



**HAVELLS**

**Ex** IE2 & IE3

# Flameproof Motors

## FlamEx Series



Havells is leading manufacturer of low voltage Induction Motors. Havells motors are extensively used in various industries and applications; Havells state of the art manufacturing plant located at Neemrana, Rajasthan where we manufacture energy efficient IE2 & IE3 Motors ranging from 0.18 kW to 315 kW, (0.25 HP to 425 HP).

Presenting Havells Flameproof Motors, specially design to work in explosive atmosphere, Havells Flameproof motors fulfil all safety requirement as per IS/IEC 60079, Havells Flameproof Motors also have all statutory certifications like Petroleum and Explosives Safety Organization (PESO) and Bureau of Indian Standards (BIS), our motors are also tested and certified by NABL accredited labs.



#### **General Specification:**

Following are the standard specification of Flameproof Motors:

Reference Standard      IS/IEC 60079-0: 2017, IS/IEC 60079-1: 2014  
IEC 60034-30-1: 2014

#### **Application:**

Petro chemical & Chemicals, Oil Mines & Rigs, Fertilizers, Solvent extraction plant, Paints & varnish Industries, LPG Bottling plants, Agro chemicals, Drugs and pharmaceuticals, General industry



## STANDARD PRODUCT SPECIFICATIONS

Rated Power	0.25 kW to 9.3 kW / (0.33 HP to 12.5 HP)
Voltage $\pm$ Variation	415 V $\pm$ 10%
Frequency $\pm$ Variation	50 Hz $\pm$ 5%
Enclosure	Ex'd' TEFC
Mounting	Foot, Flange, Foot cum Flange
Degree of Protection	IP 55
Class of Insulation	Class F
Temperature Class	T5
Ambient Temp / Temp Rise	50 °C / Limited Class B
Duty	S1
Method of cooling	IC411
Zone	1 & 2
Gas Group	I*, IIA & IIB
Paint	Smoke Grey
Reference Standard	IS/IEC 60079-0: 2017, IS/IEC 60079-1: 2014
	IEC 60034-30-1: 2014
Other Features available on request	
Voltage	Upto 690 V $\pm$ 10%
Frequency	50 Hz / 60 Hz $\pm$ 5%
Ambient temperature	-20 °C to 60 °C
Class of Insulation	Class H
Degree of Protection	IP 56, 65, 66
Mounting	Face, Foot cum Face, Pad
Duty	S2 to S4
Temperature Class	T6...T3
Paint	As per customer request
Other non Standard Features	Please contact havells design team for detail review

\*DGMS certification under process

### Features:

Flameproof Motors are designed to work efficiently in explosive atmosphere, following are the key features:

- Robust design to prevent internal explosion pressure.
- Strong spigotted joints for better ingress and safety from internal explosion.
- Special varnishing and painting treatment to resist highly corrosive environment
- Component assembled with counter holes and good quality socket head cap screws with spring washer along with more thread engagement for better safety.
- Havells Flameproof Motors tested and certified for ingress protection test as per IEC 60034-5: 2006 from NABL test labs. Motor can be offered with IP 55, IP56, IP65 and IP66 Ingress protection.
- "V Seal", "Oil seal" and "O ring" arrangement provided for better bearing and ingress protection.
- Havells Make Flameproof Motors, terminal box specially designed for easy termination and accommodating bigger size cables.

## Other Range of Motors



IE2 & IE3 Motors



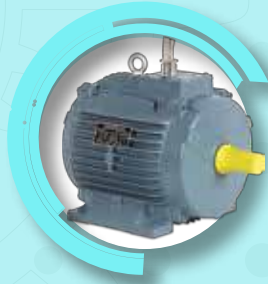
Crane Duty Motors



VFD Compatible Motors



Brake Motors



Smoke Extraction Motors



Dual Shaft Motors



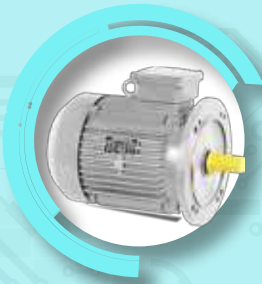
Foot Cum Flange Motors



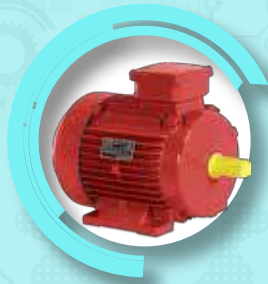
Face Mounting Motors



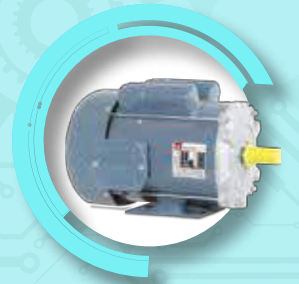
Single Phase Cast Iron Body Foot Mounting Motors



Gear Box Application Motor



Fire Fighting Application Motor



Single Phase Sheet Metal Body Foot Mount Motors

ZHMLE00050/JAN23

Scan the QR Code  
to download  
Havells mCatalogue



## Havells India Ltd.

Corp Office: QRG Towers, 2D, Sector-126, Expressway, Noida-201304 (U.P.)  
Ph. +91-120-3331000, Email: [marketing@havells.com](mailto:marketing@havells.com), [www.havells.com](http://www.havells.com)  
Customer Care No.: 08045 77 1313  
Join us on Facebook at [www.facebook.com/havells](http://www.facebook.com/havells) and share your ways to save planet!  
CIN - L31900DL1983PLC016304



# HAVELLS