G3G250-GN44-03

EC centrifugal fan

backward curved, single inlet

with housing (flange)



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**G3G250-GN44-03**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	208 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	4500
Power input	W	860
Current draw	A	4.8 (208V)
Min. ambient temperature	°C	-20
Max. ambient temperature	°C	60
Min. temp. of flow medium	°C	0
Max. temp. of flow medium	°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}	%	61.7	49.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		73.2	61
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.81
09 Air flow q_v	m^3/h	795
09 Pressure increase p_{fs}	Pa	2101
10 Speed (rpm) n	min^{-1}	4530
11 Specific ratio*		1.02

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-106095

ebmpapst

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Technical features

Mass	13 kg
Size	250 mm
Surface of rotor	Coated in black
Material of protective cover	Polyflam RPP 374-ND CS1 (UL 97-V0)
Material of impeller	Aluminium sheet
Housing material	Die-cast aluminium
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limit - Emergency operation - PFC, active - Control input 0-10 VDC PWM control input - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage / phase failure detection
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 61000-6-4 (industrial environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Motor protection	Locked-rotor protection
Protection class	I (if protective earth is connected by customer)
Approval	CCC; CSA C22.2 No.113; UL 507

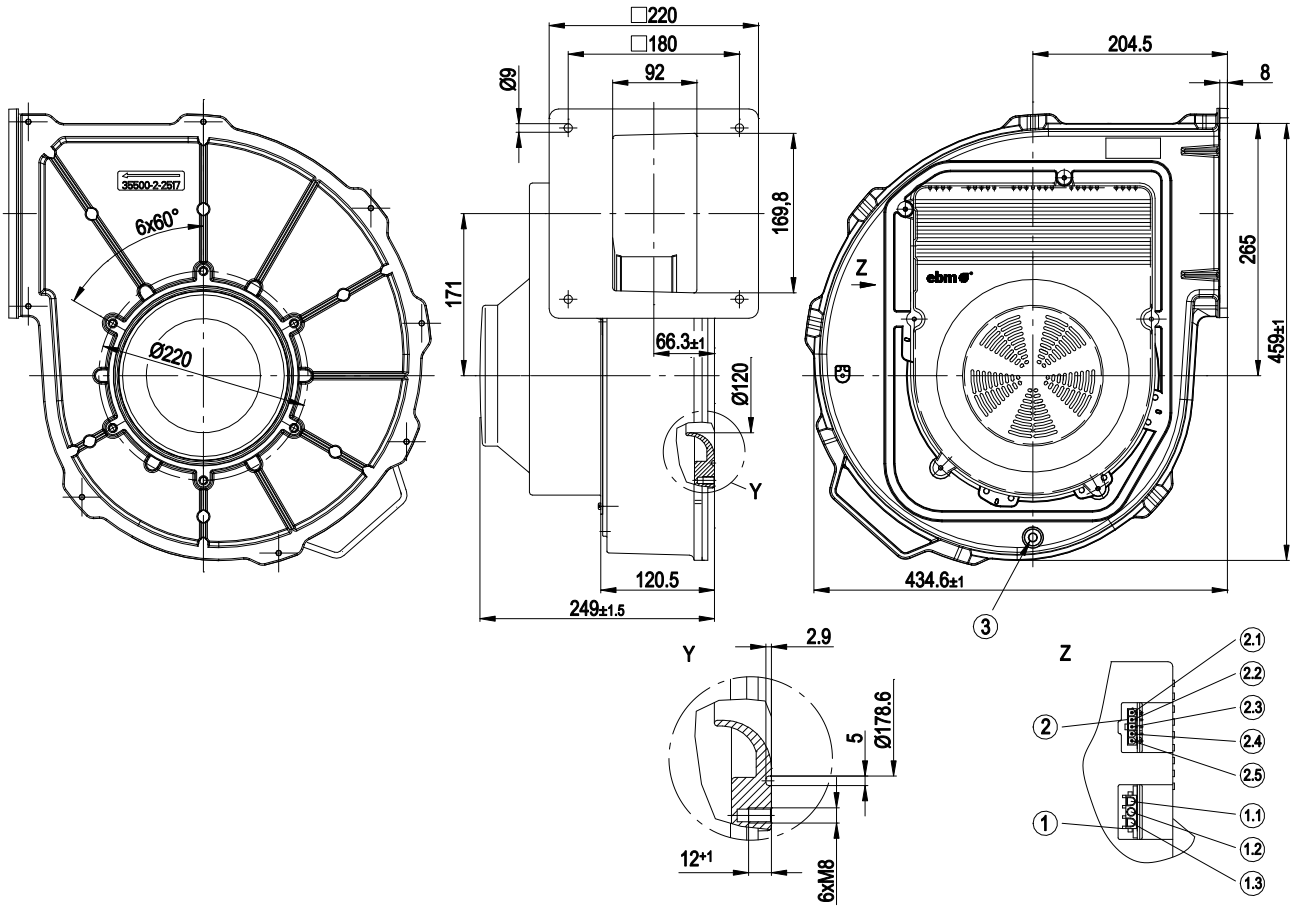
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Product drawing



1	3-pole strip, suitable for mating connector (not included in standard scope of delivery): tyco No. 350766-1, female terminal: tyco No. 926884-1
1.1	L
1.2	N
1.3	PE
2	5-pole strip to fit mating connector (not included in standard scope of delivery) Molex No. 39-01-4050, female connector Molex No. 39-00-0059
2.1	+
2.2	Speed monitoring
2.3	0-10 VDC control input
2.4	PWM input
2.5	-
3	Pressure tap optionally available
Y	Detail Y
Z	View Z / plug assignment

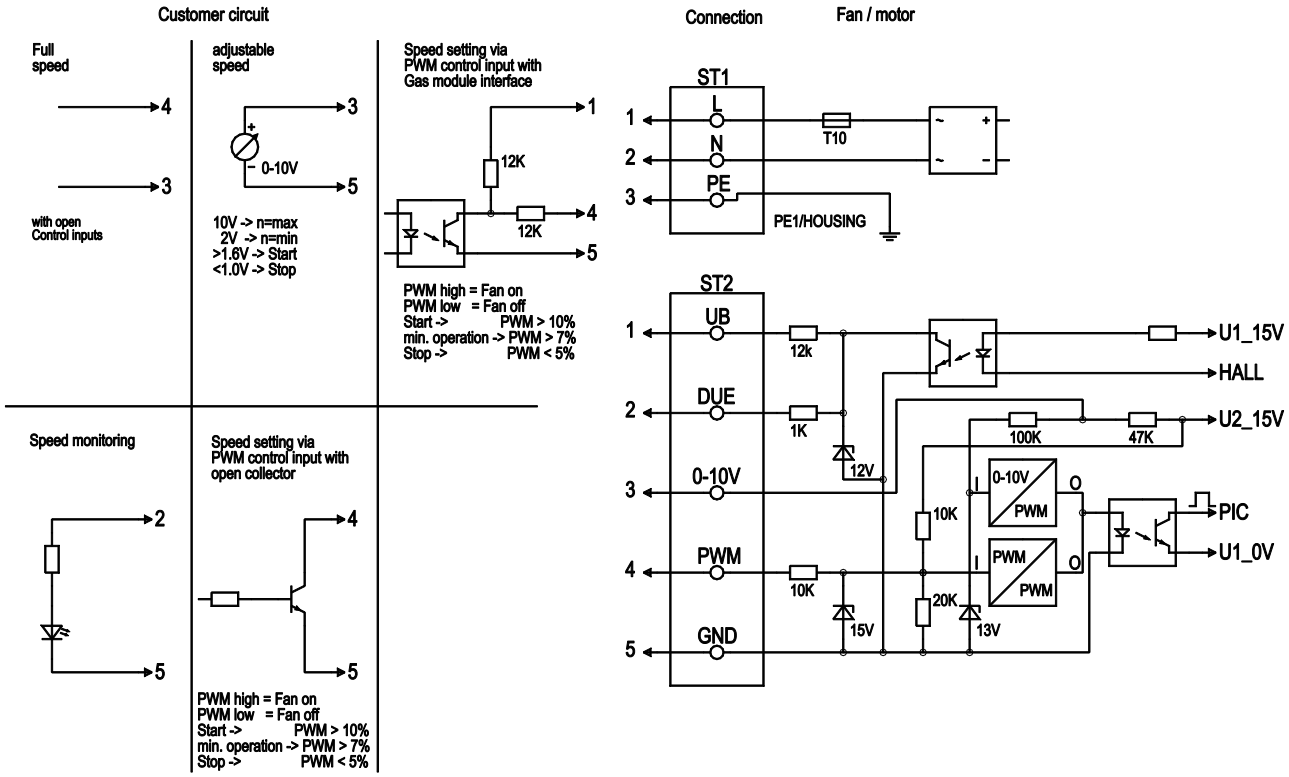
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Connection screen



No.	Conn.	Designation	Function / assignment
ST1	1; 2; 3	L; N; PE	Power supply 230 VAC, 50 - 60 Hz, phase, neutral, protective earth
St2	1	UB	External voltage 16 - 45 VDC, residual ripple +/- 3.5%, SELV
ST2	2	Tach	Speed monitoring, 3 pulses per revolution, SELV
ST2	3	0 - 10 V	Control input 0 - 10 V, impedance 100k, SELV
ST2	4	PWM	Control input PWM, 1 - 6 kHz, SELV
ST2	5	GND	GND - Connection for control interface, SELV

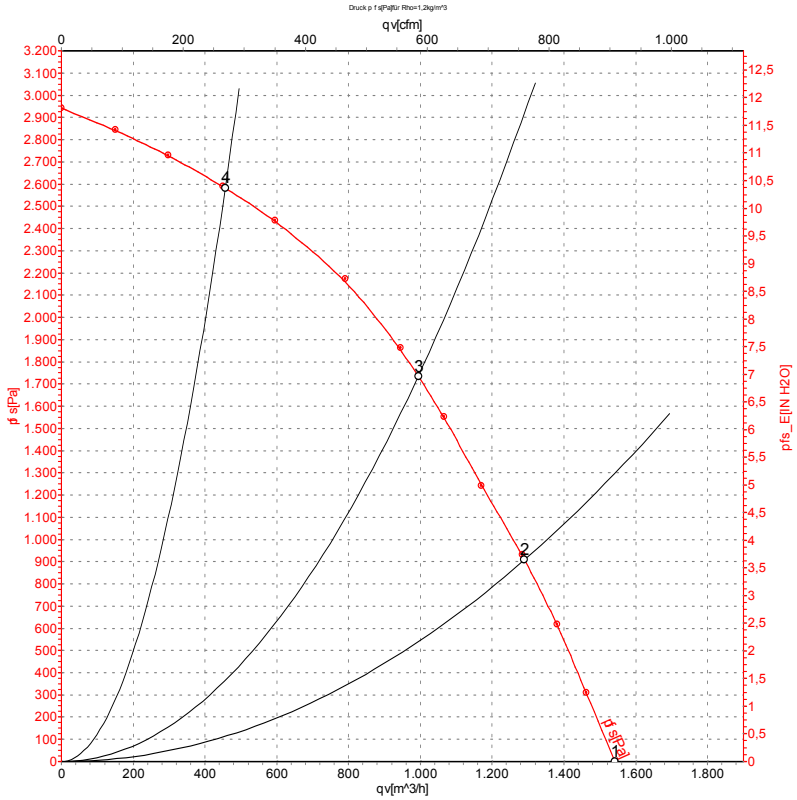
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Charts: Air flow 50 Hz



Measurement: LU-106095-1

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	LpA_{in}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	50	4480	822	3.59	85	1540	0	910	0.00
2	230	50	4430	924	4.04	83	1290	915	760	3.67
3	230	50	4465	890	3.90	78	995	1736	585	6.97
4	230	50	4655	663	2.90	78	455	2583	270	10.37

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · qv = Air flow · p_{fs} = Pressure increase

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