

EL 450 D4 O 01

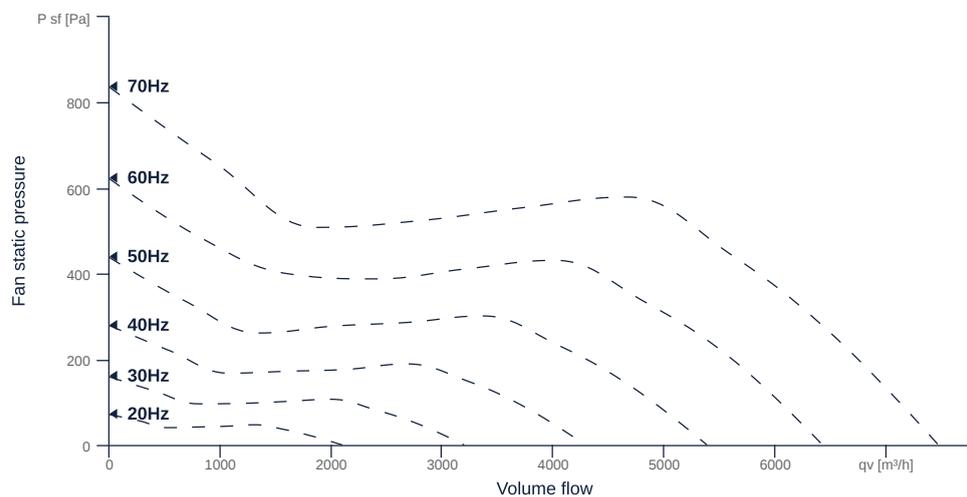
159400

- Innovative, high-efficiency diagonal fan
- The benchmark for efficiency since 2007
- Optimally tuned, CFD-optimized aerodynamics
- Efficient IE3 motor, frequency controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- Housing made of aluminium AlMg3
- Attention! See note in the operating manual at FU-operation



FAN CURVES

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



to the product detail page

EL 450 D4 O 01

159400

ruck

GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	-		WxHduct
Pipe connection size (DN)	DN450		DN
Rated voltage (entire device)	400	v	U _{rated}
Phases (entire device)	3~		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Aluminium		matcasing
Impeller material	Aluminium		matimpeller
IP-protection class (entire device)	IPX4		IPcompl
Weight	26.5	kg	m
Fan type	Diagonal		Fan _{type}
Category / Installation situation	B		cat

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	1132	w	P _{ed, max}
Max. operating current (device)	2.16	A	I _{ed, max}
Max. speed	2070	rpm	n _{max}
Max. stat. efficiency	55	p	η _{es}
Max. fan efficiency	59.2	p	η _e
Max. flowrate	7470	CmH	Q _{v, max}
Max. stat pressure	840	Pa	p _{sf, max}
Max. medium temperature	60	°C	T _{m, max}
Max. environment temperature	60	°C	T _{amb, max}
Min. environment temperature	-30	°C	T _{amb, min}



to the product detail page

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
Rotation direction		right		rotation
Isolation class		ISO F		ISOclass
Protection class		IP55		IP _{motor}
Is pole-changeable		No		polexch
Type of power supply		AC 3~		pwr _{sup} _{motor}
Number of poles (1)		4.000000		num poles _{w1}
Connection	Δ	Y		wiring _{w1}
Connection (wiring 2)	Y			wiring _{w2}
Rated voltage	230	460	v	U _{rated, f1}
Rated voltage (wiring 2)	400		v	U _{rated, f2}
Rated current	4.17	2.1	A	I _{rated, f1}
Rated current (wiring 2)	2.4		A	I _{rated, f2}
Nominal power	1100	1100	w	P _a
Nominal power (wiring 2)	1100		w	P _{out, f2}
Speed	1455	1760	rpm	n _{f1}
Speed (wiring 2)	1455		rpm	n _{f2}
Starting current	31.7	17.9	A	I _{start, f1}
Starting current (wiring 2)	18.2		A	I _{start, f2}
Efficiency	84.8	86.5	p	η _{m, f1}
Efficiency (wiring 2)	84.8		p	η _{m, f2}
Efficiency class	IE3	IE3		IE _{motor}
Min. temperature	-20		°C	T _{motor, min}
Cos Phi	0.780000	0.760000		cos φ
UL-Certification motor		UL recognized		UL _{cert}



to the product detail page

EL 450 D4 O 01

159400



ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	2052	rpm	n_{opt}
Efficiency level	67.9	p	N
Efficiency category	total		cat _{efficiency}
Input power of the motor at the energy efficiency optimum	1.21	kw	$P_{e, opt}$
Overall efficiency	77.5	p	η_{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	594	Pa	p_f, opt
Flowrate at energy efficiency optimum	4989	CmH	Q_v, opt

SMOKE EXTRACT DATA

Name	Value	Unit	Formula symbol
Fire resistance class	None		Fclass

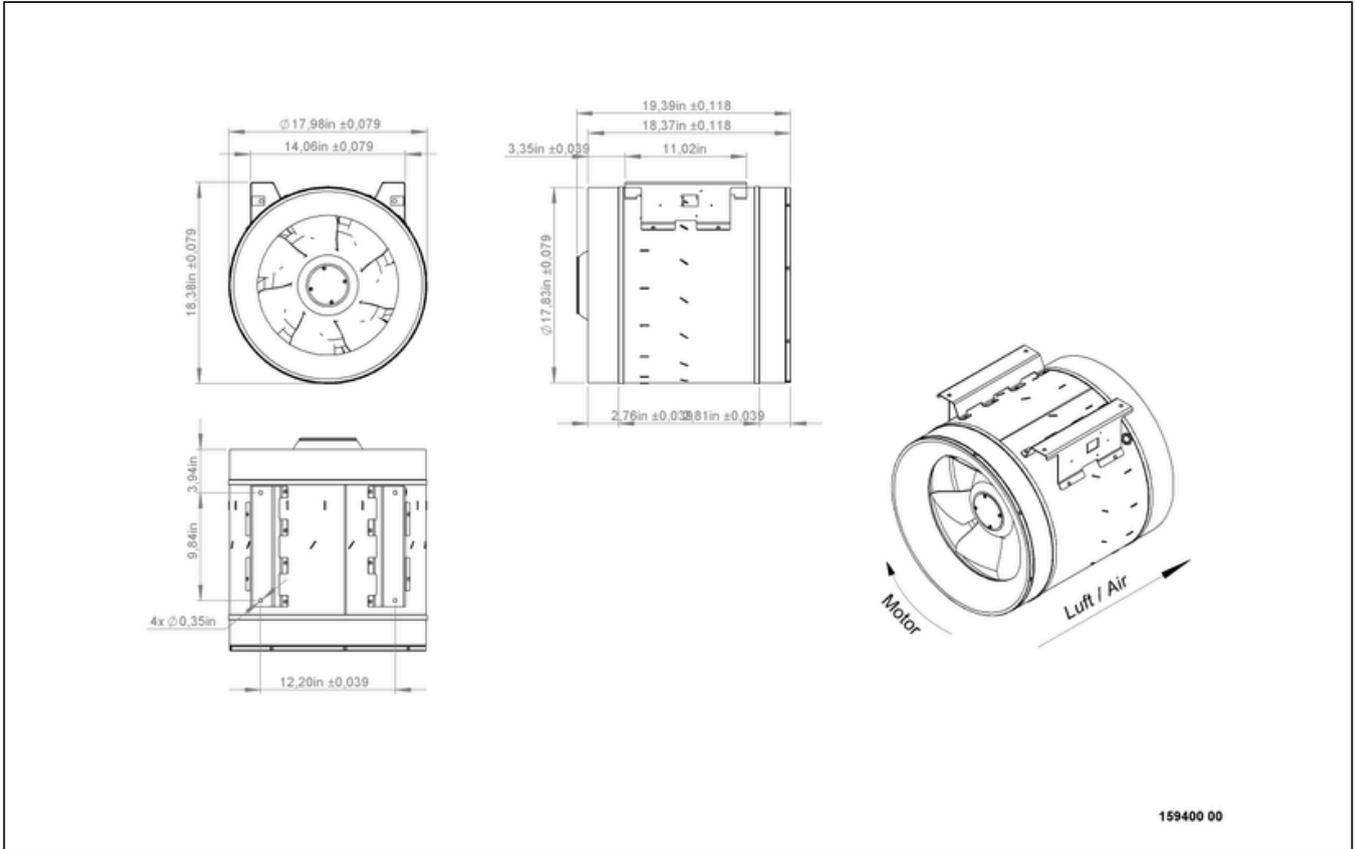


[to the product detail page](#)

EL 450 D4 O 01

159400

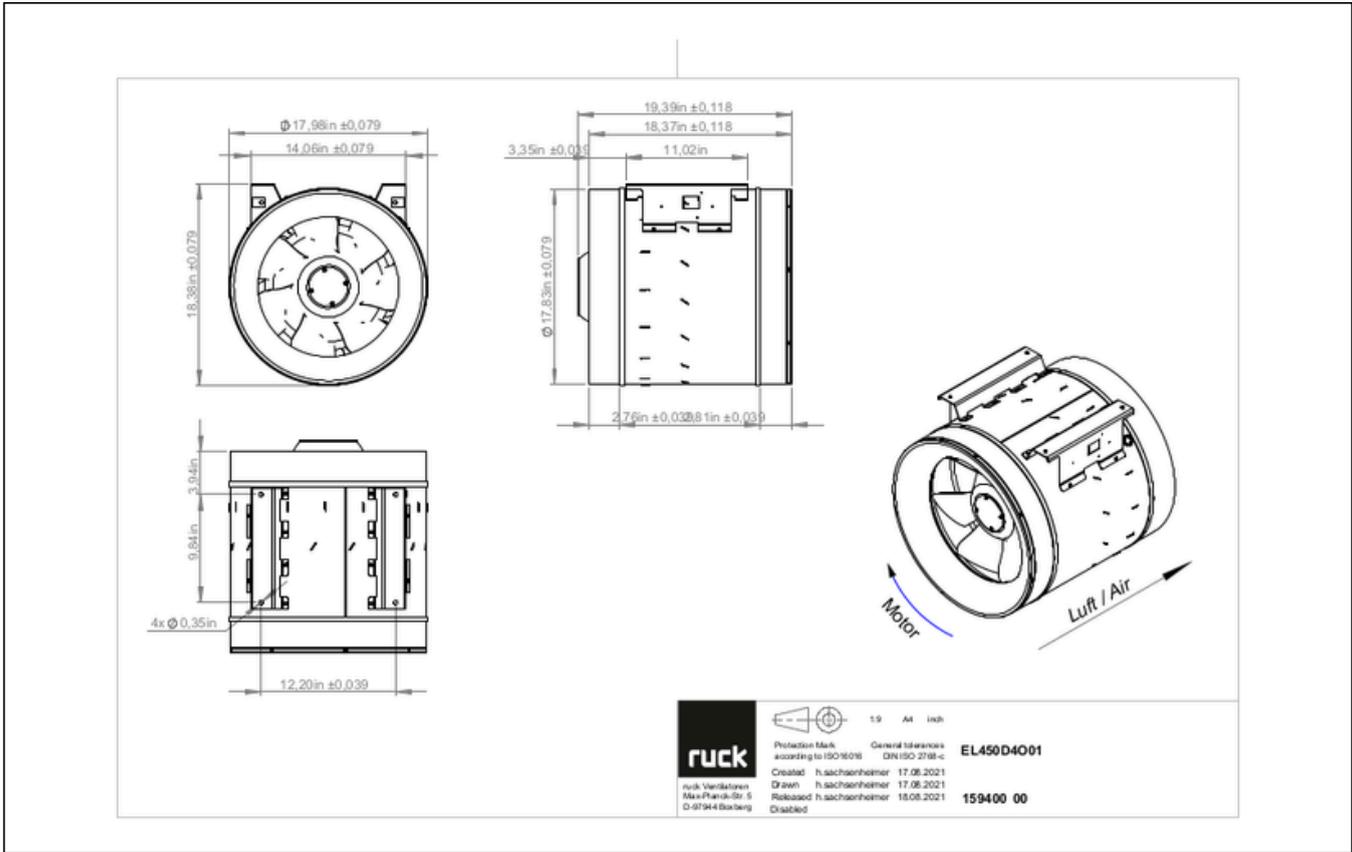
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



to the product detail page

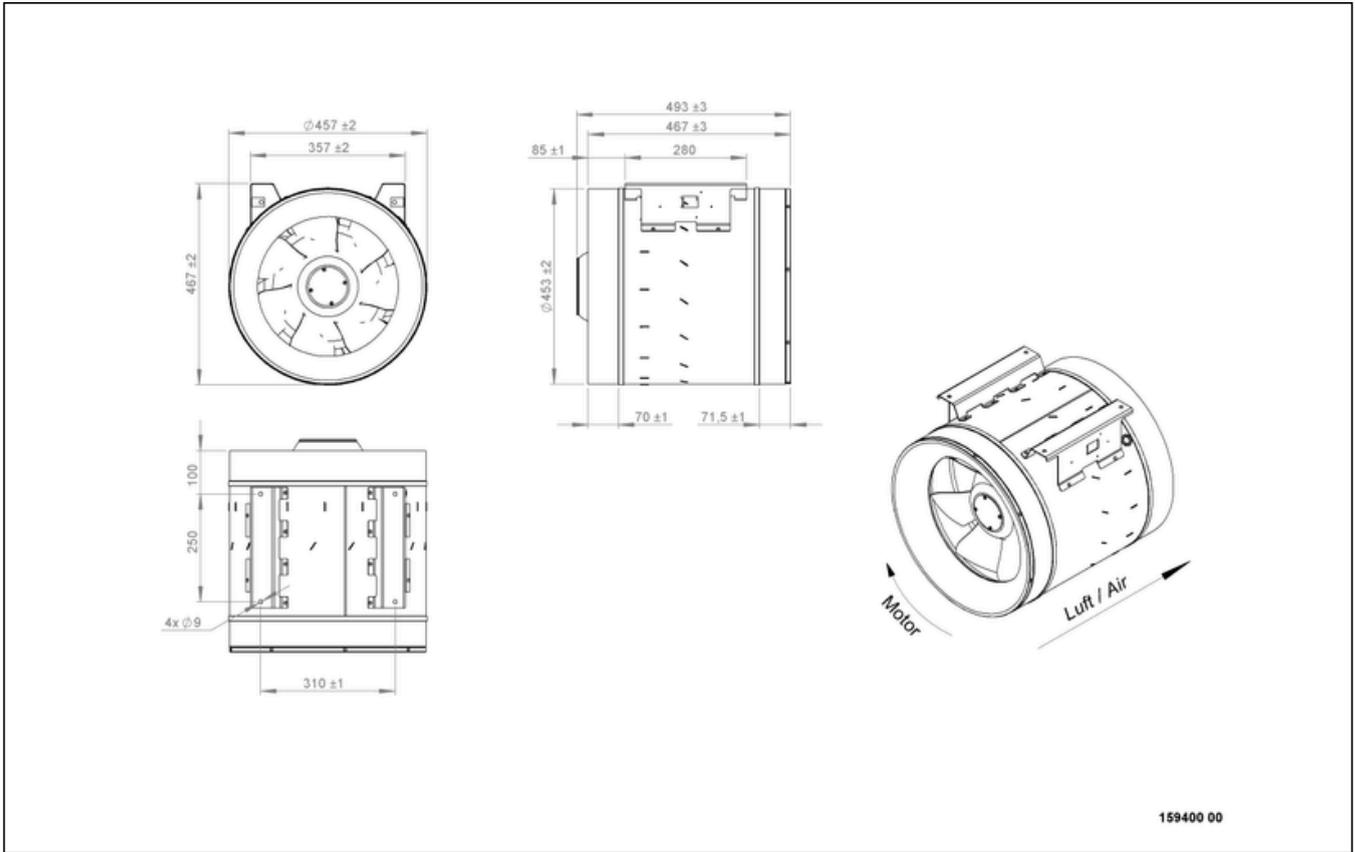
EL 450 D4 O 01

159400



EL 450 D4 O 01

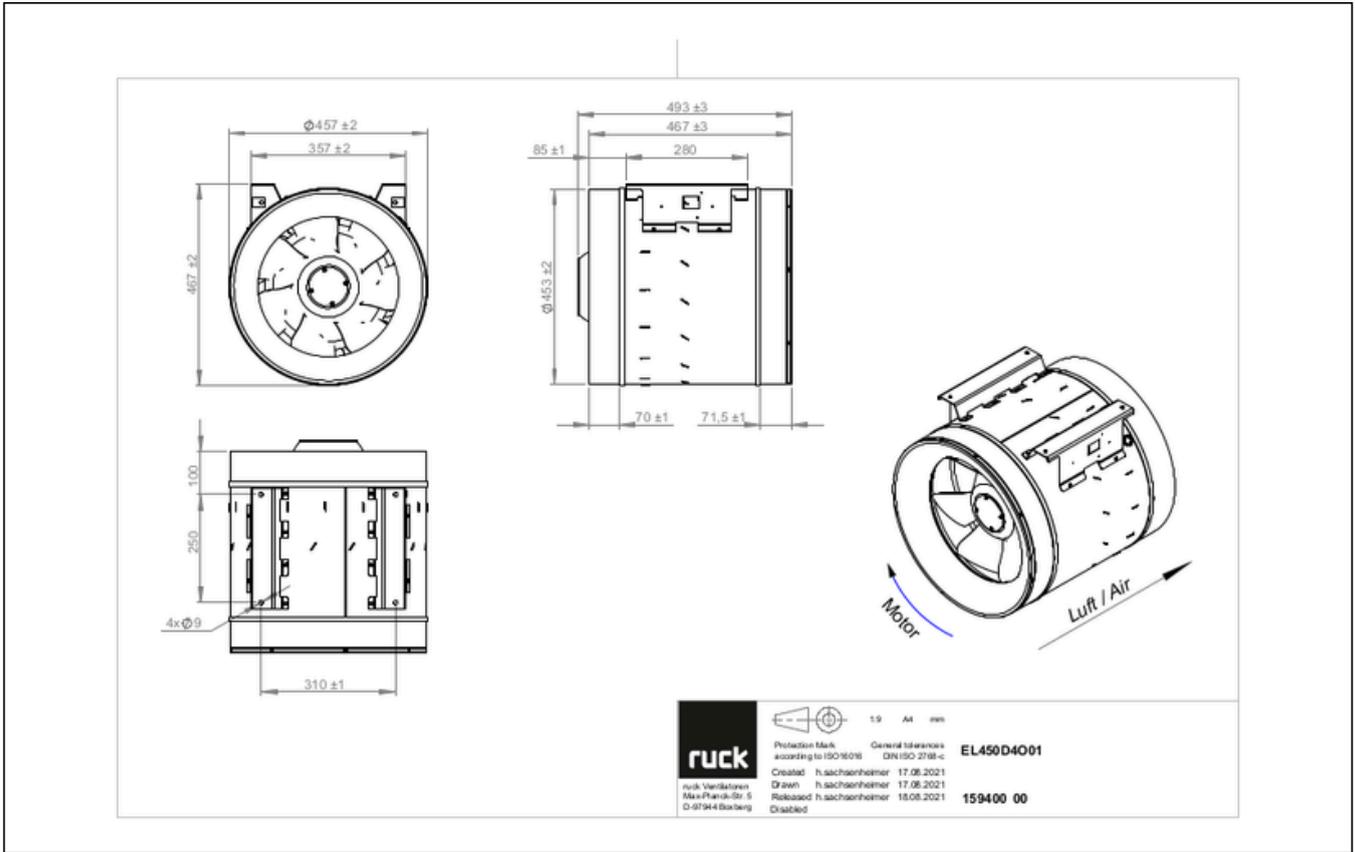
159400



to the product detail page

EL 450 D4 O 01

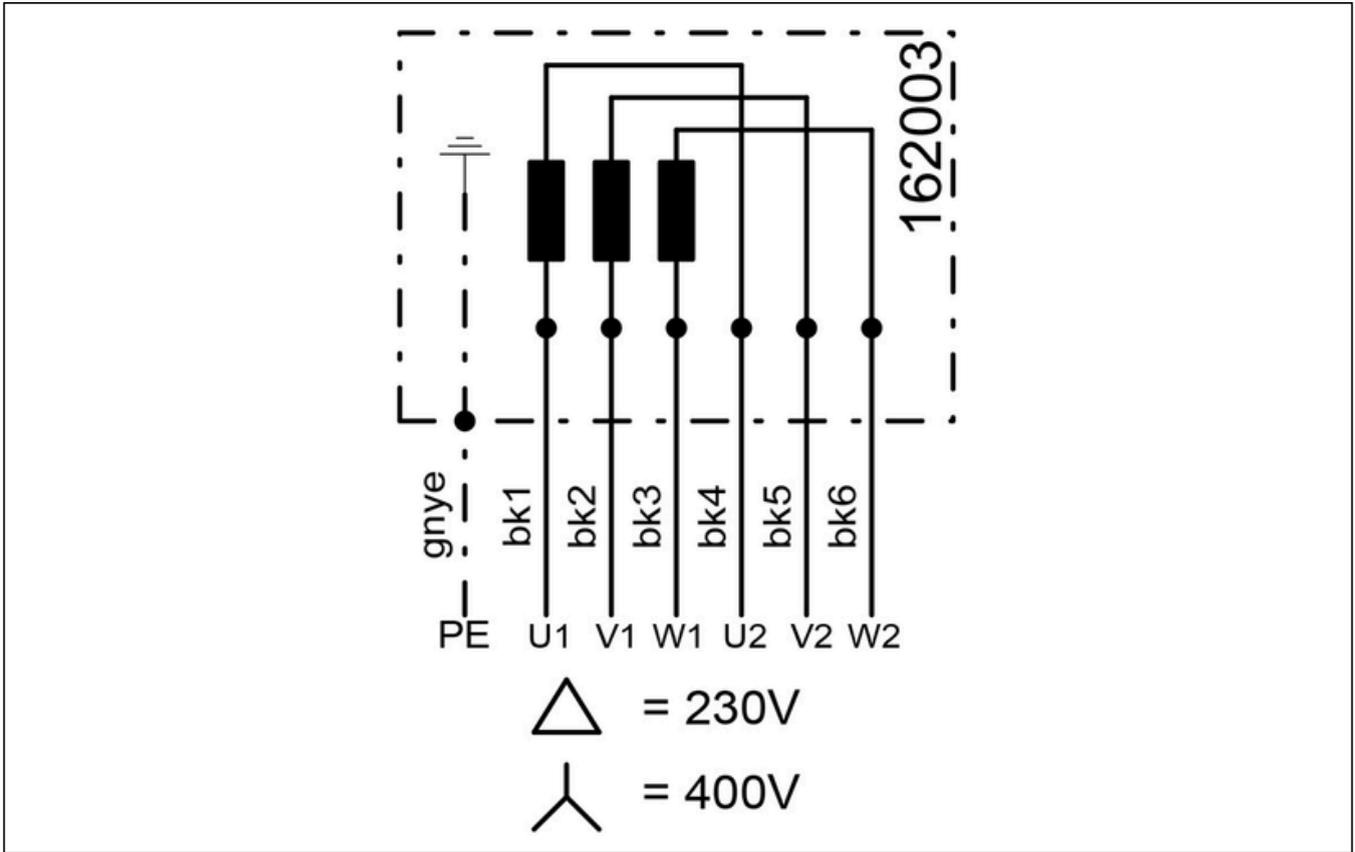
159400



to the product detail page

EL 450 D4 O 01

159400



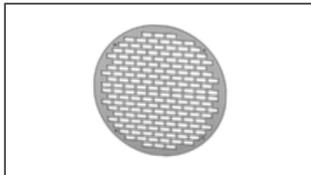
MECHANICAL ACCESSORIES

VM 450 | 119495



- Fast clamps for sound decoupling and sealing
- Galvanized steel sheet, 5 mm Neopren gasket
- 1 Pack = 2 pieces

SG 450 02 | 119411



- Inlet protection grille for Etaline
- Galvanized steel sheet

SDS 450 | 169613



- Rigid tube silencer
- Galvanized steel sheet
- Sound insulation packing 50 mm (mineral wool)



ELECTRICAL ACCESSORIES

MS 02 | 140409



- Motor protection switch with Isolator switchfunktion
- I_{max} = 400 V, 50/60 Hz
- Max. 1.5 kW
- Protection class IP 55

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

MTP 40 | 147359



- Potentiometer 10 kΩ
- Connection in terminal box
- Max. ambient temperature 50 °C
- PU: 20 pieces

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 15 44 | 161790



- Frequency converter
- Supply voltage 230 V 1~ 50/60 Hz
- Output voltage 0 - 230 V 3~
- Protection class IP 20, for switch cabinet

FU 15 45 | 161791



- Frequency converter IP66
- Supply voltage 230 V 1~ 50/60 Hz
- Output voltage 0 - 230 V 3~
- Fire mode function (smoke extract fans)

FU 15 46 | 161792



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

FU 15 47 | 161793



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

MTP 50 | 168752



- Potentiometer with multifunction output
- 230 VAC ±10 % / 50-60 Hz
- Selectable output: 1-10 VDC / 2-20 mA / 10-100 % PWM
- Min. and max. output value adjustable

GS 02 | 169671



- Isolator switch
- U_{max} = 400 V, 50/60 Hz
- Switching capacity 400 V 3~ = 7,5 kW
- I_{max} = 25 A

