

Smoke Extraction Motors



Firex Series
Catalogue 2012

Firex Series Havells Smoke Extraction Motors



Overview

The low-voltage motors with squirrel-cage rotors for implementation in automatic smoke & heat extraction units to EN 12101-3 are mainly designed for driving smoke extraction fans. For this reason, they are known as Smoke-Extraction Motors. They are mainly used in buildings or structures in which smoke control is necessary due to their shape & arrangement.

Temperature/time classification according to EN 12101-3 is as below.

- F180 corresponds to 180°C for 120 min
- F250 corresponds to 250°C for 120 min
- F300 corresponds to 300°C for 60 min
- F300 corresponds to 300°C for 120 min

Testing & Test Certificates

The smoke-extraction motors are manufactured with AEG Technology. These motors have been tested & approved by TUV-SUD, India Certification No. IND:3410/Havells/A.S/09-A dated 27/05/2012.

We at Havells have also made such motors under above certification & found them functionally sound under temperature of 250°C for 120 min and 300°C for 60 min from 71Fr. to 250Fr.

The Smoke-Extraction Motors offer the user a number of advantages

- The assignment of standard outputs is unchanged. This means that a larger construction size is not required for smoke-extraction motors.
- Radial-Flow & Axial-Flow fan drive are possible.
- Self-ventilated motors with a metal fan impeller can be used as radial-flow fan drives.
- Forced Air Cooled Motors can be used as axial-flow fan drives taking into account the required volumetric flow of motor cooling. In this case the driven fan performs the ventilation.



Benefits

The Smoke-Extraction Motors operate as so-called “Dual-Function Motors”:

- Normal operation (no instance of fire): Incoming/ Outgoing air flow
- Fault operation (in case of fire):
- Removal of smoke from escape & access routes
- Supporting fire fighting by creating a smoke-free zone
- Protecting devices & equipment
- Reducing the heat stress of components during a fire
- Reducing secondary damage due to thermal bi-products & hot gases



Technical Specification Standards & Regulation

In addition to relevant standards & regulations, EN 12101-3 applies for non-portable fire-fighting systems: Systems for controlling smoke & heat flows, part 3, specification for smoke & heat extraction units.

Voltage & Frequency

Rated voltages according to IEC 60034-1

- 230VΔ 50Hz
- 400VΔ 50Hz & 400VY 50Hz
- 500VΔ 50Hz & 500VY 50Hz
- 690VY 50Hz

Non-standard voltages as well as 60Hz are available on request

Operation in the event of fire

In addition to normal duty, operation in the event of a fire as specified in EN 12101-3 is available.

At the end of the fire incident, the motor may be unfit for normal duty. It is therefore specified that the motor is removed & overhauled or replaced with a new motor.

In the event of a fire, any "thermal motor protection" must be deactivated.



Standard number of

- 2, 4 & 6
- Higher poles & pole-changing / dual speed motors are also available against specific enquiry.

Paint finish

- The motors finished with the colour RAL 9005.

Bearings, grease

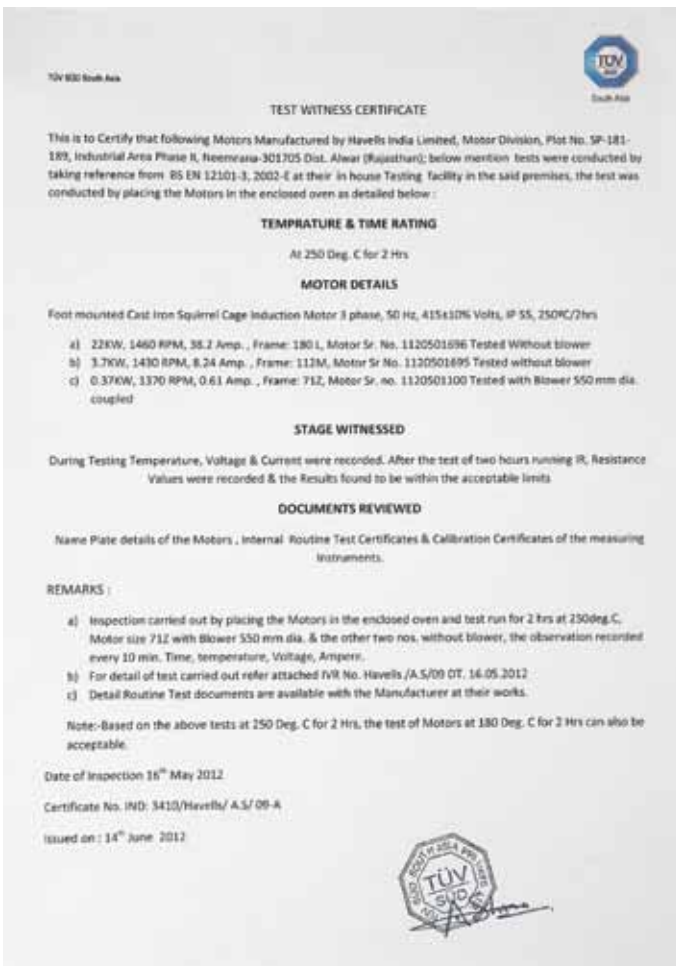
Special bearing systems are used that are matched to the respective temperature classes. Deep-groove bearings of series 62 or 63 without play are used depending upon F180/250, F300 & the frame sizes. Special high temperature grease is used so as to withstand the demand as per F180/250 & F300.

Application

The smoke-extraction motors are designed for use in automatic smoke & heat extraction units to EN 12101-3.

Typical application examples include:

- Tunnels
- Single & multi-storey shopping centres
- Industrial buildings & warehouses
- Building complexes & atriums
- Theatres
- Indoor car parks
- Staircases



Motor



ACB



MCCB



Digital MCCB



MCCB Panel Board



Euroload Change Over Switch



Submersible & Motor Starter



Switch Disconnecter Fuse



Load Changeover Switch



Camlock fuse holder



HRC Fuse



Low Voltage Capacitor



Regional & Branch Offices:

NORTH - REGIONAL OFFICE: Corporate Office: QRG Towers, 2D, Sector-126, Expressway, Noida-201304, Tel: 0120-4771000, Fax: 0120-4772000, Delhi: Tel: 011-47676700, 23888200, Fax: 011-47676750, 23888250, Chandigarh: Tel: 0172-4232400-401, Fax: 0172-4232403, Dehradun: Tel: 0135-6670202, Fax: 0135-6670203, Noida / Haryana: Tel: 0120-4771000, Fax: 120-4772000, Ludhiana: Tel: 0161-4676001 / 6024, Fax: 0161-46766007, Jammu: Tel: 0191-2490424, Fax: 0191-2490405, Sri Nagar: Tel / Fax: 0194-2490431, Jaipur: Tel: 0141-3988210, Fax: 0141-2389024, Jodhpur: Tel: 0141-3914645, 3988210, Lucknow: Tel: 0522-2201032, 2200938, Kanpur: Tel: Airtel: 09935533751/52/53, 0512-2690128/129/130, Fax: 0512-2692800

EAST - REGIONAL OFFICE: Kolkata: ICC Tower, 5th Floor, 4 India Exchange Place, Kolkata-700001, Tel: 033-40129851 / 52, Fax: 033-40127339, Bhubaneswar: Tel: 0674-2598104, 2598105, 2598106, Fax: 0674-2598107, Guwahati: Tel: 0361-2134521, 2458923, Fax: 0361-2460355, Siliguri: Tel: 0353-2525907, Fax: 0353-3290402 (RIM), Jamshedpur: Tel: 0657-6542492, 09234369436, Patna: Tel: 0612-2207221, 2207222, 2207223, Telefax: 0612-2655518

WEST - REGIONAL OFFICE: Mumbai: 302, Boston House, 3rd Floor Suren Road, CTS No. 260/261, Andheri (E) Mumbai-400093, Tel: 022-67298600-603, Ahmedabad: Tel: 079-40061111, 40060738-740, Fax: 079-40060741, Indore: Tel: 0731-2572340-41, 4009998 (Airtel), Fax: 0731-2551626, Rajkot: Tel: 0281-2481112, 2921212, Fax: 2481112, Nagpur: Tel: 0712-2224132, 2222692, 2222029, Pune: Tel: 020-64016413 / 14, Raipur: Tel: 0771-4243400 / 01, Telefax: 0771-4243402, Surat: Tel: 09979890137, Telefax: 0261-2350137, Jabalpur: Tel: 0761-4064491

SOUTH - REGIONAL OFFICE: Chennai: Sigapi Achi Building, No. 18 / 3, 6th Floor, Rukmani Lakshmpathy Road, Egmore, Chennai-600008, Tel: 044-42280600, 605, Fax: 044-28524326, Bangalore: Tel: 080-49075000, 9844085913, Fax: 080-25582663, Coimbatore: Telefax: 0422-2305767, 2306199, 2305199, Hyderabad: Tel: 040-27533372, 27533355, 27533632, 66320407/0408/6401/6402, Fax: 040-27533211, Kochi: Tel: 0484-4099000, Fax: 0484-2393170, Vishakapatnam: Tel: 0891-6514339, Fax: 0891-2522547, Vizag: Tel: 0891-6514339, Fax: 0891-25522547, Vijayawada: Tel: 91+9247058847/57, Calicut: 09895855499, Madurai: 09994493242, Trivandrum: 09633817795, Hubli: 09448146028, Trichy: 09944460160,

Representative Offices: • Goa • Solapur • Gwalior • Kathmandu • Bhopal

Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication.

Specifications and performance data are constantly changing. Current details should therefore be checked with Havells Group.

Havells India Ltd.

QRG Towers, 2D, Sector -126, Expressway, Noida - 201 304 (UP), Ph. +91-120-4771000,

E-mail: marketing@havells.com, www.havells.com

Consumer Care No.: 1800 11 0303 (Tollfree), 011-4166 0303 (Landline)

Join us on Facebook at www.facebook.com/havells and share your ways to save the planet!



HAVELLS