W2D250-GA04-15

AC axial fan

sickled blades (S series), single inlet
with full square nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W2D250-GA04-15**
Motor	**M2D068-DF**

Phase		3~	3~
Nominal voltage	VAC	400	400
Nominal voltage range	VAC	380 .. 415	380 .. 415
Connection		Y	Y
Frequency	Hz	50	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min^{-1}	2750	3050
Power input	W	120	190
Current draw	A	0.27	0.33
Max. back pressure	Pa	115	140
Min. ambient temperature	°C	-25	
Max. ambient temperature	°C	60	75

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	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	29.5	24.3	28.3
Efficiency grade N		41.2	36	40
Power input P_e	kW	0.14		
Air flow q_v	m^3/h	1225		
Pressure increase p_{fs}	Pa	126		
Speed n	min^{-1}	2615		

Data definition with optimum efficiency. LU-163036
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

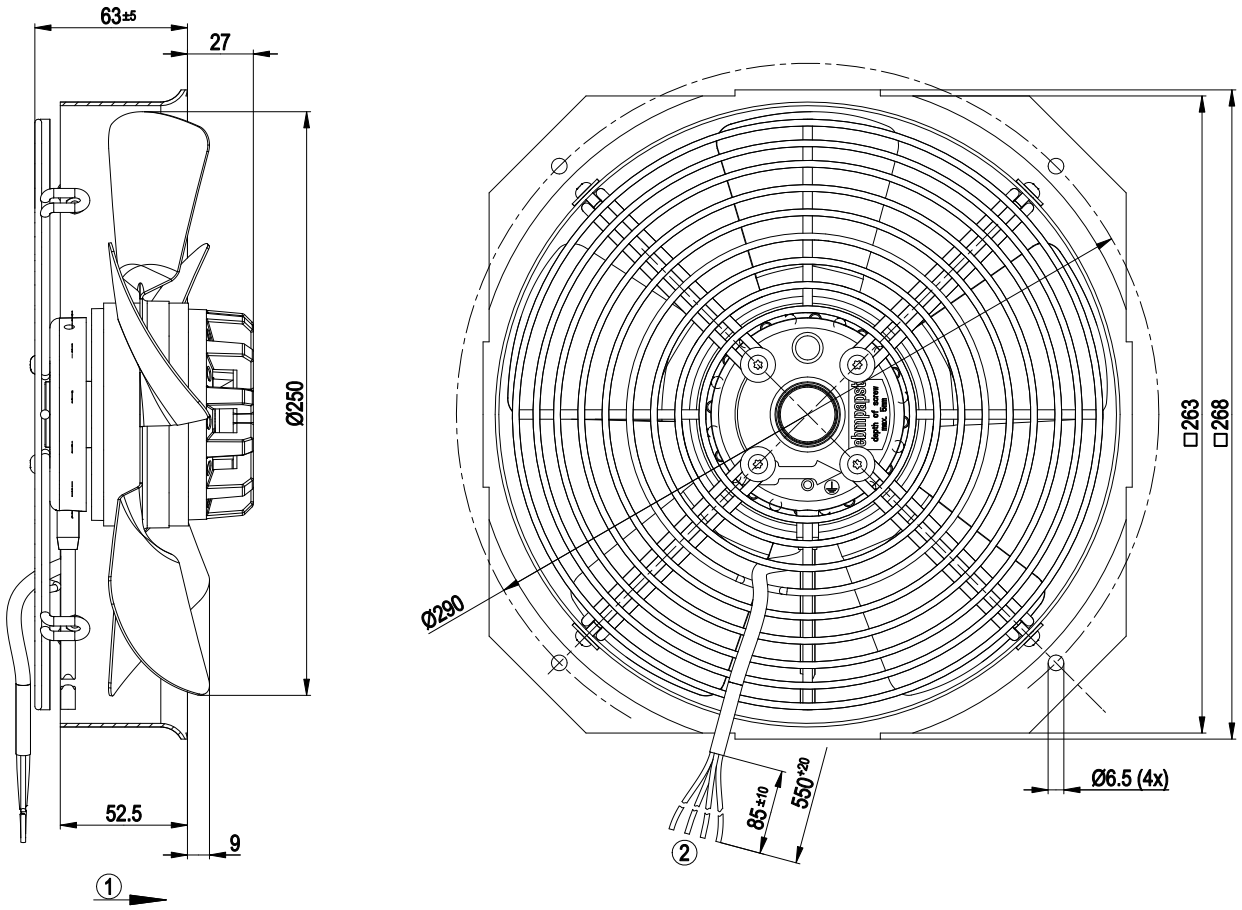
Mass	3.05 kg
Size	250 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, coated in black
Material of wall ring	Sheet steel, pre-galvanised and coated with black plastic
Material of guard grille	Steel, phosphated and coated with black plastic
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"B"
Humidity class	F5
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1, motor does not have factory-installed overheating protection
Approval	UL 1004-1; CSA C22.2 Nr.100

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Product drawing



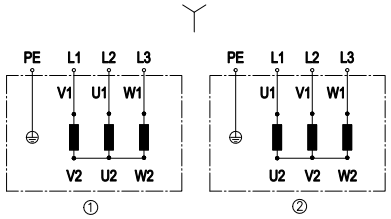
1	Direction of air flow "A"
2	Connection line PVC 4G 0.5 mm², without stripped insulation

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Connection screen



Change direction of rotation by reversing two phases

	Three-phase motor
Y	Star connection
1	Anti-clockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= U1 = black
L2	= V1 = blue
L3	= W1 = brown
PE	green / yellow

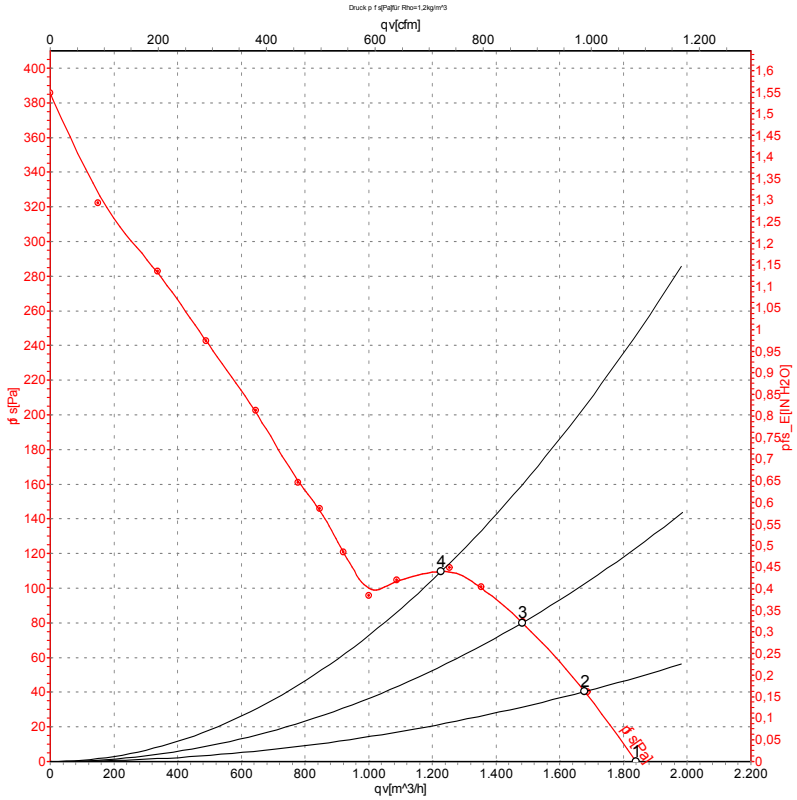
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Charts: Air flow 50 Hz



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_e	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	400	50	2750	120	0.27	1840	0
2	400	50	2695	141	0.29	1680	42
3	400	50	2670	149	0.30	1480	81
4	400	50	2660	151	0.30	1230	111

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

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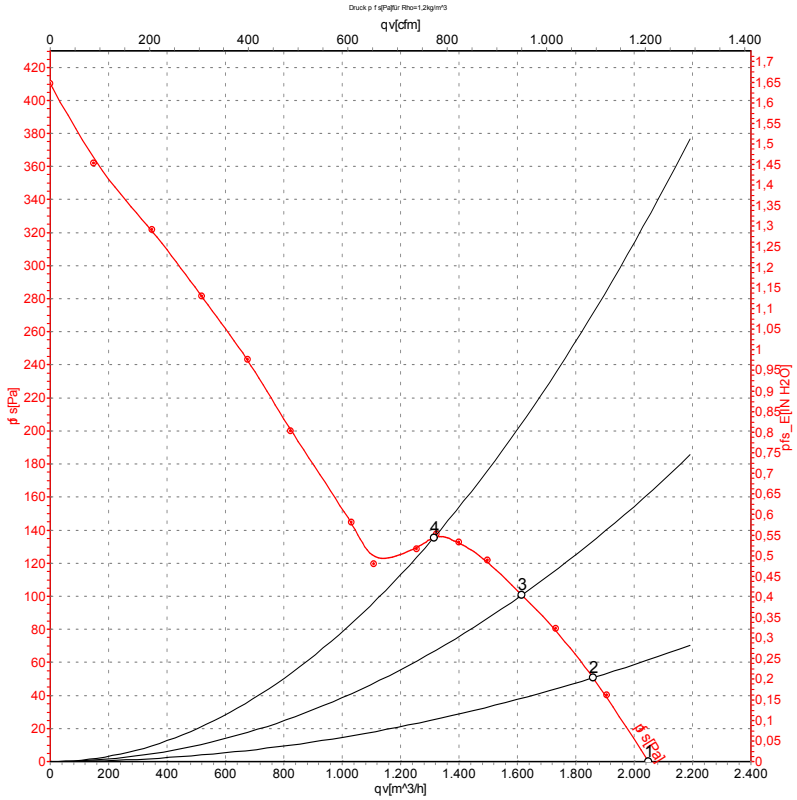
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Charts: Air flow 60 Hz



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_e	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	400	60	3050	190	0.33	2045	0
2	400	60	2985	201	0.34	1860	50
3	400	60	2935	212	0.36	1615	100
4	400	60	2930	209	0.36	1315	136

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

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