

ISOR 160 EC K 01

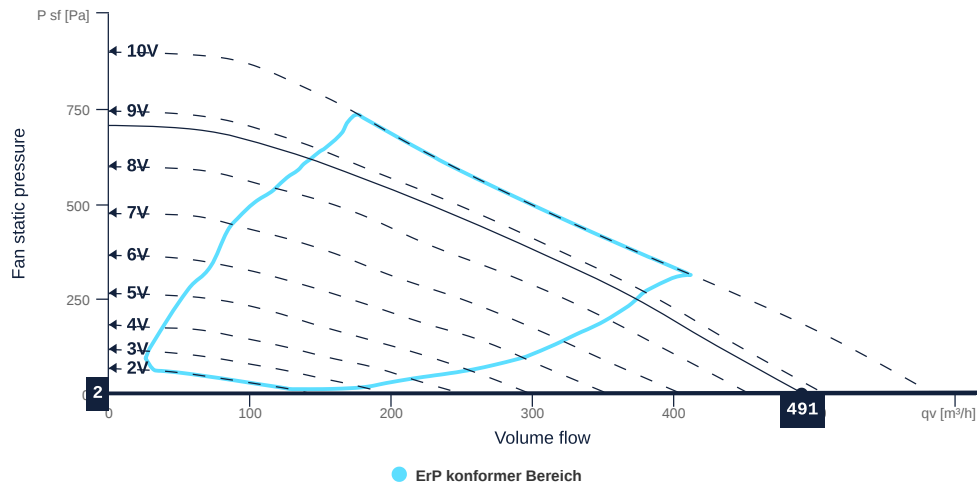
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- Soundproof centrifugal fan with backward curved impeller
- Galvanized sheet steel housing
- Connection spigots with double lip seal
- Swing-out fan unit
- EC motor, external rotor, steplessly controllable
- Internal electronic temperature monitoring
- Suitable for outdoor installation



FAN CURVES

Name	Value	Unit
Volume flow	491.28	m³/h
Pressure	1.57	Pa



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TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volume flow	491	m³/h	QV _{calc}
Pressure	1	Pa	psf _{calc}
Fan pressure	28	Pa	pf
Fan static pressure	1	Pa	psf
Current consumption Motor	0.7	A	I _e
Electrical power consumption	85	W	P _{ek}
Control voltage	8	V	U _{ctrl}
Rotation speed	3539	1/min	N
Total static efficiency	0	%	etaFaPeK
Total efficiency	4	%	etatPeK
SFP (entire device)	628	W/(m³/s)	sfp _{device}
Sound power level inlet	64	dB(A)	LwA5
Sound power level outlet	80	dB(A)	LwA6
Sound power level housing radiation	62	dB(A)	LwA2

SOUND DATA

Sound power	mid-frequency tape										Unit	Formula symbol
	Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	65	45	56	57	62	51	54	51	44	24	dB(A)	LwA5
blowout	81	45	60	66	78	74	73	67	61	40	dB(A)	LwA6
Casing break out	62	47	54	51	60	49	40	35	32	13	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	43	47	28	38	39	44	34	36	33	27	6	dB(A)	LwA5
blowout	60	63	27	42	48	60	57	55	50	43	23	dB(A)	LwA6
Casing break out	41	44	30	37	33	43	31	23	17	15	0	dB(A)	LwA2



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GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	-		WxH _{duct}
Pipe connection size (DN)	DN160		DN
Rated voltage (entire device)	230	v	U _{rated}
Phases (entire device)	1~		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Galvanized steel		mat _{casing}
Impeller material	Plastic		mat _{impeller}
IP-protection class (entire device)	IPX4		IP _{compl}
IP-Protection class (terminal box)	IP55		IP _{ebox}
Weight	12.1	kg	m
Nominal air flow rate, nominal point m ³ /h	288	CmH	q _{v,nom}
Nominal external pressure, static	511.8	Pa	p _{s,nom}
Fan type	Radial		Fan _{type}
Category / Installation situation	A		cat

ERP DATA (LOT 6)

Name	Value	Unit	Formula symbol
Nominal air flow rate, nominal point m ³ /s	0.08	CmS	q _{v,nom}
Actual electrical input power, nominal point	0.12	kw	P _{e,nom}
Face velocity, nominal point	4	mps	V _{nom}
Nominal external pressure, static	511.8	Pa	p _{s,nom}
supply air fan static efficiency, nominal point	49.7	ρ	η _{es,SUP}
Highest external air leakage rate	0.95	ρ	
Enclosure sound level, nominal point	62	db	L _{WA2}
Rating	Product is compliant 2018		



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MAXIMAL DATA

Name	Value		Unit	Formula symbol
	50 Hz	60 Hz		
Max. power consumption (device)	120	120	w	P _{ed, max}
Max. operating current (device)	1.03	1.03	A	I _{ed, max}
Max. speed	4000	4000	rpm	n _{max}
Max. stat. efficiency	34	34	p	η _{es}
Max. fan efficiency	34.7	34.7	p	η _e
Max. flowrate	580	580	CmH	q _{v, max}
Max. stat pressure	900	900	Pa	p _{sf, max}
Max. medium temperature	50	50	°C	T _{m, max}
Max. environment temperature	50	50	°C	T _{amb, max}
Min. environment temperature	-30	-30	°C	T _{amb, min}

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		ORM (Out)		install
Rotation direction		right		rotation
Isolation class		ISO F		ISOclass
Motor-protection		TEC		protectmotor
Protection class		IP54		IP _{motor}
Is pole-changeable		No		polexch
Type of power supply		AC 1~		pwr _{sup} motor
Rated voltage	230	230	v	U _{rated, f1}
Rated current	0.89	0.89	A	I _{rated, f1}
Speed	3960	3960	rpm	n _{f1}
Efficiency	46.8	46.8	p	η _{m, f1}
Min. temperature	-30	-30	°C	T _{motor, min}
Cos Phi	0.560000	0.560000		cos φ
UL-Certification motor		None		UL _{cert}

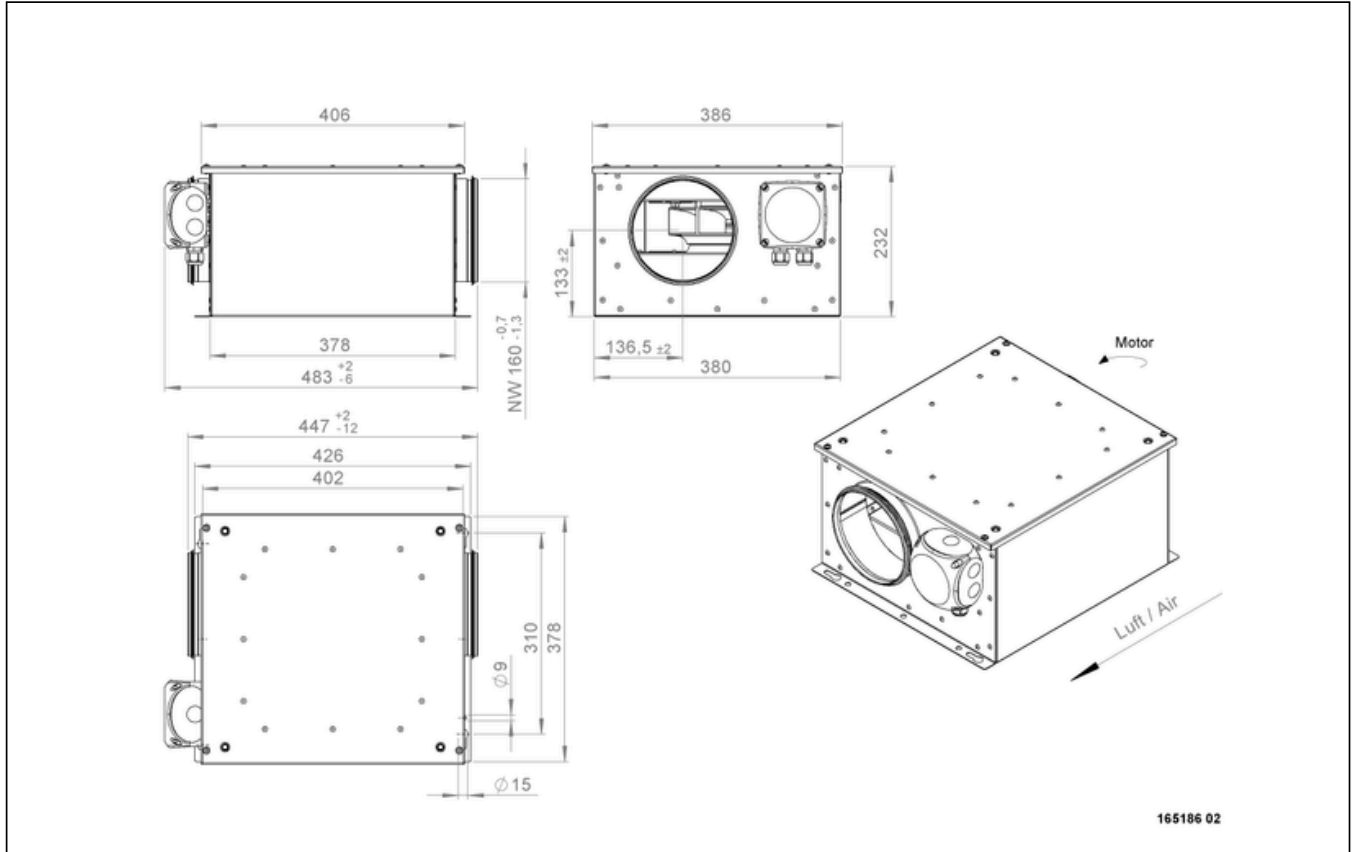


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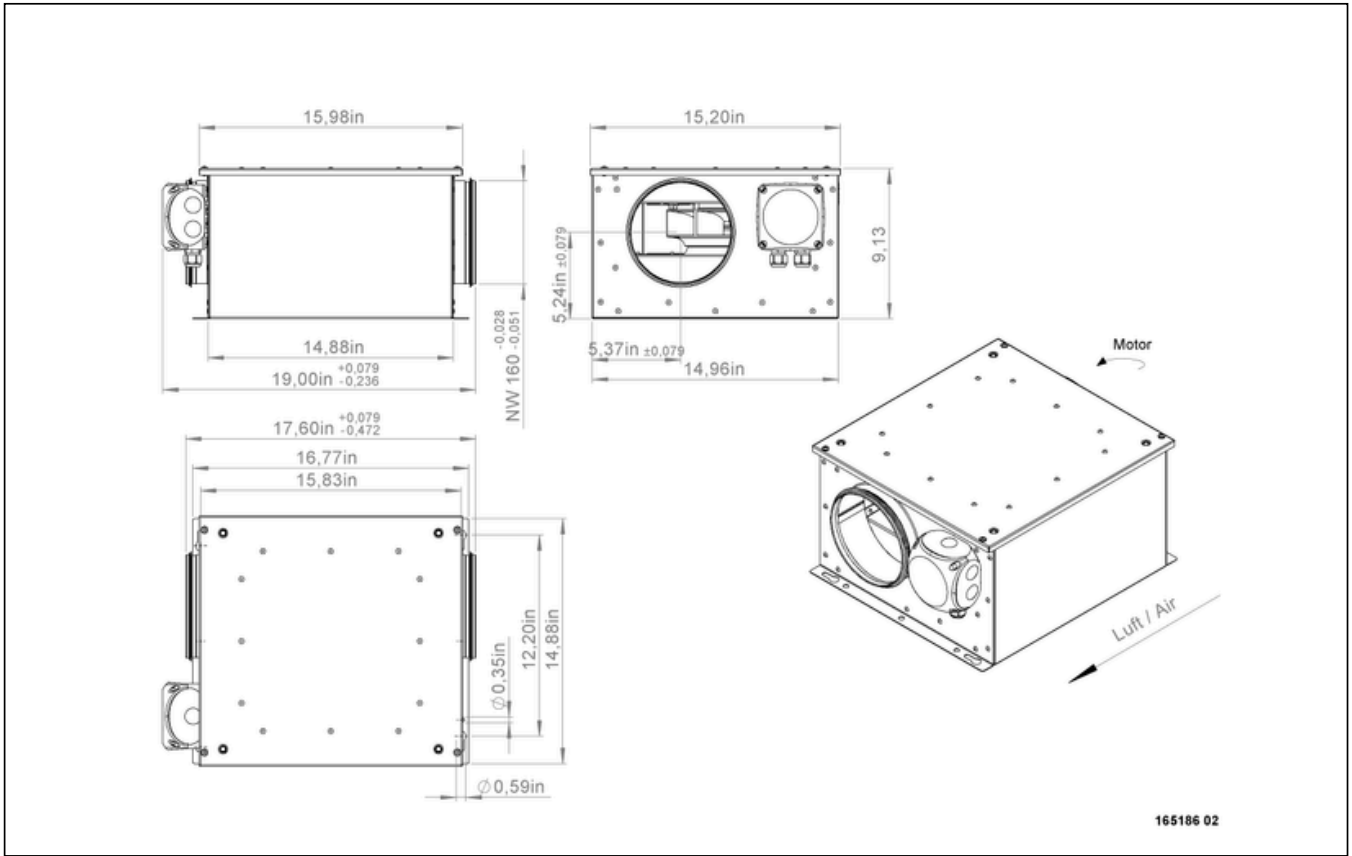
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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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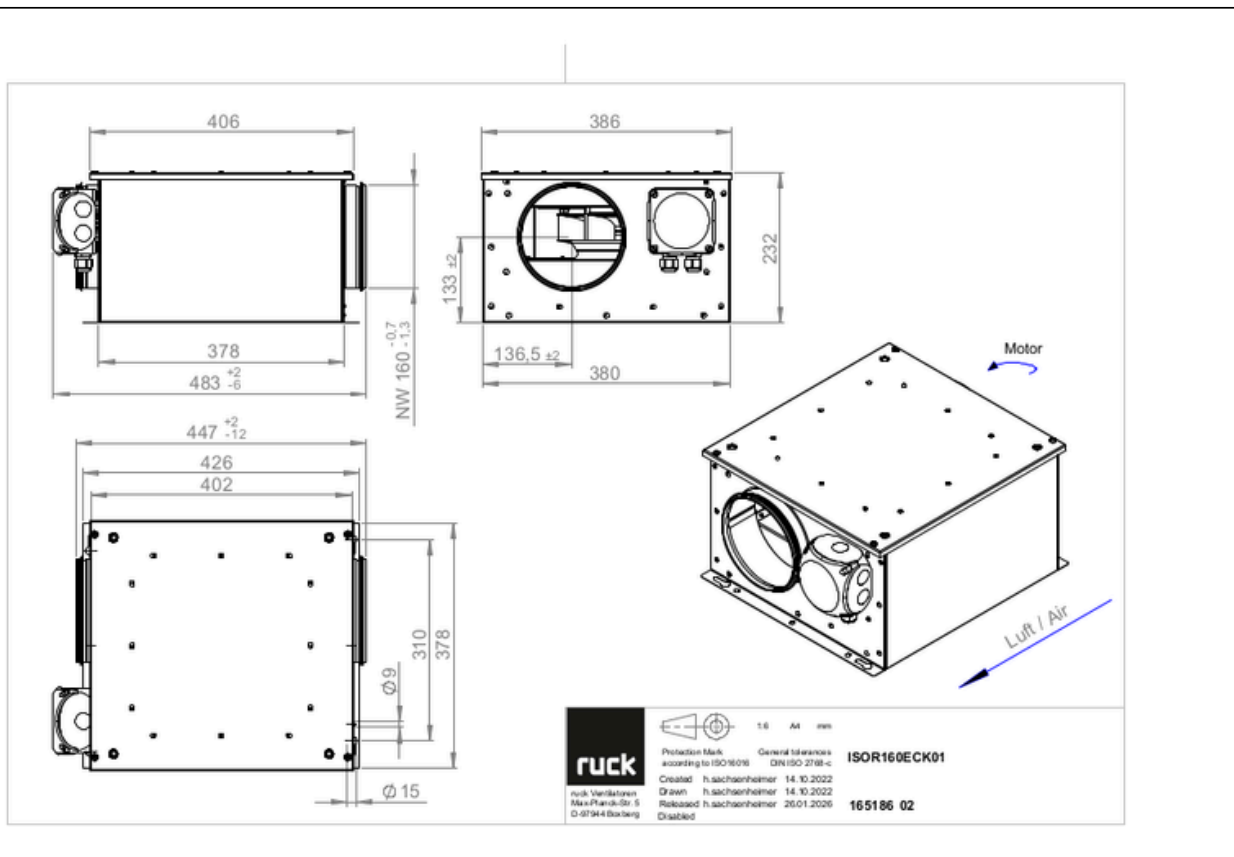
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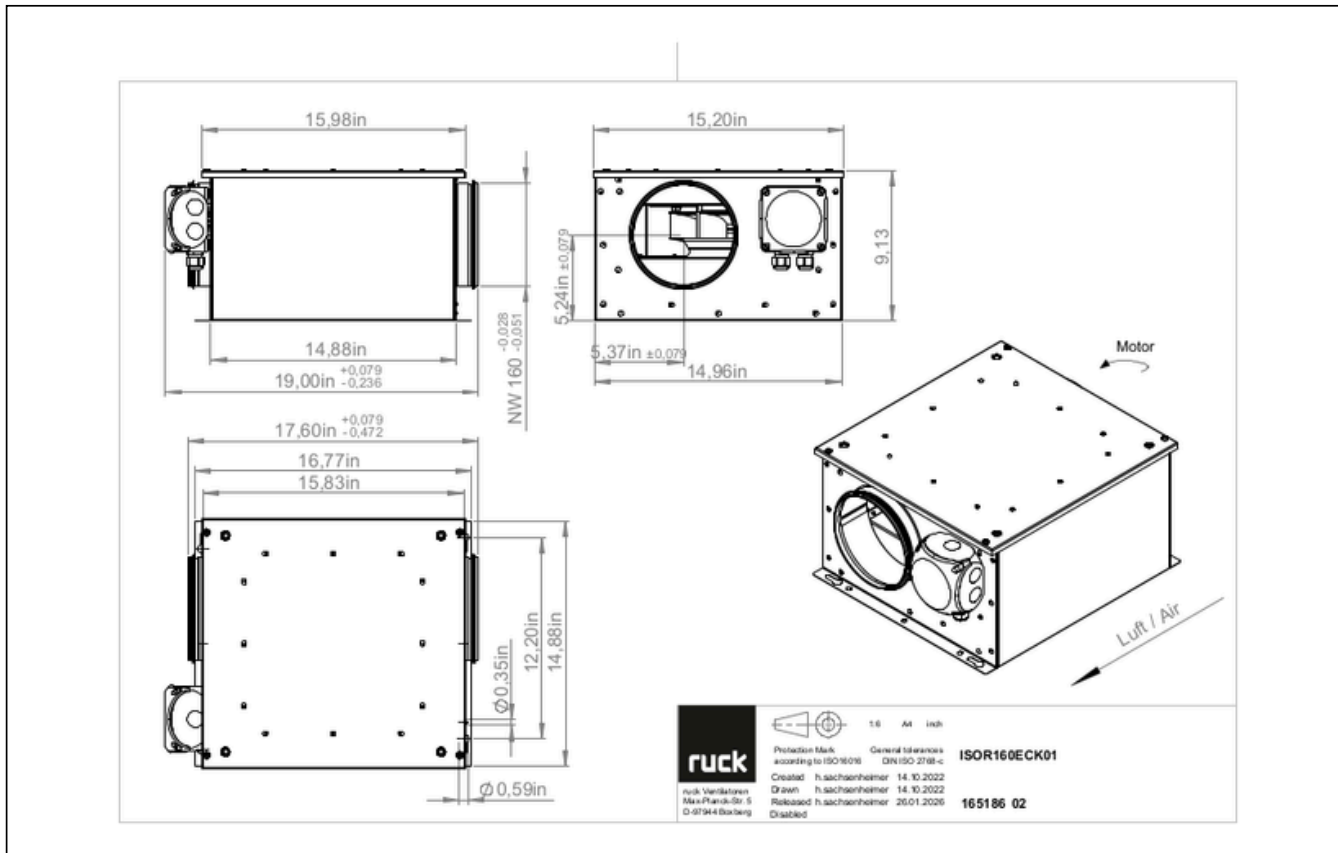
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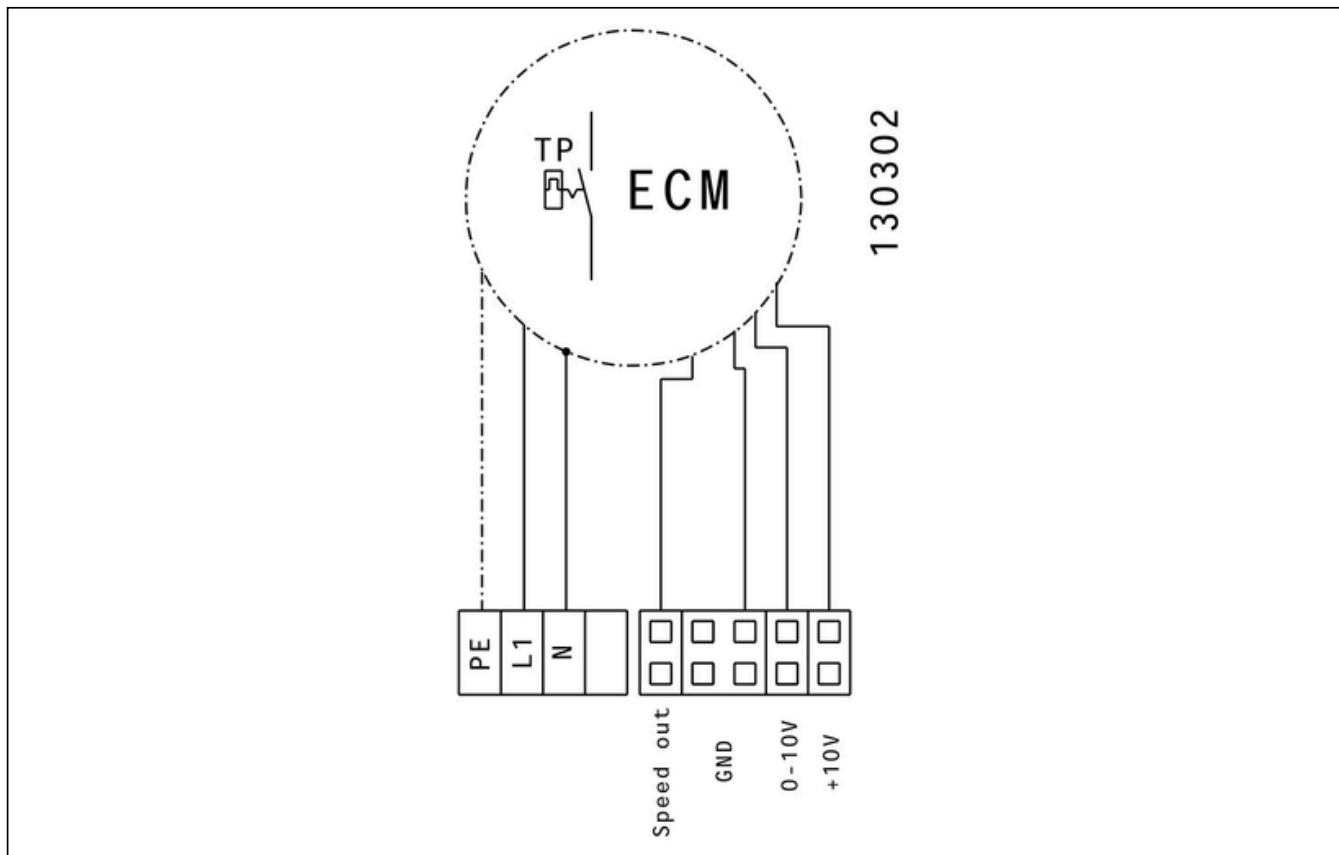
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MECHANICAL ACCESSORIES

VM 160 | 102649



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

RSK 160 | 102661



- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps

FV 160 | 112831



- Air filter box with mat filter ISO Coarse 45 % (G3)
- Toggle-type fastener

FT 160 | 112841



- Air filter box for pocket filter
- Toggle-type fastener
- Galvanized steel sheet housing
- Without filter

FTW 160 | 112852



- Air filter box with pocket filter M5
- Integrated warm water heating coil
- Galvanized steel sheet housing
- Toggle-type fastener

RSK 160D | 113485



- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps
- Integrated gasket

SG 160 01 | 169591



- Protection grille for tube connection
- Galvanized wire

SDS 160 | 169605



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

SDF 160 | 169642



- Flexible tube silencer
- Galvanized steel sheet
- Sound insulation packing 50 mm



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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

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

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

MTP 50 | 168752



- Potentiometer with multifunction output
- 230 VAC $\pm 10\%$ / 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

MTP 60 | 177018



- 5-step potentiometer
- Switching contact: 1A/250V AC - 2,5A/12V DC
- Max. ambient temperature 50 °C
- Protection class IP44

