G4D225-GK10-10

AC centrifugal fan

forward-curved, single-intake

with housing (large flange)

G4D225-GK10-10 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**G4D225-GK10-10**
Motor	**M4D094-FA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		fa	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	1310	1520
Power consumption	W	460	515
Current draw	A	0.85	0.9
Min. back pressure	Pa	0	200
Min. back pressure	inH2O	0	0.8
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	75	60
Starting current	A	2.8	2.7

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

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_e	%	40.3	38.4
02 Measurement category		B	
03 Efficiency category		Total	
04 Efficiency grade N		50.9	49
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.21
09 Air flow q_v	m^3/h	910
09 Pressure increase p_f	Pa	340
10 Speed (rpm) n	min^{-1}	1430
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_f / 100 000 Pa

LU-56990

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Technical description

Weight	11 kg
Fan size	225 mm
Rotor surface	Painted black
Impeller material	Sheet steel, hot-dip galvanized
Housing material	Sheet steel, hot-dip galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F4-1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None
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
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2004); CE
Approval	UL 1004-1; CSA C22.2 No. 100

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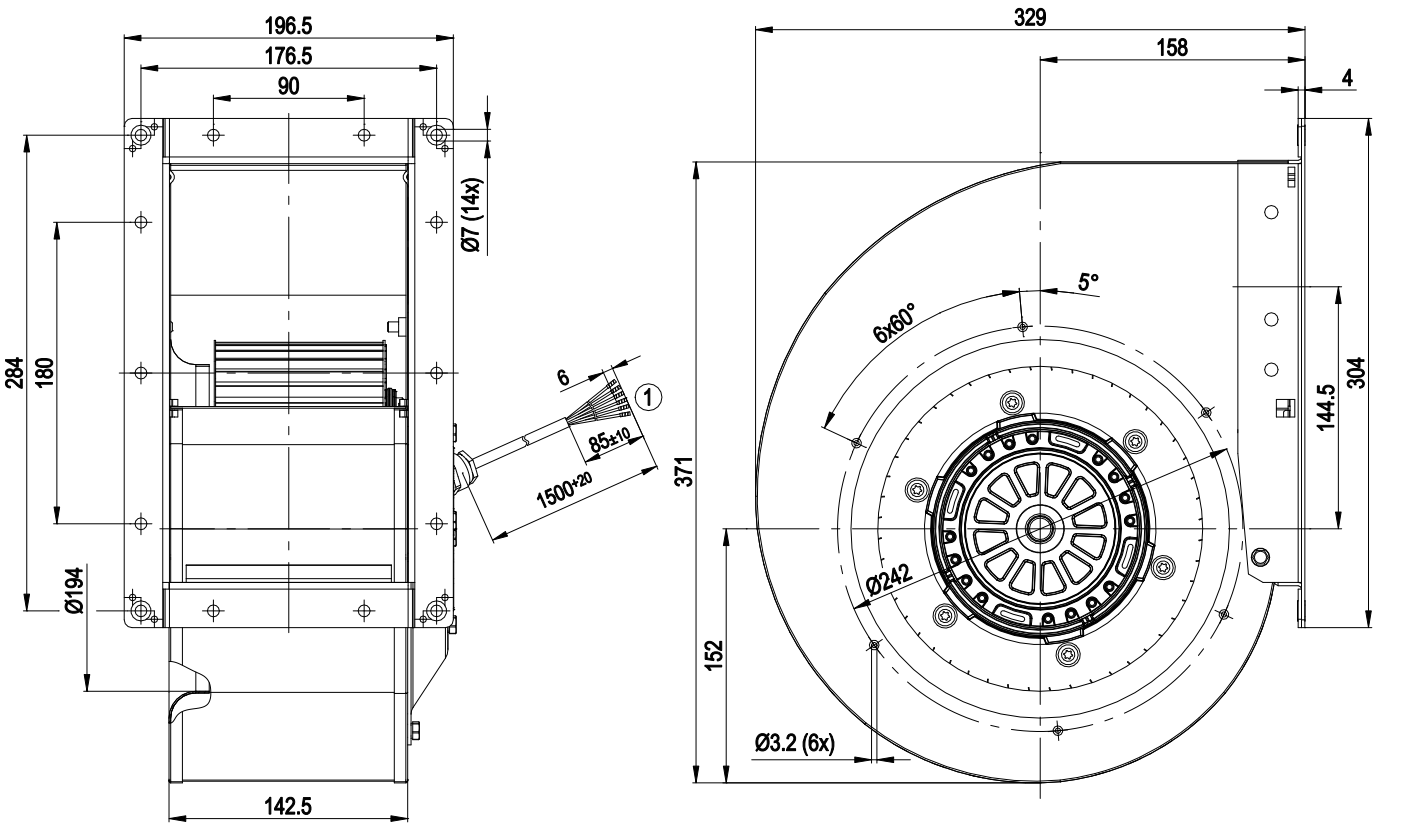
Product drawing



1	Cable AWG18, 6x crimped splices

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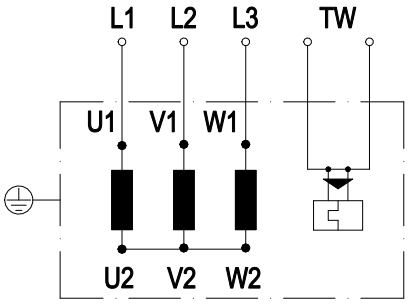
Connection diagram



Note: Change of rotation direction by reversing two phases

Y	Star connection	L1	black	L2	black
L3	black	TOP	2 x black		

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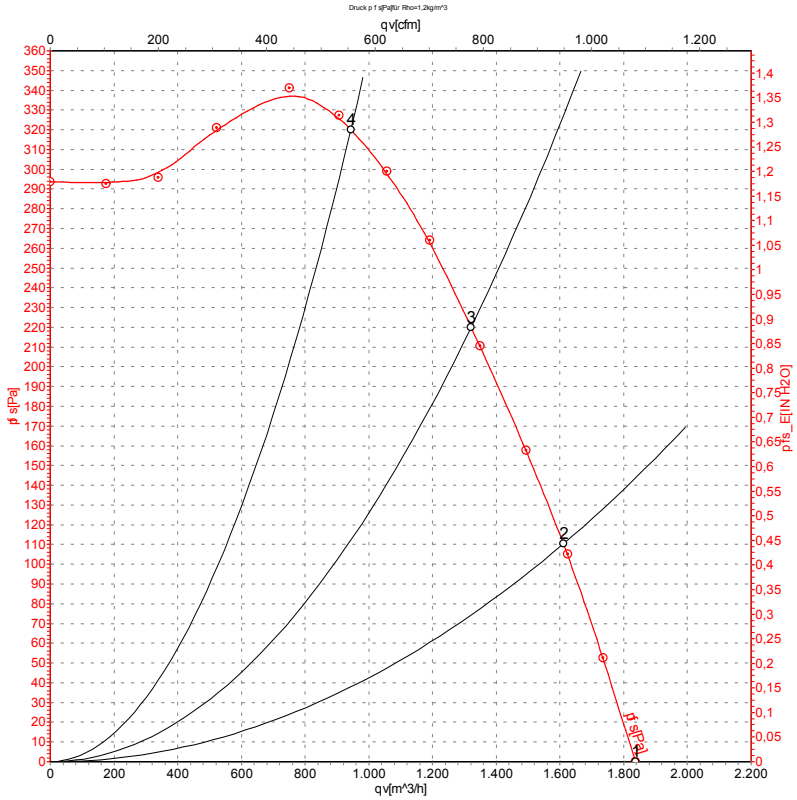
Curves: Air performance 50 Hz Y



Measurement: LU-56990-1

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	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Y	400	50	1310	460	0.85	1835	0	1080	0.00
2	Y	400	50	1350	385	0.76	1610	110	950	0.44
3	Y	400	50	1390	304	0.67	1320	220	780	0.88
4	Y	400	50	1425	219	0.60	945	320	555	1.28

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

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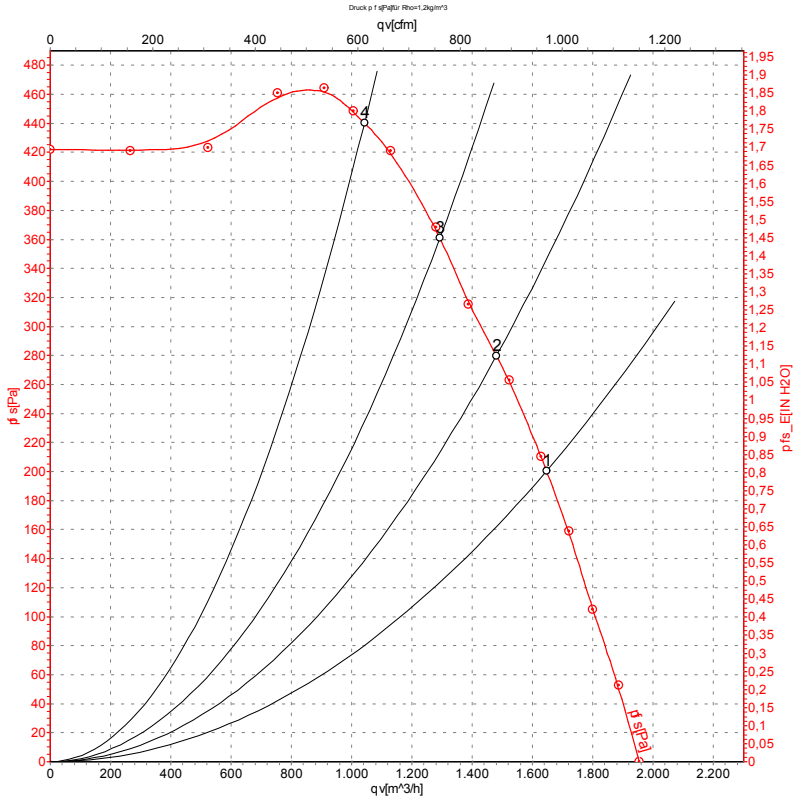
Curves: Air performance 60 Hz Y



Measurement: LU-56991-1

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	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Y	400	60	1520	515	0.90	1645	200	970	0.80
2	Y	400	60	1555	466	0.82	1480	280	870	1.12
3	Y	400	60	1605	390	0.70	1290	360	760	1.45
4	Y	400	60	1655	312	0.60	1040	440	615	1.77

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