W3G450-DA35-72

EC axial fan

sickled blades (S series)

with full square nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W3G450-DA35-72**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	1380
Power input	W	495
Current draw	A	3.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		35.2	27.8	31.8
Efficiency grade N		43.4	36	40
Power input P_{ed}	kW	0.5		
Air flow q_v	m^3/h	4210		
Pressure increase p_{fs}	Pa	137		
Speed n	min^{-1}	1395		

Data established at point of optimum efficiency

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Technical features

Mass	10.7 kg
Size	450 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of blades	Sheet steel, coated in black
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Direction of rotation	"A"
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Alarm relay - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor - Line undervoltage detection - Control interface with SELV potential safely disconnected from the mains - Output 10 VDC, max. 1.1 mA
EMC interference immunity	Acc. to EN 61000-6-2
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	CE
Approval	CSA C22.2 Nr.77; UL 2111

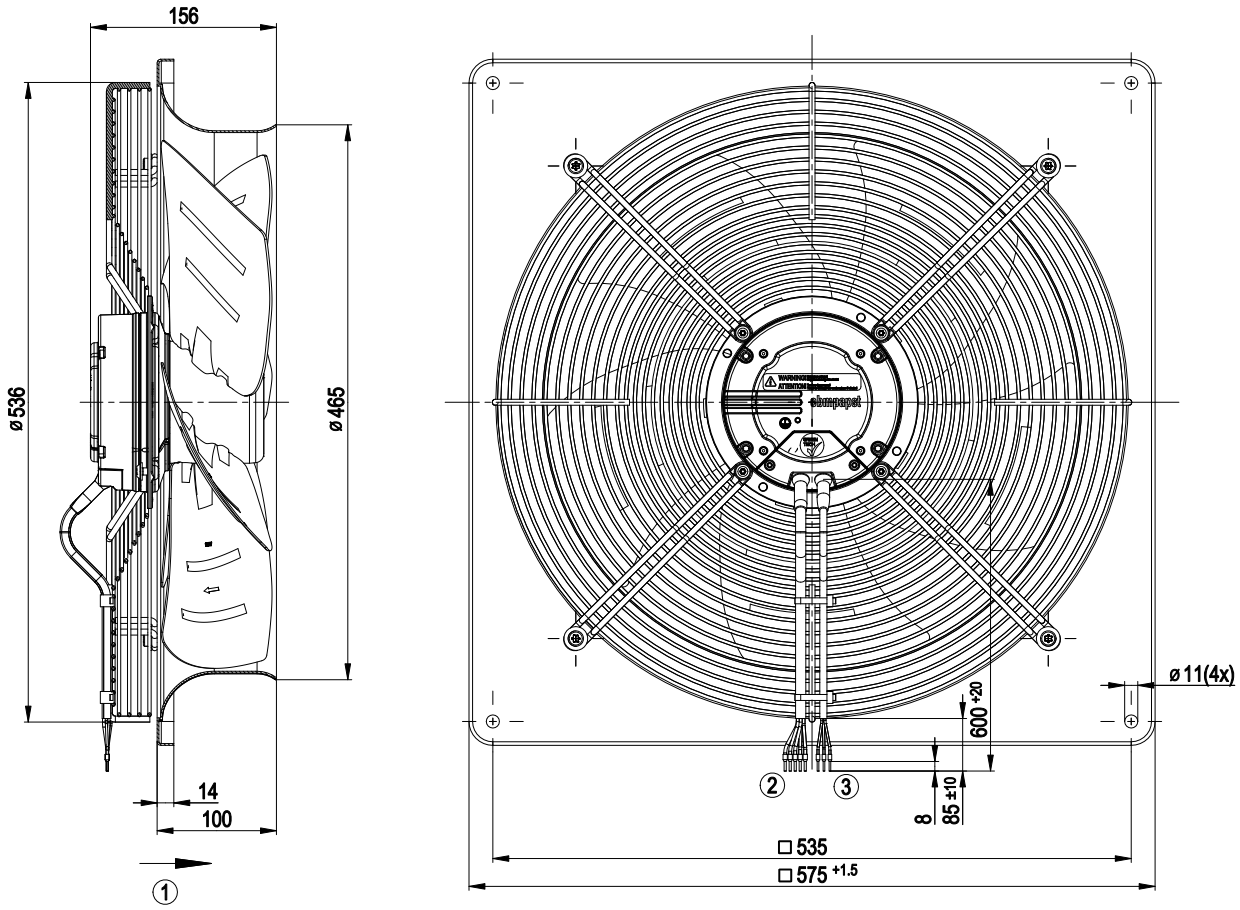
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Product drawing



1	Direction of air flow "A"
2	Connection line PVC AWG18, 5 x crimped core-end sleeve
3	Connection line PVC AWG22, 3 x crimped core-end sleeve

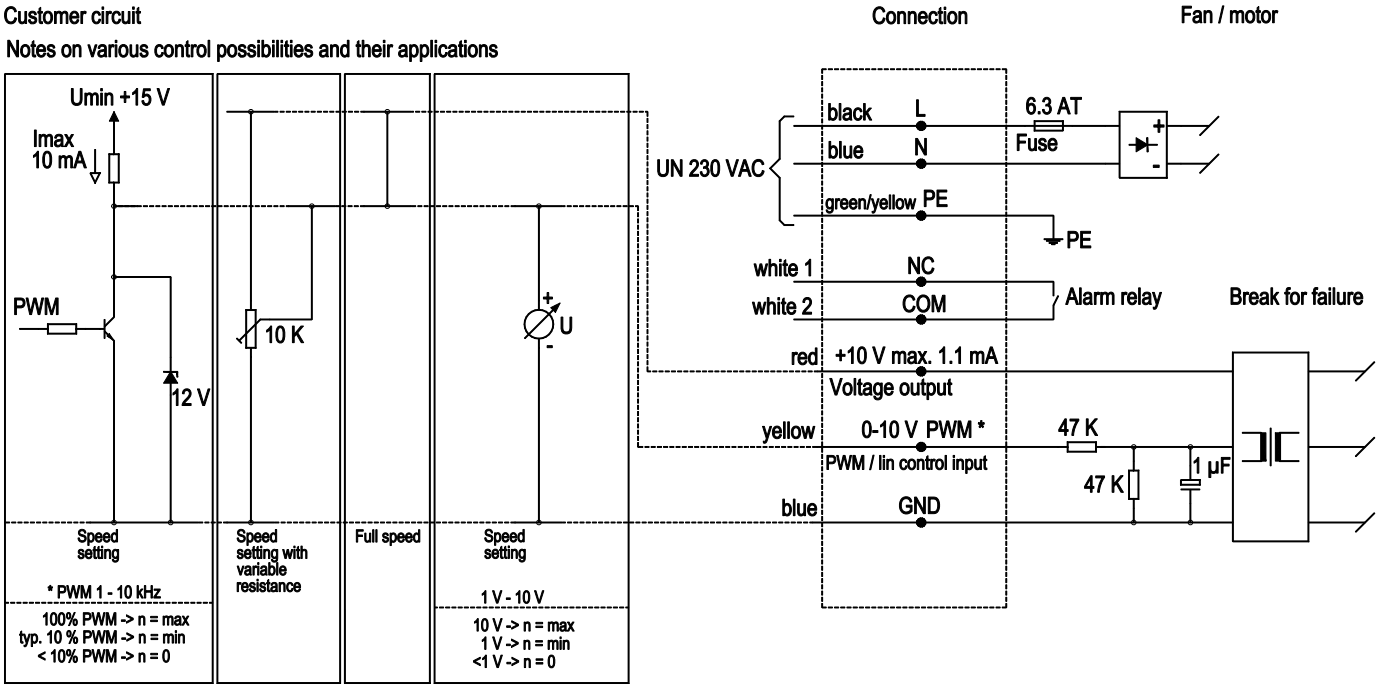
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Connection screen



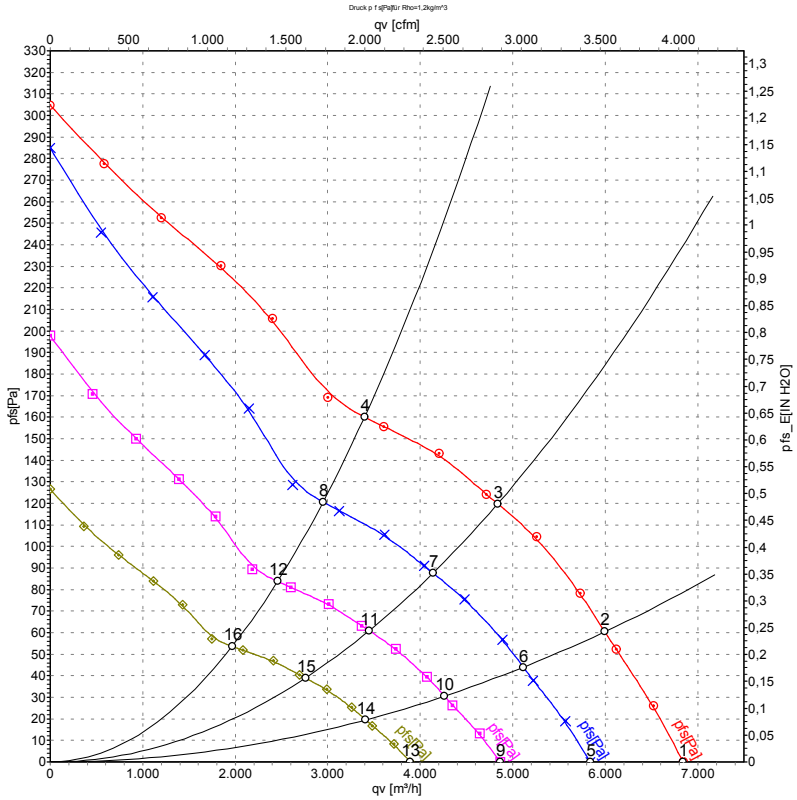
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Charts: Air flow 50 Hz



Measurement: LU-69735

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1400	398	2.53	6845	0
2	230	50	1400	452	2.87	5995	60
3	230	50	1400	498	3.17	4840	120
4	230	50	1380	525	3.30	3400	160
5	230	50	1200	247	1.57	5840	0
6	230	50	1200	280	1.78	5115	44
7	230	50	1200	312	1.98	4140	88
8	230	50	1200	338	2.15	2950	121
9	230	50	1000	143	0.91	4865	0
10	230	50	1000	162	1.03	4260	30
11	230	50	1000	181	1.15	3450	61
12	230	50	1000	196	1.24	2460	84
13	230	50	800	73	0.47	3890	0
14	230	50	800	83	0.53	3410	20
15	230	50	800	92	0.59	2760	39
16	230	50	800	100	0.64	1965	54

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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