D3G283-AA53-12

EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**D3G283-AA53-12**	
Motor	**M3G112-EA**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	1500
Power input	W	745
Current draw	A	3.4
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*	1.01

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		58	29.2	36.2
Efficiency grade N		65.8	37	44
Power input P_{ed}	kW	0.59		
Air flow q_v	m^3/h	1915		
Pressure increase p_{fs}	Pa	587		
Speed n	min^{-1}	1540		

Data established at point of optimum efficiency

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Technical features

Mass	17 kg
Size	283 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet steel, galvanised
Housing material	Sheet steel, galvanised
Motor suspension	Motor mounted with anti-vibration on both sides
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"B"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal
Condensate discharge holes	None
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- PFC, passive - Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Over-temperature protected electronics / motor - Alarm relay - Integrated PID controller - RS485 ebmBUS - Motor current limit - Soft start - Line undervoltage / phase failure detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-4 (industrial 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)

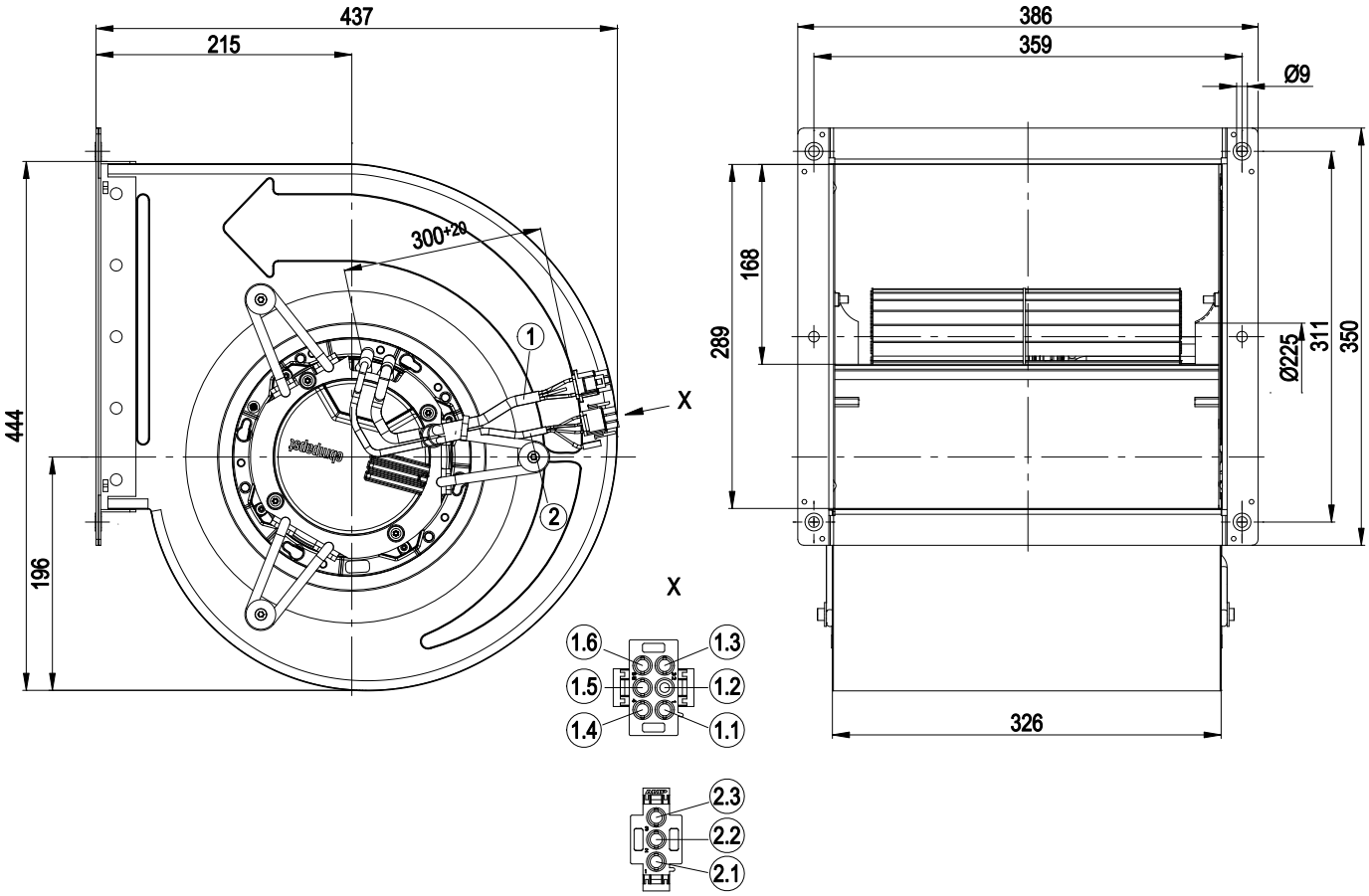
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Product drawing



Cable length from electronics enclosure: 300+20 mm

X	View X
1	Connection line AWG 18 with connector housing AMP order no. 350 715-4 with 5 x plug pin AMP order no. 926 883-1
1.1	PE (gr / yellow)
1.2	Not assigned
1.3	N (blue)
1.4	L (black)
1.5	NC (like 1)
1.6	COM (like 2)
2	Connection line AWG 22 with connector housing AMP order no. 350 766-4 with 3 x plug pin AMP order no. 926 885-1
2.1	0-10V / PWM (yellow)
2.2	+10V (red)
2.3	GND (blue)

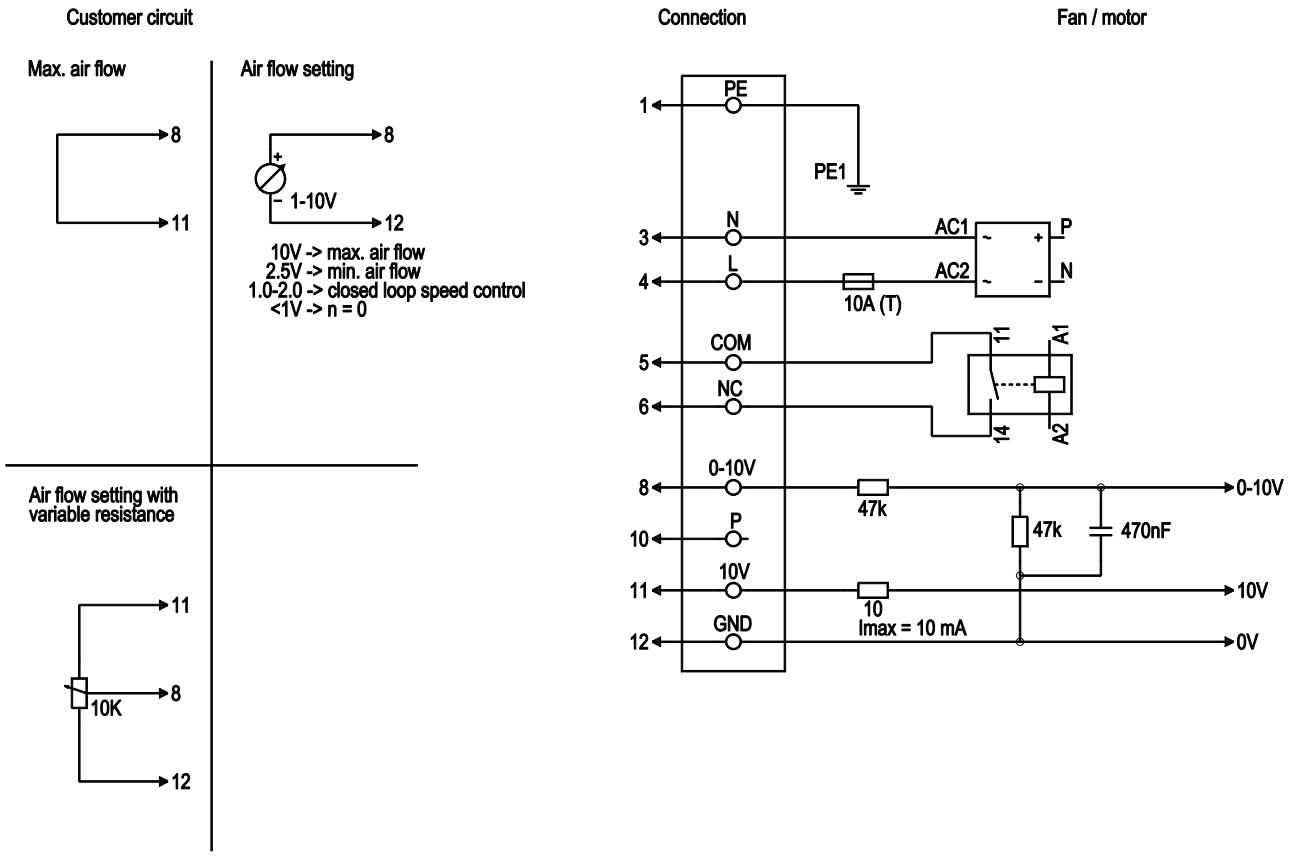
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Connection screen



Line	No.	Signal	Colour	Function / assignment
1	1	PE	green/yellow	Protective earth
1	3	N	blue	Supply voltage, neutral conductor, 50 / 60 Hz
1	4	L	black	Supply voltage, phase, 50 / 60 Hz
1	5	COM	white 1	Floating status message contact, normally closed for error (2 A, max. 250 VAC, min. 10 mA, AC1)
1	6	NC	white 2	Floating status message contact, normally closed for error
2	8	0 - 10 V	yellow	Control input, set value 0 - 10 VDC, impedance 100 kOhm, SELV
2	10	P	orange	For internal use only, not for customers
2	11	10 VDC	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

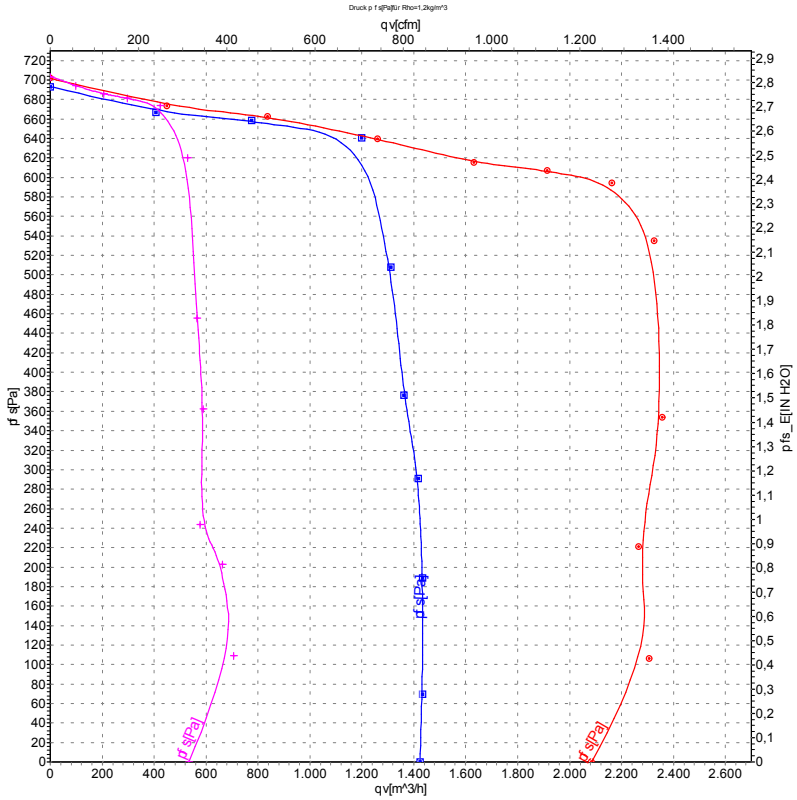
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Charts: Air flow 50 Hz



Measurement: LU-106344
Measurement: LU-106352
Measurement: LU-106350

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.

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