

R4E280-CI01-01

AC centrifugal fan

forward curved, single inlet

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Nominal data

Type	R4E280-CI01-01		
Motor	M4E110-IA		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min ⁻¹	1230	1410
Power input	W	1050	1170
Current draw	A	4.75	5.13
Motor capacitor	µF	16	16
Capacitor voltage	VDB	450	450
Min. back pressure	Pa	100	350
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	50

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*	1.01

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	32.5	29.1	36.1
Efficiency grade N		40.4	37	44
Power input P_e	kW	0.57		
Air flow q_v	m ³ /h	1405		
Pressure increase p_{fs}	Pa	483		
Speed n	min ⁻¹	1415		

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

LU-75447



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Technical features

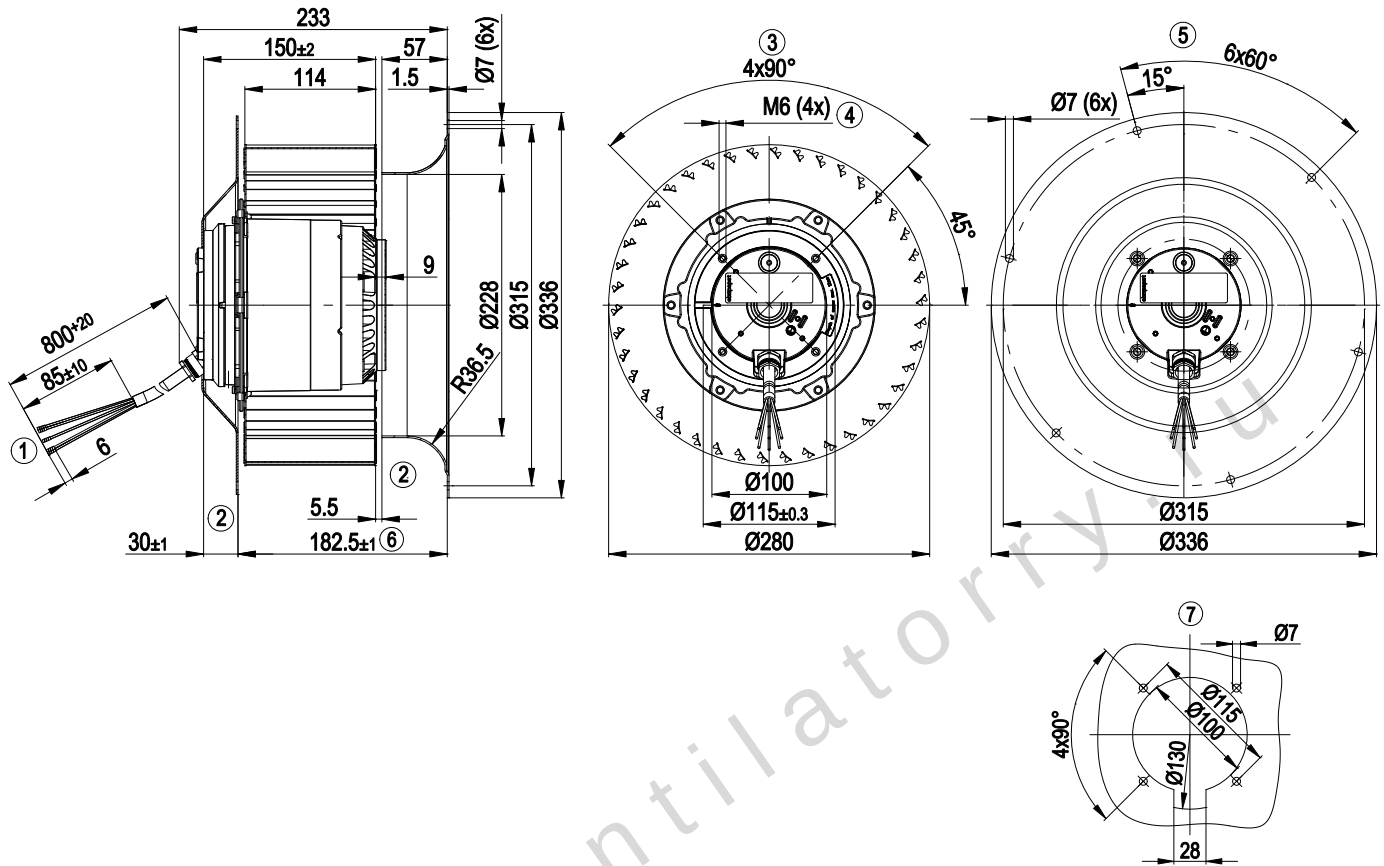
Mass	12 kg
Size	280 mm
Surface of rotor	Cast in aluminium
Material of impeller	Sheet steel, hot-dip galvanised
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible 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	CSA C22.2 Nr.100; EAC; UL 1004-1; VDE

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Product drawing



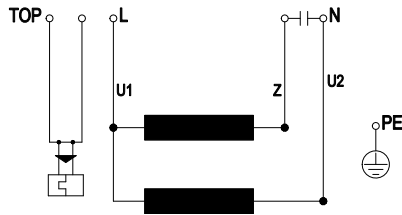
1	Connection line silicone, 6 x brass lead tips crimped
2	Accessory part: Inlet nozzle 28010-2-4013 and flange 10280-2-4017 not included in the standard scope of delivery
3	View without flange
4	Depth of screw max. 12 mm
5	View with flange
6	Housing width
7	Drill pattern for mounting without flange

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Connection screen



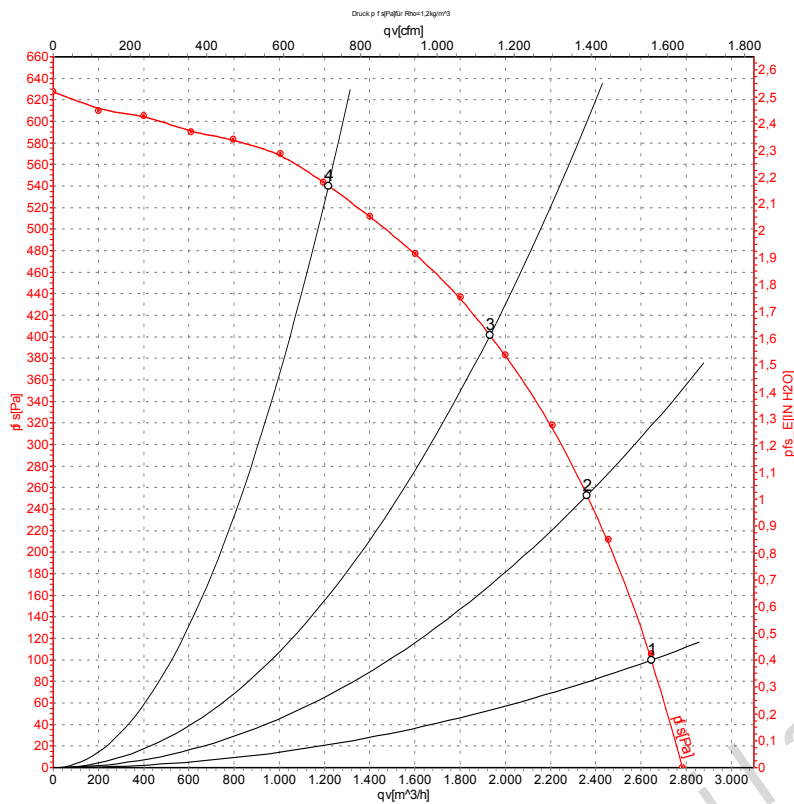
TOP	2 x grey	U1	blue	Z	brown
U2	black	PE	green / yellow		

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Charts: Air flow 50 Hz



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

	U	f	n	P _e	I	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa
1	230	50	1230	1050	4.75	2645	100
2	230	50	1305	911	4.04	2360	250
3	230	50	1370	735	3.21	1930	400
4	230	50	1425	538	2.35	1215	540

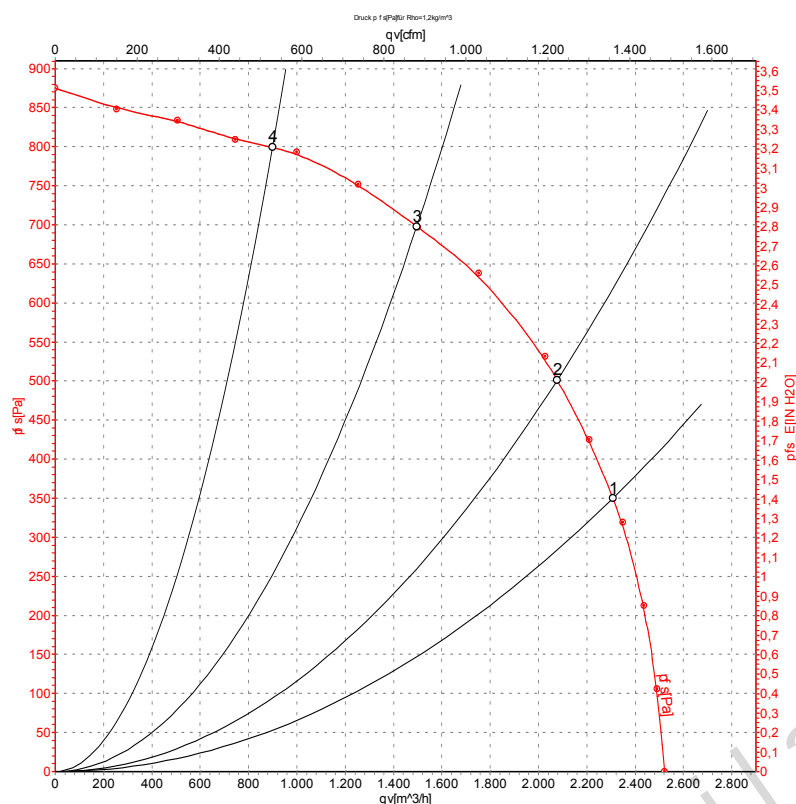
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



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

	U	f	n	P _e	I	LwA _{in}	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	m³/h	Pa
1	230	60	1410	1170	5.13	84	2310	350
2	230	60	1510	1090	4.72	84	2075	500
3	230	60	1630	920	4.00	83	1495	700
4	230	60	1690	780	3.52	84	900	800

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