

AR 450DV sileo Axial fan

Axial duct fan

Item Number: 37386

Variant: 400V 3~ 50Hz

speed controllable by voltage reduction, plus option of 2-step operation by D/Y switching for 400V versions

safe and maintenance free operation

can be installed in any mounting position

electric connection via terminal box mounted on the casing

Axial fans of the AR sileo range do have a bionic shape of the fan blade, and are driven by external rotor motors. The AR range is mounted in a round casing according Eurovent 1/2, galvanized steel and powder coated in black (RAL9005). The axial impeller is manufactured from black high efficiency composite material. The impeller is balanced dynamically in two levels in accordance with DIN ISO 1940 part 1, quality G6.3.

The motors are equipped with thermal contacts for motor protection, with leads to be connected to a motor protection unit.



Technical parameters

Nominal data		
Voltage (Nominal)	400	V
Frequency	50	Hz
Phase(s)	3~	
Motor circuit connection	D; Y	
Input power	540	W
Input current	1.1	A
Impeller speed	1,350	r.p.m.
Air flow	max 1.999	m ³ /s
Air flow at max. efficiency	1.279	m ³ /s
Specific ratio	1,000000	
Temperature of transported air	max 70	°C
Max temperature of transported air, when speed controlled	70	°C
Sound data		
Sound pressure level at 1m	67	dB(A)

Protection/Classification

Enclosure class, motor	IP54
Insulation class	F

Data according to ErP

ErP ready	ErP 2018
Measurement category	A
Efficiency grade	42 η_{actual}
Efficiency, static	34 η_{statA}
Target efficiency grade ErP2013	36 $\eta_{\text{target2013}}$
Target efficiency grade ErP2015	40 $\eta_{\text{target2015}}$

Dimensions and weights

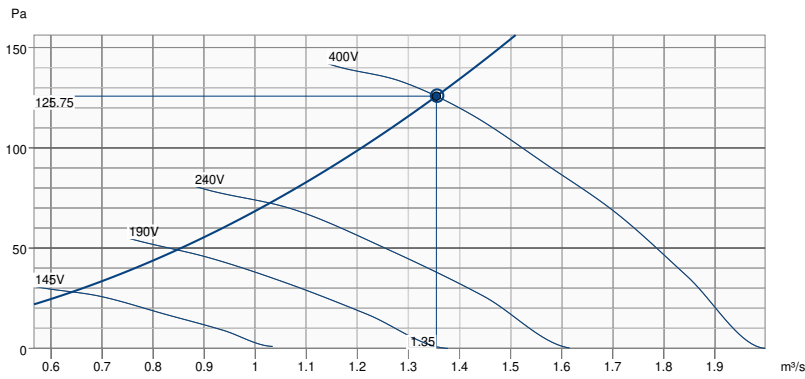
Duct dimension; Circular, inlet	450 mm
Duct dimension; Circular, outlet	450 mm
Weight	15.4 kg

Others

Duct connection type	Circular
Color name, casing	Black
Motor type	AC

Performance

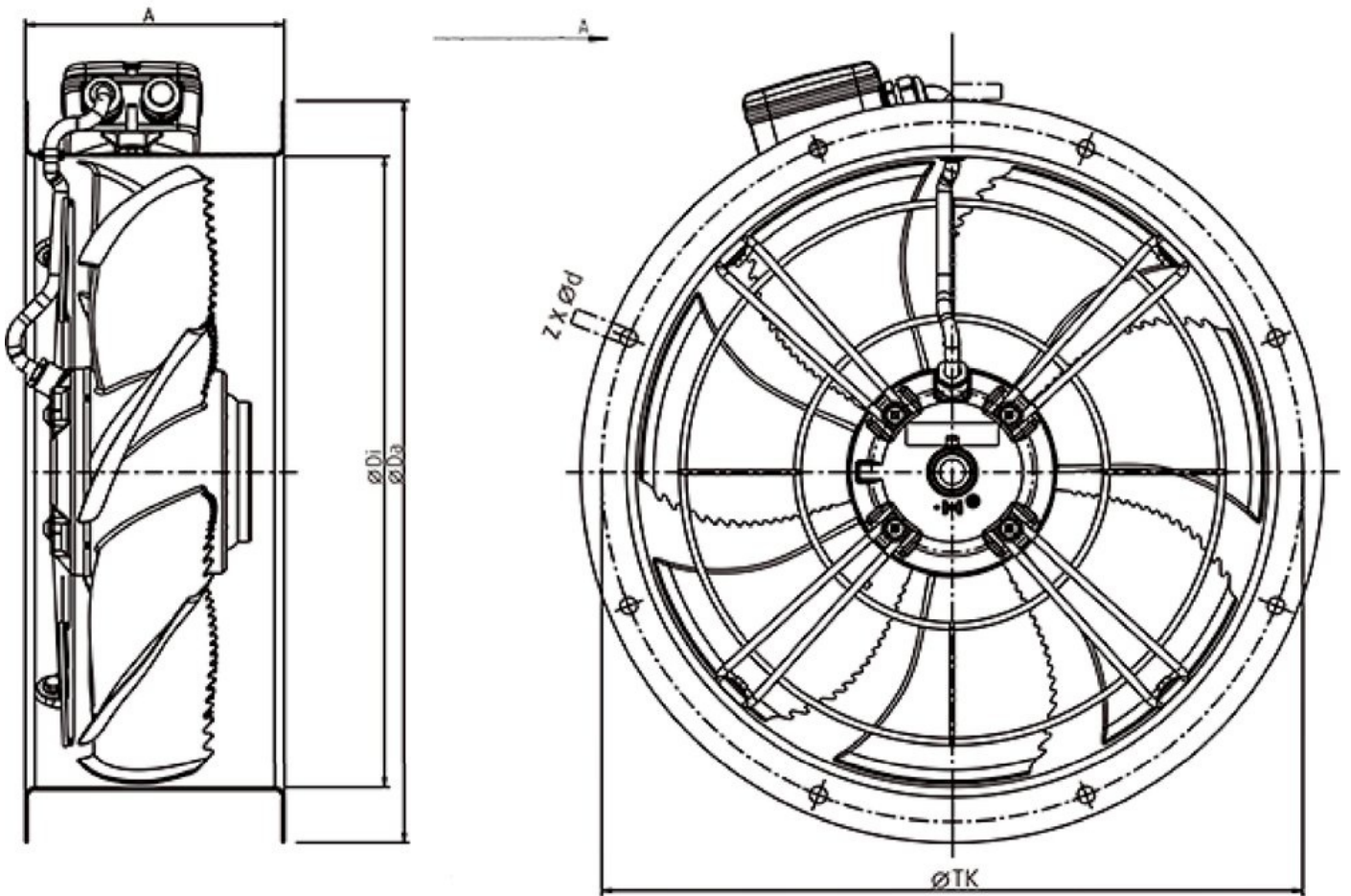
Performance curve



Hydraulic data	
Required air flow	1.36 m³/s
Required static pressure	126 Pa
Working air flow	1.35 m³/s
Working static pressure	126 Pa
Air density	1.204 kg/m³
Power	534.1 W
Fan control - RPM	1356 rpm
Current	1.07 A
SFP	0.394 kW/m³/s
Control voltage	400.0 V
Supply voltage	400 V

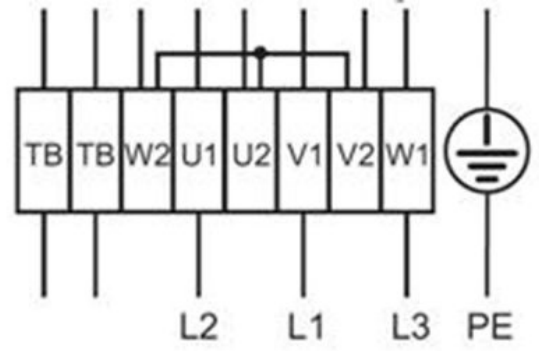
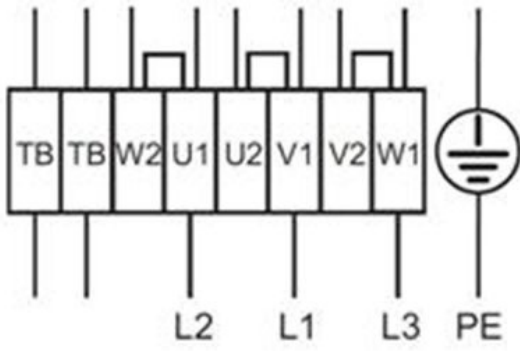
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	42	53	55	61	65	66	62	51	71
Outlet	dB(A)	48	55	59	63	65	65	60	51	70

Dimension



	A	ØDi	ØDa	ØTK	z x Ød
AR 450 sileo	185	451	530	500	8 x Ø12

Wiring



High speed

Low Speed

Δ-Connection

Y-Connection

Ecodesign

Ecodesign 327	
Manufacturer	Systemair GmbH, Seehöfer Str. 45, DE-97944 Boxberg, Amtsgericht (court of registration) Mannheim, HRB 560437
Type	AR 450DV
Year of manufacture	See name plate of the fan
Air flow qv	1.2792 m ³ /s
Efficiency category	static
Efficiency grade N	42
Efficiency grade target N	40
Speed (rpm) n	1,365 r.p.m.
Pressure increase total psf	140 Pa
Power consumption Ped	540 W
Overall efficiency	34 %
Variable speed drive	No
Additional components	Components used to calculate the energy efficiency that are not apparent from the measurement category are detailed in the CE declaration.
Maintenance	Information on installation, operation and maintenance is provided in the operating instructions.
Recycling / disposal	Information on recycling and disposal is provided in the operating instructions.

Accessories

- AWE-SK Motorprotection 2A/230V (5138)
- GFL-AR/AXC 450 counter flange (8379)
- RTRD 2 Speed Cont. Systemair (5941)
- S-DT 16E Motor Protection (161207)
- SG AXC/AM/AR 450 guard grill (310688)
- EV-AR/AXC 450 flex.conn. 70°C (8355)
- MFA-AXC/AM 450 mounting foot (311286)
- RTRDU 2 Speed contr. Systemair (5945)
- S-DT2SKT Two speed switch Y/D (2697)

Documents

- L-BAL-001-SYSTEMAIR.PDF
- UKCA-declaration of conformity_AXC_001
- installation variations_1_AR_AW.pdf