EC centrifugal fan

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G180-AC40-07**
Motor	**M3G084-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	3250
Power consumption	W	1070
Current draw	A	5.5 (200V)
Min. ambient temperature	°C	0
Max. ambient temperature	°C	55

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

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	36.7	35.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44.8	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.52
09 Air flow q_v	m^3/h	500
09 Pressure increase p_{fs}	Pa	1263
10 Speed (rpm) n	min^{-1}	3885
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_{fs} / 100 000 Pa

LU-76140

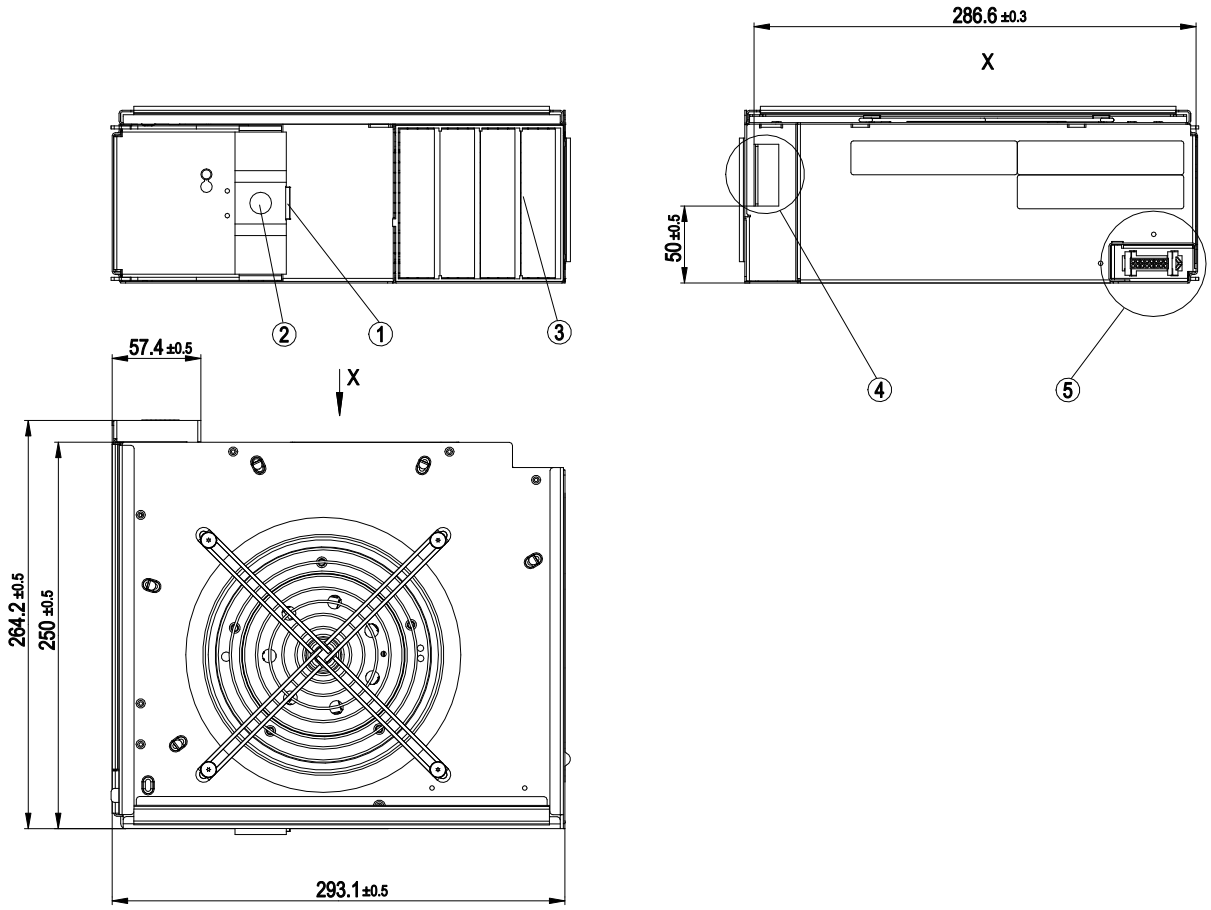
Technical description

Weight	6.3 kg
Fan size	180 mm
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Guard grille material	Steel, galvanized and coated with white-aluminum plastic (RAL 9006)
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+60 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Rotor on top; rotor on bottom
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Protection class	I (with customer connection of protective earth)
Conformity with standards	CE
Approval	UL 507; CSA C22.2 No. 113; CCC

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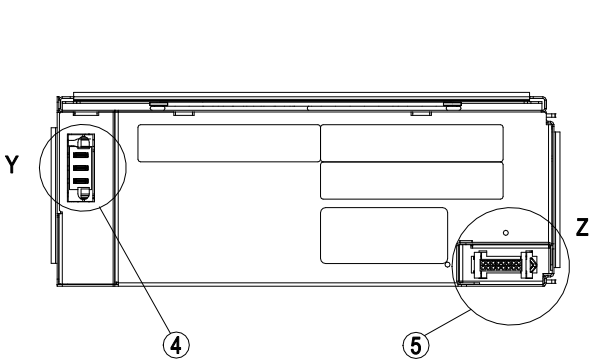
Product drawing

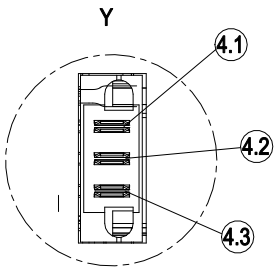


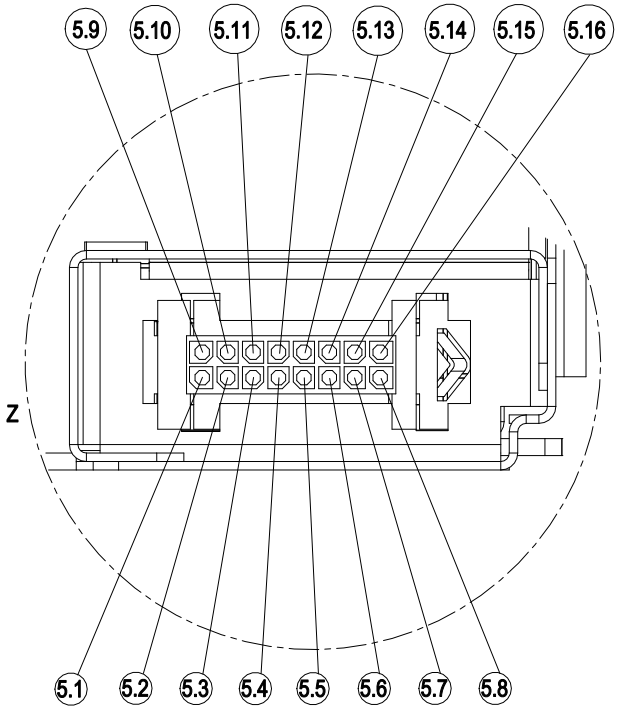
X	View
Y	Detail view
Z	Detail view
1	Quick release
2	Handle
3	Non-return valve (4 x)
4	Connector housing FCI 51939-081LF/Tyco 6450123-3
5	Connector housing Molex part number 44133-1601 with 16 x socket Molex part number 43030-0003

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Connection diagram



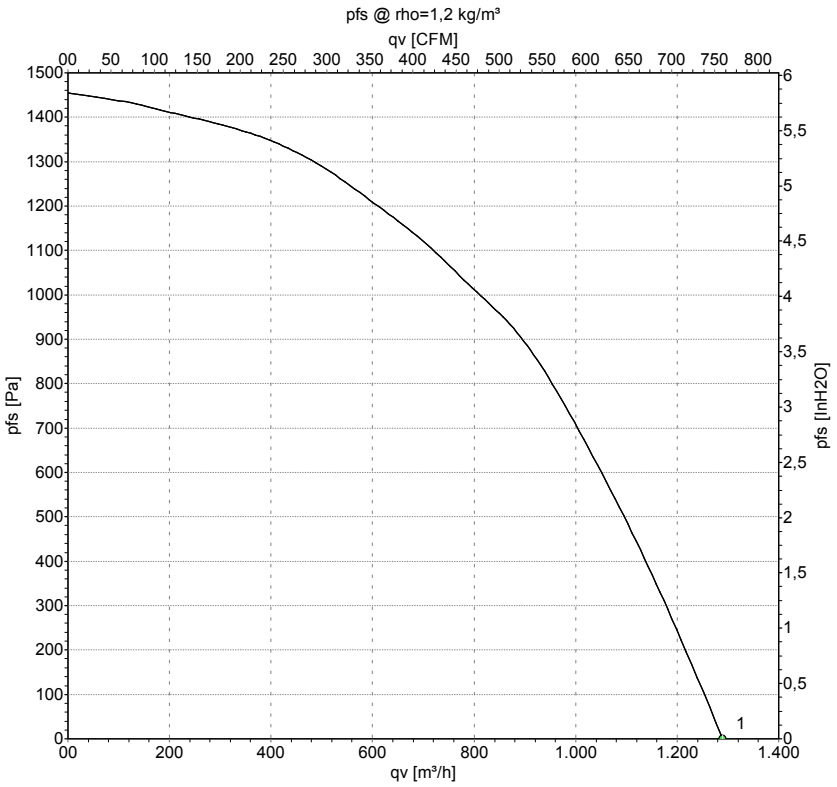




4.1	L (secured)
4.2	GND
4.3	N
5.1	5 V A
5.2	I²C reset
5.3	I²C A program interrupt
5.4	I²C A SDA
5.5	I²C A SCL
5.6	MM selection A
5.7	Tach output
5.8	GND
5.9	GND
5.10	Control input
5.11	I²C B program interrupt
5.12	I²C B SDA
5.13	I²C B SCL
5.14	MM selection B
5.15	Speed input
5.16	5 V B

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Curves: Air performance 50 Hz



Measurement: LU-76140-1

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	f	n	P_{ed}	I	qv	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	CFM	inH2O
1	230	50	3250	1070	5.50	1290	760	0.00

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow

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