G4D200-BL19-03

AC centrifugal fan

forward-curved, single-intake

with housing (flange), for rail applications

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Amtsgericht (court of registration) Stuttgart · HRA 590344

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**G4D200-BL19-03**
Motor	**M4D074-EI**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400	480	480
Wiring		Δ	Y	Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60	60	60
Method of obtaining data		fa	fa	ml	ml	ml	ml
Valid for approval/standard		-	-	-	-	-	-
Speed (rpm)	min^{-1}	1250	950	1500	1050	1600	1200
Power consumption	W	300	185	295	170	325	220
Current draw	A	0.55	0.31	0.55	0.29	0.55	0.31
Min. back pressure	Pa	0	0	225	100	250	140
Min. back pressure	in. wg	0	0	0.9	0.4	1	0.56
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	65	65	60	60	60	60
Starting current	A	1.5	0.5	1.3	0.45	1.7	0.55

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	7.3 kg
Size	200 mm
Motor size	74
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Inlet nozzle material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H1+
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
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 (with customer connection of protective earth)
Conformity with standards	EN 50155: 2008; EN 61373, Cat. 1B: 2010; EN 45545-2, HL3: 2013 + A1:2015
Approval	EAC

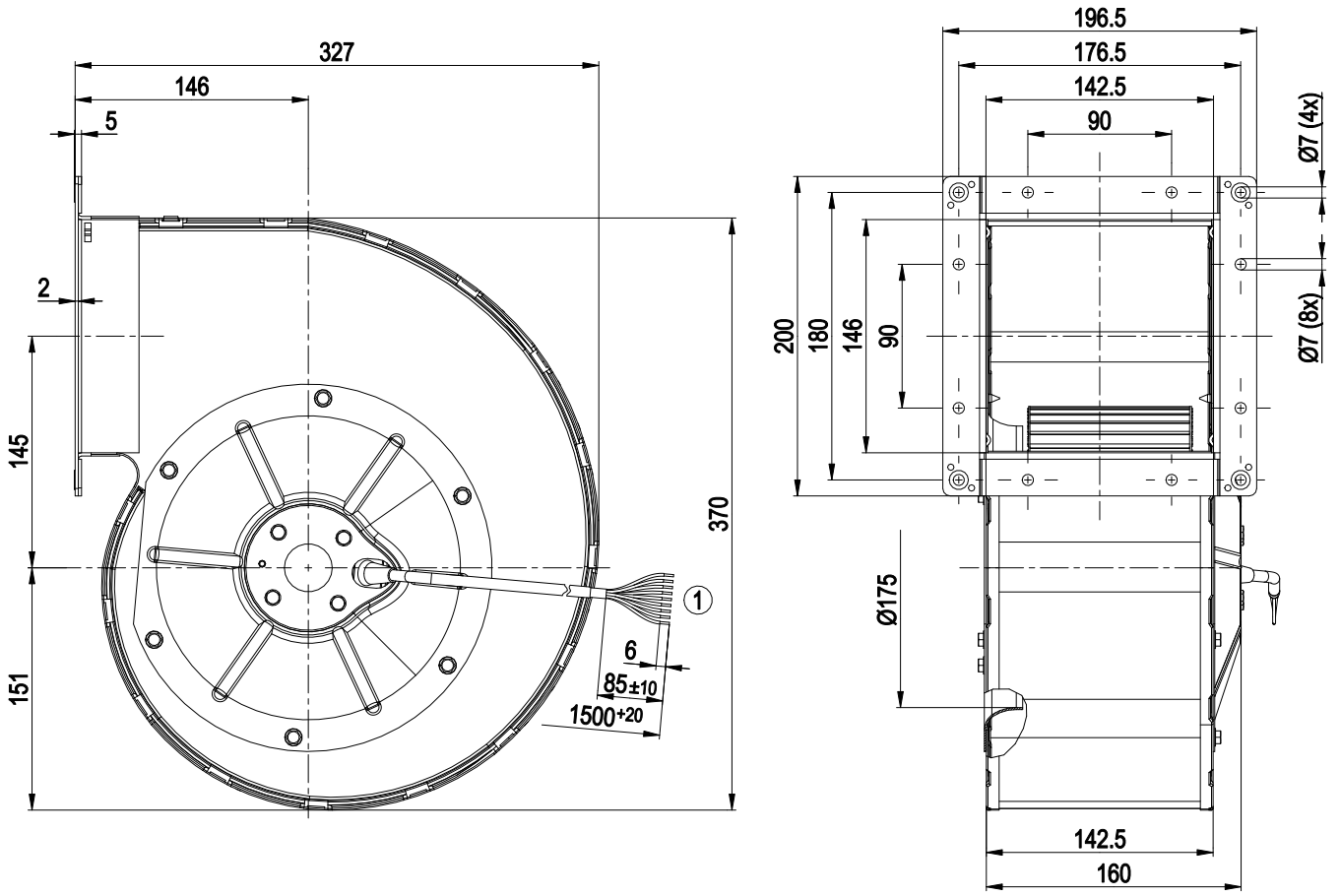
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Product drawing



1	Cable halogen-free, BETAtrans® 3 GKW flex, 9G 0.75 mm²
	9x splice

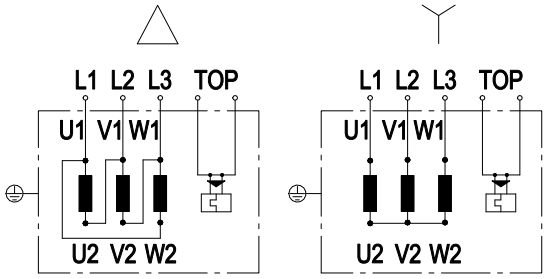
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Connection diagram



	Three-phase motor
Y	Star connection
Δ	Delta connection
L1	= U1 = blue
L2	= V1 = black
L3	= W1 = brown
V2	= green
U2	= white
W2	= yellow
TOP	(thermal overload protector) 2x gray

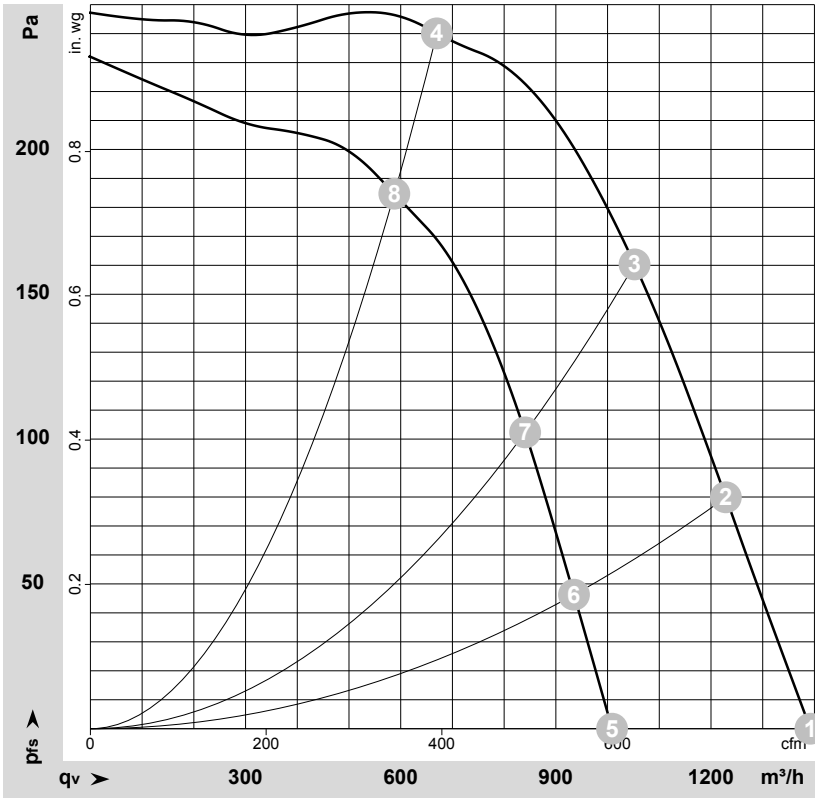
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-192112-1
Measurement: LU-191999-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Δ	400	50	1250	300	0.55	69	74	1390	0	820	0.00
2	Δ	400	50	1325	253	0.48	66	72	1230	80	725	0.32
3	Δ	400	50	1360	215	0.44	64	70	1050	160	620	0.64
4	Δ	400	50	1415	149	0.39	61	67	670	240	395	0.96
5	Y	400	50	950	185	0.31			1010	0	595	0.00
6	Y	400	50	1010	168	0.28			935	47	550	0.19
7	Y	400	50	1090	152	0.25			840	102	495	0.41
8	Y	400	50	1250	109	0.19			590	185	345	0.74

Wired = Wiring · U = Voltage · 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
q_V = Air flow · p_{fs} = Pressure increase

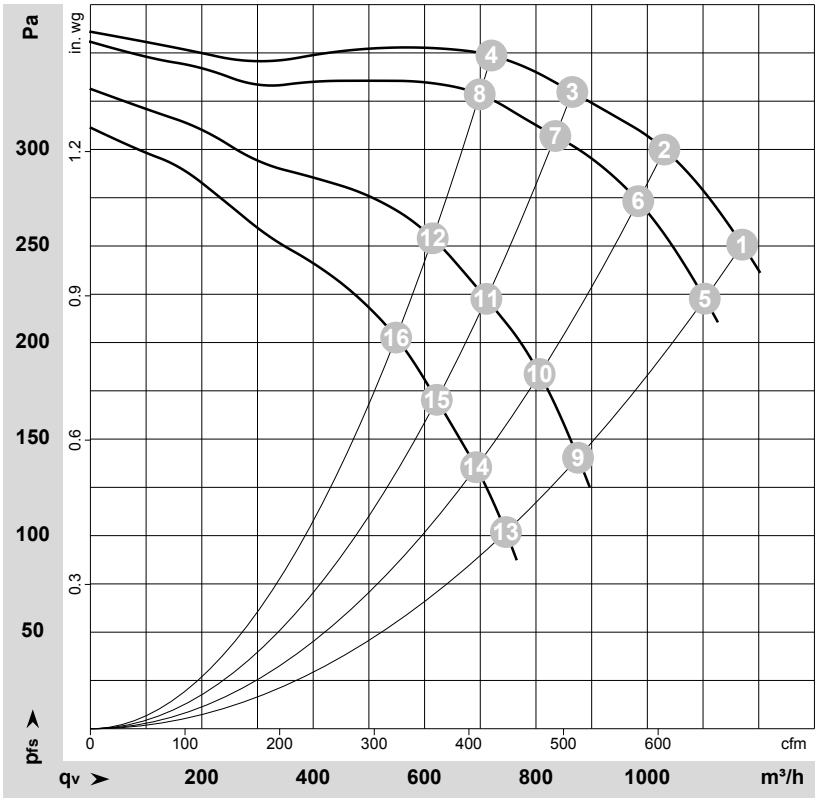
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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-192118-1
Measurement: LU-192116-1
Measurement: LU-192117-1
Measurement: LU-192115-1

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	480	60	1600	325	0.55	1170	250	690	1.00
2	Δ	480	60	1635	288	0.47	1030	300	605	1.20
3	Δ	480	60	1665	246	0.44	865	330	510	1.32
4	Δ	480	60	1690	213	0.41	720	350	425	1.41
5	Δ	400	60	1500	295	0.55	1105	225	650	0.90
6	Δ	400	60	1555	260	0.45	985	274	580	1.10
7	Δ	400	60	1600	224	0.41	835	307	490	1.23
8	Δ	400	60	1640	192	0.36	700	330	410	1.32
9	Y	480	60	1200	220	0.31	875	140	515	0.56
10	Y	480	60	1290	200	0.28	805	187	475	0.75
11	Y	480	60	1375	180	0.25	710	223	420	0.90
12	Y	480	60	1445	160	0.23	615	255	360	1.02
13	Y	400	60	1050	170	0.29	745	100	440	0.40
14	Y	400	60	1115	162	0.28	695	136	410	0.55
15	Y	400	60	1215	151	0.26	620	170	365	0.68
16	Y	400	60	1300	138	0.23	550	204	325	0.82

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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