S4D300-ET28-09

AC axial fan - HyBlade

sickle-shaped blades (S series), single-intake

with guard grille

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**S4D300-ET28-09**						
Motor	**M4D068-DF**						
Phase		3~	1~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	230	400	400	460
Wiring		Δ	Δ	Δ	Y	Y	Y
Frequency	Hz	50	50	60	50	60	60
Method of obtaining data		ml	ml	ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE	CE	CE
Speed (rpm)	min^{-1}	1400	1380	1550	1400	1550	1630
Power consumption	W	72	72	100	72	100	105
Current draw	A	0.32	0.32	0.32	0.18	0.18	0.19
Capacitor	µF		4				
Capacitor voltage	VDB		250				
Capacitor standard			S0 (CE)				
Max. back pressure	Pa	65	65	85	65	85	90
Max. back pressure	in. wg	0.26	0.26	0.34	0.26	0.34	0.36
Min. ambient temperature	°C	-25	-25	-25	-25	-25	-25
Max. ambient temperature	°C	65	70	70	65	70	65
Starting current	A	0.95	0.85	0.95	0.55	0.55	0.65

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	4.15 kg
Size	300 mm
Motor size	68
Rotor surface	Painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, galvanized
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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)	< 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 60034-1; EN 60204-1; EN 60335-1; UKCA; CE
Approval	EAC

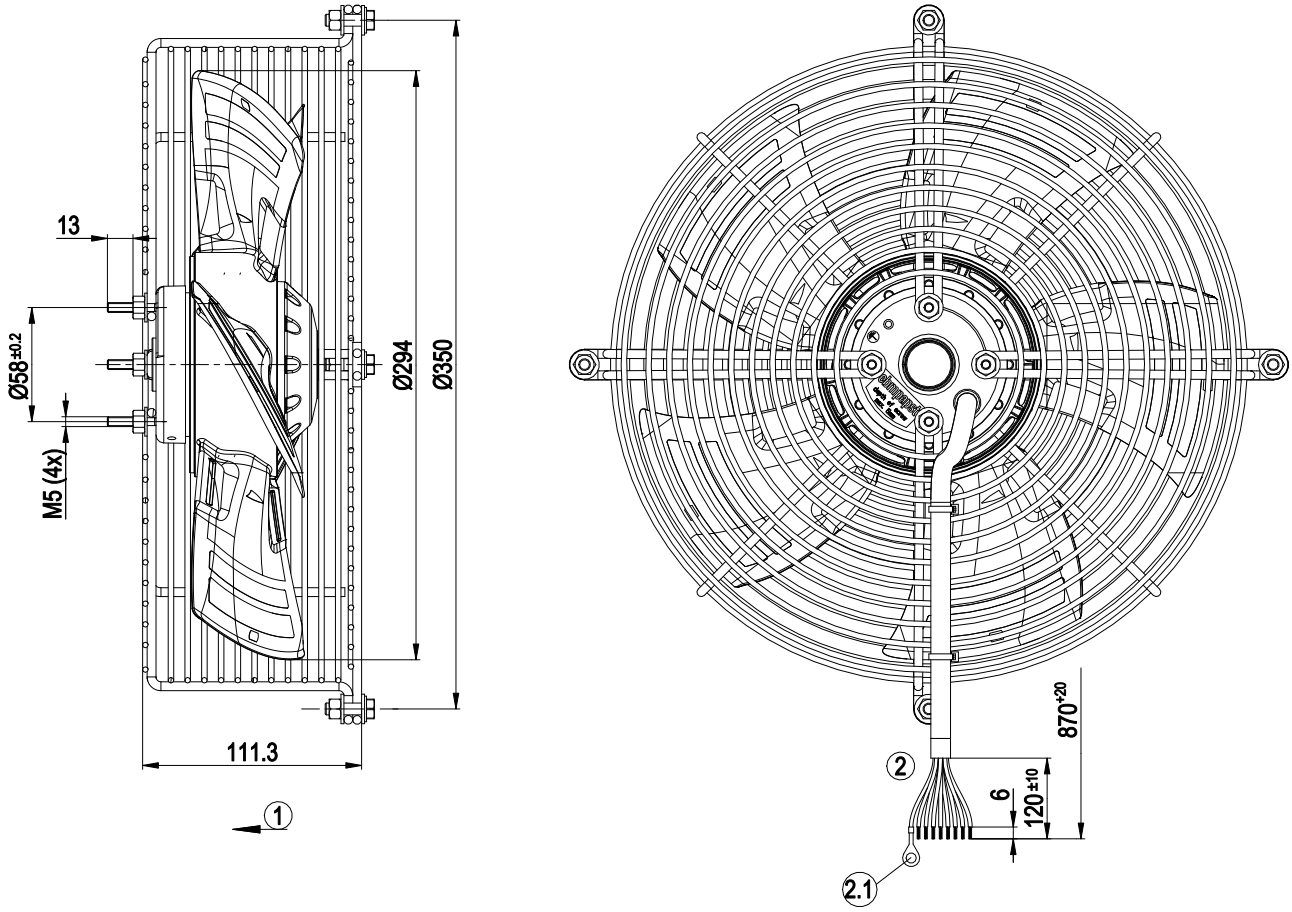
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Product drawing



1	Airflow direction "V"
2	Cable silicone 9G 0.5 mm²
	8x splice, 1x ring terminal dia. 5.2
2.1	PE (green/yellow), ring terminal dia. 5.2

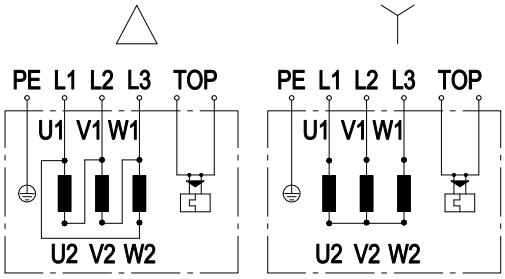
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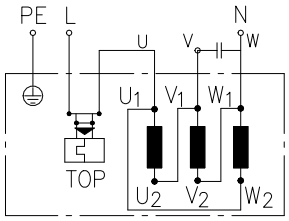
Connection diagram



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				

Connection diagram 2



L	= U1 = black	U2	green	N	= V1 = blue
V2	white	W1	brown	W2	yellow
TOP	2x gray	PE	green/yellow		

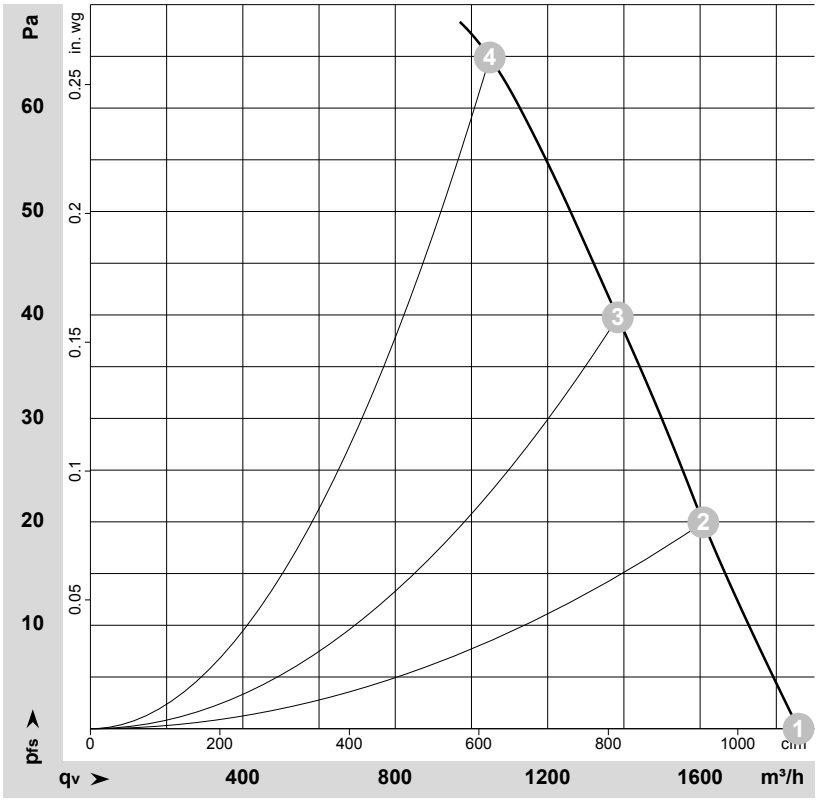
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-190664-1

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	Y	400	50	1425	57	0.18	53	60	1860	0	1095	0.00
2	Y	400	50	1415	62	0.18	52	59	1610	20	945	0.08
3	Y	400	50	1405	66	0.18	52	59	1385	40	815	0.16
4	Y	400	50	1400	72	0.18	54	62	1050	65	615	0.26

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

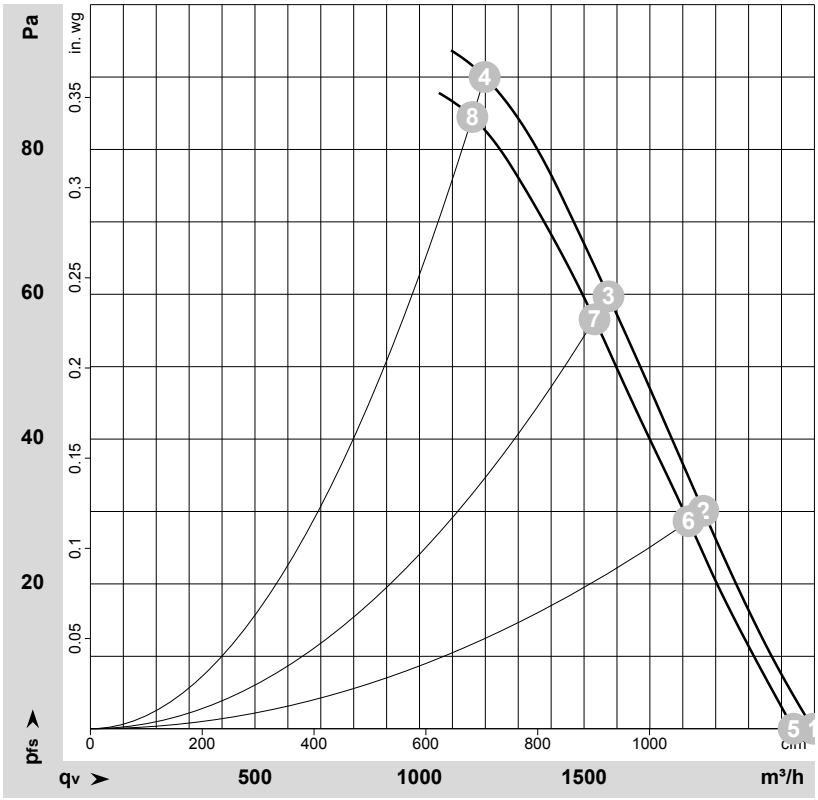
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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-190764-1
Measurement: LU-190762-1

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	Y	460	60	1680	80	0.18	57	64	2195	0	1295	0.00
2	Y	460	60	1660	90	0.19	56	63	1865	30	1095	0.12
3	Y	460	60	1645	96	0.19	56	63	1575	60	925	0.24
4	Y	460	60	1630	105	0.19	62	70	1200	90	705	0.36
5	Y	400	60	1650	72	0.16	57	64	2135	0	1260	0.00
6	Y	400	60	1615	82	0.17	55	62	1820	29	1070	0.12
7	Y	400	60	1600	88	0.18	55	62	1530	57	900	0.23
8	Y	400	60	1550	100	0.18	58	65	1160	85	685	0.34

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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