G1G140-AV21-02

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

G1G140-AV21-02 ebmpapst Datesheet

sales@fansco.com

www.fansco.com

Nominal data

Type	**G1G140-AV21-02**
Motor	**M1G055-CF**

Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1750
Power consumption	W	54
Current draw	A	1.3
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

Technical description

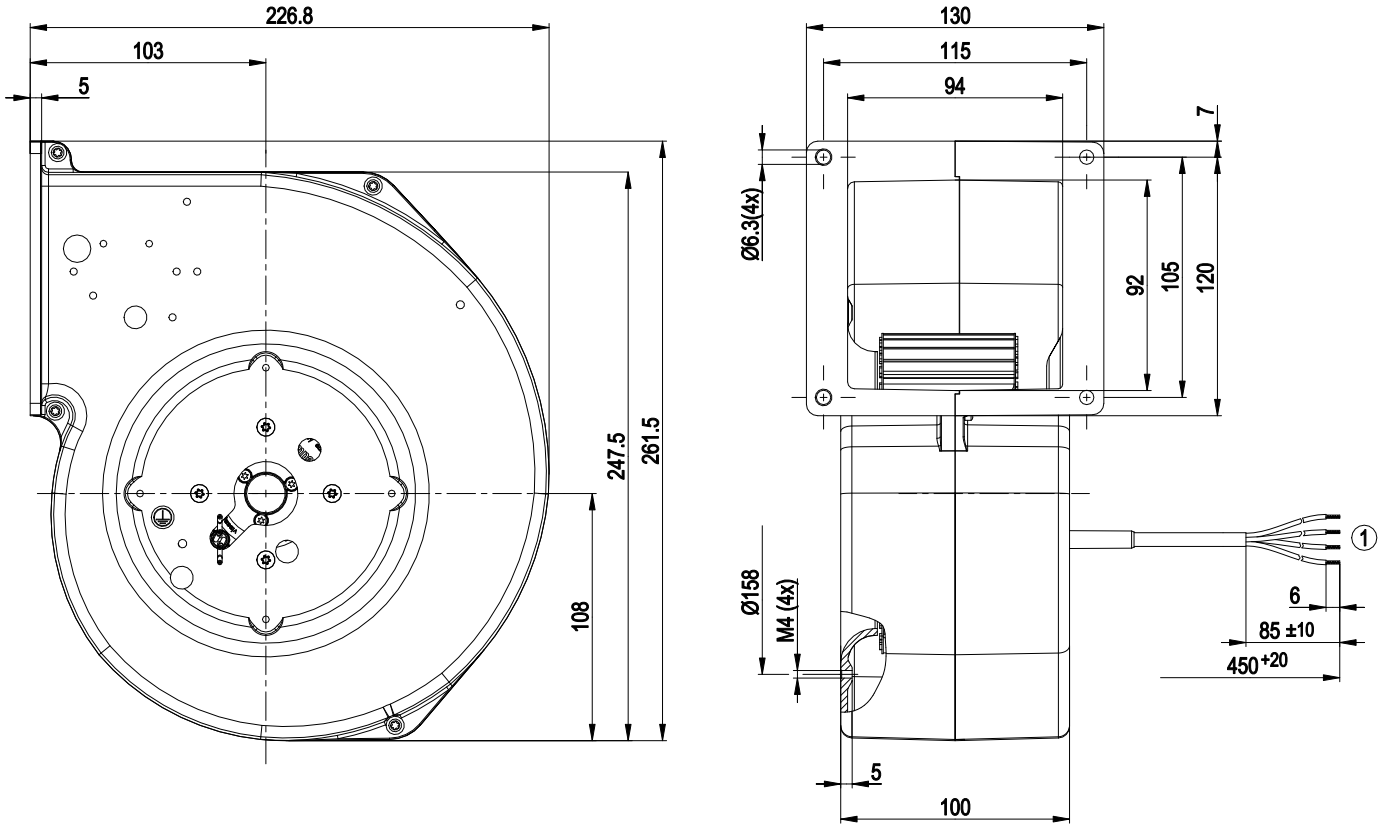
Weight	2.3 kg
Size	140 mm
Motor size	55
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Housing material	Die-cast aluminum
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP22
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Reverse polarity protection
Motor protection	Reverse polarity and locked-rotor protection
With cable	Axial
Protection class assignment	III; Requires supply with safety extra-low voltage SELV. This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection. If there is a PE connection point on the housing, it must not be visible after installation.
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1, motor not provided with overheating protection at the factory
Approval	EAC

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

Product drawing



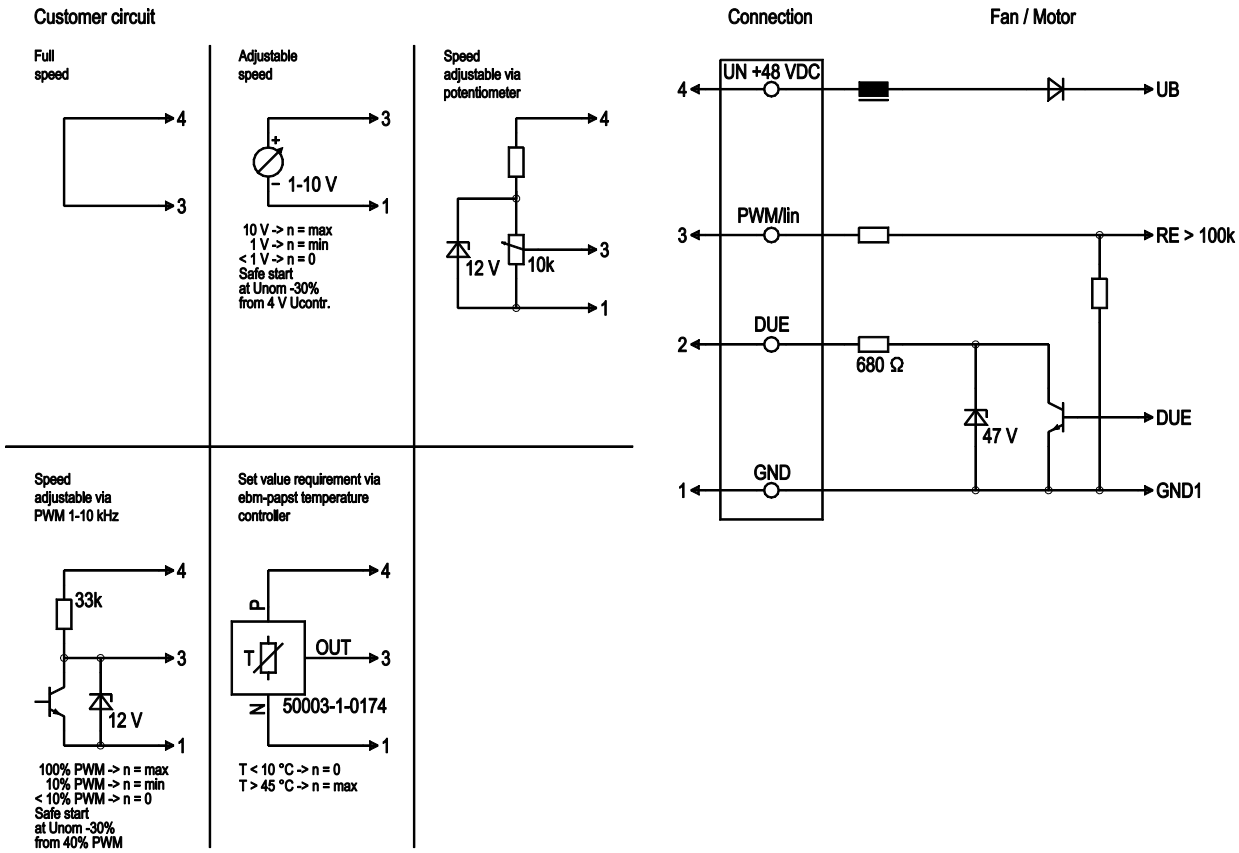
1	Cable PVC AWG20		4x splice

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

Connection diagram



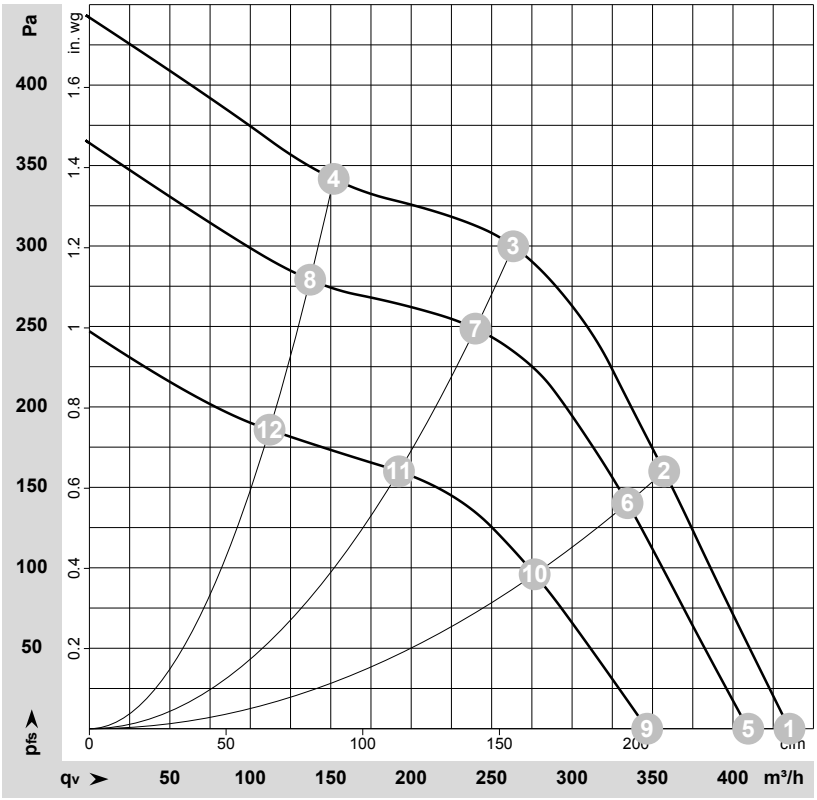
No.	Conn.	Designation	Color	Function/assignment
1	1	GND	blue	Reference ground
1	2	DUE	white	Tach output, 2 pulses per revolution, Isink max = 10 mA
1	3	PWM/LIN	yellow	Control input Re > 100k
1	4	Un +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-47744-1
Measurement: LU-47742-1
Measurement: LU-47743-1

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	55.2	1855	66	1.40	435	0	255	0.00
2	55.2	2050	61	1.25	355	160	210	0.64
3	55.2	2305	55	1.10	265	302	155	1.21
4	55.2	2560	43	0.86	150	338	90	1.36
5	48	1750	54	1.30	410	0	240	0.00
6	48	1925	50	1.15	335	140	195	0.56
7	48	2105	42	0.97	240	250	140	1.00
8	48	2325	32	0.75	135	280	80	1.12
9	36	1495	34	1.03	345	0	205	0.00
10	36	1600	29	0.87	275	97	165	0.39
11	36	1735	23	0.72	190	160	115	0.64
12	36	1885	18	0.61	110	186	65	0.75

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