R4D595-AQ03-06

Stulz GmbH

AC centrifugal fan

backward curved, single inlet

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

ErP2013 EXCEEDS THE NORM

Nominal data

Type	**R4D595-AQ03-06**
Motor	**M4D138-LA**

Phase		3~
Nominal voltage	VAC	400
Connection		Y
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed	min^{-1}	1320
Power input	W	2880
Current draw	A	5.4
Min. back pressure	Pa	0
Max. ambient temperature	°C	40
Starting current	A	21.5

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*	1.01

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	52.2	52.2	56.2
Efficiency grade N		58	58	62
Power input P_e	kW	2.8		
Air flow q_v	m^3/h	8945		
Pressure increase p_{fs}	Pa	589		
Speed n	min^{-1}	1325		

Data definition with optimum efficiency. LU-127960
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

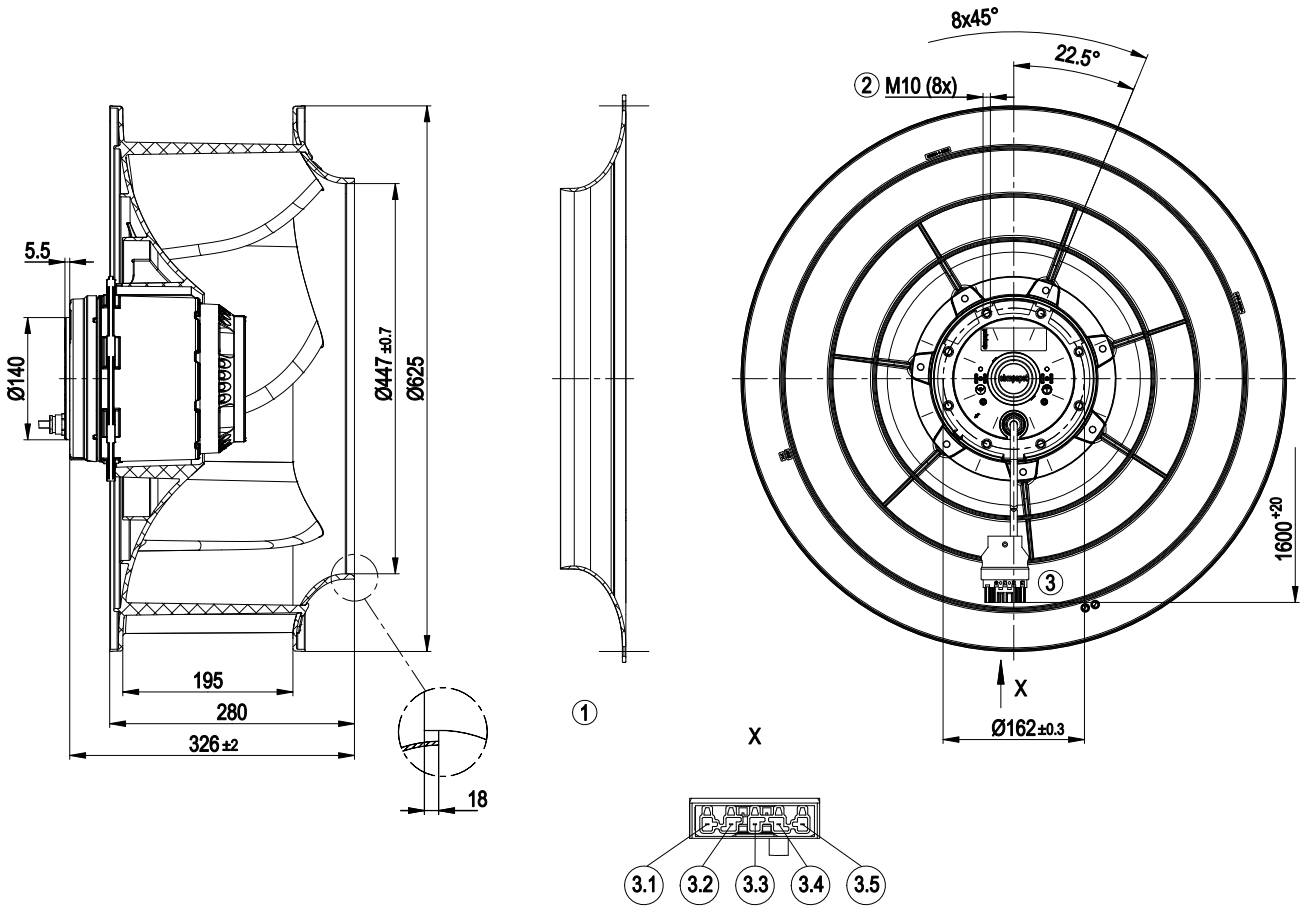
Mass	28.7 kg
Size	595 mm
Surface of rotor	Cast in aluminium
Material of impeller	PP plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"F"
Humidity class	F0
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	On the stator side
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034; EN 61800-5-1

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Product drawing



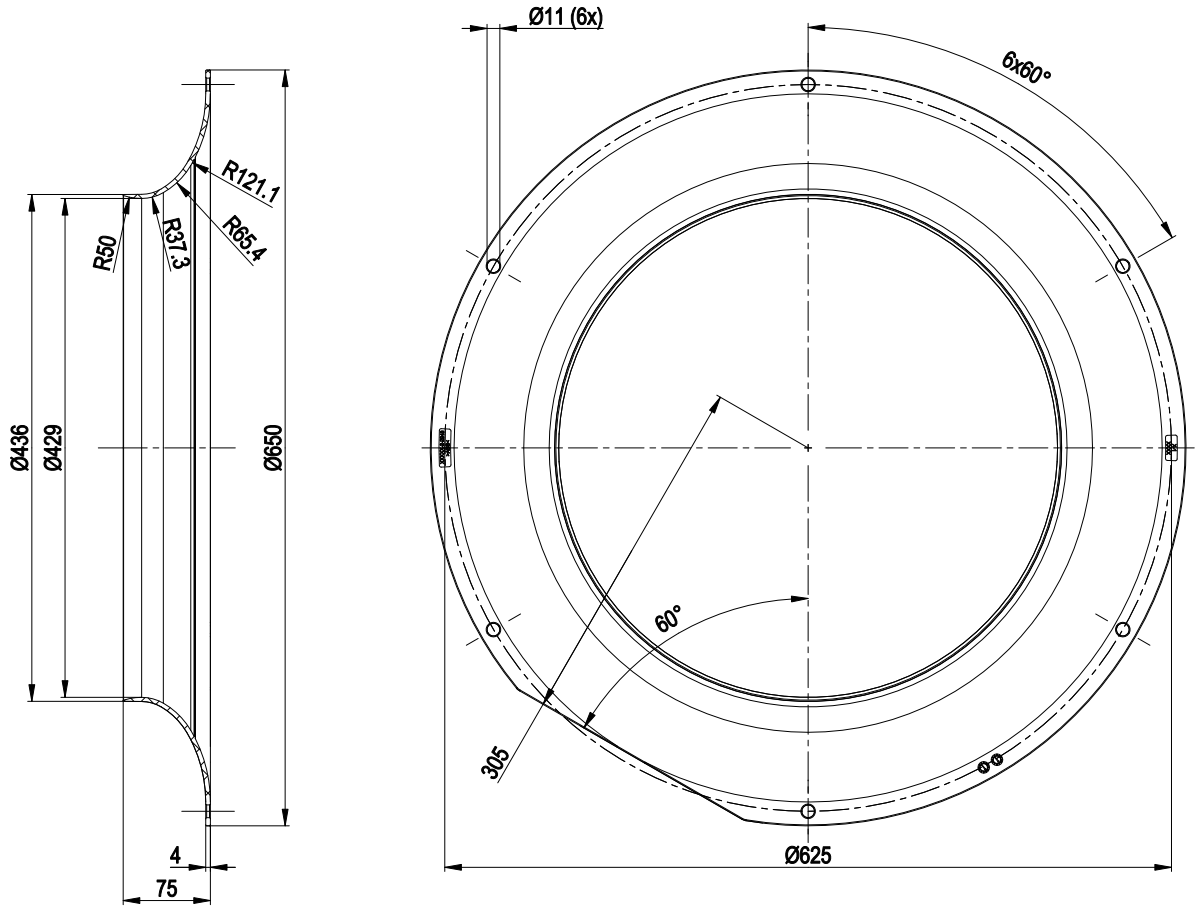
1	Accessory part: Inlet nozzle 59520-2-2943 not included in scope of delivery
2	Depth of screw max. 18 mm
3	Connection line silicone 4G 1.5 mm², connector housing 10-pole WAGO 770-215 and strain relief housing WAGO 770-505/023-000
3.1	not used
3.2	PE
3.3	L1
3.4	L2
3.5	L3

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Accessory part



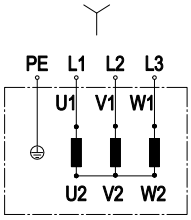
-	Inlet nozzle 59520-2-2943 not included in scope of delivery

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Connection screen

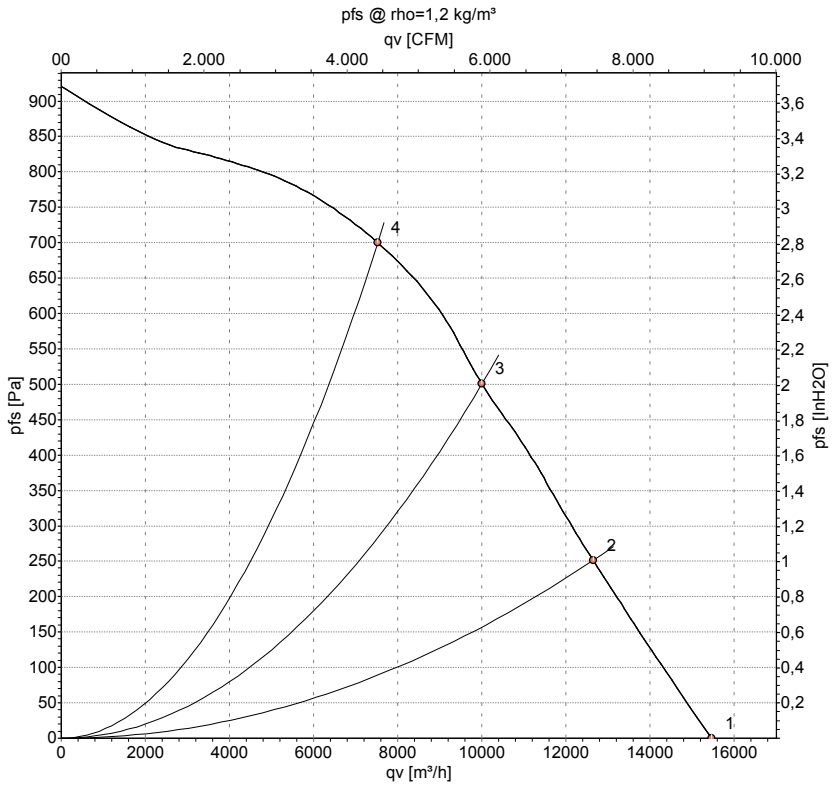


Change direction of rotation by reversing two phases

	Three-phase motor	Y	Star connection	L1	black
L2	blue	L3	brown	PE	green/yellow

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Charts: Air flow 50 Hz Y



Measurement: LU-127960

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	LpA_{in}	LwA_{in}	LwA_{out}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Y	400	50	1370	2352	4.73	91	97	97	15460	0
2	Y	400	50	1335	2679	5.14	88	93	95	12645	250
3	Y	400	50	1320	2880	5.40	77	84	88	10000	500
4	Y	400	50	1330	2727	5.17	73	80	85	7525	700

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = 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 · qv = Air flow · p_{fs} = Pressure increase

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