PARS SHARIF

Knowledge Based & Consultant Engineering Co.

OME Industrial Electric Motors

Standard & Flame Proof Series

Low and High Voltage Three Phase Electric Motor

www.iranomemotors.ir

Introduction on Pars Sharif & OME Cooperation

Pars Sharif is a knowledge-based engineering company, which is participating in the energy sector industries, providing solutions for the oil & gas, petrochemical, mining and other industrial companies. As an official member of oil ministry AVL (Approved Vendor List) and the exclusive representative of OME electric motors company in Iran, Pars Sharif offers high-performance motor solutions besides to complete engineering services. These services include, design and specifications consultants, installation, pre-comissioning test procedures and after-sales support. **OME Motors** is an Italian manufacturer specialized in the design and production of industrial electric motors. With over than 50 years of experience and a strong international presence, OME combines advanced engineering with flexible, customized design capabilities to meet diverse industrial requirements worldwide. The company's strengths lie in the high quality of its products, a wide range of standard and special motors, and a global support network that ensures reliable performance in demanding applications. One of our key competencies is the **Motor Replacement services**, where OME motors are engineered to be replaced with existing motors from the other manufacturers, e.g. ABB, Siemens, WEG, SCHORCH and Helmke, enabling seamless replacement with minimal modification, full documentation, testing (ITP) and guaranteed reliability.

Motor Replacement Services

Introduction to the Design and Replacement Process

In industrial projects, replacing an existing electric motor with a new one requires full dimensional, electrical, and performance compatibility. The OME motor is specially engineered as a "drop-in replacement". Hence, it can be installed in place of the old motor without major changes to the foundation or auxiliary systems. **The following sections describe the key steps and features of this procedure.**

1. Preparation of Base and Flange Dimensional Drawings

Accurate dimensional drawings and base/flange details of the existing motor and its foundation are collected. The OME motor is then designed strictly according to these dimensions, including:

* Overall length and height
* Shaft diameter, length, and keyway
* Foot/base mounting dimensions
* Flange type and bolt holes

Result: No modification or rework of the existing foundation or supporting structure is required.

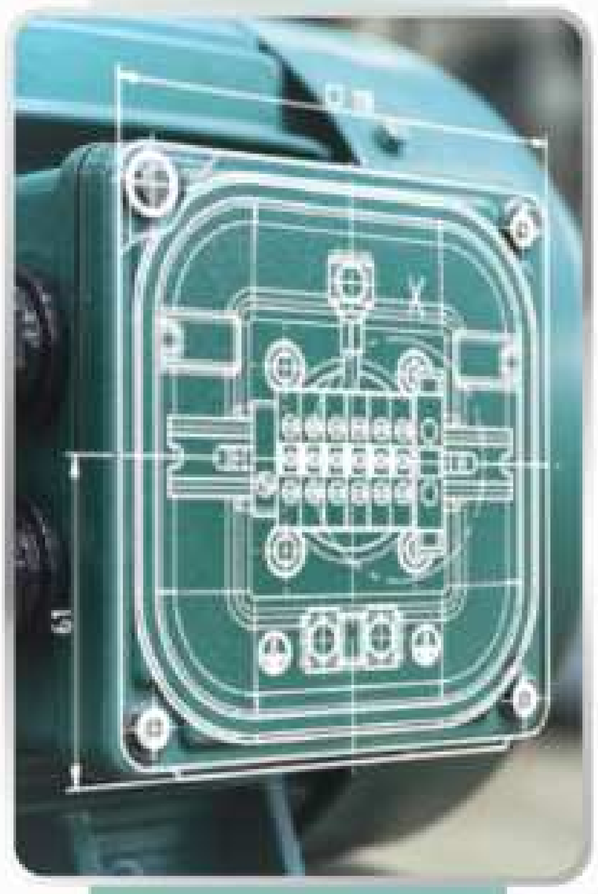
2. Matching of Electromagnetic and Performance Specifications

All critical dimensional and electromagnetic parameters of the OME motor are designed to match the existing motor, such as:

* Rated power and voltage
* Rated speed and torque
* Frequency and duty type
* Starting and running characteristics (power factor, efficiency, torque-speed curve, ...)

Where required, certain aspects such as **efficiency class** can be upgraded to meet modern energy efficiency standards, without compromising compatibility.

Motor Replacement Services



3. Alignment of Terminal Box and Control Equipment

The position and orientation of the power terminal box, as well as terminal box location for sensors and auxiliary devices, are considered to match the existing installation as closely as possible. **This allows:**

* Existing power cables to be reconnected without rerouting
* Existing control and signal wiring to be remained without change
* Minimal on-site modifications during replacement procedure

4. Customization of Auxiliary Equipment

The OME motor can be supplied with a wide range of auxiliary equipment based on the end user's requirements. Typical options include:

* **RTD/PTC** sensors for thermal protection of stator windings and bearings
* **Space heaters** (anti condensation heaters)
* Additional control and monitoring devices, such as vibration sensors or speed sensors

These items are fully customizable according to the employer's technical specifications.

5. Explosion-Proof Classification

The explosion-proof (Ex) classification of the OME motor is selected to match the original motor according to the hazardous area classification of the site. If the process conditions or area classification have been changed, the OME motor can be designed with an **upgraded explosion-proof class** to satisfy the new safety requirements and standards.

6. Preparation of Technical Documentation

All essential technical documents and drawings for manufacturing the **OME motor** are prepared and issued to OME. These documents include dimensional drawings, electrical diagrams, bills of materials, and data sheets. Hence, it can be ensured that the OME motor fully complies with the agreed design specifications and replacement requirements.

Motor Replacement Services

7. Finalization and Signing of the ITP

An **Inspection & Test Plan (ITP) document** is prepared and mutually agreed between Pars Sharif Company and the end user. **The ITP defines:**

* List of inspections and tests (routine, type and special tests)
* Test procedures and standards
* Hold, witness review and approve points
* Responsibilities of each party

After review, the ITP is signed and finalized prior to manufacturing and testing of the OME motor.

8. Manufacturing, Inspection, and Final Testing

After **raw-material** checks and key manufacturing steps, the motor is thoroughly inspected to ensure full readiness for operation. Major checks include verifying steel laminations, stator windings, rotor die-casting, and dynamic balancing. During assembly, stator–rotor alignment, proper bearing installation, and housing leak tests are completed. The motor is then transported to site, installed on its foundation, and tested under Free-Run and load operating conditions. These combined inspections confirm mechanical accuracy, electrical performance, and compliance with **IEC 60034** before final delivery.

9. Delivery of Test Sheets and Warranty Certificate

Upon successful completion of tests, formal **test sheets** and **inspection reports** are issued. In addition, an official **warranty certificate** is provided to the end user, covering the agreed warranty period and conditions.

10. Provision of Service and Maintenance Documents

Finally, a complete set of **service, maintenance, and operation manuals** is handed over to the customer. **These documents include:**

* Recommended maintenance intervals and procedures
* Lubrication and inspection guidelines
* Troubleshooting instructions
* Spare parts lists

This ensures reliable long-term operation of the OME motor and supports future maintenance and overhauls.

Test & Condition Monitoring Services

Pars Sharif provides comprehensive Test & Condition Monitoring Services to the power and electrical industries, helping asset owners ensure reliability, safety, and optimal performance of electric motors and rotating equipments. Our services are designed to detect electrical, mechanical, and thermal defects at early stages, reduce unplanned downtime, and extend equipment lifetime through predictive and preventive maintenance strategies.

Scope of Services:

- **Electrical tests:** insulation resistance & polarization index, winding resistance, Hi-Pot testing, motor current analysis (MCA), which detect insulation weakness, connection faults, and internal short circuits.
- **Mechanical & thermal tests:** vibration spectrum analysis, infrared thermography, ultrasound, laser alignment, which identify misalignment, bearing wear, and excessive heat to ensure mechanical integrity.
- **Performance tests:** load testing, core induction, and visual / thermal inspection, which validate efficiency and operational condition under real loading condition.
- **Basic inspection:** visual & thermal inspection, which identify loose connections, corrosion, contamination, oil leaks, and early signs of overheating.

Test Equipment


Megger


Vibrometer


Vibrotest 60 Analyzer

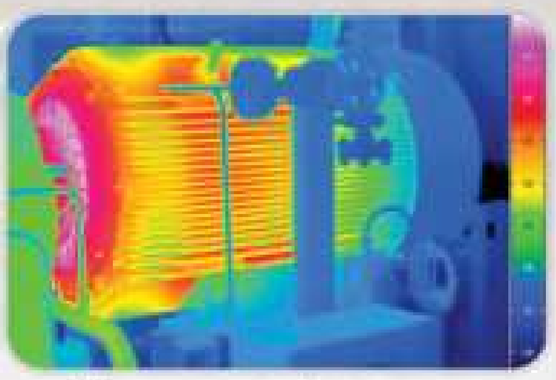

Digital Dial Indicator


Multimeter


Laser Tachometer


Power Analyzer


Hi-Pot Tester


Thermography camera

Standard Electric Motors

OM Series – STANDARD LOW VOLTAGE ASYNCHRONOUS MOTORS

ALUMINIUM REMOVABLE AND REVERSIBLE FEET

- Single phase - Three phase
- Two speed
- Self Brake AC/DC Asynchronous Motor and Double Speed
- Special shaft
- IE1, IE2, IE3 Premium Efficiency
- Poles 2 - 4 - 6 - 8 - 10 - 12 - 14 - 16
- Bearing SKF, PTC
- Ambient Temperature: -15 + 40° C ambient temperature; 55° C ambient temperature on request
- Multi frequencies (50 & 60 HZ)
- Multi voltages - Special tension
- Frame size: H 56 - H 710
- From 0,12 kW - up to 2000 kW

PERMANENT MAGNET ASYNCHRONOUS AND SYNCHRONOUS MOTORS

- IE4, Three phase, cast iron
- Poles 2 - 4 - 6 - 8
- Ambient Temperature: -15° + 40°C ambient temperature; 55°C ambient temperature on request
- Multi frequencies (50 & 60 Hz)
- Multi voltages
- Frame size: H 80 - H 400
- From 0.75 kW - up to 2,500 kW

OMN Series – NEMA PREMIUM EFFICIENCY ASYNCHRONOUS MOTORS

- Frame size: H 143 – H 587
- From 0.75 kW – up to 375 kW
- Voltage: V. 230/460 – V. 460 – V. 575
- Pole: 2 – 4 – 6 – 8
- Cooling method: IC 411

Special Application

OMDC Series – DC MOTORS

- Frame size (mm): H 100 – H 450 + customization
- kW: From 2.2 kW – up to 500 kW + customization
- Voltage: 220V – 400V – 160V – 440V others on request
- Speed: from 200 rpm to 4000 rpm + customization
- Cooling System: IC 401, IC 05, IC 06, IC 17, IC 37, IC 666, IC 86W
- Hz: 50 Hz - 60 Hz

OMRT Series – ROLLER TABLE ASYNCHRONOUS MOTORS

- Frame size: H 112 – H 400
- Up to 250 kW
- Voltage: V. 220/380 – V. 230/400 – V. 380/660 – V. 400/690
- Pole: 4 – 6 – 8 – 10 – 12 – 14 – 16
- Cooling System: IC 401, IC 05, IC 06, IC 17,
- Cooling method: IC 410

OMS Series – SMOKE MOTORS

- Frame size (mm): H 63 – H 400
- kW: From 0.18 kW – up to 630 kW
- Voltage: 220V – 230V – 240V – 380V 400V – 415V – 440V – 460V – 480V
- Poles: 2 – 4 – 6 – 8
- Cooling System: IC 410, IC 411
- Hz: 50 Hz - 60 Hz
- Temperature: -40°C < 0 < 250°C 2H, -40°C < 0 < 300°C 2H, -40°C < 0 < 400°C 2H

GENERATORS

- From 160 kW – up to 3,250 kW
- Voltage: V. 400/660
- Frequency: 50 Hz – 60 Hz
- Cooling method: IC 01 – IC 611 – IC 81W
- Mounting arrangement: B3, V1
- Hz: 50 Hz - 60 Hz
- Asynchronous speed: 176 ÷ 1800 rpm

High Voltage Motors

HIGH-LARGE SIZED SYNCHRONOUS AND ASYNCHRONOUS MOTORS

- Up to frame size H Ø1.120
- From 160 kW – up to 7100 kW
- Voltage: kV. 6 – kV. 6.6 – kV. 10 – kV. 11 – kV. 15
- Pole: 2 – 4 – 6 – 8... up to 40
- Cooling method: IC 01 – IC 411 – IC 416 – IC 511 IC 611 – IC 616 – IC 81W – IC 86W
- IP protection: IP 22, IP 23, IP 44, IP 55

OMVK - IC611

OMVKS - IC81W

OMA Series – SLIP RING MOTORS

- Frame size mm: H 56 - H 710
- kw: From 0.18kW - up to 2.000kW
- Voltage: Multi voltages
- Poles: 2-4-6-8-10-12-14-16
- Cooling system: IC 411, IC 416, IC 611
- Hz: 50 Hz - 60 Hz
- Sectors: Air Treatment, Cement, Food Industries, Power Plants, Steel Mill, Sugar Plant, Water System Purification, Water treatment and desalination, Wind Power Generation
- Fields applications: HVAC, pumps, compressors, conveyors, fans, industrial machinery, steel equipment, and turbines

Explosion Proof Motors

OMEX Series – LOW VOLTAGE EXPLOSION PROOFATEX CERTIFIED

- ATEX category II 2G Ex db IIB T4 Gb - II 2D Ex tb IIIC (125°) Db
- Group B
- Ambient Temperature: -20 + 40° C ambient temperature; 55° C ambient temperature on request
- IE1 (IE2 on request) Efficiency
- Three phase
- IIC group on request
- Frame size: H 80 - H 355
- From 0.75 kW - up to 315 kW
- Voltage: V. 380 - V. 400 - V. 660 - V. 690 - V. 1140
- Pole: 2 - 4 - 6 - 8
- Cooling method: IC 411

On request Ex:

- Frame size: H 355 - H 500
- From 355 kW - up to 1.100 kW
- Voltage: V. 380 - V. 400 - V. 660 - V. 690 - V. 1140
- Pole: 2 - 4 - 6 - 8 - 10 - 12
- Cooling method: IC 411 - IC 416

OMEX Series – HIGH VOLTAGE EXPLOSION PROOF ASYNCHRONOUS MOTORS

- Frame size: H 315 - H 710
- From 160 kW - up to 5.000 kW
- Voltage: kV. 3 - kV. 6 - kV. 6.6 - kV. 10 - kV. 11
- Pole: 2 - 4 - 6 - 8... up to 20
- Cooling method: IC 411 - IC 416
  IC 511 - IC 611 - IC 81 W - IC 86 W
- Ambient Temperature:
  -20 + 40° C ambient temperature;
  55° C ambient temperature on request
- ATEX Certification on request

Special Motors OME Outside the Standard Catalogue

While the OME Motors standard catalogue covers a wide range of industrial electric motors, many applications require specifications beyond standard products. OME designs and manufactures custom electric motors tailored to specific electrical, mechanical, and environmental requirements, such as special winding configurations, non-standard voltages, customized frame sizes, and application-specific performance characteristics. OME provides reliable and flexible custom motor solutions designed to meet the exact requirements of modern industrial applications.

A commonly requested solution is the **Dahlander** dual-speed motor, a three-phase induction motor capable of operating at two speeds with a 2:1 ratio using a single winding. Speed change is achieved by reconnecting the stator winding (Δ/YY or Y/YY), eliminating the need for a variable frequency drive. These motors are widely used in cranes, hoists, conveyors, pumps, fans, and machine tools, depending on the required torque characteristics.

OME also manufactures motors for non-standard voltages and frequencies, supporting electrical systems from **110V up to 11000V** with **50Hz, 60Hz**, dual-frequency, or converter-fed operation. Mechanical customization includes special frame sizes, custom shaft dimensions, special flange types, flexible mounting arrangements, and various terminal box positions.

For demanding environment conditions, motors can be produced with enhanced protection levels up to IP68, impact-resistant enclosures (IK10), and high-temperature insulation systems such as **Class F, H, or C**. Designs can also accommodate high-altitude installations and extreme ambient temperatures. OME offers a wide range of application-specific motors, including submersible motors, brake motors, vertical hollow-shaft motors for deep well pumps, roller-table motors for steel mills, crane-duty motors, textile motors, and marine motors with corrosion protection.

Motors can be engineered with efficiency classes from **IE1 to IE5**, as well as custom shaft extensions, heavy-duty bearing arrangements, specialized lubrication systems, and various cooling methods.

Typical customization range includes power levels from 0.09 kW up to over 9000 kW, voltages between 110V and 11000V, 2 to 16 poles or custom configurations, frequencies of 50Hz, 60Hz, or any special value, protection levels from IP23 to IP68, frame sizes ranging from H50 to H900+, insulation classes F, H, or C, ambient temperature capability from –40°C to +80°C, operational altitudes up to 4000 meters, and cooling methods from IC01 to IC81W.

Certifications & Official Authorizations

Knowledge Based Co.

Member of Oil Ministry AVL

Consultant Grade
Electricity & Energy

Power Contracting
Qualification Certificate

ISO 9001:2015

ISO 10004:2018

CERTIFIED HSE-MS COMPANY

ISO 14001:2015

ISO 45001:2018

OME
www.omemotors.com

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Date : 09 October 2024

Authorization of Distribution Right

To Whom It May Concern

OME Electric Motor Srl in Italy has granted authorization to Pars Sharif Company for the distribution of its products in the southern region of IRAN. The range of products includes LV/MV/HV electric motors (both safe and explosion-proof) as well as LV/MV drives and soft starters. All marketing and sales activities are under the direct supervision of the OME group.

There will be 2 years Full guaranty and 7 years after-sales service for all the OME products and the allocated local Iranian company"Alvand Sanat Javid Alborz" .Is responsible for after-sales service in IRAN.

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ORSATTI

Official Representative Letter From OME Electric Motors

OME Motors In Iran

OME Motors is present in Iran since more than **10 years**, contributing to the development of the country's major industries in various sectors, including: **Oil and Gas, Water treatment, Steel industry, Cement plants, Power plants and Minings**. The proven experience in the Middle East, Persian Gulf region and the reliability recognised by major customers around the world have enabled OME Motors to quickly become a key player in the Iranian electric motor market.

Thanks to the fruitful cooperation with the important companies here below, OME Motors has been able to supply hundreds of MV motors and thousands of LV motors over the years. Here below the list of the main clients:

Main Customers :

- NICICO - COPPER INDUSTRY
- NPJ BOILER MANUFACTURER
- ABADAN RAFINERY
- ICIIC
- MAPRA
- BANDAR ABBAS OIL REFINING COMPANY
- SHAHID RAJEE POWER PLANT
- QESHM OIL INVESTMENT
- ARYA BENIZ CO
- NORTH DRILLING CO (NDCO)
- PETCO
- BABAK COPPER
- GILAN WATER TREATMENT PLANT IRAN INDUSTRIAL PUMPS COMPANY LTD - IIP
- KALAYE PUMPS
- JDEVS
- PARS CEMENT INDUSTRY & CO.
- TAJHIZAT FARAYAND MANGAN
- IIP (IRAN INDUSTRIAL PUMP)
- TEHRAN CEMENT
- KHARG PETROCHEMICAL
- GACHSARAN PETROCHEMICAL COMPANY
- KERMANSHAH PETROCHEMICAL CO
- NIKA COMPRESSOR
- RAMPKO GROUP ENGINEERING
- PEDEC
- BOSTANCHI GROUP
- OIL DESIGN & CONSTRUCTION COMPANY - ODCC
- HAVAYAR
- TANA ENERGY GROUP
- OMRAN ARYA CEMENT PROJECT
- GHESHM CEMENT
- KIANA PETRO ENERGY
- PETRO RAHAN PUMP
- PIDEMIC OIL & GAS
- NIOPDC
- DAMANDEH GROUP
- KMC
- DAMAFIN CO.
- MAPSA
- RAMIN POWER PLANT
- MAPNA BOILER ENGINEERING AND MANUFACTURING COMPANY

Reference List Iran

GILAN WATER TREATMENT PLANT

PETRO PALAYESH KANGAN

TEHRAN CEMENT

ESFAHAN STEEL CO.

IRAN INDUSTRIAL PUMPS COMPANY LTD

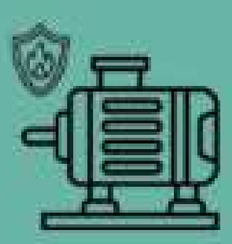
NIKA COMPRESSOR FOR 7th REFINERY OF SPGC

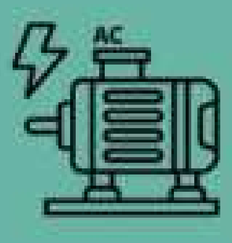
HAVAYAR CO.

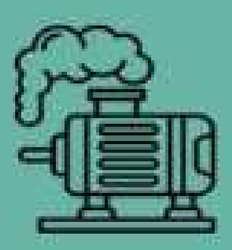
ZAGROS COMPRESSOR IRANIAN FOR ESFAHAN OIL REFINERY

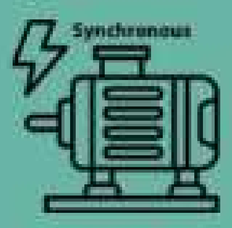
KERMANSHAH PETROCHEMICAL CO.

KAHROBA GOSTAR FOR ESFAHAN STEEL COMPLEX









077-33560778

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Bushehr, Persian Gulf
Science & Technology Park