S3G350-LE38-53

EC axial fan - HyBlade

sickled blades (S series)

with guard grille for short nozzle

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Nominal data

Type	**S3G350-LE38-53**
Motor	**M3G084-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1630
Power input	W	200
Current draw	A	1.35
Max. back pressure	Pa	120
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	46.2	29.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		57.1	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.19
09 Air flow q_v	m^3/h	2400
09 Pressure increase p_{fs}	Pa	119
10 Speed (rpm) n	min^{-1}	1635
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-163932

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Technical features

Mass	5.6 kg
Size	350 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	H2
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Motor current limit - PFC, passive - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; EN 60335-1; CE
Approval	EAC

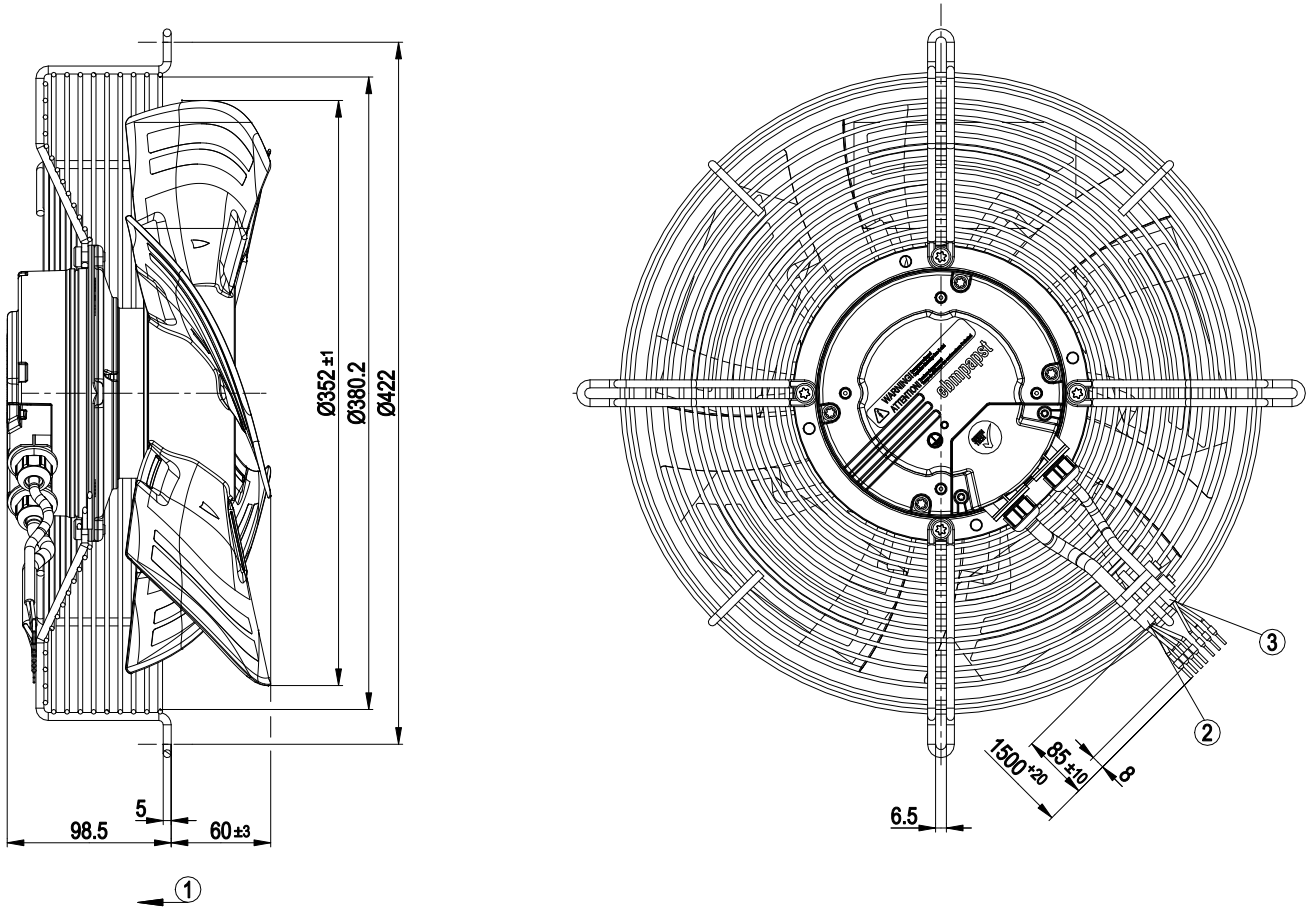
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Product drawing



1	Direction of air flow "V"
2	Connection line PVC AWG22, 4x crimped core-end sleeves
3	Connection line PVC AWG18, 3x crimped core-end sleeves

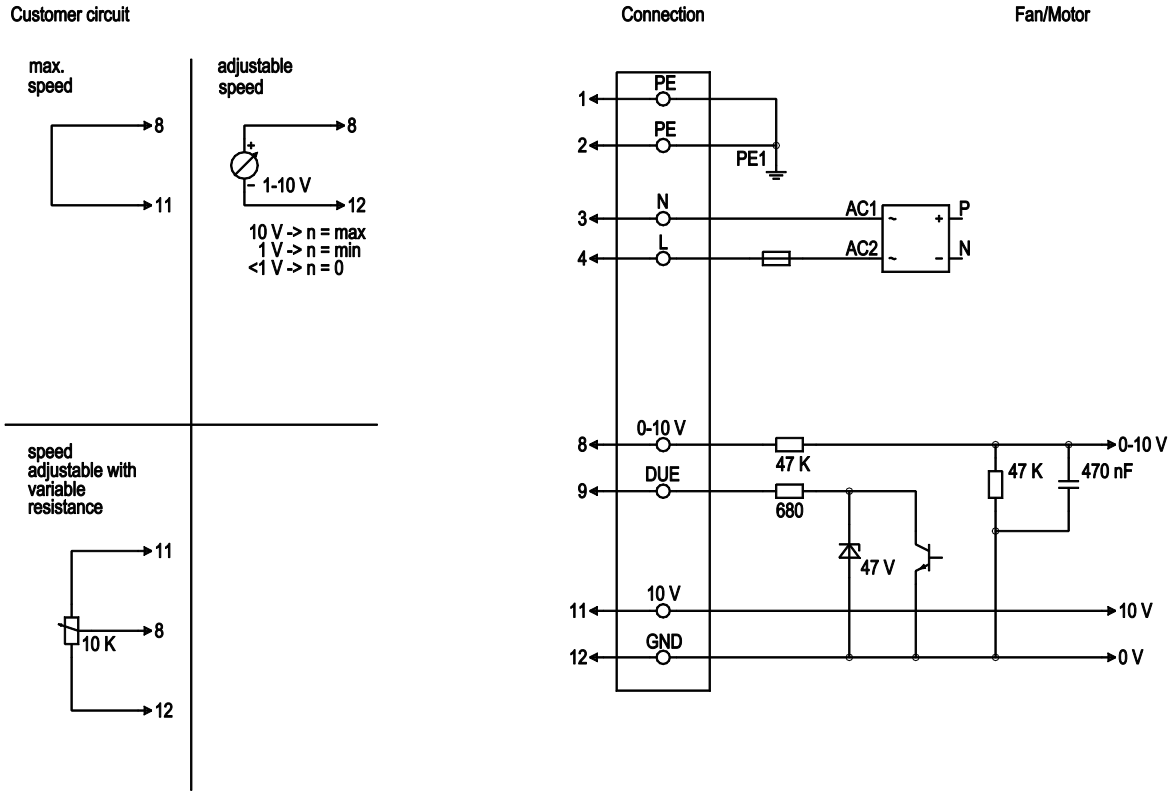
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
1	1,2	PE	green/yellow	Protective earth
1	3	N	blue	Power supply, neutral conductor, 50/60 Hz
1	4	L	black	Power supply, phase, 50/60 Hz
2	8	0 - 10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kohms, SELV
2	9	Tacho	white	Speed monitoring, 1 pulse per revolution, Isink max. 5 mA
2	11	10 VDC	red	Voltage output 10 VDC (+/- 3%), max. 10 mA, power supply for ext. devices (e.g. potentiometer), SELV
2	12	GND	blue	Signal ground for control interface, SELV

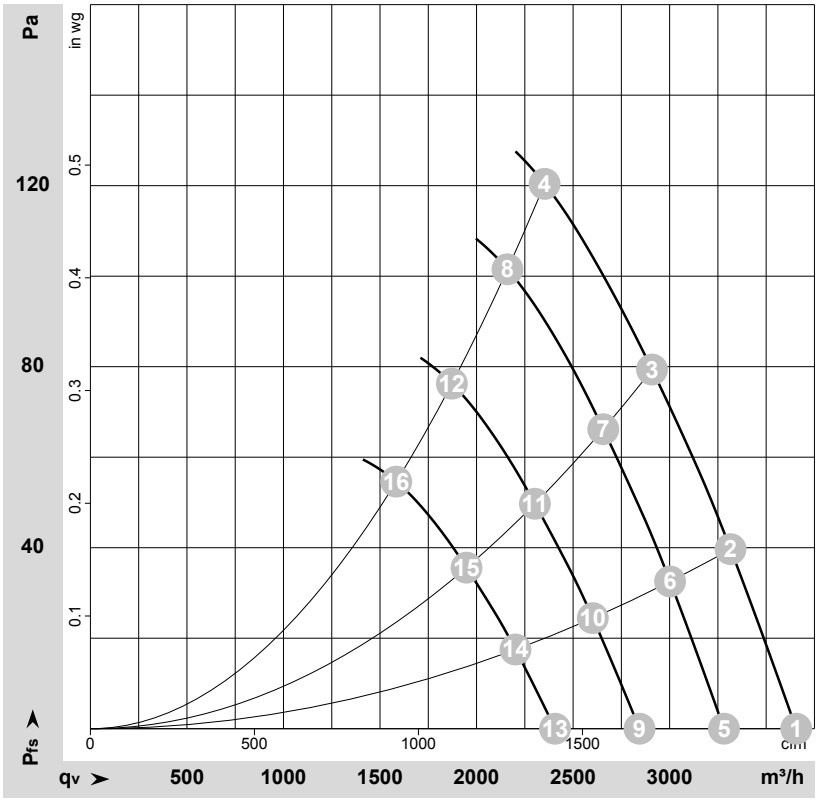
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-163932-1

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

	U	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	1670	164	1.13	3655	0	2150	0.00
2	230	50	1655	177	1.21	3315	40	1950	0.16
3	230	50	1645	188	1.28	2910	80	1710	0.32
4	230	50	1630	200	1.35	2350	120	1385	0.48
5	230	50	1500	119	0.82	3280	0	1930	0.00
6	230	50	1500	132	0.90	3000	34	1765	0.14
7	230	50	1500	143	0.97	2655	66	1565	0.26
8	230	50	1500	151	1.03	2160	102	1270	0.41
9	230	50	1300	77	0.53	2845	0	1675	0.00
10	230	50	1300	86	0.59	2600	25	1530	0.10
11	230	50	1300	93	0.63	2300	50	1355	0.20
12	230	50	1300	98	0.67	1870	77	1100	0.31
13	230	50	1100	47	0.32	2405	0	1415	0.00
14	230	50	1100	52	0.36	2200	18	1295	0.07
15	230	50	1100	56	0.38	1950	36	1145	0.14
16	230	50	1100	60	0.40	1585	55	930	0.22

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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