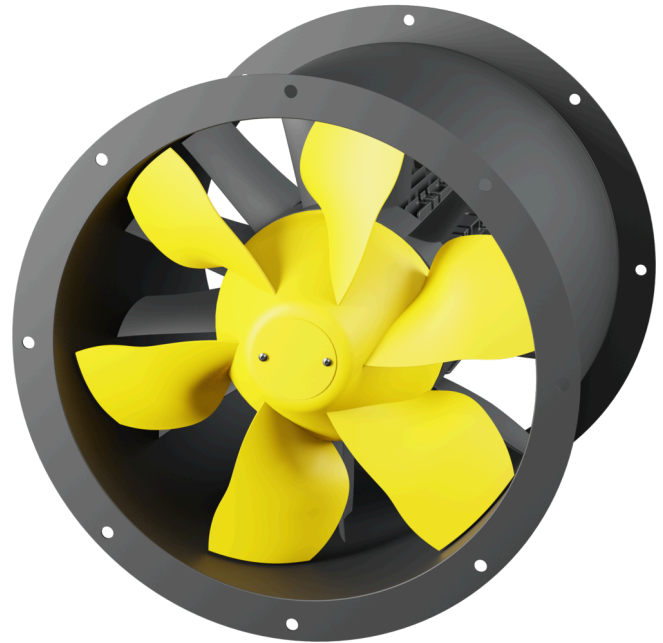


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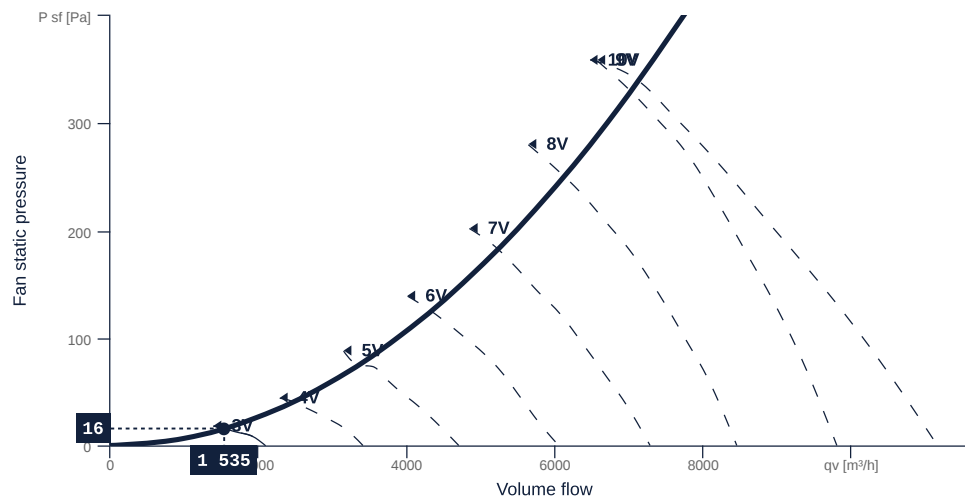
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- Innovative, high-efficiency axial fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing weight optimized, powder coated
- High efficiency IE5 motor, steplessly controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- Exceeds current ErP regulation by 15 - 20%



FAN CURVES

Name	Value	Unit
Volume flow	946.38	m³/h
Pressure	5.99	Pa



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TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volume flow	1604	m³/h	QV _{calc}
Pressure	14	Pa	psf _{calc}
Fan pressure	18	Pa	pf
Fan static pressure	14	Pa	psf
Current consumption Motor	0	A	I _e
Electrical power consumption	23	W	P _{ek}
Control voltage	3	V	U _{ctrl}
Rotation speed	456	1/min	N
Total static efficiency	26	%	etaFaPeK
Total efficiency	35	%	etatPeK
SFP (entire device)	53	W/(m³/s)	sfp _{device}
Sound power level inlet	50	dB(A)	LwA5
Sound power level outlet	55	dB(A)	LwA6
Sound power level housing radiation	48	dB(A)	LwA2

SOUND DATA

Sound power	mid-frequency tape										Unit	Formula symbol
	Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	50	27	30	44	40	41	42	29	45	35	dB(A)	LwA5
blowout	55	24	36	51	46	45	45	33	48	39	dB(A)	LwA6
Casing break out	49	24	28	40	31	36	39	26	47	36	dB(A)	LwA2

SOUND PRESSURE LEVEL CALCULATOR

Name	Value	Unit
Enveloping surface	Halphsphere	
Distance	3	m

Sound pressure	NR	mid-frequency tape										Unit	Formula symbol
		Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	35	33	10	13	26	22	24	25	12	27	17	dB(A)	LwA5
blowout	38	38	7	18	34	29	27	28	16	31	21	dB(A)	LwA6
Casing break out	37	31	7	10	22	13	18	22	9	29	18	dB(A)	LwA2



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GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	-		$W \times H_{\text{duct}}$
Pipe connection size (DN)	DN450		DN
Rated voltage (entire device)	230	V	U_{rated}
Phases (entire device)	1~		phase
Electrical protection (entire device)	10 A		fuse
Housing material	Coated steel		$\text{mat}_{\text{casing}}$
Impeller material	Coated steel		$\text{mat}_{\text{impeller}}$
IP-protection class (entire device)	IPX4		IP_{compl}
IP-Protection class (terminal box)	IP66		IP_{ebox}
Weight	22.6	kg	m
Fan type	Axial		Fan_{type}
Category / Installation situation	B		cat

MAXIMAL DATA

Name	Value		Unit	Formula symbol
	50 Hz	60 Hz		
Max. power consumption (device)	1255	1255	W	$P_{\text{ed, max}}$
Max. operating current (device)	9.53	9.53	A	$I_{\text{ed, max}}$
Max. speed	2300	2300	1/min	n_{max}
Max. stat. efficiency	55.9	55.9	%	η_{es}
Max. fan efficiency	71.1	71.1	%	η_{e}
Max. flowrate	11160	11160	m^3/h	$Q_{\text{v, max}}$
Max. stat pressure	360	360	Pa	$p_{\text{st, max}}$
Max. medium temperature	60	60	$^{\circ}\text{C}$	$T_{\text{m, max}}$
Max. environment temperature	60	60	$^{\circ}\text{C}$	$T_{\text{amb, max}}$
Min. environment temperature	-20	-20	$^{\circ}\text{C}$	$T_{\text{amb, min}}$



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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
Isolation class		ISO F		ISOclass
Motor-protection		TEC		protectmotor
Protection class		IP55		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 1~		pwrSUPmotor
Rated voltage	220		V	U _{rated, f1}
Rated voltage (wiring 2)	277		V	U _{rated, f2}
Rated current	8.7		A	I _{rated, f1}
Rated current (wiring 2)	6.9		A	I _{rated, f2}
Shaft power	1100		W	P _{out, f1}
Shaft power (wiring 2)	1100		W	P _{out, f2}
Speed	3000		1/min	n _{f1}
Speed (wiring 2)	3000		1/min	n _{f2}
Efficiency	87.8		%	η _{m, f1}
Efficiency (wiring 2)	87.8		%	η _{m, f2}
Min. temperature	-20		°C	T _{motor, min}
UL-Certification motor		None		ULcert

ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	2055	1/min	n _{opt}
Efficiency level	78.1	%	N
Efficiency category	total		catEfficiency
Input power of the motor at the energy efficiency optimum	1.22	kW	P _{e, opt}
Overall efficiency	83.8	%	η _{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	417	Pa	p _{f, opt}
Flowrate at energy efficiency optimum	7620	m³/h	q _{v, opt}

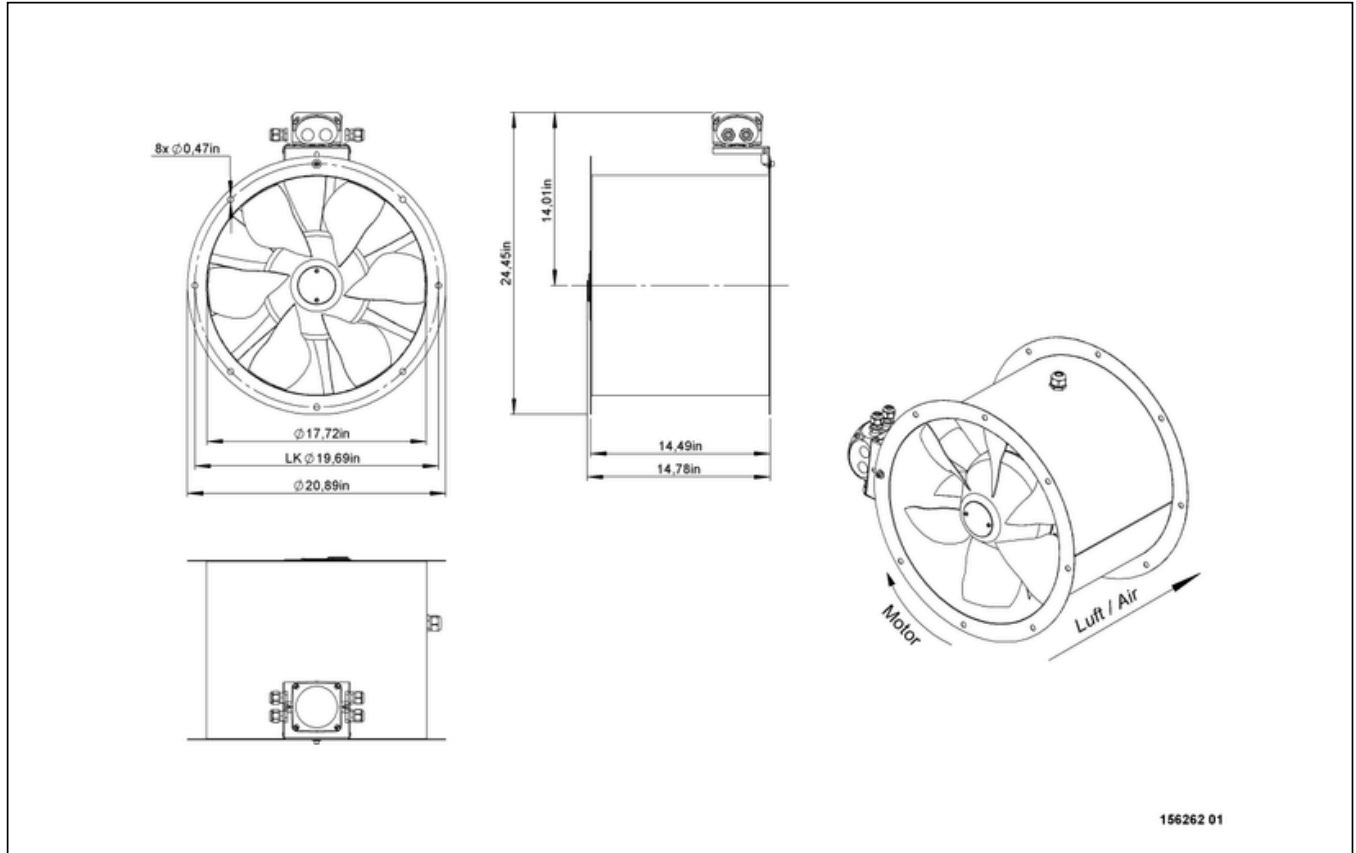


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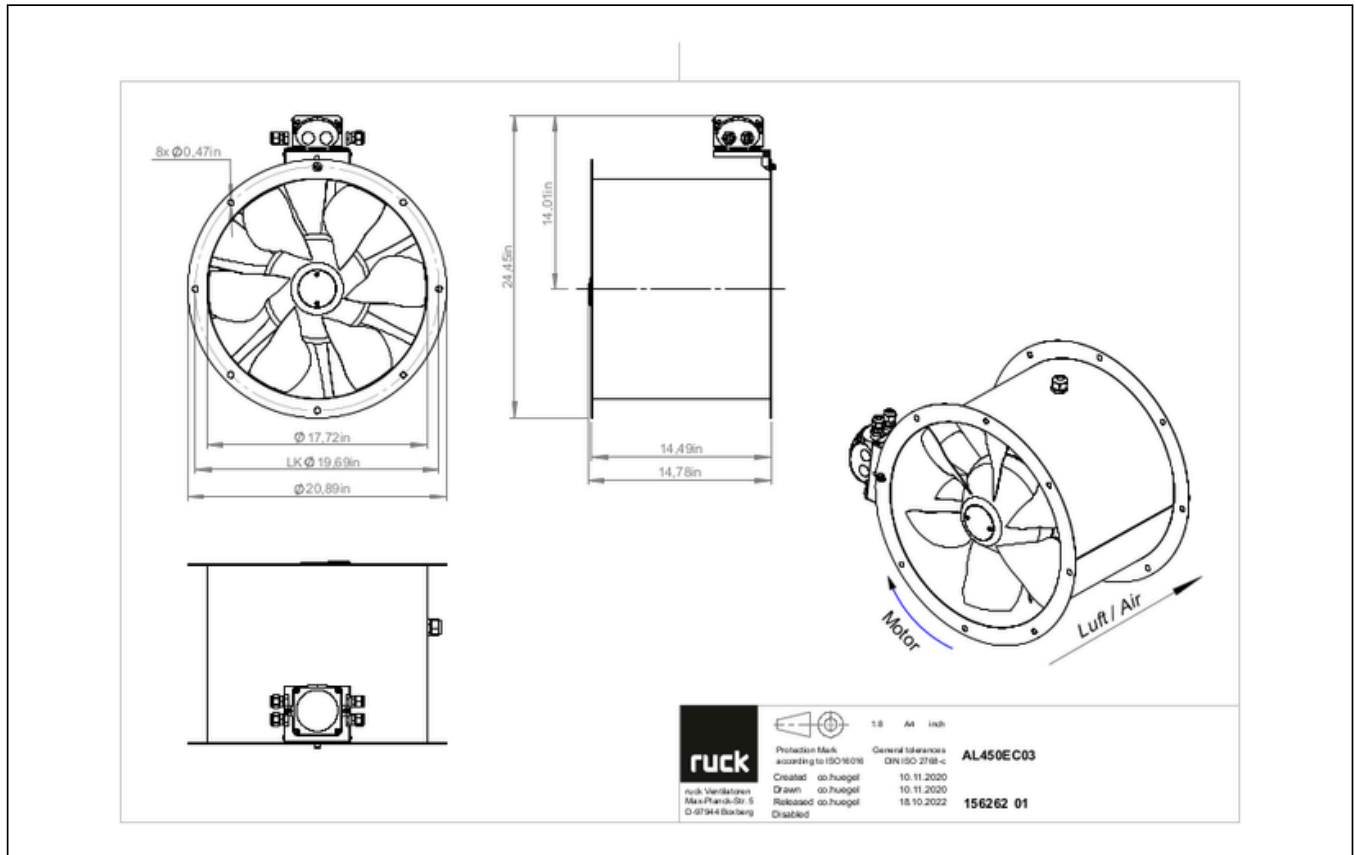
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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



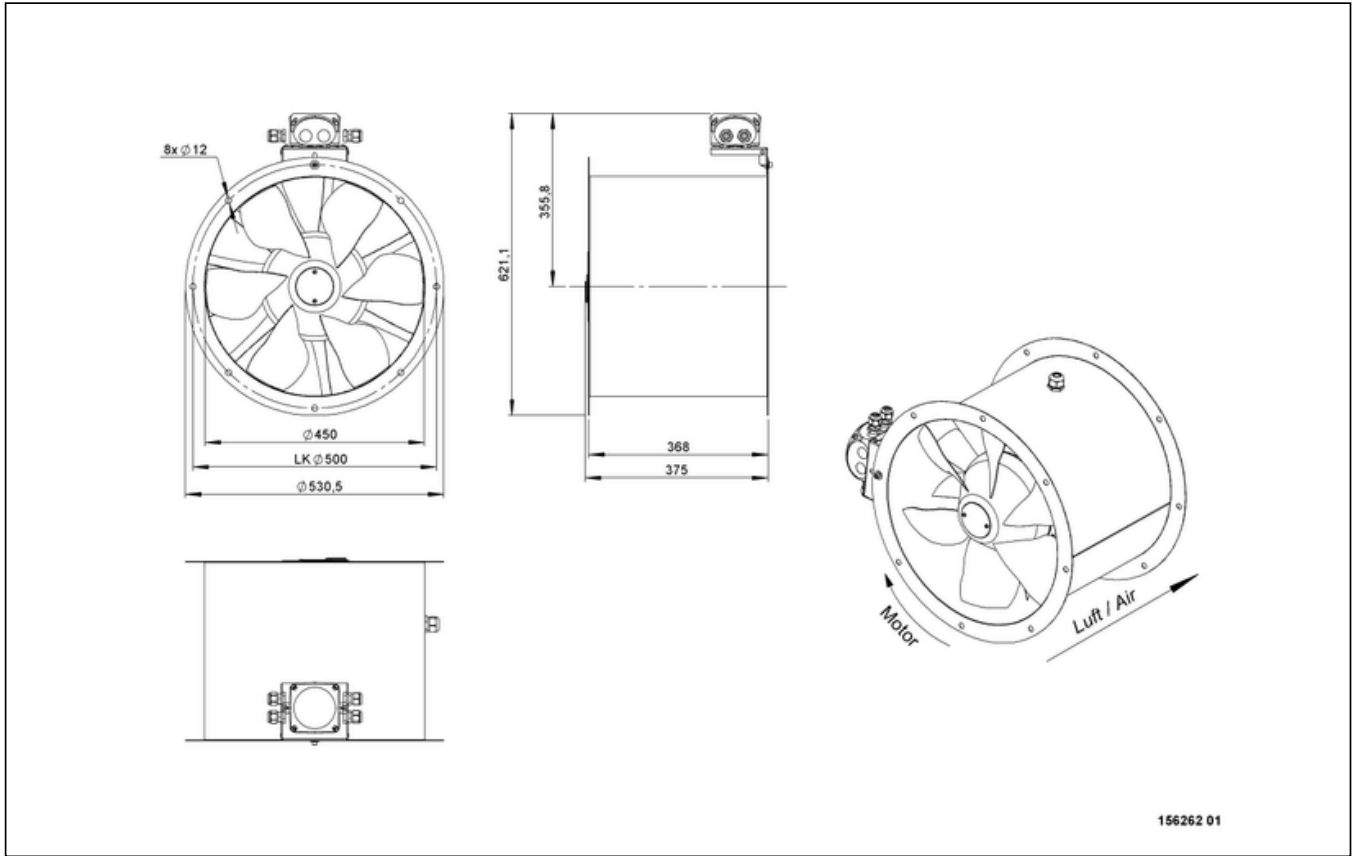
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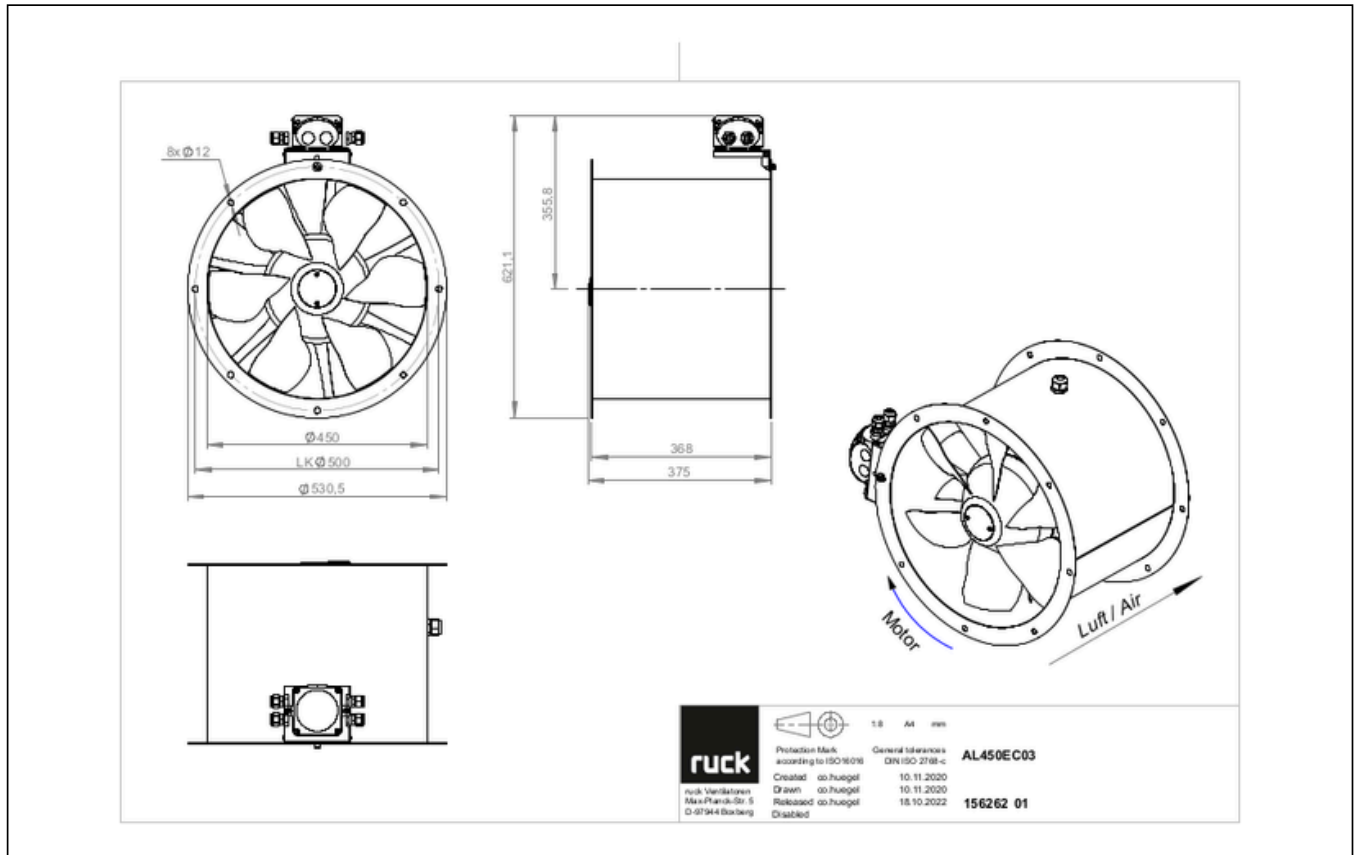
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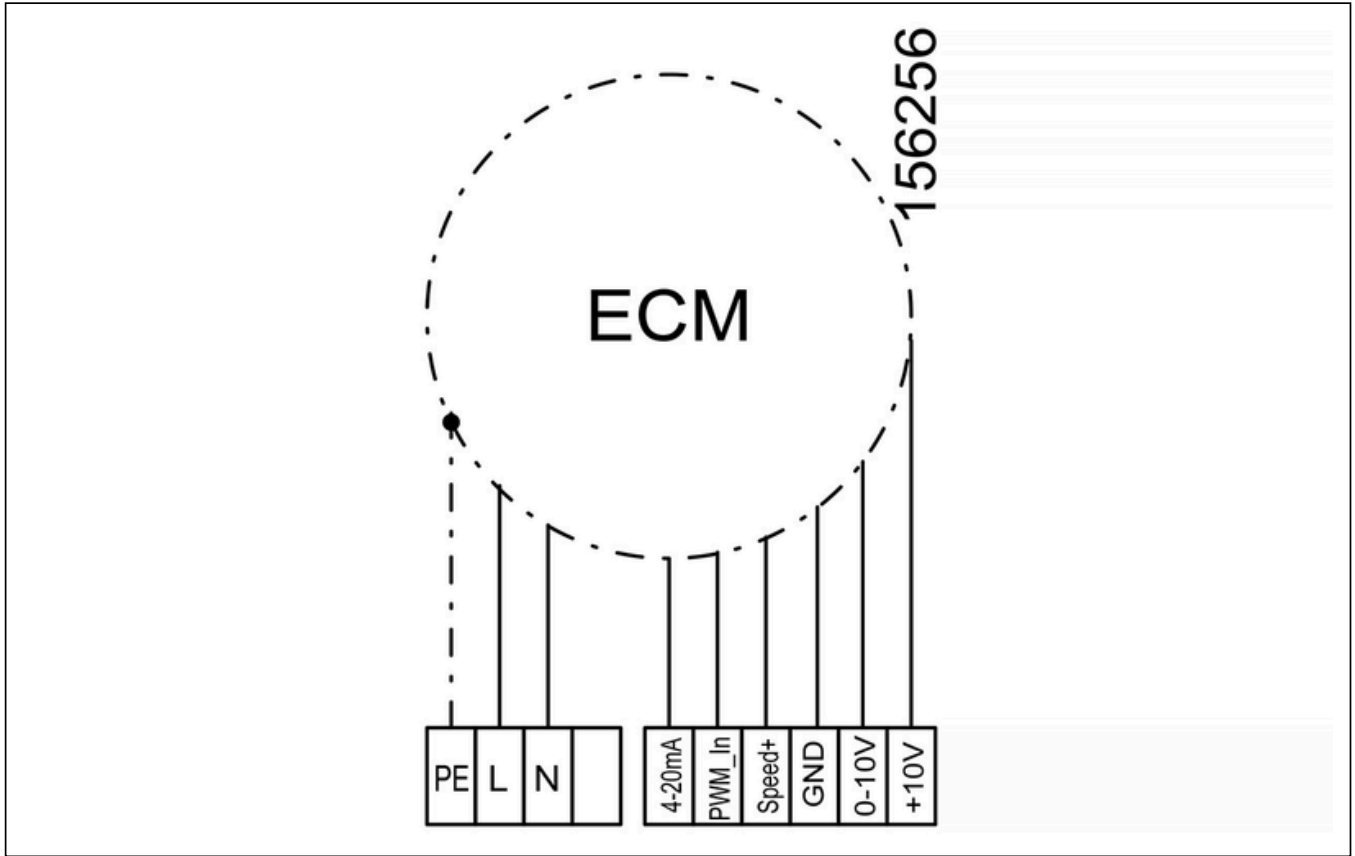
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AL 450 EC 03

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MECHANICAL ACCESSORIES

RVK 450 | 153895



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

RVK H 450 | 154743



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

RAF 450 | 154020



- Round flange
- Sheet steel, powder coated

RVS 450 01 | 154189



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

ESD 450 | 153957



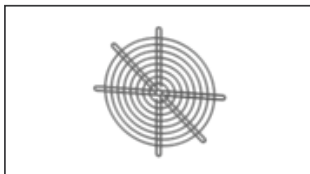
- Inlet cone
- Steel sheet, powder coated
- Flange mounting

FAL 450 | 154808



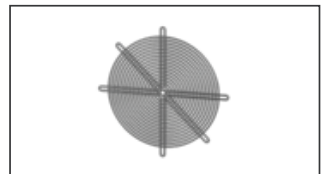
- Mounting foot
- Sheet steel, powder coated

SGW 450 | 154051



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

SGE 450 | 154075



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

FSD 01 | 155498



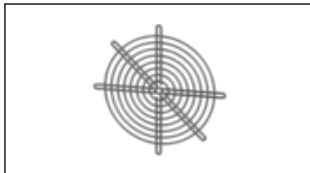
- Set of 4 vibration dampers
- All metal design, galvanized

FSD 05 | 155502



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

SGW 500 | 154052



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

RAS 450 | 154249



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

MR 450 | 164891



- Mounting ring
- For vertical mounting
- Powder-coated sheet steel
- Flange mounting DN 450



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ELECTRICAL ACCESSORIES

MTP 20 | 128146



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

MTP 30 | 143289



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

MTP 40 | 147359



- Potentiometer 10 k Ω
- 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

GS 02 | 169671



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



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