R6D355-CI05-01

AC centrifugal fan

forward curved, single inlet

R6D355-CI05-01 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R6D355-CI05-01**
Motor	**M6D110-IA**

Phase		1~	3~
Nominal voltage	VAC	230	400
Connection		Δ	Y
Frequency	Hz	50	50
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min^{-1}	860	860
Power input	W	870	870
Current draw	A	2.96	1.71
Min. back pressure	Pa	250	250
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	55	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	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		38.6	28.7	35.7
Efficiency grade N		46.9	37	44
Power input P_e	kW	0.48		
Air flow q_v	m^3/h	2010		
Pressure increase p_{fs}	Pa	335		
Speed n	min^{-1}	940		

Data established at point of optimum efficiency

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Technical features

Mass	12.8 kg
Size	355 mm
Surface of rotor	Cast in aluminium
Material of impeller	Sheet steel, hot-galvanised
Direction of rotation	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	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) brought out
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	GOST; VDE; UL 1004-1; CSA C22.2 Nr.100

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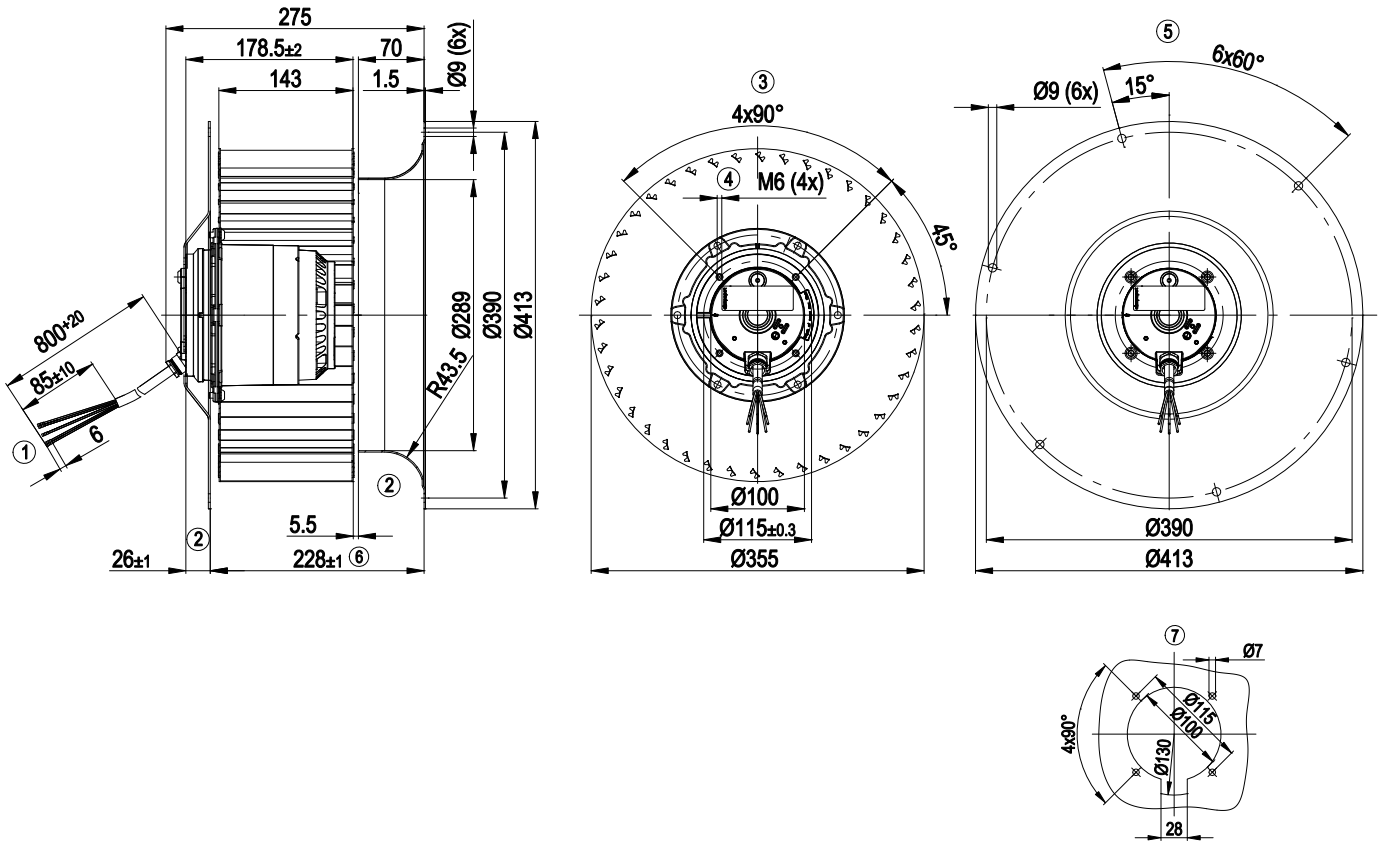
Product drawing



1	Connection line silicone, 9 x brass lead tips crimped
2	Accessory part: Inlet nozzle 35510-2-4013 and flange 10355-2-4017 not included in the standard scope of delivery
3	View without flange
4	Depth of screw max. 12 mm
5	View with flange
6	Housing width
7	Drill pattern for mounting without flange

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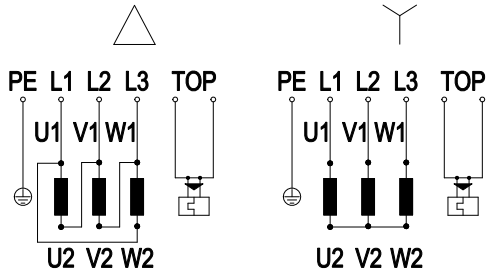
Connection screen



Δ	Delta connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow	TOP	2xgrey
PE	green/yellow				

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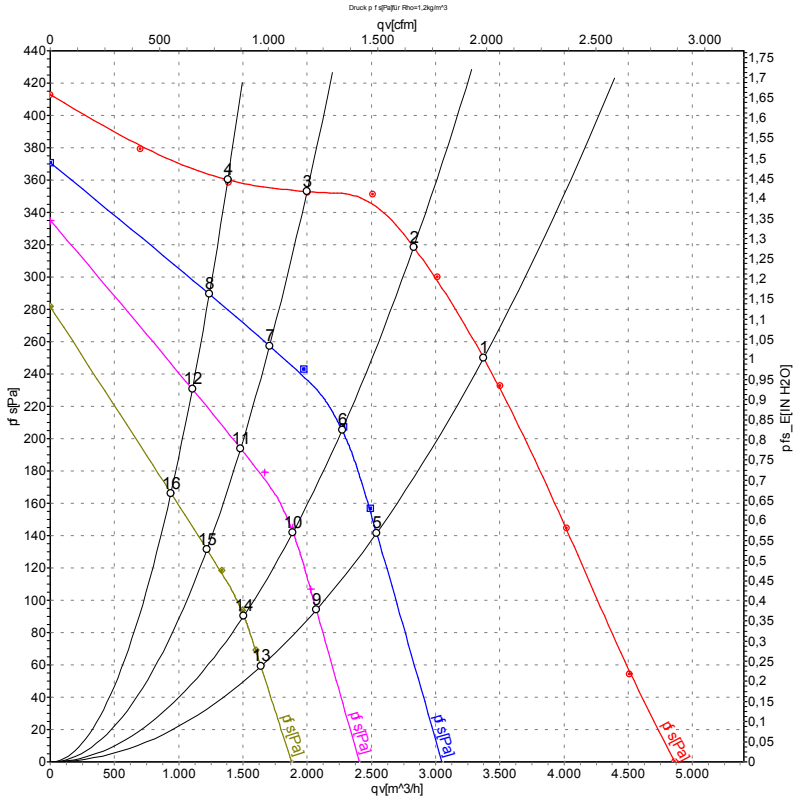
Charts: Air flow 50 Hz



Measurement: LU-104227
Measurement: LU-108887
Measurement: LU-108888
Measurement: LU-108889

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}	LwA_{out}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Y	400	50	860	870	1.71	72	78	81	3375	250
2	Y	400	50	895	734	1.58	70	75	79	2830	320
3	Y	400	50	940	482	1.32	67	73	77	2000	350
4	Y	400	50	950	426	1.29	67	73	76	1380	360
5	Y	230	50	655	537	1.68	64	70	73	2540	143
6	Y	230	50	725	480	1.50	63	69	73	2270	209
7	Y	230	50	790	398	1.27	63	69	73	1705	260
8	Y	230	50	830	341	1.13	64	70	74	1240	291
9	Y	180	50	535	376	1.52	59	65	68	2070	94
10	Y	180	50	605	352	1.42	58	64	68	1890	144
11	Y	180	50	695	308	1.24	60	66	69	1480	197
12	Y	180	50	740	273	1.11	61	67	70	1105	232
13	Y	140	50	430	245	1.30	52	59	62	1640	59
14	Y	140	50	490	236	1.24	53	59	61	1505	91
15	Y	140	50	570	219	1.15	54	61	63	1220	132
16	Y	140	50	625	202	1.06	56	63	65	940	167

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
LwA_{out} = Sound power level outlet side · qv = Air flow · p_{fs} = Pressure increase