EC axial fan with guard grille for short nozzle

sickled blades (S series)

S3G710-AO85-21/F01 ebmpapst Datasheet
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www.fansco.com

Nominal data

Type	**S3G710-AO85-21/F01**
Motor	**M3G112-IA**

Phase		1~
Nominal voltage	[VAC]	230
Nominal voltage range	[VAC]	200 .. 277
Frequency	[Hz]	50/60
Type of data definition		ml
State		prelim.
Speed	[min^{-1}]	830
Power input	[W]	700
Current draw	[A]	3,1
Max. back pressure	[Pa]	105
Min. ambient temperature	[°C]	-25
Max. ambient temperature	[°C]	+60
Air flow	[m^3/h]	8800
Back pressure	[Pa]	105
Sound power level	[dB(A)]	76
Sound pressure level	[dB(A)]	69

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

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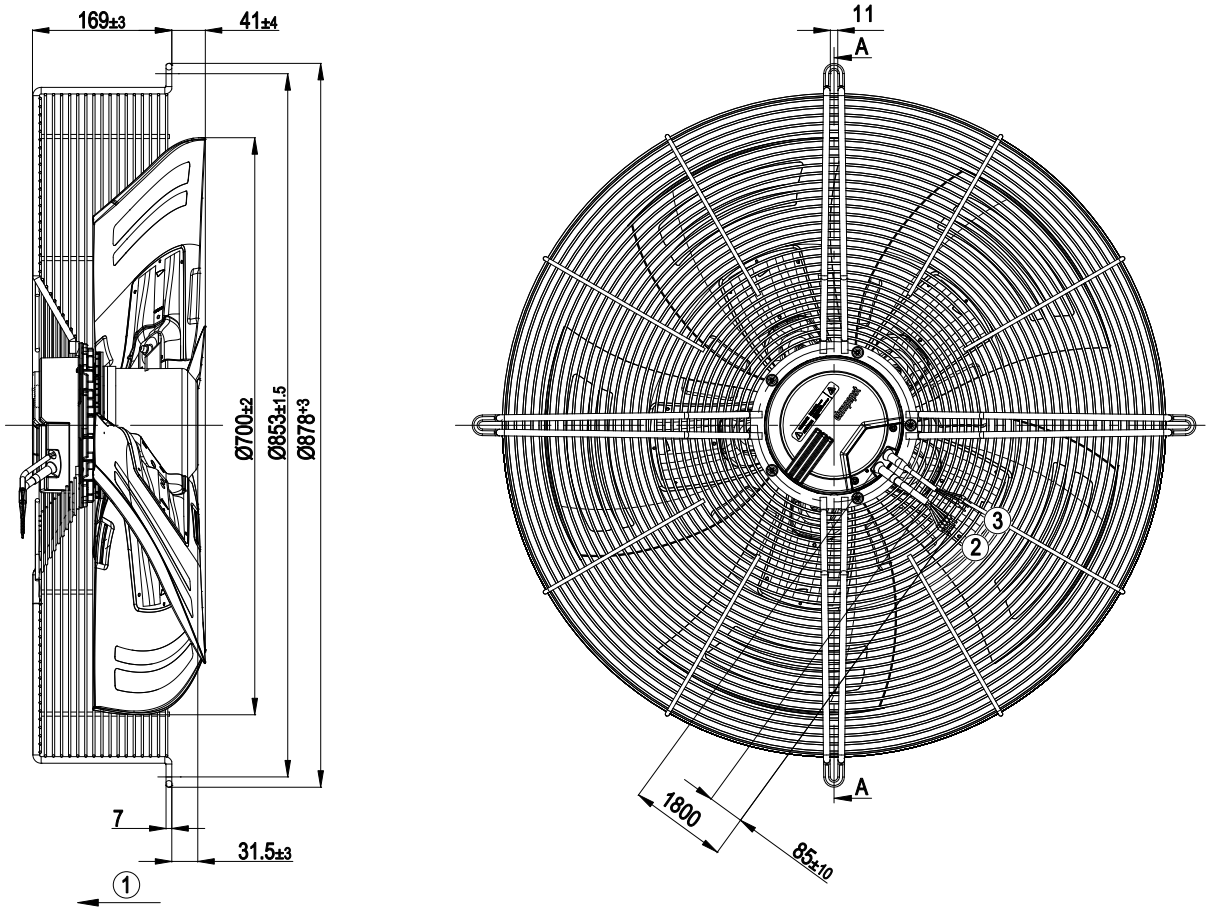
Technical features

Size	710 mm
Line	HyBlade
Operation mode	S1
Direction of rotation	Counter-clockwise, seen on rotor
Mounting position	Shaft horizontal or rotor on bottom
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
EMC interference immunity	Acc. to EN 61000-6-2
Humidity class	F4-1
Direction of air flow	"V"
Insulation class	"B"
Cable exit	Variable
Condensate discharge holes	Rotor-side
Bearing motor	Ball bearing
Mass	18.5 kg
Material of electronics housing	Die-cast aluminium
Material of impeller	PP-GF40 plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Motor protection	Thermal overload protector (TOP) wired internally
Product conforming to standard	CE
Surface of rotor	Coated in black
Number of blades	5
Type of protection	IP 54
Protection class	I
Technical features	- Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor - Alarm relay - PFC, active - Motor current limit - Soft start - Line undervoltage / phase failure detection - Output 10 VDC, max. 10 mA
Max. permissible ambient motor temp. (transp./ storage)	Max. +80 °C
Min. permissible ambient motor temp. (transp./storage)	Min. -40 °C

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Product drawing

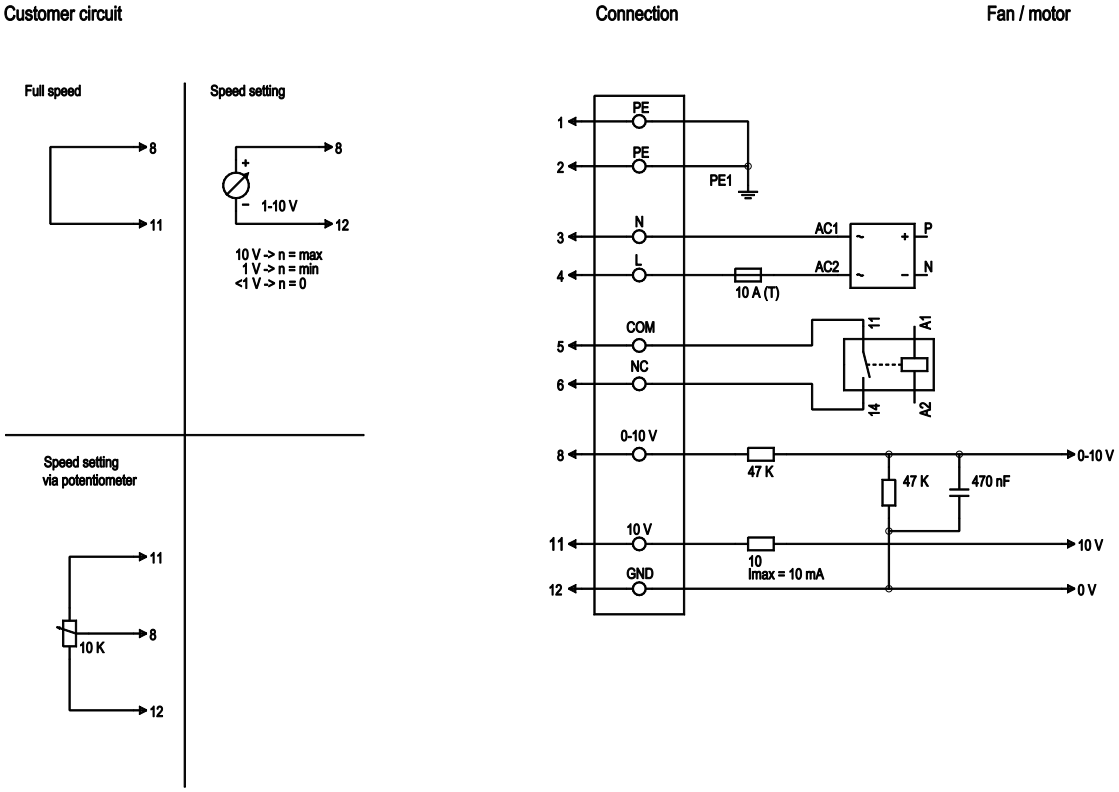


1	Direction of air flow "V"
2	Connection line AWG18, 5 x crimped core-end sleeves
3	Connecting line AWG22, 3 x crimped core-end sleeves

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Connection screen

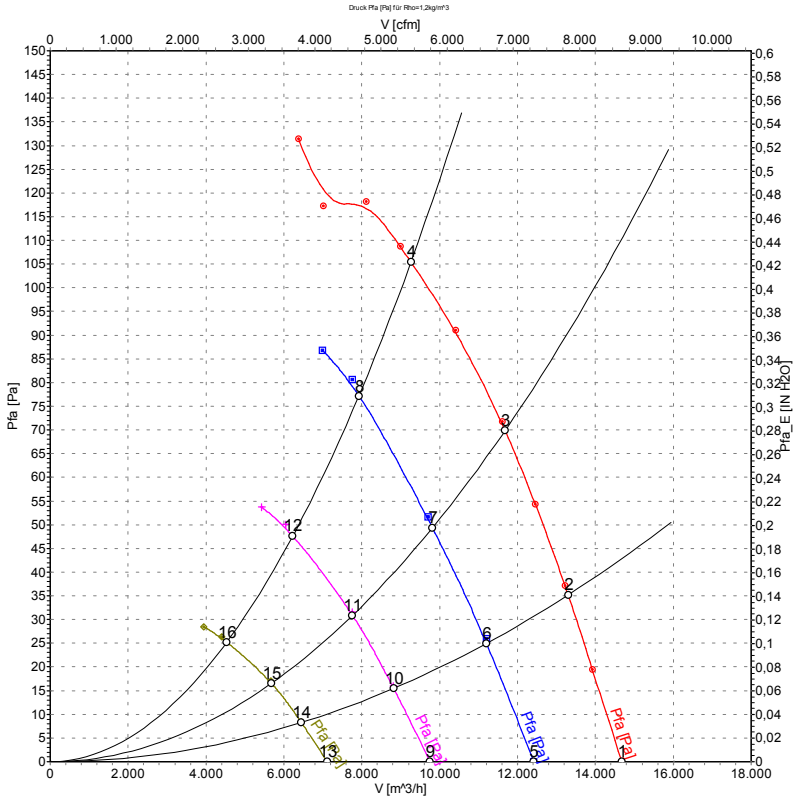


Line	No.	Signal	Colour	Function / assignment
1	1,2	PE	grün / gelb	Protective earth
1	3	N	blau	Supply voltage, neutral conductor, 50/60 Hz
1	4	L	schwarz	Supply voltage, phase, 50/60 Hz
1	5	COM	weiß 1	Floating status message contact, normally closed for error (2 A, max. 250 VAC, min. 10 mA, AC1)
1	6	NC	weiß 2	Floating status message contact, normally closed for error
2	8	0-10 V	gelb	Control input, set value 0-10 VDC, impedance 100 kΩ, SELV
2	11	10 VDC	rot	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for external devices (e.g. potentiometer), SELV
2	12	GND	blau	Reference mass for control interface, SELV

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Charts: Air flow 50 Hz



Measurement: LU-116183
Measurement: LU-118158
Measurement: LU-118159
Measurement: LU-118160

Measured values

	U	f	n	P_1	I	LpA_{ss}	LpA_{ds}	LwA_{ss}	LwA_{ds}	$\dot{V}$	p_{fa}
	[V]	[Hz]	[min^{-1}]	[W]	[A]	[dB(A)]	[dB(A)]	[dB(A)]	[dB(A)]	[m^3/h]	[Pa]
1	230	50	830	451	2.08	62	56	69	68	14680	0
2	230	50	830	544	2.48	61	53	67	67	13300	35
3	230	50	830	631	2.84	61	53	68	67	11680	70
4	230	50	830	700	3.10	69	60	75	75	9265	105
5	230	50	700	268	1.24	58	52	64	64	12410	0
6	230	50	700	319	1.47	57	49	63	63	11200	26
7	230	50	700	366	1.69	58	49	64	64	9815	50
8	230	50	700	419	1.92	65	57	71	71	7925	78
9	230	50	550	143	0.67	53	44	58	58	9755	0
10	230	50	550	168	0.78	52	43	58	58	8820	16
11	230	50	550	190	0.89	54	45	60	60	7760	32
12	230	50	550	215	1.00	59	51	66	66	6225	48
13	230	50	400	66	0.37	47	36	52	52	7110	0
14	230	50	400	75	0.41	46	36	52	51	6450	8
15	230	50	400	83	0.45	49	40	55	55	5680	17
16	230	50	400	94	0.49	52	43	58	58	4530	25

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