G3G250-GN17-01

EC centrifugal fan

backward curved, single inlet

with housing (flange), Gas blower for gas-condensing heating



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**G3G250-GN17-01**
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}	4800
Power input	W	1150
Current draw	A	5.7 (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}	%	62.6	50.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		73.1	61
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	1.01
09 Air flow q_v	m^3/h	875
09 Pressure increase p_{fs}	Pa	2400
10 Speed (rpm) n	min^{-1}	4935
11 Specific ratio*		1.03

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-76445

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Technical features

Mass	13.2 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	Aluminum sheet
Housing material	Die-cast aluminum
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 - Over-temperature protected electronics / motor - PFC, active - Motor current limit - Line undervoltage / phase failure detection - PWM control input - Control input 0-10 V
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; EAC; UL 507

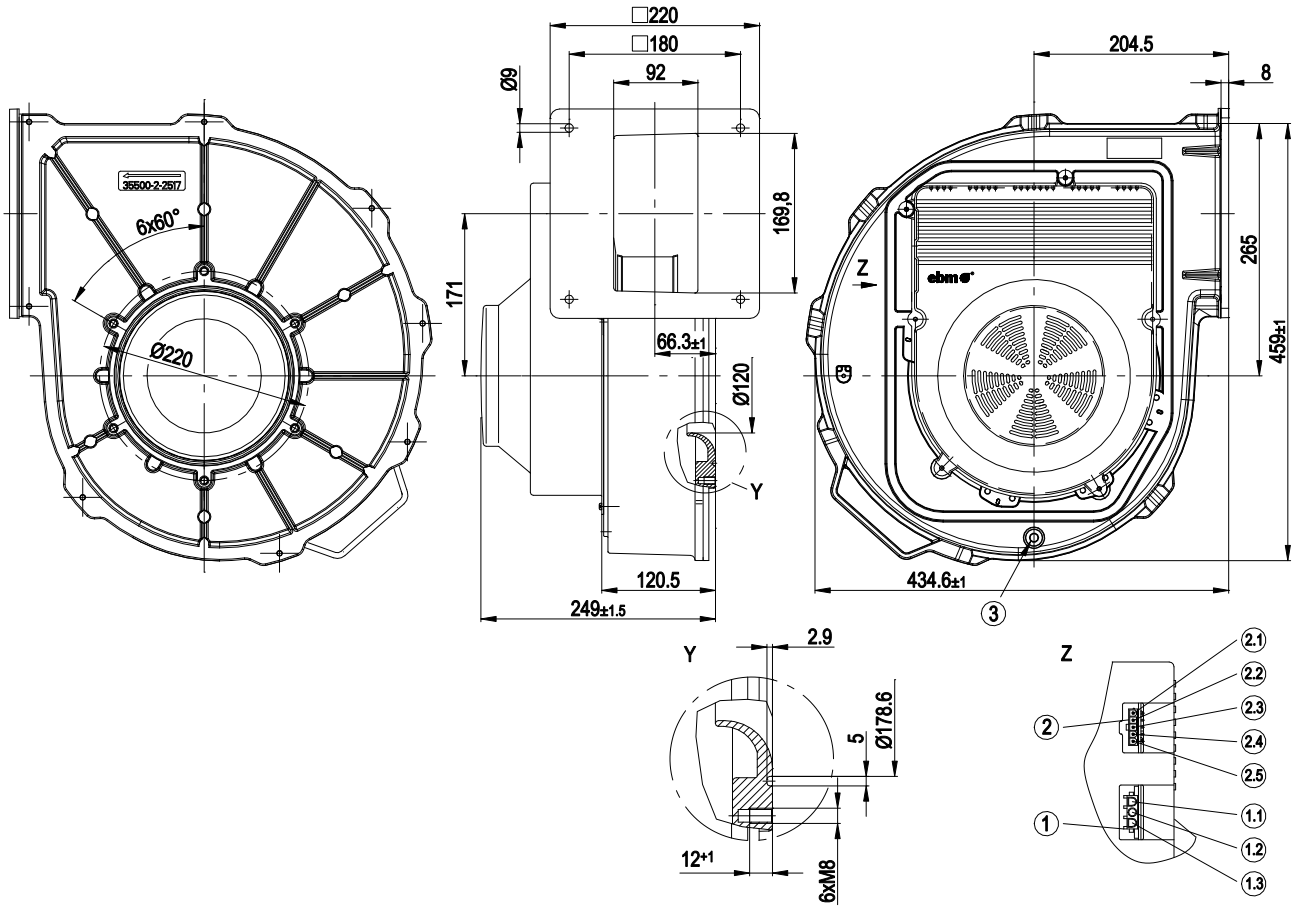
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Product drawing



1	3-pole strip to fit mating connector (not included in standard scope of delivery) tyco No. 350766-1, female connector 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

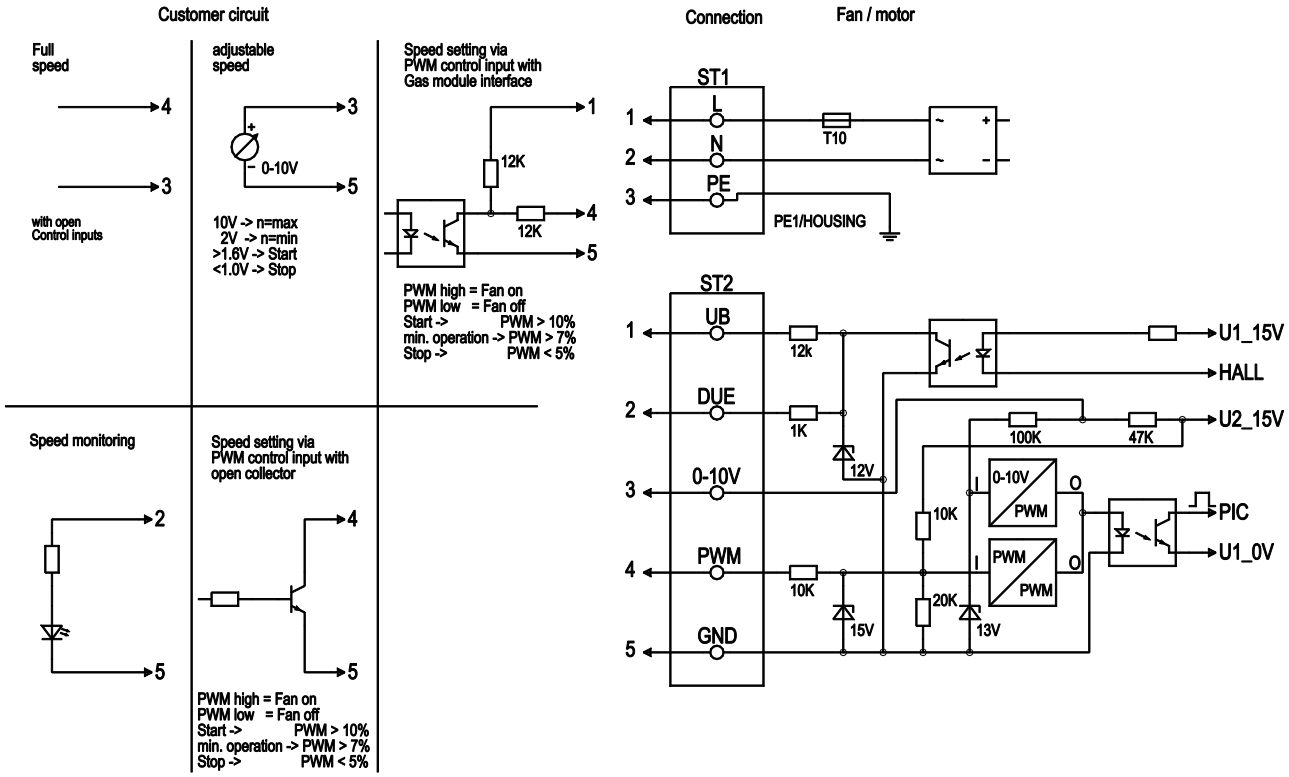
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Connection screen



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

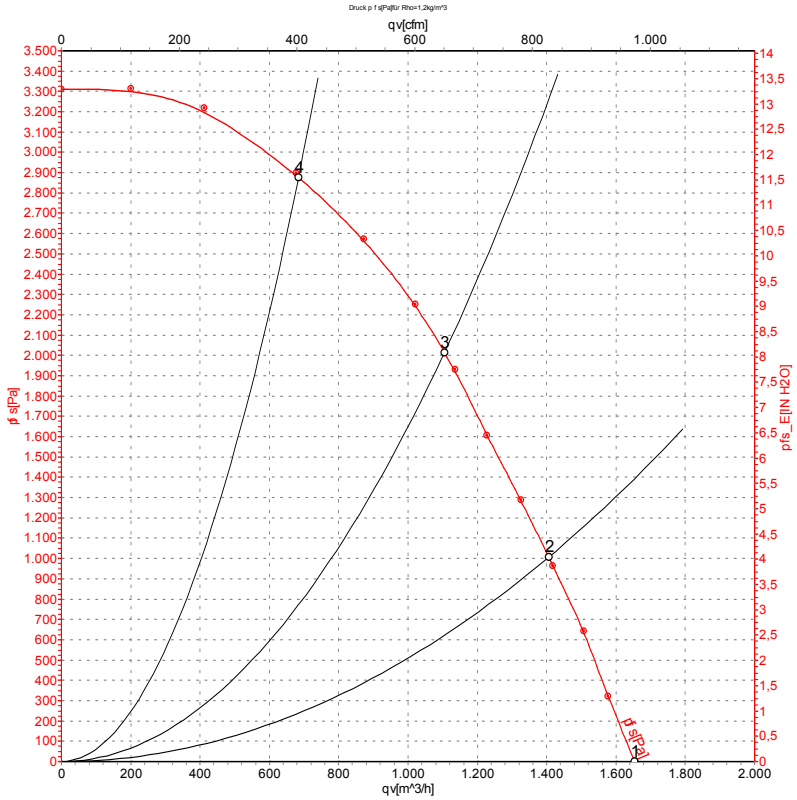
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Charts: Air flow 50 Hz



Measurement: LU-76445-1

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	4890	1022	4.47	91	1655	0	975	0.00
2	230	50	4800	1150	5.00	89	1405	1000	830	4.01
3	230	50	4850	1117	4.87	81	1105	2000	650	8.03
4	230	50	5005	920	4.01	79	685	2900	405	11.64

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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