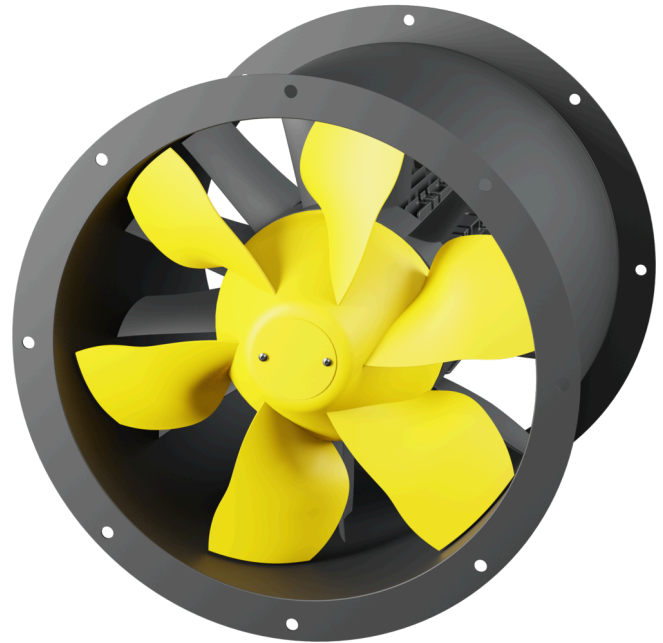


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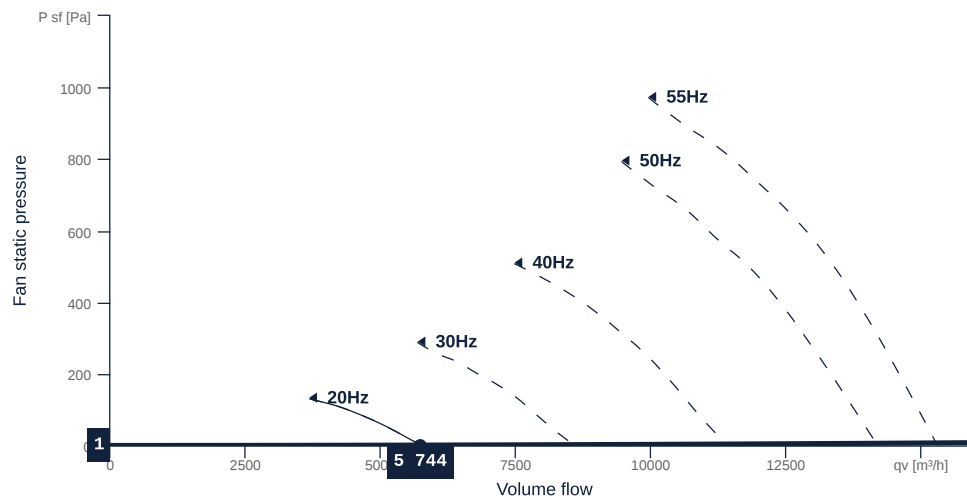
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- Innovative, high-efficiency axial fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing weight optimized, powder coated
- Efficient IE3 motor, frequency controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- Exceeds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



FAN CURVES

Name	Value	Unit
Volume flow	5744	m³/h
Pressure	1	Pa



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TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volume flow	5744	m³/h	QV _{calc}
Pressure	1	Pa	psf _{calc}
Fan pressure	61	Pa	pf
Fan static pressure	1	Pa	psf
Current consumption Motor	2	A	le
Electrical power consumption	239	W	P _{ek}
Frequency	20	Hz	frq
Rotation speed	1185	1/min	N
Total static efficiency	0	%	etaFaPeK
Total efficiency	41	%	etatPeK
SFP (entire device)	150	W/(m³/s)	sfp _{device}
Sound power level inlet	72	dB(A)	LwA5
Sound power level outlet	73	dB(A)	LwA6
Sound power level housing radiation	58	dB(A)	LwA2

SOUND DATA

Sound power	mid-frequency tape										Unit	Formula symbol
	Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	73	32	55	63	66	69	66	58	49	38	dB(A)	LwA5
blowout	74	34	56	65	68	70	65	57	50	41	dB(A)	LwA6
Casing break out	58	36	52	46	50	54	47	39	40	33	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	51	55	15	37	45	49	51	49	40	32	20	dB(A)	LwA5
blowout	52	56	16	38	47	51	52	48	40	33	24	dB(A)	LwA6
Casing break out	36	40	18	35	29	32	37	29	22	22	15	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)	400	V	U_{rated}
Phases (entire device)	3~		phase
Electrical protection (entire device)	10 A		fuse
Housing material	Coated steel		matcasing
Impeller material	Coated steel		matimpeller
IP-protection class (entire device)	IPX4		IP_{compl}
IP-Protection class (terminal box)	IP55		IP_{ebox}
Weight	45.46	kg	m
Fan type	Axial		Fan _{type}
Category / Installation situation	B		cat

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	6325	W	$P_{\text{ed, max}}$
Max. operating current (device)	8.1	A	$I_{\text{ed, max}}$
Max. speed	3220	1/min	n_{max}
Max. stat. efficiency	55.8	%	η_{es}
Max. fan efficiency	71	%	η_{e}
Max. flowrate	15300	m ³ /h	$q_{\text{v, max}}$
Max. stat pressure	960	Pa	$p_{\text{sf, max}}$
Max. medium temperature	60	°C	$T_{\text{m, max}}$
Max. environment temperature	60	°C	$T_{\text{amb, max}}$
Min. environment temperature	-20	°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		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)		2.000000		num_poles _{w1}
Connection	Δ	Δ		wiring _{w1}
Connection (wiring 2)	Y			wiring _{w2}
Rated voltage	400	460	V	U _{rated, f1}
Rated voltage (wiring 2)	690		V	U _{rated, f2}
Rated current	7.62	6.67	A	I _{rated, f1}
Rated current (wiring 2)	4.42		A	I _{rated, f2}
Shaft power	4000	4000	W	P _{out, f1}
Shaft power (wiring 2)	4000		W	P _{out, f2}
Speed	2900	3510	1/min	n _{f1}
Speed (wiring 2)	2900		1/min	n _{f2}
Starting current	58.7	57.4	A	I _{start, f1}
Starting current (wiring 2)	34		A	I _{start, f2}
Efficiency	88.1	88.5	%	η _{m, f1}
Efficiency (wiring 2)	88.1		%	η _{m, f2}
Efficiency class	IE3	IE3		IE _{motor}
Min. temperature	-20	-20	°C	T _{motor, min}
Cos Phi	0.860000	0.850000		cos φ
UL-Certification motor		UL recognized		UL _{cert}



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ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	3214	1/min	n_{opt}
Efficiency level	71.2	%	N
Efficiency category	total		cat _{efficiency}
Input power of the motor at the energy efficiency optimum	4.64	kW	$P_{e, opt}$
Overall efficiency	73.3	%	η_{ges}
Measurement category	B		meas cat
Fan pressure at energy efficiency optimum	973	Pa	$p_{f, opt}$
Flowrate at energy efficiency optimum	12224	m ³ /h	$Q_{v, opt}$

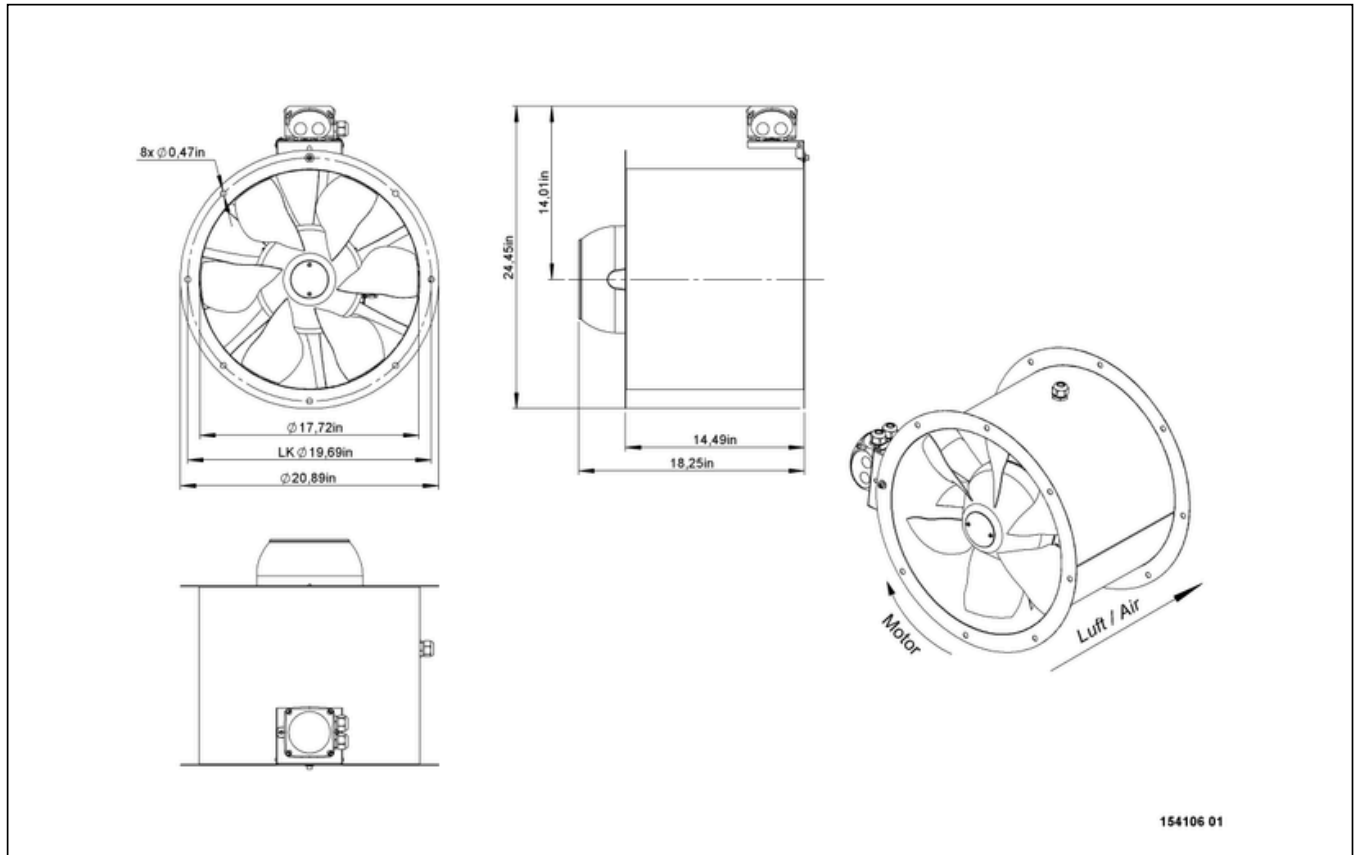


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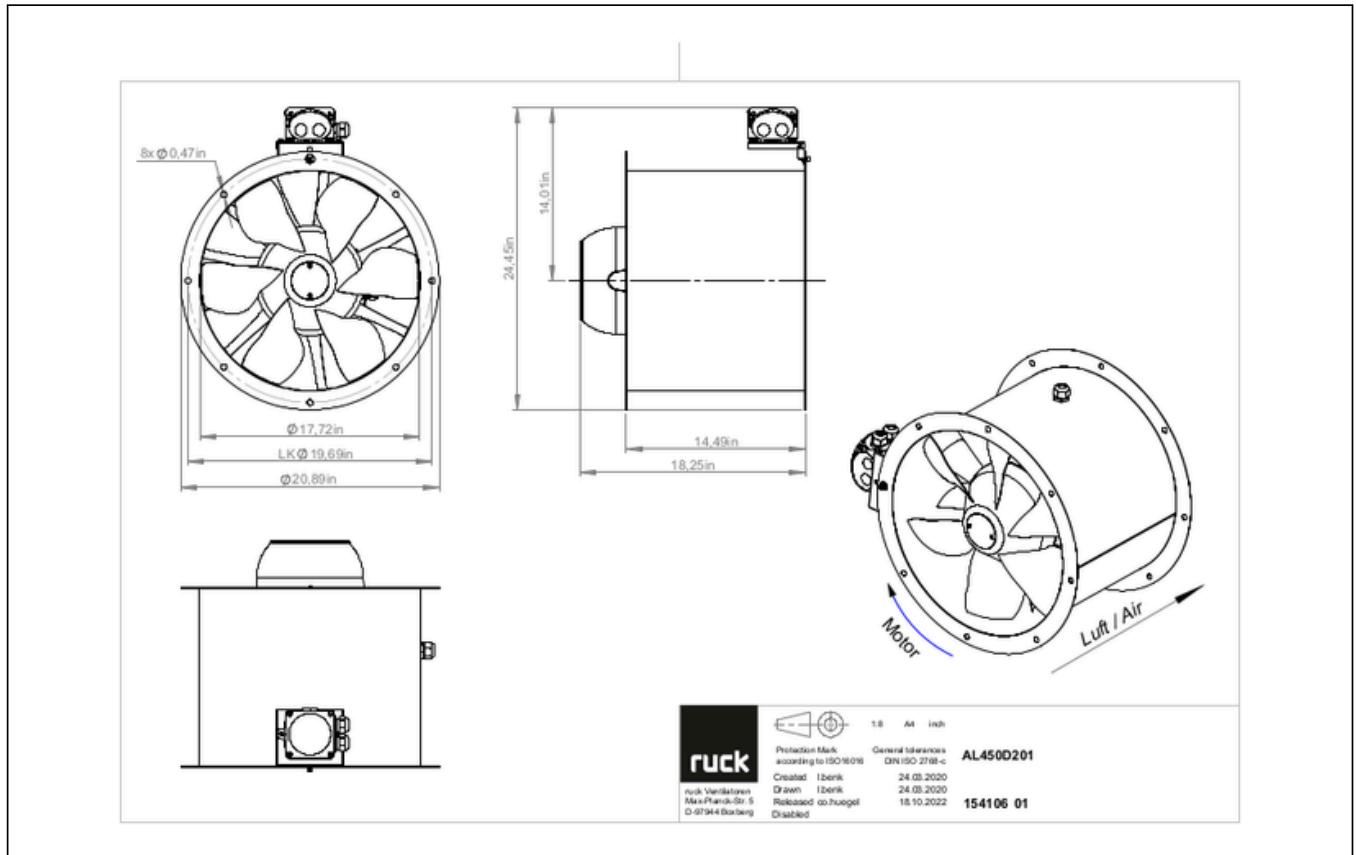
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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



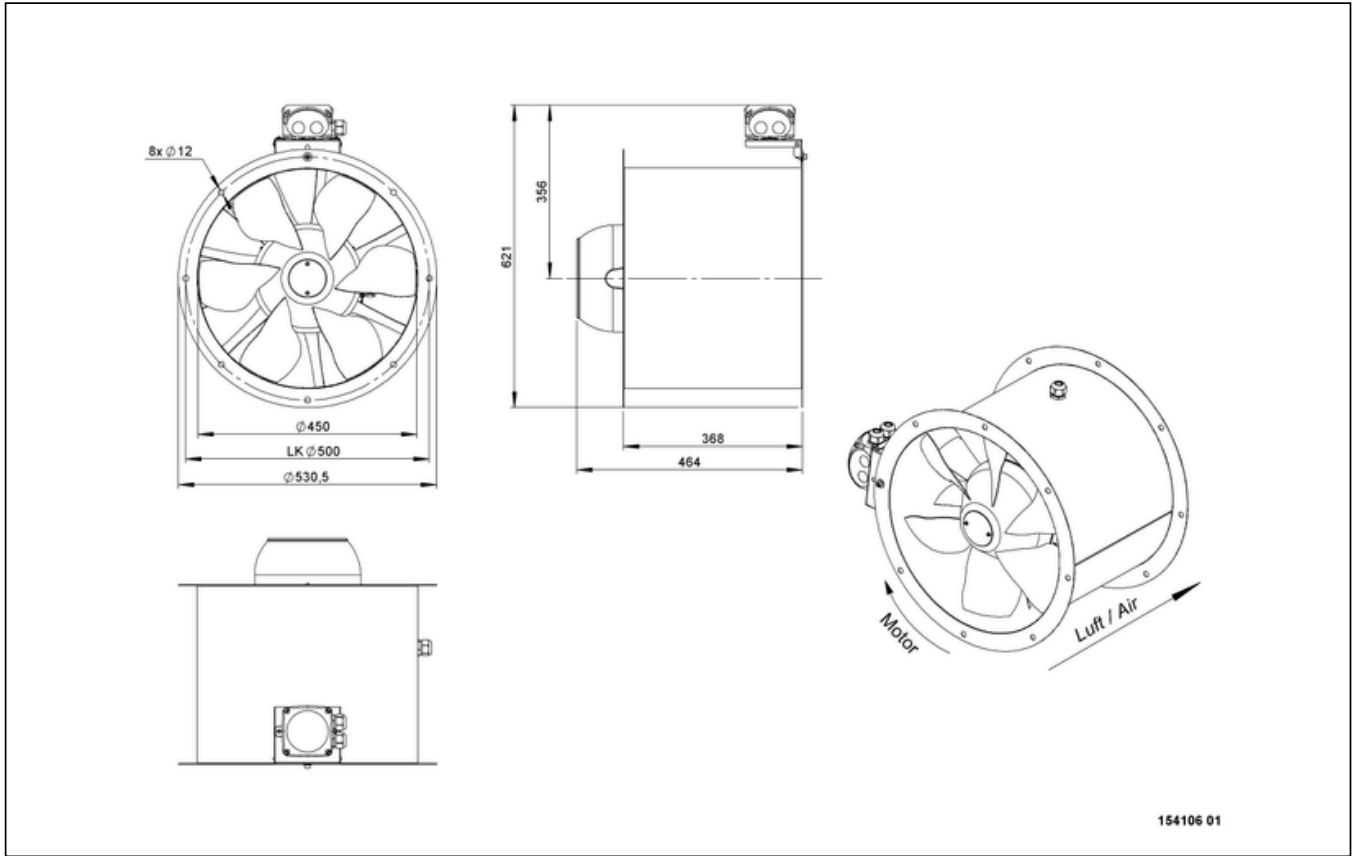
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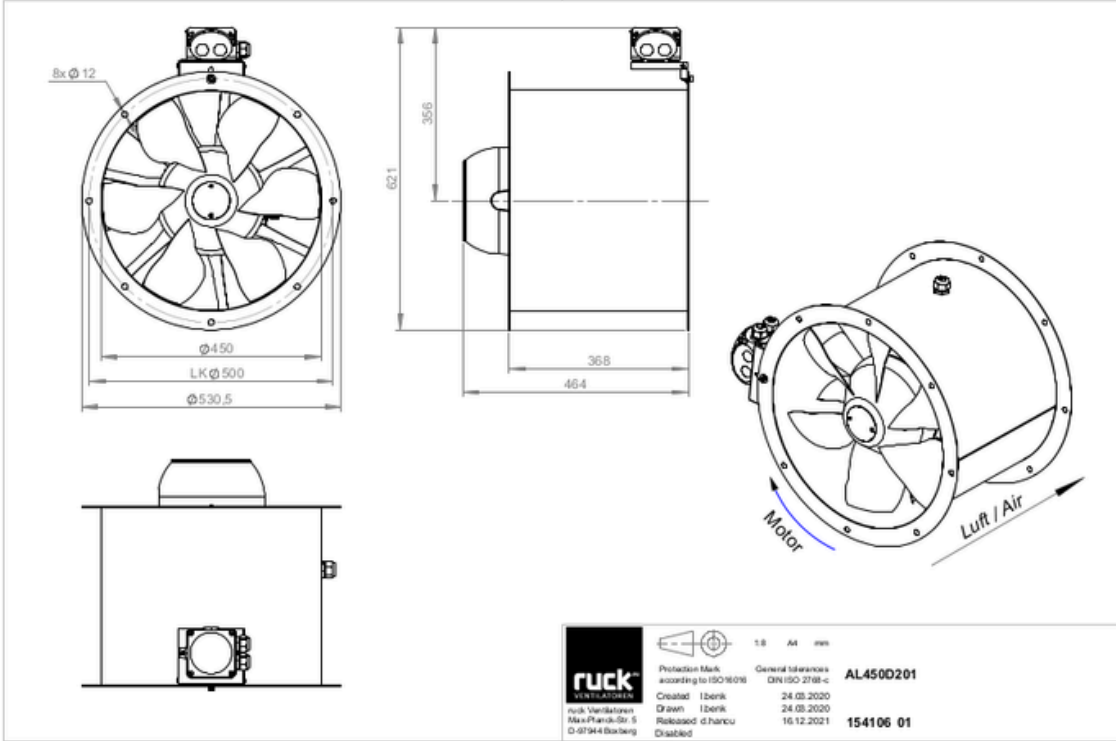
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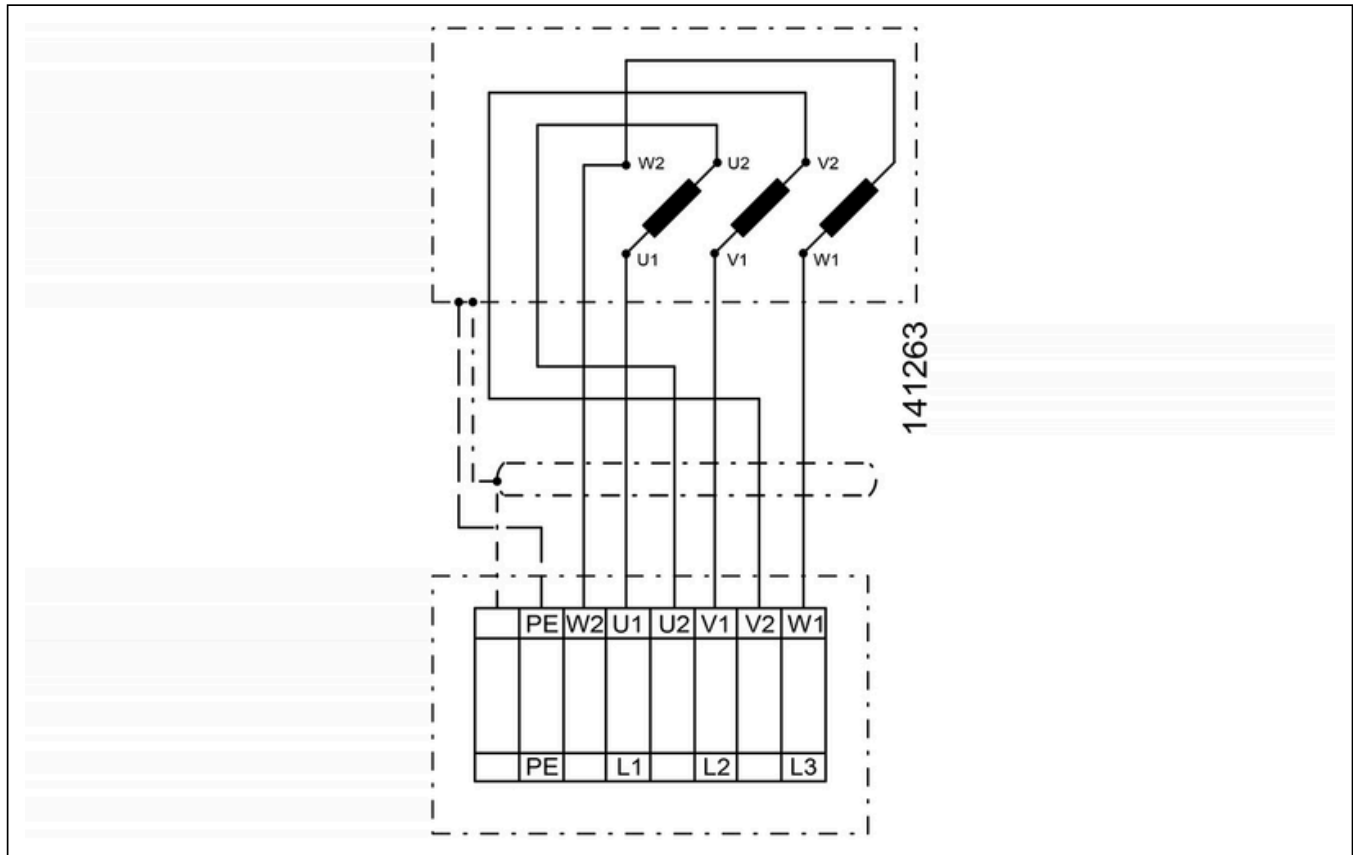
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MECHANICAL ACCESSORIES

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 | 154189



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

ESD 450 | 153957



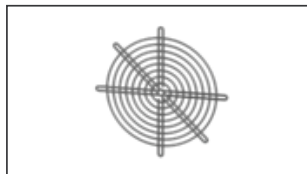
- Inlet cone
- Steel sheet, powder coated
- Flange mounting

FAL 450 | 154808



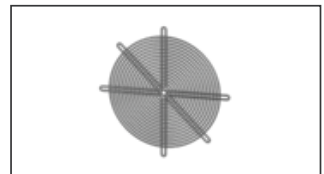
- Mounting foot
- Sheet steel, powder coated

SGW 450 | 154051



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

SGE 450 | 154075



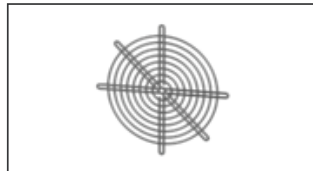
- Protection grille, narrow meshed
- Steel sheet, galvanized
- Flange mounting

FSD 03 | 155500



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

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

FSD 06 | 155503



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

MR 450 | 164891



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



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ELECTRICAL ACCESSORIES

MS 04 | 140413



- Motor protection switch with Isolator switchfunktion
- I_{max} = 400 V, 50/60 Hz
- Max. 4 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

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 55 11 | 155161



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

FU 55 12 | 155162



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

GS 02 | 169671



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

