G1G170-AB05-24

EC centrifugal fan

backward-curved, single-intake

with housing (flange), Gas blower for condensing boilers



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Nominal data

Type	**G1G170-AB05-24**
Motor	**M1G074-CF**

Phase		1~
Nominal voltage	VAC	115
Frequency	Hz	50/60
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	5730
Power consumption	W	345
Current draw	A	4.0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55
Min. temp. of flow medium	°C	-25
Max. temp. of flow medium	°C	+80

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	4.5 kg
Fan size	170 mm
Rotor surface	Painted black
Cover material	Polyflam RPP 374-ND CS1 (UL 97-V0)
Impeller material	Sheet aluminum
Housing material	Die-cast aluminum
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
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
Cooling hole/opening	On rotor side
Premixing	If gas is premixed in the blower, then a special blower must be used.
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Emergency operation - PWM control input - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for motor
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
Approval	CSA C22.2 No. 113; UL 507

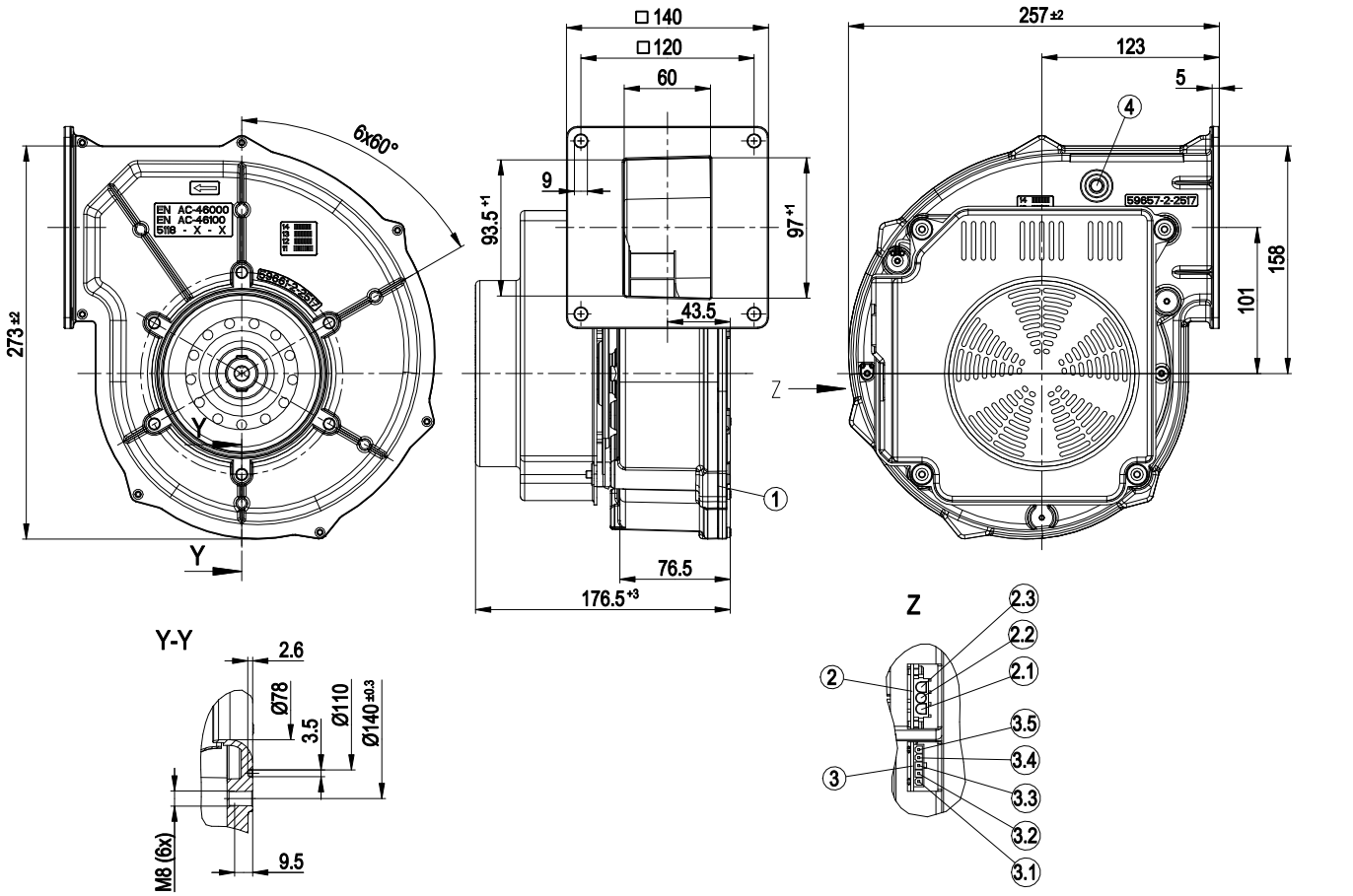
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Product drawing



1	Housing side parts sealed with NBR round cord (pentane-resistant)
2	3-pole header, mating connector (not included in scope of delivery): Tyco no. 350 766-1; socket: Tyco no. 926 884-1
2.1	L
2.2	N
2.3	PE
3	5-pole header; mating connector (not included in scope of delivery): Molex no. 39-01-4050; socket: Molex no. 39-00-0059
3.1	(+)
3.2	Speed monitoring
3.3	NC not used
3.4	PWM input
3.5	(-)
4	Pressure tap possible

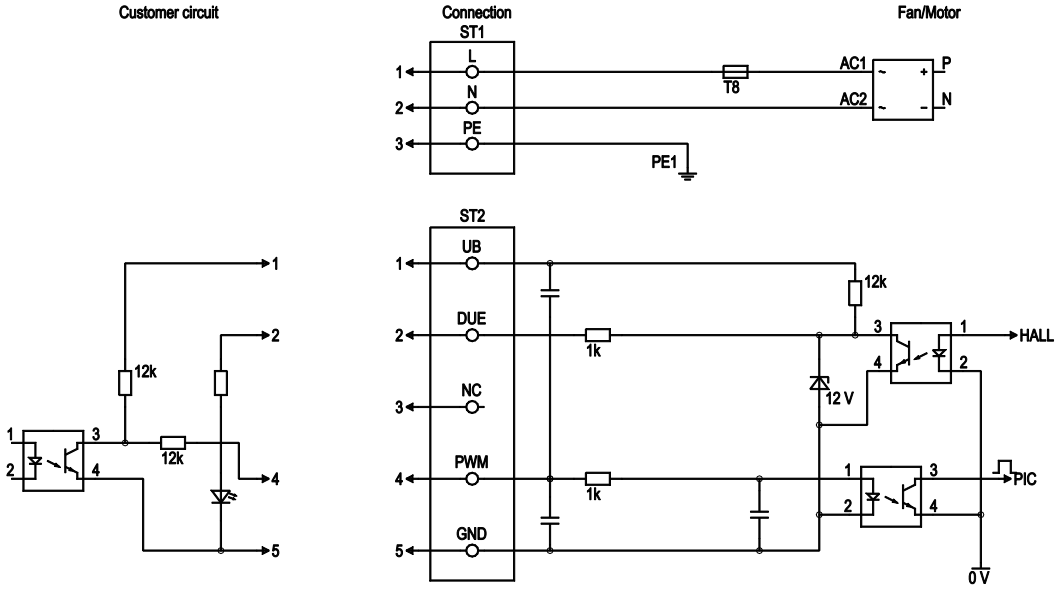
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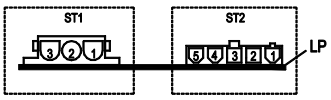
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Connection diagram





No.	Conn.	Designation	Function/assignment
ST1	1, 2, 3	L, N, PE	Power supply 110 VAC, 50-60 Hz, neutral conductor, protective earth
ST2	1	UB	external voltage 24 - 45 VDC
ST2	2	Tach	DUE connection, monitoring output, 3 pulses per revolution, Isource 1 mA
ST2	3	N.C.	not used
ST2	4	PWM	PWM - 2 - 6 kHz control input, PWM on n = 100%, PWM low n = 0%
ST2	5	GND	GND connection for control interface

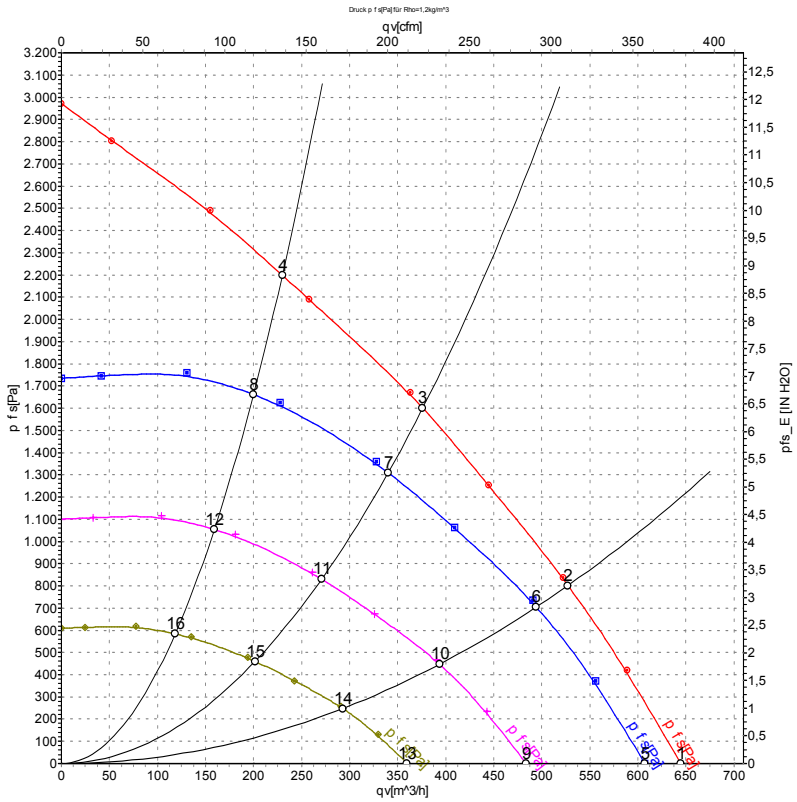
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Curves: Air performance 50 Hz



Measurement: LU-48962-1

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

	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	115	50	5730	345	4.00	645	0	380	0.00
2	115	50	5750	342	3.97	525	800	310	3.21
3	115	50	5970	317	3.70	375	1600	220	6.42
4	115	50	6205	292	3.42	230	2200	135	8.83
5	115	50	5400	288	3.33	605	0	355	0.00
6	115	50	5400	283	3.28	495	715	290	2.87
7	115	50	5400	235	2.75	340	1314	200	5.28
8	115	50	5400	193	2.26	200	1664	120	6.68
9	115	50	4300	145	1.68	485	0	285	0.00
10	115	50	4300	143	1.66	395	454	230	1.82
11	115	50	4300	119	1.39	270	834	160	3.35
12	115	50	4300	98	1.14	160	1055	95	4.24
13	115	50	3200	60	0.69	360	0	210	0.00
14	115	50	3200	59	0.68	295	251	170	1.01
15	115	50	3200	49	0.57	200	462	120	1.85
16	115	50	3200	40	0.47	120	584	70	2.34

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

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