W3G300-EQ28-56

EC axial fan

with brushless DC motor



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Nominal data

Type	**W3G300-EQ28-56**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	27.5
Nominal voltage range	VDC	15 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3380
Power consumption	W	320
Current draw	A	11.6
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	70

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 η_{es}	%	41.4	30.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		50.9	40
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.31
09 Air flow q_v	m^3/h	2100
09 Pressure increase p_{fs}	Pa	200
10 Speed (rpm) n	min^{-1}	3375
11 Specific ratio*		1.00

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_{fs} / 100 000 Pa

LU-78458

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Technical description

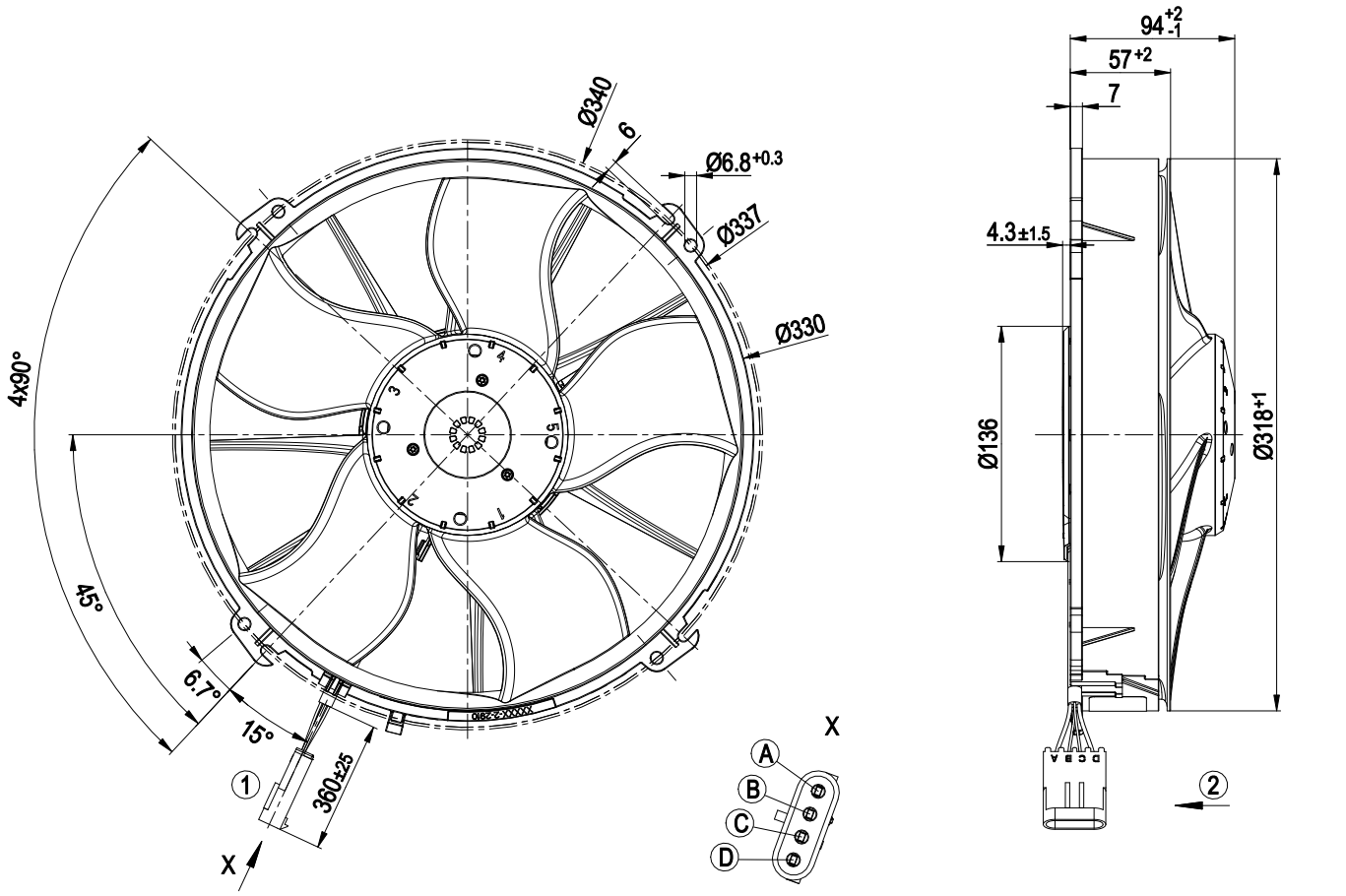
Weight	2.5 kg
Size	300 mm
Motor size	74
Rotor surface	Painted black
Impeller material	PBT plastic
Fan housing material	PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	Motor IP24 KM, electronics IP6K9K
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
Max. permitted ambient temp. for motor (transport/storage)	+70 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing; (sealed)
Life expectancy	25,000 h (typical)
Technical features	- Start at 85°C (2 min permissible) - Load dump protection - Motor current limitation - Soft start - Control input 0-5 VDC - Standstill in the case of open circuit - Overvoltage detection - Thermal overload protection for electronics - Undervoltage detection
EMC regulations	According to ECE R10 Rev. 3
Electrical hookup	Connector with cable
Motor protection	Reverse polarity and locked-rotor protection
With cable	Lateral
Approval	EAC; E1

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Product drawing



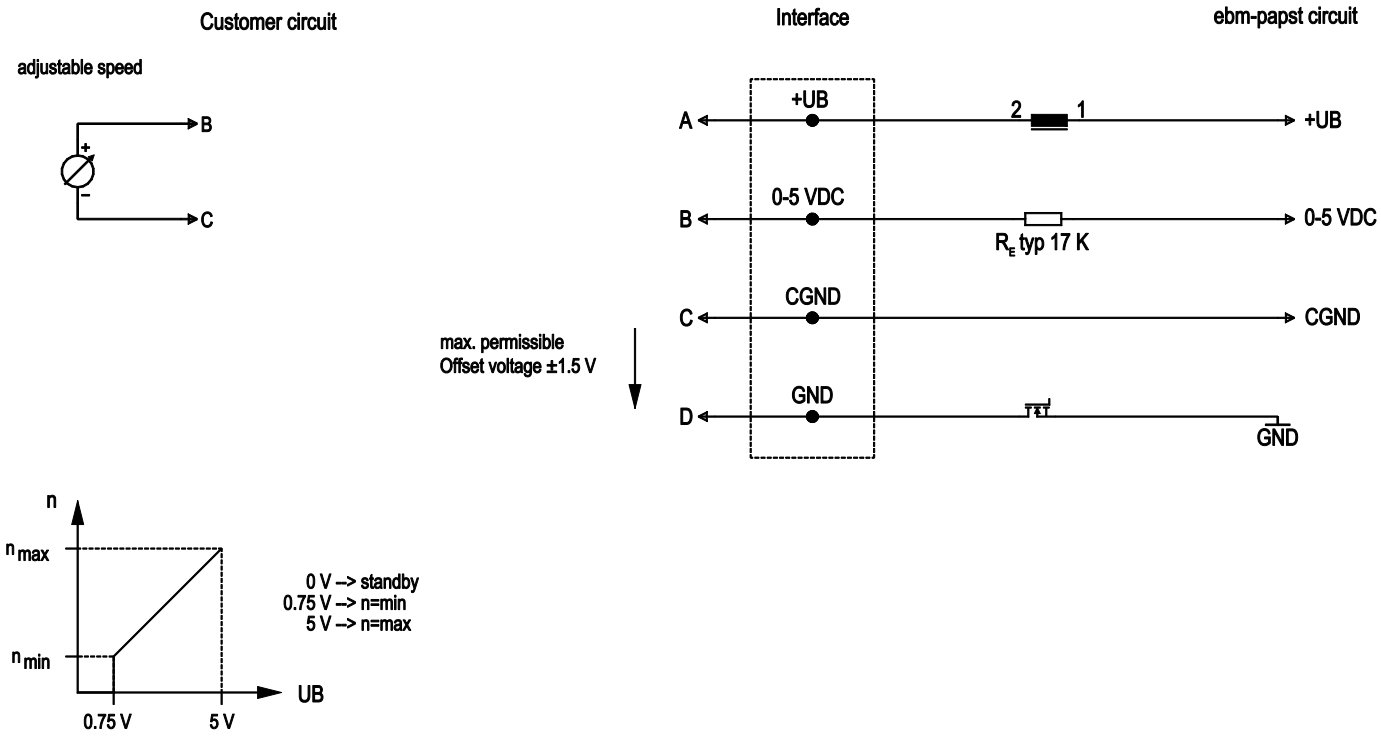
1	Cable 2x AWG20, 2x AWG14
	4-pole connector housing Aptiv 12010974, 2x plug pin Aptiv 12089040, 2x plug pin Aptiv 12124582, 2x seal Aptiv 15324982, 2x seal Aptiv 15324983
	Cable with mating connector Aptiv "Weather Pack" 12015797 not included in scope of delivery
A	+ UB
B	0-5 VDC
C	CGND
D	GND
2	Airflow direction "V"

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Connection diagram



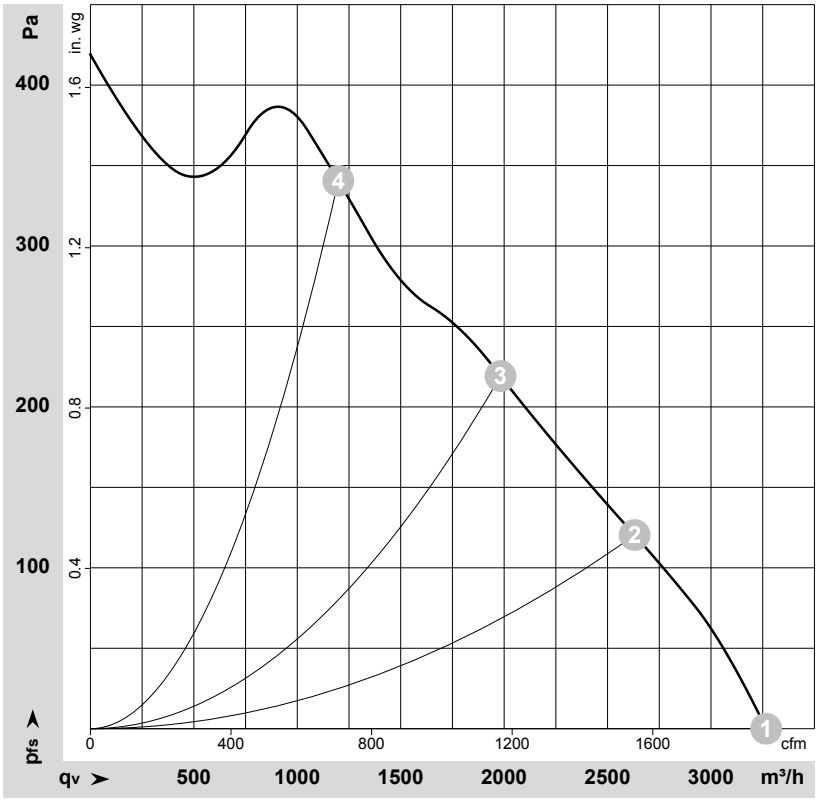
No.	Conn.	Designation	Function/assignment
	A	+UB	Power supply
	B	0-5 VDC	Analog voltage control input 0-5 V
	C	CGND	Control input reference ground, permissible offset ±1.5 V
	D	GND	Power supply GND, reference ground

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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-78458-1

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

	U	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	27.5	3380	300	10.70	3265	0	1925	0.00
2	27.5	3370	311	11.30	2630	120	1550	0.48
3	27.5	3375	329	11.98	1980	220	1165	0.88
4	27.5	3320	397	14.43	1200	340	705	1.36

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

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