K3G355-AX56-01

EC centrifugal module - Plug fan

backward curved, single inlet

with support plate

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Nominal data

Type	**K3G355-AX56-01**	
Motor	**M3G112-EA**	
Phase		3~
Nominal voltage	[V]	400
Nominal voltage range	[V]	380 .. 480
Frequency	[Hz]	50/60
State		prelim.
Speed	[min^{-1}]	2140
Power input	[W]	1000
Current draw	[A]	1.7
Min. ambient temperature	[°C]	-25
Max. ambient temperature	[°C]	50

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

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Technical features

Leackage current	<= 3,5 mA
Size	355 mm
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Electrical leads	Via terminal box
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
Insulation class	"B"
Condensate discharge holes	Rotor-side
Bearing motor	Ball bearing
Mass	18 kg
Material of distancing profiles	Aluminium
Material of inlet nozzle	Sheet steel, hot-galvanised
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Material of mounting plate	Sheet steel, hot-galvanised
Motor protection	Thermal overload protector (TOP) wired internally
Product conforming to standard	EN 61800-5-1
Surface of rotor	Coated in black
Number of blades	7
Type of protection	IP 54
Protection class	I
Technical features	- PFC, passive - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor - Alarm relay - Integrated PID controller - Input for sensor 0-10 V or 4-20 mA - Output for slave 0-10 V - RS485 ebmBUS - Motor current limit - Soft start - Line undervoltage / phase failure detection - Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C

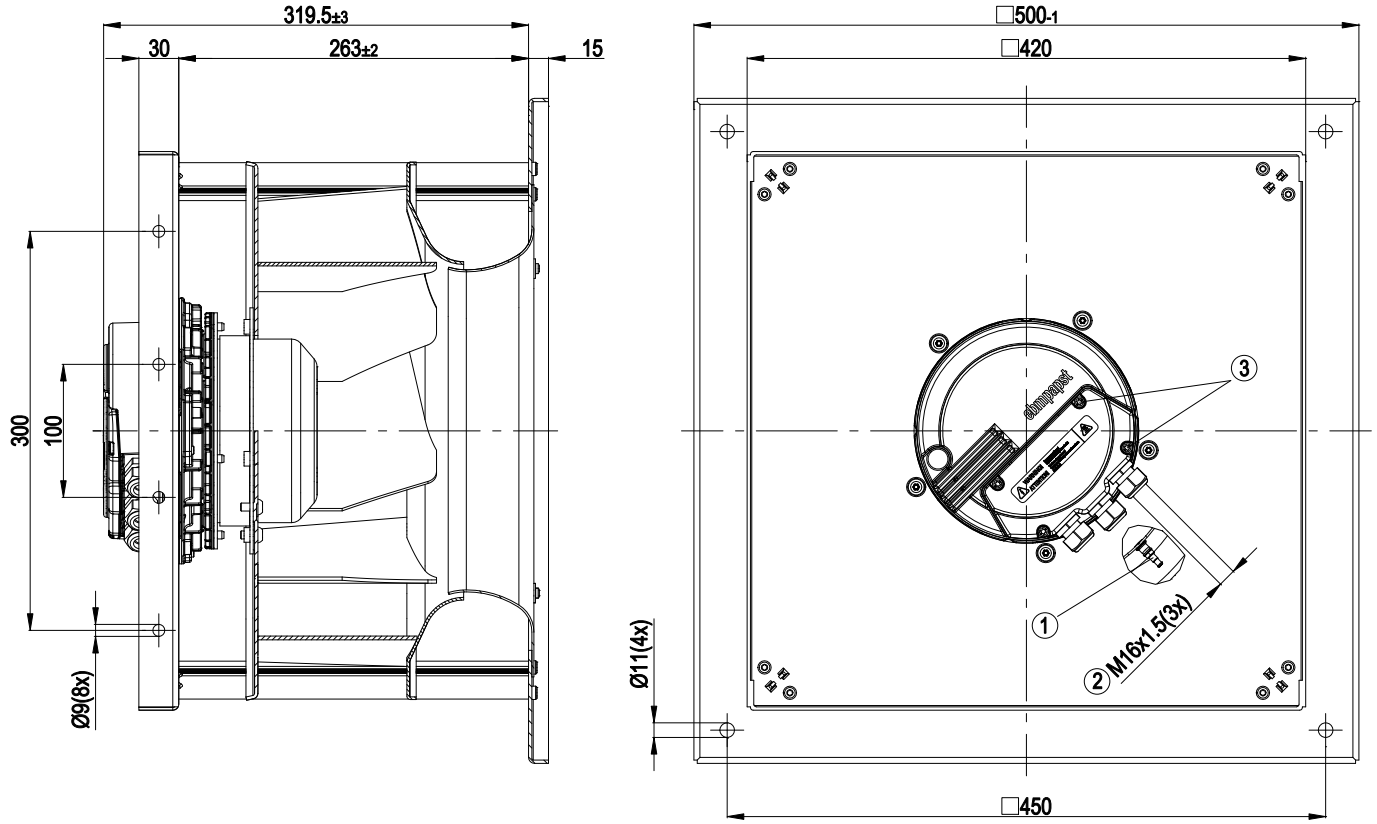
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Product drawing



1	Inlet nozzle with bleeder connection for pressure relief (k-factor: 148)
2	Cable diameter: min. 4 mm, max. 10 mm, tightening torque: 2.5±0.4 Nm
3	Tightening torque 3.5±0.5 Nm

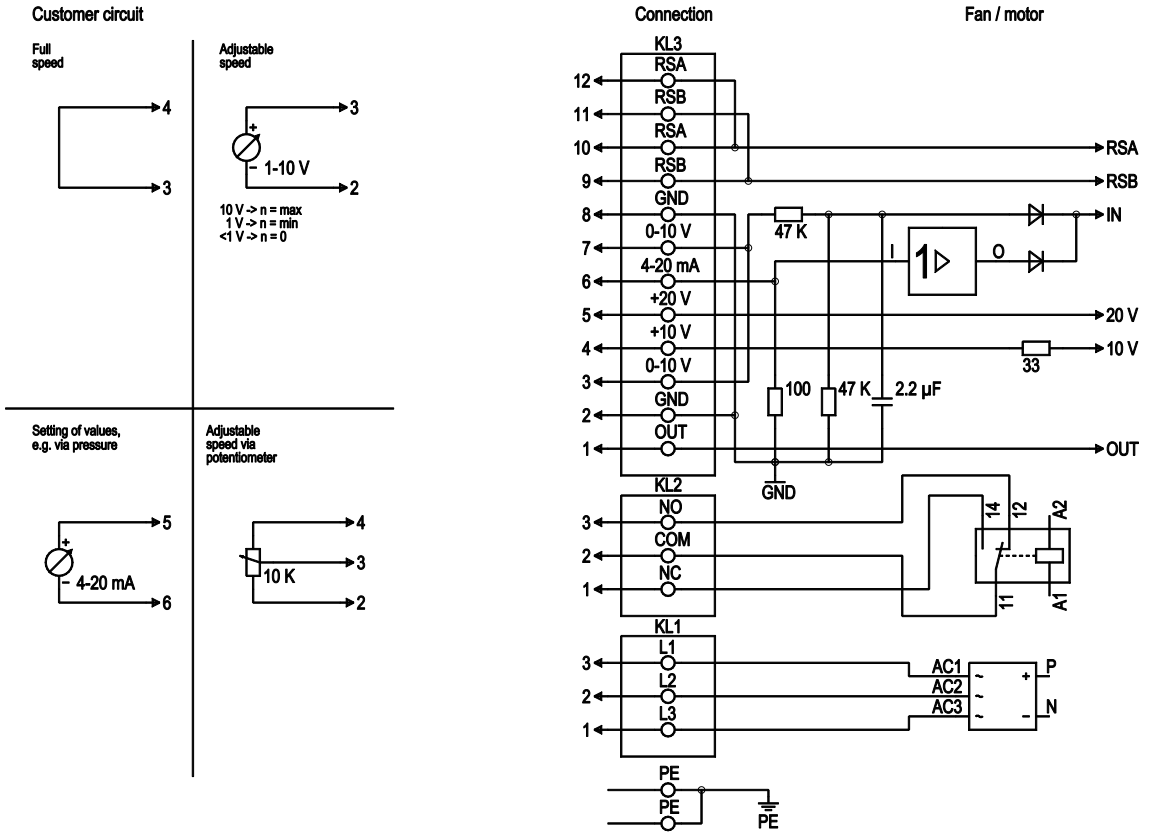
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Connection screen



No.	Pin	Signal	Function / assignment
PE		PE	Protective earth connection
KL1	1, 2, 3	L1, L2, L3	Supply voltage, 50/60 Hz
KL2	1	NC	Floating status message contact, normally closed connection
KL2	2	COM	Floating status message contact, changeover contact, common connection (2 A, max. 250 VAC, min. 10 mA, AC1)
KL2	3	NO	Floating status message contact, normally open connection
KL3	1	OUT	Analog output, 0-10 VDC, max. 3 mA, SELV, output of the current level control coefficient: 1 V equates to 10% level control coefficient. 10 V equate to 100% level control coefficient.
KL3	2, 8	GND	Reference mass for control interface, SELV
KL3	3, 7	0-10 V	Use control / actual value input 0-10 VDC, impedance 100 kΩ only as alternative to 4-20 mA input, SELV
KL3	4	+10 V	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for external devices (e.g. potentiometers), SELV
KL3	5	+20 V	Voltage output 20 VDC (+25%/-10%), max. 50 mA, supply voltage for external devices (e.g. sensors), SELV
KL3	6	4-20 mA	Use control / actual value input 4-20 mA, impedance 100 Ω, only as alternative to 0-10 V input, SELV
KL3	9, 11	RSB	RS485 interface for ebmBus, RSB, SELV
KL3	10, 12	RSA	RS485 interface for ebmBus, RSA, SELV

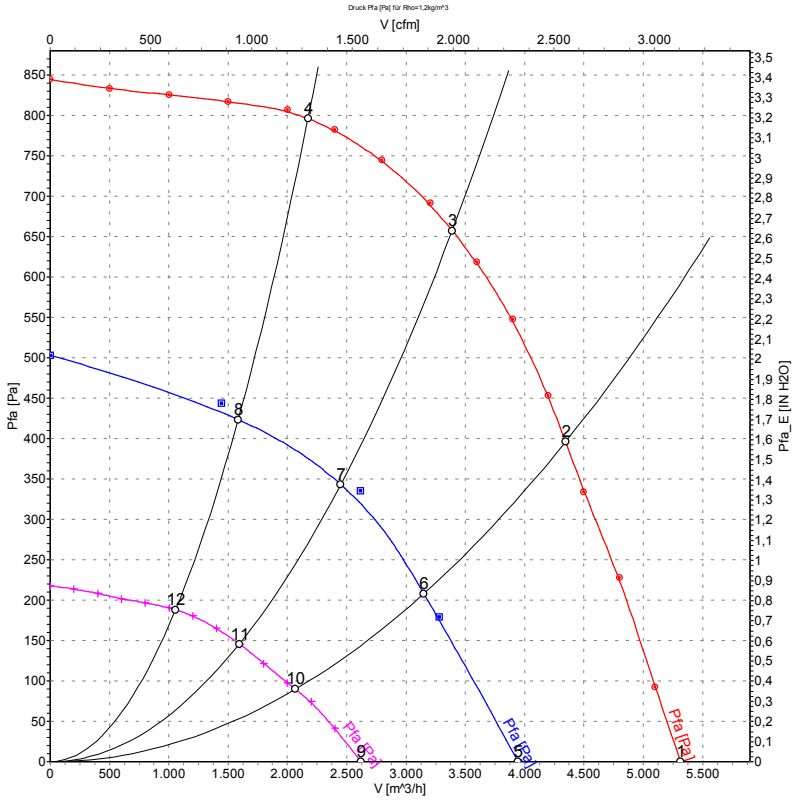
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Charts: Air flow 50 Hz



Measurement: LU-106551
Measurement: LU-108544
Measurement: LU-106552

Measured values

	U	f	n	P_1	I	LpA_{ss}	LpA_{ds}	LwA_{ss}	LwA_{ds}	η_{TL}	$\dot{V}$	p_{fa}
	[V]	[Hz]	[min^{-1}]	[W]	[A]	[dB(A)]	[dB(A)]	[dB(A)]	[dB(A)]	[%]	[m^3/h]	[Pa]
1	400	50	2140	656	1.14	81	77	87	91	21	5315	0
2	400	50	2140	893	1.50	71	69	77	83	69	4345	400
3	400	50	2140	1000	1.70	68	68	75	81	76	3390	650
4	400	50	2140	918	1.54	71	70	78	84	63	2175	800
5	400	50	1610	286	0.57	72	69	79	84	21	3945	0
6	400	50	1595	350	0.68	64	62	70	76	69	3150	210
7	400	50	1580	387	0.74	62	61	69	75	76	2450	350
8	400	50	1585	366	0.70	64	63	70	76	63	1585	431
9	400	50	1080	113	0.28	63	62	71	76	20	2620	0
10	400	50	1065	133	0.31	57	54	64	69	69	2070	90
11	400	50	1065	143	0.33	53	52	60	66	76	1595	146
12	400	50	1060	135	0.32	54	53	61	68	63	1055	188

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