

R4D450-AK01-01

# AC centrifugal fan

backward curved, single inlet



**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

## Nominal data

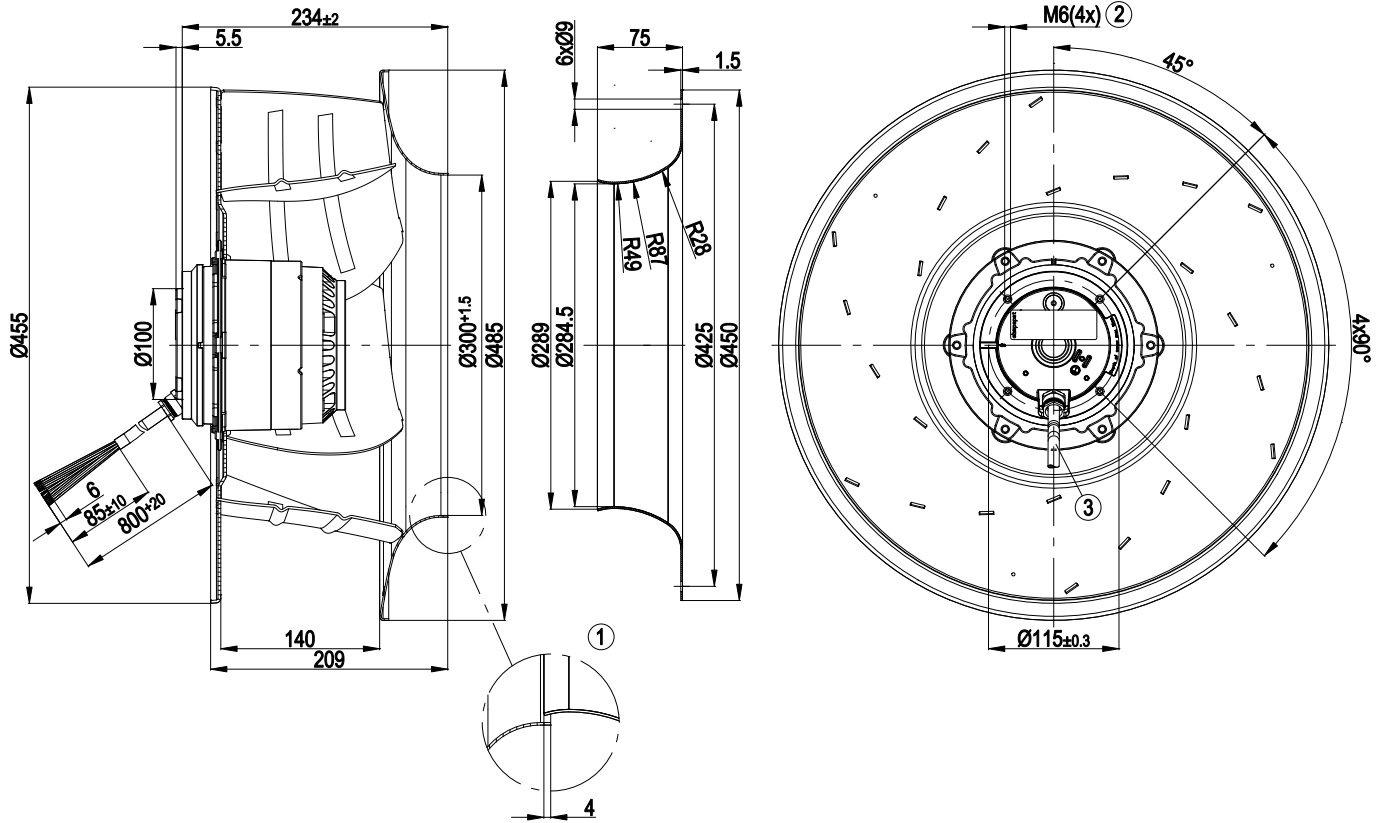
Type	R4D450-AK01-01				
Motor	M4D110-GF				
Phase		3~	3~	3~	3~
Nominal voltage	[V]	230	230	400	400
Connection		D	D	Y	Y
Frequency	[Hz]	50	60	50	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed	[min <sup>-1</sup> ]	1350	1490	1350	1490
Power input	[W]	740	1090	740	1090
Current draw	[A]	2.6	3.32	1.5	1.92
Min. back pressure	[Pa]	0	0	0	0
Max. ambient temperature	[°C]	80	50	80	50

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

## Technical features

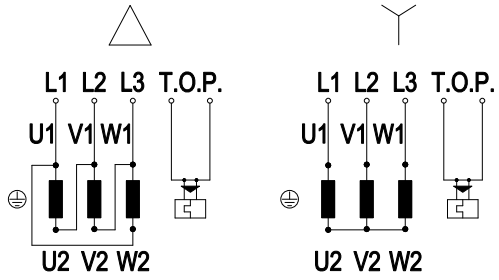
Leakage current	<= 3.5 mA
Size	450 mm
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Humidity class	F3-1
Insulation class	"F"
Condensate discharge holes	Rotor-side
Bearing motor	Ball bearing
Mass	12 kg
Material of impeller	Aluminium sheet
Motor protection	Thermal overload protector (TOP) brought out
Product conforming to standard	CE; EN 61800-5-1; EN 60034
Surface of rotor	Cast in aluminium
Number of blades	6
Type of protection	IP 54
Protection class	I
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Approval	CCC; CSA C22.2 Nr.100; GOST; UL 1004-1

## Product drawing



- |   |  |
|---|--|
| 1 | Accessory part: inlet nozzle 63045-2-4013 not included in the standard scope of delivery; other inlet nozzles on request |
| 2 | Depth of screw max. 12 mm  |
| 3 | Connection line silicone 9G0.75 mm <sup>2</sup> , 9 x brass lead tips crimped  |

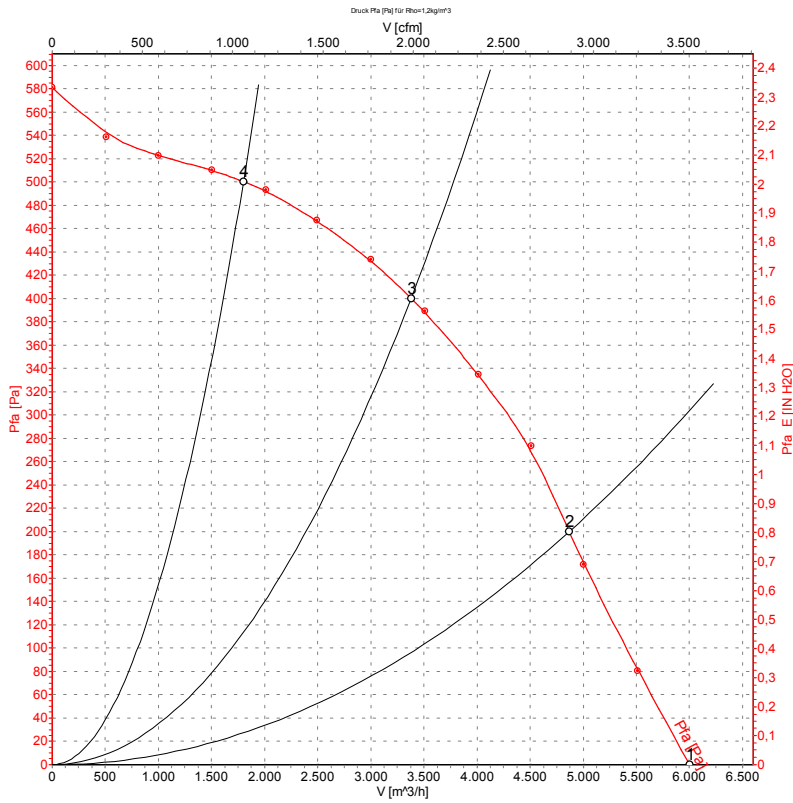
## Connection screen



Note: Direction of rotation changes when two phases are reversed

Δ	Delta-connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
U2	blue	W1	brown	U2	green
V2	white	W2	yellow	TOP	grey

## Charts: Air flow 50 Hz

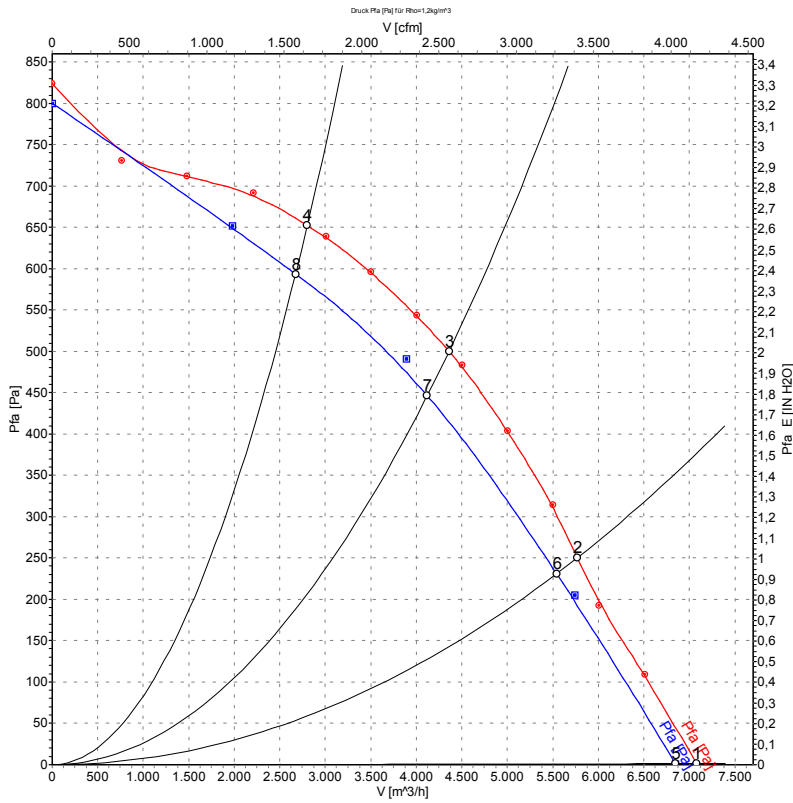


Measurement: LU-101530

## Measured values

	Conn.	U	f	n	P <sub>1</sub>	I	LpA <sub>ss</sub>	LpA <sub>ds</sub>	LwA <sub>ss</sub>	$\hat{V}$	p <sub>fa</sub>
		[V]	[Hz]	[min <sup>-1</sup> ]	[W]	[A]	[dB(A)]	[dB(A)]	[dB(A)]	[m <sup>3</sup> /h]	[Pa]
1	Y	400	50	1395	566	1.26	71	71	79	6000	0
2	Y	400	50	1365	670	1.37	66	66	75	4870	200
3	Y	400	50	1350	740	1.50	63	64	70	3380	400
4	Y	400	50	1375	617	1.31	68	69	76	1800	500

## Charts: Air flow 60 Hz



Measurement: LU-101532  
Measurement: LU-101546

## Measured values

	Conn.	U	f	n	P <sub>1</sub>	I	LpA <sub>ss</sub>	LpA <sub>ds</sub>	LwA <sub>ss</sub>	$\hat{V}$	p <sub>fa</sub>
		[V]	[Hz]	[min <sup>-1</sup> ]	[W]	[A]	[dB(A)]	[dB(A)]	[dB(A)]	[m <sup>3</sup> /h]	[Pa]
1	Y	480	60	1640	918	1.49	75	75	83	7080	0
2	Y	480	60	1605	1084	1.67	71	71	79	5770	250
3	Y	480	60	1580	1200	1.85	67	67	75	4360	500
4	Y	480	60	1600	1100	1.68	70	71	78	2800	650
5	Y	400	60	1575	845	1.50	74	73	82	6845	0
6	Y	400	60	1530	973	1.71	69	69	77	5540	235
7	Y	400	60	1490	1090	1.92	65	66	74	4120	456
8	Y	400	60	1530	970	1.67	69	70	77	2675	594