R3G280-RW55-01

EC centrifugal fan

backward curved, single inlet

Automotive

R3G280-RW55-01 ebmpapst Datasheet
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Nominal data

Type	**R3G280-RW55-01**
Motor	**M3G084-FA**

Nominal voltage	VDC	27.5
Nominal voltage range	VDC	18 .. 32
Type of data definition		fa
Speed (rpm)	min^{-1}	2880
Power input	W	535
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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

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Technical features

Mass	4.5 kg
Size	280 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of impeller	Plastic PP, galvanised round sheet-metal plate
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	Customized; (motor); electronics IP 6K9K
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F5
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
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing; (sealed)
Life expectancies	40,000 h (typical)
Technical features	- Output limit -Load dump protection - Motor current limit - Soft start - Control input 0-5 VDC - Overvoltage detection - Over-temperature protected electronics - Line undervoltage detection
Motor protection	Reverse polarity and locked-rotor protection

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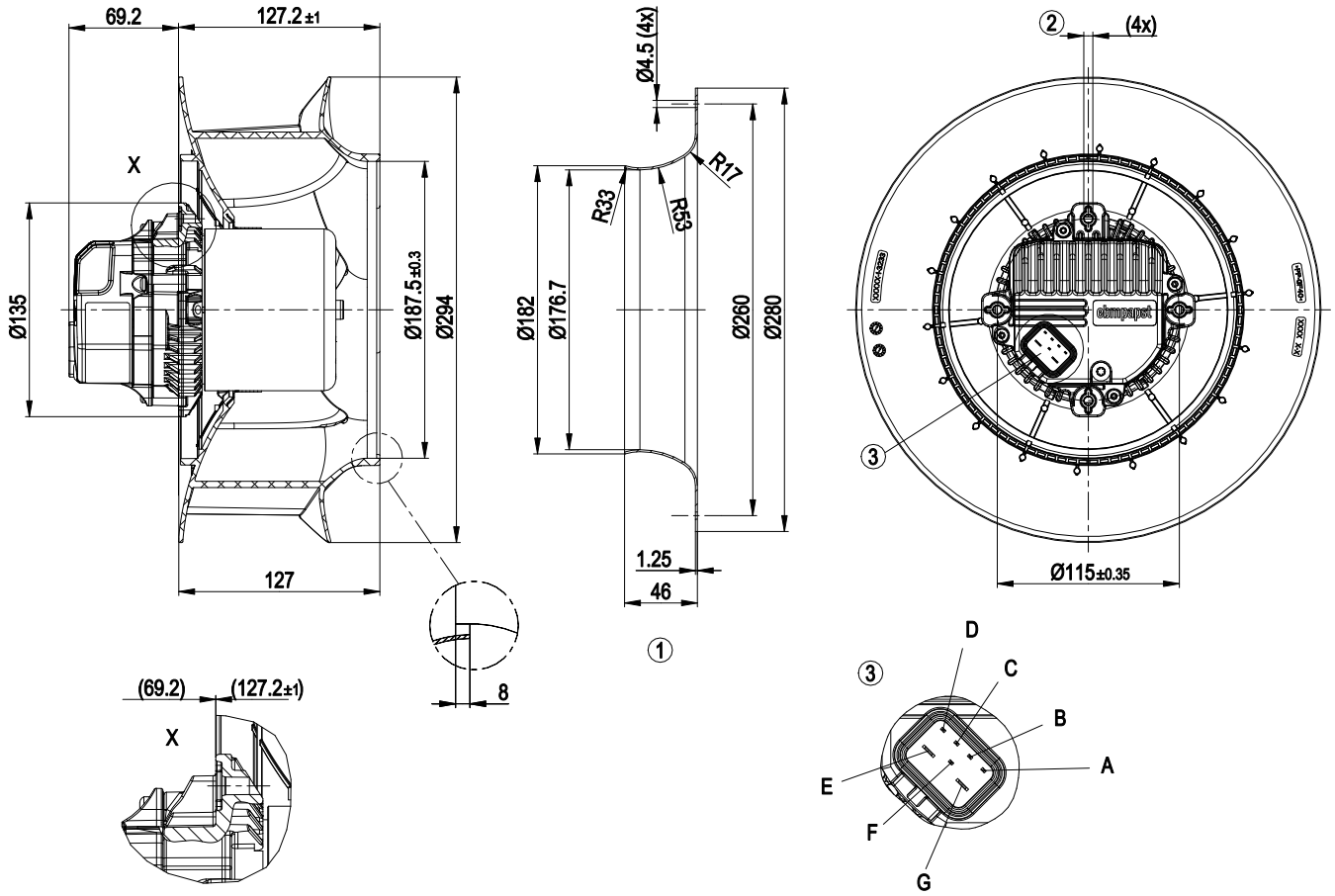
Product drawing



1	Accessory part: Inlet nozzle 28000-2-4013 not included in scope of delivery
2	Thread reach max. 12 mm, pilot hole prepared for self-tapping M6 screw
3	Socket for mating connector DELPHI 7-pole 12059472 coded
	Mating connector DELPHI 7-pole 12059472 coded, not included in scope of delivery
A	not used
B	PWM/LIN
C	CGND
D	not used
E	GND
F	not used
G	UB +24 VDC

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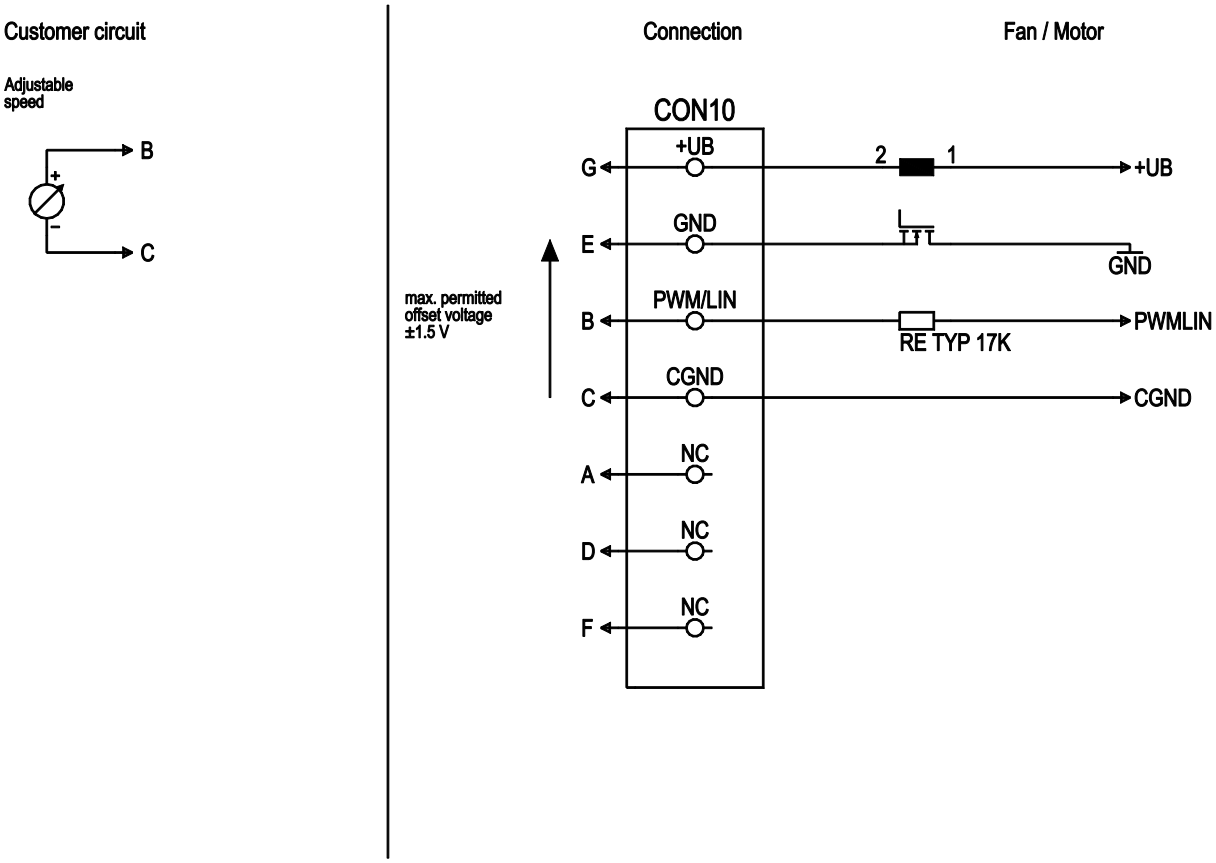
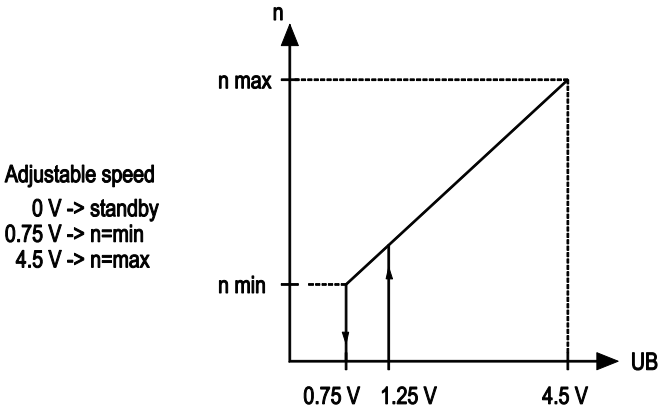
Connection screen





No.	Conn.	Designation	Function / assignment
CON10	G	UB	Power supply 27.5 VDC
CON10	E	GND	Power supply GND, reference earth
CON10	A	NC	not used
CON10	D	NC	not used
CON10	C	CGND	Signal ground for control input, permitted offset +1.5 V
CON10	B	PWM/LIN	Analogue voltage control input 0-5 V
CON10	F	NC	not used

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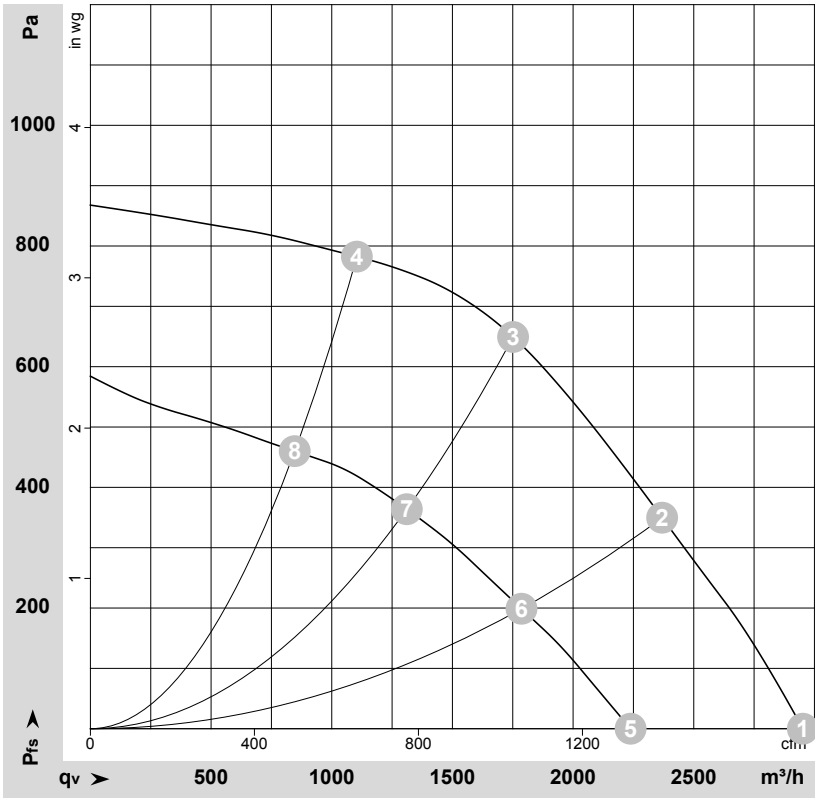
Charts: Air flow



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-167014-1
Measurement: LU-167212-1

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

	U	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	27.5-32	2880	535		2950	0	1735	0.00
2	27.5-32	2875	573		2370	350	1395	1.41
3	27.5-32	2880	611		1750	650	1030	2.61
4	27.5-32	2870	520		1105	780	650	3.13
5	18	2195	243	13.48	2240	0	1315	0.00
6	18	2185	252	13.96	1785	199	1050	0.80
7	18	2165	262	14.53	1310	364	770	1.46
8	18	2200	240	13.31	845	460	500	1.85

U = Supply voltage · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase