

EM 250 EC 02

130491

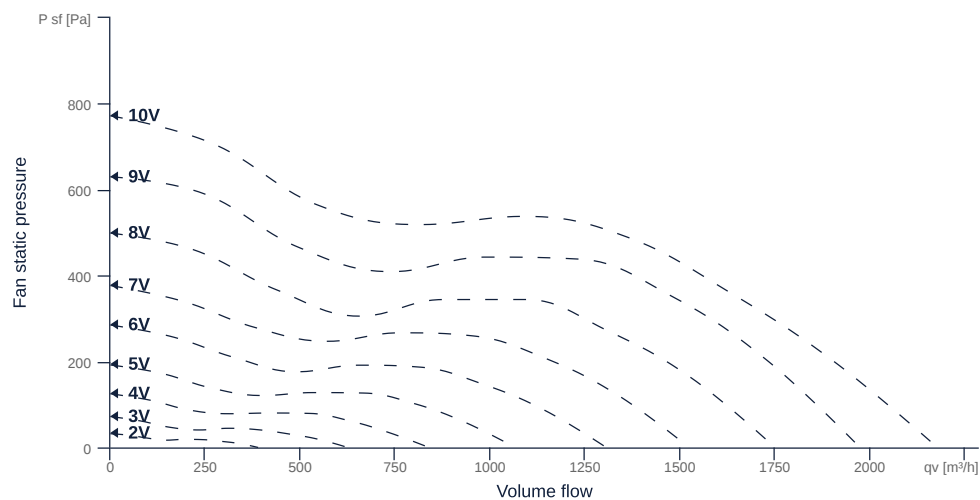
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- Innovative, high-efficiency diagonal fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing made of impact-resistant, reinforced polypropylene
- High efficiency IE5 EC motor, steplessly controllable
- Incl. 1x potentiometer for connection in 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	-		$W \times H_{duct}$
Pipe connection size (DN)	DN250		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	4.1	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)	304	304	W	$P_{ed, max}$
Max. operating current (device)	2.1	2.1	A	$I_{ed, max}$
Max. speed	3880	3880	1/min	n_{max}
Max. stat. efficiency	58	58	%	η_{es}
Max. fan efficiency	62.3	62.3	%	η_e
Max. flowrate	2175	2175	m³/h	Q_v, max
Max. stat pressure	770	770	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		IP30		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 1~		pwrsupmotor
Rated voltage	230	230	V	U _{rated, f1}
Rated current	1.9	1.9	A	I _{rated, f1}
Shaft power	294	294	W	P _{out, f1}
Speed	3811	3811	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	3729	1/min	n _{opt}
Efficiency level	65.4	%	N
Efficiency category	statisch		catefficiency
Input power of the motor at the energy efficiency optimum	0.32	kW	P _{e, opt}
Overall efficiency	81.1	%	η _{ges}
Measurement category	A		meas cat
Fan pressure at energy efficiency optimum	505	Pa	p _{f, opt}
Flowrate at energy efficiency optimum	1316	m³/h	Q _{v, opt}

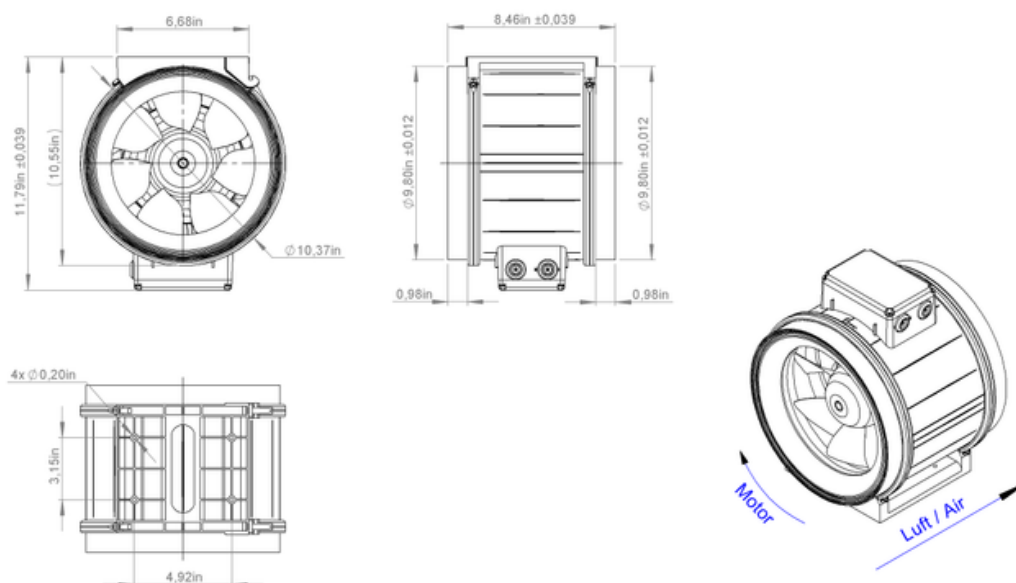
SMOKE EXTRACT DATA

Name	Value	Unit	Formula symbol
Fire resistance class	None		Fclass



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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



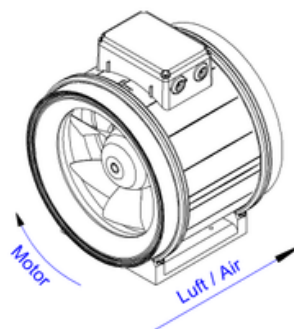
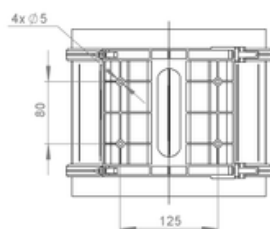
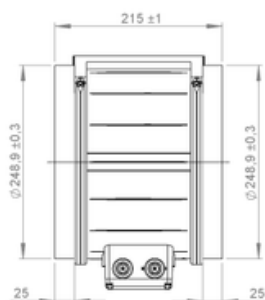
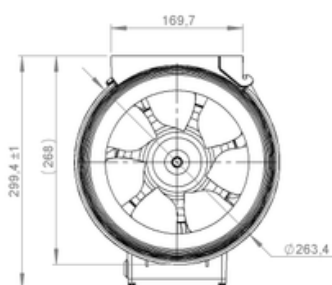
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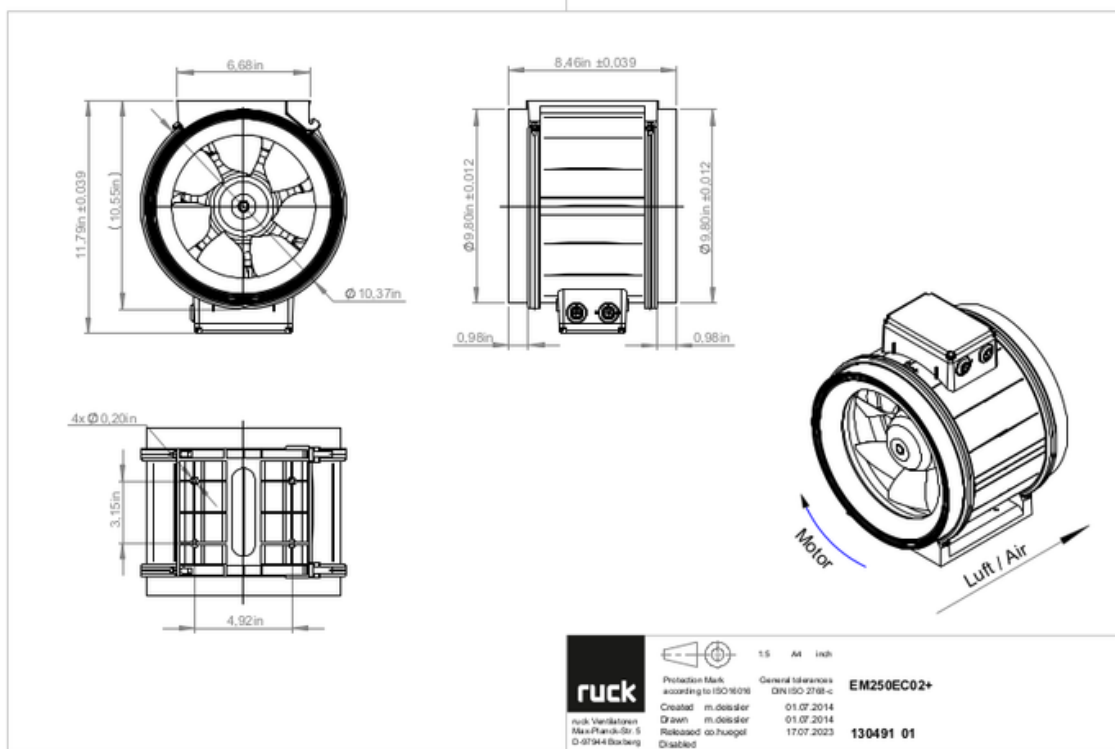
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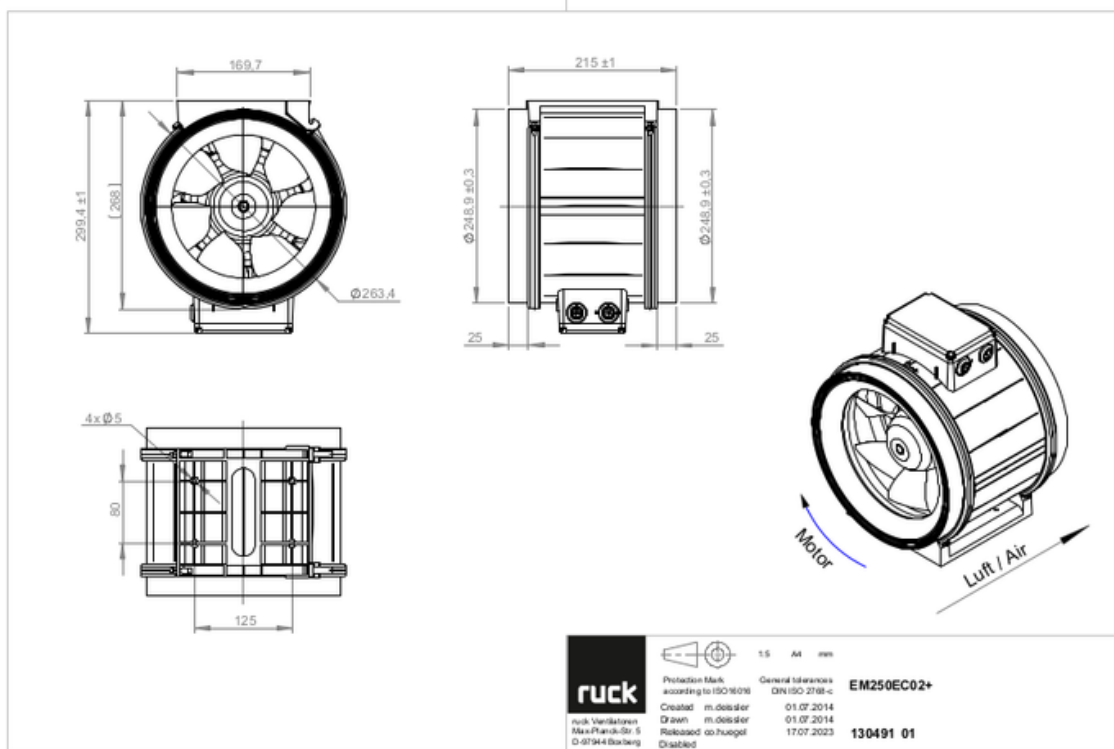


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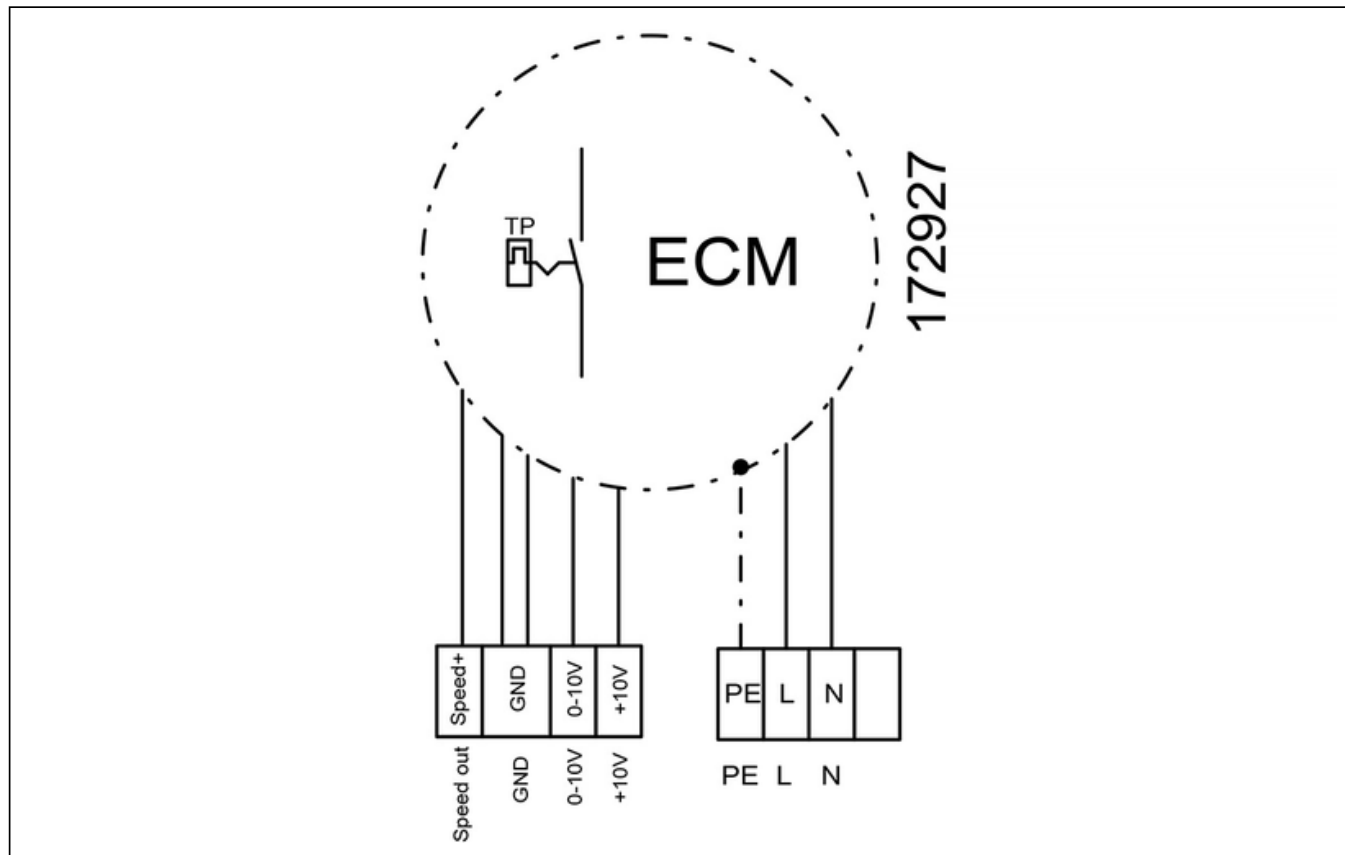
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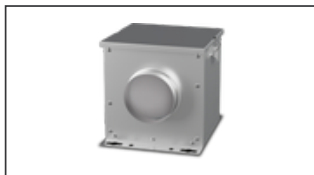
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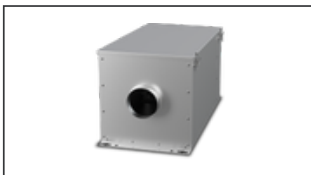
MECHANICAL ACCESSORIES

FV 250 | 112833



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

FT 250 | 112845



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

FTW 250 | 112854



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

RSK 250D | 113488



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

VM 250 | 102651



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

KWR 250 02 | 124066



- Cold water cooler, uninsulated
- Version left
- Connection ND 250
- Galvanized steel sheet with condensate tray

RSK 250 | 102686



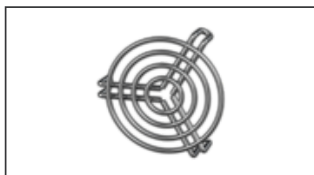
- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps

KWR 250 01 | 124065



- Cold water cooler, uninsulated
- Version right
- Connection ND 250
- Galvanized steel sheet with condensate tray

SG 250 01 | 169588



- Protection grille for tube connection
- Galvanized wire

SDS 250 | 169607



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

SDF 250 | 169644



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



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 $0-10 \text{ V DC} + \text{FC enable} + \text{setpoint reached}$
- 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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