K3G250-RO44-62

EC centrifugal module

backward curved, single inlet

with support plate

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**K3G250-RO44-62**
Motor	**M3G084-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	3250
Power input	W	350
Current draw	A	1.5
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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

Data according to ErP directive

		Actual	Request 2015
01 Overall efficiency η_{es}	%	52.4	46.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		67.8	62
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.34
09 Air flow q_v	m^3/h	955
09 Pressure increase p_{fs}	Pa	617
10 Speed (rpm) n	min^{-1}	3295
11 Specific ratio*		1.01

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

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Technical features

Mass	5.26 kg
Size	250 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Material of mounting plate	Aluminium sheet
Material of distancing profiles	Aluminium
Material of inlet nozzle	Aluminium sheet
Material of guard grille	Steel, coated in white aluminium plastic (RAL 9006)
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"B"
Humidity (F)/environmental protection class (H)	H0 - dry environment
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	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Operation and alarm display via LED - Integrated PID controller - Motor current limit - PFC, active - RS485 ebmBUS - Soft start - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage / phase failure detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	UL 1004-3; CSA C22.2 No.77

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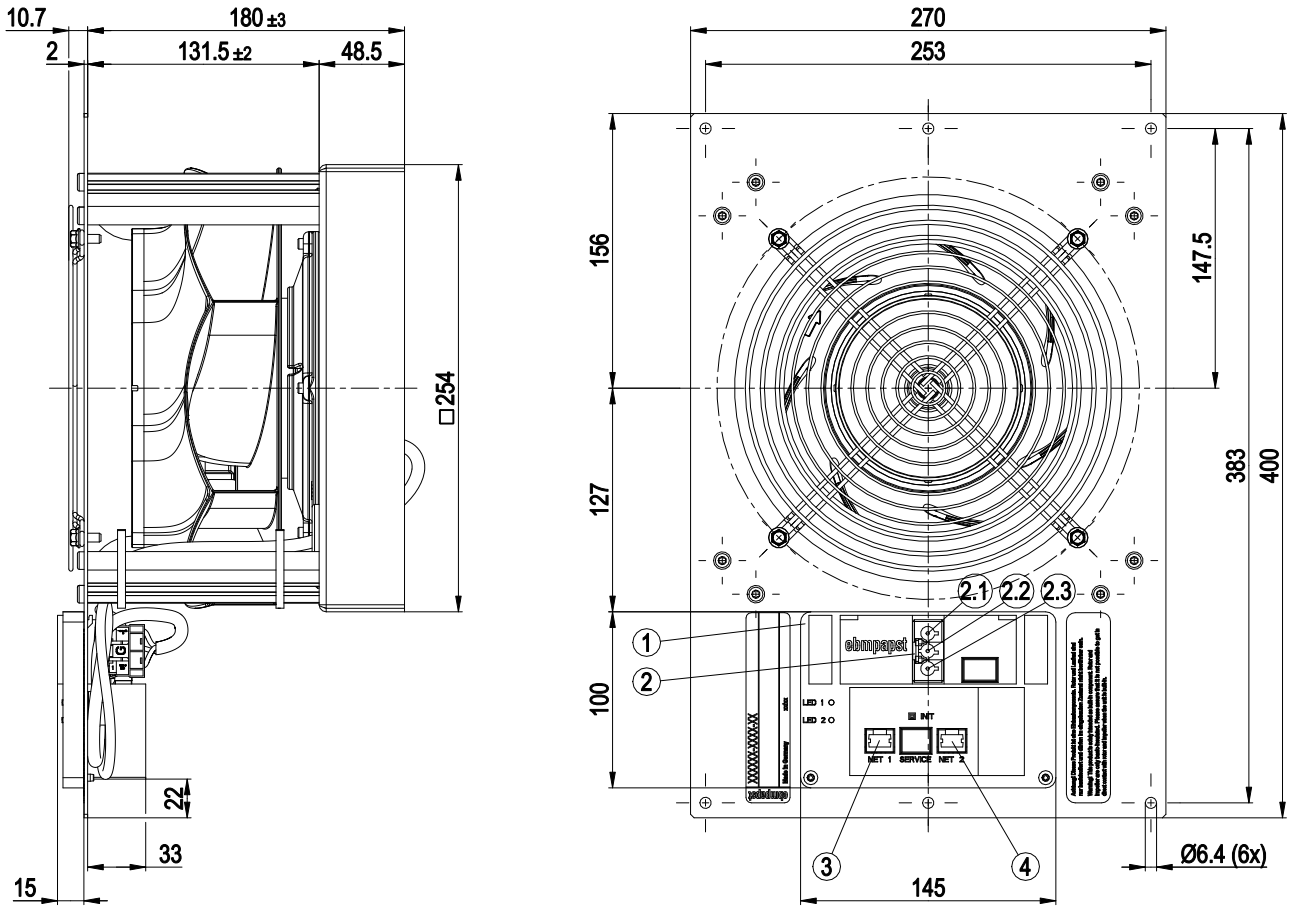
Product drawing



1	Terminal box
2	Connector housing 3-pole GST18/3 Wieland 92.032.9058.1
2.1	N
2.2	PE
2.3	L
3	Connector housing 8-pole Tyco 100616-2
4	Connector housing 8-pole Tyco 100616-2

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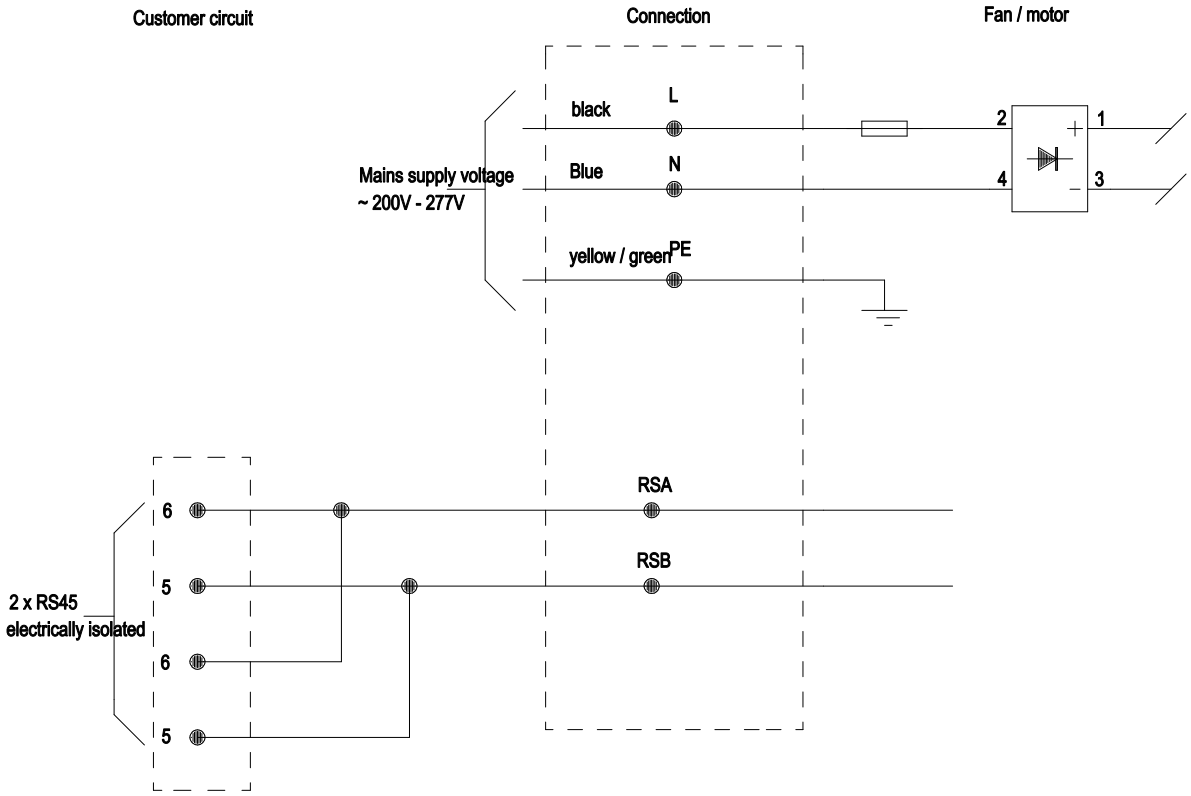
Connection screen



No.	Conn.	Designation	Function / assignment
3	PE		Protective earth
2	N		Mains connection, power supply, neutral conductor, see type plate for voltage range, 50/60 Hz
1	L		Mains connection, power supply, phase, see type plate for voltage range, 50/60 Hz
6	RSA		Bus connection RS-485, RSA, ebmBUS; SELV
5	RSB		Bus connection RS-485, RSB, ebmBUS; SELV

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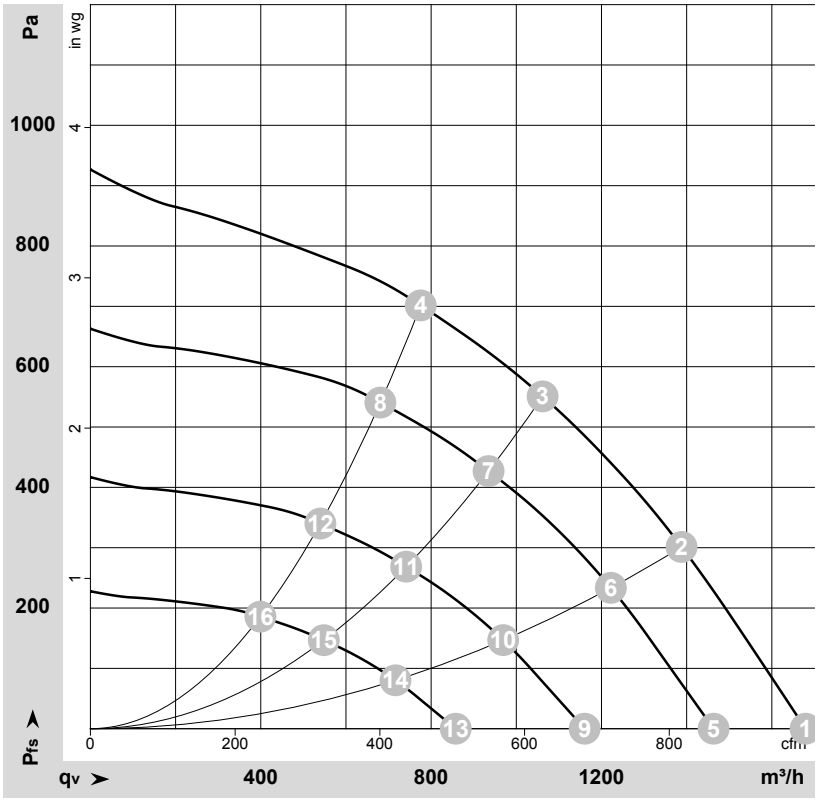
Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-173357-1

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	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	3330	286	1.26	1680	0	990	0.00
2	230	50	3295	329	1.44	1390	300	815	1.20
3	230	50	3250	350	1.50	1060	550	625	2.21
4	230	50	3305	341	1.50	775	700	455	2.81
5	230	50	2900	190	0.83	1465	0	860	0.00
6	230	50	2900	224	0.98	1220	234	720	0.94
7	230	50	2900	241	1.06	935	427	550	1.71
8	230	50	2900	230	1.01	680	541	400	2.17
9	230	50	2300	95	0.41	1160	0	685	0.00
10	230	50	2300	112	0.49	970	147	570	0.59
11	230	50	2300	120	0.53	740	269	435	1.08
12	230	50	2300	115	0.50	540	340	320	1.36
13	230	50	1700	38	0.17	860	0	505	0.00
14	230	50	1700	45	0.20	715	80	420	0.32
15	230	50	1700	48	0.21	550	147	325	0.59
16	230	50	1700	46	0.20	400	186	235	0.75

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