

DHS Roof Fans

Centrifugal roof fan with horizontal discharge

- Available with AC motors for 50 and 60Hz
- Extensive range of accessories

[Find more details in our online catalogue](#)



Flexibility

The DHS fans are intended to use for **extract** air with **horizontal discharge**.

The fans are designed to handle high volumes at medium pressure without generating excessive noise.

Reliability

The casing made out of **seawater resistant aluminium** with an inside **galvanised steel frame** is hard-wearing.

The combination of casing and motor construction ensures to minimize the need for maintenance of the fans and allows long **continuous operation**.

Performance

The sound optimized impellers together with **high efficient** external rotor motors are designed to ensure high-level performance to **minimize power consumption** and **maximize efficiency**.

Accessories

DHS fans can be selected together with variety types of **accessories** as roof sockets, tilting devices, dampers, etc.

Certifications



Ecodesign (ErP) compliant

Features

Construction

The **Casing** is made from **sea water resistant aluminium**. **Base frame** manufactured from **galvanised steel** with integrated inlet cone. Integrated bird guard manufactured from powder coated, galvanised steel or sea water resistant aluminium.

Impeller

The DHS fans use **radial** impeller with **backward curved blades**. These are made out of high-performance composite material or aluminum, dynamically **balanced** and paired with corresponding **external rotor** motors.

Motor

DHS fans are delivered with **AC motors**. Motors are suitable for **50Hz** and **60Hz**.

Motor protection

Depending on the type, **AC** motors have an **integrated** thermal protection with manual (electrical) reset, prewired integral **thermocontact TK** or **thermistor PTC** with leads to a **motor protection device**.

Control

AC motors can be controlled by **5-step, stepless** speed regulator, **D/Y** switch or **frequency converter**.

Installation

The DHS fans are for **outside installation**.

Technical parameters

Nominal data

Voltage (nominal)	400	V
Frequency	50	Hz
Phases	3~	
Input power	2,096	W
Input power kW	2.096	kW
Input current	4.036	A
Impeller speed	904	rpm
Air flow	max 4.1008	m³/s
Temperature of transported air	max 40	°C
Max temperature of transported air, when speed controlled	40	°C

Protection/Classification

Enclosure class, motor	IP54
Insulation class	F

Data according to ErP

ErP ready	ErP 2018
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Dimensions and weights

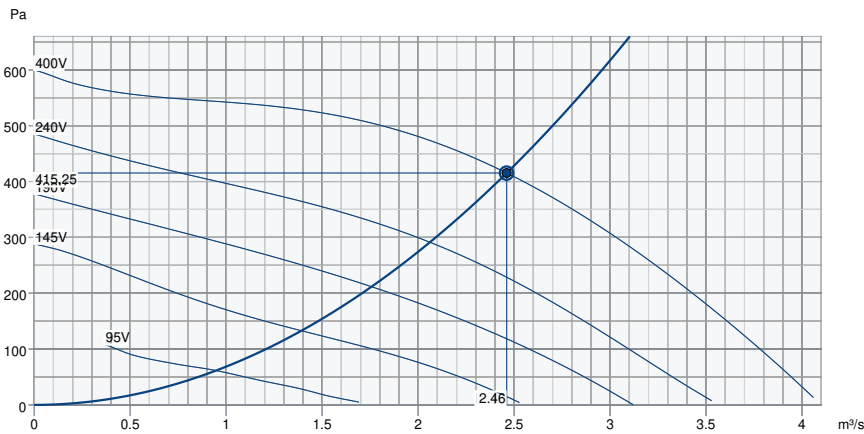
Weight	100	kg
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Others

Motor type	AC
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Performance

Performance curve



Hydraulic data

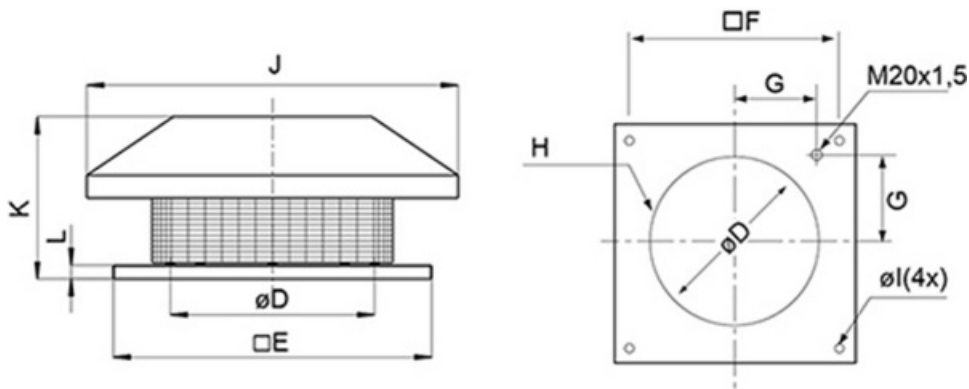
Required air flow	2.46 m³/s
Required static pressure	415 Pa
Working air flow	2.46 m³/s
Working static pressure	415 Pa
Air density	1.204 kg/m³
Power	2,096.5 W
Fan control - RPM	904 rpm
Current	4.00 A
SFP	0.852 kW/m³/s
Control voltage	400.0 V
Supply voltage	400 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	43	61	73	74	78	72	68	59	81
Outlet	dB(A)	44	62	74	76	79	74	69	60	83

Ecodesign

Product		
Trade name	Systemair	
Product name	DHS 710DS roof fan	
Ecodesign		
ErP compliance	2018	
Unit category	NRVU	
Drive	External MSD or VSD	
Unit type	UVU	
Heat recovery type	None	
Temperature ratio (UVU)	Not applicable	
qv nom	2.4611	m ³ /s
P nom	2.097	kW
Ps nom	415	Pa
Fan efficiency	48.7	%
External Leakage	0	%
Sound power (LWA)	83	dB(A)

Dimension



* diameter D refers to scREW-hole-circuit H

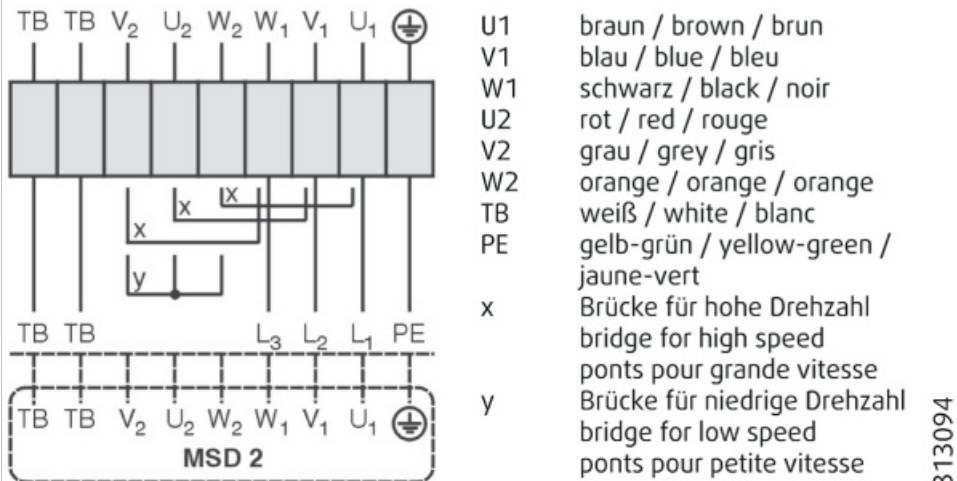
DHS	ØD	□E	□F	G	H	Øl	J	K	L
710	674	1035	840	320	8xM8	14	□1282	580	40

Wiring

Drehstrommotor mit 2 Drehzahlen durch Δ/Y -Umschaltung und mit Thermostatschalter (TB). Drehrichtungsänderung durch Vertauschen von 2 Phasen. Bei Verwendung des 2-Stufen-Schaltgerätes MSD 2 keine Brücken einlegen und gestrichelt gezeichnete Anschlüsse zum Schaltgerät durchverbinden.

Three phase motor with 2 speeds and thermostatic switch (TB). Speed changing by Δ/Y -switching. Changing of rotation direction by interchanging of 2 phases. If MSD 2 2-step switching units are used do not insert bridge and connect dotted lines in the wiring diagram to the switching unit.

Moteur triphasé avec vitesses par commutation Δ/Y et avec interrupteur thermostatique (TB). Changement de sens de rotation par inversion de deux phases. En cas de branchement avec un commutateur a deux vitesses MSD 2, ne pas connecter le ponts et brancher toutes les connexions dessinées en hachuré.



Accessories

- ASF 710 inlet flange DVS (9571)
- ASS 710 flex. inlet con. DVS (9578)
- Frequency converter FRQS-4A (36231)
- REV-9POL/12-7,5kW R/Y (33981)
- RTRDU 4 Speed contr. Systemair (5946)
- Step switch S-DT2SKT, Y/D (2697)
- SSS 710 slant. socket silencer (30080)
- FDS-L 710 flat roof socket (95284)
- VKS 710 Back draft damper (9546)
- ASK 710 inflow box SSD (300910)
- Frequency converter FRQ5S-4A (36233)
- REV-5POL/07-7,5kW R/Y (33980)
- RTRD 4 Speed cont. Systemair (5942)
- SSD 710 socket silencer (9565)
- SDS 710 slant. roof socket (3789)
- FDS 710 flat roof socket (9553)
- VKM 710 Back draft damper (9558)

Documents

- [MANUAL_ROOF_FANS_EN_002_.PDF](#)
- [UKCA DECLARATION OF CONFORMITY_ROOF FANS_EN_002.PDF](#)