W3G400-CN04-32

EC axial fan - HyBlade

sickle-shaped blades (S series)

Fan housing with guard grille, Automotive

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W3G400-CN04-32**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1080
Power consumption	W	140
Current draw	A	1.15
Max. back pressure	Pa	75
Max. back pressure	inH2O	0.3
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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	36.8	28.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		48.7	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.13
09 Air flow q_v	m^3/h	2700
09 Pressure increase p_{fs}	Pa	58
10 Speed (rpm) n	min^{-1}	1095
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

LU-137607

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Technical description

Weight	6.2 kg
Fan size	400 mm
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	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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
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	PTC thermistor
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	CCC; C22.2 No.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730

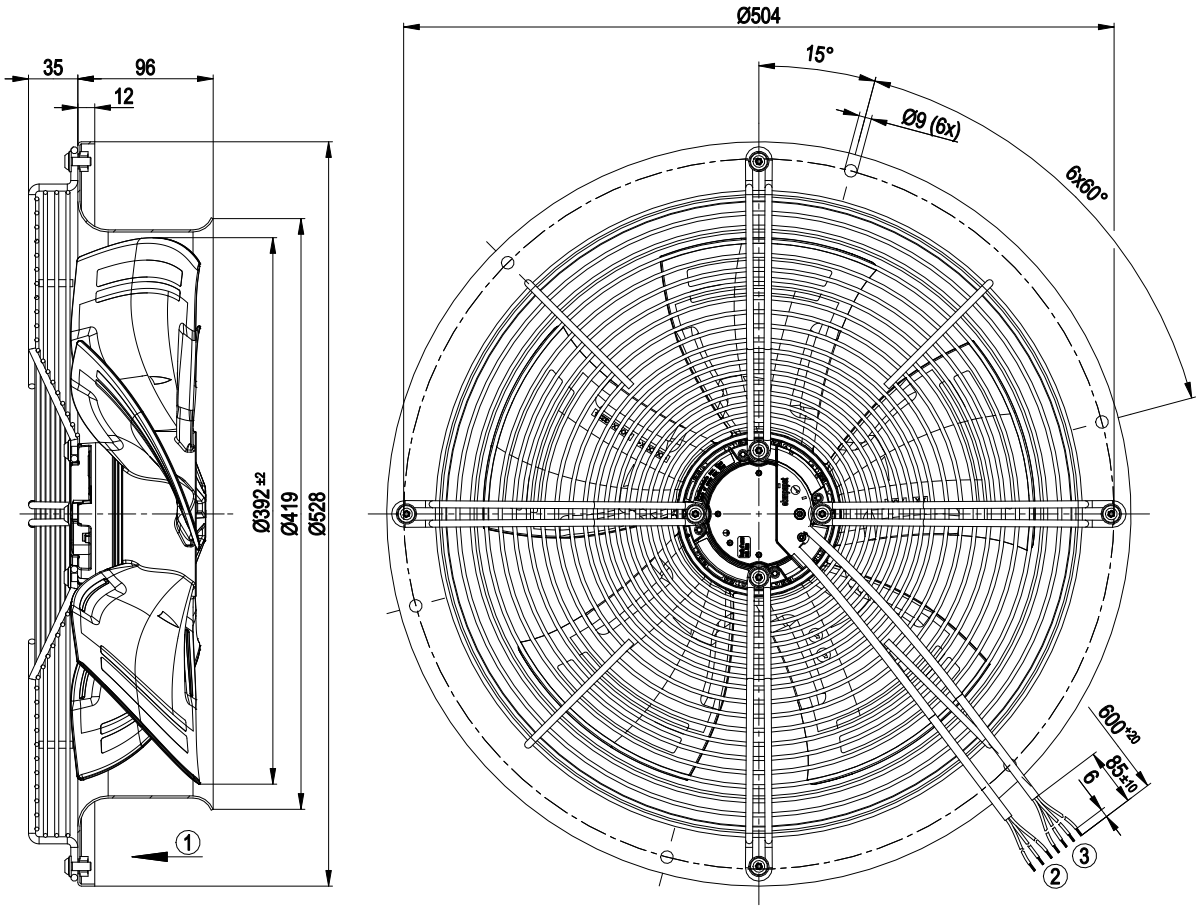
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Product drawing



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

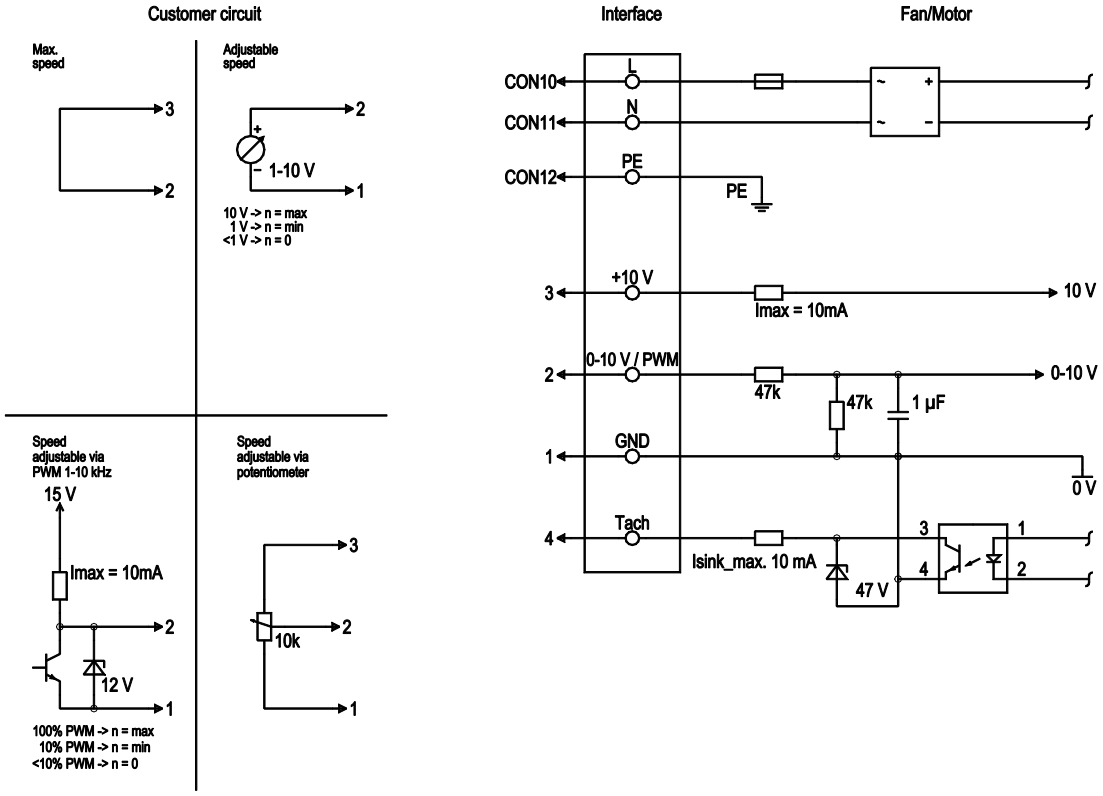
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Connection diagram



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

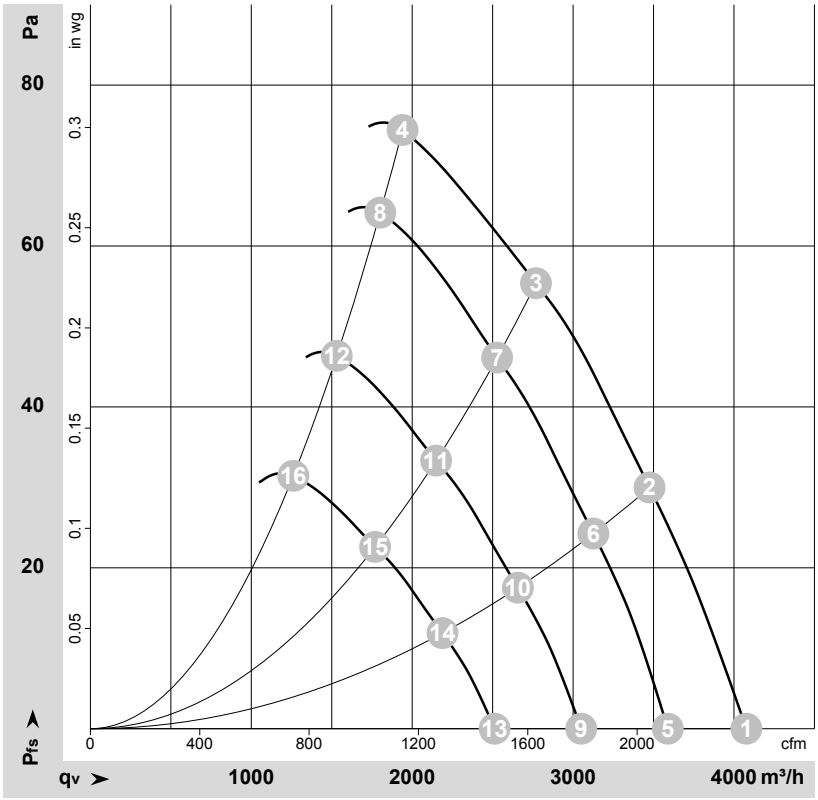
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-137607-1

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}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	50	1135	116	0.97	62	69	4075	0	2400	0.00
2	230	50	1110	127	1.05	59	66	3475	30	2045	0.12
3	230	50	1095	133	1.09	55	63	2770	55	1630	0.22
4	230	50	1080	140	1.15	61	69	1940	75	1140	0.30
5	230	50	1000	79	0.66	59	66	3590	0	2110	0.00
6	230	50	1000	92	0.76	57	63	3125	24	1840	0.10
7	230	50	1000	101	0.83	53	60	2530	46	1490	0.18
8	230	50	1000	110	0.91	59	67	1800	64	1060	0.26
9	230	50	850	49	0.40	55	62	3050	0	1795	0.00
10	230	50	850	57	0.47	53	59	2655	18	1565	0.07
11	230	50	850	62	0.51	49	56	2150	33	1265	0.13
12	230	50	850	68	0.56	55	63	1530	46	900	0.18
13	230	50	700	27	0.23	50	57	2510	0	1480	0.00
14	230	50	700	32	0.26	48	55	2190	12	1290	0.05
15	230	50	700	35	0.28	44	51	1770	23	1040	0.09
16	230	50	700	38	0.31	50	58	1260	31	740	0.12

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
qv = Air flow · p_{fs} = Pressure increase

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