AC centrifugal fan

forward-curved, single-intake

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R6D250-CE01-01**
Motor	**M6D110-EF**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	277	400	400	480
Wiring		Δ	Δ	Δ	Y	Y	Y
Frequency	Hz	50	60	60	50	60	60
Method of obtaining data		fa	fa	fa	fa	fa	fa
Valid for approval/standard		-	-	-	-	-	-
Speed (rpm)	min^{-1}	930	1060	1100	930	1060	1100
Power consumption	W	270	380	420	270	380	420
Current draw	A	1.25	1.32	1.39	0.72	0.76	0.8
Min. back pressure	Pa	0	0	0	0	0	0
Min. back pressure	inH2O	0	0	0	0	0	0
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	95	85	85	95	85	85
Starting current	A	4.4	4				

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	8.0 kg
Fan size	250 mm
Rotor surface	Cast in aluminum
Impeller material	Sheet steel, galvanized
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
Motor protection	Thermal overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1
Approval	CSA C22.2 No. 100; UL 1004-1; VDE; EAC

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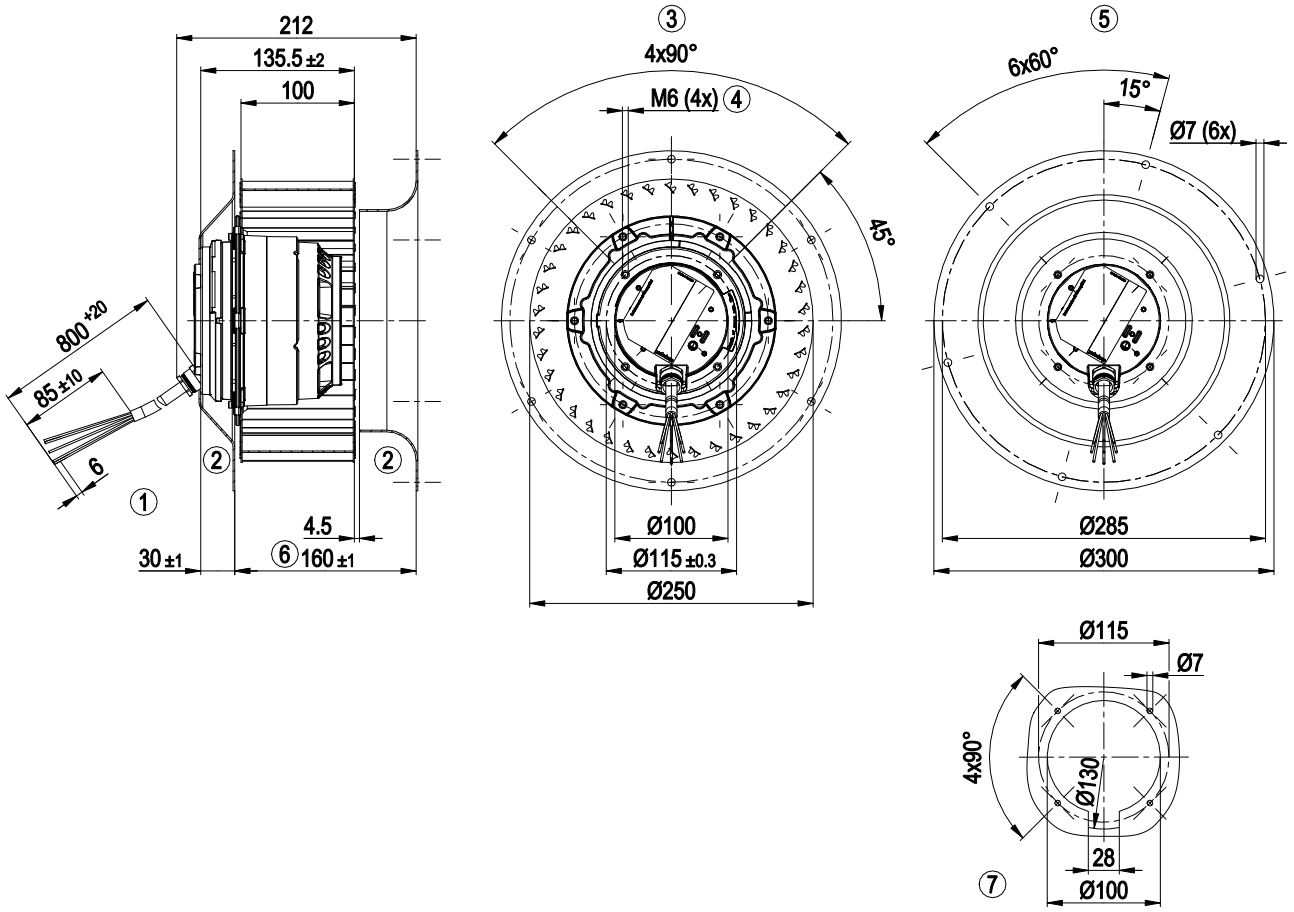
Product drawing



1	Cable silicone 9G 0.75 mm², 9x crimped splices
2	Accessory part: Inlet ring 25010-2-4013 and flange 94250-2-4017 not included in scope of delivery
3	View without flange
4	Max. clearance for screw 12 mm
5	View with flange
6	Housing width
7	Drill pattern for mounting without flange

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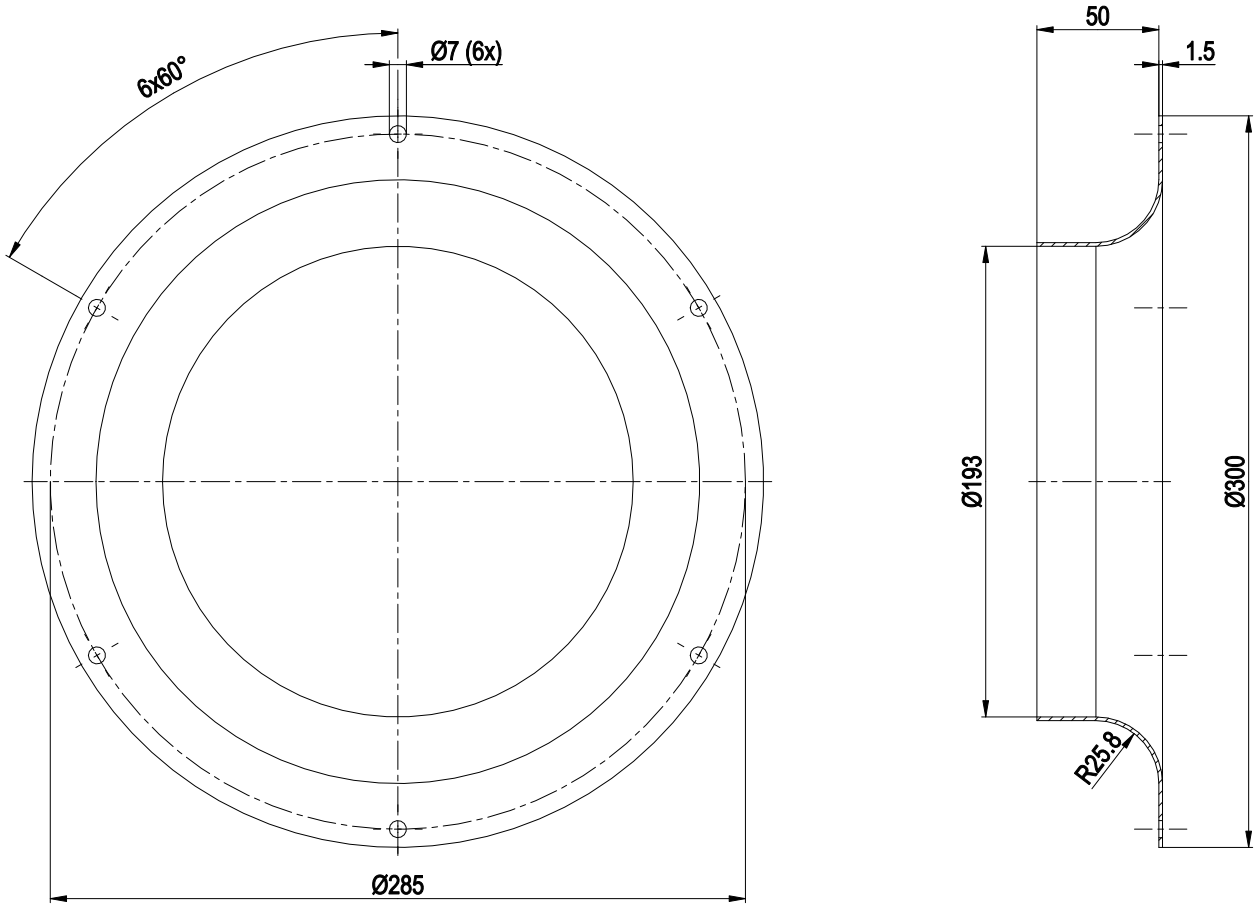
Accessory part



Accessory part: inlet ring 25010-2-4013 not included in scope of delivery

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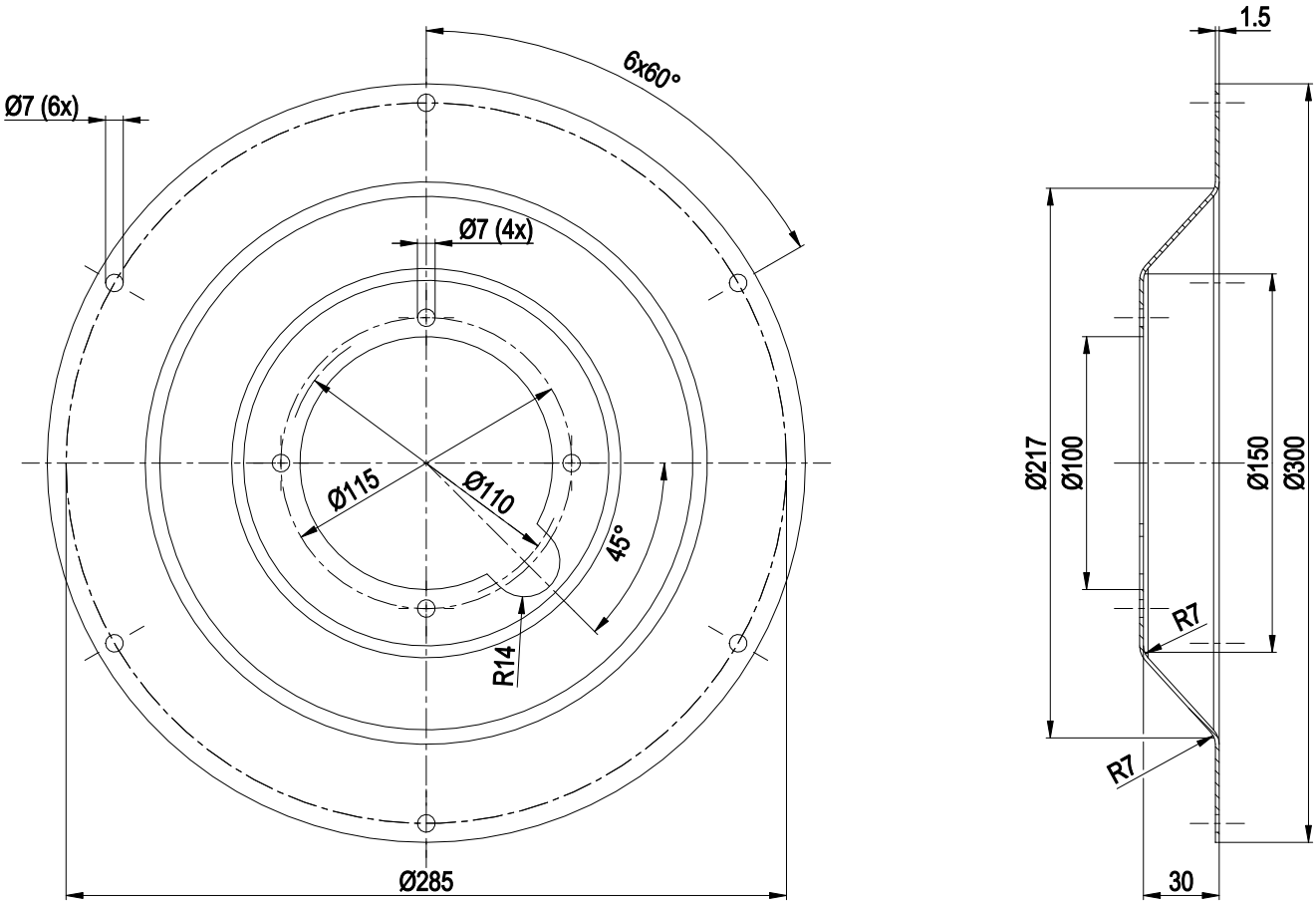

Accessory part: flange 94250-2-4017 not included in scope of delivery

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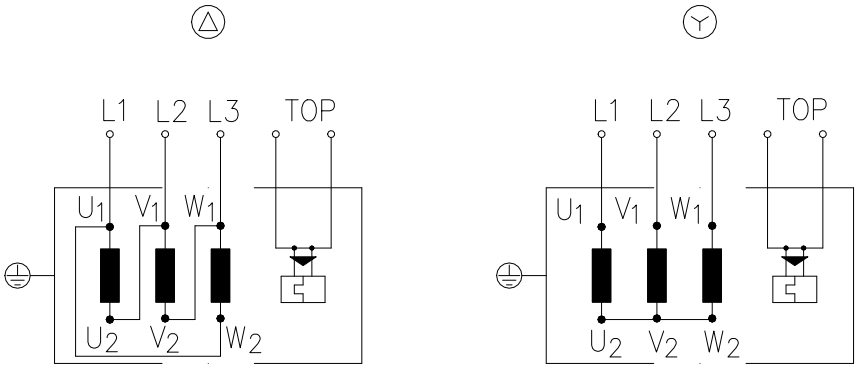
Connection diagram



Change of rotation direction by reversing two phases

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

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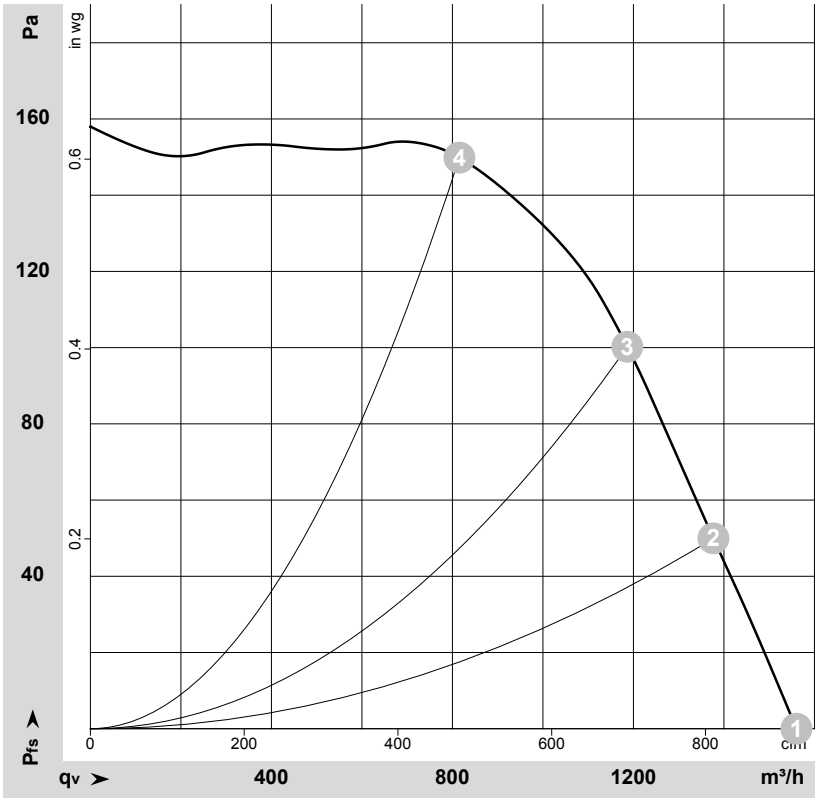
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-74644-1

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

	Wired	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	Y	400	50	930	270	0.72	1560	0	920	0.00
2	Y	400	50	945	229	0.68	1375	50	810	0.20
3	Y	400	50	955	199	0.66	1185	100	700	0.40
4	Y	400	50	970	151	0.64	815	150	480	0.60

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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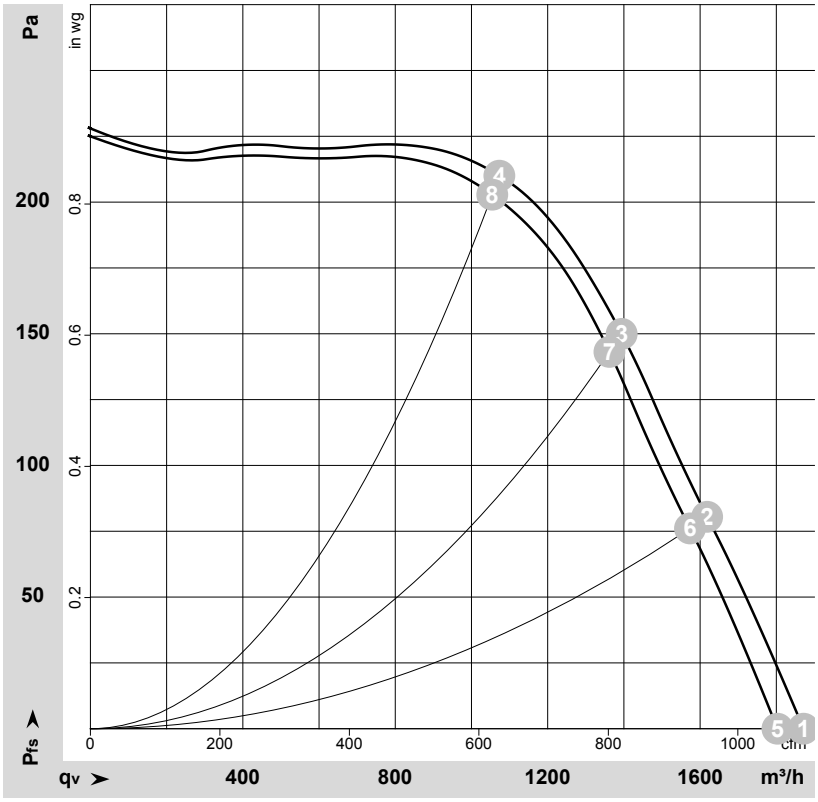
Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-74647-1
Measurement: LU-74645-1

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

	Wired	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	Y	480	60	1100	420	0.80	1870	0	1100	0.00
2	Y	480	60	1120	351	0.75	1620	80	955	0.32
3	Y	480	60	1135	299	0.71	1395	150	820	0.60
4	Y	480	60	1155	239	0.68	1075	210	630	0.84
5	Y	400	60	1060	380	0.76	1805	0	1060	0.00
6	Y	400	60	1090	320	0.68	1575	76	925	0.31
7	Y	400	60	1110	270	0.62	1360	144	800	0.58
8	Y	400	60	1135	209	0.56	1055	203	620	0.81

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase