R2D190-AD18-09

AC centrifugal fan

forward curved

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

Nominal data

Type	**R2D190-AD18-09**
Motor	**M2D068-CF**

Phase		3~	3~	3~	3~	3~
Nominal voltage	VAC	400	400	460	460	480
Connection		Y	Y	Y	Y	Y
Frequency	Hz	50	60	60	60	60
Type of data definition		fa	fa	fa	fa	fa
Valid for approval / standard		CE	CE	CE	UL	UL
Speed	min^{-1}	2600	2900	3050	3050	3100
Power input	W	46	64	70	72	72
Current draw	A	0.1	0.11	0.11	0.12	0.12
Min. back pressure	Pa	0	0	0	0	0
Max. ambient temperature	°C	55	55	55	55	55
Starting current	A	0.3	0.35	0.35	0.35	0.35

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

AC centrifugal fan

forward curved

Technical features

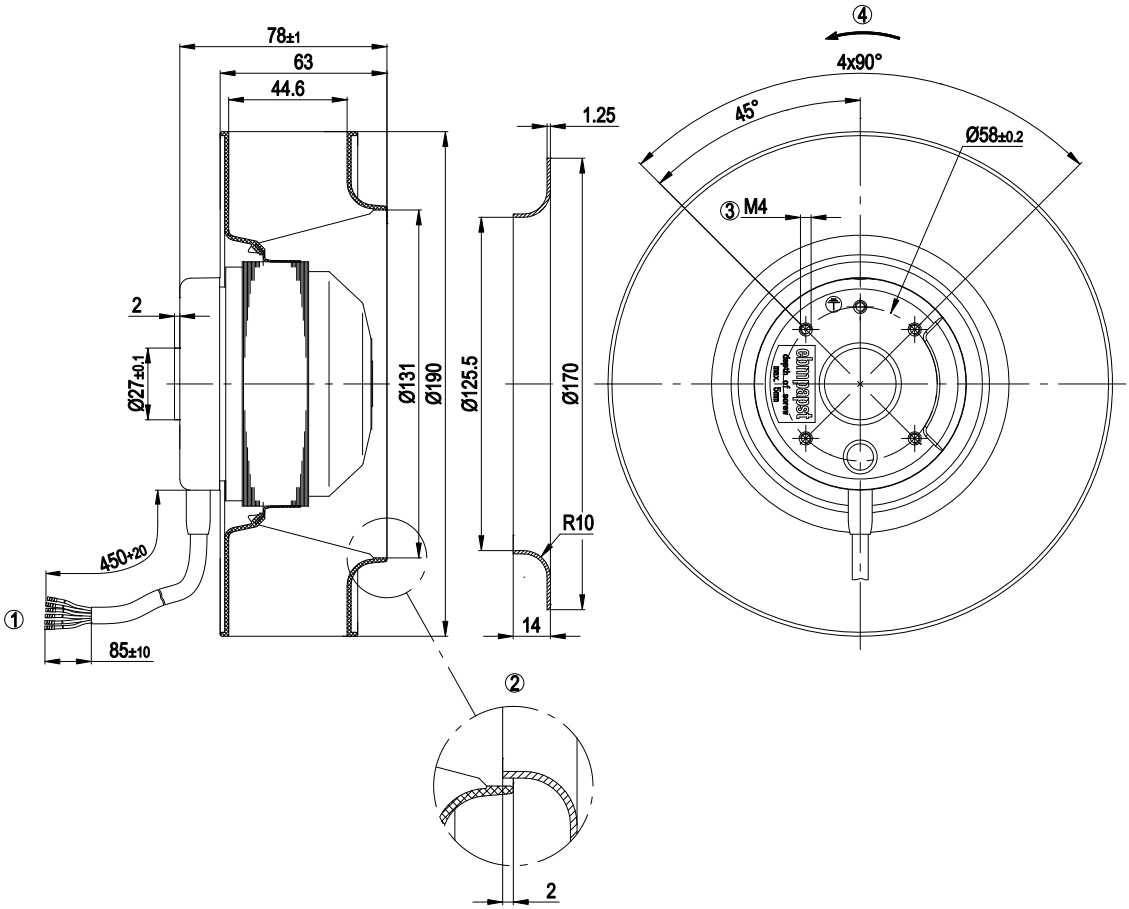
Mass	1.6 kg
Size	190 mm
Surface of rotor	Coated in black
Material of impeller	PA plastic 6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"B"
Humidity class	F2-2
Max. permissible ambient motor temp. (transp./ storage)	+ 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
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	UL 1004-1; CSA C22.2 Nr.100

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

AC centrifugal fan

forward curved

Product drawing



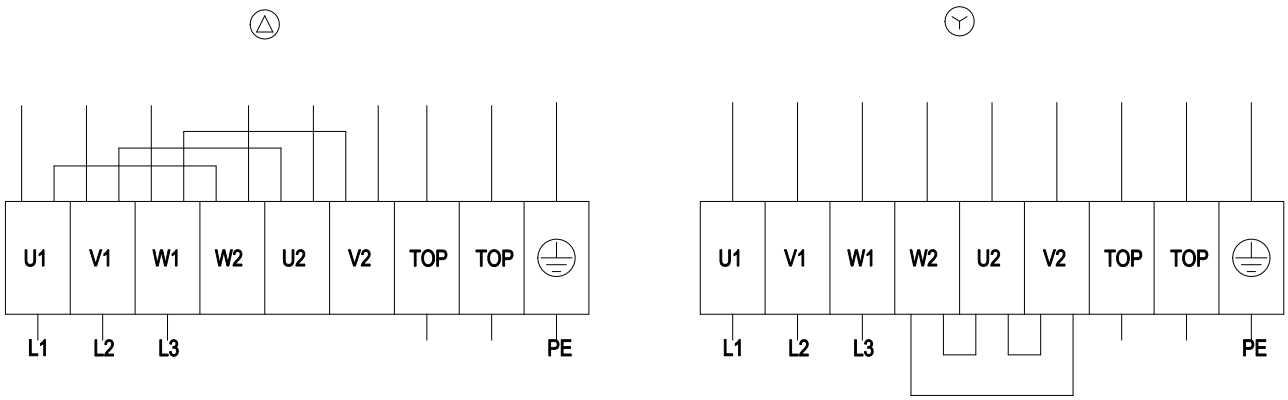
1	Connection line Raychem AWG 20, 6x brass lead tips crimped
2	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
3	Depth of screw max. 5 mm
4	Direction of rotation clockwise, seen on rotor

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

AC centrifugal fan

forward curved

Connection screen



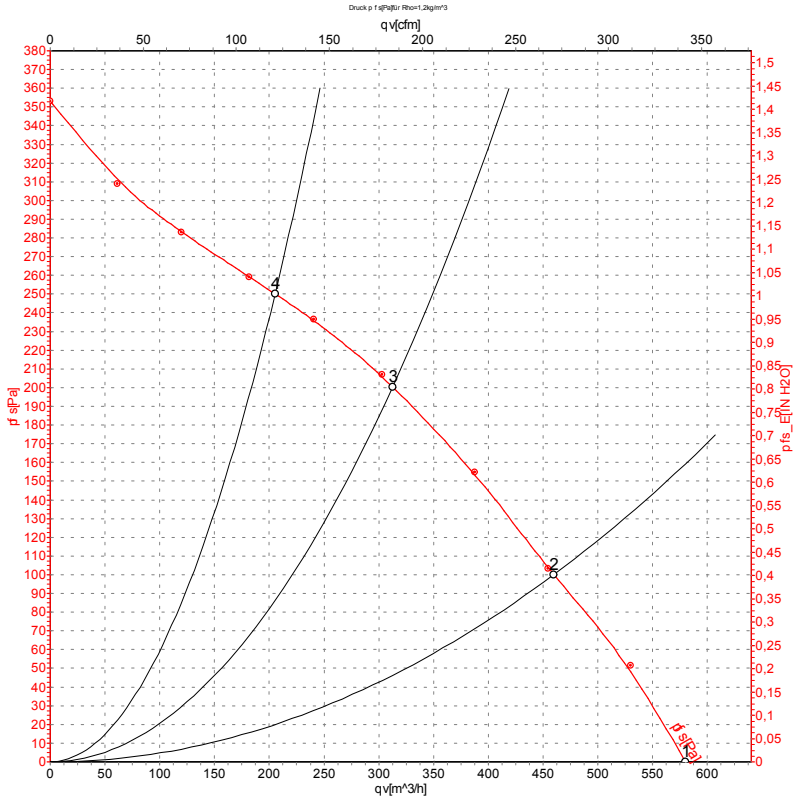
Δ	Delta-connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green / yellow				

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

AC centrifugal fan

forward curved

Charts: Air flow 50 Hz



Measurement: LU-62845

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	2640	46	0.10	580	0
2	400	50	2590	51	0.10	460	100
3	400	50	2550	55	0.10	310	201
4	400	50	2585	51	0.10	205	250

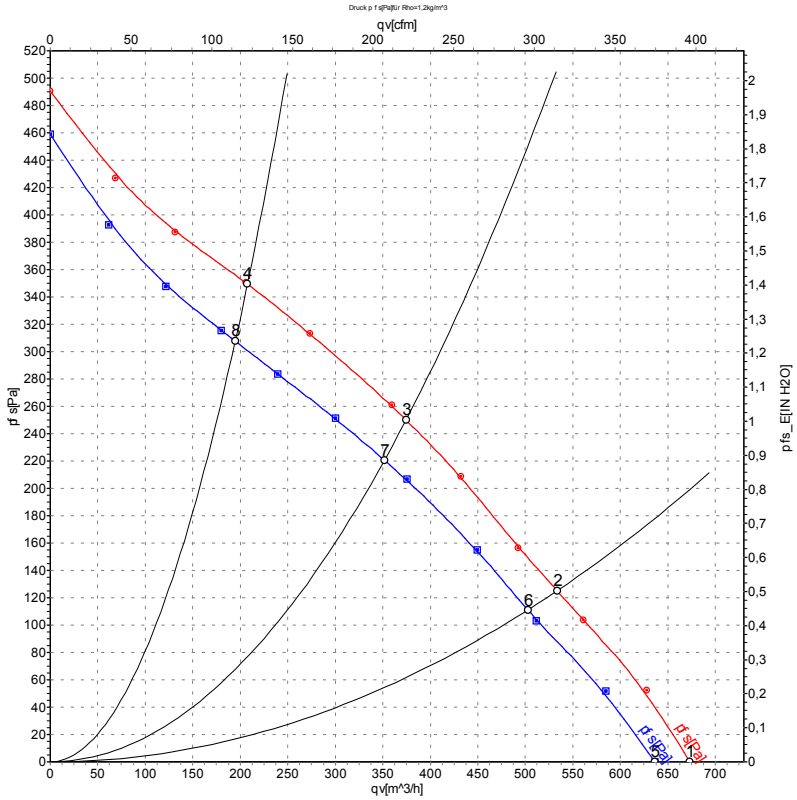
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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

AC centrifugal fan

forward curved

Charts: Air flow 60 Hz



Measurement: LU-58705
Measurement: LU-62846

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	460	60	3085	70	0.11	670	0
2	460	60	3020	75	0.11	535	125
3	460	60	2945	82	0.12	375	250
4	460	60	3015	75	0.11	210	350
5	400	60	2900	64	0.11	640	0
6	400	60	2820	70	0.11	505	110
7	400	60	2735	75	0.12	350	221
8	400	60	2830	69	0.11	195	308

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

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