R3G470-AA05-24

EC centrifugal fan

backward-curved, single-intake

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	**R3G470-AA05-24**
Motor	**M3G084-DF**

Phase		1
Nominal voltage	VDC	435
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
External electronics		CHW035AB0201
Speed (rpm)	min^{-1}	1210
Power consumption	W	350
Min. ambient temperature	°C	0
Max. ambient temperature	°C	40

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

EC centrifugal fan

backward-curved, single-intake

Technical description

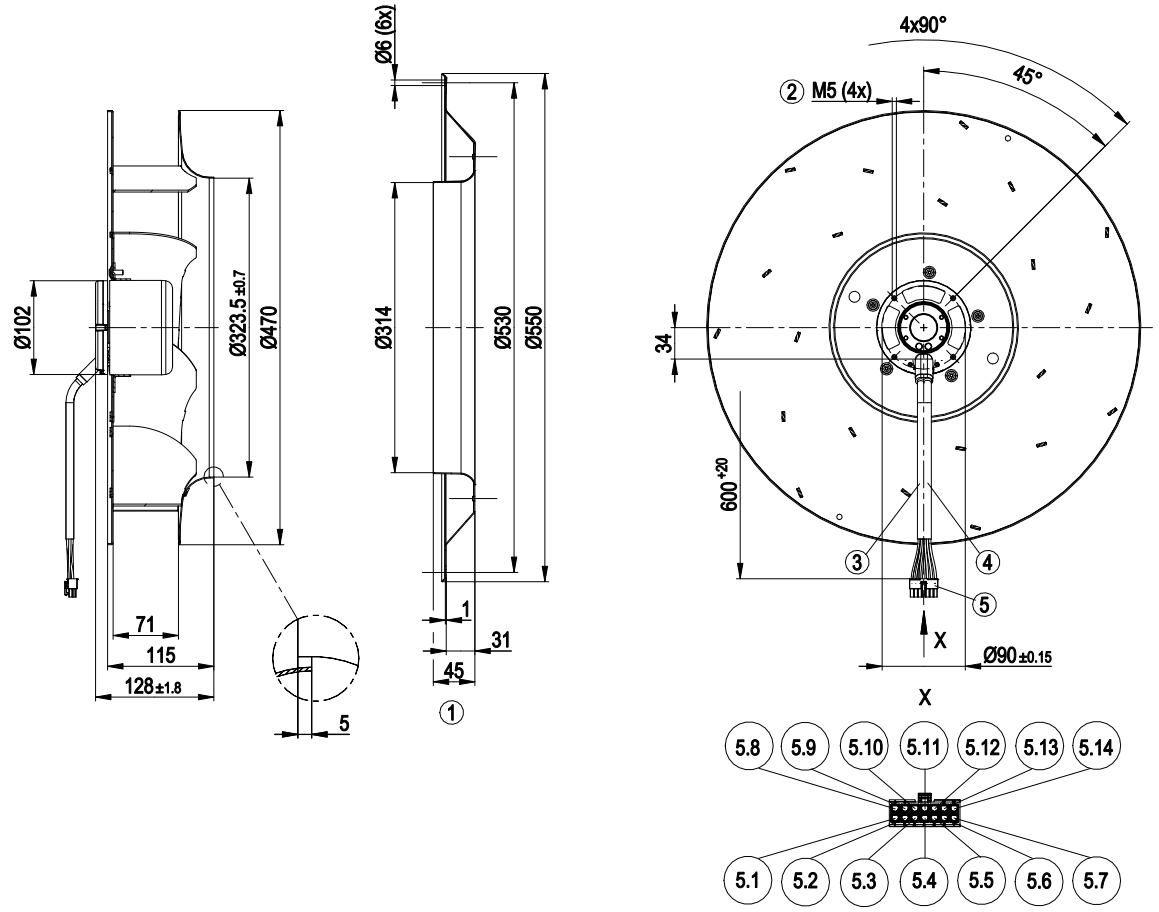
Weight	5.45 kg
Fan size	470 mm
Rotor surface	Painted black
Impeller material	Sheet steel, painted black
Number of blades	7
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F0
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on top
Condensation drainage holes	None
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Speed monitoring Hall IC - 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	PTC thermistor
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1

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

backward-curved, single-intake

Product drawing



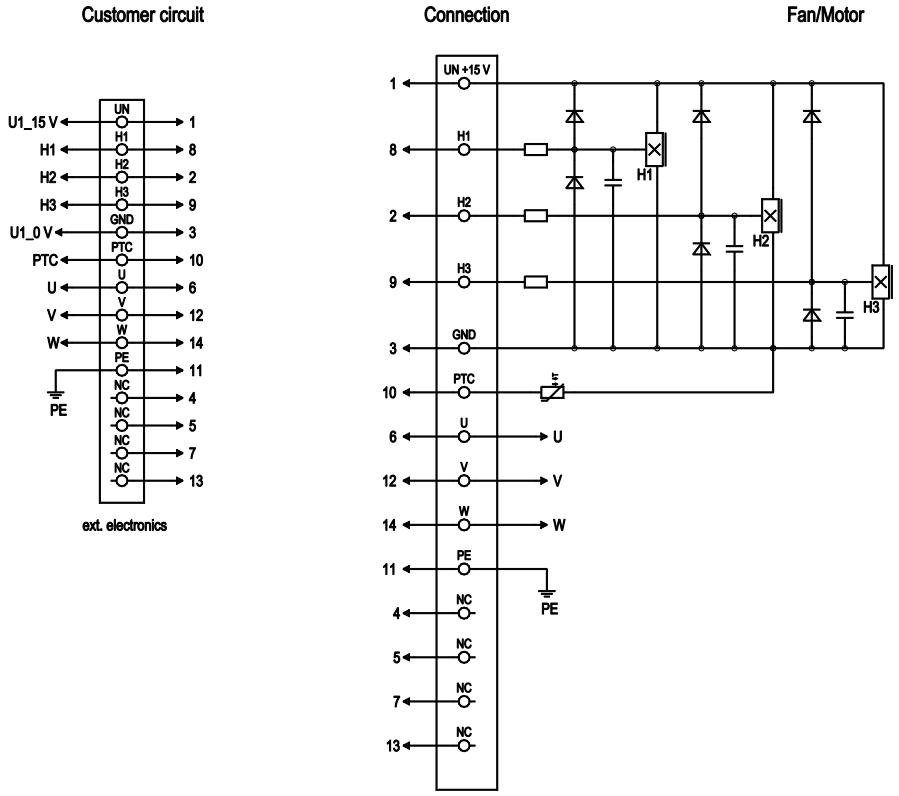
1	Accessory part: Inlet ring 47100-2-4013 and guard grille 47000-2-4039, not included in scope of delivery
2	Max. clearance for screw 8 mm
3	Cable AWG22-300V
4	Cable AWG20-600V
5	Connector housing Molex 39-01-2145 with 10x socket Molex 39-00-0059
5.1	UN +15 V
5.2	Hall 2, open collector
5.3	GND
5.4	not used
5.5	not used
5.6	Motor connection U
5.7	not used
5.8	Hall 1, open collector
5.9	Hall 3, open collector
5.10	PTC
5.11	PE
5.12	Motor connection V
5.13	not used
5.14	Motor connection W
6	Accessory part: external electronics CHW035-AB02-01 not included in scope of delivery

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

backward-curved, single-intake

Connection diagram



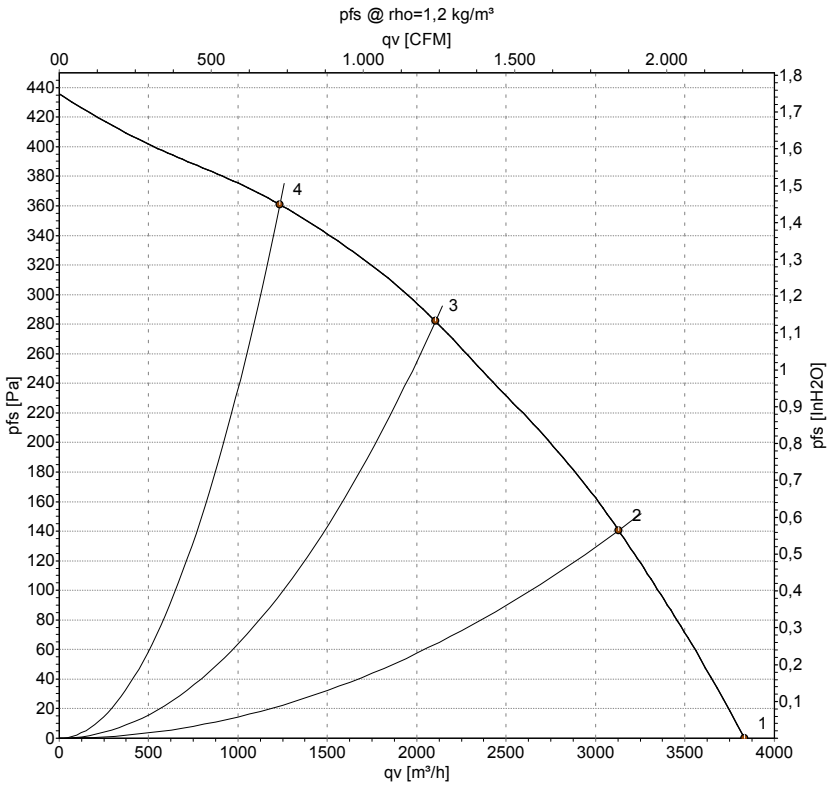
No.	Conn.	Designation	Color	Function/assignment
2	1	UN +15 V	red	Power supply
2	2	H2	brown	Hall 2, open collector
2	3	GND	blue	Reference ground
2	4	NC	-	not used
2	5	NC	-	not used
1	6	U	black	Motor connection U
2	7	NC	-	not used
2	8	H1	orange	Hall 1, open collector
2	9	H3	yellow	Hall 3, open collector
2	10	PTC	black	PTC
1	11	PE	green/yellow	Protective earth terminal
1	12	V	blue	Motor connection V
2	13	NC	-	not used
1	14	W	brown	Motor connection W

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

backward-curved, single-intake

Curves: Air performance 50 Hz



Measurement: LU-154848-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	220	50	1210	223	1.02	3835	0	2255	0.00
2	220	50	1210	309	1.41	3130	140	1840	0.56
3	220	50	1210	350	1.61	2105	280	1240	1.12
4	220	50	1210	314	1.43	1235	360	725	1.45

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = 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