

EM 280 EC 01

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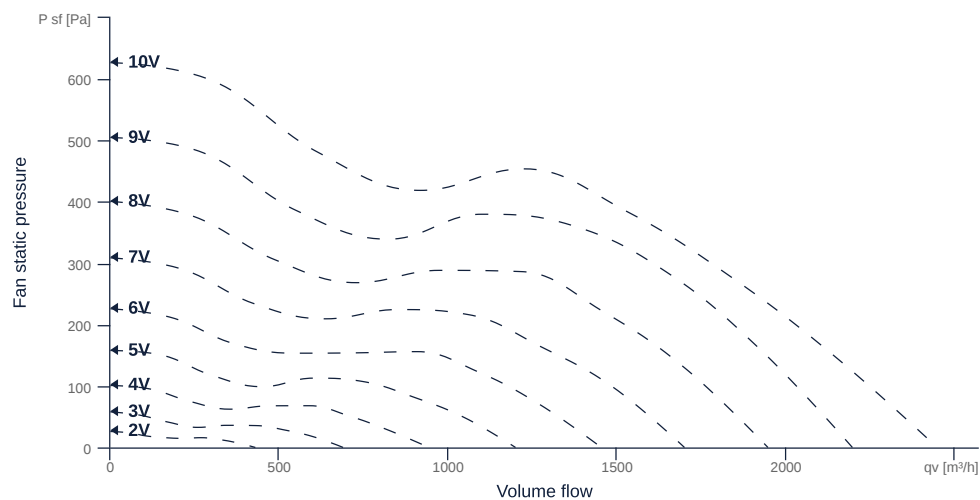
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- Innovative, high-efficiency diagonal fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing made of impact-resistant, reinforced polypropylene
- High efficiency IE5 EC motor, steplessly controllable
- Incl. 1x potentiometer for connection in terminal box
- Conveyed medium temperature up to 45 °C in continuous operation
- The benchmark for efficiency since 2012



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	-		WxH _{duct}
Pipe connection size (DN)	DN280		DN
Rated voltage (entire device)	230	V	U _{rated}
Phases (entire device)	1~		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Plastic		mat _{casing}
Impeller material	Plastic		mat _{impeller}
IP-protection class (entire device)	IPX4		IP _{compl}
IP-Protection class (terminal box)	IP44		IP _{ebox}
Weight	5.55	kg	m
Fan type	Diagonal		Fan _{type}
Category / Installation situation	A		cat

MAXIMAL DATA

Name	Value		Unit	Formula symbol
	50 Hz	60 Hz		
Max. power consumption (device)	267	267	W	P _{ed, max}
Max. operating current (device)	1.86	1.86	A	I _{ed, max}
Max. speed	3170	3170	1/min	n _{max}
Max. stat. efficiency	58.6	58.6	%	η _{es}
Max. fan efficiency	62.2	62.2	%	η _e
Max. flowrate	2440	2440	m³/h	Q _{v, max}
Max. stat pressure	630	630	Pa	p _{st, max}
Max. medium temperature	45	45	°C	T _{m, max}
Max. environment temperature	45	45	°C	T _{amb, max}
Min. environment temperature	-30	-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		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		IP33		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 1~		pwrsupmotor
Rated voltage	230	230	V	U _{rated, f1}
Rated current	1.72	1.72	A	I _{rated, f1}
Shaft power	267	267	W	P _{out, f1}
Speed	3047	3047	1/min	n _{f1}
Min. temperature	-30	-30	°C	T _{motor, min}
UL-Certification motor		None		ULcert

ERP DATA (LOT11)

Name	Value	Unit	Formula symbol
Speed at the energy efficiency optimum	3017	1/min	n _{opt}
Efficiency level	65.5	%	N
Efficiency category	statisch		catefficiency
Input power of the motor at the energy efficiency optimum	0.28	kW	P _{e, opt}
Overall efficiency	81.7	%	η _{ges}
Measurement category	A		meas cat
Fan pressure at energy efficiency optimum	418	Pa	p _{f, opt}
Flowrate at energy efficiency optimum	1426	m³/h	Q _{v, opt}

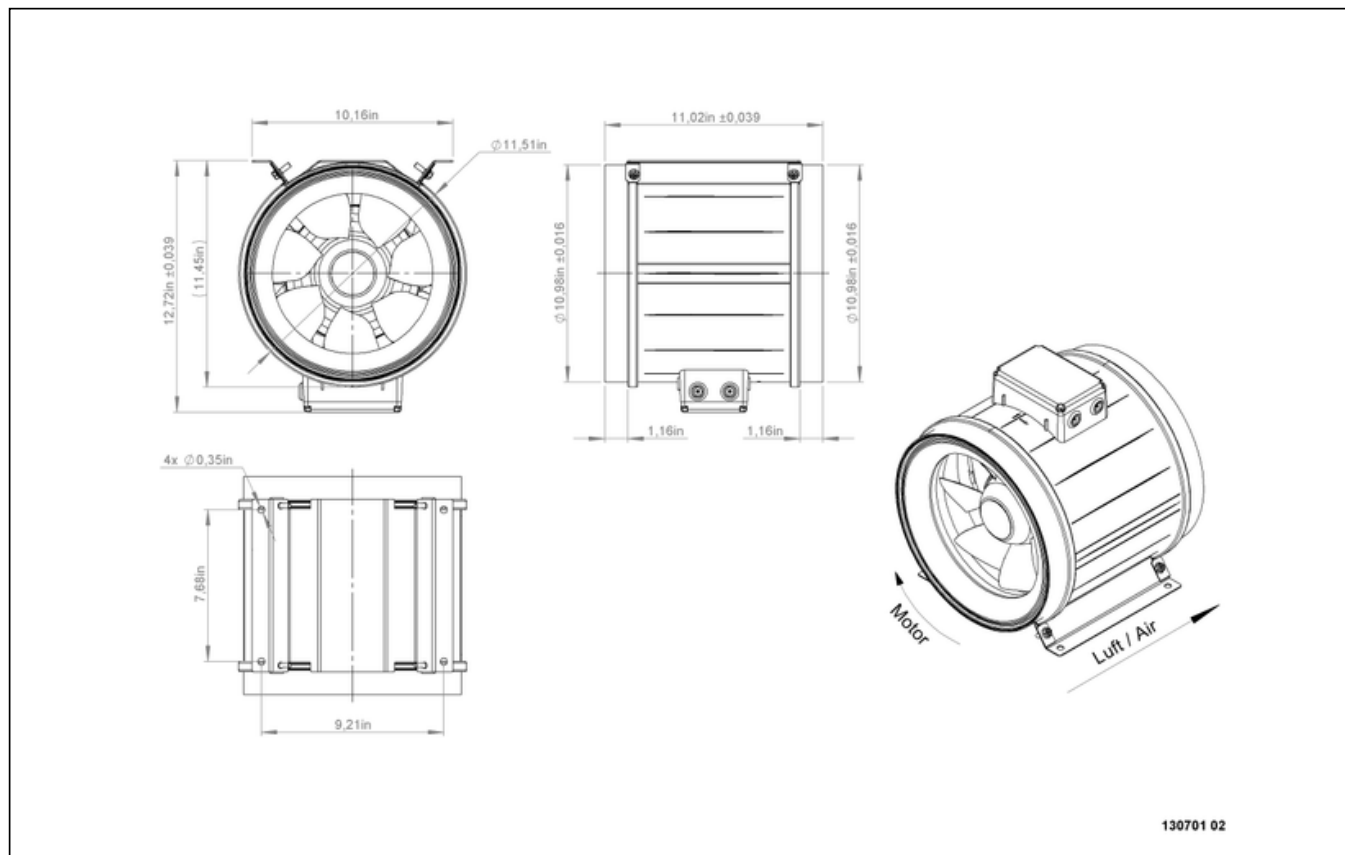
SMOKE EXTRACT DATA

Name	Value	Unit	Formula symbol
Fire resistance class	None		Fclass



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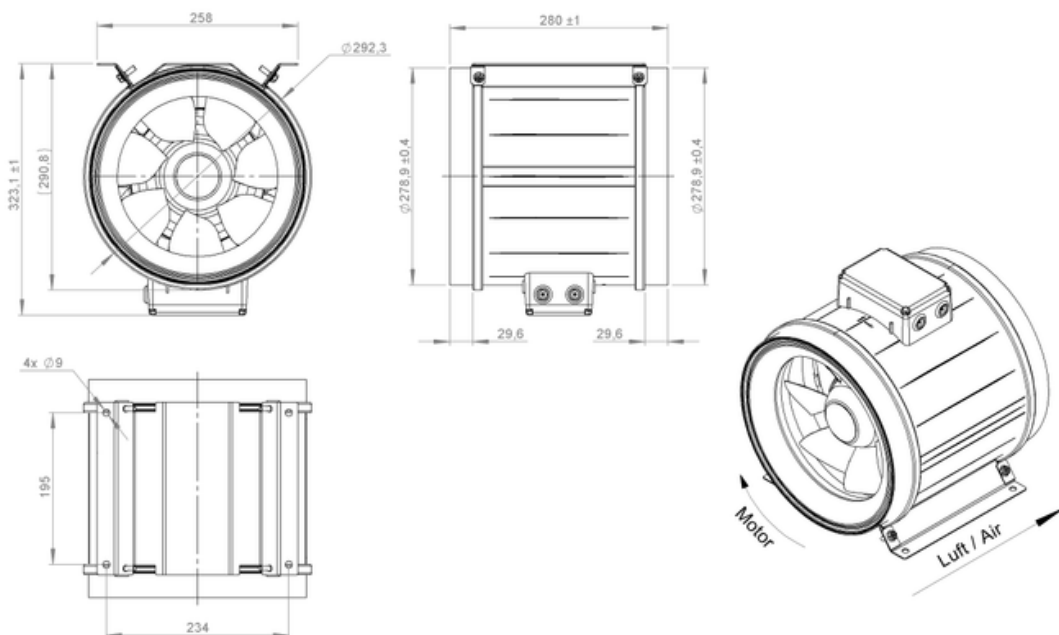
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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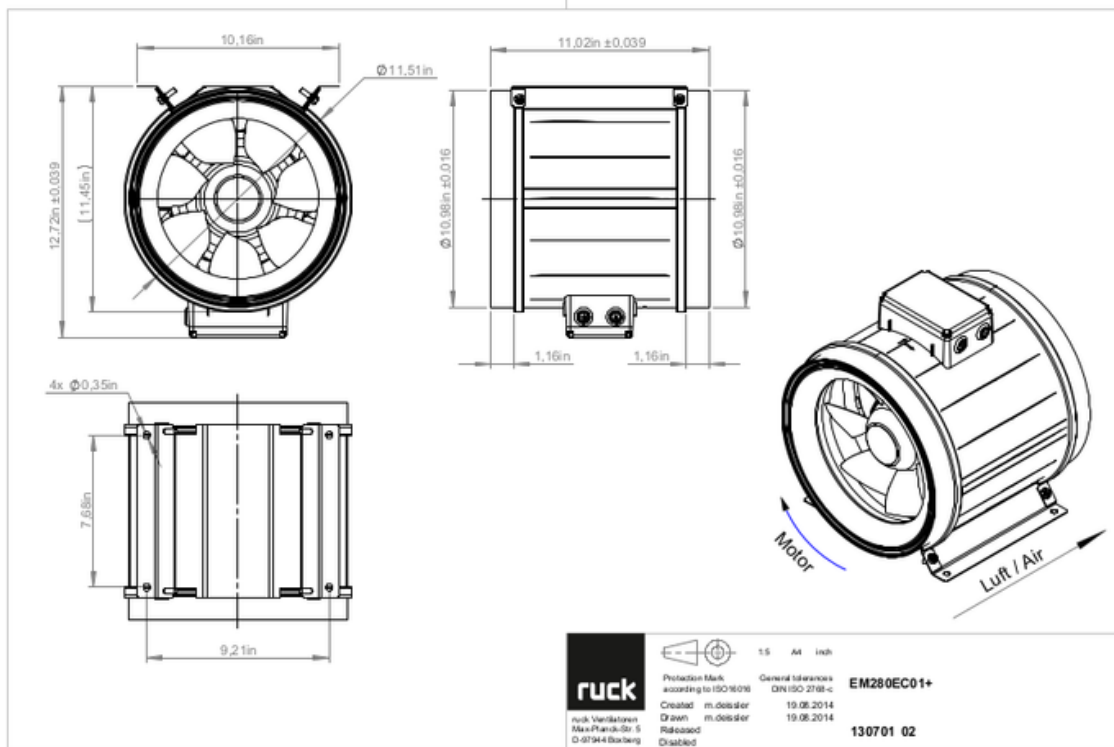


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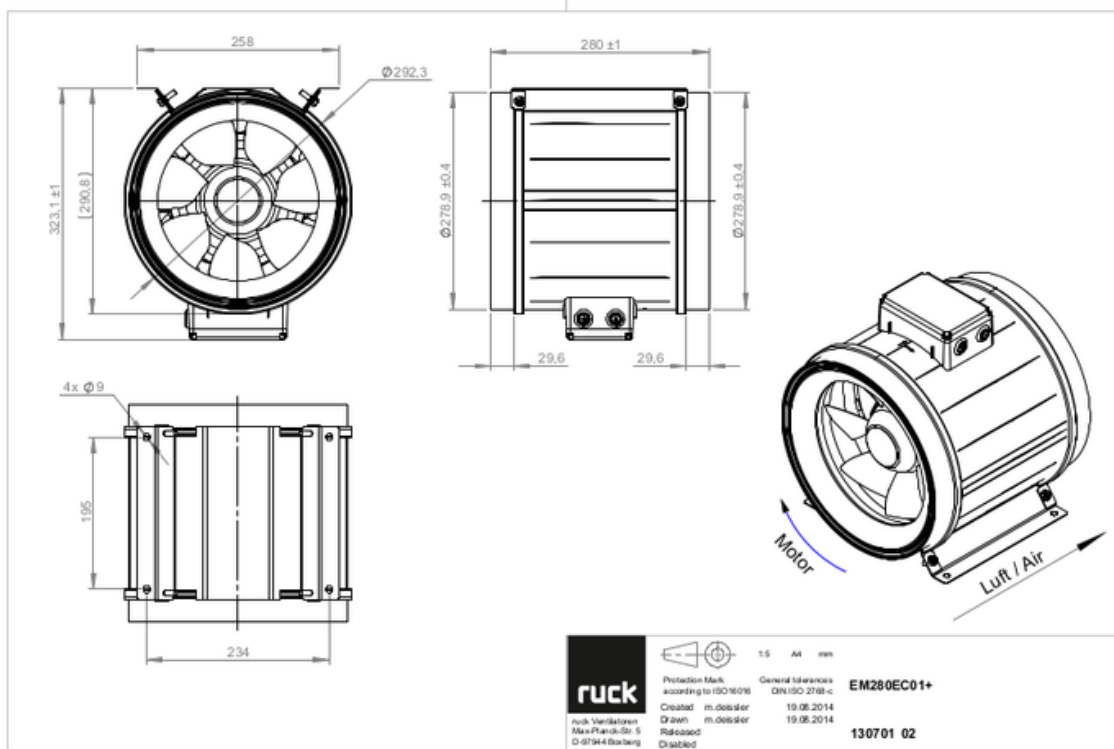
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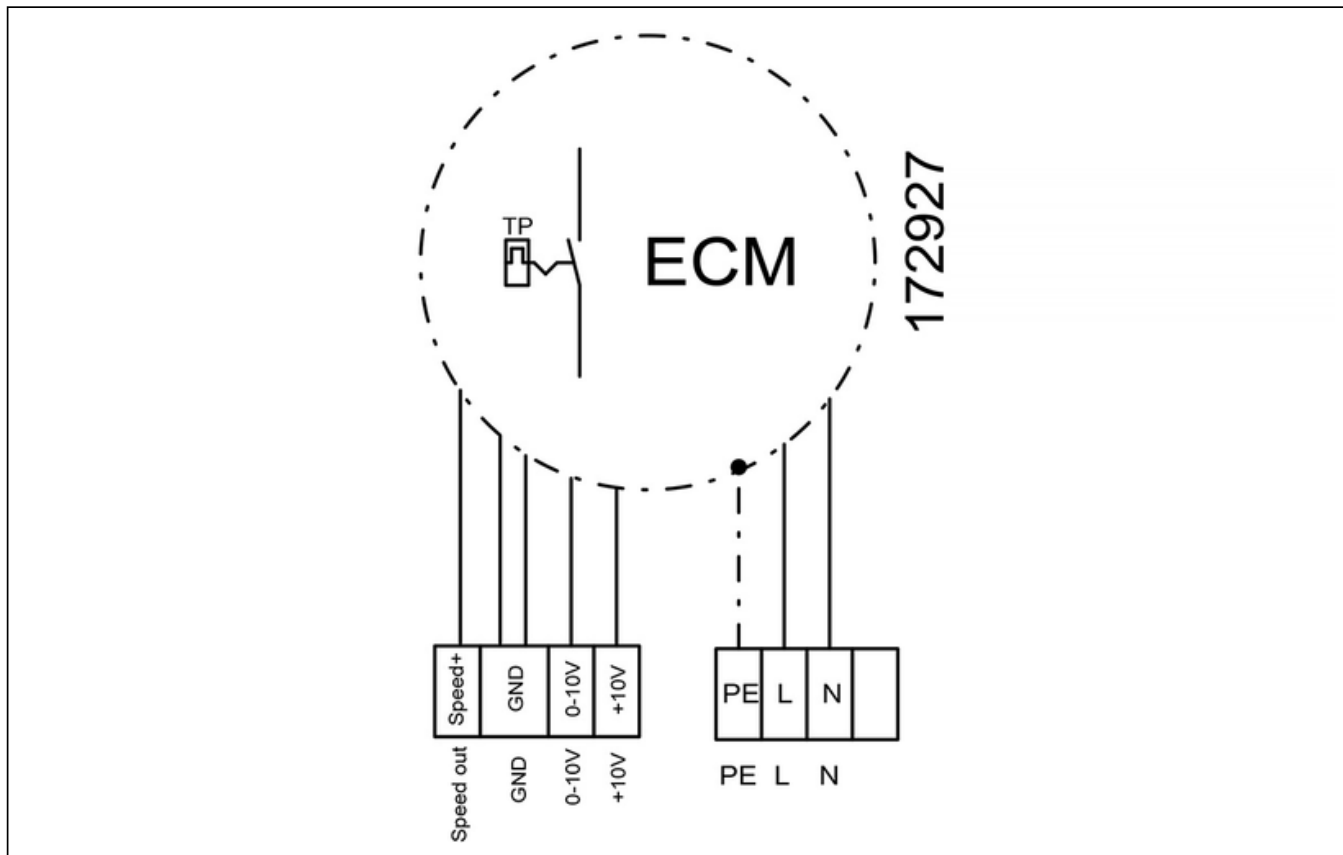


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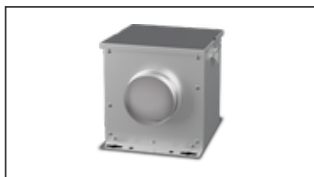
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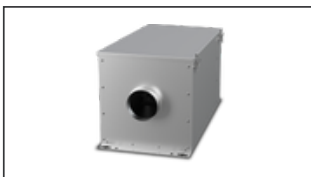
MECHANICAL ACCESSORIES

FV 280 | 159318



- Air filter box with mat filter ISO Coarse 45 % (G3)
- Toggle-type fastener
- Galvanized steel sheet
- Max. temp. 80 °C

FT 280 | 159361



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

FTW 280 | 159472



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

VM 280 | 115494



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

RSK 280 | 159252



- Back draught shutter for tube fitting
- Sheet steel, powder coated
- Aluminum flaps

RSK 280D | 159257



- Back draught shutter for tube fitting
- Sheet steel, powder coated
- Aluminum flaps
- Integrated gasket

SDF 280 | 172913



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

SDS 280 | 169608



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



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ELECTRICAL ACCESSORIES

GS 03 | 107633



- Device switch
- $U_{max} = 400 \text{ V}$, $I_{max} = 25 \text{ A}$
- Switching capacity $400 \text{ V } 3\sim = 7,5 \text{ kW}$
- Protection class IP 55

MTP 20 | 128146



- Potentiometer $10 \text{ k}\Omega$
- Switching contact $1\text{A}/250\text{V AC}$ - $2,5\text{A}/12\text{V DC}$
- Max. ambient temperature $50 \text{ }^\circ\text{C}$
- VDE

MTP 30 | 143289



- Stepped potentiometer $10 \text{ k}\Omega$
- Step 1 + 2 settable $10\% - 100\% \text{ Vdc}$
- Step 3 $100\% \text{ Vdc}$
- Supply voltage $+10 \text{ Vdc}$

SEN AIR | 148641



- Airflow and temperature transducer
- Measuring range temperature $0...+50 \text{ }^\circ\text{C}$
- 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 $0-10 \text{ V DC}$ + FC enable + setpoint reached
- Pressure setting by means of decade switch

MTP 50 | 168752



- Potentiometer with multifunction output
- $230 \text{ VAC} \pm 10\% / 50-60 \text{ Hz}$
- Selectable output: $1-10 \text{ VDC}$ / $2-20 \text{ mA}$ / $10-100\% \text{ PWM}$
- Min. and max. output value adjustable



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