



## 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 minimise the need for maintenance of the fans and allows long **continuous operation**.

#### Performance

**The sound optimised** impellers together with **highly efficient** external rotor motors are designed to ensure high-level performance to **minimise power consumption** and **maximise efficiency**.

#### Accessories

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

## Features

### Construction

The **Casing** is made from **seawater-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 aluminium, 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, pre-wired 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)	230	V
Frequency	50	Hz
Phases	1~	
Input power	566	W
Input power kW	0.566	kW
Input current	2.58	A
Impeller speed	1,312	rpm
Air flow	max 0.995	m³/s
Capacitance of capacitor	12	µF
Temperature of transported air	max 60	°C
Max temperature of transported air, when speed controlled	60	°C

### Protection/Classification

Enclosure class, motor	IP54
Insulation class	F

### Data according to ErP

ErP ready	ErP 2018
-----------	----------

### Dimensions and weights

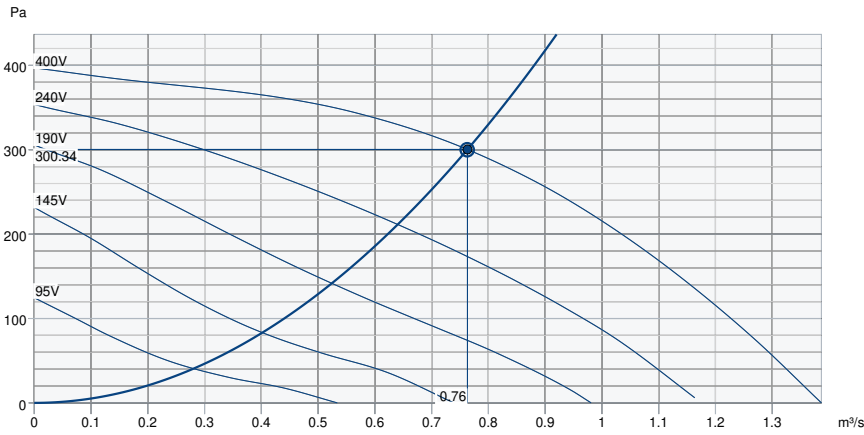
Weight	32	kg
--------	----	----

### Others

Motor type	AC
------------	----

Performance

Performance curve



Hydraulic data

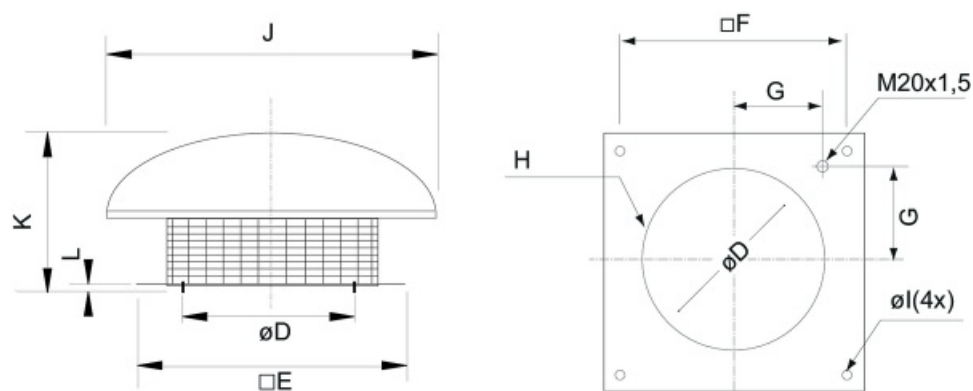
Required air flow	0.76 m³/s
Required static pressure	300 Pa
Working air flow	0.76 m³/s
Working static pressure	300 Pa
Air density	1.204 kg/m³
Power	549.3 W
Fan control - RPM	1,319 rpm
Current	2.51 A
SFP	0.720 kW/m³/s
Supply voltage	400 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	44	61	66	69	73	71	66	58	77
Outlet	dB(A)	45	63	68	70	75	73	67	60	79

## Ecodesign

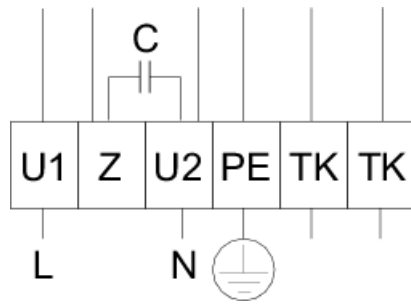
Product	
Trade name	Systemair
Product name	DHS 450E4
Ecodesign	
ErP compliance	2018
Unit category	NRVU
Drive	External MSD or VSD
Unit type	UVU
Heat recovery type	nan
Temperature ratio (UVU)	Not applicable
qv nom	0.7631 m <sup>3</sup> /s
P nom	0.549 kW
Ps nom	300 Pa
Fan efficiency	41.7 %
External Leakage	0 %
Sound power (LWA)	79 dB(A)

## Dimension



DHS sileo	øD	□E	□F	G	H	øI	J	K	L
450	438	665	535	237	6xM8	12	ø830	490	30

### Wiring



## Accessories

- ASF 355-500 inlet flange DVS (9569)
- ASS 355-500 flex. con. DVS (9576)
- Motor protect. switch S-ET 10 (161199)
- REU 5 Speed control (5006)
- RTRE 5 Speed control (5010)
- TDA DV 450-500 Adapter (301394)
- SDS 450-500 slant. roof socket (3786)
- FDS 450/500 flat roof socket (9551)
- FTG 450/499/500 Tilting device (30248)
- TG 640-1230 Roof curb (1728)
- VKS 355-500 Back draft damper (9544)
- ASK 450/500 inflow box SSD (300907)
- Frequency converter FRQ5SE-6A (37421)
- REE 4 Speed control (5317)
- REV-5POL/05-7,5kW R/Y (33979)
- SSD 450-500 socket silencer (9563)
- Frequency converter FRQSE-6A (37419)
- SSS 450 slant. socket silencer (30078)
- FDS-L 450/500 flat roof socket (95282)
- SSD 450/500 ZM socket sil (95060)
- TG 640-800 Roof curb (1729)

## Documents

- MANUAL\_ROOF\_FANS\_EN\_004\_.PDF
- UKCA DECLARATION OF CONFORMITY\_ROOF FANS\_EN\_002.PDF