G1G144-AE13-51

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

G1G144-AE13-51 ebmpapst Datasheet
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Nominal data

Type	**G1G144-AE13-51**	
Motor	**M1G055-AI**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Speed (rpm)	min^{-1}	4300
Power consumption	W	51
Current draw	A	2.5
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	70

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	1.6 kg
Size	144 mm
Motor size	55
Rotor surface	Thick-film passivated
Cover material	PP plastic
Impeller material	PA plastic
Housing material	Die-cast aluminum
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP00
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	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - PWM control input
Motor protection	Reverse polarity and locked-rotor protection
Comment	Complete unit must be tested for required approvals.

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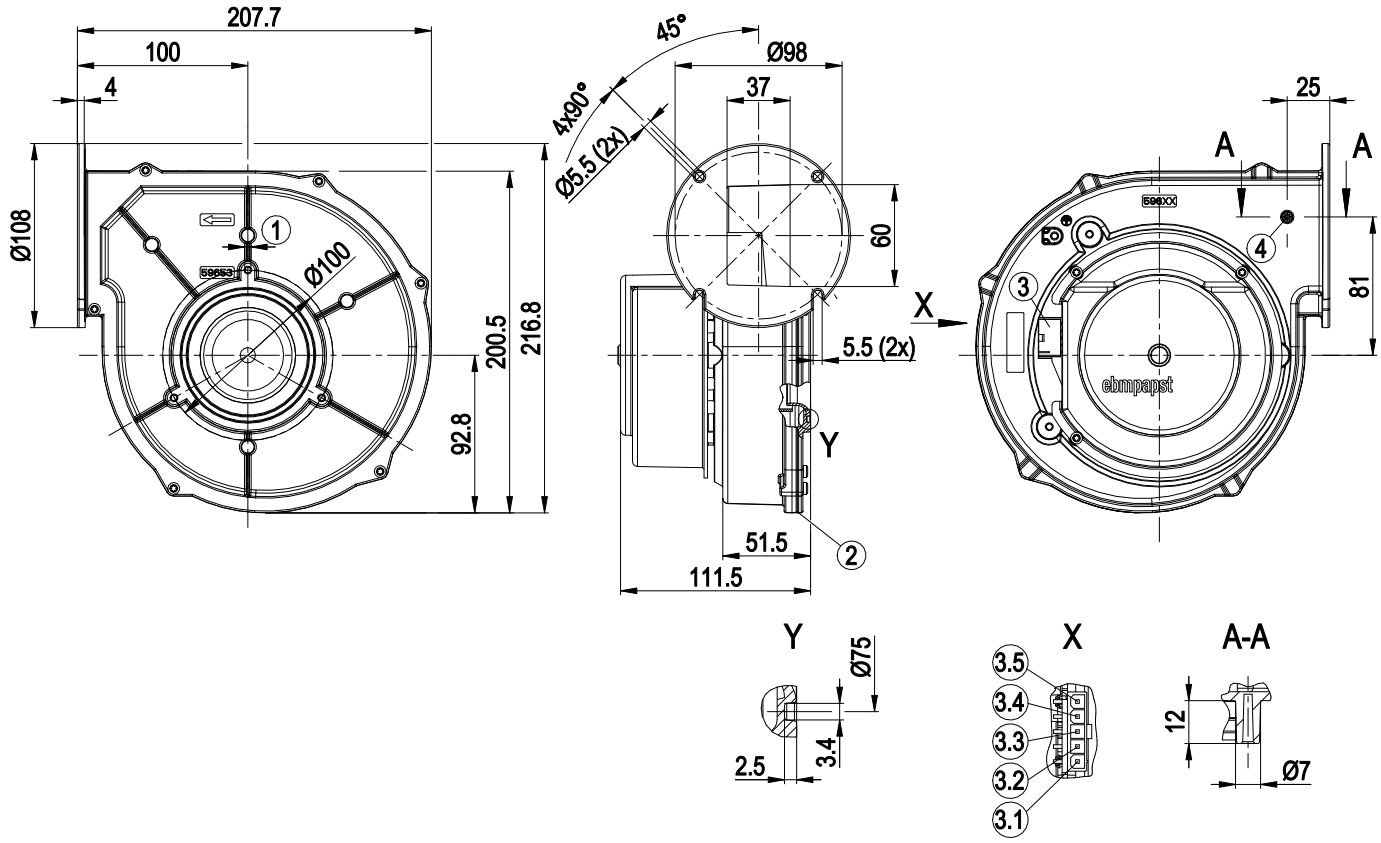
Product drawing



1	For self-tapping M4 screws, max. clearance for screw 11 mm
2	Housing side parts sealed with NBR round cord (pentane-resistant)
3	5-pole header, mating connector Molex 39-01-4050 not included in scope of delivery
3.1	+
3.2	Speed monitoring
3.3	not used
3.4	PWM
3.5	-
4	Pressure tap sealed (drilled open if required)

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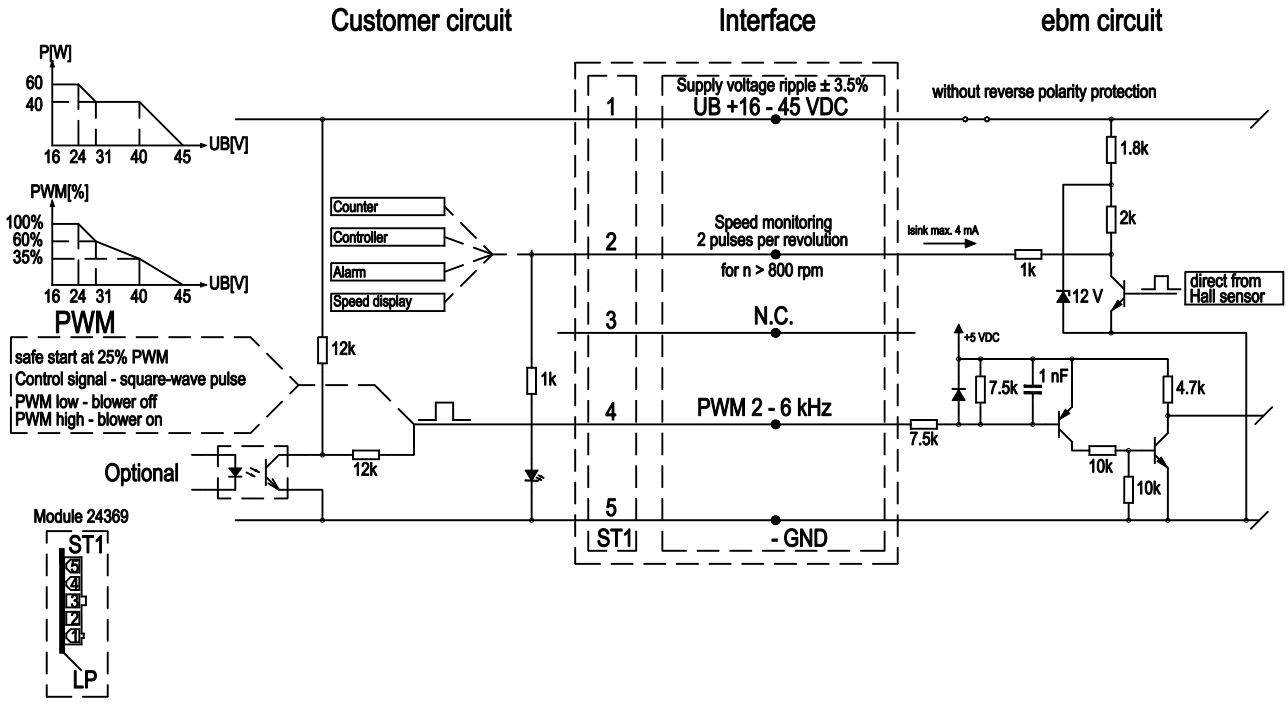
Connection diagram



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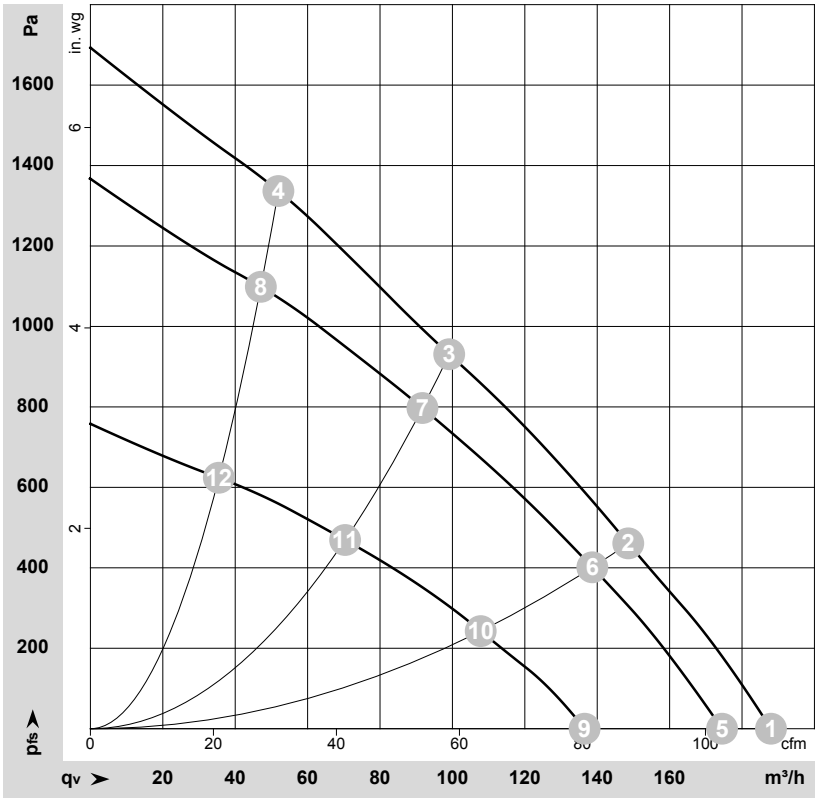
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-54468-1
Measurement: LU-54467-1
Measurement: LU-54469-1

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	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	28	4615	64	2.81	190	0	110	0.00
2	28	4715	63	2.70	150	461	90	1.85
3	28	5155	57	2.40	100	931	60	3.74
4	28	5790	49	1.99	50	1343	30	5.39
5	24	4300	51	2.50	175	0	100	0.00
6	24	4410	50	2.40	140	400	80	1.61
7	24	4750	45	2.12	90	800	55	3.21
8	24	5230	38	1.75	45	1100	30	4.42
9	16	3395	25	1.73	135	0	80	0.00
10	16	3450	24	1.68	110	243	65	0.98
11	16	3675	21	1.46	70	469	40	1.88
12	16	3955	17	1.21	35	624	20	2.51

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