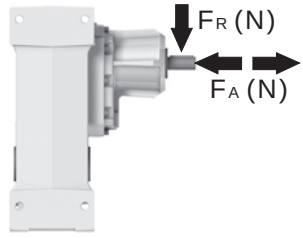
$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



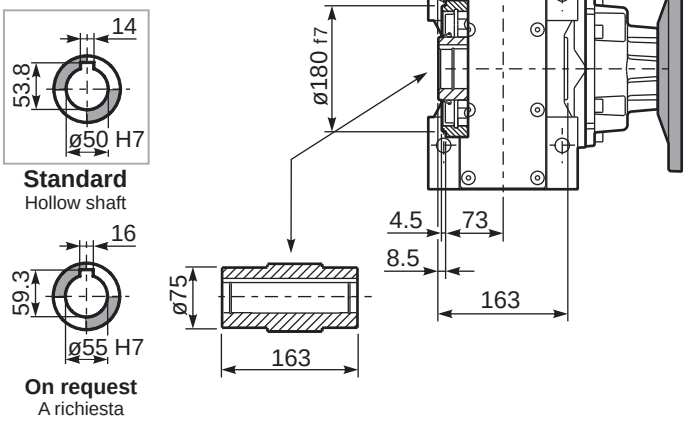
n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

tab. 2

PH82C... Basic gearbox
Riduttore base

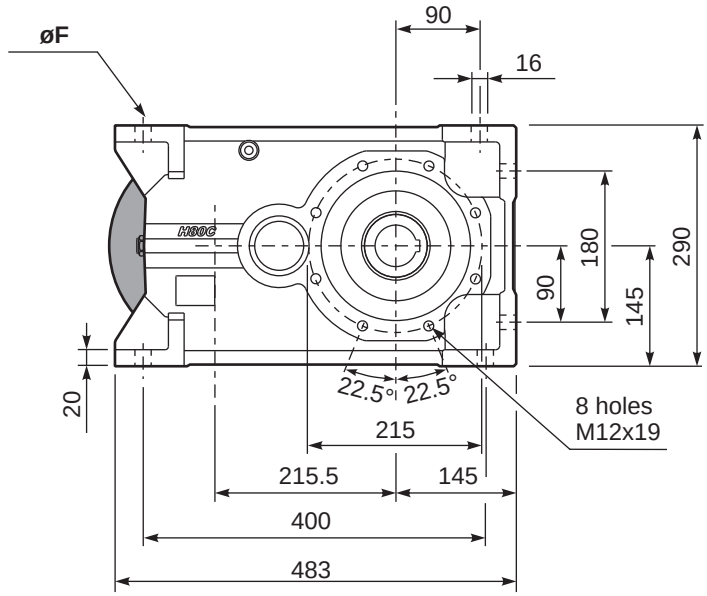
M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	299
132B5	KC51.4.043C	300	320.5
160/180B5	KC86.4.0.43	350	352.5
100/112B14	K085.4.047	160	299
132B14	KC51.4.041C	200	320.5

Gearbox weight peso riduttore **86.0 kg**

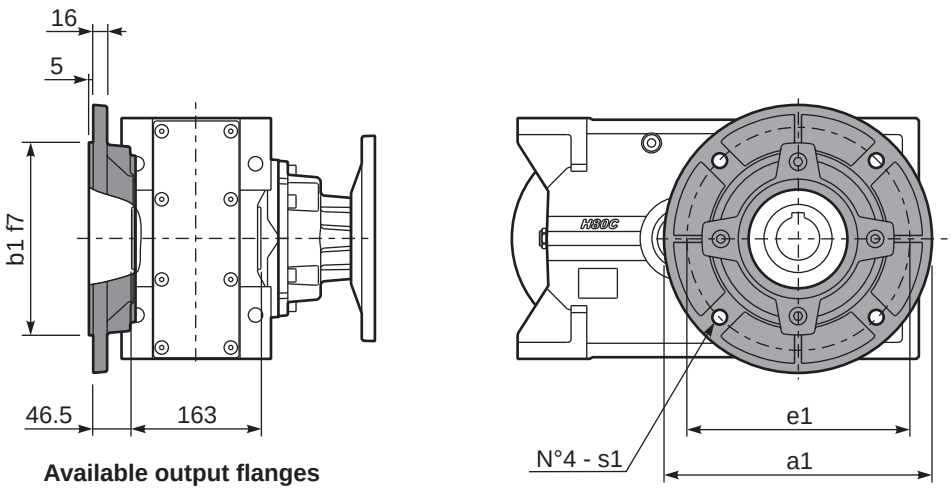


Standard
Hollow shaft

On request
A richiesta



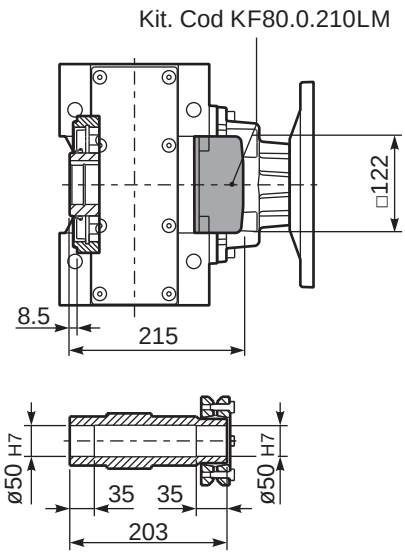
PH82C...-F Output flange
Flangia uscita



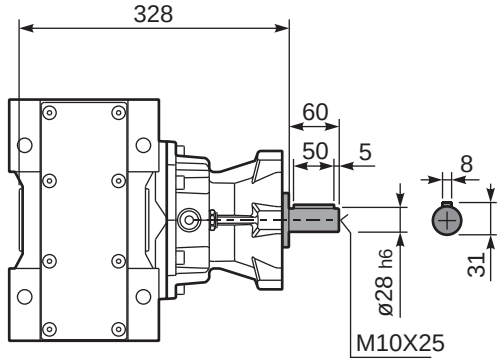
Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

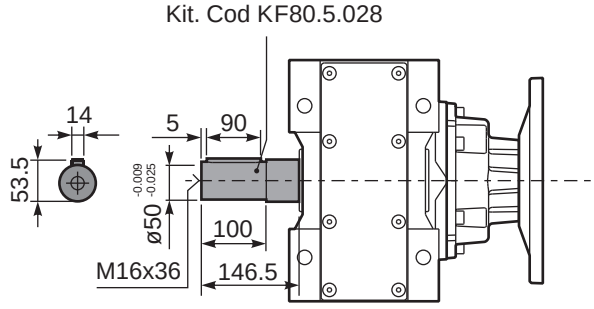
PH82C D... Shrink disk
Calettatore



RH82C... Input Shaft
Albero in entrata



PH82C A... Single output shaft
Albero uscita semplice



8

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-1}

Output Speed n_2 [min^{-1}]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
28.8	**48.55**	7.5	2257	0.9	**6.7**	**2100**	B									201315		01
24.3	**57.64**	5.5	1980	1.1	**5.7**	**2100**	B									201313		02
21.3	**65.64**	5.5	2255	0.9	**5.0**	**2100**	B									161315		03
20.0	**70.04**	4	1760	1.2	**4.7**	**2100**	B									201311		04
18.0	**77.93**	4	1958	1.1	**4.2**	**2100**	B									161313		05
16.4	**85.36**	4	2145	1.0	**3.8**	**2100**	B									131315	**standard ø50**	06
14.8	**94.70**	4	2380	0.9	**3.5**	**2100**	B									161311		07
13.8	**101.35**	3	1917	1.1	**3.2**	**2100**	B									131313		08
11.4	**123.15**	3	2330	0.9	**2.7**	**2100**	B									131311	ø55 On request	09
9.3	**150.73**	2.2	2100	1.0	**2.2**	**2100**	B									111311		10
7.8	**179.39**	1.5	1722	1.2	**1.8**	**2100**	B									81313		11
6.4	**217.98**	1.5	2093	1.0	**1.5**	**2100**	B									81311		12
5.7	**247.03**	1.1	1732	1.1	**1.2**	**1950**	B									61313		13
4.7	**300.17**	1.1	2105	1.0	**1.1**	**2100**	B									61311		14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione

C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H83C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H83C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H83C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H83C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H83C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.80 LT	7.10 LT	8.20 LT	5.80 LT	10.80 LT	6.00 LT	Ask
SHELL Omala S2 GX 460				**ENI** Blasia 460		

For all details on lubrication and plugs check our website **tab. 1**
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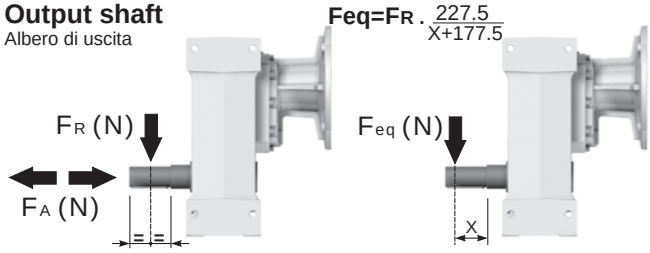
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

Feq=FR . 227.5 / X+177.5



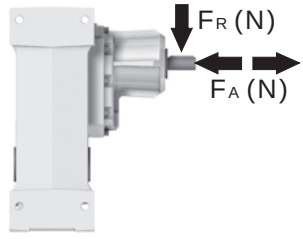
n_2	FA	FR
300	920	4600
250	1000	5000
200	1060	5300

n_2	FA	FR
140	1120	5600
120	1140	5700
85	1300	6500

n_2	FA	FR
70	1400	7000
40	1800	9000
15	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



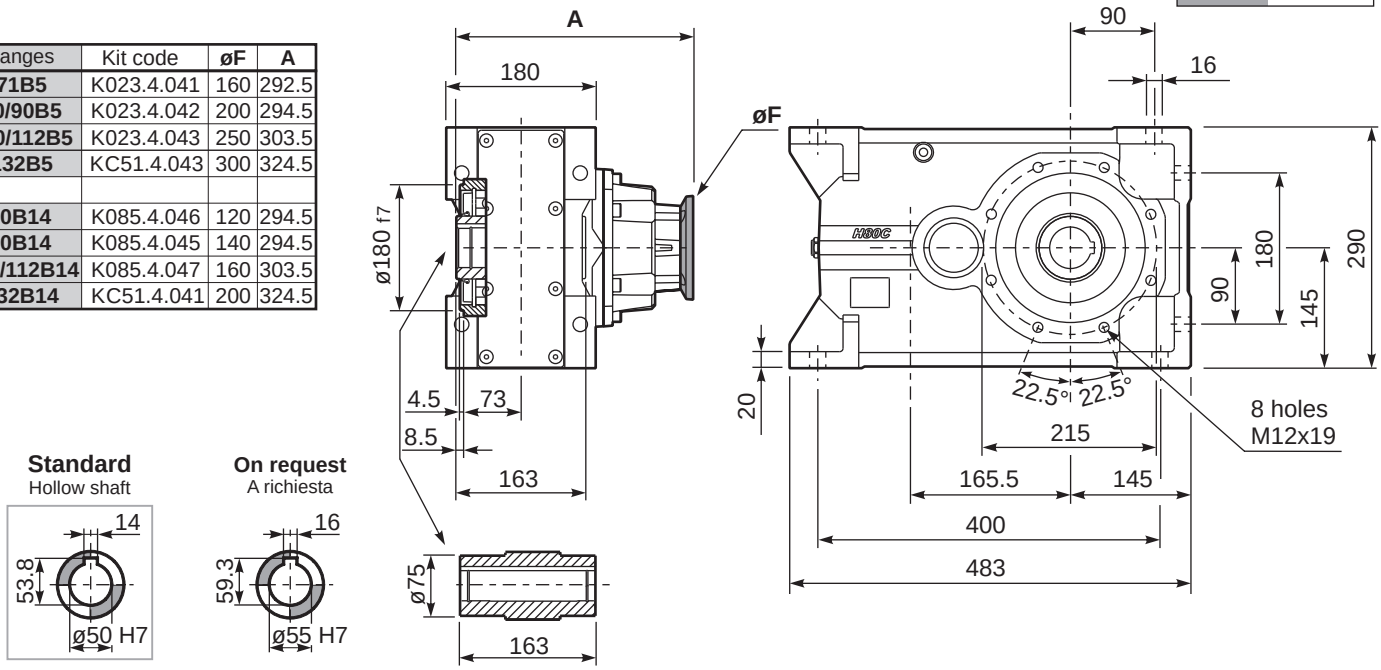
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

PH83C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore **81.0 kg**

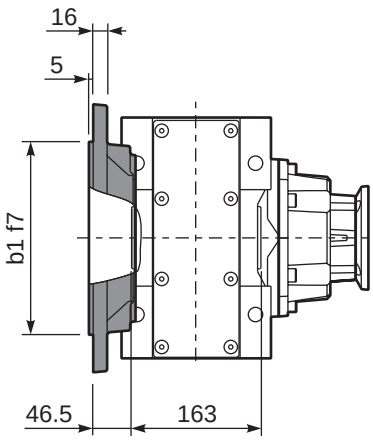
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	292.5
80/90B5	K023.4.042	200	294.5
100/112B5	K023.4.043	250	303.5
132B5	KC51.4.043	300	324.5
80B14	K085.4.046	120	294.5
90B14	K085.4.045	140	294.5
100/112B14	K085.4.047	160	303.5
132B14	KC51.4.041	200	324.5

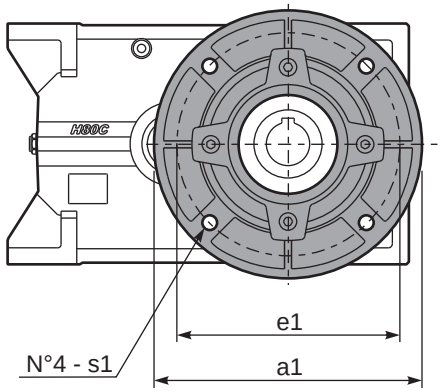


Standard
Hollow shaft

On request
A richiesta

PH83C...-F Output flange
Flangia uscita

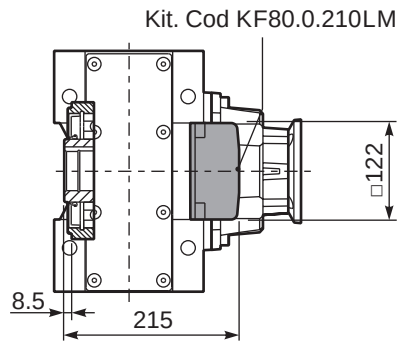


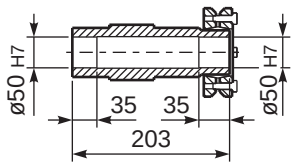


Available output flanges
Flange di uscita

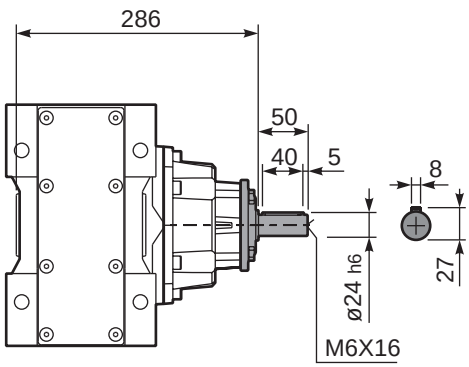
a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

PH83C D... Shrink disk
Calettatore

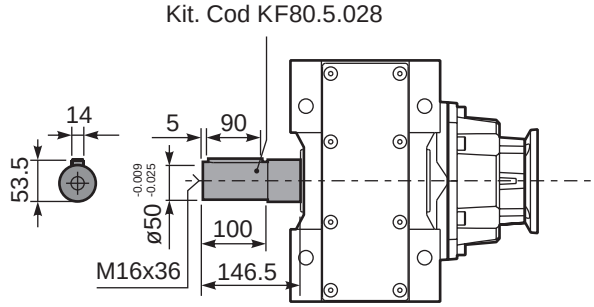




RH83C... Input Shaft
Albero in entrata

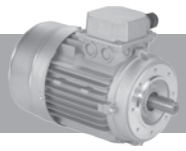


PH83C A... Single output shaft
Albero uscita semplice



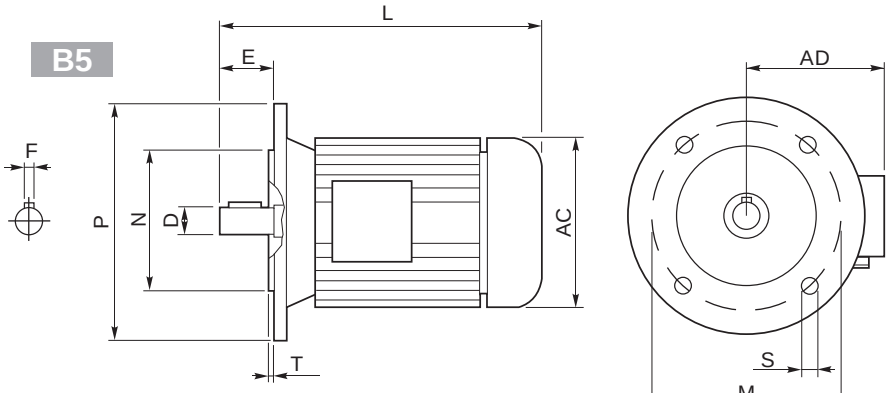
8

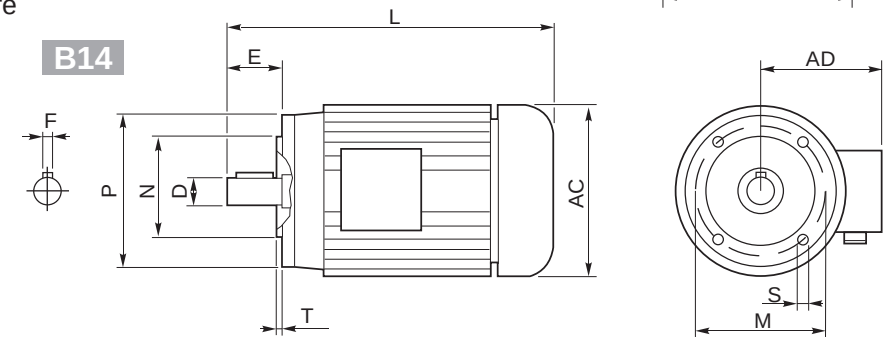
Aluminum IEC motors



1) 230/400V - 50Hz three-phase asynchronous induction motor
2) Class F insulation
3) S1 duty
4) IP 55 protection
5) Not painted
6) Hard plastic sleeve to protect output shaft during the transportation

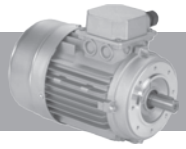
1) 230/400V - 50Hz motore trifase asincrono
2) Isolamento Classe F
3) S1 servizio continuo
4) Protezione IP 55
5) Non verniciato
6) Manicotto di protezione per l'albero motore





Outside dimensions and weight may be different according to manufacturers.
Le dimensioni esterne e il peso sono indicative, possono variare tra i vari costruttori.

	2 poli / poles			4 poli / poles			6 poli / poles			B5-B14						B5					B14					Kg
	kW	Nm	A (400V)	kW	Nm	A (400V)	kW	Nm	A (400V)	D	F	E	L	AC	AD	N	M	P	S	T	N	M	P	S	T	
56 A	**0.09**	0.32	0.38	**0.06**	0.44	0.27	**—**	—	—	9	3	20	199	108	96	80	100	120	7	2.5	50	65	80	M5	2.5	2.7
56 B	**0.12**	0.42	0.46	**0.09**	0.67	0.37	**—**	—	—																	2.9
63 A	**0.18**	0.63	0.60	**0.12**	0.84	0.50	**0.09**	0.99	0.57	11	4	23	208	120	99	95	115	140	9.5	3	60	75	90	M5	2.5	3.8
63 B	**0.25**	0.87	0.76	**0.18**	1.30	0.69	**0.12**	1.32	0.74																	4.2
71 A	**0.37**	1.30	1.00	**0.25**	1.70	0.91	**0.18**	1.90	0.80	14	5	30	-	130	104	110	130	160	9.5	3.5	70	85	105	M6	2.5	5.9
71 B	**0.55**	1.90	1.54	**0.37**	2.52	1.14	**0.25**	2.72	1.10				255	141	107											6.5
80 A	**0.75**	2.60	1.85	**0.55**	3.77	1.51	**0.37**	3.84	1.18	19	6	40	296	159	127	130	165	200	11.5	3.5	80	100	120	M6	3	8.5
80 B	**1.1**	3.90	2.64	**0.75**	5.11	2.57	**0.55**	5.84	1.80																	10
90 S	**1.5**	5.00	3.31	**1.1**	7.45	2.78	**0.75**	7.92	2.32	24	8	50	-	170	135	130	165	200	11.5	3.5	95	115	140	M8	3	12.5
90 L	**2.2**	7.50	4.46	**1.5**	10.2	3.61	**1.1**	11.6	3.45				330													15
100 LA	**3.0**	10.0	6.28	**2.2**	14.8	5.07	**1.5**	15.4	3.88	28	8	60	-	190	148	180	215	250	13	4	110	130	160	M8	3.5	20
100 LB	**—**	—	—	**3.0**	20.1	6.66	**—**	—	—																	22
112 M	**4.0**	13.4	8.10	**4.0**	26.7	8.55	**2.2**	22.6	5.30				381	210	164											35
132 S	**5.5**	18.3	11.2	**5.5**	36.5	11.4	**3.0**	30.2	7.20	38	10	80	455	244	180	230	265	300	14	4	130	165	200	M10	4	41
	7.5	24.9	15.3																							51
132 M	**—**	—	—	**7.5**	49.4	15.0	**4.0**	40.0	9.13				500													51
				9	61.4	18.5																				
160 M	**—**	—	—	**11**	72	21.5	**—**	—	—	42	12	110	613	335	246	250	300	350	18	5	—	—	—	—	—	79.2
160 L	**—**	—	—	**15**	98	29	**—**	—	—				657													97.5
180 M	**—**	—	—	**18.5**	121	35.5	**—**	—	—	48	14	110	712	366	266	250	300	350	19	5	—	—	—	—	—	170
180 L	**—**	—	—	**22**	144	42	**—**	—	—																	
200 L	**—**	—	—	**30**	196	53	**—**	—	—	55	16	110	780	405	341	300	350	400	19	5	—	—	—	—	—	240
225 S	**—**	—	—	**37**	240	69	**—**	—	—	60	18	140	888	463	360	350	400	450	19	5	—	—	—	—	—	305
225 M	**—**	—	—	**45**	292	84	**—**	—	—																	310



Protection
Standard IP55
Please specify on purchase orders if you need a higher IP protection class.

Grado di protezione
IP55 Standard
Specificare in sede di ordinazione per IP superiore.

Schutzart
IP55 Standard.
Höheren IP Grad bitte im Auftrag angeben.

Degré de protection
IP55 standard.
Au moment de la commande, spécifiez si vous souhaitez IP supérieur.

Grado de protección
IP55 standard.
Especificar en el pedido cuando necesiten protección IP superior.

Insulation
Standard CI.F
To be specified upon placing the order if different insulation is required.

Isolamento
CI.F Standard
Specificare in sede di ordinazione classe di isolamento diversa.

Isolierung
CI.F Standard.
Davon abweichende Isolierungsklas se im Auftrag angeben.

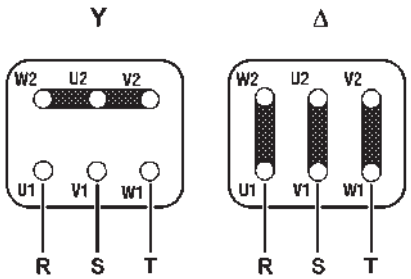
Isolement
CI.F Standard.
Au moment de la commande, spécifiez si vous souhaitez une classe d' isolement différente.

Aislamiento
CI.F standard.
Especificar al efectuar el pedido la clase diferente de aislamiento.

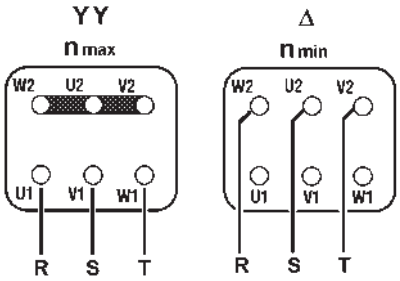
Insulation / Isolamento Isolierung /Aislamiento		E	B	F	H
Max. temp.	C°	120°	130°	155°	175°
	F*	248°	266°	311°	347°

Connections **Collegamenti** **Verbindungselemente** **Branchements** **Conexiones**

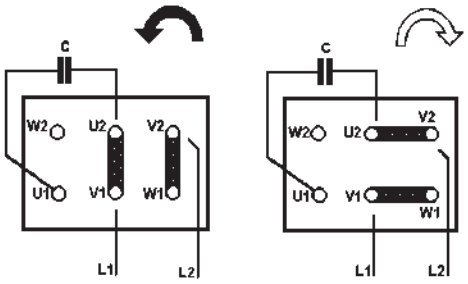
Threephase asyncronous single polarity
Asincrono trifase singola polarità
Asynchronmotor 3-ph eine Drehzahl
Moteur triphasé à une vitesse
Asincrono trifasico de una velocidad



Threephase asyncronous double polarity
Asincrono trifase doppia polarità
Asynchronmotor 3-ph doppelte Drehzahl
Moteur triphasé à deux vitesses
Asincrono trifasico de dos velocidades



Single phase asyncronous
Asincrono monofase
Einphasen-Asynchronmotor
Moteur monophasé
Asincrono monofasico



Quotations:
Unless differently agreed, the validity of all quotations is 2 months. The quotations are provided according the RFQ (request for quotation) which shall contain the complete and detailed specification of the Product, the correctness of which is fully under responsibility of RFQ applicant.

Orders:
Only official orders issued on the Customer's letter-head are accepted. The Order Confirmation (OC) is issued within 2 working days from the order receipt unless the Products configuration issues arise. The OC shall be confirmed in writing within 2 working days from the OC date and in all its parts the product code and description, quantities and price, other specific information, if any. The OC is considered confirmed by tacit approval in case no written confirmation is provided by the Customer.

Production time:
An average production time for the standard Products is 3-4 weeks and 2-3 weeks for kits from the OC confirmation date and/or payment receipt in case of advanced payment term. For some configurations of the standard Products the production time can be different and shall be advised in the quotation and/or in any case in OC. In the period of Christmas holidays and August holidays the days of company closure are excluded from the abovementioned production term.

Delivery terms:
FCA Sovizzo, Italy (Incoterms 2016)

Packaging:
The products are packed in wooden boxes as a standard packaging. Europallets can be also used on request. The prices and details of the packaging are indicated in the apposite section of the Price List.
Payment terms: the payment should be performed in terms indicated in the invoice and by wire transfer.
Prices: the prices are indicated in the invoice and intended ex-works, unless differently specified, and do not include any kind of taxes, shipment or other type of costs.

Standard Products orders cancellation:
Modification or cancellation of the orders is accepted only if notified to Hydro-Mec S.p.A. in writing and not later than 3 days from the Order Confirmation and in any case before the production of the ordered Products is launched.

Special execution of customized products:
The Products that are not included in the catalogue or configurations of the products that can not be realized using catalogue, options and accessories brochure and/or online configurator (www.cleangeartech.com) are considered Customized Products.
(a) Hydro-Mec S.p.A. is entitled to examine feasibility of Special Execution of Customized Products and define the minimum quantity, production time and eventually other special sales and production conditions issuing thereafter a Special Execution Quotation that shall be confirmed by the Customer in writing.
(b) Once the Quotation is confirmed, Hydro-Mec S.p.A. shall realize a Special Execution (SE) data sheet with its unique code for each Customized product. The SE data sheet shall be confirmed in full and in writing by The Customer.

(c) The production time of SE is definitely settled by Hydro-Mec S.p.A. and notified to the Customer after the SE data sheet confirmation. As a rule, the production time for SE of Customized products is longer than standard.

(d) The orders of Special Execution of Customized products can not be cancelled unless special written agreement is made before the production of SE is launched.

WARRANTY Conditions:

(a) Warranty period is 12 months form the shipment date.

(b) Warranty period could be extended to 18 months prior written agreement of the parties and in any case excluding wearable parts.

(c) Warranty covers only manufacturing defects. Wearable parts (for example, oil seals or lubricants leakages caused by normal wear) and failures due to the wrong assembling by the Customer are not covered by warranty.

(d) This warranty is also void in any case in which the products have been misused, used in improper environment conditions, configurated beyond design limits indicated in the catalogue (especially service factor, loads and type of motors) or damaged, even accidentally or whenever installation instructions have not been strictly followed and in case of any natural disasters, in case of negligence of the Customer and the end user.

(e) The Customer is fully responsible to assure the compatibility of applications and correct mechanical couplings and electrical connections with the specifications of the Products according to Hydro-Mec S.p.A. catalogues and technical documentation

(f) The liability of Hydro-Mec S.p.A. is strictly limited to the above-stated obligations and it is therefore clearly agreed that Hydro-Mec S.p.A. take on no responsibility for any damage to persons and/or property deriving from accidents of any nature that may occur during use of the Products, whether the warranty is confirmed or otherwise, also in cases of the choice of the Product configuration being recommended by Hydro-Mec S.p.A.

WARRANTY Procedure:

(a) The Customer shall fill in the COMPLAINT FORM and forward it to Hydro-Mec S.p.A. along with other relevant information.

(b) Hydro-Mec S.p.A. examines the COMPLAINT FORM and confirms or declines the warranty.

(c) Hydro-Mec S.p.A. has the right to ask the Customer to send the misfunctioning product to Hydro-Mec S.p.A. for further examination. In case the warranty is not confirmed the Product will be shipped back to the Customer at the Customer expense. If the warranty is confirmed, Hydro-Mec S.p.A. shall compensate the shipment costs to the Customer within the limits of the best shipment quotation.

(d) In case the warranty is confirmed the Products shall be substituted at Hydro-Mec S.p.A. expense using ordinary shipment procedure. The express shipment can be used prior the agreement of the parties.

(e) In case the Product can not be substituted Hydro-Mec S.p.A. shall reimburse the value of the Product by issuing of Credit Note or in any other way agreed by the Parties.

WARNING (Please Read Carefully):
The following WARNING and CAUTION information is supplied to you for your protection and to provide you with many years of trouble free and safe operation of your product. Read ALL instructions prior to operating reducer. Injury to personnel or reducer failure may be caused by improper installation, maintenance or operation.
(a) Written authorization is required to operate or use reducers in man lift or people moving devices.
(b) Check to make sure that certain applications do not exceed the allowable load capacities published in the current catalog.
(c) Buyer shall be solely responsible for determining the adequacy of the product for any and all uses to which Buyer shall apply the product. The application by Buyer shall not be subject to any implied warranty of fitness for a particular purpose.
(d) For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.
(e) Gearboxes operating in high position should have a protective shield for any possible parts falling down for casual accidents where people are moving under them.
(f) Hot oil and reducers can cause severe burns. Use extreme care when removing lubrication plugs and vents.
(g) Make certain that the power supply is disconnected before attempting to service or remove any components. Lock out the power supply and tag it to prevent unexpected application power.
(h) Reducers are not to be considered fail safe or self-locking devices. If these features are required, a properly sized, independent holding device should be utilized. Reducers should not be used as a brake.
(i) Any brakes that are used in conjunction with a reducer must be sized or positioned in such a way so as to not subject the reducer to loads beyond the catalog rating.
(l) Lifting supports including eyebolts are to be used for vertically lifting the gearbox only and not other associated attachments or motors.
(m) Use of an oil with an EP additive on units with backstops may prevent proper operation of the backstop. Injury to personnel, damage to the reducer or other equipment may result.
(n) Overhung loads subject shaft bearings and shafts to stress which may cause premature bearing failure and or shaft breakage from bending fatigue, it not sized properly.

Our company will not be responsible for any direct or indirect damages, caused by a wrong use of the products or for not observing the catalogue/web indication.

1) Definizioni

1.1 Ai fini delle presenti condizioni generali di vendita (di seguito denominate “Condizioni di Vendita”), i seguenti termini avranno il significato di seguito ad essi attribuito:

- “HM”: Hydro-Mec S.p.A.;
- “Cliente”: qualunque società, ente o entità giuridica che acquisti i Prodotti di HM da quest’ultima;
- “Prodotti”: i beni prodotti, assemblati e/o venduti da HM;
- “Ordine/i”: ciascuna proposta di acquisto dei Prodotti inoltrata dal Cliente ad HM esclusivamente tramite e-mail, fax o web;
- “Vendita/e”: ciascun contratto di vendita concluso tra HM e il Cliente a seguito del ricevimento da parte del Cliente dell’accettazione scritta dell’Ordine da parte di HM;

2) Scopi

2.1 Le presenti Condizioni di Vendita si applicano a tutte le Vendite di Prodotti. Nel caso di contrasto tra le condizioni e i termini di cui alle presenti Condizioni di Vendita e le condizioni e i termini pattuiti nella singola Vendita, quest’ultimi prevarranno. HM non sarà vincolata da condizioni generali di acquisto del Cliente (di seguito, “CGA”), neanche nell’ipotesi in cui si faccia loro riferimento o siano contenute negli ordini o in qualsiasi altra documentazione di provenienza del Cliente, senza il preventivo consenso scritto di HM. Le CGA non saranno vincolanti per HM neppure per effetto di tacito consenso.

2.2 HM si riserva il diritto di aggiungere, modificare o eliminare qualsiasi previsione delle presenti Condizioni di Vendita, restando inteso che tali aggiunte, modifiche o cancellazioni si applicheranno a tutte le Vendite concluse a partire dal trentesimo giorno successivo alla notifica al Cliente delle nuove Condizioni di Vendita.

3) Ordini e Vendite

3.1 Il Cliente dovrà inoltrare a HM Ordini specifici contenenti la descrizione dei Prodotti, la quantità richiesta, il prezzo ed i termini richiesti per la consegna.

3.2 La Vendita dovrà ritenersi conclusa: (i) nel momento in cui il Cliente riceva da parte di HM una conferma scritta (tale conferma potrà essere inviata via e-mail, fax o mezzi telematici) conforme ai termini e alle condizioni dell’Ordine (ii) o, nel caso in cui il Cliente riceva da parte di HM una conferma scritta contenente termini difformi da quelli contenuti nell’Ordine, decorsi tre giorni lavorativi dalla data di ricezione della conferma contenente termini difformi senza che nel suddetto periodo pervenga a HM contestazione scritta da parte del Cliente; (iii) o, in assenza di conferma scritta da parte di HM, nel momento in cui i Prodotti saranno consegnati al Cliente.

3.3 Gli Ordini regolarmente accettati da HM non potranno essere annullati dal Cliente senza il consenso scritto di HM.

4) Prezzo dei Prodotti

4.1 I prezzi dei Prodotti saranno quelli indicati nel listino prezzi di HM in vigore al momento dell'inoltro dell'Ordine da parte del Cliente o, qualora il Prodotto non sia inserito nel listino prezzi o il listino prezzi non sia disponibile, quelli indicati nell'Ordine e confermati per iscritto da HM al momento dell'accettazione dell'Ordine. Eccetto quanto diversamente concordato per iscritto tra le parti, i predetti prezzi saranno calcolati franco fabbrica, al netto dell'IVA e degli sconti. Tali prezzi non comprendono i costi di imballaggio, spedizione e trasporto dai locali di HM a quelli del Cliente. Tali costi dovranno essere sostenuti separatamente dal Cliente.

4.2 HM manterrà la proprietà dei Prodotti fino alla completa corresponsione del prezzo degli stessi. Il Cliente dovrà compiere tutti gli adempimenti richiesti dalle leggi locali al fine di rendere valida ed eseguibile nei confronti di tutti i terzi la presente clausola di riserva della proprietà anche operando l'iscrizione in ogni apposito registro, ove localmente richiesto.

5) Termini di consegna

5.1 Eccetto quanto eventualmente diversamente concordato per iscritto tra le parti, HM consegnerà i prodotti franco fabbrica presso i propri stabilimenti, così come questo termine è definito negli INCOTERMS 2010 pubblicati dalla Camera di Commercio internazionale nella loro versione più aggiornata, in vigore al momento della consegna. Se richiesto, HM si occuperà del trasporto dei Prodotti a rischio, costi e spese del Cliente.

5.2 La consegna dovrà avvenire entro il termine indicato nell'Ordine come accettato nella conferma d'ordine. I termini di consegna sono indicativi e non sono termini essenziali ai sensi dell'art. 1457 del Codice Civile e, in ogni caso, non includono i tempi di trasporto.

5.3 Salvo quanto previsto dal precedente art. 5.2, HM non sarà considerata responsabile dei ritardi o della mancata consegna ascrivibili a circostanze che siano fuori dal suo controllo, quali a titolo meramente esemplificativo e senza pretesa di esaustività:

a) dati tecnici inadeguati o imprecisioni o ritardi del Cliente nella trasmissione a HM di informazioni o dati necessari alla spedizione dei Prodotti;

b) difficoltà nell'ottenere rifornimenti delle materie prime;

c) problemi legati alla produzione o alla pianificazione degli ordini;

d) scioperi parziali o totali, mancanza di energia elettrica, calamità naturali, misure imposte dalle autorità pubbliche, difficoltà nel trasporto, cause di forza maggiore, disordini, attacchi terroristici e tutte la altre cause di forza maggiore;

e) ritardi da parte dello spedizioniere.

5.4 Il verificarsi di alcuni degli eventi sopra elencati non darà diritto al Cliente di richiedere il risarcimento degli eventuali danni o indennizzi di alcun genere.

6) Trasporto

6.1 Eccetto quanto eventualmente diversamente concordato per iscritto tra le parti, il trasporto avverrà sempre a spese e rischio del Cliente. Nel caso in cui a HM, ai sensi dell'art. 5.1, venga richiesto di occuparsi del trasporto dei Prodotti, HM sceglierà il mezzo di trasporto che riterrà più appropriato in mancanza di specifiche istruzioni del Cliente.

7) Pagamenti

7.1 Salvo diverso accordo scritto tra le parti, HM emetterà le fatture al momento della consegna dei Prodotti.

7.2 Il mancato pagamento nel tempo concordato darà diritto a HM di chiedere al Cliente il pagamento degli interessi scaduti al tasso stabilito dal Decreto Legislativo n. 231/02.

7.3 Il mancato pagamento o il ritardo nei pagamenti superiore a 30 giorni daranno a HM il diritto di sospendere la consegna dei Prodotti e risolvere ogni singola Vendita sottoscritta. La sospensione della consegna dei Prodotti o la risoluzione delle Vendite non darà il diritto al Cliente di pretendere alcun risarcimento dei danni.

7.4 Ogni reclamo relativo ai Prodotti e/o alla consegna dei medesimi non potrà in alcun caso giustificare la sospensione o il ritardo nel pagamento.

8) Non-conformità

8.1 Qualsiasi difformità dei Prodotti consegnati al Cliente rispetto al tipo ed alla quantità indicata nell'Ordine dovrà essere denunciata per iscritto a HM entro cinque giorni dalla data di consegna. Qualora la denuncia non venga comunicata entro il predetto termine, i Prodotti consegnati verranno considerati come conformi a quelli ordinati dal Cliente.

9) Garanzia

9.1 Salvo diverso accordo scritto tra le parti, HM garantisce che i Prodotti sono esenti da vizi/difetti (con esclusione di quelle parti dei Prodotti che non sono prodotte da HM) per un periodo di 12 mesi decorrente dalla data di consegna dei medesimi al Cliente.

9.2 La garanzia non opererà con riferimento a quei Prodotti i cui difetti sono dovuti a

- danni causati durante il trasporto;
- un uso negligente o improprio degli stessi;
- inosservanza delle istruzioni di HM relative al funzionamento, manutenzione ed alla conservazione dei Prodotti;
- riparazioni o modifiche apportate dal Cliente o da soggetti terzi senza la previa autorizzazione scritta di HM.

9.3 A condizione che il reclamo del Cliente sia coperto dalla garanzia e notificato nei termini di cui al presente articolo, HM si impegnerà, a sua discrezione, a sostituire o riparare ciascun Prodotto o le parti di questo che presentino vizi o difetti.

9.4 Il Cliente dovrà denunciare per iscritto a HM, la presenza di vizi o difetti entro 8 giorni dalla consegna dei Prodotti se si tratta di vizi o difetti palesi, oppure, entro 8 giorni dalla scoperta in caso di vizi o difetti occulti o non rilevabili da una persona di media diligenza.

9.5 I Prodotti oggetto di denuncia dovranno essere immediatamente inviati presso la fabbrica di HM, o in qualsiasi altro luogo che quest'ultima indicherà di volta in volta, a costi e spese a carico del Cliente salvo diverso accordo tra le parti, al fine di consentire a HM l'espletamento dei necessari controlli. La garanzia non copre danni e/o difetti dei Prodotti derivanti da anomalie causate da, o connesse a, parti assemblate/aggiunte direttamente dal Cliente o dal consumatore finale. Qualora, nell'ambito della presente garanzia, un Prodotto o un componente difettoso venisse sostituito, la proprietà del Prodotto o del componente sostituito sarà ritrasferita dal Cliente a HM.

9.6 In ogni caso il Cliente non potrà far valere i diritti di garanzia verso HM se il prezzo dei Prodotti non sia stato corrisposto alle condizioni e nei termini pattuiti, anche nel caso in cui la mancata corresponsione del prezzo alle condizioni e nei termini pattuiti si riferisca a Prodotti diversi da quelli per i quali il Cliente intende far valere la garanzia.

9.7 HM non riconosce alcuna garanzia circa la conformità dei Prodotti alle norme e ai regolamenti di Paesi che non rientrano o non appartengono all'Unione Europea. Nessun'altra garanzia, espressa o implicita, quale, a titolo esemplificativo, la garanzia di buon funzionamento o di idoneità per uno scopo specifico, è concessa con riferimento ai Prodotti.

9.8 Senza pregiudizio a quanto indicato nel precedente art. 9.3 e salvo il caso di dolo o colpa grave, HM non sarà responsabile per qualsivoglia danno derivante e/connesso ai vizi dei Prodotti. In ogni caso, HM non sarà ritenuto responsabile per danni indiretti o consequenziali di qualsiasi natura quali, a titolo esemplificativo, le perdite derivanti dall'inattività del Cliente o il mancato guadagno.

10) Diritti di Proprietà Intellettuale

10.1 I Diritti di Proprietà Intellettuale sono di totale ed esclusiva proprietà di HM e la loro comunicazione o utilizzo nell'ambito delle presenti Condizioni di Vendita non crea, in relazione ad essi, alcun diritto o pretesa in capo al Cliente. Il Cliente si obbliga a non compiere alcun atto incompatibile con la titolarità dei Diritti di Proprietà Intellettuale.

11) Clausola risolutiva espressa

11.1 HM avrà facoltà di risolvere, ai sensi e per gli effetti dell'art. 1456 del Codice Civile Italiano, in qualsiasi momento mediante comunicazione scritta da inviare al Cliente, la singola Vendita nel caso di inadempimento delle obbligazioni previste dagli articoli: 4 (Prezzo dei Prodotti); 7 (Pagamenti); 10 (Diritti di Proprietà Intellettuale).

12) Mutamento nelle condizioni patrimoniali del Cliente

12.1 HM avrà diritto a sospendere l'adempimento delle obbligazioni derivanti dalla Vendita dei prodotti, in base all'art. 1461 del Codice Civile Italiano, nel caso in cui le condizioni patrimoniali del Cliente divenissero tali da porre in serio pericolo il conseguimento della controprestazione salvo che sia prestata idonea garanzia.

13) Domicilio legale, legge applicabile e giurisdizione

13.1 HM è legalmente domiciliata presso la sua sede principale.

13.2 Le Condizioni di Vendita e ogni singola Vendita saranno regolate e interpretate in conformità alla Legge Italiana.

13.3 Tutte le controversie derivanti da o connesse alle presenti Condizioni di Vendita e/o ad ogni Vendita saranno soggette alla esclusiva giurisdizione del Tribunale di Vicenza.

13.4 Salvo quanto pattuito nel precedente art. 13.3, HM si riserva il diritto, quando promotore di una azione legale in qualità di attore, di promuovere tale azione nel luogo di residenza del Cliente.

14) ATTENZIONE (Leggere attentamente):

Le seguenti raccomandazioni sono fondamentali per la vostra protezione e per garantirvi molti anni di sicuro funzionamento del vostro prodotto senza alcun problema.

Leggere attentamente tutte le istruzioni prima di azionare il riduttore. L'inappropriata installazione, manutenzione o funzionamento del riduttore può causare incidenti al personale addetto e danni al riduttore stesso.

14.1 E' richiesta autorizzazione scritta per azionare riduttori in ascensori o dispositivi per il movimento delle persone.

14.2 Controllare che alcune applicazioni non eccedano la massima capacità di carico ammessa pubblicata in questo catalogo.

14.3 L'acquirente è l'unico responsabile per la determinazione dell'adeguatezza del prodotto per qualcuna o tutte le utilizzazioni che l'acquirente stesso farà del riduttore. L'applicazione dell'acquirente non potrà essere soggetta ad alcuna implicita garanzia di montaggio per uno scopo particolare.

14.4 Per ragioni di sicurezza l'acquirente dovrà provvedere a porre protezioni adeguate su tutta la lunghezza dell'albero a tutti gli organi in movimento. L'utilizzatore è responsabile del controllo di tutti i codici di sicurezza e la predisposizione di protezioni adeguate. In assenza di tali precauzioni si possono verificare incidenti alle persone e danni agli apparati.

14.5 Su riduttori installati in posizioni elevate utilizzare protezioni adeguate per qualsiasi distacco accidentale di parti nel caso di passaggio di persone al di sotto.

14.6 Olio e riduttori bollenti possono causare gravi ustioni. Usare estrema cautela nella rimozione dei tappi e delle ventole.

14.7 Assicurarsi che la corrente di alimentazione sia scollegata prima di riparare o rimuovere alcun componente. Chiudere l'alimentazione e contrassegnare tale operazione per evitare accensioni accidentali.

14.8 I riduttori non devono essere considerati esenti da guasti o a bloccaggio automatico. Se sono indispensabili queste caratteristiche, deve essere utilizzato un dispositivo indipendente della dimensione adatta. I riduttori non devono essere utilizzati come freni.

14.9 Qualsiasi freno sia utilizzato insieme al riduttore deve essere della giusta grandezza e posizionato in modo da non causare carichi eccessivi non previsti dai dati forniti nel catalogo.

14.10 I dispositivi di sollevamento come le golfare devono essere usati solo per sollevare verticalmente il riduttore e non altri dispositivi associati o motori.

14.11 L'utilizzo di un olio con un additivo EP su gruppi provvisti di dispositivo di arresto possono inficiare l'uso corretto del freno e provocare danni alle persone, alle cose ed al riduttore stesso nonché ad altri apparecchi.

14.12 I Carichi sospesi assoggettano i cuscinetti della vite e la vite stessa a sollecitazioni che possono causare, se non adeguatamente dimensionati, l'usura prematura dei cuscinetti e/o la rottura della vite a causa della resistenza alla flessione.

La nostra ditta non si ritiene responsabile per eventuali danni diretti o indiretti derivanti da un uso improprio dei prodotti e dalla mancata osservanza delle indicazioni riportate a catalogo o web.

NOTES / NOTE / AUFZEICHNUNG / NOTAS

HYDRO · MEC

HIGH EFFICENCY GEARBOXES

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hydromec@hydromec.com

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