

AL 1120 D6 03

162711

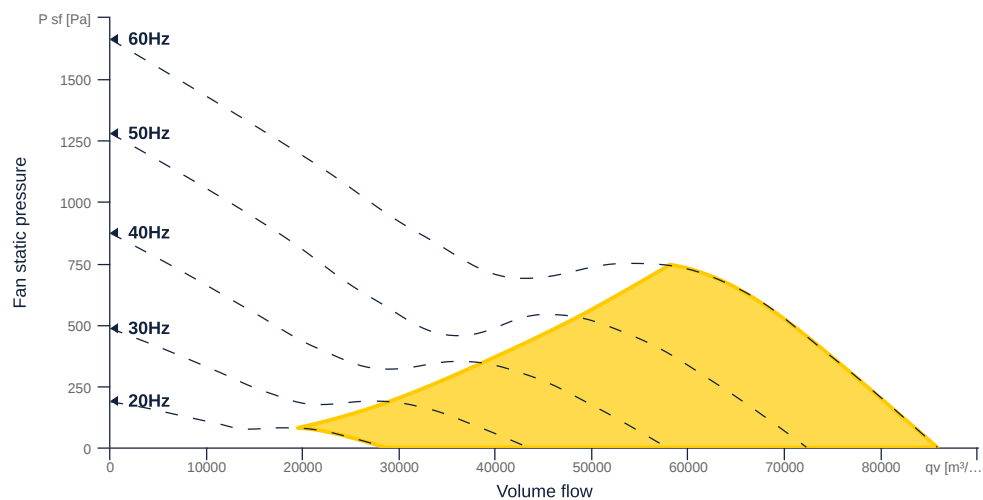
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- Innovative, high-efficiency axial fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing weight optimized, powder coated
- Efficient IE3 motor, frequency controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- Exceeds current ErP regulation by 15 - 20%



FAN CURVES

Name	Value	Unit
Volume flow	0	m³/h
Pressure	0	Pa



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GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	-		$W \times H_{duct}$
Pipe connection size (DN)	DN1120		DN
Rated voltage (entire device)	400	V	U_{rated}
Phases (entire device)	3~		phase
Electrical protection (entire device)	50 A		fuse
Housing material	Steel		matcasing
Impeller material	Steel		matimpeller
IP-protection class (entire device)	IPX4		IPcompl
IP-Protection class (terminal box)	IP55		IPebox
Weight	345	kg	m
Fan type	Axial		Fan _{type}
Category / Installation situation	B		cat

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	20147	W	$P_{ed, max}$
Max. operating current (device)	37.8	A	$I_{ed, max}$
Max. speed	1190	1/min	n_{max}
Max. stat. efficiency	55.8	%	η_{es}
Max. fan efficiency	71.7	%	η_e
Max. flowrate	85820	m ³ /h	$Q_{v, max}$
Max. stat pressure	765	Pa	$p_{sf, max}$
Max. medium temperature	60	°C	$T_{m, max}$
Max. environment temperature	60	°C	$T_{amb, max}$
Min. environment temperature	-20	°C	$T_{amb, min}$



MOTOR DATA

Name	Value		Unit	Formula symbol
	50 Hz	60 Hz		
Rated frequency (device)		50		f
Motor type		AC 3~		phase
Control type		frequency-controlled		ctrltype
Installation type		IRM (In)		install
Isolation class		ISO F		ISOclass
Protection class		IP55		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 3~		pwrSUPmotor
Number of poles (1)		6.000000		num polesw1
Connection	Δ			wiringw1
Connection (wiring 2)	Y			wiringw2
Rated voltage	400		V	U _{rated, f1}
Rated voltage (wiring 2)	690		V	U _{rated, f2}
Rated current	35.4		A	I _{rated, f1}
Rated current (wiring 2)	20.5		A	I _{rated, f2}
Shaft power	18500		W	P _{out, f1}
Shaft power (wiring 2)	18500		W	P _{out, f2}
Speed	975		1/min	n _{f1}
Speed (wiring 2)	975		1/min	n _{f2}
Starting current	223		A	I _{start, f1}
Starting current (wiring 2)	129		A	I _{start, f2}
Efficiency	92		%	η _{m, f1}
Efficiency (wiring 2)	92		%	η _{m, f2}
Efficiency class	IE3			IE _{motor}
Min. temperature	-20		°C	T _{motor, min}
Cos Phi	0.820000	0.000000		cos φ
UL-Certification motor		UL recognized		ULcert

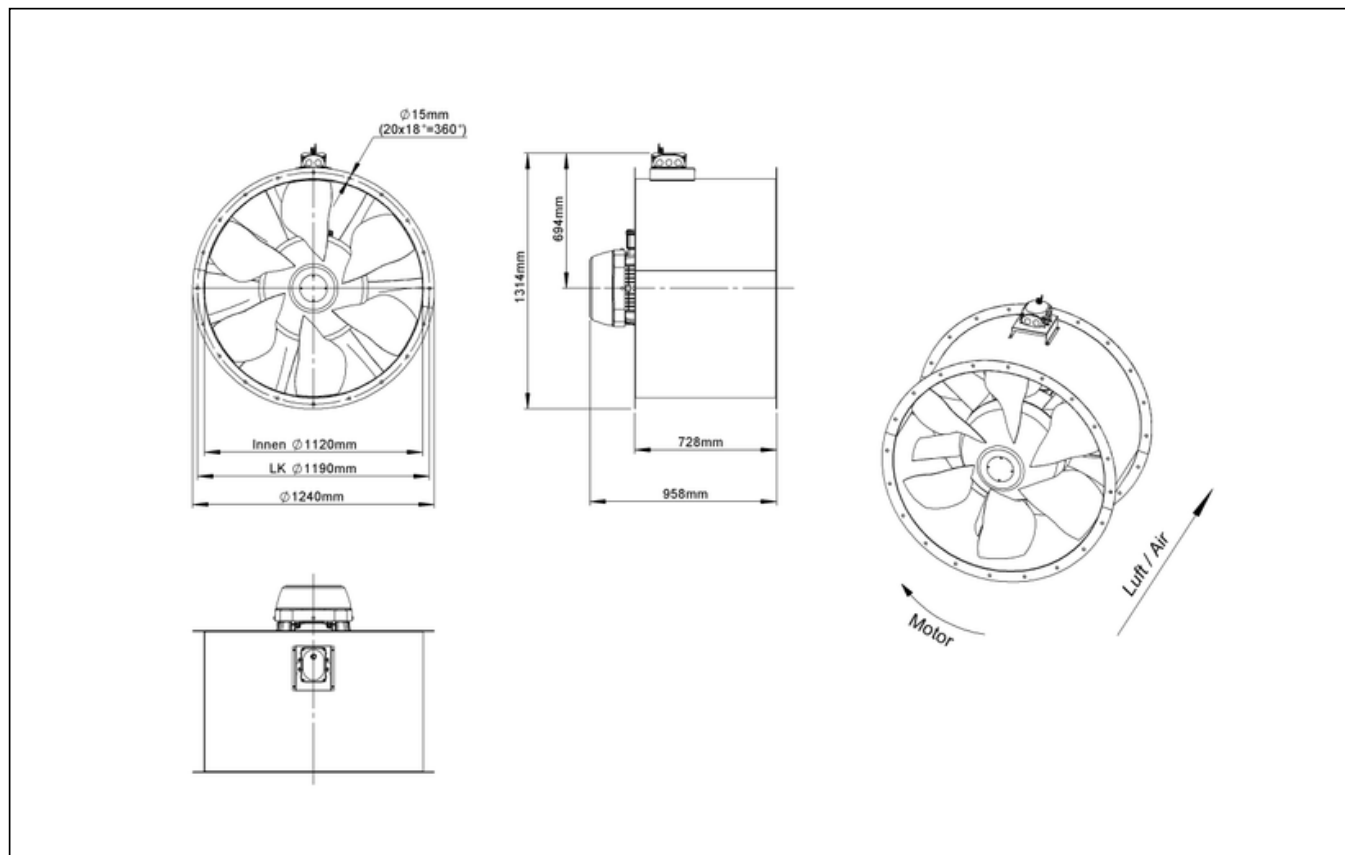
ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	1179	1/min	n _{opt}
Efficiency level	73.3	%	N
Efficiency category	total		cat _{efficiency}
Input power of the motor at the energy efficiency optimum	20.7	kW	P _{e, opt}
Overall efficiency	72.8	%	η _{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	813	Pa	p _{f, opt}
Flowrate at energy efficiency optimum	67226	m³/h	Q _{v, opt}



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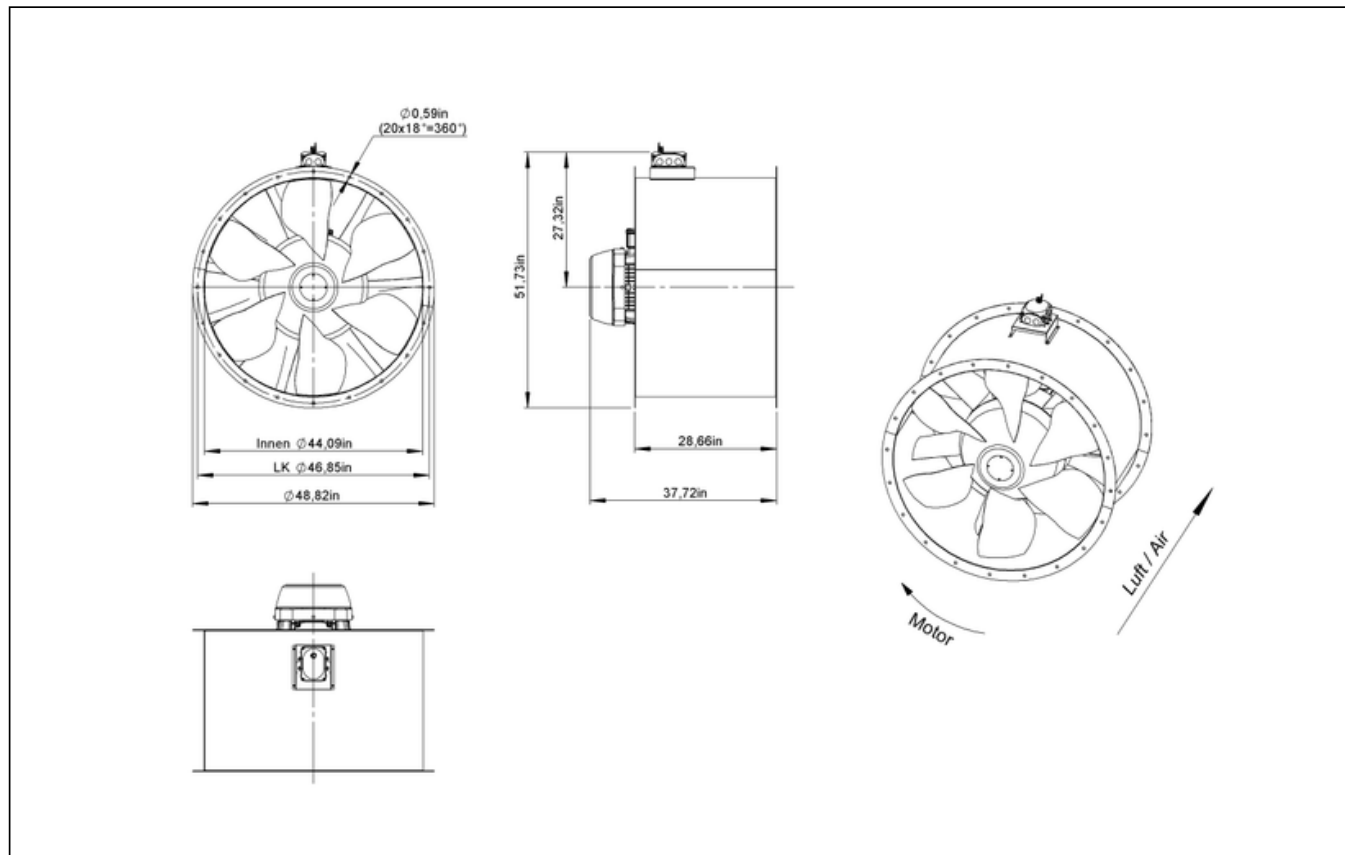
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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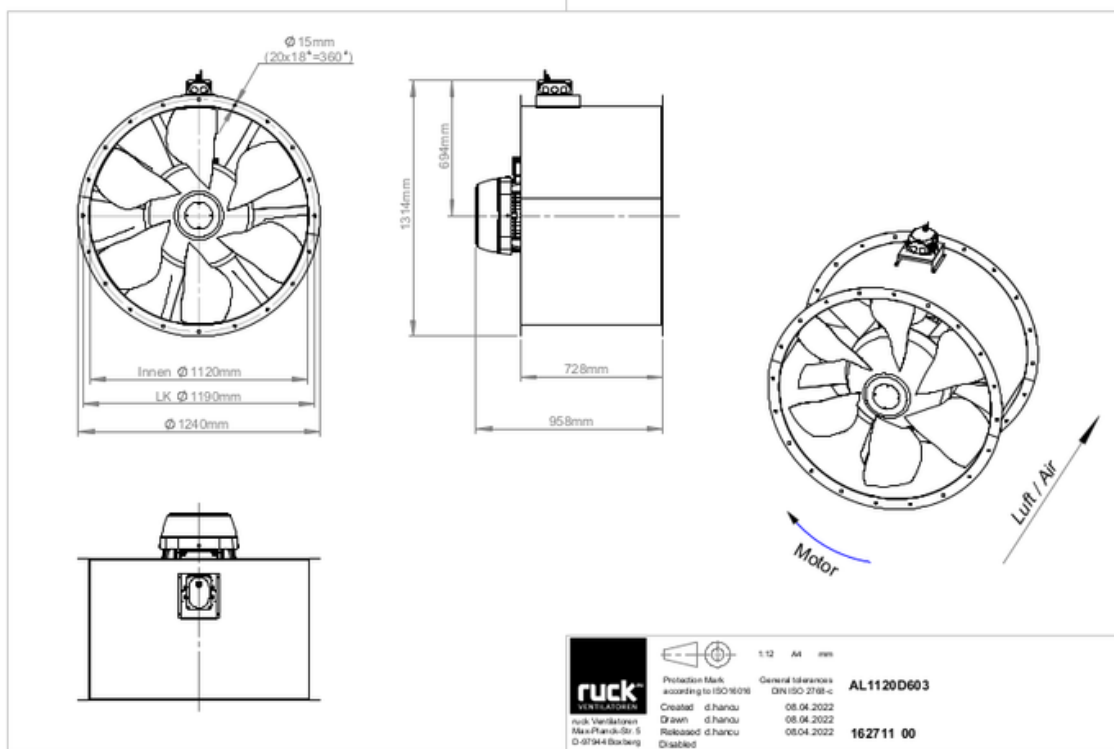
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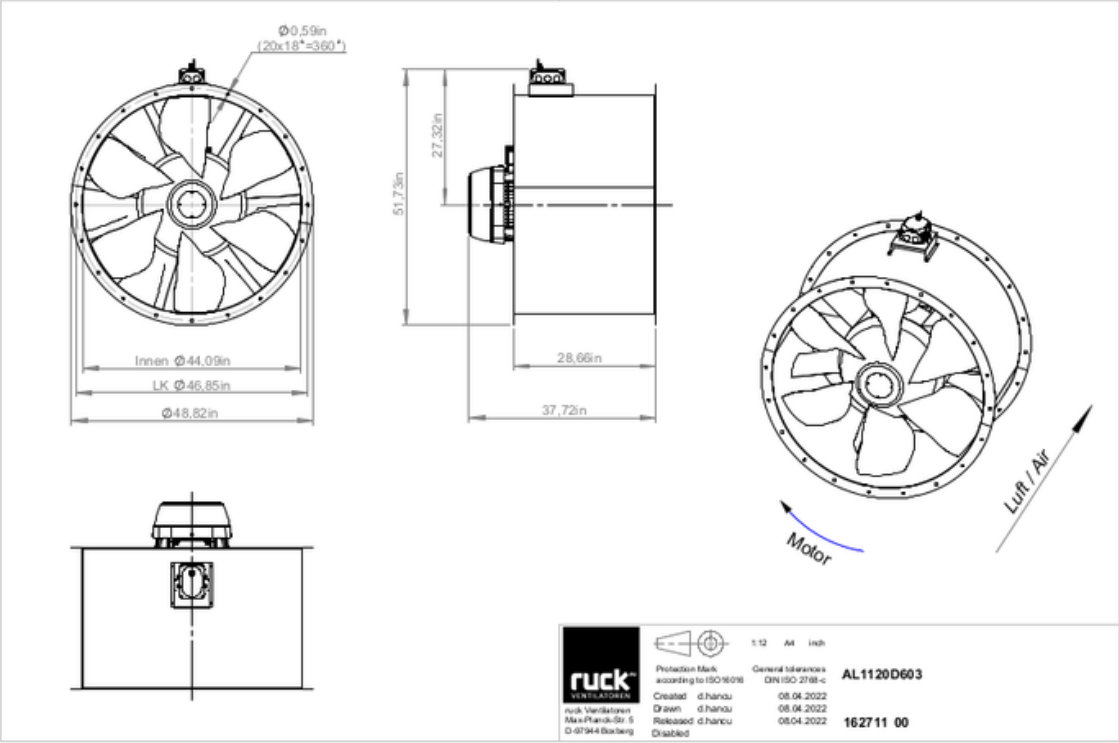
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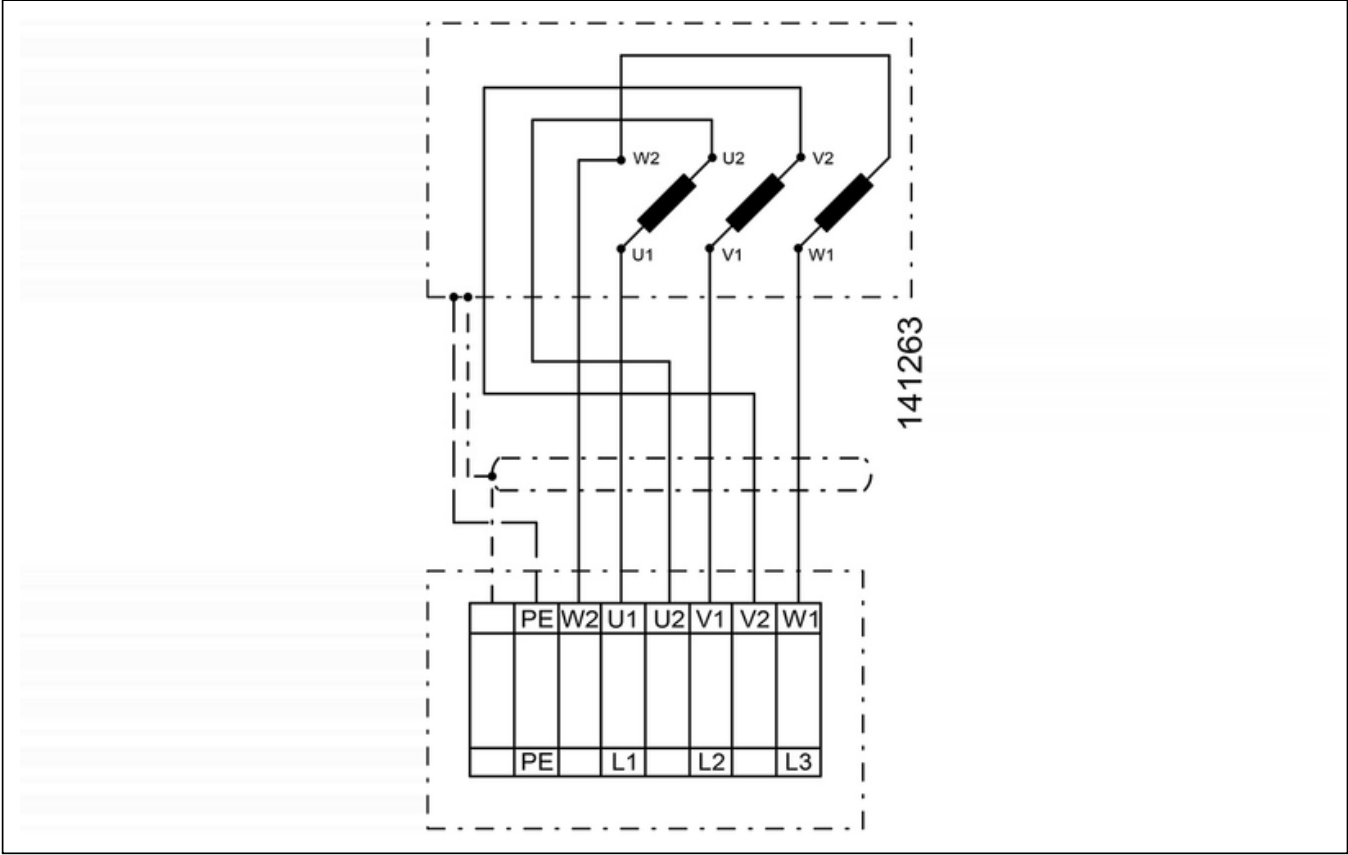
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MECHANICAL ACCESSORIES

RVS 1120-01 | 157481



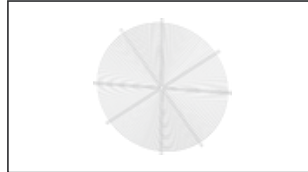
- Tube connection spigot
- Sheet steel, powder coated
- Suitable for outdoor installation
- Flange mounting

ESD 1120 | 159333



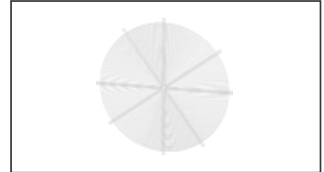
- Inlet cone
- Steel sheet, powder coated
- Flange mounting

SGW 1120 | 159543



- Protection grille, wide meshed
- Steel sheet, galvanized
- Flange mounting

SGW 1250 | 159544



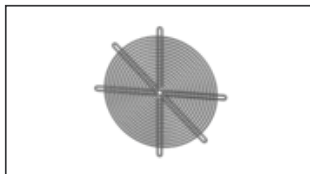
- Protection grille, wide meshed
- Steel sheet, galvanized
- Flange mounting

RVK H 1120 | 163911



- Automatic tube shutter
- Sheet steel, powder coated
- For horizontal installation
- Flange mounting

SGE 1120 | 159519



- Protection grille, narrow meshed
- Steel sheet, galvanized
- Flange mounting

FSD 09 | 162478



- Set of 4 vibration dampers
- Made of natural rubber, hardness 55 Shore A

RAF 1120 | 157497



- Round flange
- Sheet steel, powder coated

RAS 1120 | 157638



- Round spigot, flexible
- Galvanized steel sheet, plastic band (PES)
- Temperature resistant up to 75 °C
- Flange mounting

FAL 1120 | 157900



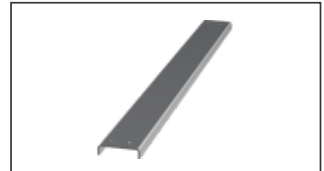
- Mounting foot
- Sheet steel, powder coated
- Flange mounting

FSD 11 | 162489



- Set of 4 vibration dampers
- All metal design, galvanized

TRA 1120-1250 | 163013



- Crossbeam
- Connection between mounting feet
- Galvanized steel sheet

RVK 1120 | 157837



- Automatic tube shutter
- Sheet steel, powder coated
- For vertical installation
- Flange mounting

MR 1120 | 166085



- Mounting ring
- For vertical mounting
- Powder-coated sheet steel
- Flange mounting DN 1120



ELECTRICAL ACCESSORIES

MS 09 | 160187



- Motor protection switch with device switch function
- For three phase motors
- I_{max} = 40 A

MTP 20 | 128146



- Potentiometer 10 kΩ
- Switching contact 1A/250V AC - 2,5A/12V DC
- Max. ambient temperature 50 °C
- VDE

MTP 30 | 143289



- Stepped potentiometer 10 kΩ
- Step 1 + 2 settable 10 % - 100 % Vdc
- Step 3 100 % Vdc
- Supply voltage +10 Vdc

SEN AIR | 148641



- Airflow and temperature transducer
- Measuring range temperature 0...+50 °C
- With adjustable switching threshold (air speed)
- Measuring range air velocity up to 20 m/s

CON P1000 | 115259



- Constant pressure control
- Actual value display possible via optional control unit
- Output 0-10 V DC + FC enable + setpoint reached
- Pressure setting by means of decade switch

FU 185 11 | 161424



- Frequency converter
- Supply voltage 400 V 3~ 50/60 Hz
- Output voltage 0 - 400 V 3~
- Protection class IP 20, for switch cabinet

FU 185 12 | 161425



- Frequency converter
- Supply voltage 400 V 3~ 50/60 Hz
- Output voltage 0 - 400 V 3~
- Fire mode function (smoke extract fans)

