

# EL 500 D4 O 01

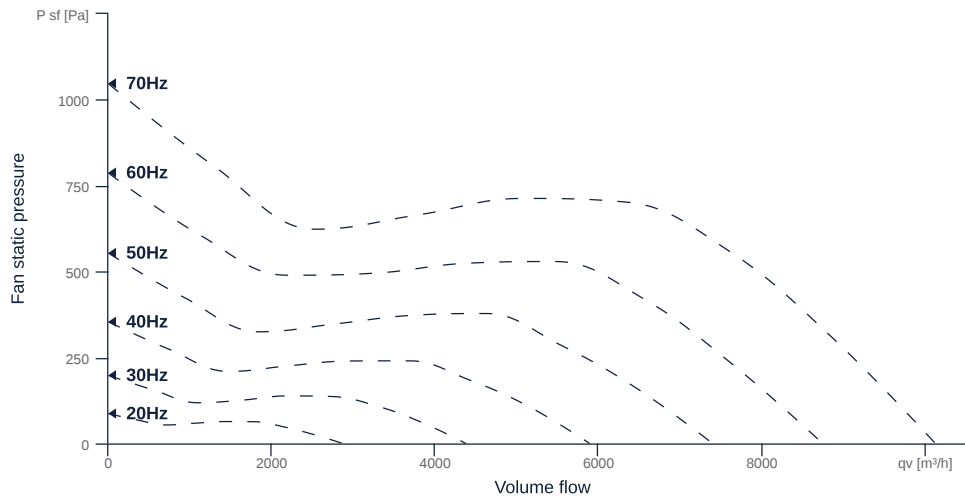
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- Innovative, high-efficiency diagonal fan
- The benchmark for efficiency since 2007
- Optimally tuned, CFD-optimized aerodynamics
- Efficient IE3 motor, frequency controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- Housing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



## FAN CURVES

Name	Value	Unit
Volume flow	0	m <sup>3</sup> /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)	DN500		DN
Rated voltage (entire device)	400	V	$U_{rated}$
Phases (entire device)	3~		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Aluminium		$mat_{casing}$
Impeller material	Aluminium		$mat_{impeller}$
Weight	36.3	kg	m
Fan type	Diagonal		$Fan_{type}$
Category / Installation situation	B		cat

## MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	1921	W	$P_{ed, max}$
Max. operating current (device)	3.56	A	$I_{ed, max}$
Max. speed	2060	1/min	$n_{max}$
Max. stat. efficiency	58.1	%	$\eta_{es}$
Max. fan efficiency	62.2	%	$\eta_e$
Max. flowrate	10120	$m^3/h$	$Q_v, max$
Max. stat pressure	1050	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	$T_{amb, min}$



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## 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
Is pole-changeable		No		polexch
Type of power supply		AC 3~		pwrSUPmotor
Number of poles (1)		4.000000		num polesw1
Connection	Δ	Y		wiringw1
Connection (wiring 2)	Y			wiringw2
Rated voltage	230	460	V	U <sub>rated, f1</sub>
Rated voltage (wiring 2)	400		V	U <sub>rated, f2</sub>
Rated current	8.03	4.01	A	I <sub>rated, f1</sub>
Rated current (wiring 2)	4.62		A	I <sub>rated, f2</sub>
Shaft power	2200	2200	W	P <sub>out, f1</sub>
Shaft power (wiring 2)	2200		W	P <sub>out, f2</sub>
Speed	1435	1745	1/min	n <sub>f1</sub>
Speed (wiring 2)	1435		1/min	n <sub>f2</sub>
Starting current	64.3	38.1	A	I <sub>start, f1</sub>
Starting current (wiring 2)	37		A	I <sub>start, f2</sub>
Efficiency	87	89.5	%	η <sub>m, f1</sub>
Efficiency (wiring 2)	87		%	η <sub>m, f2</sub>
Efficiency class	IE3	IE3		IE <sub>motor</sub>
Min. temperature	-20	-20	°C	T <sub>motor, min</sub>
Cos Phi	0.790000	0.770000		cos φ
UL-Certification motor		UL recognized		ULcert

## ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	2038	1/min	n <sub>opt</sub>
Efficiency level	72.3	%	N
Efficiency category	total		cat <sub>efficiency</sub>
Input power of the motor at the energy efficiency optimum	1.88	kW	P <sub>e, opt</sub>
Overall efficiency	79.9	%	η <sub>ges</sub>
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	688	Pa	p <sub>f, opt</sub>
Flowrate at energy efficiency optimum	6685	m³/h	Q <sub>v, opt</sub>

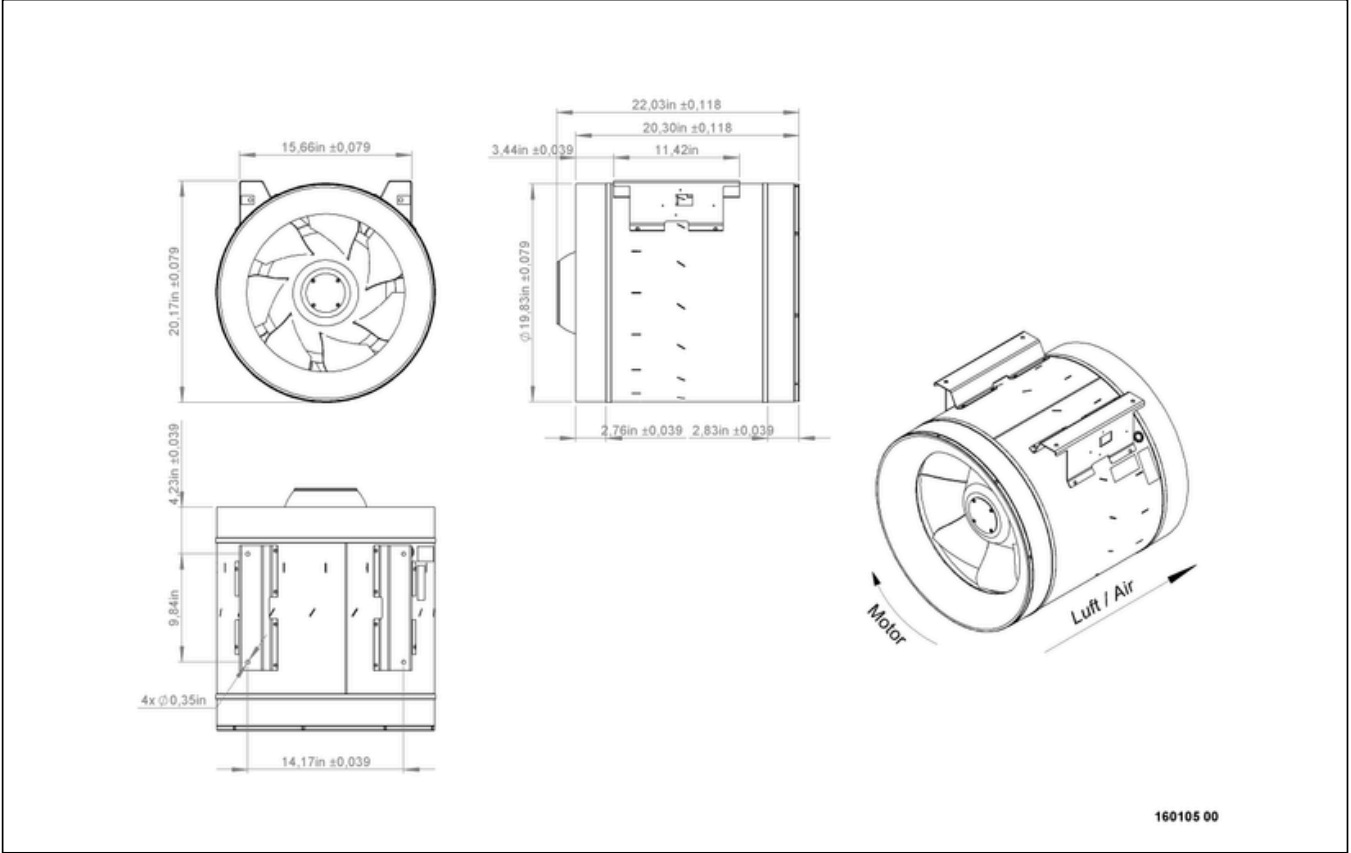


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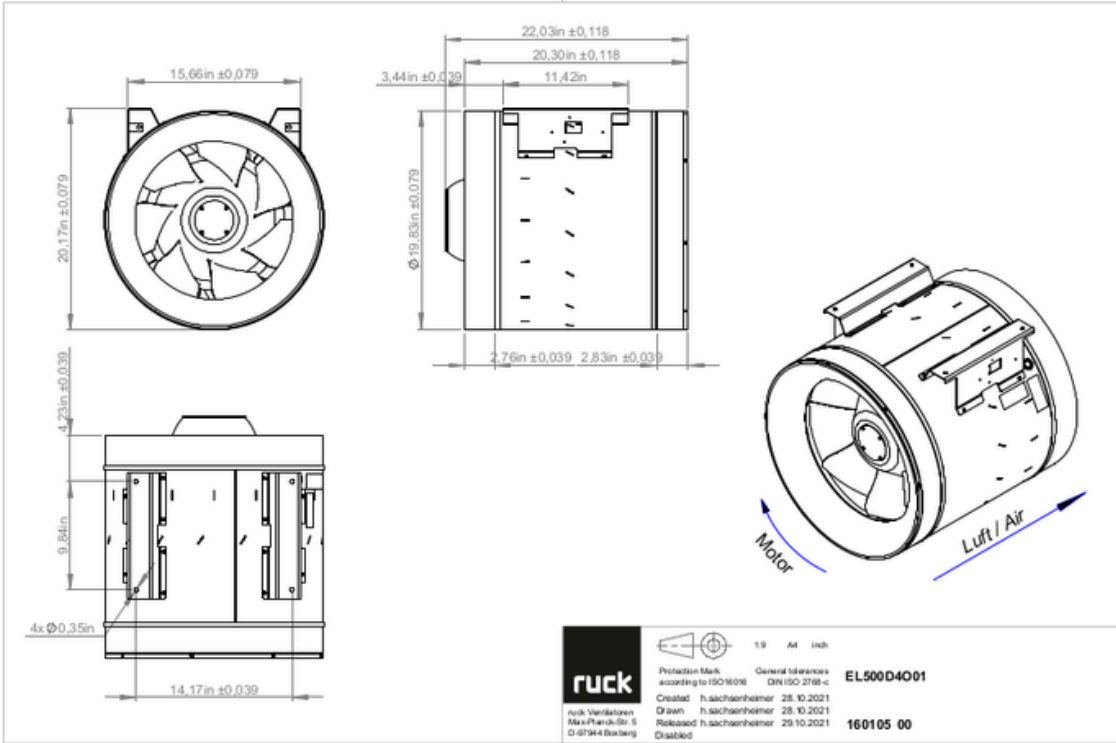
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## CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



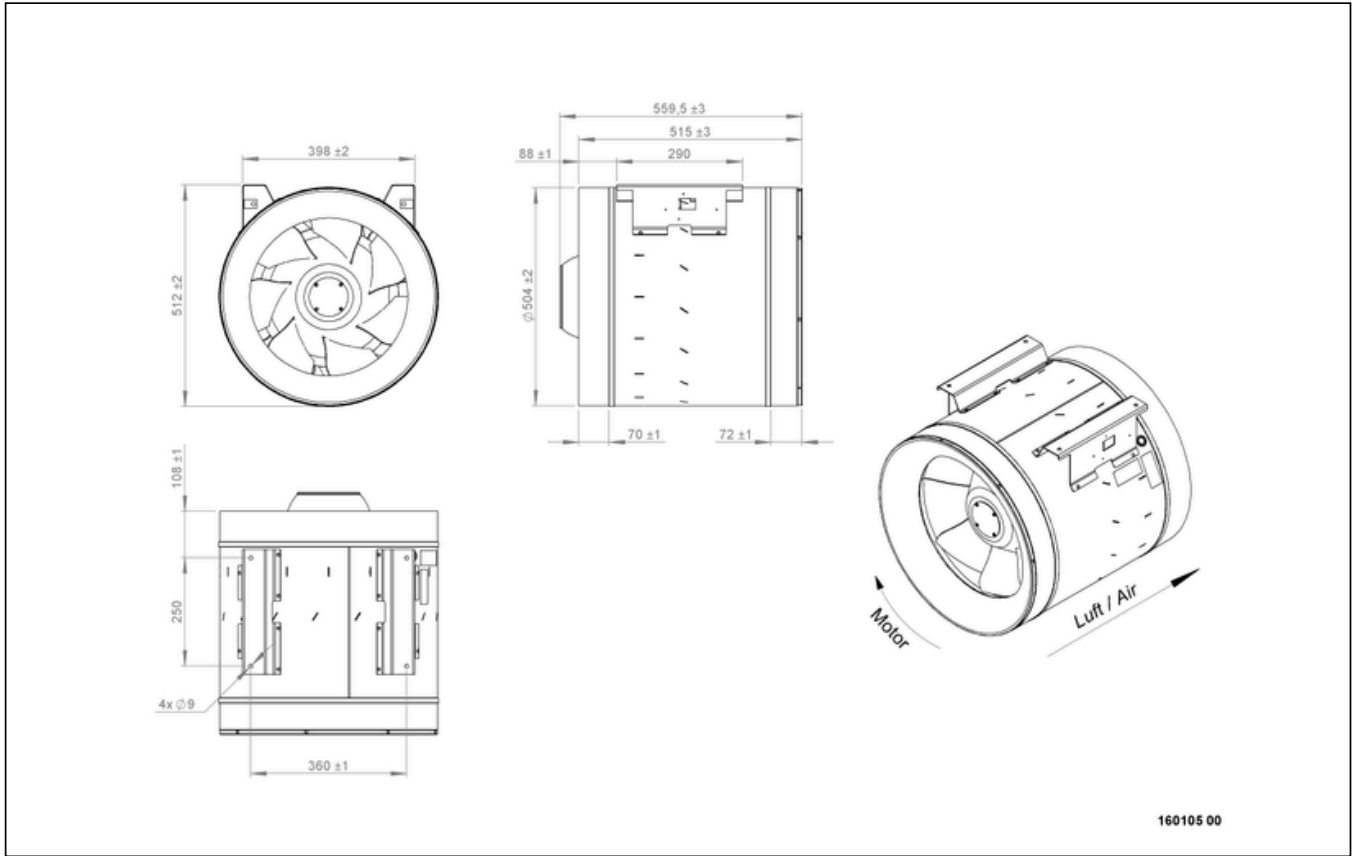
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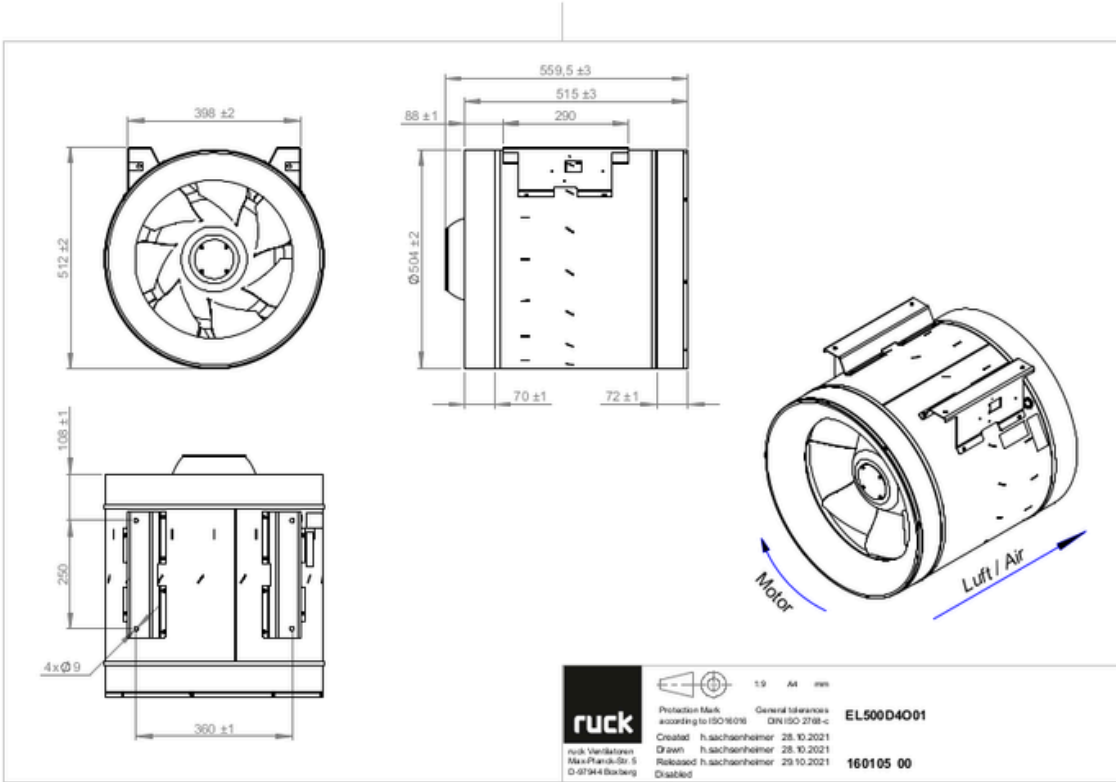
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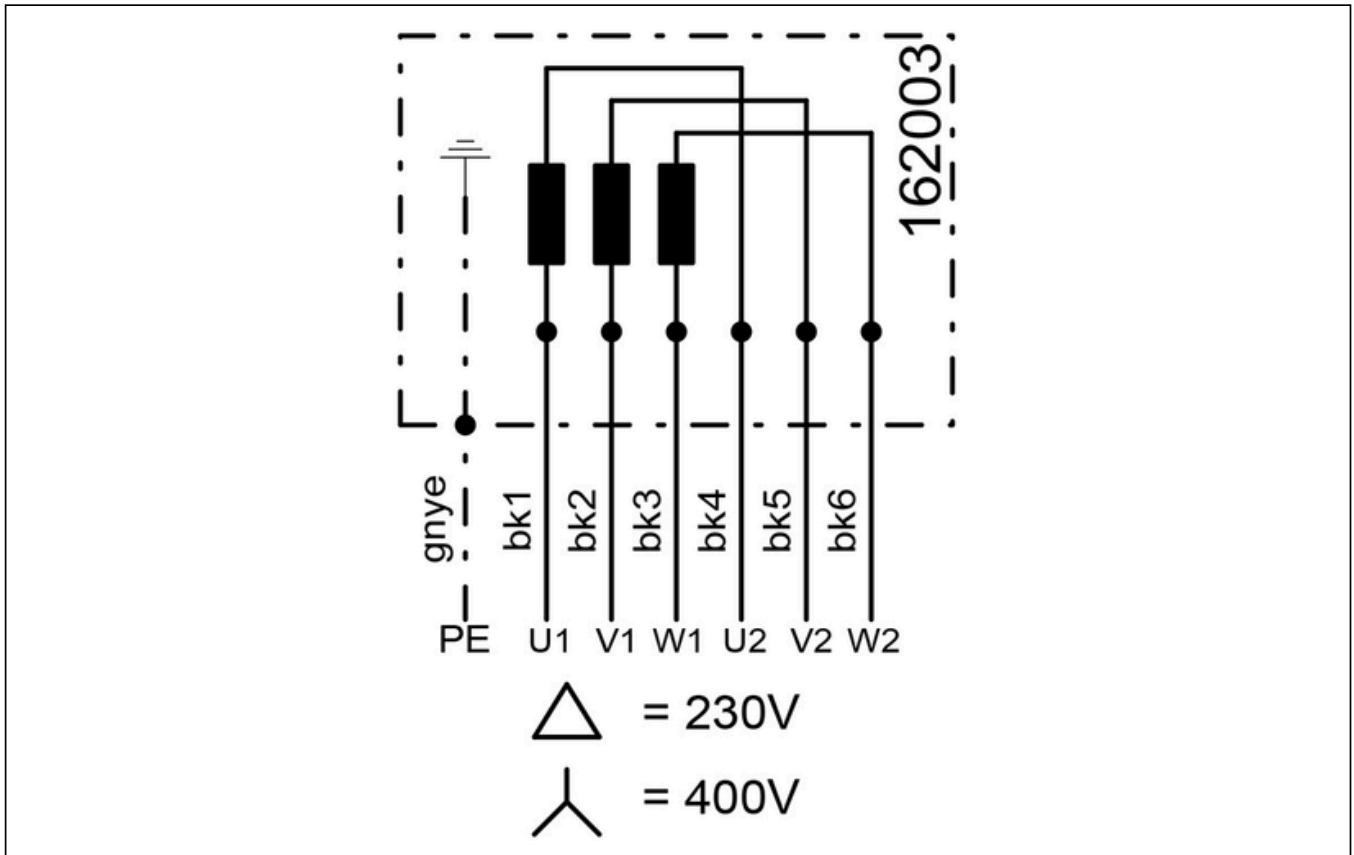
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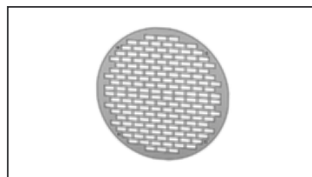
## MECHANICAL ACCESSORIES

VM 500 | 118094



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

SG 500 02 | 119191



- Inlet protection grille for Etaline
- Galvanized steel sheet

SDS 500 | 172912



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





## ELECTRICAL ACCESSORIES

MS 03 | 140411



- Motor protection switch with Isolator switchfunktion
- I<sub>max</sub> = 400 V, 50/60 Hz
- Max. 2.2 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 22 39 | 161875



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

FU 22 40 | 161876



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

FU 22 41 | 161877



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

FU 22 42 | 161878



- 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

