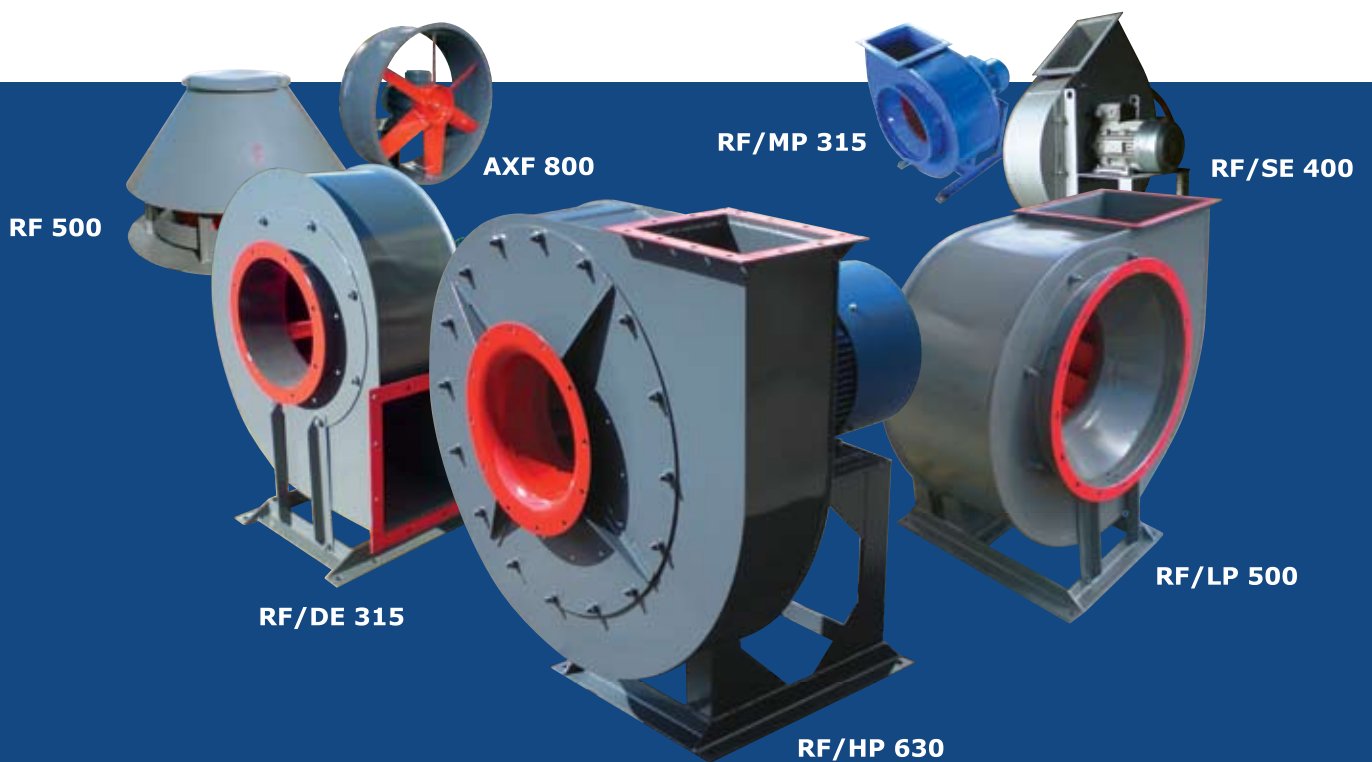


PRODUCTION CATALOGUE



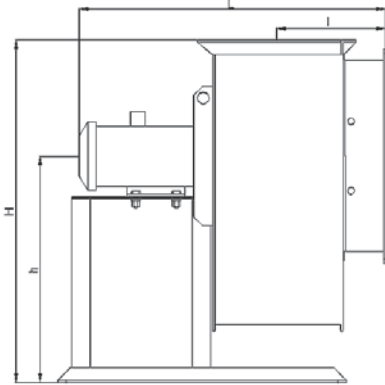
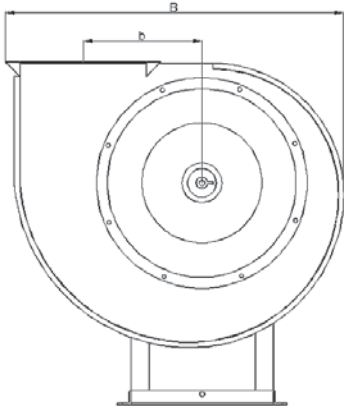
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Radial fans RF/LP (low pressure)

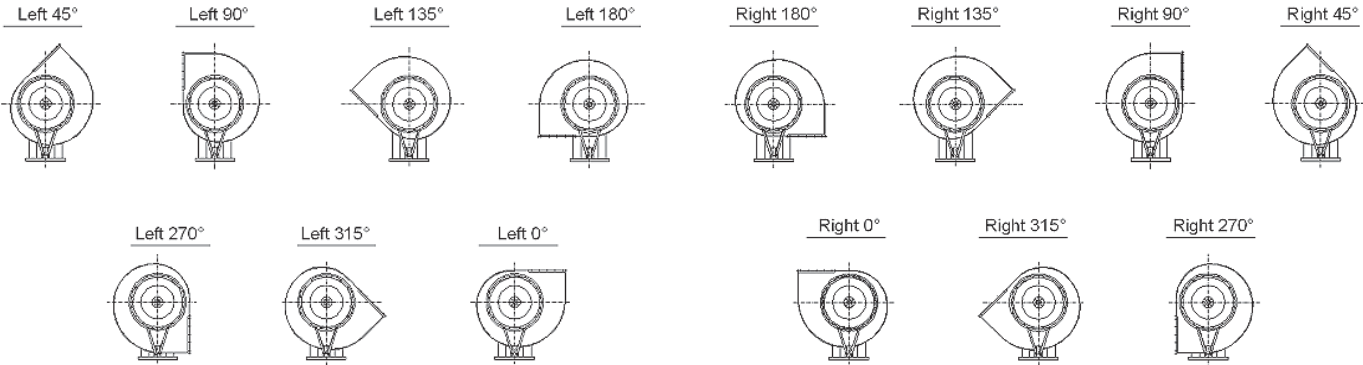
Single inlet direct and belt drive fans

DIMENSIONS



Fan designation	B	b	H	h	L	l
RF/LP-250	472	162,5	480	315	480	152,5
RF/LP-315	600	208	620	380	590	177
RF/LP-400	740	260	760	480	750	205
RF/LP-500	914	325	939	612	820	255
RF/LP-630	1143	409,5	1154	746	977	301,5
RF/LP-800	1342	450	-	-	1270	-
RF/LP-1000	1750	-	1753	1110	1538	-

FAN HOUSING POSITIONS



Radial fans RF/LP (low pressure)

Single inlet direct and belt drive fans

GENERAL INFORMATION

Radial fans RF/LP find application in systems of air heating, inflow and exhaust ventilation, an air conditioning and in various technological installations with working temperature up to 80°C.

All models are manufactured with backward curved radial impellers dynamically balanced according to ISO-1940 standart.

Available with high quality asynchronous 3 phase electric motors in accordance to DIN EN 60034-1 standard.

Upon request: Explosion proof versions in accordance to ATEX directive, stainless steel versions.

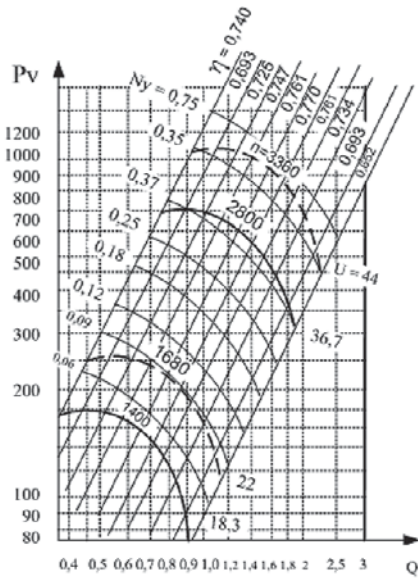
TECHNICAL CHARECTERISTICS

Fan designation	Dk/Dn	Power, kW	RPM	Airflow, m ³ /h	Pressure, Pa	Frequency, Hz	Voltage, V	Weight (less motor) approx., Kg
RF/LP-250	250	0,18	1500	680	176	50	400	20
		0,55	3000	1350	656			
RF/LP-315	315	0,25	1500	1380	265			25
		1,5	3000	2700	1138			
RF/LP-400	400	0,37	1000	1950	191			55
		0,75	1500	2800	441			
		5,5	3000	5800	1860			
RF/LP-500	1,0	0,55	1000	5140	360			75
		2,2	1500	7940	840			
RF/LP-500	0,90	0,37	1000	4260	254			
		1,1	1500	6480	588			
RF/LP-500	0,95	0,55	1000	4740	287			
		1,5	1500	7220	666			
RF/LP-500	1,05	0,75	1000	5640	403			
		2,2	1500	7900	960			
		3	1500	8700	631			
RF/LP-500	1,10	0,75	1000	4080	493			
		1,1	1000	5800	417			
		3	1500	8950	1174			
RF/LP-630	1,0	1,5	1000	10 450	582			120
		5,5	1500	15 930	1349			
RF/LP-630	0,90	1,1	1000	8520	403			
		3	1500	9200	960			
		4	1500	13 000	810			
RF/LP-630	0,95	1,1	1000	5650	495			
		1,5	1000	9670	495			
		4	1500	8700	1150			
		5,5	1500	14 700	1150			
RF/LP-630	1,05	2,2	1000	11 500	681			
		7,5	1500	18 000	1600			
RF/LP-630	1,1	2,2	1000	7720	834			
		3	1000	11 980	748			
		7,5	1500	11 830	1957			
		11	1500	18 500	1756			
RF/LP-800	1,0	7,5	1000	23 000	950			230
		11	1000	24 000	1280			
RF/LP-1000	1,0	11	750	30 500	820			480
		18,5	1000	39 000	1480			
RF/LP-1250	1,0	22	750	50 000	1280			740

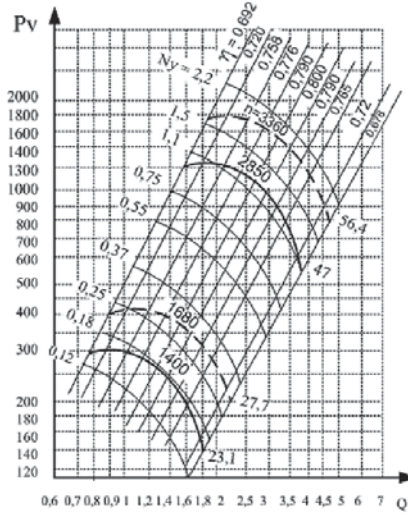
Radial fans RF/LP (low pressure)

Single inlet direct and belt drive fans

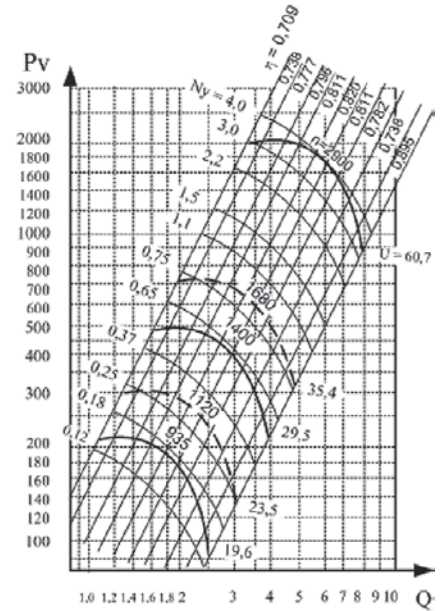
DIAGRAMS



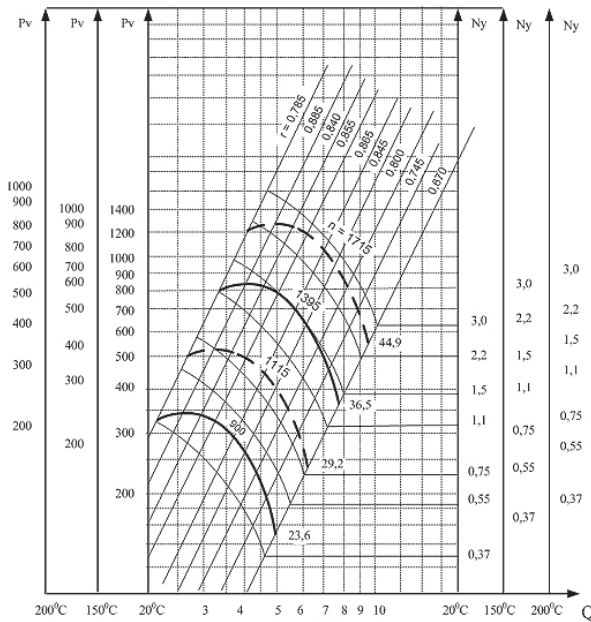
RF/LP-250



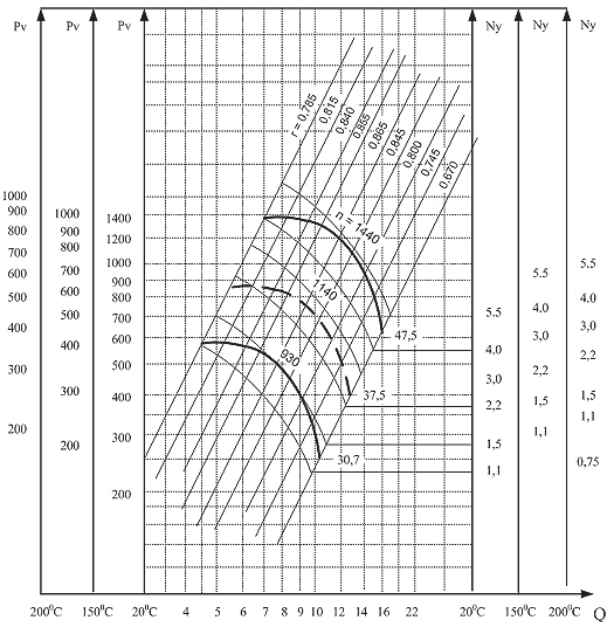
RF/LP-315



RF/LP-400



RF/LP-500

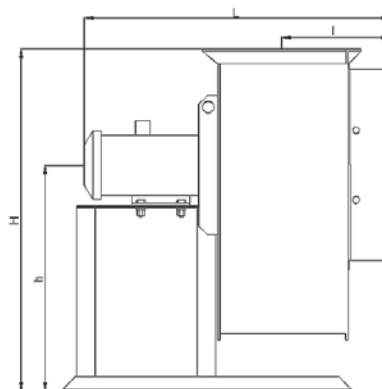
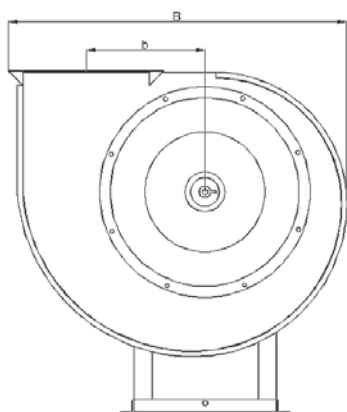


RF/LP-630

Radial fans RF/MP (medium pressure)

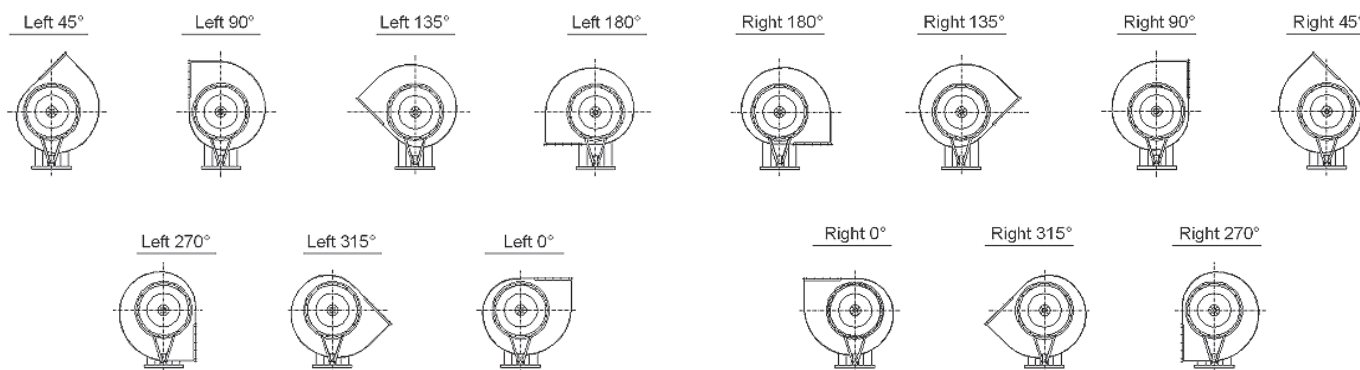
Single inlet direct drive fans

DIMENSIONS



Fan designation	B	b	H	h	L	l
RF/MP-200	450	136	414	271	472	140
RF/MP-250	480	162	560	320	600	162
RF/MP-315	600	208	670	390	690	177
RF/MP-400	740	260	850	500	860	205
RF/MP-500	920	178,5	960	625	1000	178,5
RF/MP-630	1150	410	1203	796	1100	224
RF/MP-800	1450	520	-	-	1550	350

FAN HOUSING POSITIONS



Radial fans RF/MP (medium pressure)

Single inlet direct drive fans

GENERAL INFORMATION

Fans are widely used in air heating systems, plenum-exhaust ventilation, and air conditioning systems as well as in a variety of technological facilities containing no explosive substances.

All models are manufactured with forward curved radial impellers dynamically balanced according to ISO-1940 standart.

Available with high quality asynchronous 3 phase electric motors in accordance to DIN EN 60034-1 standard.

Upon request: Explosion proof versions in accordance to ATEX directive, stainless steel versions.

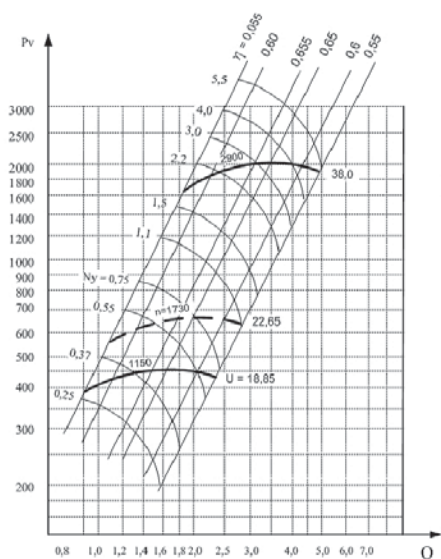
TECHNICAL CHARECTERISTICS

Fan designation	Rotor diameter, mm	Power, kW	RPM	Airflow, m ³ /h	Pressure, Pa	Frequency, Hz	Voltage, V	Weight (less motor) approx., Kg
RF/MP-150	150	0,18	1500	450	250	50	400	5
		0,37	3000	900	538			
RF/MP-200	200	0,37	1500	920	294			15
		2,2	3000	1900	1220			
RF/MP-250	250	0,55	1500	1500	470			20
		0,75						
		3	3000	3200	2020			
		4						
RF/MP-315	315	0,55	1000	2005	343			30
		0,75						
		1,5	1500	3200	853			
RF/MP-400	400	1,5	1000	4500	640			55
		2,2						
		3						
		4	1500	7000	1470			
		5,5						
RF/MP-500	500	7,5						80
		4	1000	10 000	1080			
		5,5						
		7,5						
		11						
		11	1500	15 000	2350			
RF/MP-630	630	15						150
		18,5						
		22						
		5,5	750	15 000	980			
		7,5						
RF/MP-800	800	11	1000	19 500	1766			255
		15						
		18,5						
		22						
RF/MP-800	800	18,5	750	26 000	1420			255
		22						
		30						
		22	1000	37 000	2660			
		30						
		37						
		45						
55								

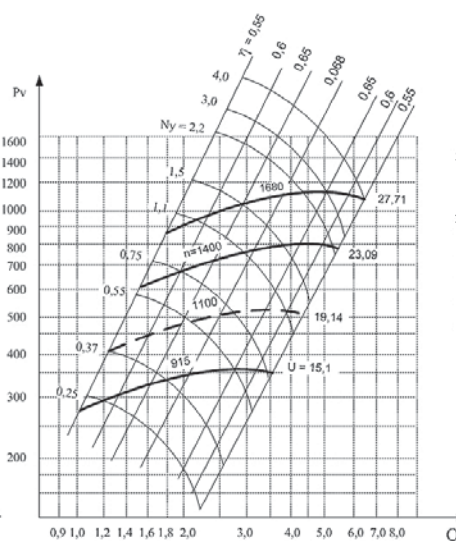
Radial fans RF/MP (medium pressure)

Single inlet direct drive fans

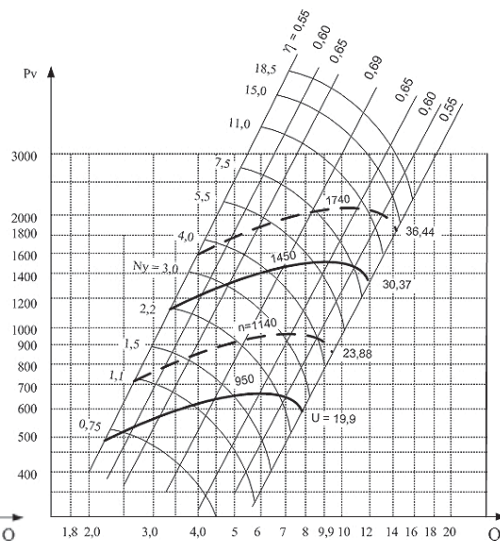
DIAGRAMS



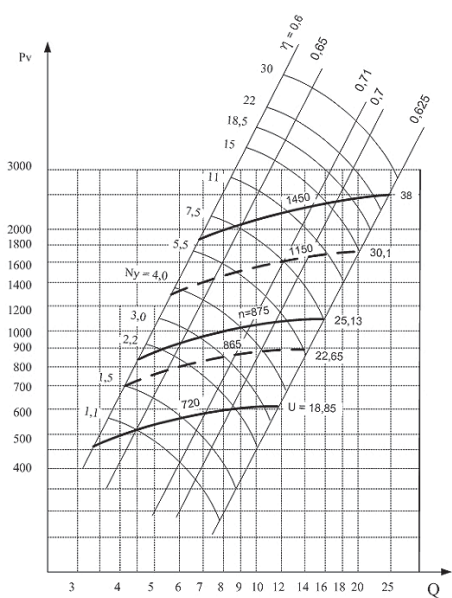
RF/MP-250



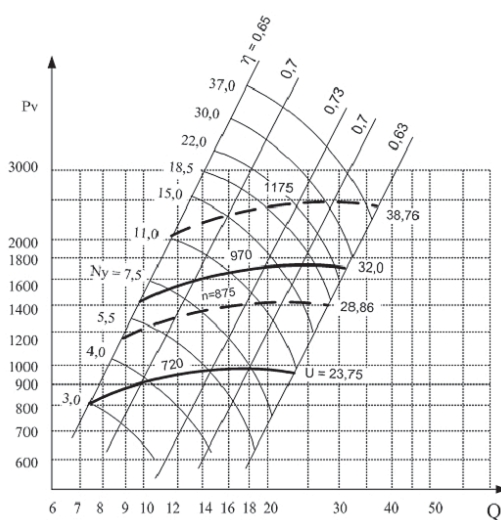
RF/MP-315



RF/MP-400



RF/MP-500

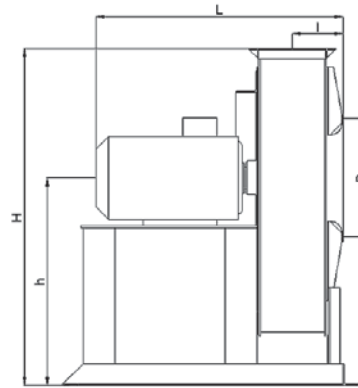
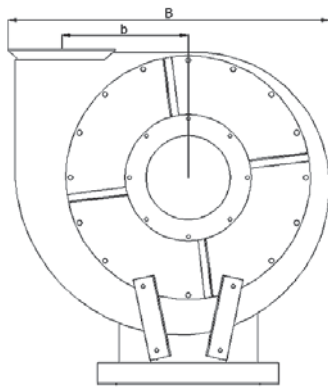


RF/MP-630

Radial fans RF/HP (high pressure)

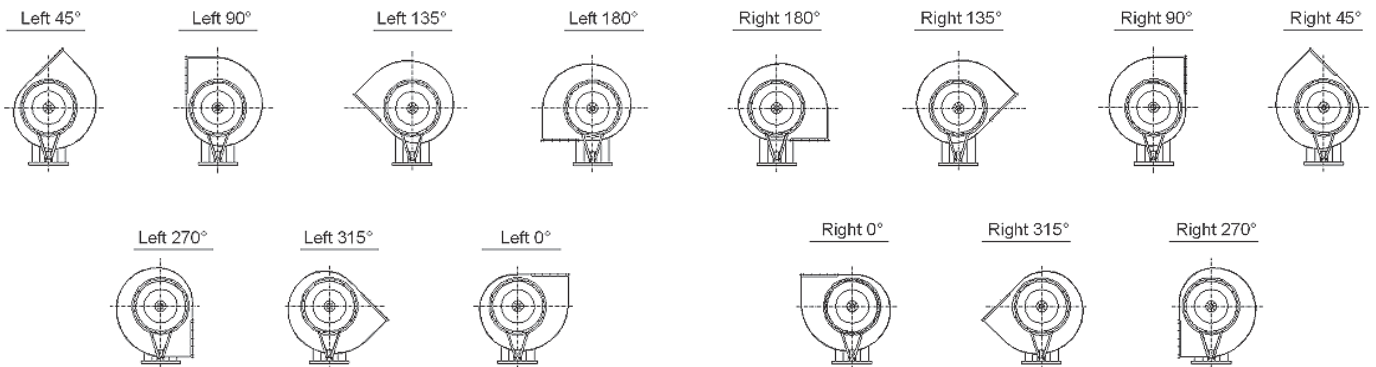
Single inlet direct drive fans

DIMENSIONS



Fan designation	B	b	H	h	L	I
RF/HP-500	763	300	844	538	819	121
RF/HP-630	963	378	1038	650	1088	153

FAN HOUSING POSITIONS



Radial fans RF/HP (high pressure)

Single inlet direct drive fans

GENERAL INFORMATION

High pressure fans are designed for asphalt manufacturers as well as for railway snow-plough machines. They are also used as blow in boiler houses, in grain drying facilities.

All models are manufactured with backward curved radial impellers dynamically balanced according to ISO-1940 standart.

Available with high quality asynchronous 3 phase electric motors in accordance to DIN EN 60034-1 standard.

Upon request: Stainless steel versions.

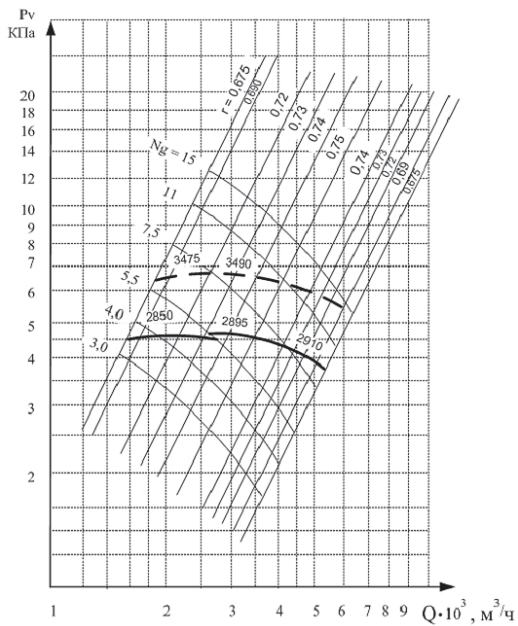
TECHNICAL CHARECTERISTICS

Fan designation	Dk/Dn	Power, kW	RPM	Airflow, m ³ /h	Pressure, Pa	Frequency, Hz	Voltage, V	Weight (less motor) approx., Kg
RF/HP-500	1	5,5	3000	2750	4550	50	400	80
		7,5	3000	4500	4700			
		11	3000	5210	4200			
RF/HP-500	0,9	3	3000	1820	3650	50	400	80
		4	3000	2700	3650			
		5,5	3000	3930	3500			
		7,5	3000	4150	3080			
RF/HP-500	0,95	4	3000	2200	4100	50	400	80
		5,5	3000	3600	4100			
		7,5	3000	4600	3800			
RF/HP-500	1,05	7,5	3000	3300	5550	50	400	80
		11	3000	5600	5520			
RF/HP-630	1	15	3000	4800	7400	50	400	150
		18,5	3000	6100	7400			
		22	3000	7800	6800			
		30	3000	10 700	6800			
RF/HP-630	0,9	11	3000	4400	5800	50	400	150
		15	3000	6400	5800			
		18,5	3000	7800	5450			
		22	3000	8200	5200			
RF/HP-630	0,95	11	3000	3950	6500	50	400	150
		15	3000	5600	6500			
		18,5	3000	7150	6400			
		22	3000	8900	6160			
		30	3000	9350	5600			

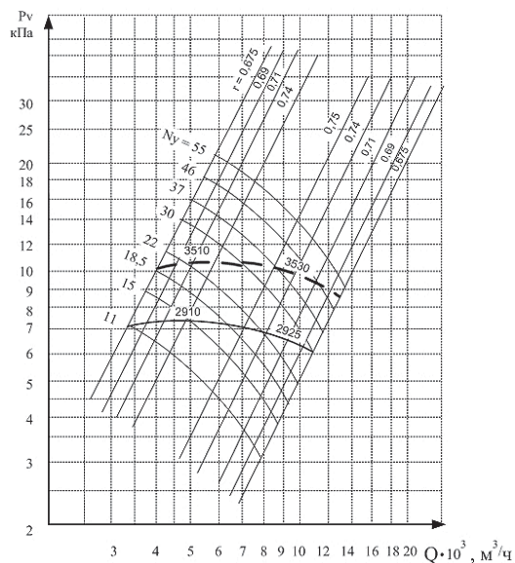
Radial fans RF/HP (high pressure)

Single inlet direct drive fans

DIAGRAMS



RF/HP-500

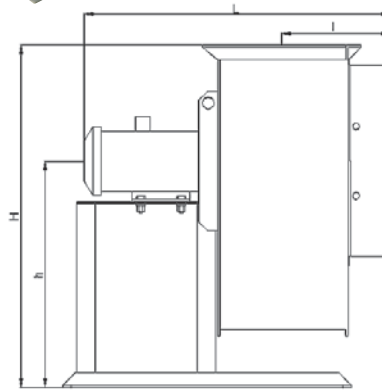
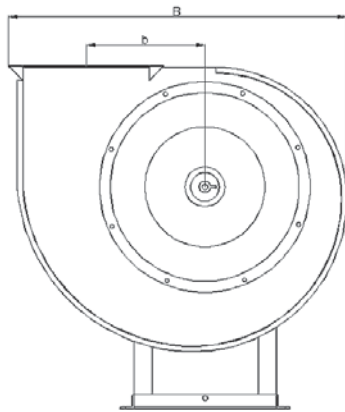


RF/HP-630

Radial fans RF/DE (dust exhausters)

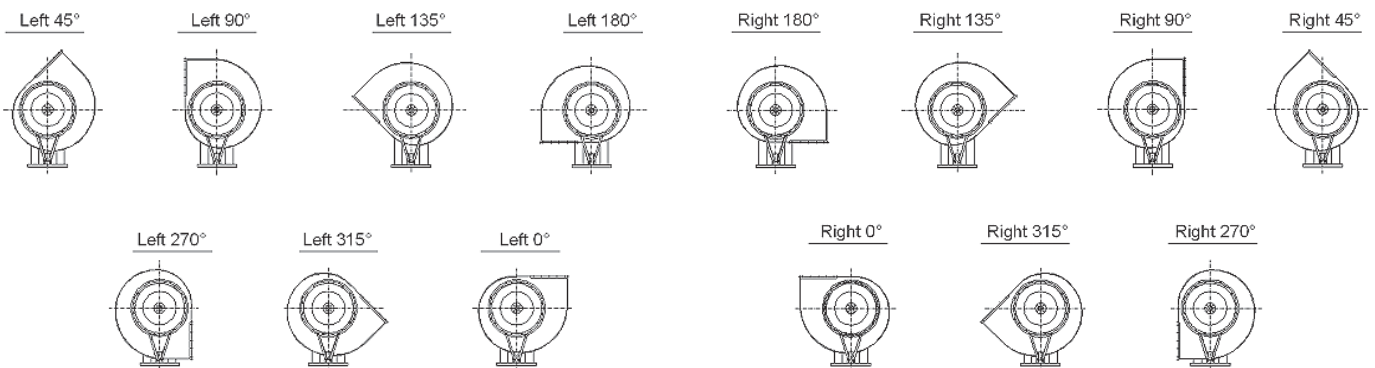
Single inlet direct and belt drive fans

DIMENSIONS



Fan designation	B	b	H	h	L	l
RF/DE-250	480	162,5	510	320	480	112
RF/DE-315	600	208	625	390	590	130
RF/DE-400	740	260	770	500	750	180
RF/DE/BD-500	920	325	930	600	-	215
RF/DE/BD-630	1150	409	1160	720	-	250
RF/DE/BD-800	1360	492,5	1350	840	-	330

FAN HOUSING POSITIONS



Radial fans RF/DE (dust exhausters)

Single inlet direct and belt drive fans

GENERAL INFORMATION

Dusts exhaust fans are designed for replacement of explosion – proof, nonabrasive air-gas-dust mixtures with temperature up to 80°C, not containing sticky substances and fibrous materials, aggressiveness of the displaced media towards steel types of common quality not exceeding that of the air.

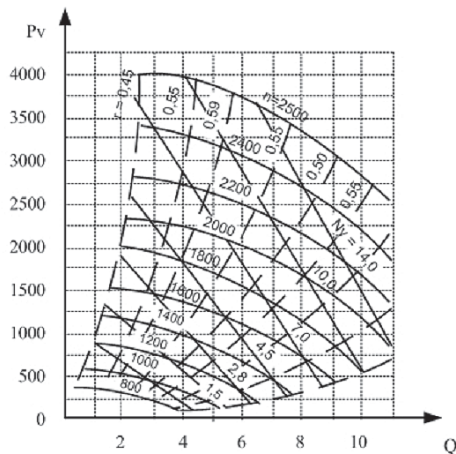
All models are manufactured with straight radial impellers dynamically balanced according to ISO-1940 standard. Available with high quality asynchronous 3 phase electric motors in accordance to DIN EN 60034-1 standard.

Upon request: Explosion proof versions in accordance to ATEX directive.

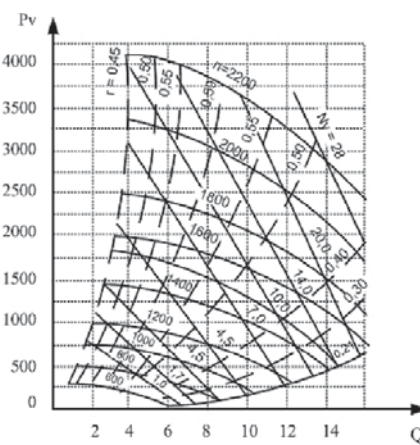
TECHNICAL CHARECTERISTICS

Fan designation	Dk/Dn	Power, kW	RPM	Airflow, m ³ /h	Pressure, Pa	Frequency, Hz	Voltage, V	Weight (less motor) approx., Kg
RF/DE-250	250	0,75 1,5	1500 3000	700 1300	220 890	50	400	20
RF/DE-315	315	1,1 2,2	1500 3000	1400 2700	360 1400			
RF/DE-400	400	2,2	1500	3000	440	50	400	50
RF/DE/BD-500	500	5,5 7,5	1000 1500	4000 5300	375 730			
RF/DE/BD-630	630	7,5 11	1000 1500	7000 10 700	550 1100	50	400	200
RF/DE/BD-800	800	18,5 30	1000 1500	16 000 21 500	1000 1800			

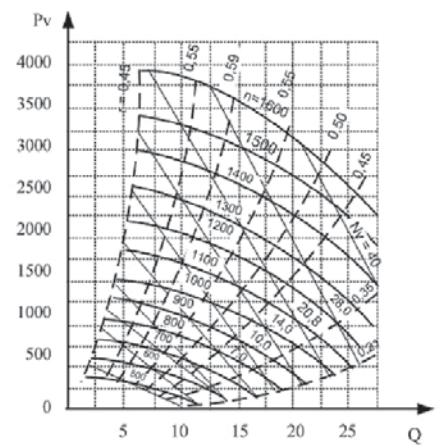
DIAGRAMS



RF/DE-500



RF/DE-630

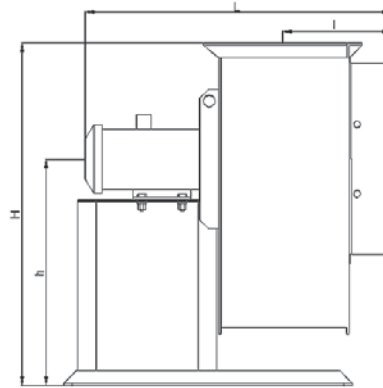
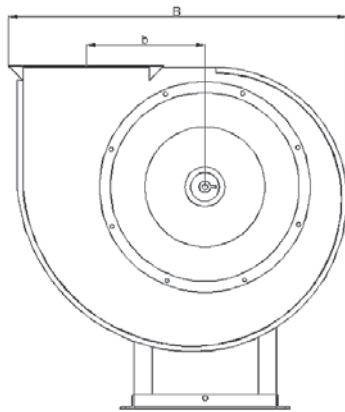


RF/DE-800

Radial fans RF/SE (smoke exhausters)

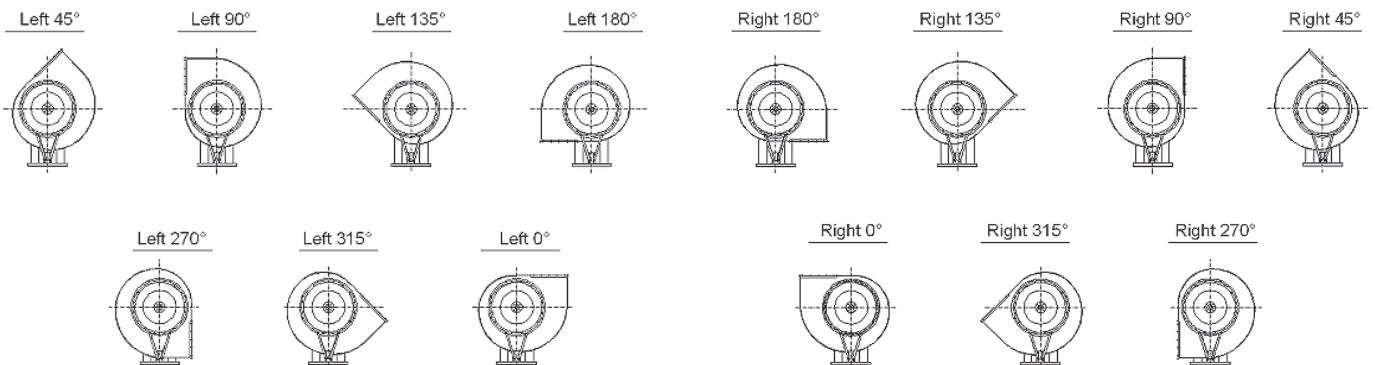
Single inlet direct drive fan

DIMENSIONS



Fan designation	B	B	H	h	L
RF/SE-250	480	480	560	320	600
RF/SE-315	600	600	670	390	690
RF/SE-400	470	470	860	500	860
RF/SE-500	920	920	950	610	1000
RF/SE-630	1150	1150	1150	750	1100
RF/SE-900	1491	1491	1580	-	1230

FAN HOUSING POSITIONS



Radial fans RF/SE (smoke exhausters)

Single inlet direct drive fan

GENERAL INFORMATION

Smoke exhausters and blow fans are designed for operation in boiler units.

Smoke exhausters are used for drawing off smoke gases at temperature up to 250°C from boiler unit furnaces equipped with effective system of ash detectors.

Blow fans are used for air feeding into boiler units' furnaces. Smoke exhausters and blow fans of a standard size have the same overall and coupling dimensions.

The only differences are in the coating of the circulating part, strengthened rotor details and in the design of the mortar which in case of the dust exhauster is equipped with a cooling device.

All models are manufactured with forward curved radial impellers dynamically balanced according to ISO-1940 standart.

Available with high quality asynchronous 3 phase electric motors in accordance to DIN EN 60034-1 standard.

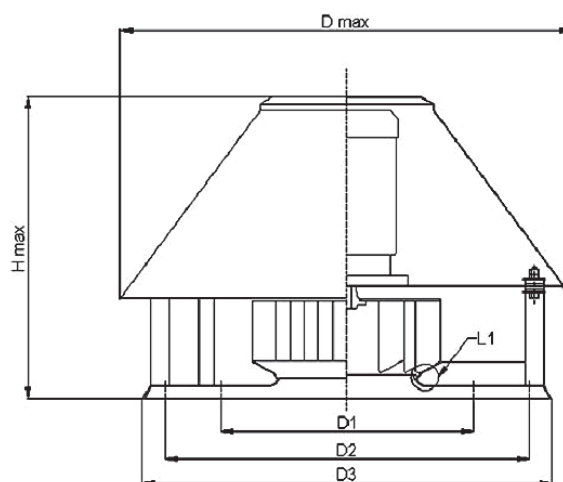
Upon request: High temperature versions 400°C and 600°C.

TECHNICAL CHARECTERISTICS

Fan designation	Dk/Dn	Power, kW	RPM	Airflow, m ³ /h	Pressure, Pa	Frequency, Hz	Voltage, V	Weight (less motor) approx., Kg
RF/SE-250	250	0,75	1500	940	510	50	400	30
		1,5	3000	1840	1940			
RF/SE-315	315	1,1	1500	1900	815			45
		2,2	3000	3600	3000			
RF/SE-400	400	2,2	1500	3870	1300			90
		15	3000	7500	4900			
RF/SE-500	500	7,5	1000	4300	900			150
		22	1500	7200	2000			
RF/SE-630	630	7,5	750	6800	800			230
		22	1000	9000	1200			
RF/SE-900	900	30	1500	14 650	1780			350
		11	1000	9750	790			

Roof fans RF

DIMENSIONS



Fan designation	D max	H max	D1	D2	D3
RF-400	660	530	435	772	860
RF-500	795	630	535	772	860
RF-630	920	750	658	772	860
RF-800	1200	980	830	1072	1190

Roof fans RF

GENERAL INFORMATION

Roof fans are used for exhaust ventilation of industrial, public, household building, sport complexes, administrative and cultural buildings. They are widely used also in storage, agricultural and cattle – breeding facilities. These fans are installed directly on roof and can function without power network or with air dust line. Dust exhaust is effected through a single vertical exhaust dust. These types of fans do not require much space and there is no need for a complicated ventilation system.

All models are manufactured with straight forward curved impellers dynamically balanced according to ISO-1940 standart.

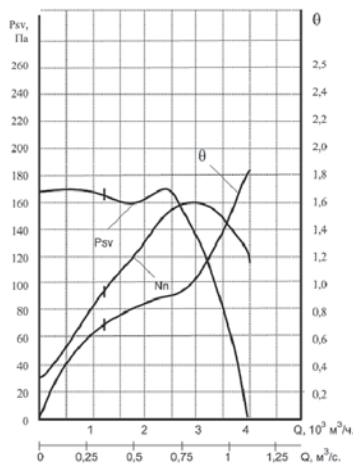
Available with high quality asynchronous 3 phase electric motors in accordance to DIN EN 60034-1 standard.

Upon request: Explosion proof versions in accordance to ATEX directive, stainless steel versions.

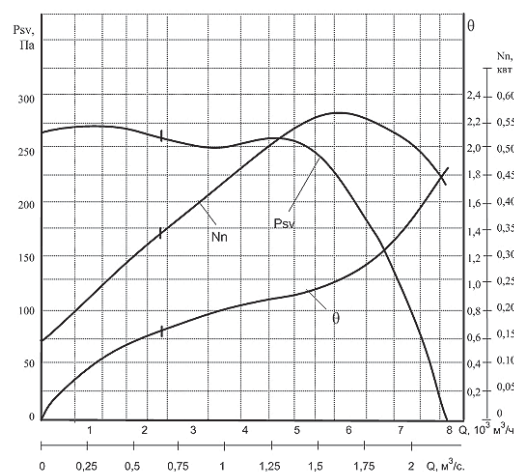
TECHNICAL CHARECTERISTICS

Fan designation	Power, kW	RPM	Airflow, m ³ /h	Pressure, Pa	Frequency, Hz	Voltage, V	Weight (less motor) approx., Kg
RF-400	0,37	1000	4000	170	50	400	45
RF-500	0,75	1000	7880	266			60
RF-630	2,2	1000	16 500	466			80
RF-800	3	750	25 000	430			160
	11	1000	35 000	750			

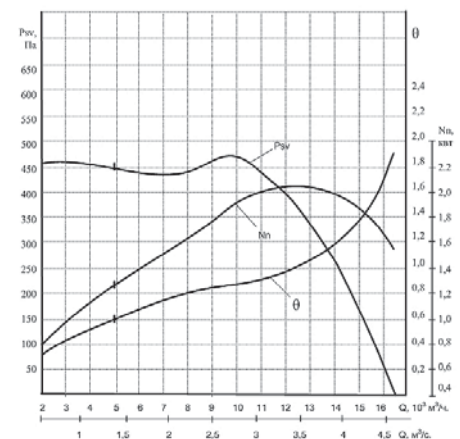
DIAGRAMS



RF-400



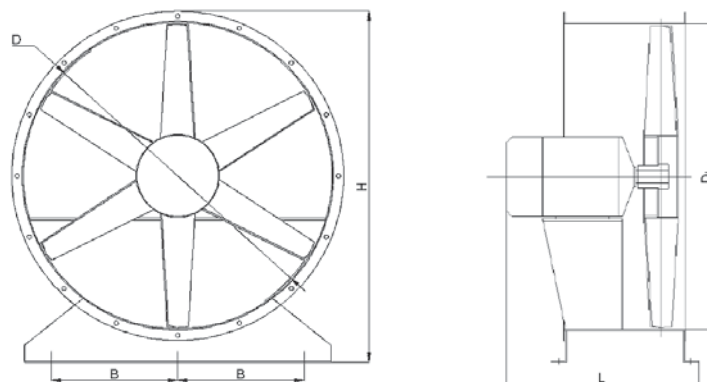
RF-500



RF-630

Axial fans AXF/R

DIMENSIONS



Fan designation	H	D	D1	B	L	L1
AXF/R-630	728	630	638	250	400	326
AXF/R-800	925	800	807	330	500	346
AXF/R-1000	1130	1000	1010	450	570	426

Axial fans AXF/R

GENERAL INFORMATION

Axial fans are used in air heating systems, in plenum – exhaust ventilation for different type of fans is safe and reliable. Axial fans consume little power, have a long operational life before the first overhaul and simple in operation. They are applied when it is necessary to feed much air at low pressure (airing systems, equipment cooling etc.) The fans are designed to handle air and other gas mixtures whose corrosiveness to normal carbon steels is not higher than that of air, with temperatures up to 40°C, free from sticky and fibrous matter, with dust and other solids content not exceeding 10 mg/m³. The fans operate reliably in temperate and tropical climates.

Available with asynchronous 3 phase electric motors in accordance to DIN EN 60034-1 standard.

All models are manufactured with wing and aero profile blade impellers dynamically balanced according to ISO-1940 standart.

Upon request: Explosion proof versions in accordance to ATEX Directive.

TECHNICAL CHARECTERISTICS

Fan designation	Dk/Dn	Power, kW	RPM	Airflow, m ³ /h	Pressure, Pa	Frequency, Hz	Voltage, V	Weight (less motor) approx., Kg
AXF/R-630	630	3	1500	16 000	260	50	400	35
AXF/R-800	800	5,5 7,5	1500	30 000	240			45
AXF/R-1000	1000	4	1000	34 000	230			90

SENSORLESS VECTOR CONTROL OR V/F INVERTOR



TECHNICAL FEATURES

Power ranges:

0.37~7.5kW 200-230Vac, 1/3phase

0.37~7.5kW 380-480Vac, 3phase

IP20 enclosure

IGBT Inverter

2 Control modes: V/F and Sensorless Vector Control

Serial port RS 485 with protocol MODBUS RTU

Remotable smart keyboard

Overload 150% of In for 60 sec.

Overload 200% for short time span

Maximum torque 180% Cn

Maximum output frequency 400Hz

Anti-stalling and antitrip algorithm

8 speed sets

3 frequency jumps (skip)

8 NPN PNP programmable digital inputs

2 analog inputs 0-10Vdc and 4-20mA

1 programmable open collector output

1 programmable relay output

1 analog output 0-10Vdc

Adjustable carrier 1-15kHz

Incorporated braking unit

Automatic and manual torque boost

Speed search

PID function

"S" ramps

Fire Mode function

EMC compliant with EN 61800-3, industrial power utility, SECOND ENVIRONMENT

OPTIONS

Kit remote keyboard operation (3 metres)

EMC foot print filters EN 55011 Cl. A1 and B, public utility, FIRST ENVIRONMENT.

Braking resistors

Analog converter V/I (0-10/4-20mA)

Relay for open collector output

"Remote Drive" software

Converter for MODBUS/Profibus DP-CanBus-Device Net etc.

RS 485/232 converter

SOFT START/STOP STATIC STARTERS FOR THREE-PHASE ASYNCHRONOUS MOTORS TYPE SFTS, ASAC0/ASAC1

ASAC0 is the right solution to save space and keep costs under control.
Besides the features of ASAC0, the ASAC1 grants a reliable motor protection and current control.



COMMON TECHNICAL FEATURES (ASAC0/ASAC1)

Compact dimensions
Internal By-pass contactor
400% max allowed overload of the nominal current
IP20 Enclosure (<=ASAC 55kW)
3 Adjustments: Initial start voltage, Start ramp time, Soft stop ramp time
6 Indications: No control power, Starter Ready, Starter tripped, Motor not running, Motor running at full speed, Motor starting/stopping
3 Alarms: Power circuit, Supply frequency, Communication
2 digital inputs: Start, Stop
1 Output relay: Main contactor relay
Local reset
Control power supply: 110-240Vac and 380-440Vac
Power supply: 200-440Vac $\pm 10\%$ / 200-575Vac $\pm 10\%$
Input frequency: 50-60Hz $\pm 10\%$

ASAC1 ADDITIONAL FEATURES

8 adjustments: Motor FLC, Current Ramp, Current Limit, Motor Trip Class, Soft Stop Time, Excess Start Time, Phase Sequence Protection, Auxiliary Relay Function
5 additional Alarms: Excess start time, Motor overload, Motor thermistor, Phase imbalance, Phase sequence
1 additional Digital input: Motor thermistor probe
1 additional Output relay: Programmable relay

OPTIONS (ASAC0/ASAC1)

24Vac/Vdc Control Power Supply
Extra-fast fuses
RS485 Serial communication port with MODBUS RTU DeviceNet, Profibus, ASI protocol
Remote control panel (RS485 doubler, one 4-20mA output)
RS232/485 converter

