

EC centrifugal fan

backward curved, single inlet

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



Beijing Hengrui Mechanical and Electrical Equipment Co., Ltd

Phone +86 10-62547612

zhangyu@bjhengrui.cn

en.bjhengrui.com



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	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

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.03

* Specific ratio = $1 + p_b / 100\,000\text{ Pa}$

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	62.6	47.5	50.5
Efficiency grade N		73.1	58	61
Power input P_{ed}	kW	1.01		
Air flow q_v	m ³ /h	875		
Pressure increase p_{fs}	Pa	2400		
Speed n	min ⁻¹	4935		

Data definition with optimum efficiency.

The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

LU-76445



EC centrifugal fan

backward curved, single inlet

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

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 Nr.113; EAC; UL 507

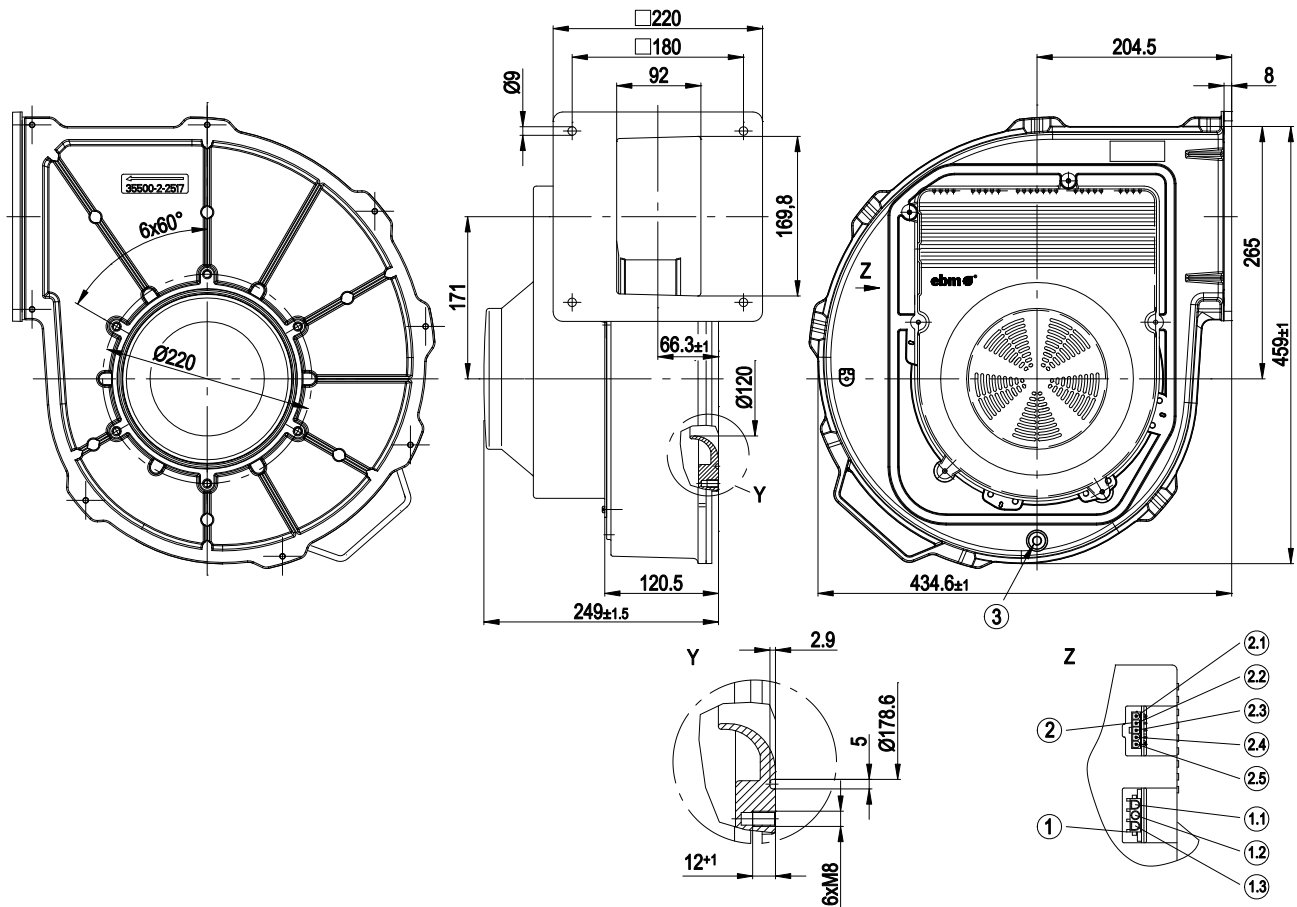


EC centrifugal fan

backward curved, single inlet

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

Product drawing



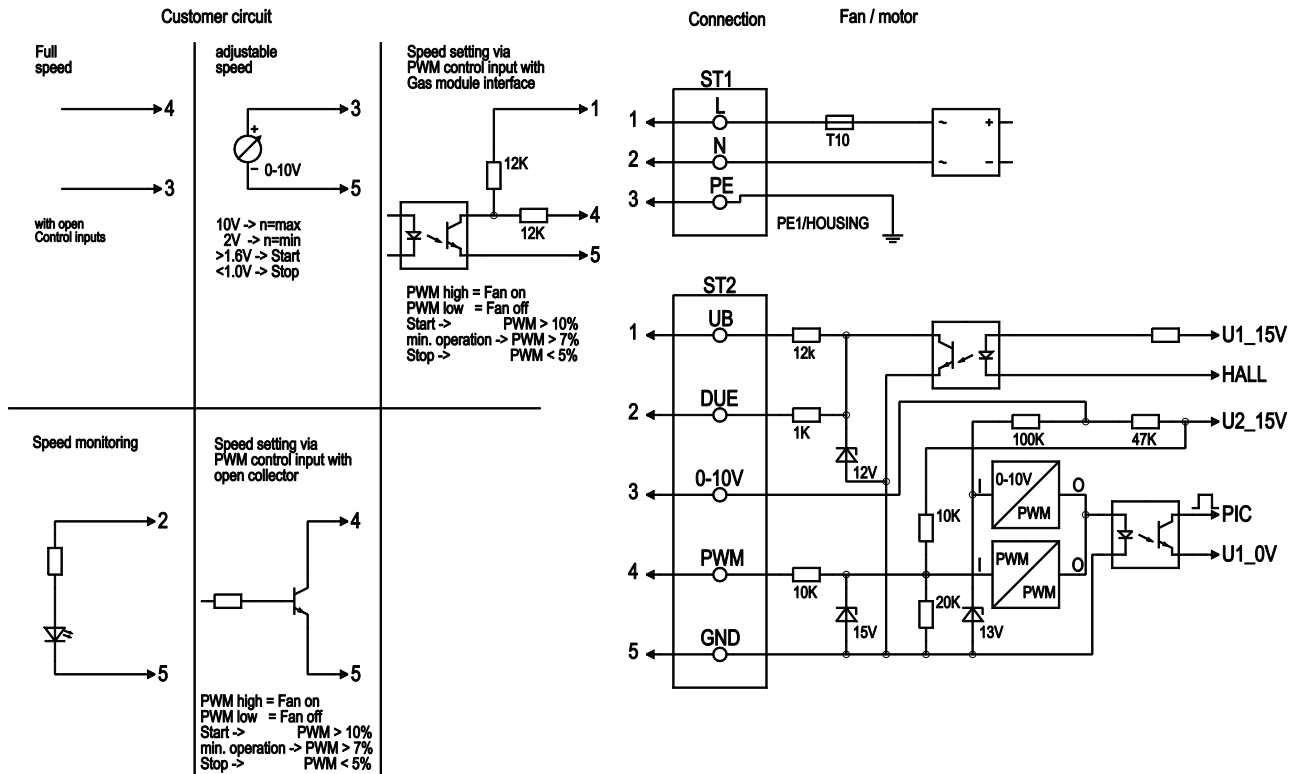
1	3-pole strip to fit mating connector (not included in standard scope of delivery) tyco No. 350766-1, female connector tyco No. 926884-1
1.1	L
1.2	N
1.3	PE
2	5-pole strip to fit mating connector (not included in standard scope of delivery) Molex No. 39-01-4050, female connector Molex No. 39-00-0059
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

EC centrifugal fan

backward curved, single inlet

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

Connection screen

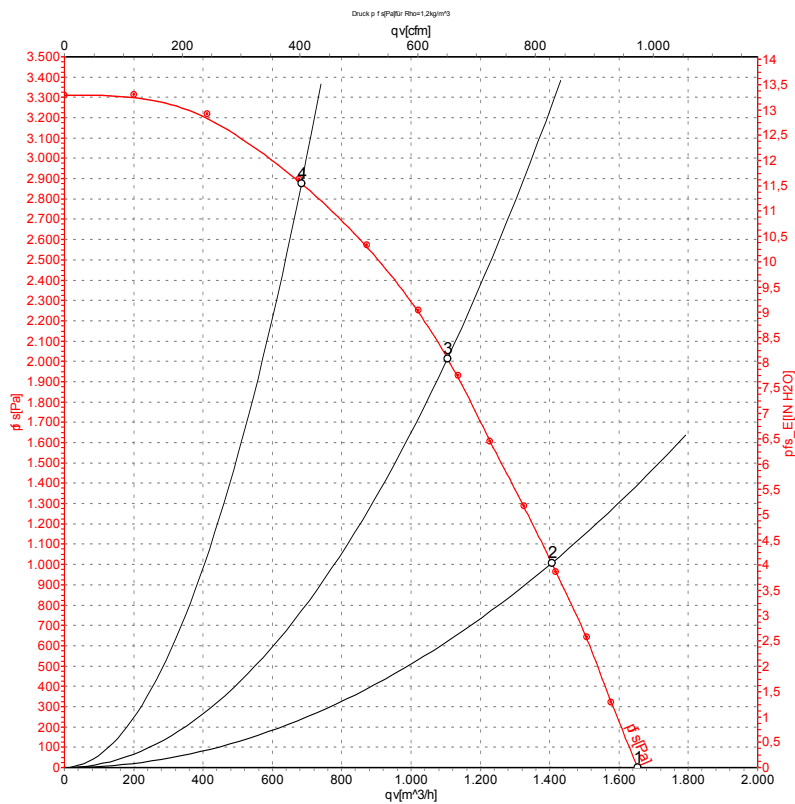


No.	Conn.	Designation	Function / assignment
ST1	1; 2; 3	L; N; PE	Power supply 230 VAC, 50 - 60 Hz, phase, neutral, protective earth
St2	1	UB	External voltage 16 - 45 VDC, residual ripple +/- 3.5%, SELV
ST2	2	Tach	Speed monitoring, 3 pulses per revolution, SELV
ST2	3	0 - 10 V	Control input 0 - 10 V, impedance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

EC centrifugal fan

backward curved, single inlet
with housing (flange), Gas blower for gas-condensing heating

Charts: Air flow 50 Hz



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: L_{WA} measured as per ISO 13347 /
L_{pA} 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}
	V	Hz	min ⁻¹	W	A	dB(A)	m³/h	Pa
1	230	50	4890	1022	4.47	91	1655	0
2	230	50	4800	1150	5.00	89	1405	1000
3	230	50	4850	1117	4.87	81	1105	2000
4	230	50	5005	920	4.01	79	685	2900

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

