G3G160-RO31-11

EC centrifugal fan - RadiCal

backward-curved, single-intake

with housing (flange)

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**G3G160-RO31-11**
Motor	**M3G055-BD**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	4300
Power consumption	W	85
Current draw	A	0.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45

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

EC centrifugal fan - RadiCal

backward-curved, single-intake

with housing (flange)

Technical description

Size	160 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	PP plastic
Housing material	PP plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP54, electronics IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0+
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Electrical hookup	Plug
Motor protection	Electronic motor protection
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

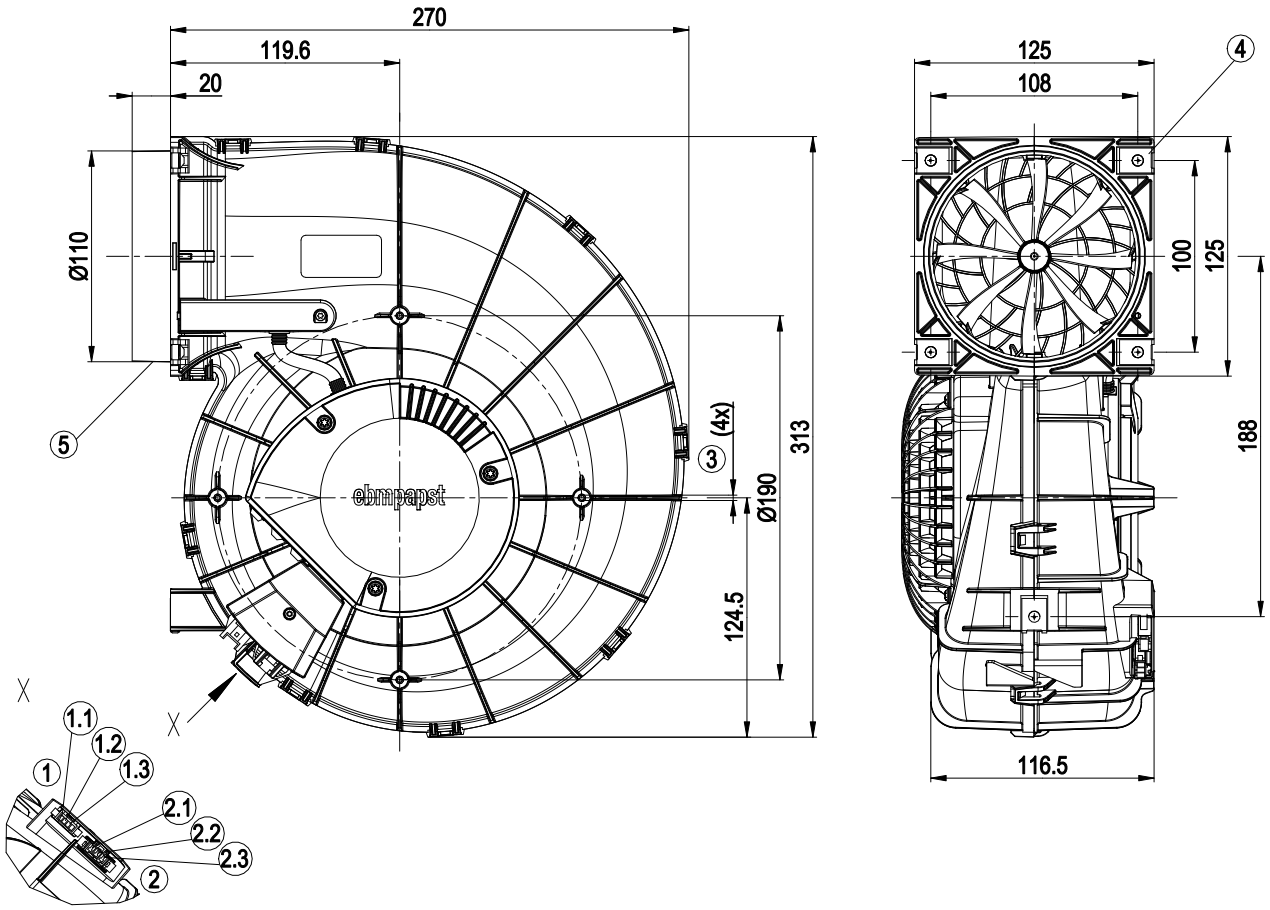
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan - RadiCal

backward-curved, single-intake

with housing (flange)

Product drawing



1	Cable PVC AWG22
	3x splice
	Cable PVC 3x 0.25 mm², 4-pole connector housing JST XARR-04VF, 3x plug pin JST SXAM-01T-P0.6
	3x plug pin JST SXAM-01T-P0.6
1.1	GND (blue)
1.2	RSA (white)
1.3	RSB (brown)
2	Cable PVC AWG18
	3-pole connector housing TE 2005250-1
	3x plug pin TE 177917-1
	3x splice
2.1	PE (green/yellow)
2.2	N (blue)
2.3	L (black)
3	Tapping hole prepared for self-tapping screw for fastening plastics (Remform) dia. 4 mm, screw-in depth max. 9 mm, torque is to be determined on the basis of the screw.
4	5x sheet metal nut for thread EN ISO 1478-ST4.8 (max. screw length 20 mm plus thickness of mounting material)
5	Connecting sleeve not suitable for installation with pipe clamps

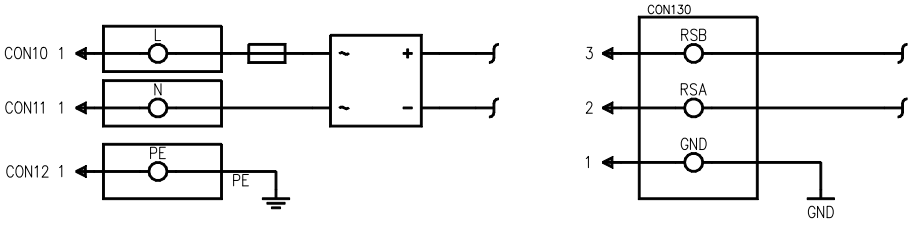
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan - RadiCal

backward-curved, single-intake

with housing (flange)

Connection diagram



No.	Conn.	Designation	Color	Function/assignment
CON10	1	L	black	Power supply, phase, see nameplate for voltage range
CON11	1	N	blue	Power supply, neutral conductor, see nameplate for voltage range
CON12	1	PE	green/yellow	Protective earth
CON130	3	RSB	brown	RS485 interface for MODBUS, RSB; SELV
CON130	2	RSA	white	RS485 interface for MODBUS, RSA; SELV
CON130	1	GND	blue	Reference ground for control interface, SELV

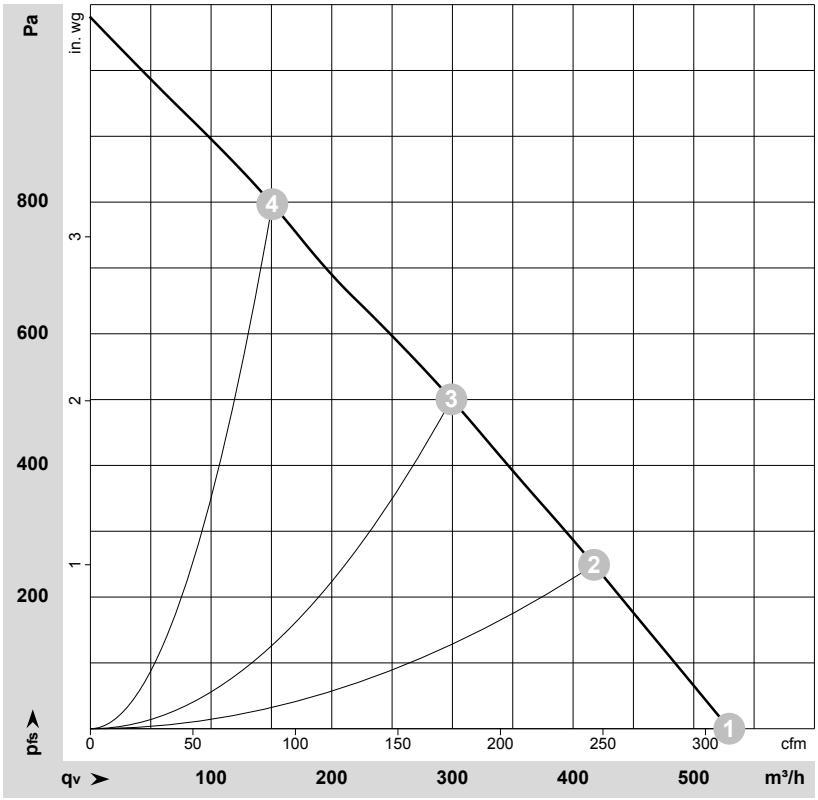
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan - RadiCal

backward-curved, single-intake

with housing (flange)

Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-196385-1

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

	Wired	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	1~	230	50	4490	85	0.75	70	76	79	530	0	310	0.00
2	1~	230	50	4300	85	0.75	65	70	73	415	250	245	1.00
3	1~	230	50	4300	85	0.75	63	69	70	300	500	175	2.01
4	1~	230	50	4710	85	0.75	70	77	80	150	800	90	3.21

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

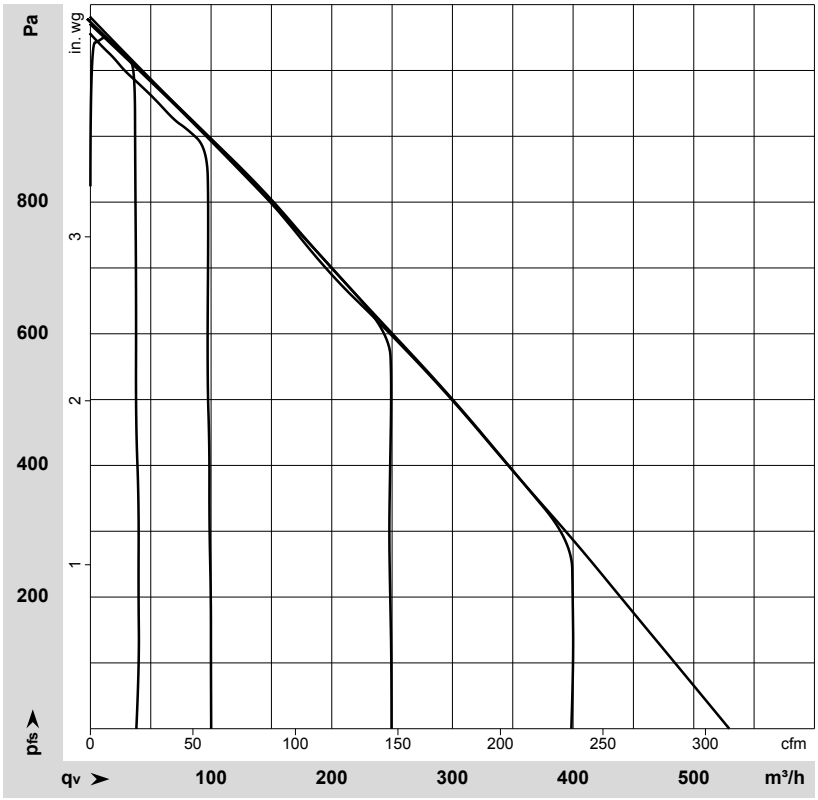
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan - RadiCal

backward-curved, single-intake

with housing (flange)

Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-196385-1

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.

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com