W3G300-RQ42-74

EC axial fan

with brushless DC motor

Automotive



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Nominal data

Type	**W3G300-RQ42-74**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3350
Power consumption	W	307
Current draw	A	11.8
Max. back pressure	Pa	450
Max. back pressure	in. wg	1.81
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	85

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

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Technical description

Weight	2.5 kg
Size	300 mm
Motor size	74
Impeller material	PA6 plastic
Fan housing material	PP plastic
Number of blades	5
Airflow direction	V
Balancing grade according to DIN ISO 1940-1	G 10
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM
Insulation class	"B"
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)	+85 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Tach output - Load dump protection - Motor current limitation - Reverse operation (reversal of rotation) - Soft start - PWM control input - Thermal overload protection for electronics - Reverse polarity protection
Electrical hookup	Connector with cable; Standby current less than 500 µA
With cable	Lateral

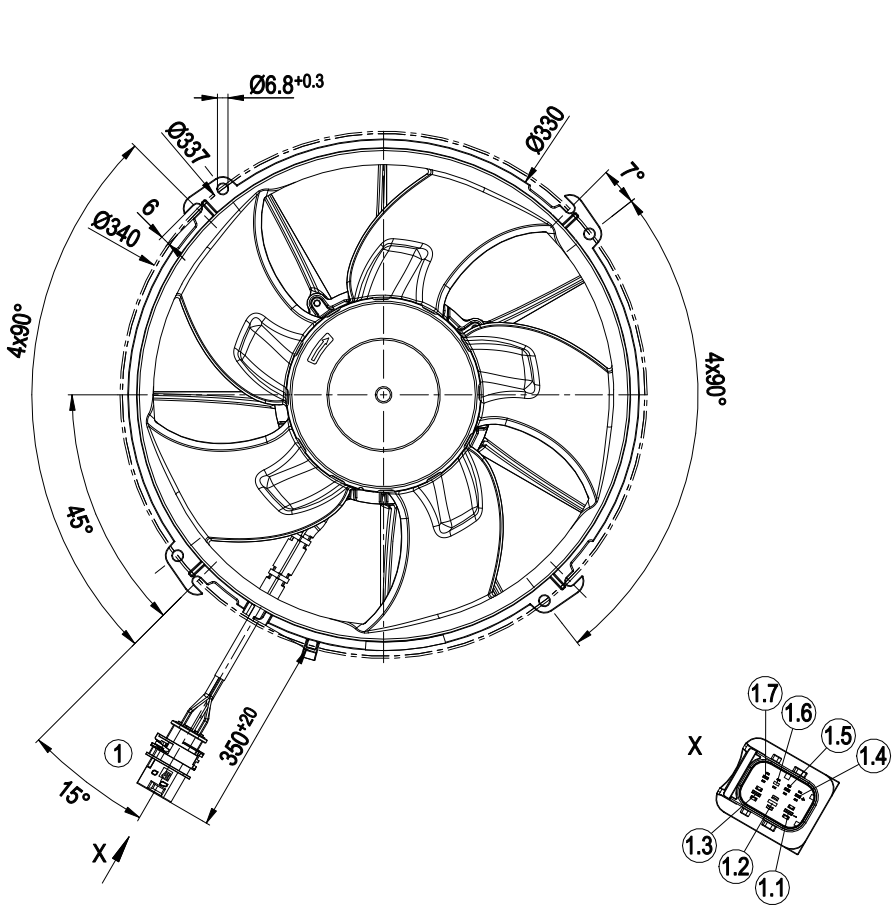
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Product drawing



1	Cable, 3x Raychem Spec. 44 AWG20, 2x Raychem Spec. 44 AWG12
	7-pole connector housing TE 1-1703648-1, 2x flat plug TE 1-1719504-2, 3x flat plug TE 964269-5, 2x seal TE 828905-1, 3x seal TE 964971-1, 1x dummy plug TE 828922-1, 1x dummy plug TE 963531-1
1.1	GND
1.2	not used
1.3	+ UB
1.4	Enable
1.5	PWM/LIN
1.6	not used
1.7	Diagnostic output
	7-pole mating connector TE 1-1418480-1, 2x flat plug TE 1-1719506-2, 3x flat plug TE 1241380-3, 2x seal TE 828905-1, 3x seal TE 964971-1, 1x dummy plug TE 828922-1, 1x dummy plug TE 963531-1

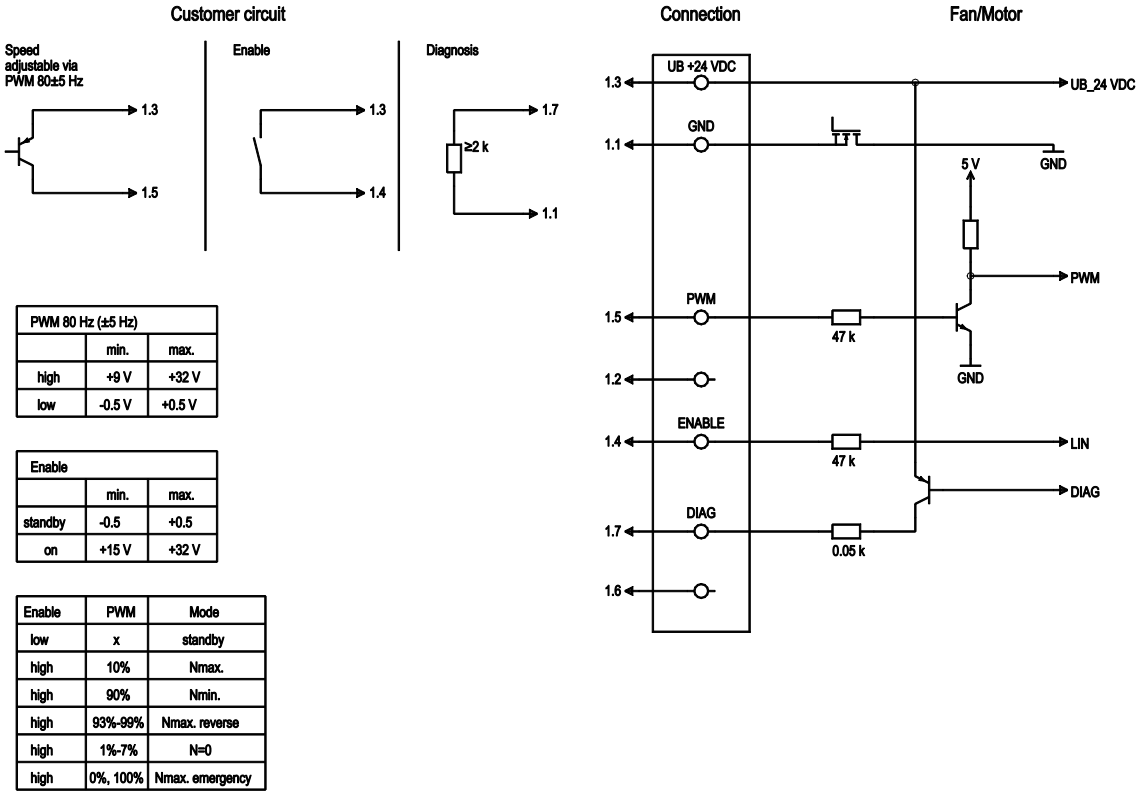
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Connection diagram



PWM 80 Hz (±5 Hz)		
	min.	max.
high	+9 V	+32 V
low	-0.5 V	+0.5 V

Enable		
	min.	max.
standby	-0.5	+0.5
on	+15 V	+32 V

Enable	PWM	Mode
low	x	standby
high	10%	Nmax.
high	90%	Nmin.
high	93%-99%	Nmax. reverse
high	1%-7%	N=0
high	0%, 100%	Nmax. emergency

No.	Conn.	Designation	Color	Function/assignment
1	1.1	GND	brown	Reference ground for control interface
2	1.2	-	-	not used
3	1.3	+UB 24 VDC	black	Power supply 24 VDC
4	1.4	Freigabe	blue	Enable
5	1.5	PWM	yellow	PWM input 80±5 Hz
6	1.6	-	-	not used
7	1.7	DIAG	white	Tach output, 2 pulses per revolution, 50% duty cycle normal mode, 10% duty cycle derating mode

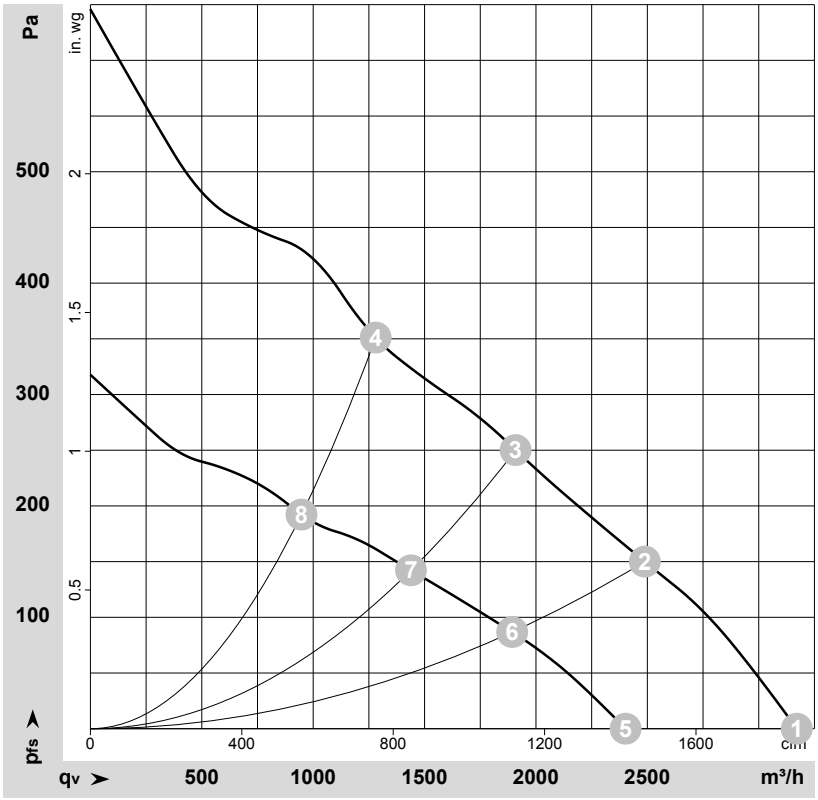
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-136344-1
Measurement: LU-136352-1

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	26-32	3350	307	11.80*	3170	0	1865	0.00
2	26-32	3375	333	12.80*	2490	150	1465	0.60
3	26-32	3380	346	13.30*	1910	250	1125	1.00
4	26-32	3380	388	14.90*	1280	350	755	1.41
5	16	2600	141	8.81	2400	0	1415	0.00
6	16	2580	148	9.23	1895	87	1115	0.35
7	16	2570	150	9.35	1440	142	845	0.57
8	16	2535	159	9.90	945	192	555	0.77

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

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