G2D160-GF22-14

AC centrifugal fan

forward-curved, single-intake

with housing (flange), for rail applications

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Nominal data

Type	**G2D160-GF22-14**
Motor	**M2D068-EC**

Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Δ	Y
Frequency	Hz	50	50
Method of obtaining data		cs	cs
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2550	2250
Power consumption	W	175	90
Current draw	A	0.28	0.14
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Max. ambient temperature	°C	70	70

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	4.2 kg
Size	160 mm
Motor size	68
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized and painted black
Housing material	Die-cast aluminum
Support plate material	Sheet aluminum
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H1
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)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (if protective earth is connected by customer to the housing's connection point)
Conformity with standards	EN 60034-1 (2010); CE

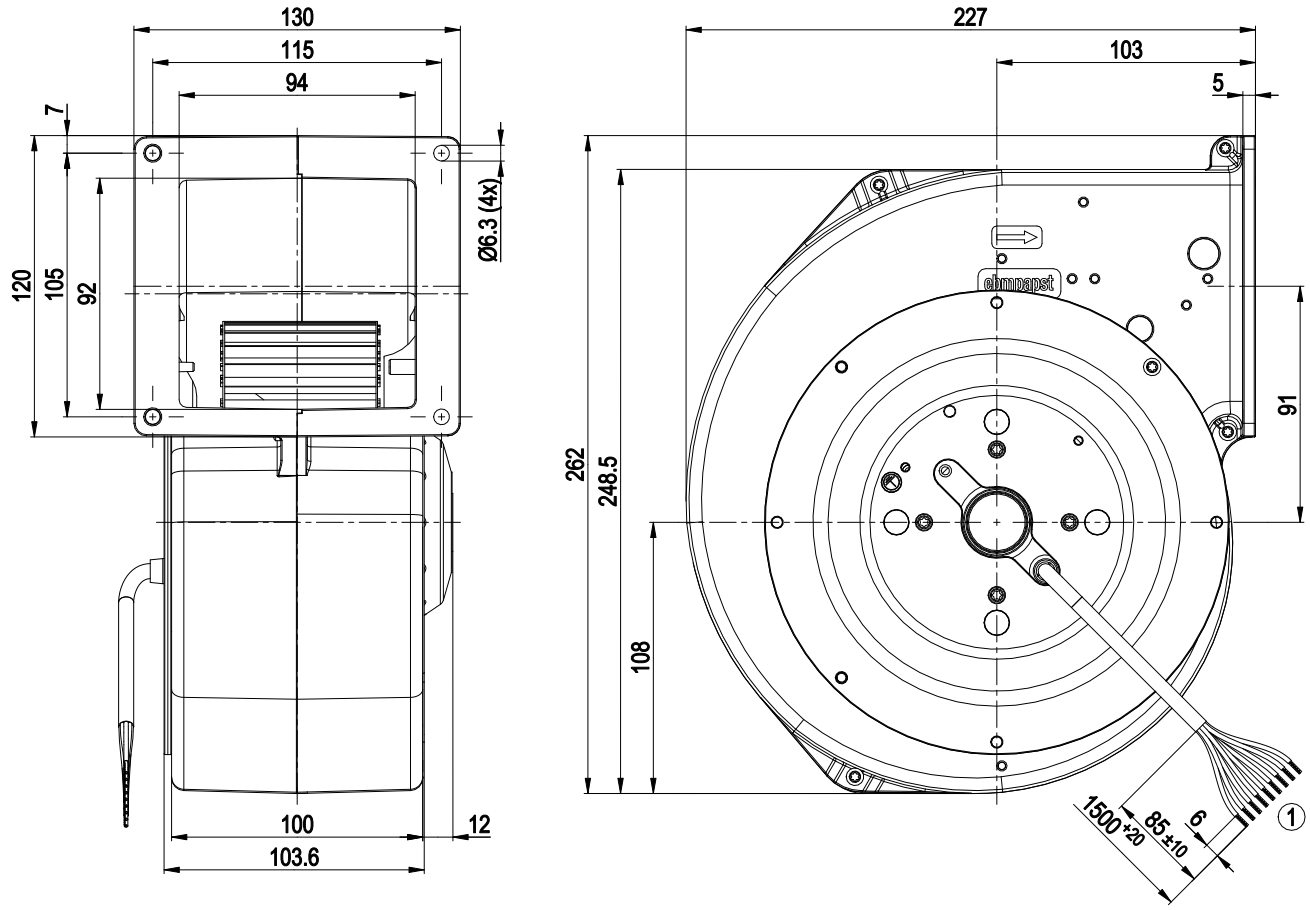
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Product drawing



1	Cable halogen-silicone-free 9G 0.5 mm²
2	9x splice

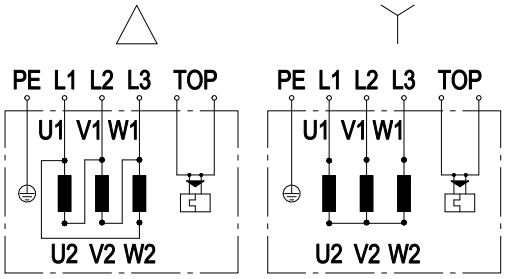
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Connection diagram



Note: Change of rotation direction by reversing two phases

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	2x gray
PE	green/yellow				

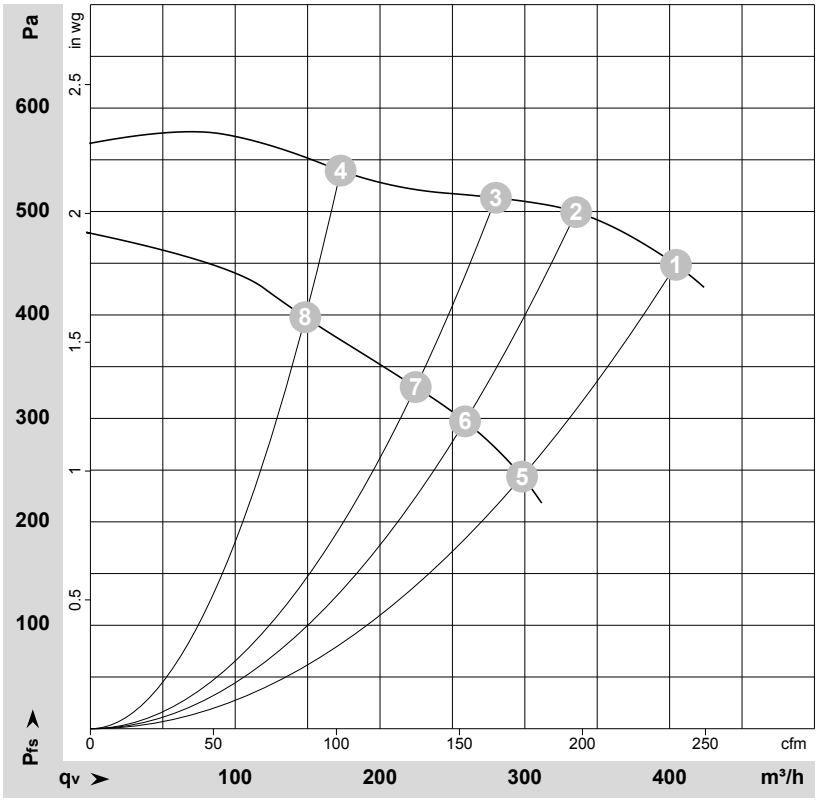
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-40000-1
Measurement: LU-39999-1

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	in. wg
1	Δ	400	50	2550	175	0.28	405	450	240	1.81
2	Δ	400	50	2655	144	0.24	335	500	195	2.01
3	Δ	400	50	2710	124	0.22	280	515	165	2.07
4	Δ	400	50	2800	93	0.18	175	540	100	2.17
5	Y	400	50	1900	115	0.18	300	246	175	0.99
6	Y	400	50	2065	103	0.16	260	300	150	1.20
7	Y	400	50	2185	94	0.15	225	330	130	1.32
8	Y	400	50	2415	75	0.12	150	397	85	1.59

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

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