

EL 450 EC O 01

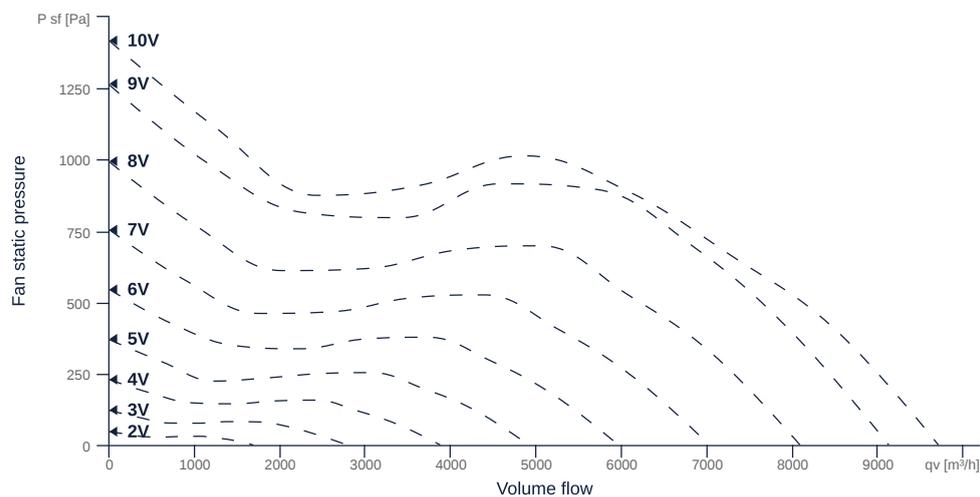
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- Innovative, high-efficiency diagonal fan
- Optimally tuned, CFD-optimized aerodynamics
- The benchmark for efficiency since 2007
- High efficiency EC motor, steplessly controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- Housing made of aluminum



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	-		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
IP-Protection class (terminal box)	IP54		IPebox
Weight	16.8	kg	m
Fan type	Diagonal		Fan _{type}
Category / Installation situation	B		cat

MAXIMAL DATA

Name	Value		Unit	Formula symbol
	50 Hz	60 Hz		
Max. power consumption (device)	2320	2320	w	P _{ed, max}
Max. operating current (device)	3.56	3.56	A	I _{ed, max}
Max. speed	2740	2740	rpm	n _{max}
Max. stat. efficiency	64.3	64.3	p	η _{es}
Max. fan efficiency	68.6	68.6	p	η _e
Max. flowrate	9700	9700	CmH	q _{v, max}
Max. stat pressure	1420	1420	Pa	p _{sf, max}
Max. medium temperature	60	60	°C	T _{m, max}
Max. environment temperature	60	60	°C	T _{amb, max}
Min. environment temperature	-20	-20	°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		EC		phase
Control type		stepless-controlled		ctrltype
Installation type		IRM (In)		install
Rotation direction		right		rotation
Isolation class		ISO F		ISOclass
Motor-protection		TEC		protectmotor
Protection class		IP55		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 3~		pwrsupmotor
Rated voltage	400		v	U _{rated, f1}
Rated current	5		A	I _{rated, f1}
Nominal power	2200		w	P _a
Speed	3000		rpm	n _{f1}
Efficiency	88.9		p	η _{m, f1}
UL-Certification motor		None		ULcert

ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	2584	rpm	n _{opt}
Efficiency level	73.1	p	N
Efficiency category	total		cat _{efficiency}
Input power of the motor at the energy efficiency optimum	2.19	kw	P _{e, opt}
Overall efficiency	80.1	p	η _{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	879	Pa	p _{f, opt}
Flowrate at energy efficiency optimum	6120	CmH	Q _{v, opt}

SMOKE EXTRACT DATA

Name	Value	Unit	Formula symbol
Fire resistance class	None		Fclass

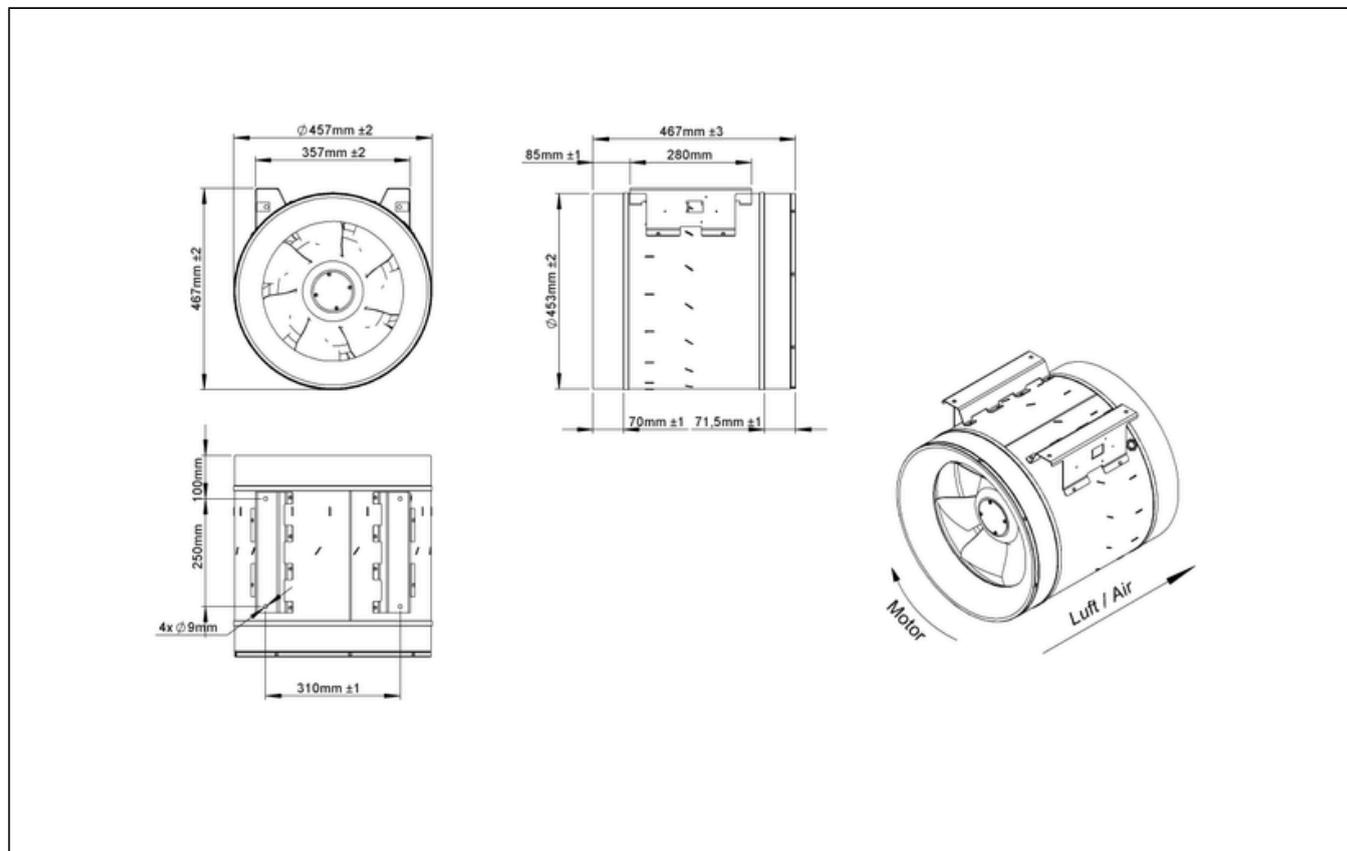


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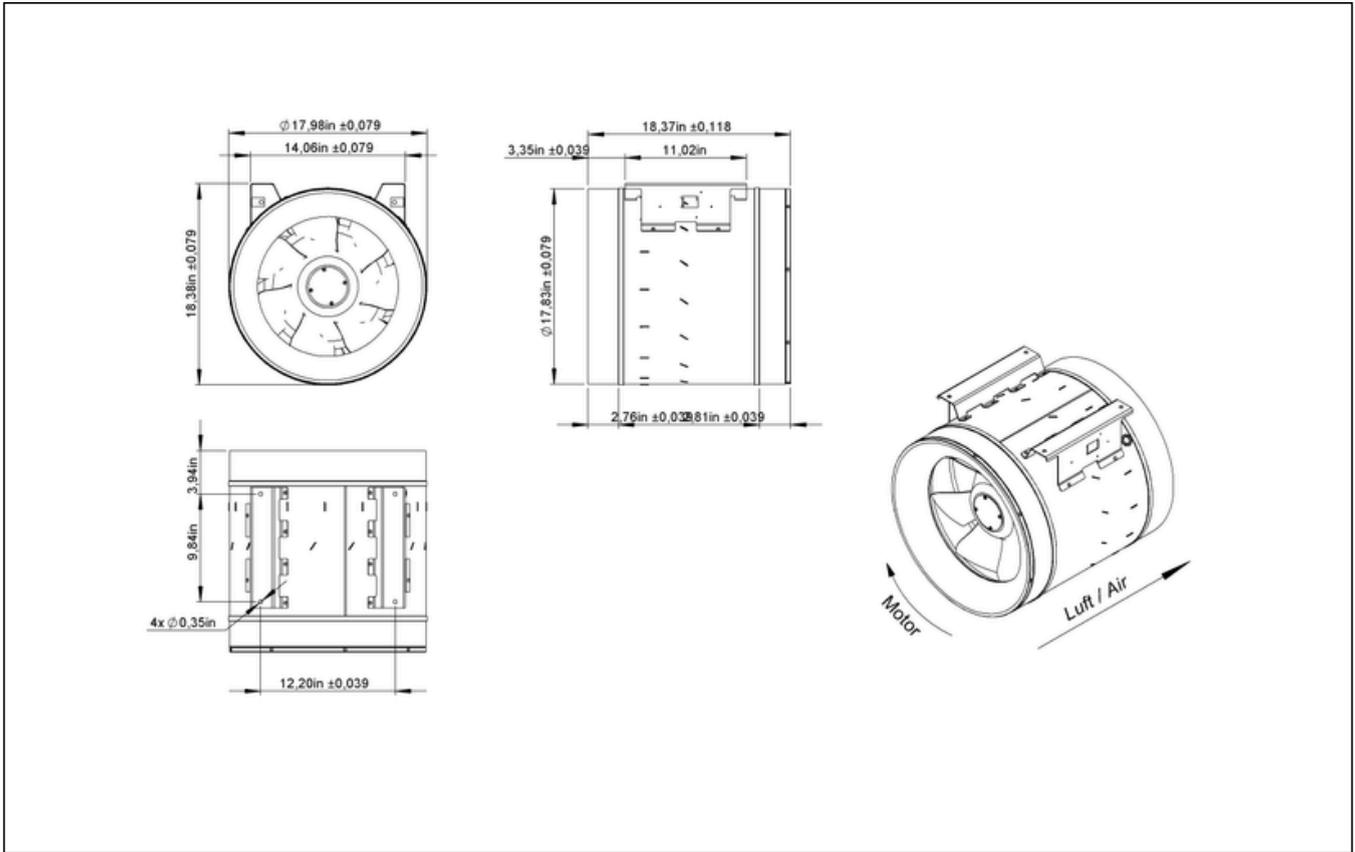
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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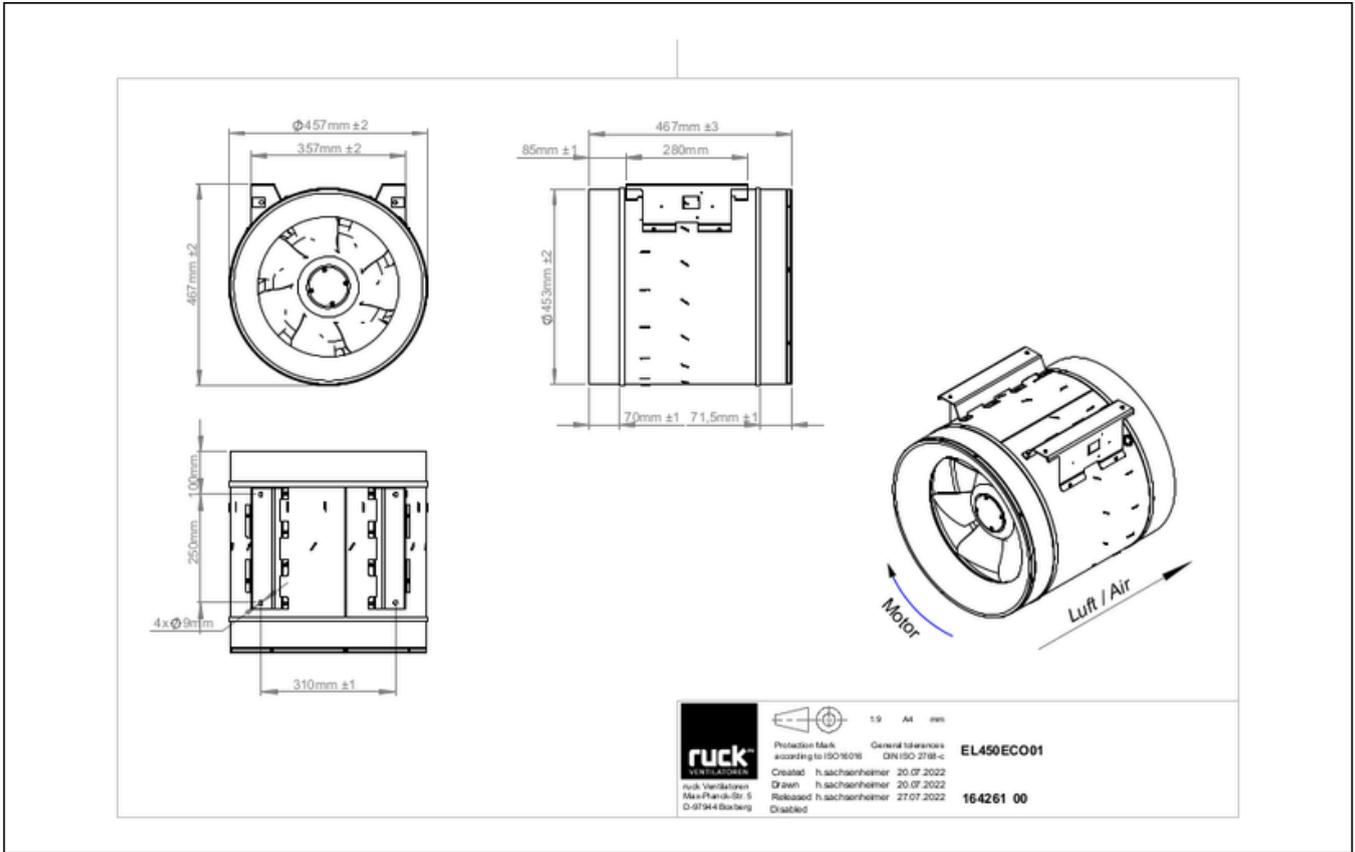
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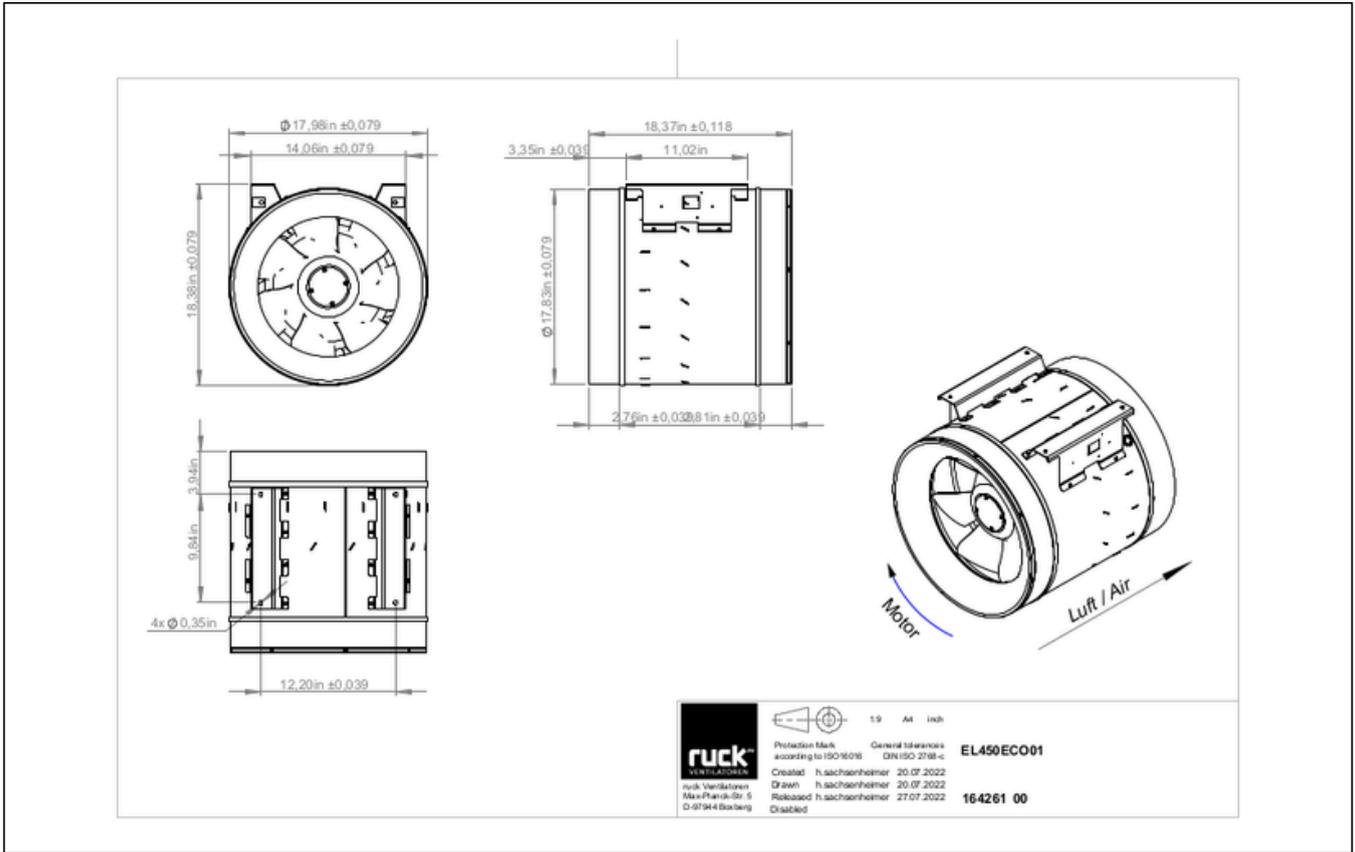
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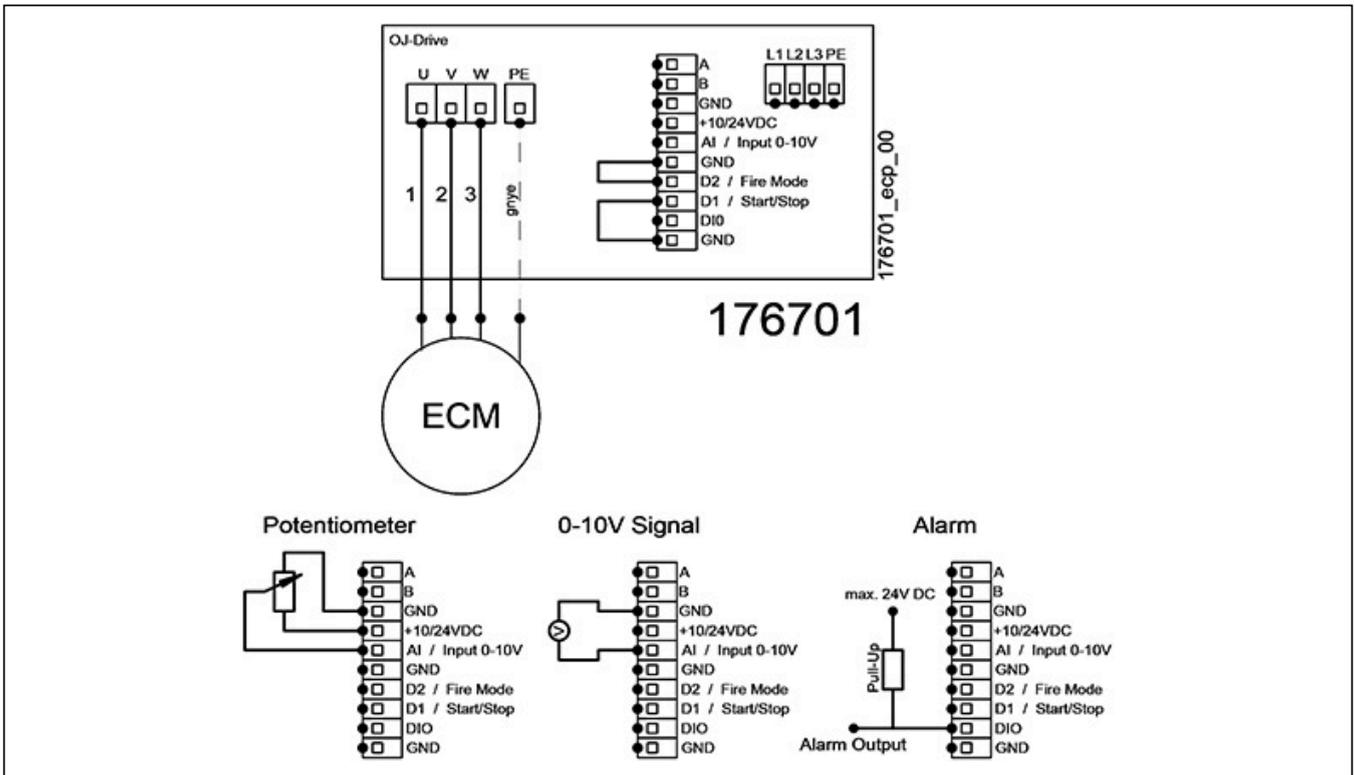
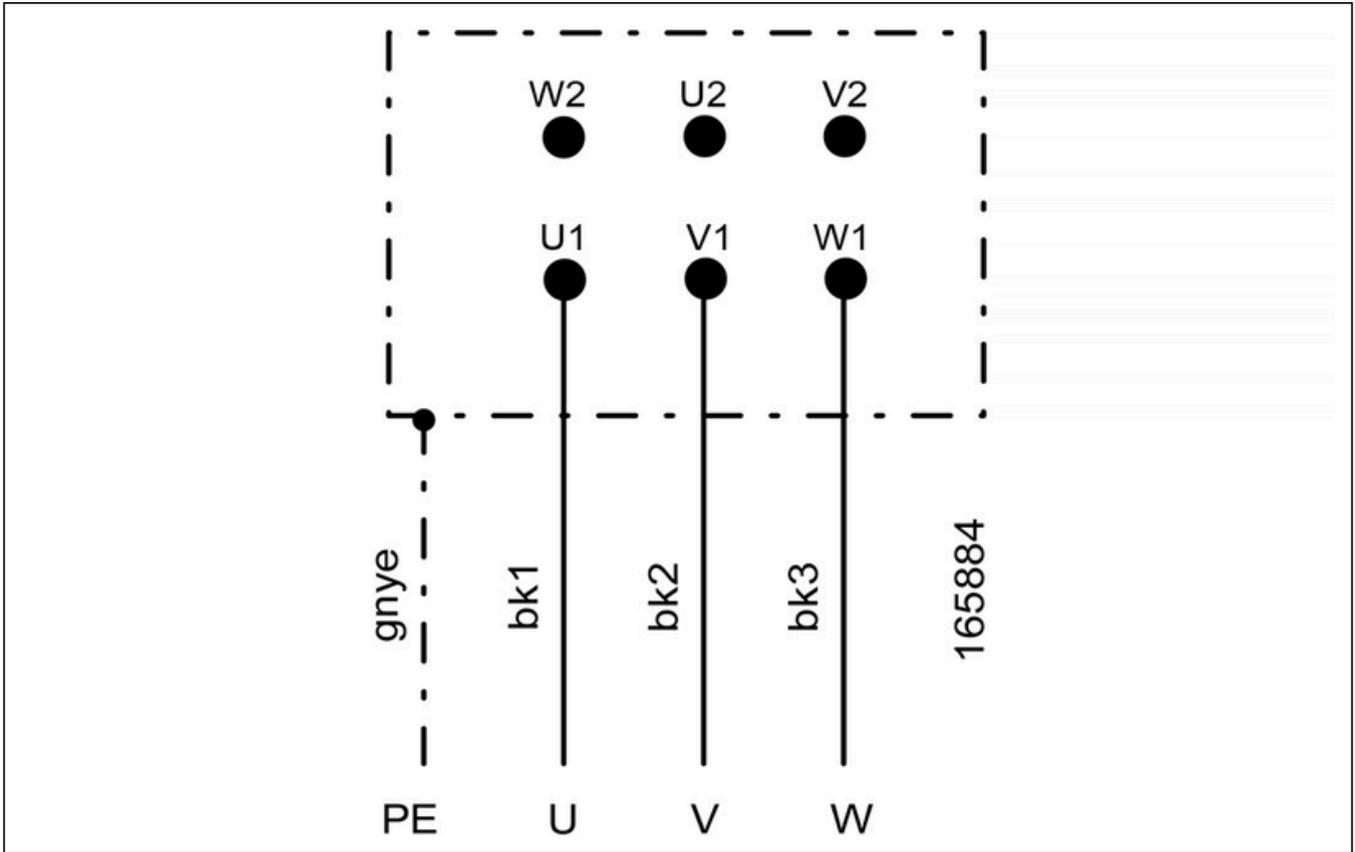


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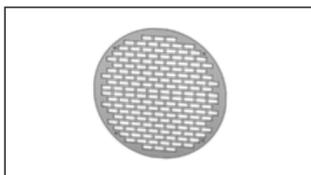
MECHANICAL ACCESSORIES

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

GS 03 | 107633



- Device switch
- $U_{max} = 400\text{ V}$, $I_{max} = 25\text{ A}$
- Switching capacity $400\text{ V } 3\text{-} = 7,5\text{ kW}$
- 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

OJ RM 02 | 141890



- Extension board Relais Modul
- For EC controller for alarm and operating message
- Electrical connection through 6 spring terminals (max. 2.5 mm²)
- Digital relay outputs: 2 potential-free changeover relays, max. 1 A, 30 V DC / 24 V AC

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

UniControl 01 | 175813



- Universal fan controller
- Output signal 2 x 0-10V
- Main supply 100V - 240V 50/60Hz



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