

**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

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

**Nominal data**

<b>Type</b>	R4D280-CI01-07		
<b>Motor</b>	M4D110-IA		
Phase		3~	3~
Nominal voltage	VAC	690	690
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	1330	1520
Power consumption	W	1220	1470
Current draw	A	1.46	1.55
Min. back pressure	Pa	0	250
Min. back pressure	inH <sub>2</sub> O	0	1
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	80	65

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change

**Data according to Commission Regulation (EU) 327/2011**

		Actual	Req. 2015			
01 Overall efficiency $\eta_{es}$	%	36.2	35.7	09 Power consumption $P_e$	kW	0.48
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	1205
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	529
04 Efficiency grade N		44.5	44	10 Speed (rpm) n	min <sup>-1</sup>	1445
05 Variable speed drive		No		11 Specific ratio*		1.01

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

\* Specific ratio =  $1 + p_g / 100\,000\text{ Pa}$ 

LU-115384



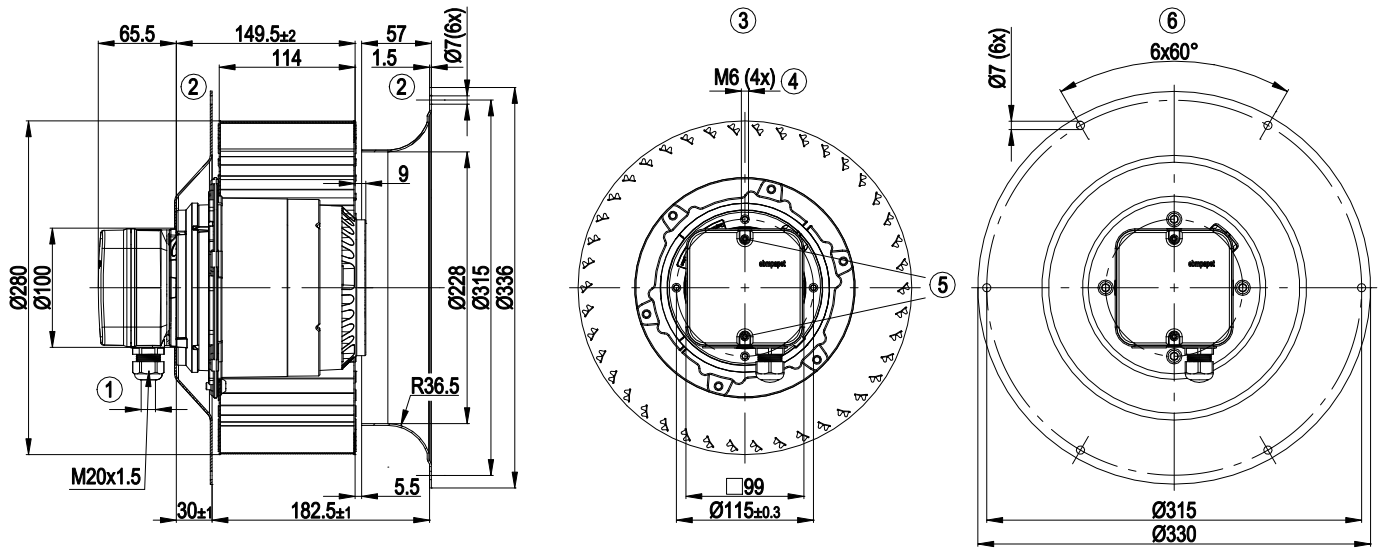
### Technical description

Weight	12.1 kg
Fan size	280 mm
Rotor surface	Cast in aluminum
Terminal box material	ABS plastic
Impeller material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	VDE

# AC centrifugal fan

forward-curved, single-intake

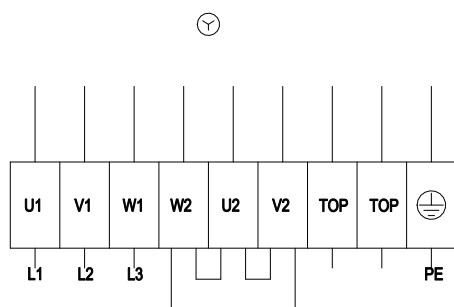
## Product drawing



1	Cable diameter min. 6 mm, max. 12 mm; tightening torque $2 \pm 0.3$ Nm
2	Accessory parts: Inlet ring 28010-2-4013 and flange 10280-2-4017 not included in scope of delivery
3	View without flange
4	Max. clearance for screw 12 mm
5	Tightening torque $1.5 \pm 0.2$ Nm
6	View with flange

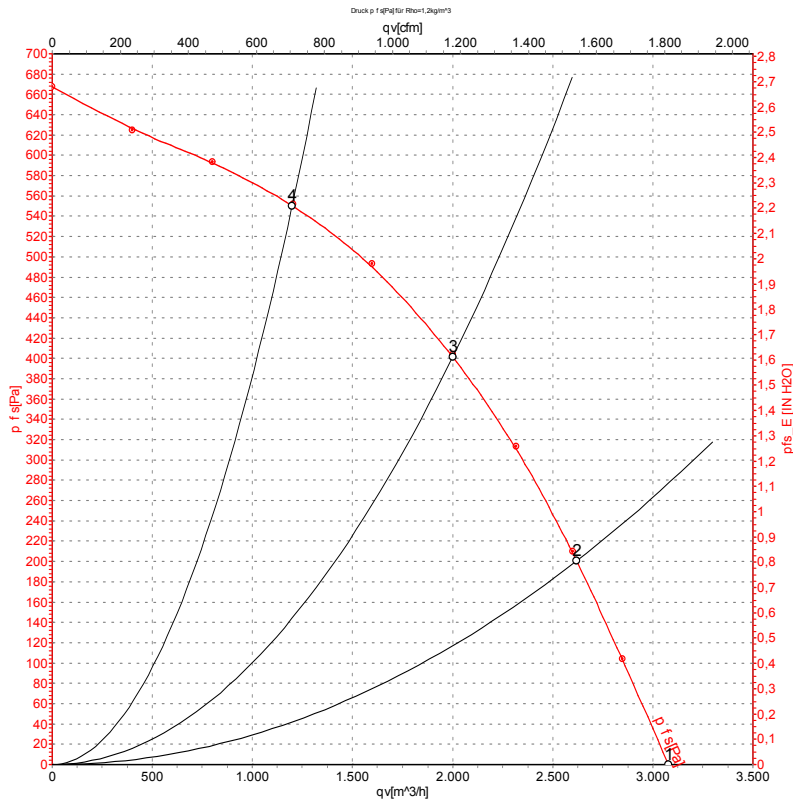


## Connection diagram



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

## Curves: Air performance 50 Hz Y



Measurement: LU-115384-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

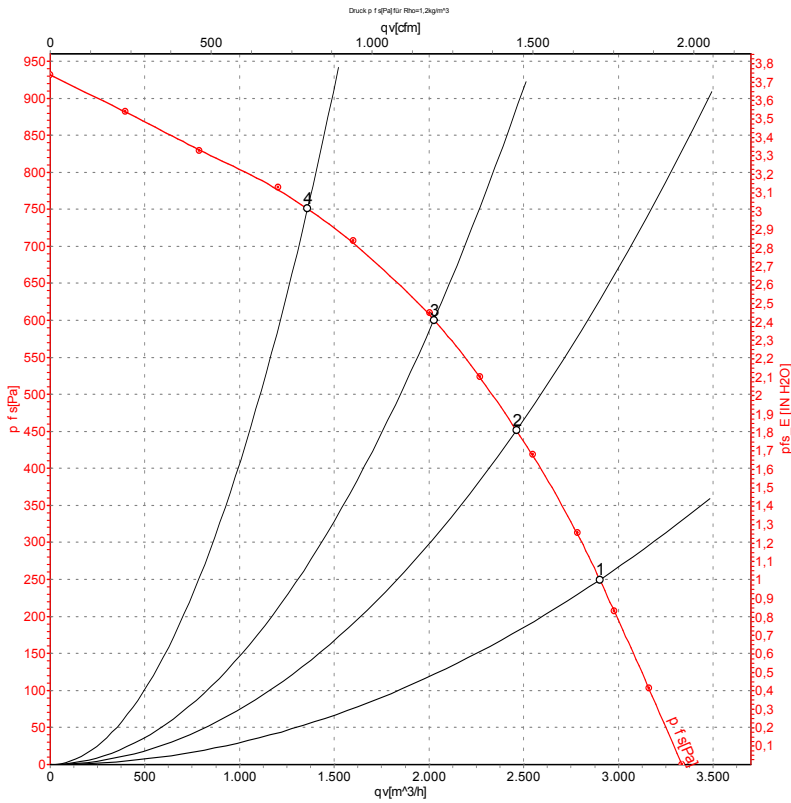
## Measured values

	Wired	U	f	n	P <sub>e</sub>	I	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	inH <sub>2</sub> O
1	Y	690	50	1330	1220	1.46	3080	0	1810	0.00
2	Y	690	50	1370	997	1.29	2620	200	1540	0.80
3	Y	690	50	1405	754	1.14	2000	400	1175	1.61
4	Y	690	50	1445	488	1.01	1200	550	705	2.21

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase



## Curves: Air performance 60 Hz Y



Measurement: LU-115386-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

	Wired	U	f	n	P <sub>e</sub>	I	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	inH <sub>2</sub> O
1	Y	690	60	1520	1470	1.55	2900	250	1710	1.00
2	Y	690	60	1580	1223	1.33	2460	450	1450	1.81
3	Y	690	60	1630	990	1.13	2025	600	1190	2.41
4	Y	690	60	1685	715	0.92	1360	750	800	3.01

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

