W4D400-GU02-95

AC axial fan

sickled blades (S series)

with full square nozzle

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Nominal data

Type	**W4D400-GU02-95**
Motor	**M4D094-EA**

Phase		3~	3~	3~
Nominal voltage	VAC	400	400	480
Connection		Δ	Δ	Δ
Frequency	Hz	50	60	60
Type of data definition		ml	ml	ml
Valid for approval / standard		CE	CE	CE
Speed (rpm)	min^{-1}	1310	1430	1550
Power input	W	310	420	450
Current draw	A	0.55	0.7	0.63
Max. back pressure	Pa	120	130	150
Min. ambient temperature	°C	-40	-40	-40
Max. ambient temperature	°C	80	50	50
Starting current	A	1.7	1.57	

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data in accordance with ecodesign regulation EU 327/2011

		Actual	Request 2015
01 Overall efficiency η_{es}	%	32.6	30
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		42.6	40
05 Variable speed drive		No	

09 Power input P_e	kW	0.26
09 Air flow q_v	m^3/h	3105
09 Pressure increase p_{fs}	Pa	100
10 Speed (rpm) n	min^{-1}	1350
11 Specific ratio*		1.00

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

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

LU-73762

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Technical features

Mass	9.3 kg
Size	400 mm
Motor size	94
Surface of rotor	Coated in black
Material of blades	Sheet steel, coated in black
Material of mounting ring	Steel, coated in black plastic (RAL 9005)
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic
Number of blades	5
Direction of air flow	V
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP54
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H2
Note ambient temperature	Occasional start-up between -40 °C and -25 °C is permissible. For continuous operation at ambient temperatures below -25 °C (e.g. refrigeration applications), a fan version with special low-temperature bearings must be used.
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 top; rotor on bottom on request
Condensation drainage holes	On the stator side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	CE
Approval	EAC; CCC

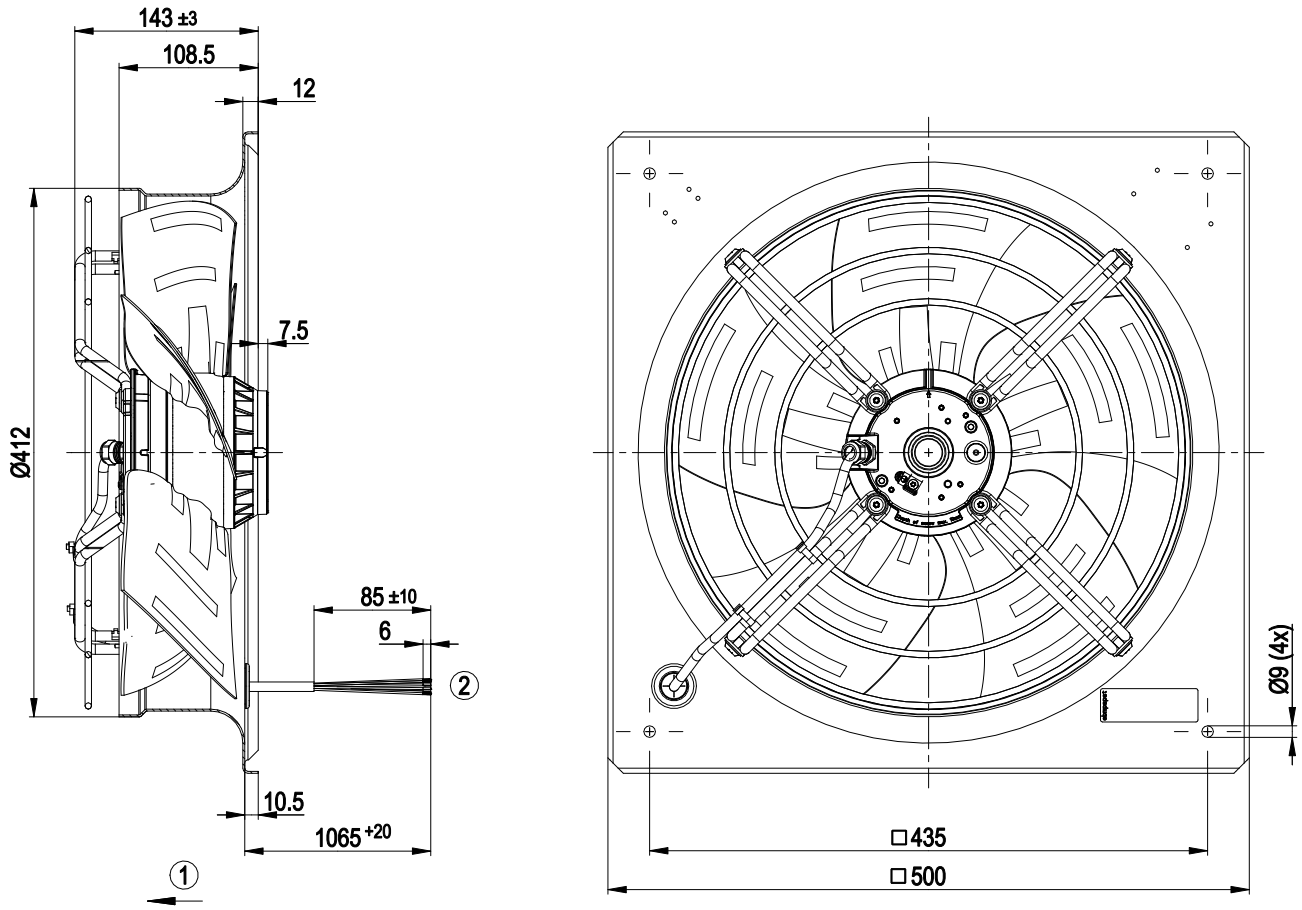
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Product drawing



1	Direction of air flow "V"
2	Connection line halogen-free, BETAtrans® 3 GKW flex, 6G 0.5 mm²
	6x lead tip

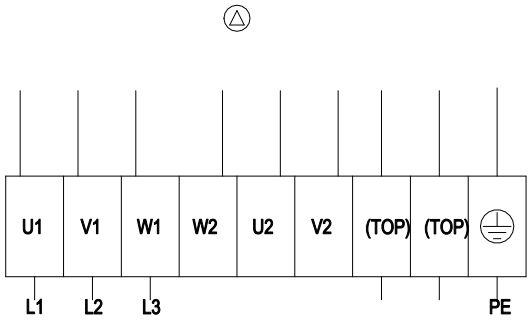
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Connection screen



Note: Direction of rotation changes when two phases are reversed

Δ	Delta connection	L1	= U1 = black	L2	= V1 = blue
L3	= W1 = brown	W2	-	U2	-
V2	-	TOP	2 x grey	PE	green/yellow

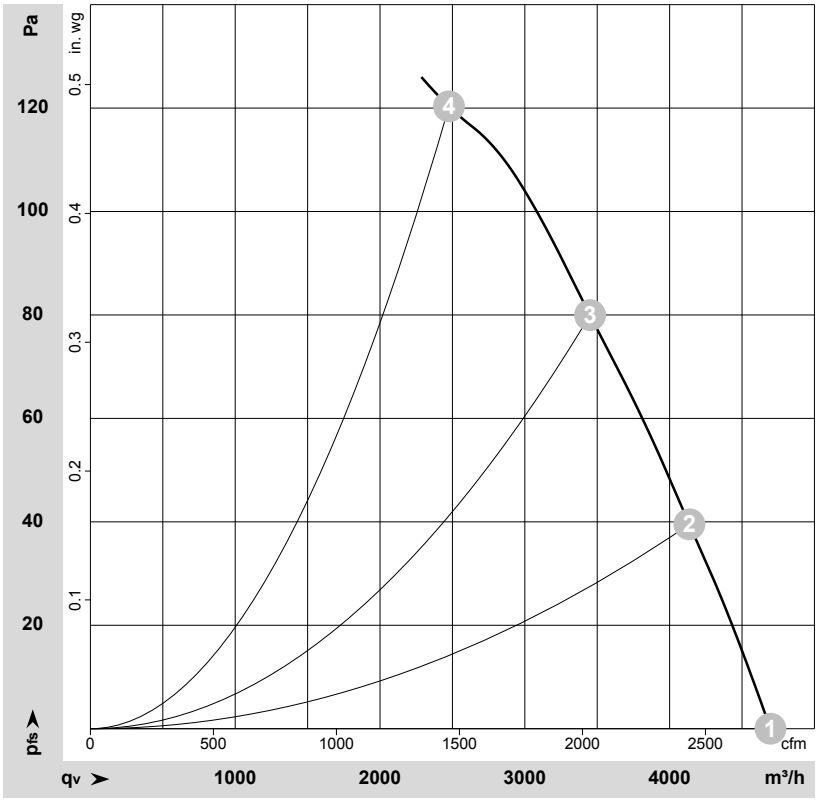
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-73762-1

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: 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

	Conn.	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	Δ	400	50	1390	210	0.46	4695	0	2765	0.00
2	Δ	400	50	1370	238	0.49	4135	40	2435	0.16
3	Δ	400	50	1355	260	0.51	3450	80	2030	0.32
4	Δ	400	50	1310	310	0.55	2475	120	1455	0.48

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

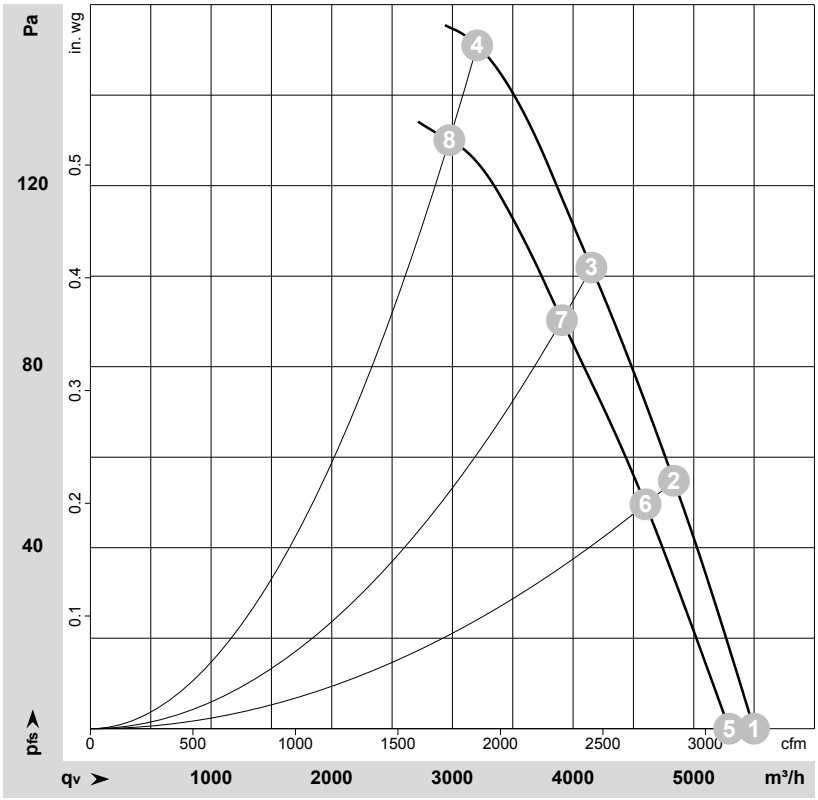
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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-73764-1
Measurement: LU-73763-1

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: 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

	Conn.	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	Δ	480	60	1630	333	0.52	5500	0	3235	0.00
2	Δ	480	60	1600	383	0.58	4835	55	2845	0.22
3	Δ	480	60	1575	417	0.62	4150	102	2445	0.41
4	Δ	480	60	1550	450	0.63	3205	150	1885	0.60
5	Δ	400	60	1565	307	0.53	5295	0	3115	0.00
6	Δ	400	60	1520	351	0.60	4600	50	2705	0.20
7	Δ	400	60	1485	383	0.65	3910	90	2300	0.36
8	Δ	400	60	1430	420	0.70	2975	130	1750	0.52

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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