D3G225-IF11-02

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

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Nominal data

Type	**D3G225-IF11-02**
Motor	**M3G084-GF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		fa
Speed (rpm)	min^{-1}	1430
Power input	W	750
Current draw	A	3.3
Min. back pressure	Pa	150
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}	%	51.1	36.3
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		58.8	44
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.6
09 Air flow q_v	m^3/h	2005
09 Pressure increase p_{fs}	Pa	503
10 Speed (rpm) n	min^{-1}	1765
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

LU-180552

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Technical features

Mass	12.5 kg
Size	225 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, galvanised
Housing material	Sheet steel, galvanised
Motor suspension	Motor anti-vibration mounted on one side via brackets
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H1
Max. permissible ambient motor temp. (transp./ storage)	+85 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Operation and alarm display - Tach output - Alarm relay - Integrated PID controller - Output limit - Motor current limit - PFC, active - RS485 MODBUS RTU - Soft start - Control input 0-10 VDC / PWM - 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 61000-6-3 (household 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
Degree of soiling	2
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	CE
Remark	Norm conformity as per EN 61800-5-1 and EN 60335-1 in preparation

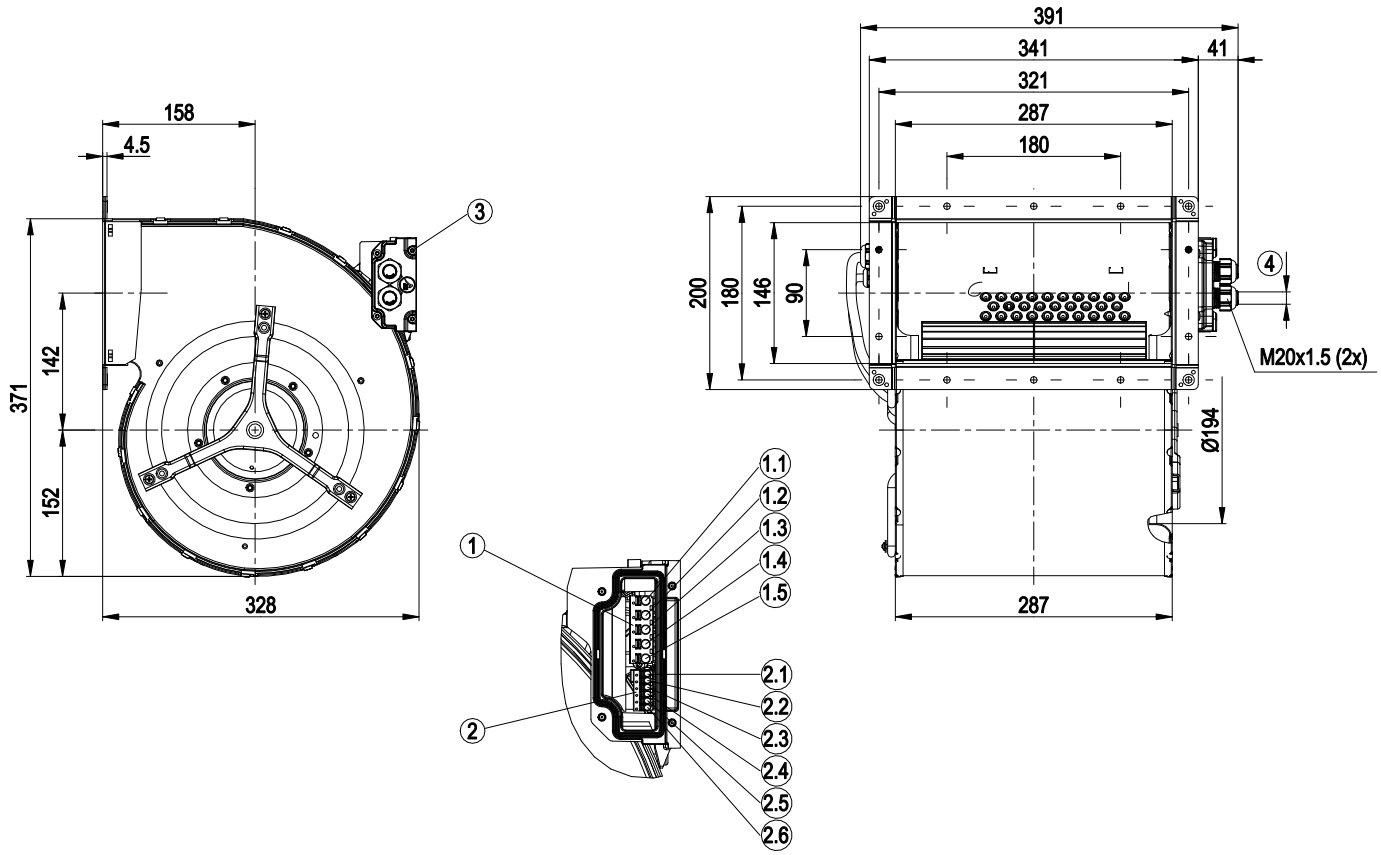
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Product drawing



1	Terminal 1
1.1	PE
1.2	L
1.3	N
1.4	NC
1.5	COM
2	Terminal 2
2.1	0-10 V
2.2	+10 V
2.3	GND
2.4	RSA
2.5	RSB
2.6	Tach
3	Tightening torque 3±0.5 Nm
4	Cable diameter min. 6 mm, max. 10 mm, tightening torque 2.5±0.4 Nm Cable diameter min. 8 mm, max. 12 mm, tightening torque 2.5±0.4 Nm (use must be made of sealing ring provided)

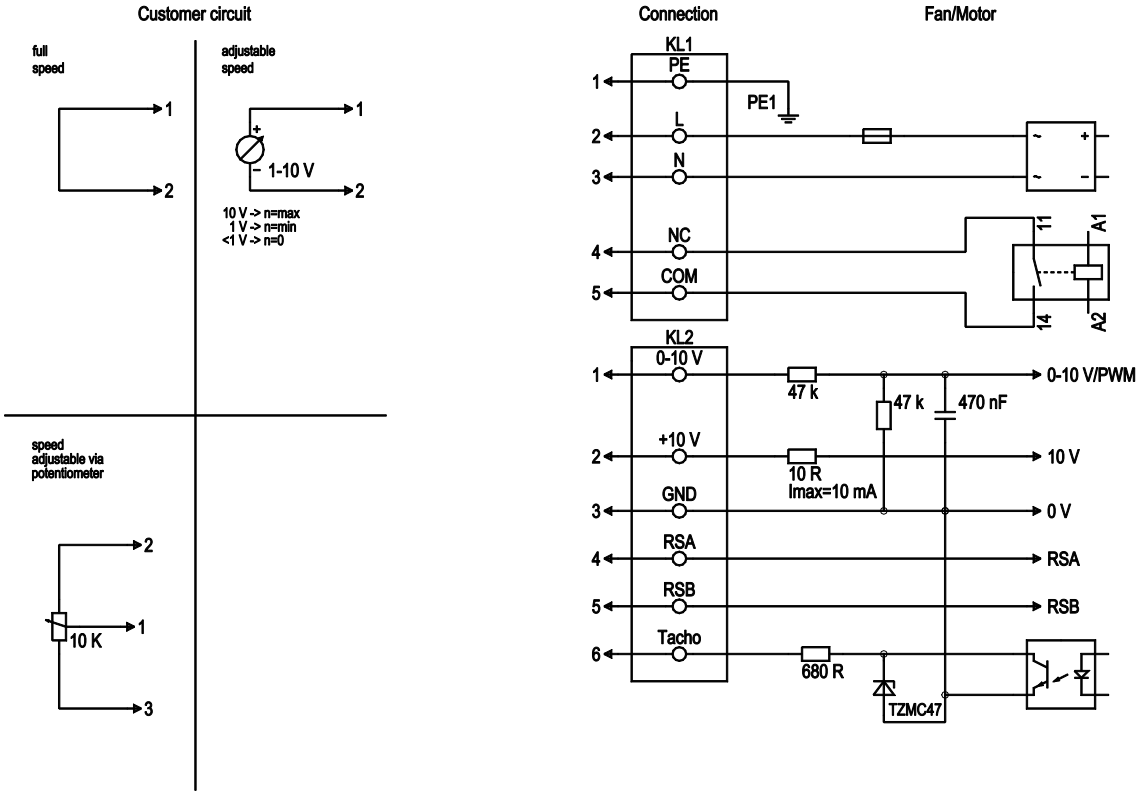
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Connection screen



No.	Conn.	Designation	Function / assignment
KL1	1	PE	Protective earth
KL1	2	L	Power supply, phase, 50/60 Hz
KL1	3	N	Power supply, neutral conductor, 50/60 Hz
KL1	4	NC	Status relay, floating status contact, break for failure, contact rating 250 VAC/2 A (AC1) min. 10 mA, basic insulation on mains side and reinforced insulation on control interface side
KL1	5	COM	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) / min. 10 mA, basic insulation on mains side and reinforced insulation on control interface side
KL2	1	0-10 V	Analogue input (set value), 0-10 V, Ri=100 kΩ, parametrisable curve, SELV
KL2	2	+10 V	Fixed voltage output 10 VDC, SELV
KL2	3	GND	Signal ground for control interface, SELV
KL2	4	RSA	RS-485 interface for MODBUS, RSA; SELV
KL2	5	RSB	RS-485 interface for MODBUS, RSB; SELV
KL2	6	Tacho	Speed monitoring output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV

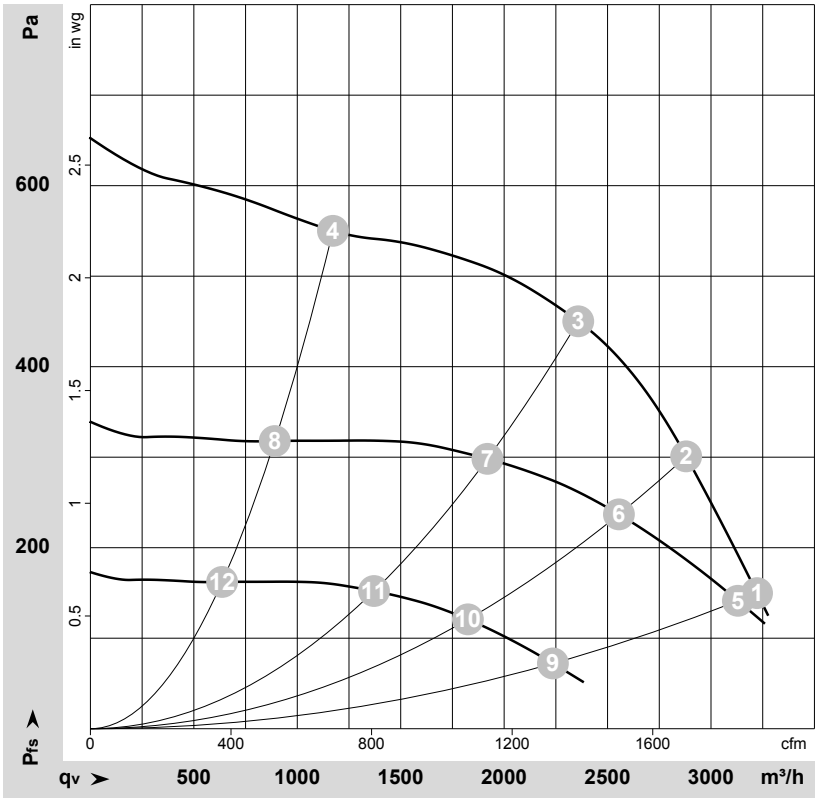
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-180552-1

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	1430	750	3.30	3225	150	1895	0.60
2	230	50	1575	752	3.29	2880	300	1695	1.20
3	230	50	1720	691	3.03	2360	450	1390	1.81
4	230	50	1840	431	1.92	1170	550	690	2.21
5	230	50	1400	700	3.07	3130	142	1840	0.57
6	230	50	1400	528	2.31	2555	237	1505	0.95
7	230	50	1400	373	1.64	1920	298	1130	1.20
8	230	50	1400	189	0.85	890	318	525	1.28
9	230	50	1000	255	1.12	2235	73	1315	0.29
10	230	50	1000	193	0.84	1825	121	1075	0.49
11	230	50	1000	136	0.60	1370	152	805	0.61
12	230	50	1000	69	0.31	635	162	375	0.65

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

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