G4D280-AI03-05

AC centrifugal fan

forward curved, single inlet

with housing (large flange)

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**G4D280-AI03-05**
Motor	**M4D110-IA**

Phase		3~	3~
Nominal voltage	VAC	230	400
Connection		Δ	Y
Frequency	Hz	50	50
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min^{-1}	1330	1330
Power input	W	1320	1320
Current draw	A	4.75	2.75
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	65	65

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 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		36.1	29	36
Efficiency grade N		44.1	37	44
Power input P_e	kW	0.55		
Air flow q_v	m^3/h	1445		
Pressure increase p_{fs}	Pa	500		
Speed n	min^{-1}	1440		

Data established at point of optimum efficiency

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Technical features

Mass	18.4 kg
Size	280 mm
Surface of rotor	Cast in aluminium
Material of impeller	Sheet steel, hot-galvanised
Housing material	Sheet steel, hot-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
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
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	GOST; VDE

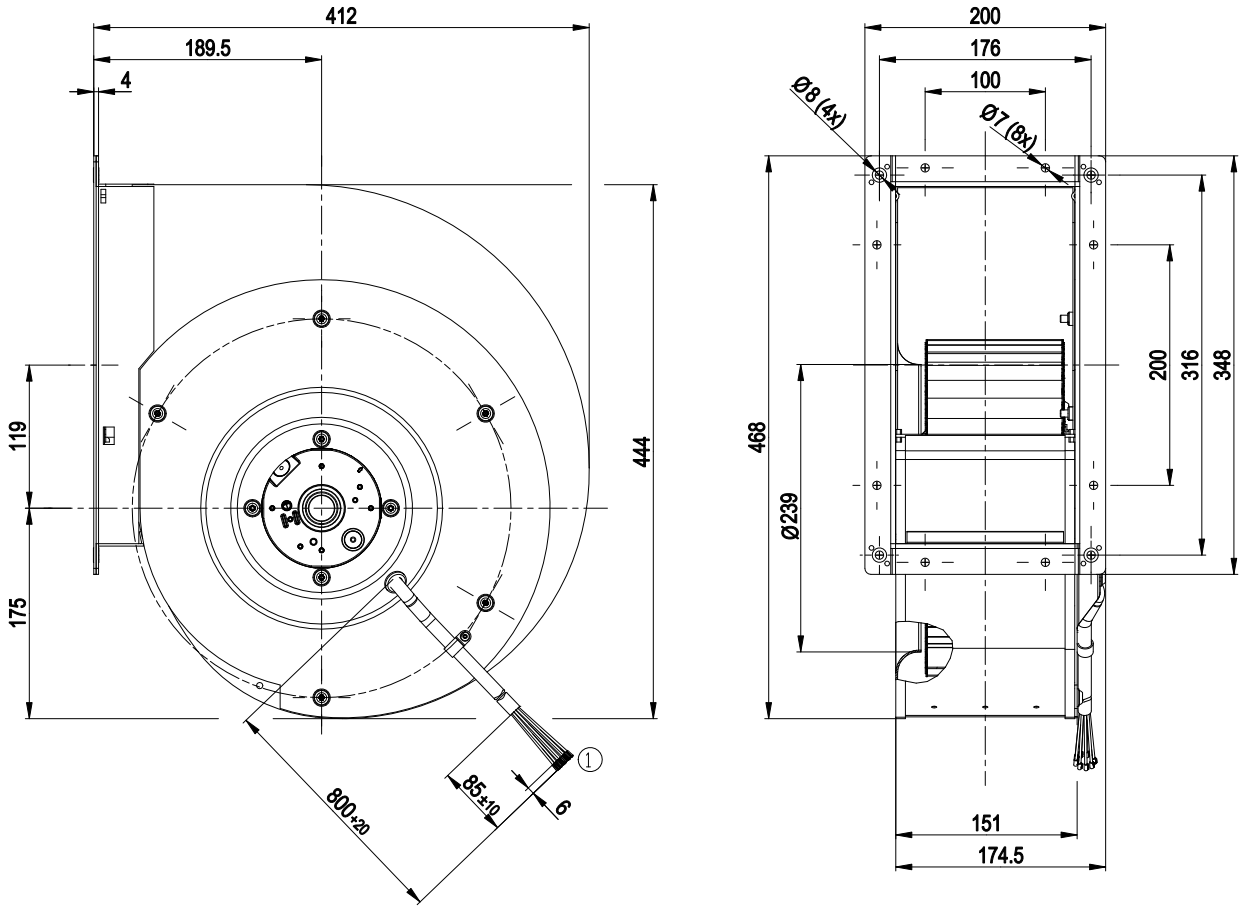
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Product drawing



1	Connection line 3GKW flex 9G 0.75mm², 9x brass lead tips crimped

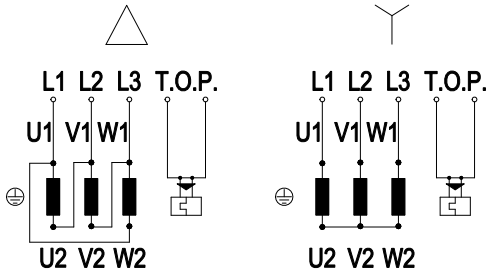
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Connection screen



Note: Direction of rotation changes when two phases are reversed

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	grey

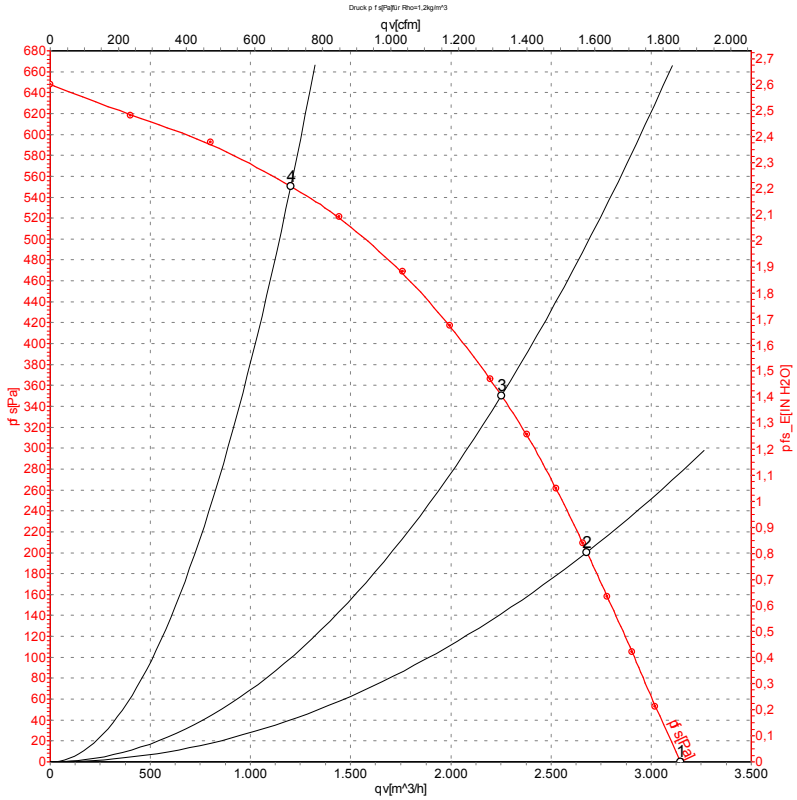
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Charts: Air flow 50 Hz Y



Measurement: LU-110159

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

	Conn.	U	f	n	P_e	I	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Y	400	50	1330	1320	2.75	3160	0
2	Y	400	50	1375	1031	2.27	2680	200
3	Y	400	50	1400	848	2.06	2255	350
4	Y	400	50	1450	497	1.78	1200	550

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

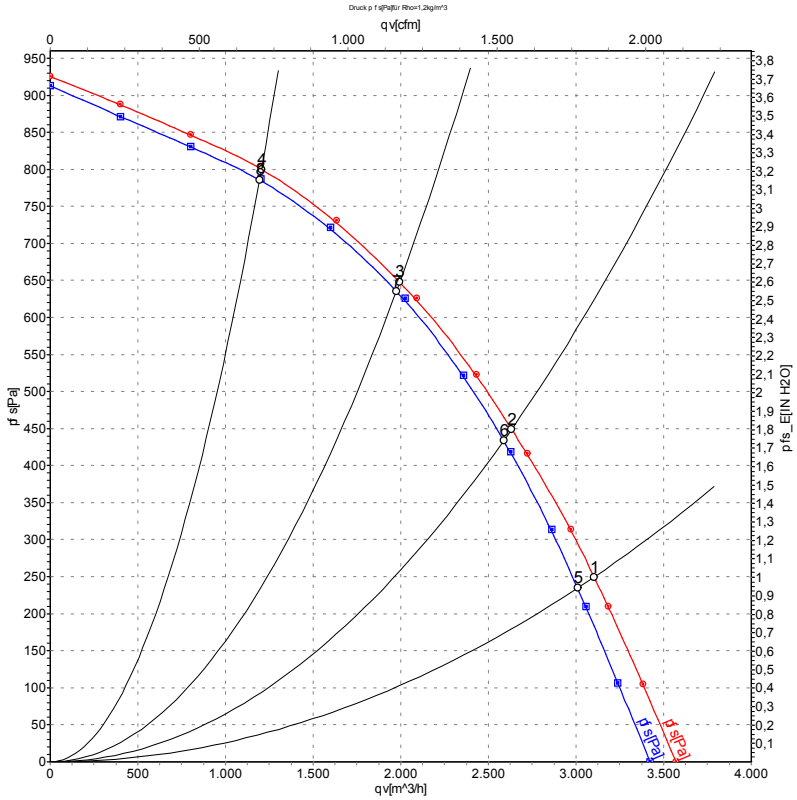
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Charts: Air flow 60 Hz Y



Measurement: LU-110166
Measurement: LU-110165

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

	Conn.	U	f	n	P_e	I	LpA_{in}	LwA_{in}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	Y	480	60	1590	1800	2.96	83	89	3200	250
2	Y	480	60	1650	1382	2.42	81	87	2635	450
3	Y	480	60	1695	1016	2.06	79	85	1995	650
4	Y	480	60	1730	709	1.82	78	84	1205	800
5	Y	400	60	1500	1630	2.90	83	88	3010	235
6	Y	400	60	1580	1303	2.40	81	87	2585	435
7	Y	400	60	1645	982	1.93	79	85	1975	638
8	Y	400	60	1700	661	1.51	78	84	1195	788

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

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