W3G315-CM01-32

EC axial fan

sickle-shaped blades (S series), single-intake
with round full nozzle

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Nominal data

Type	**W3G315-CM01-32**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1635
Power consumption	W	140
Current draw	A	1.1
Max. back pressure	Pa	120
Max. back pressure	in. wg	0.48
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	41.5	28.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		53.4	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.13
09 Air flow q_v	m^3/h	1605
09 Pressure increase p_{fs}	Pa	107
10 Speed (rpm) n	min^{-1}	1650
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

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Technical description

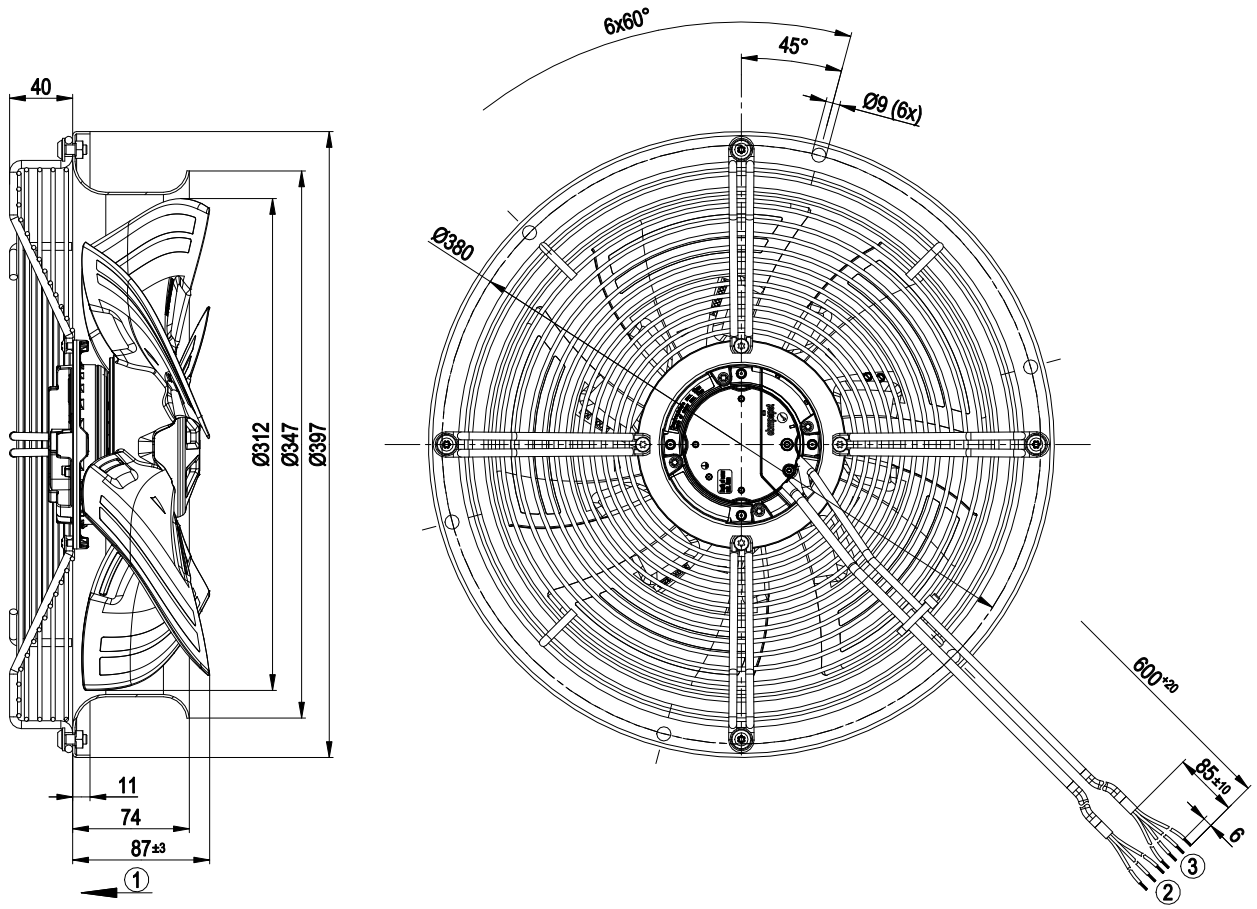
Weight	5 kg
Fan size	315 mm
Rotor surface	Galvanized
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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	None, open rotor
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	CSA C22.2 No. 77; UL 1004-7 + 60730

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Product drawing



1	Direction of air flow "V"
2	Cable PVC AWG20, 4x crimped splices
3	Cable PVC AWG22, 4x crimped splices

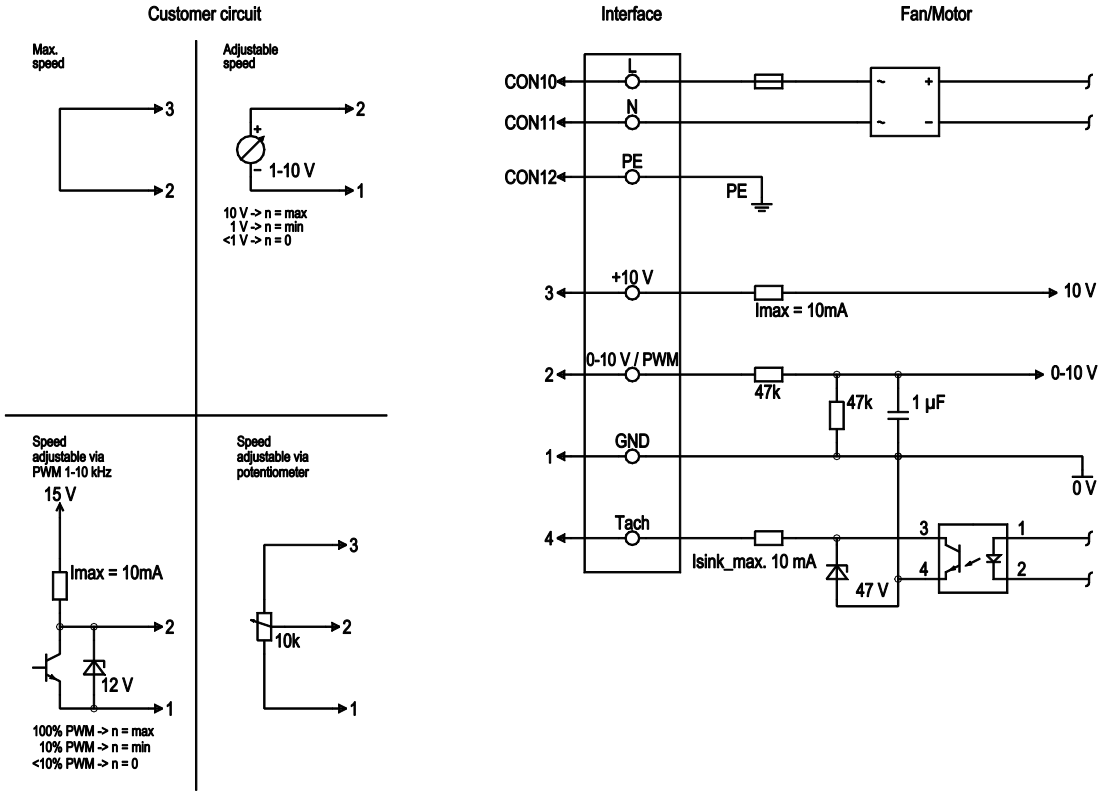
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

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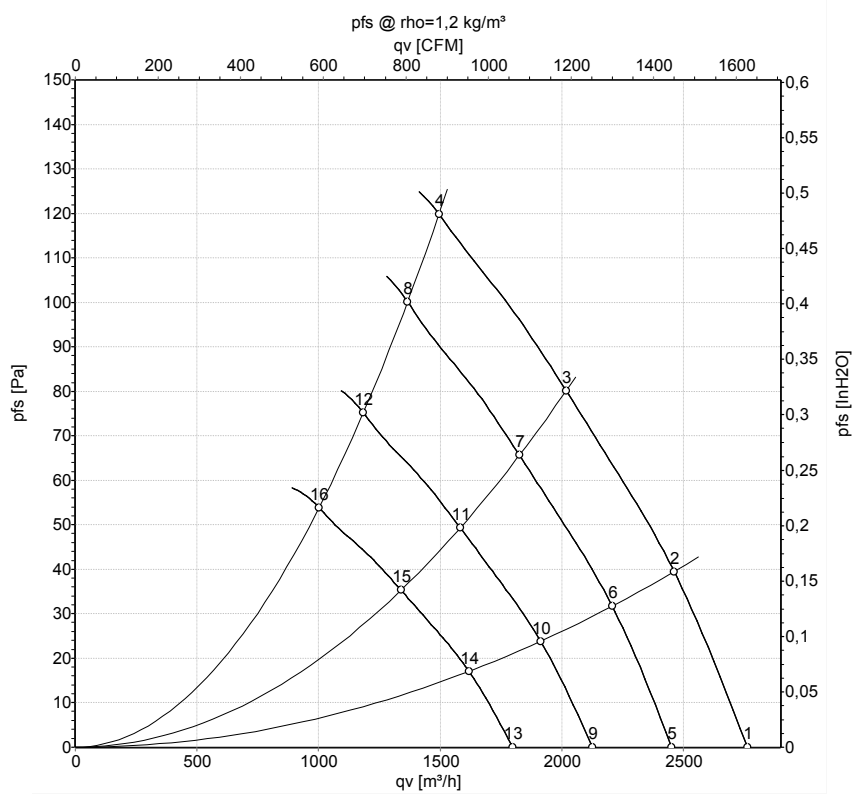
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Curves: Air performance 50 Hz



Measurement: LU-161584-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	230	50	1690	113	0.95	60	67	2765	0	1625	0.00
2	230	50	1675	121	1.01	59	66	2460	40	1450	0.16
3	230	50	1660	128	1.07	59	66	2020	80	1190	0.32
4	230	50	1635	140	1.10	59	67	1495	120	880	0.48
5	230	50	1500	79	0.66	57	64	2450	0	1445	0.00
6	230	50	1500	87	0.73	56	63	2205	32	1300	0.13
7	230	50	1500	95	0.79	57	63	1825	66	1075	0.26
8	230	50	1500	102	0.85	57	64	1365	100	805	0.40
9	230	50	1300	51	0.43	54	60	2125	0	1250	0.00
10	230	50	1300	57	0.47	53	59	1915	24	1125	0.10
11	230	50	1300	62	0.52	53	60	1585	49	930	0.20
12	230	50	1300	67	0.55	53	61	1185	75	695	0.30
13	230	50	1100	31	0.26	49	56	1800	0	1060	0.00
14	230	50	1100	34	0.29	48	55	1620	17	955	0.07
15	230	50	1100	38	0.31	49	56	1340	35	790	0.14
16	230	50	1100	40	0.34	49	56	1000	54	590	0.22

U = Power supply · 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
q_V = Air flow · p_{fs} = Pressure increase

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