R4D310-CK03-05

AC centrifugal fan

forward curved, single inlet

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R4D310-CK03-05**
Motor	**M4D138-HF**

Phase		3~
Nominal voltage	VAC	400
Connection		Y
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed	min^{-1}	1310
Power input	W	2180
Current draw	A	3.9
Min. back pressure	Pa	0
Max. ambient temperature	°C	55

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive integrated	No
Specific ratio*	1,01

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		37,5	30,3	37,3
Efficiency grade N		44,2	37	44
Power input P_e	kW	0,87		
Air flow q_v	m^3/h	2005		
Pressure increase p_{fs}	Pa	593		
Speed n	min^{-1}	1435		

Data established at point of optimum efficiency

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Technical features

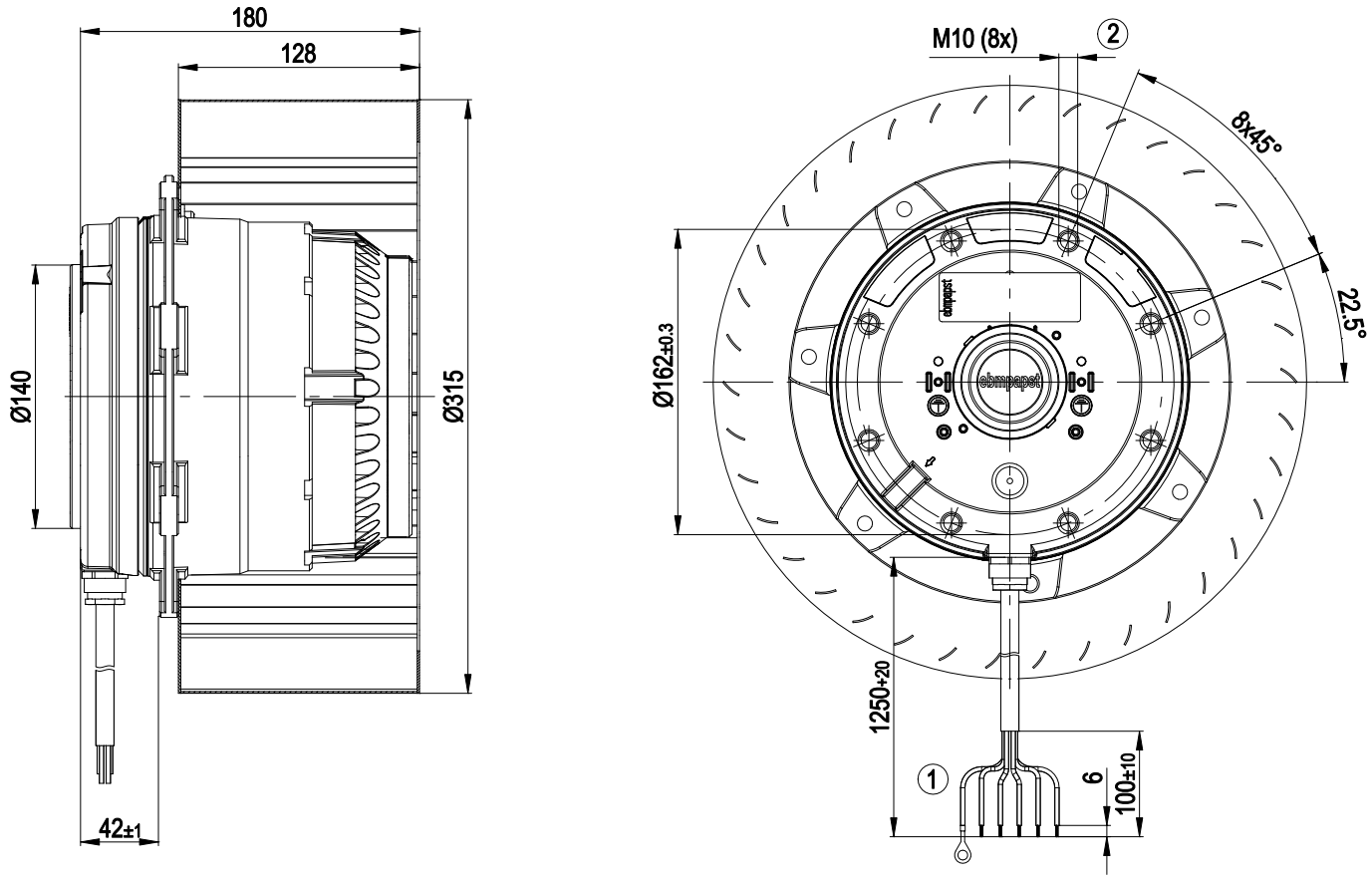
Mass	19.9 kg
Size	310 mm
Surface of rotor	Cast in aluminium
Material of impeller	Sheet steel, hot-galvanised
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	On rotor and stator sides
Operation mode	S1
Motor bearing	Ball bearing
Leakage current	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; EN 60034; CE
Approval	VDE

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Product drawing



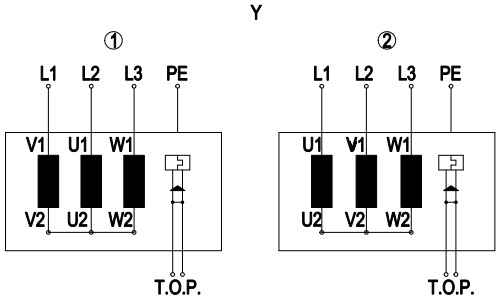
1	Connection line halogen-free, 5x brass lead tips crimped and 1x contact stud crimped
2	Depth of screw max. 18 mm

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Connection screen



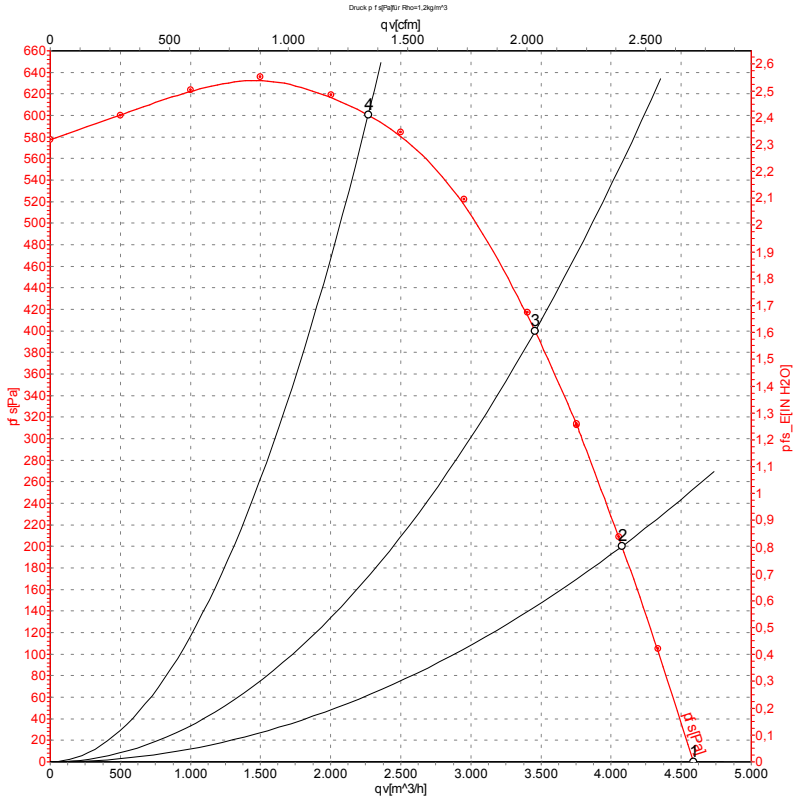
Y	Star connection, three-phase motor
1	Counter-clockwise operation
L1	blue
L2	black
L3	brown
PE	green/yellow
TOP	grey
2	Clockwise operation
L1	black
L2	blue
L3	brown
PE	green/yellow
TOP	grey

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Charts: Air flow 50 Hz Y



Measurement: LU-111165

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	U	f	n	P_e	I	LpA_{in}	LwA_{in}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	Y	400	50	1310	2180	3.90	86	91	4585	0
2	Y	400	50	1340	1857	3.41	84	89	4075	200
3	Y	400	50	1375	1504	2.92	81	87	3455	400
4	Y	400	50	1425	978	2.27	76	82	2270	600

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