

EC axial fan - HyBlade

sickled blades (S series)
with full square nozzle

W3G630-DR85-02 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Nominal data

Type	W3G630-DR85-02	
Motor	M3G112-IA	
Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min ⁻¹	1140
Power input	W	970
Current draw	A	1.6
Max. back pressure	Pa	170
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	45.1	33.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		51.5	40
05 Variable speed drive		Yes	

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

09 Power input P_{ed}	kW	0.97
09 Air flow q_v	m³/h	8935
09 Pressure increase p_{fs}	Pa	163
10 Speed (rpm) n	min ⁻¹	1155
11 Specific ratio*		1.00

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-115687



Technical features

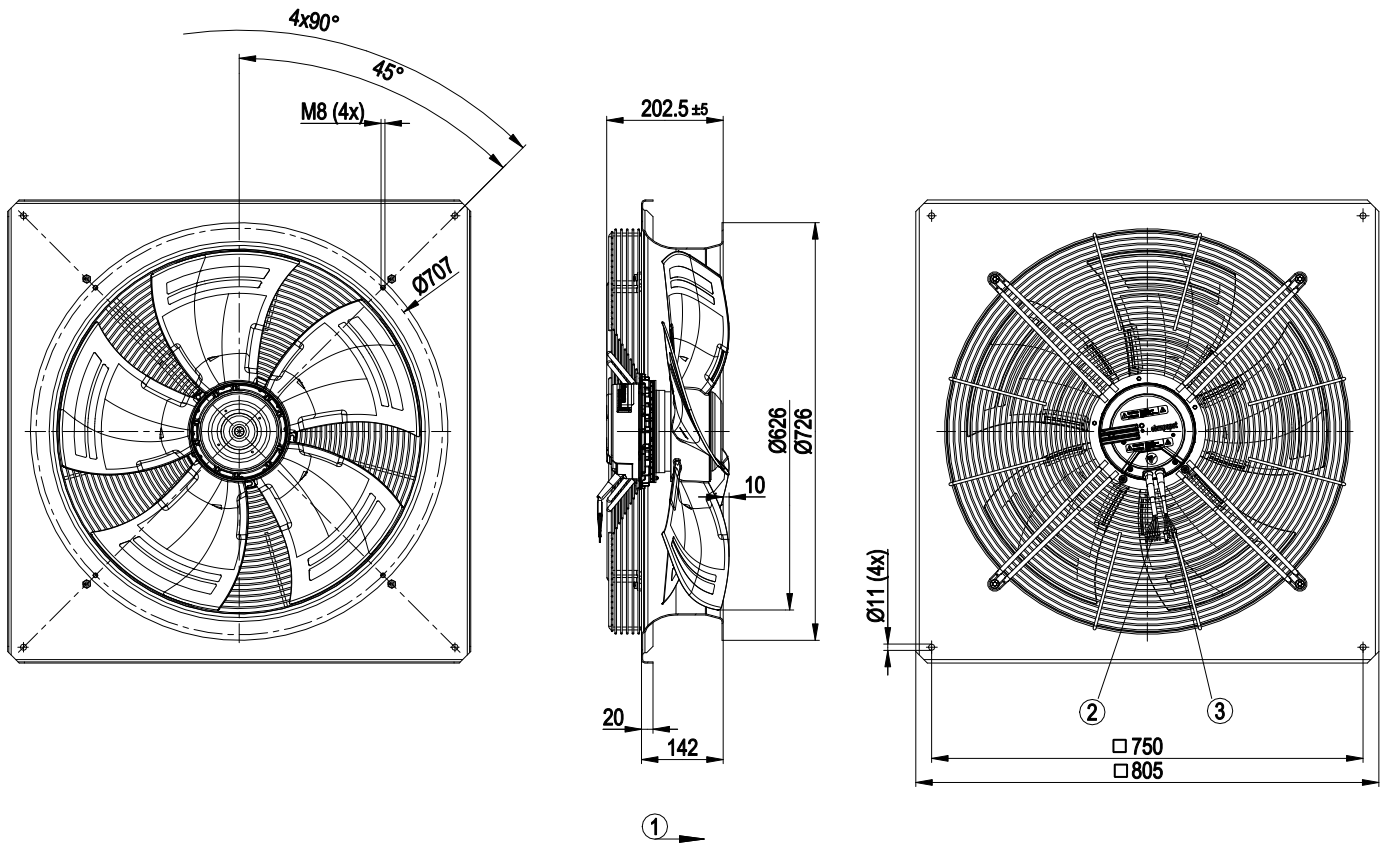
Mass	26.3 kg
Size	630 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of wall ring	Sheet steel, galvanised and coated in black plastic (RAL 9005)
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F4-1
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	- Output 10 VDC, max. 10 mA - Alarm relay - Integrated PID controller - Motor current limit - PFC, passive - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage / phase failure detection
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	EN 61800-5-1; CE
Approval	EAC

EC axial fan - HyBlade

sickled blades (S series)

with full square nozzle

Product drawing



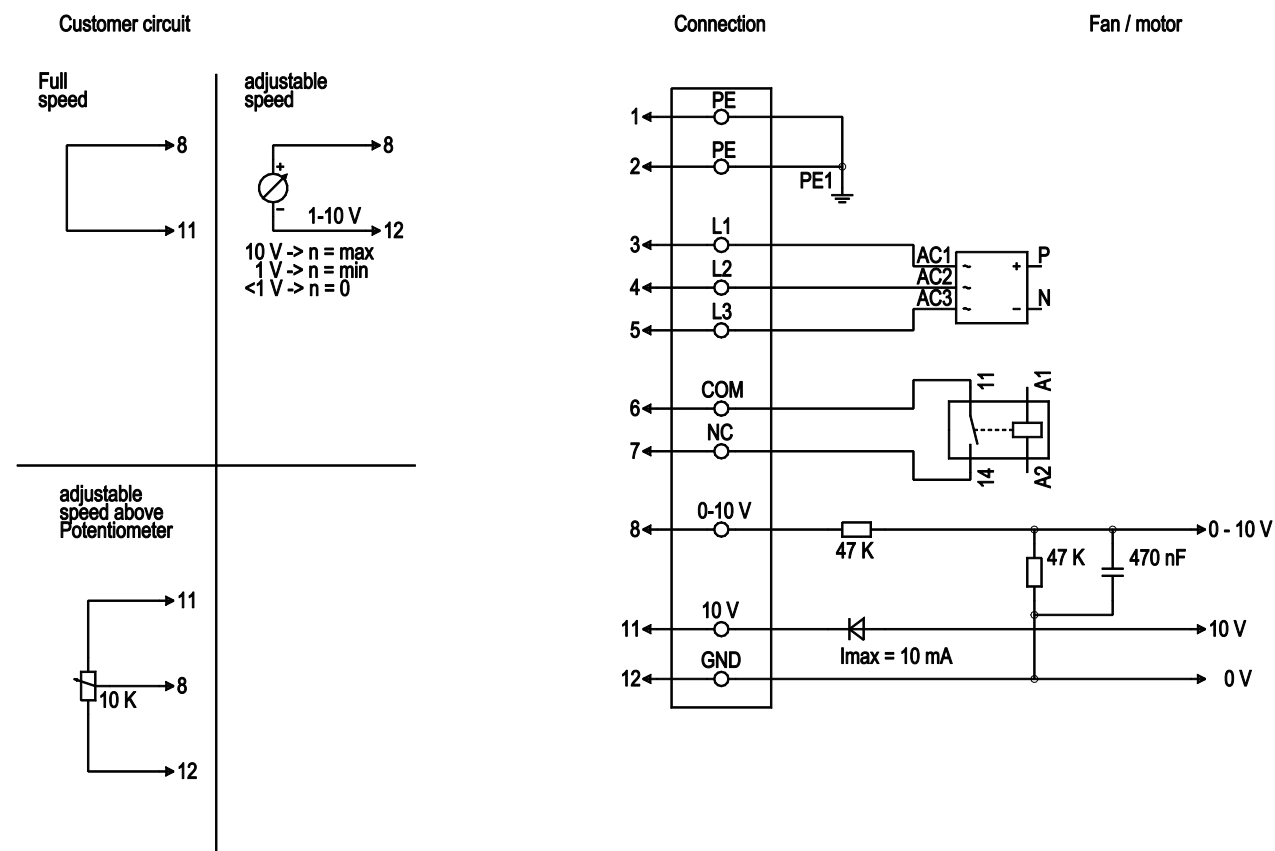
1	Direction of air flow "A"
2	Connection line PVC AWG18, 5x crimped core-end sleeves
3	Connection line PVC, AWG22, 4x crimped core-end sleeves

EC axial fan - HyBlade

sickled blades (S series)

with full square nozzle

Connection screen



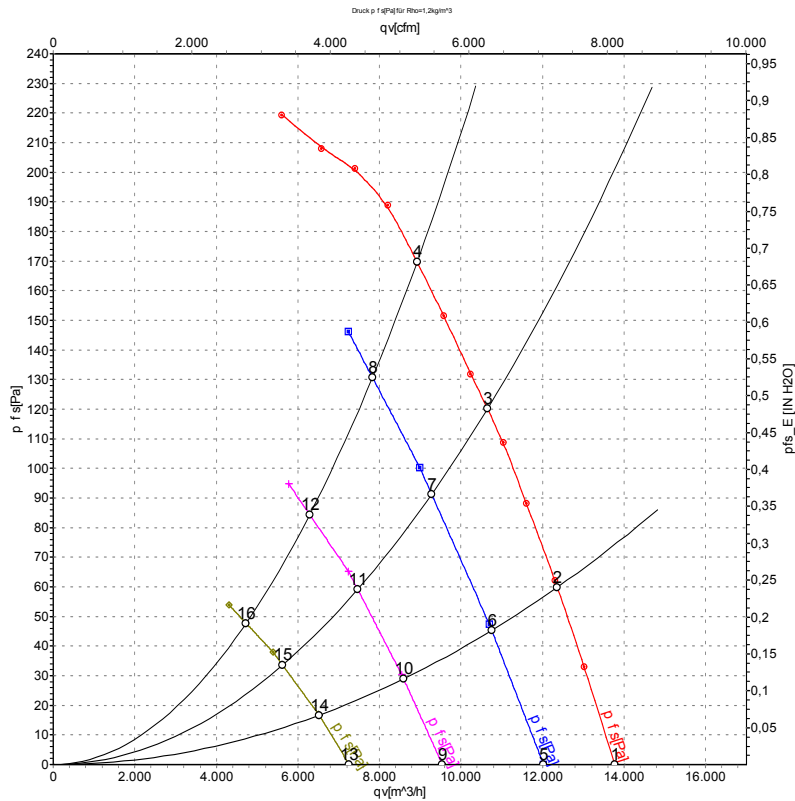
No.	Conn.	Designation	Colour	Function / assignment
1	1, 2	PE	green/yellow	Protective earth
1	3, 4, 5	L1, L2, L3	black	Supply voltage 50 / 60 Hz
1	6	COM	white 1	Floating status contact, break for failure (2 A, max. 250 VAC, min. 10 mA, AC1)
1	7	NC	white 2	Floating status message contact, break for failure
2	8	0 - 10 V	yellow	Control input, set value 0 - 10 VDC, impedance 100 kOhm, SELV
2	11	+ 10 V	red	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for ext. devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference mass for control interface, SELV

EC axial fan - HyBlade

sickled blades (S series)

with full square nozzle

Charts: Air flow 50 Hz



Measurement: LU-115687-1
 Measurement: LU-118125-1
 Measurement: LU-118126-1
 Measurement: LU-118127-1

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: L_{wA} measured as per ISO 13347 /
 L_{pA} 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	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)	m³/h	Pa	cfm	inH ₂ O
1	400	50	1140	642	1.02	67	74	74	13770	0	8105	0.00
2	400	50	1140	775	1.25	64	71	71	12360	60	7275	0.24
3	400	50	1140	892	1.42	66	72	71	10650	120	6270	0.48
4	400	50	1140	970	1.60	68	74	73	8920	170	5250	0.68
5	400	50	1000	406	0.75	64	71	70	12020	0	7075	0.00
6	400	50	1000	490	0.86	61	68	67	10750	45	6325	0.18
7	400	50	1000	564	0.95	62	69	68	9280	91	5460	0.37
8	400	50	1000	626	1.05	63	70	69	7830	131	4610	0.53
9	400	50	800	224	0.45	59	65	65	9540	0	5615	0.00
10	400	50	800	270	0.53	56	62	62	8595	29	5060	0.12
11	400	50	800	300	0.58	56	63	62	7470	59	4395	0.24
12	400	50	800	331	0.64	57	64	64	6290	84	3700	0.34
13	400	50	600	109	0.25	52	59	58	7255	0	4270	0.00
14	400	50	600	124	0.28	50	56	56	6520	17	3840	0.07
15	400	50	600	139	0.31	50	56	56	5625	34	3310	0.14
16	400	50	600	152	0.33	50	57	57	4730	48	2785	0.19

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · LwA_{out} = Sound power level outlet side
 q_v = Air flow · p_{fs} = Pressure increase

