

DHS 310EV roof fan

Centrifugal roof fan <125W, horizontal discharge

Item Number: 5703

Variant: 230V 1~ 50Hz



- Speed-controllable
- Integral thermal contacts
- Low sound level
- Maintenance-free and reliable

The DHS models have impellers with backward curved blades and external rotor motors. All motors are speed controllable over the voltage. Frequency inverters must have an allpole sine filter.

DHS ...EZ / EV / ES: 1~ motor with connection for 2-speeds

DHS ...E4: 1-speed motor

DHS ...DV / DS: 3~ with Y/D-connection for 2-speeds

To protect the motors from overheating the DHS up to size 311 have integral thermal contacts, from size 355 with external leads for connection to a motor protection device. The casing is made from aluminum and the base frame is made of galvanised steel, powder-coated. Suitable for coastal applications. The impellers up to size 355 are manufactured from polyamide PA6 25GV, from size 400 in Aluminium. DHS with outlet horizontal



Technical parameters

Nominal data		
Voltage (Nominal)	230	V
Frequency	50	Hz
Phase(s)	1~	
Input power	114	W
Input current	0.526	A
Impeller speed	1,375	r.p.m.
Air flow	max 0.406	m ³ /s
Capacitance of capacitor	4	μF
Temperature of transported air	max 40	°C
Max temperature of transported air, when speed controlled	40	°C
Sound data		
Sound pressure level at 10m (free field)	38	dB(A)
Sound pressure level at 4m (free field)	46	dB(A)
Protection/Classification		
Enclosure class, motor	IP44	
Insulation class	B	

Data according to ErP

ErP ready

ErP 2016; ErP 2018

Dimensions and weights

Weight

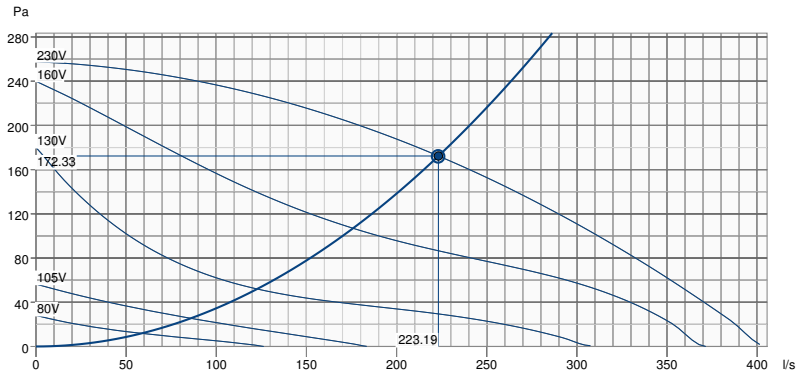
11.1 kg

Others

Motor type

AC

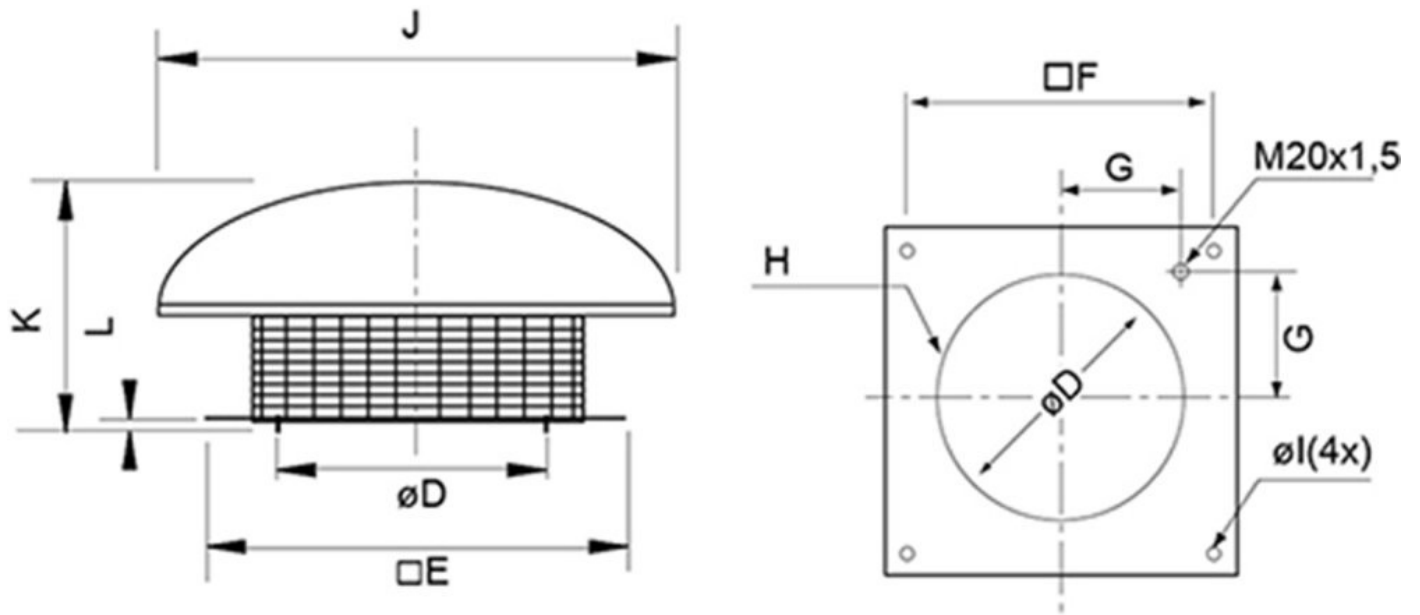
Performance curve



Hydraulic data

Required air flow	223.03 l/s
Required static pressure	172 Pa
Working air flow	223.19 l/s
Working static pressure	172 Pa
Air density	1.204 kg/m ³
Power	115.7 W
Fan control - RPM	1371 rpm
Current	0.53 A
SFP	0.518 kW/m ³ /s
Control voltage	230.0 V
Supply voltage	230 V

Dimension

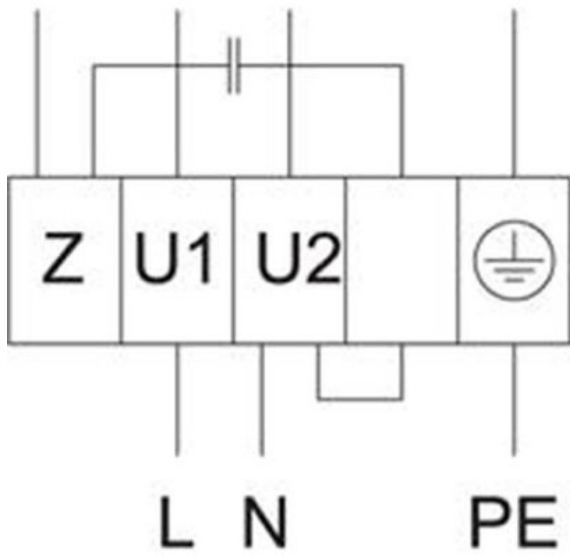


* diameter D refers to scew-hole-circuit H

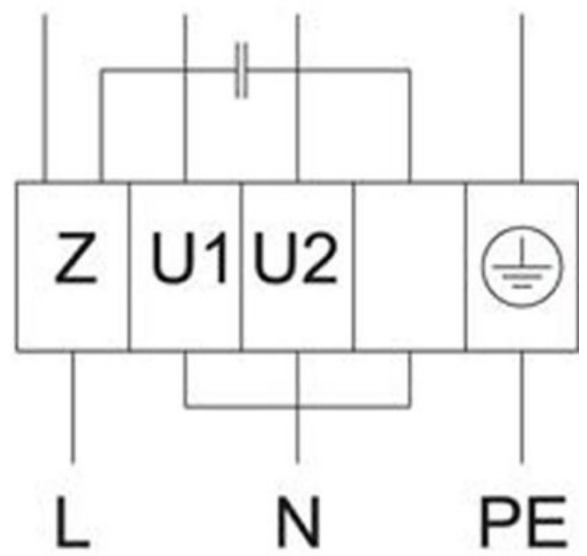
DHS	$\varnothing D$	$\square E$	$\square F$	G	H	$\varnothing l$	J	K	L
310	285	435	330	146	6xM6	10	$\varnothing 540$	250	30

Wiring

High speed



Low speed



U1 = blue
U2 = black
Z = brown

...

Acoustic

Mid-frequency band, Hz

	Hz	Tot	63	125	250	500	1k	2k	4k	8k
LwA Inlet	dB(A)	65	52	54	58	60	59	56	51	44
LwA Surrounding	dB(A)	67	54	56	60	62	61	58	53	46

with SSD 310/311

LwA Inlet	dB(A)	55	49	49	50	48	41	35	31	29
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Measuring point: $q_v = 0,14 \text{ m}^3/\text{s}$, $P_s = 220 \text{ Pa}$

Ecodesign

Product	
Trade name	Systemair
Product name	DHS 310EV roof fan
Ecodesign	
ErP compliance	2016/2018
Unit category	NRVU
Drive	External MSD or VSD
Unit type	UVU
Heat recovery type	None
Temperature ratio (UVU)	Not applicable
qv nom	0.223 m ³ /s
P nom	0.116 kW
Ps nom	172 Pa
Fan efficiency	33 %
External Leakage	0 %
Sound power level LWA	67 dB(A)

Accessories

- ASF 310/311 inlet flange DVS (9568)
- ASS 310/311 flex. inl.con. DVS (9575)
- REE 1 Speed control (5314)
- REV-3POL/03 ON/OFF (33978)
- SSD 310/311 socket silencer (9561)
- SDS 310/311 slant. roof socket (3784)
- FDS 310/311 flat roof socket (9549)
- FTG 310/311/315 Tilting device (30507)
- VKM 310/311 Back draft damper (9555)
- STL 1.5 Speed controller (84251)
- ASK 310/311 inflow box SSD (300904)
- RE 1,5 Speed control (5000)
- REU 1.5 Speed control (5004)
- REV-5POL/05 ON/OFF (33979)
- TDA DV 310/311 Adapter (301392)
- SSS 310 slant. socket silencer (30076)
- FDS-L 310/311 flat roof socket (95279)
- SSD 310/311 ZM socket sil (95062)
- VKS 310/311 Back draft damper (9543)

Documents

- IMO_DV_140429__DE,GB,SE_V1.0_314480.PDF
- MANUAL_ROOF_FANS_EN_007_.PDF
- EU DECLARATION OF CONFORMITY_ROOF FANS_EN_002.PDF

Specification

Roof fan, horizontal discharge.

Round hood made of saltwater-proof aluminium. Base frame with deep-drawn admission nozzle made of galvanised steel sheet, 40 µm powder-coated RAL 7030. Powder-coated bird-protection grid

RAL 9005.

Free-running, backward curved circular impeller made of polyamide PA6 25GV, balancing quality G 6.3, dynamically balanced acc. to DIN ISO 1940-1.

Voltage controllable external rotor motor,

vibration-free mounted, the motor is placed inside the air flow for cooling. Integral thermal contacts internally connected with automatic reset.

Speed control via transformer or thyristor.

Two-speed operation by power and auxiliary winding switchover. Terminal box (IP44) on the motor.

For outdoor installation.

Vertical installation position.

Conformance: EN 60335-1