R6E450-RG01-05

AC centrifugal fan - RadiCal

backward-curved, single-intake

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Nominal data

Type	**R6E450-RG01-05**	
Motor	**M6E110-EF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		-
Speed (rpm)	min^{-1}	940
Power consumption	W	285
Current draw	A	1.35
Capacitor	µF	8
Capacitor voltage	VDB	450
Capacitor standard		S0 (CE)
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	60
Starting current	A	4.0

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

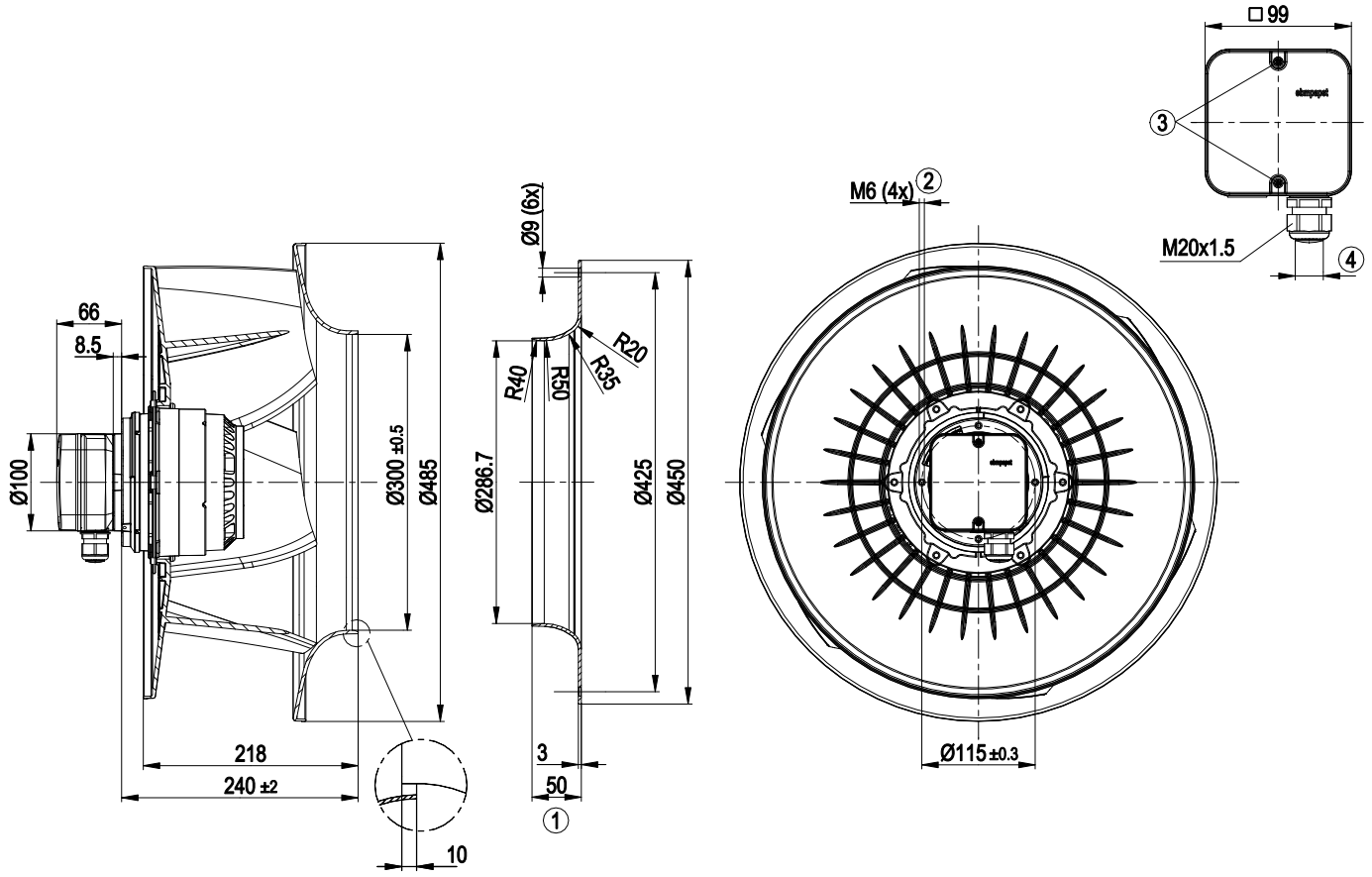
Weight	10 kg
Fan size	450 mm
Rotor surface	Cast in aluminum
Terminal box material	PC/ABS plastic
Impeller material	PP plastic
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box, capacitor integrated and connected
Motor protection	Thermal overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Conformity with standards	EN 61800-5-1
Approval	CSA C22.2 No. 100; VDE; EAC; UL 1004-1

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Product drawing



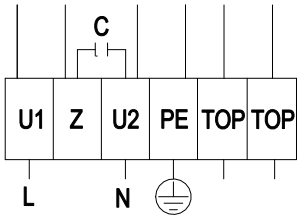
1	Accessory part: inlet ring 45901-2-2943 not included in scope of delivery
2	Max. clearance for screw 12 mm
3	Tightening torque 1.5 ± 0.2 Nm
4	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2 ± 0.3 Nm

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Connection diagram



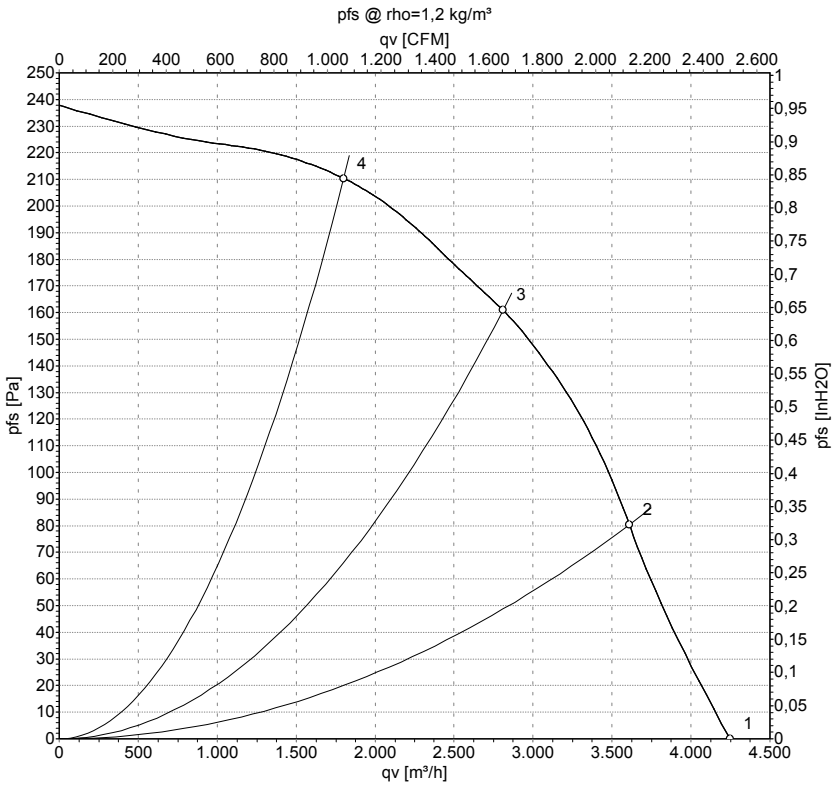
L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow	TOP	gray		

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Curves: Air performance 50 Hz



Measurement: LU-142250-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P_e	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	960	230	1.17	59	68	75	4245	0	2500	0.00
2	230	50	950	262	1.27	56	65	73	3610	80	2125	0.32
3	230	50	940	285	1.35	53	62	70	2810	160	1655	0.64
4	230	50	945	272	1.30	54	63	72	1800	210	1060	0.84

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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