D2D133-DB40-03

AC centrifugal fan

forward-curved, dual-intake

with housing (flange), for rail applications

Nominal data

Type	**D2D133-DB40-03**
Motor	**M2D068-DF**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400
Wiring		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		-	-	-	-
Speed (rpm)	min^{-1}	2250	1550	2350	1450
Power consumption	W	195	105	240	115
Current draw	A	0.31	0.16	0.37	0.18
Min. back pressure	Pa	210	95	230	85
Min. back pressure	in. wg	0.84	0.38	0.92	0.34
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	70	70	50	50
Starting current	A	0.75	0.26	0.7	0.25

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	0.001 kg
Size	133 mm
Motor size	68
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Housing 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+
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; (sealed)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
Conformity with standards	EN 50155: 2008; EN 61373, Cat. 1B: 2010; EN 45545-2, HL3: 2013 + A1:2015
Approval	EAC

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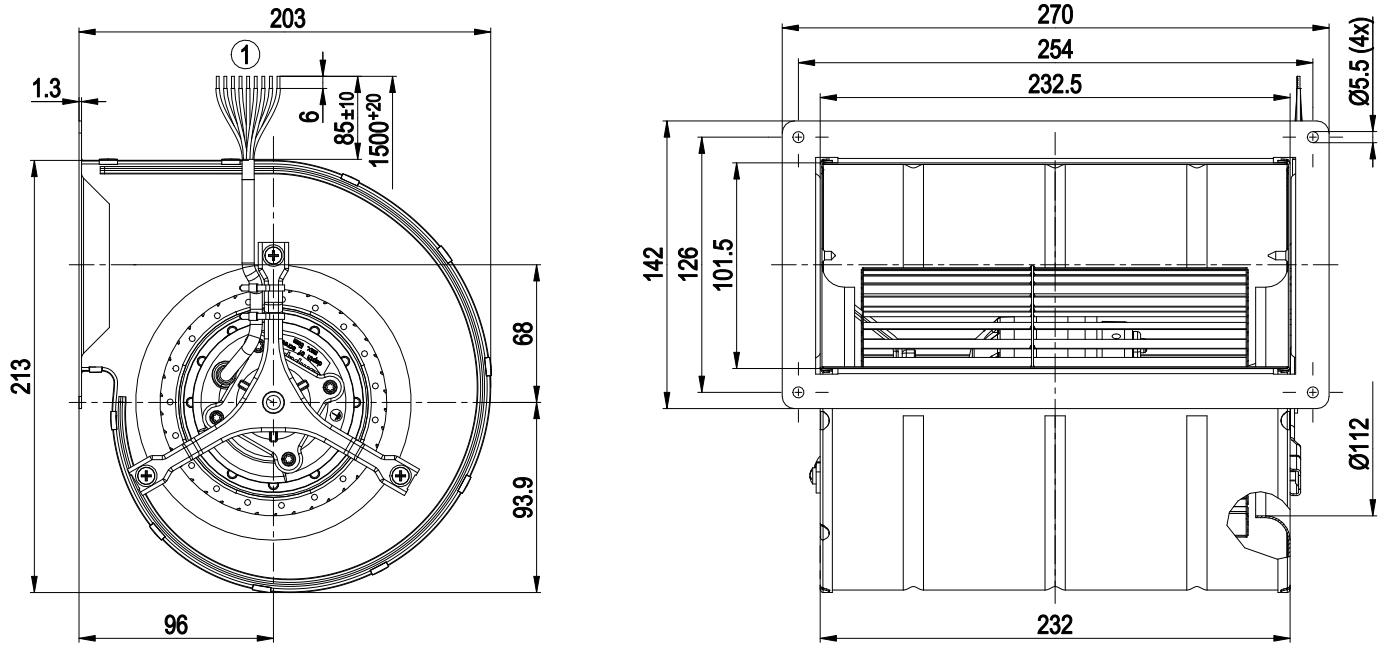
Product drawing



1	Cable halogen-free, BETAtrans® GKW flex R, 9G 0.5 mm²
	9x splice

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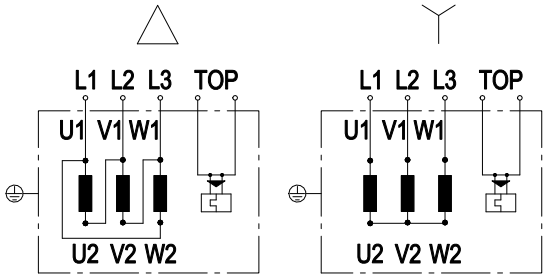
Connection diagram



	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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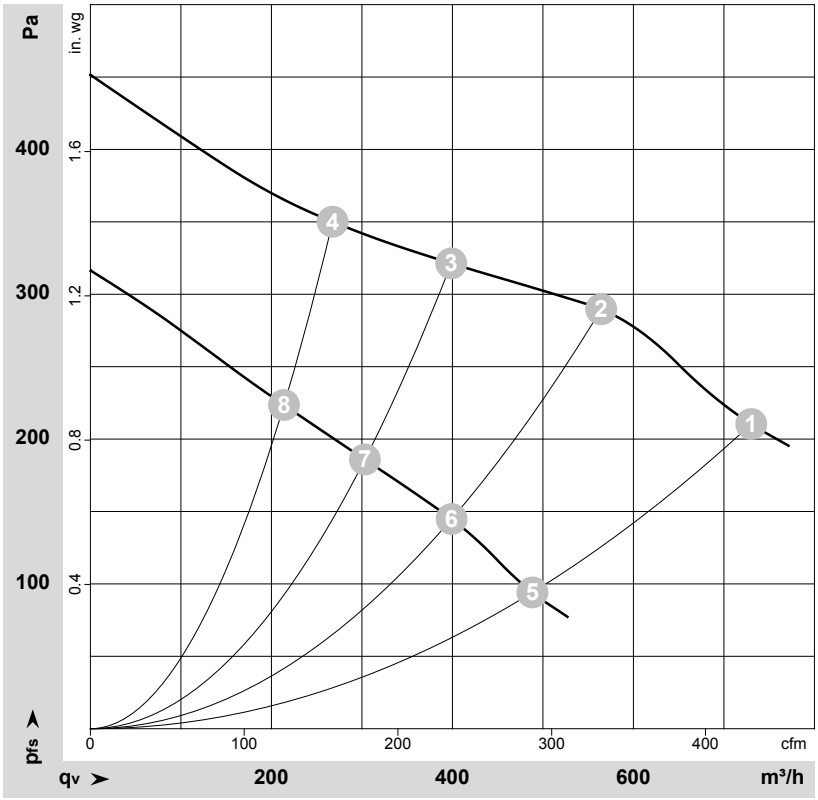
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-192816-1
Measurement: LU-193078-1

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	2250	195	0.31	59	70	730	210	430	0.84
2	Δ	400	50	2470	154	0.25	58	69	565	290	330	1.16
3	Δ	400	50	2615	122	0.21	58	69	400	320	235	1.28
4	Δ	400	50	2695	101	0.19	59	70	270	350	160	1.41
5	Y	400	50	1550	105	0.16	49	60	490	93	285	0.37
6	Y	400	50	1765	95	0.15	50	61	400	145	235	0.58
7	Y	400	50	2000	82	0.13	52	63	305	186	180	0.75
8	Y	400	50	2165	73	0.11	54	65	215	224	125	0.90

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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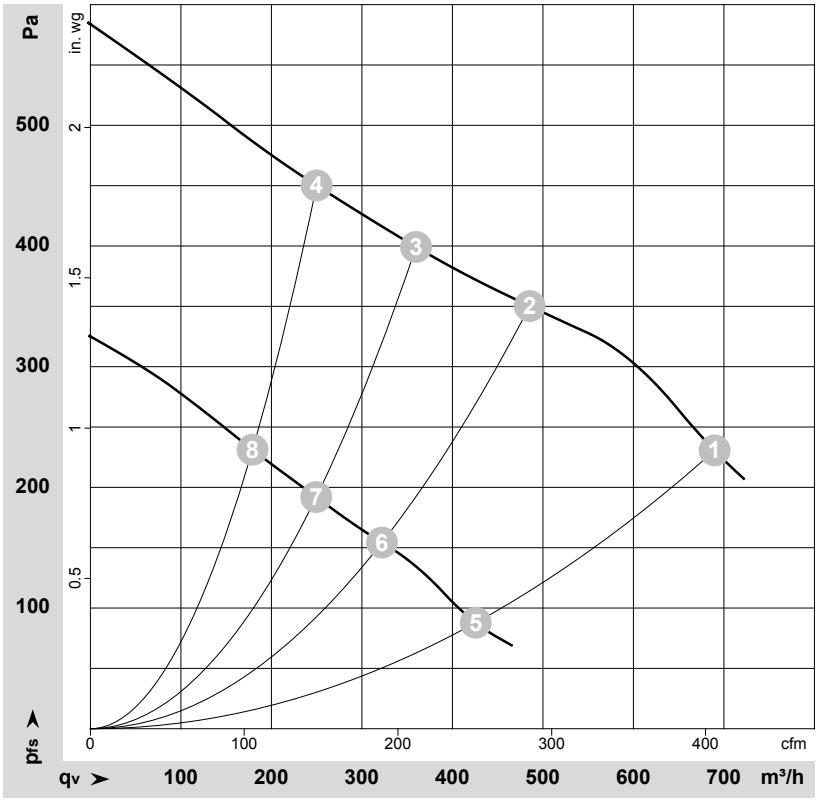
Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-193079-1
Measurement: LU-193080-1

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	60	2350	240	0.37	59	70	690	230	405	0.92
2	Δ	400	60	2725	186	0.29	61	72	485	350	285	1.41
3	Δ	400	60	2905	158	0.25	61	72	360	400	210	1.61
4	Δ	400	60	3025	138	0.22	62	73	250	450	145	1.81
5	Y	400	60	1450	115	0.18	47	58	425	85	250	0.34
6	Y	400	60	1820	103	0.16	50	61	320	154	190	0.62
7	Y	400	60	2025	95	0.15	52	63	250	192	145	0.77
8	Y	400	60	2185	89	0.14	54	65	180	231	105	0.93

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