8300100940

VWS0350CUPGS

EC axial panel fan - AxiEco

Fan housing with guide vanes, for rail applications

8300100940 ebmpapst Datasheet
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Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Item	**8300100940**
Motor	**E08425-35**

Nominal voltage	VDC	110
Nominal voltage range	VDC	77 .. 138
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2300
Power consumption	W	580
Current draw	A	5.25
Max. back pressure	Pa	350
Max. back pressure	in. wg	1.41
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	65

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	7,32
Size	350 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted black
Impeller material	PA66 plastic, sheet-metal plate painted black
Fan housing material	Die-cast aluminum, painted black
Inlet ring material	Sheet aluminum, painted black
Number of blades	5
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H3
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on top
Condensation drainage holes	None, closed rotor
Mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Output 10 VDC, max. 10 mA - Operation and alarm display - Alarm relay - Motor current limitation - RS-485 MODBUS-RTU - Soft start - EEPROM write cycles: 100,000 maximum - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection - Reverse polarity protection
EMC regulations	According to EN 50121-3-2
Motor protection	Thermal switch auto reset, internally connected
With cable	Lateral
Protection class assignment	I; If a protective earth is connected. The built-in component has several local protection class assignments. The final protection class is determined by the intended installation.
Conformity with standards	EN 15085-1, CPC3; EN 45545-2, HL3; EN 50155; EN 61373, Cat. 1B
Comment on CE	Ecodesign Directive 2009/125/EC + Fan Regulation (EC) No. 327/2011 does not apply, as use only in means of transport for transporting persons or goods.
Approval	EAC

Comment	If voltage (e.g. 230 VAC) is passed through the alarm relay, the SELV signal wires lose their property of reinforced insulation, meaning they then have only basic insulation The SELV property (reinforced insulation) is not lost when voltages of up to 110 VDC are passed through the alarm relay.

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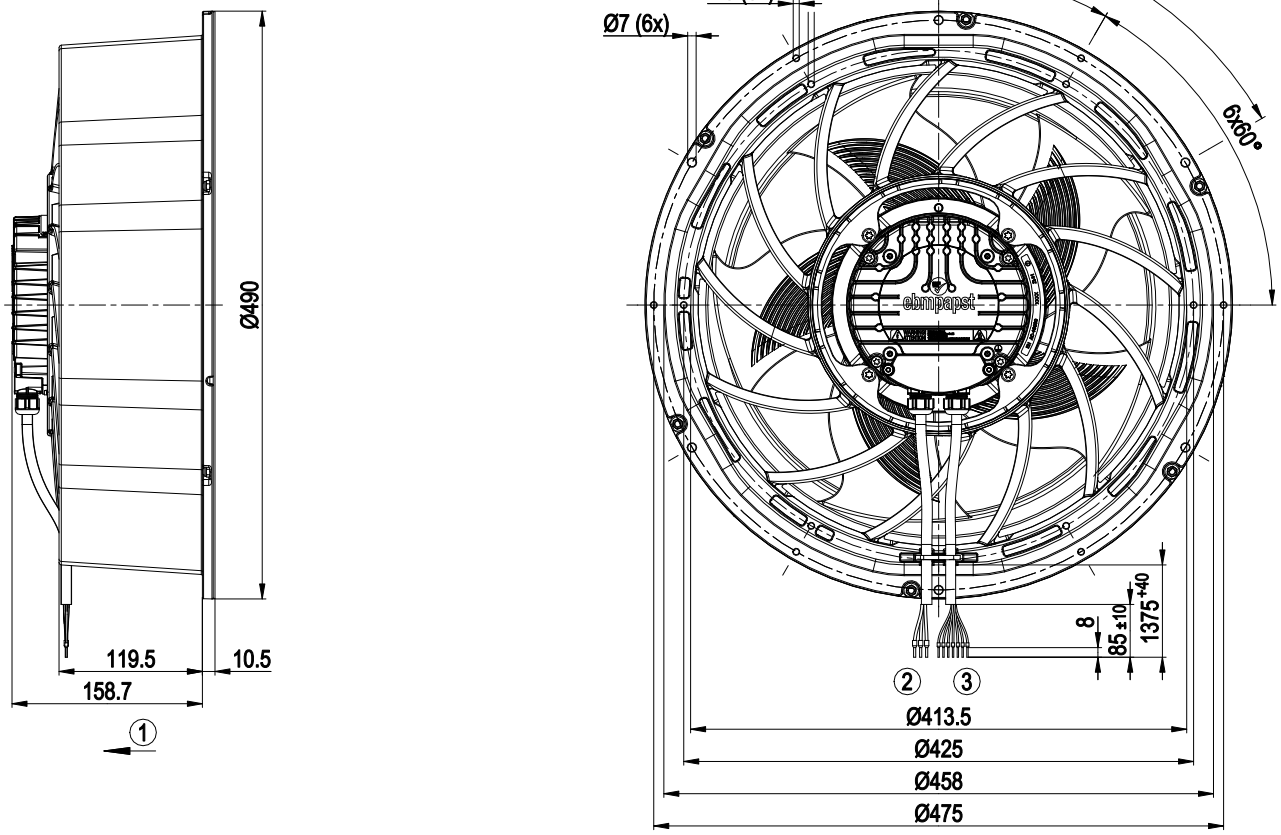
Product drawing



1	Airflow direction "V"
2	Cable, halogen-free, railway application EN 45545, 4G 1.5 mm²
	3x wire-end ferrule, 1x wire not routed externally
3	Cable, halogen-free, railway application EN 45545, 7x 0.5 mm²
	7x wire-end ferrule

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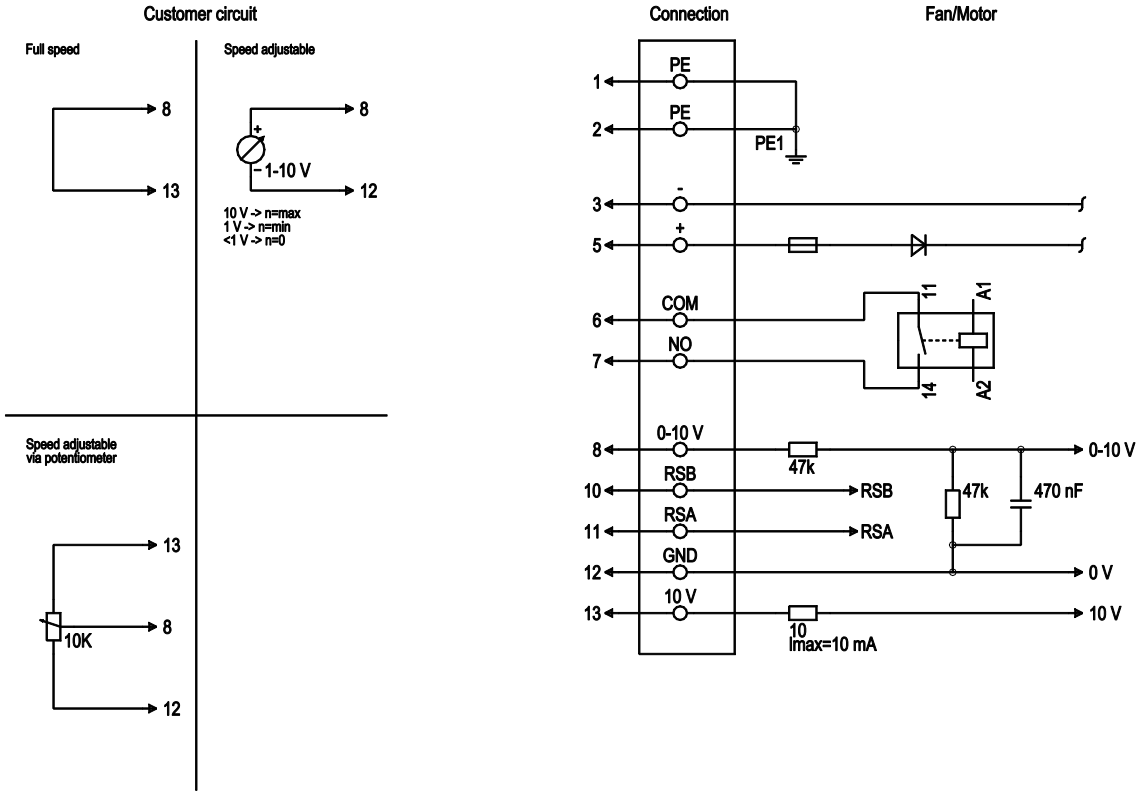
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	PE	green/yellow	Protective earth
1	2	PE	-	not brought out via wire
1	3	-	black	Power supply, GND, voltage range see nameplate
1	5	+	brown	Power supply, see nameplate for voltage range
2	6	COM	gray	Status relay, floating status contact, common connection, contact rating 250 VAC/30 VDC max. 2 A (AC1), min. 1 mA/5 VDC, reinforced insulation on control interface side, basic insulation on supply side in accordance with EN 50124-1
2	7	NO	orange	Status relay, floating status contact, normally open contact, contact rating 250 VAC/30 VDC max. 2 A (AC1), min. 1 mA/5 VDC, reinforced insulation on control interface side, basic insulation on supply side in accordance with EN 50124-1
2	8	0-10 V	yellow	Analog input (set value) SELV, 0-10 V, Ri = 100 kΩ, adjustable curve
2	10	RSB	brown	RS-485 interface for MODBUS, RSB; SELV, bus termination resistor provided by customer
2	11	RSA	white	RS-485 interface for MODBUS, RSA; SELV, bus termination resistor provided by customer
2	12	GND	blue	Reference ground for control interface; SELV
2	13	+10 V	red	Fixed voltage output 10 VDC, SELV, +10 V +/-3%, max. 10 mA, short-circuit-proof, power supply for external devices (e.g. potentiometers)

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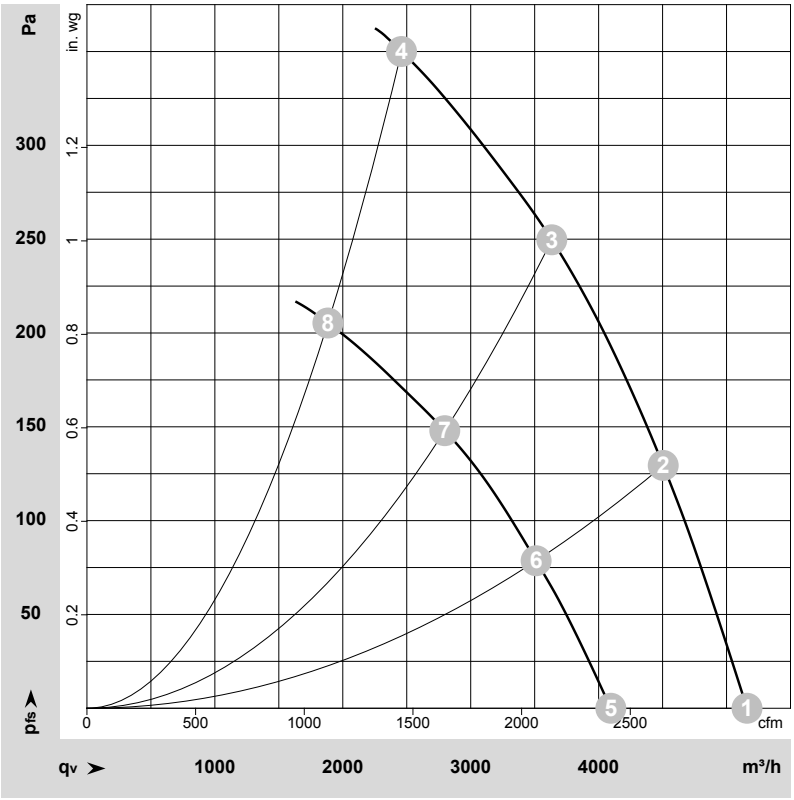
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-228759-1
Date: 2026-05-20
Nozzle: 8217118887

Measurement: LU-229060-1
Date: 2026-05-26
Nozzle: 8217118887

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_e	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	110-138	2300	399	3.60*	74	81	5160	0	3035	0.00
2	110-138	2300	484	4.40*	72	79	4505	130	2650	0.52
3	110-138	2300	547	5.00*	70	78	3635	250	2140	1.00
4	110-138	2300	580	5.25*	73	81	2460	350	1445	1.41
5	77	1830	206	2.67			4095	0	2410	0.00
6	77	1805	236	3.05			3510	79	2065	0.32
7	77	1780	254	3.30			2795	148	1645	0.59
8	77	1765	263	3.42			1885	205	1110	0.82

U = Voltage · n = Speed (rpm) · P_e = Power consumption · I = Current draw · * = Current measured at nominal voltage · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase