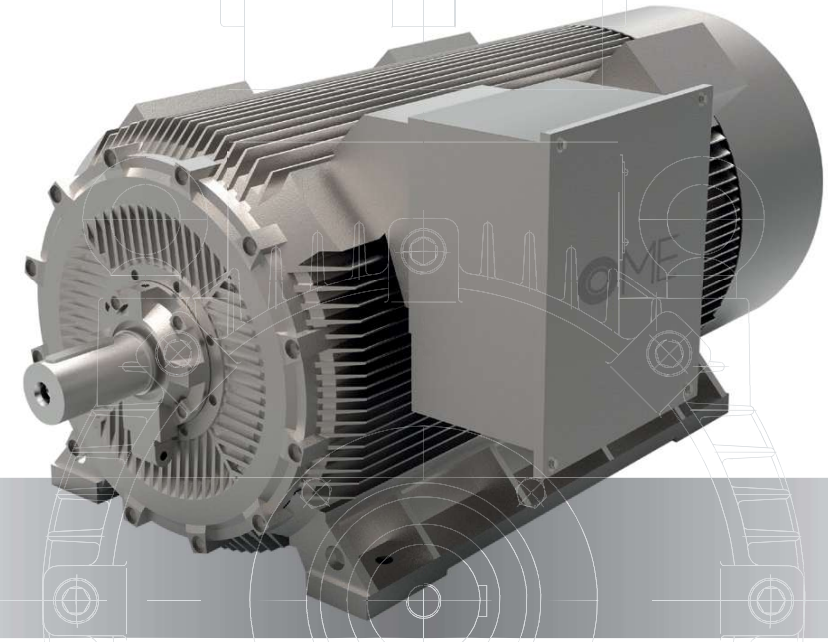
OMV SERIES

HIGH-VOLTAGE THREE-PHASE INDUCTION ELECTRIC MOTOR

www.omemotors.com



ISO14000 ISO9001

OME MV SERIES
THREE PHASE ELECTRIC MOTOR HIGH VOLTAGE SERIES

High Voltage and Medium Voltage Motors: Maximum Efficiency, High Customization Capability.

OME Motors' medium-voltage motors and three-phase asynchronous high-voltage motors are characterized by a high build quality. What differentiates them is the modularity of the cooling system: depending on the model, in fact, high voltage motors and medium voltage motors can be IC 411-416-511-611- IC 81W. In particular the high Voltage motors equipped with the IC 611 air to air cooling system (OMVK model) are built from a steel sheet, welded to the frame, which ensures lightness and at the same time stability.

Characteristics and Operating Conditions of High Voltage and Medium Voltage Motors.
The high voltage and medium voltage electric motors are equipped with a laminated core which, before being mounted in the frame, is compressed and protected, then pressed. These particular construction procedures guarantee the high voltage and medium voltage motors of OME Motors excellent insulating performance, greater mechanical resistance, better resistance to humidity and long life.
The cage rotor is made of aluminum and is equipped with copper bars. Furthermore, the rotor is made with a process of aluminum casting and subsequent welding, two phases necessary to guarantee maximum reliability and perfect balancing.
Depending on the power and speed of the electric motors, or based on the specifications required by the customer, roller or bushing bearings can also be used. The main terminal block is located on the right side of the electric motor but can also be placed on the left side, according to specific needs. Both the inside and the outside of the terminal box are equipped with separate terminals.

At the user's request, the stator winding and the bearings can be equipped with sensors for measuring the temperature, ensuring the operation of the motor in safety and reliability over time.
Finally, high voltage electric motors can also work with a frequency converter, thus improving cost savings throughout the life cycle of the device.

OME Motors OMVK electric motors are highly efficient three-phase electric motors that offer excellent performance and high energy savings. These are self-ventilated motors equipped with IC 611 cooling systems with air-to-air heat exchanger.
The OMVK motors designed and made to measure by OME Motors have a light and compact structure and are ideal for application in various fields of the industrial sector.

The Advantages of High Voltage and Medium Voltage Electric Motors.

Custom designed and manufactured using the best performing and innovative materials, high voltage motors have technical features that can provide numerous advantages, such as:

- Wide possibility of customization, customizable design based on needs, availability of any construction form.
- Extreme lightness, despite its large size.
- Maximum efficiency, consistent performance and reliability over time.
- Easy assembly and maintenance.
- High flexibility of use.
- Low noise and low vibration.
- Compliance with international IEC standards.

Areas of Usage of High Voltage and Medium Voltage Motors.

OME Motors produces medium voltage and high voltage electric motors for safe environments but also for work areas with explosive atmospheres. These devices, in fact, find application in the most disparate sectors, from cement factories to steel mills, from power plants to water purification, treatment and desalination systems, from sugar factories to wind energy generation plants. Furthermore, high voltage and medium voltage motors are ideal for the application and operation of pumps, compressors, boilers, conveyor belts, fans and blowers, mills, crushers and shredders, laminators and equipment for steel plants, turbines and general of all the machinery present in the heavy industry. Finally, these motors can be made with a squirrel cage or with a wound rotor.

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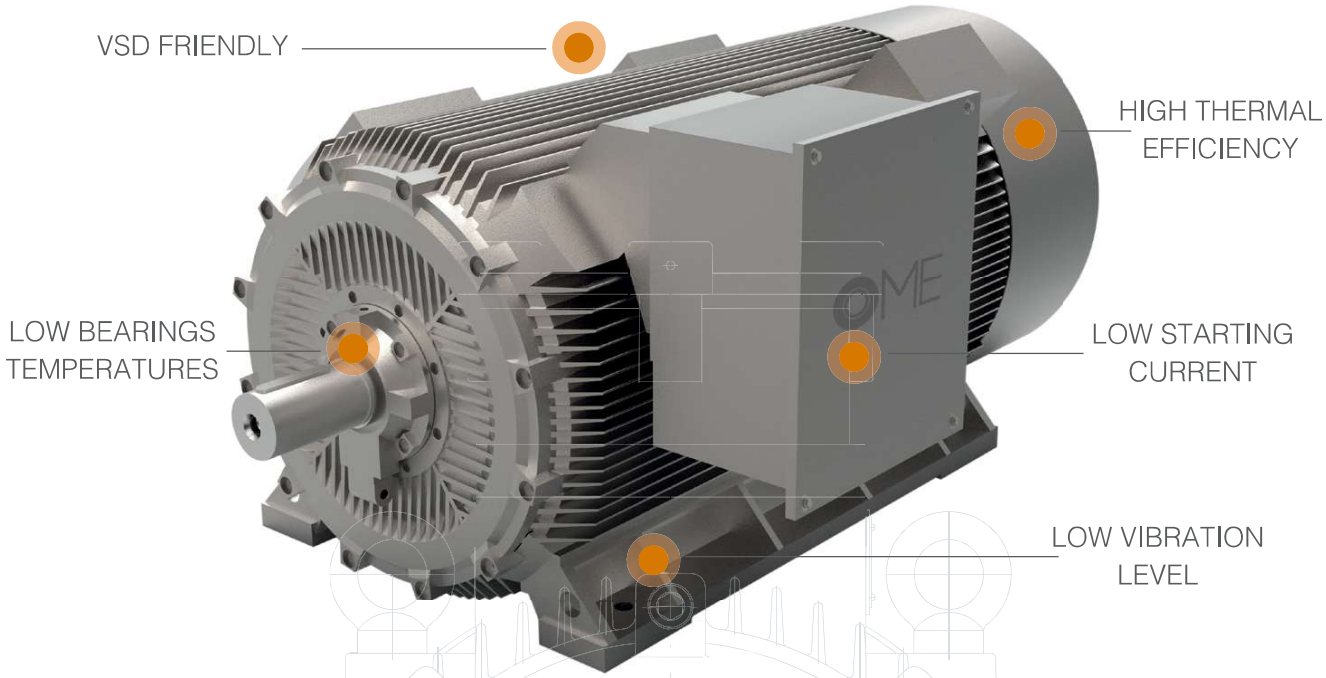
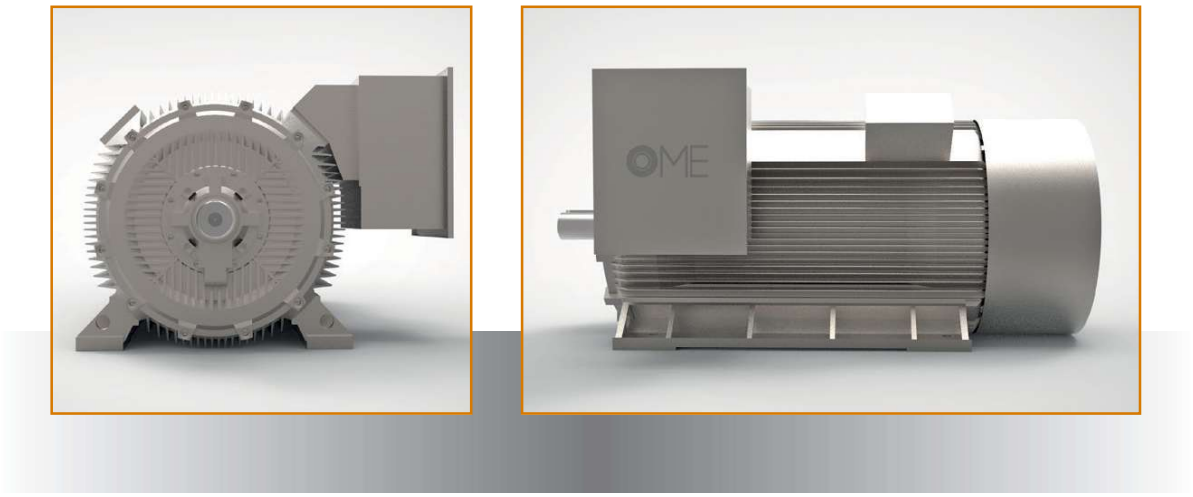
Series OMV IC411



Compact • Efficient • Reliable • Solid

OME Motors' OMV series includes high and medium voltage three-phase electric motors characterized by a compact structure and IC 411 cooling system. These are self-ventilating motors using a special fan connected to the shaft: cooling air is external and touches the surface of the casing.
The High Voltage electric motors of the OMV series are designed to offer maximum efficiency while guaranteeing effective savings in energy consumption, and therefore in operating costs.



Series OMV

SERIES COMPACT-TYPED HIGH-VOLTAGE THREE-PHASE

INDUCTION ELECTRIC MOTOR IP54, IP55 - IC411 (H355-560)

1. GENERAL DESCRIPTION

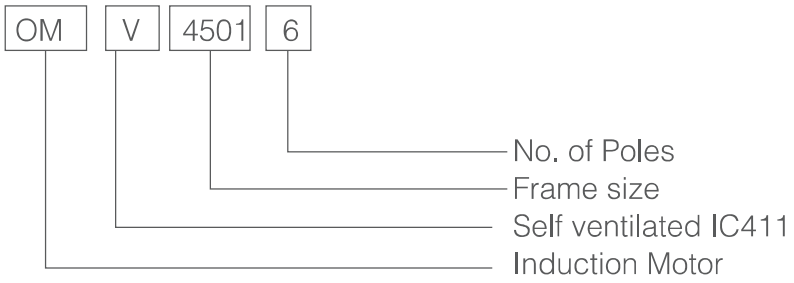
OMV series compact structure three-phase electric asynchronous motors have high-efficiency, are energy-saving products which we developed in the 21st century. It is an optimized series in the latest international technology and our stable designing and manufaturing experience. The performances are in line international advanced level, protection class in IP54 or IP55.

The performance and mounting dimensions meet the IEC standards. Our company has been certified ISO9001 international quality system, the whole operation including ordering, R&D, manufacturing, sales and service is in the line of ISO9001 quality system.
The production is designed base on power supply of 50 Hz (60 Hz in request), 6 kV (3 kV, 3.3 kV, 6.6 kV on request), mounting IMB3 (IMB35, IMV1 on request).

Cold-rolled lamination steel is used to get low loss and high efficiency. Insulation class F (temperature rise B) and VPI process insured the insulation system. Tha basic cooling method is IC411, the cooling and heat-dispassion condition is mature. It has the advantage of high efficiency, low vibration, low noise and easy-maintenance.
The motor is allowed to have DOL or Y starting.

The series motors are three phase asynchronous motors for general purpose, which are applicable to drive various types of universal machines, such as compressors, fan and ventilator, pumps and crushers as well as other mechanical equipment.
Also widely used in petrochemical industries, chemical plants, medicine factories, mining and power plants as prime movers in other harsh environments.

2. EXPLANATION OF TYPE DESIGNATION



DEFINITION:

OMV series squirrel cage, three-phase asynchronous electric motor
For example: OMV 4501 means center height of 450mm, 6 pole squirrel cage three-phase asyncrhonous electric motor.

3. CONSTRUCTION FEATURES

OMV series motors adopt international advanced high-strength cast iron structure. The frame and the shield are made of high-strength cast iron. The exterior cooling ribs are of vertical distributing. Therefore, the motors have good cooling capability, rigidity and stoutness.

The stator core and the frame adopt external pressing structure, and it is easy for maintenance. The stator winding is insulation class F, and it is fixed in the slot with the slot wedge, there are reliable fixation and colligation in its ends, in the process of manufacturing, it should pass several turns of interturn pulse voltage test and interturn voltage resistance test, and it is impregnated with no-solvent paint in VPI so that it features not only high-strength structure and insulation system, but also good electric performance and anti-moisture, and can be used in the severe environment.

The motor adopts aluminum casting structure of special technique. The rotor bar, end ring and fan are primary molding, improving its reliability and increasing its moment of inertia. With the fine rotor balance system, the motor is more stable, and lower the vibration and noise. With the rolling bearings the motors can have it lubrificated without being stopped. The excellent design can prevent the dust and rain from permeating into the motor.
The terminal box is of high protection and compact structure. The terminal connection is fixed very well which can be mounted from four directions. The terminal outlet box is generally to the right of the motor (viewed from the shaft extension end), and if the customer want to fit it in the left, they should specify when ordering.

4. INFORMATION FOR ORDERING

1. Please specify the motor type, power (kW), voltage, frequency, direction of rotation, protection degree, cooling method, special environment conditions and the driven mechanical equipment requirements when ordering.

2. The stator and rotor of the motor are all fixed with temperature detector which are three PT100 thermal resistance on the both sides of the stator. Fore and rear bearings are all fixed with one PT100 thermal resistance respectively. If there is any special requirements please specify when ordering.

3. Standard position of main terminal box and auxiliary one (with PTC and heater) is on the right side of the motor looking from DE. It can be mounted on the left on request.

4. The supply network terminal voltage of OMV series motor is no less than 85% of the rated voltage while starting. The motor is allowed continuous cold starting twice (automatically stop between two starting) or hot start once after rated running and extra start should be an hour later after stop extra restart for 2-poles motor should be 4 hours later after stop).
For the driven equipment with resisting torque, such as pumps and blowers, avoid to restart frequently as much as possibile.

5. The shaft extension is generally not allowed to be with extra axial force and radical force except weight of the shaft coupling.
Please give clear indication of the force if there is radial force and axial force for vertical motor when ordering.

6. The technical specification must be agreed when requested as follows:
   1. The motor beyond the capacity and specification in tables.
   2. the vertical motor or the other motors with special mounting type.
   3. Special mounting dimension or motors with special structures.
   4. The motor to imitate the patterns of other motors.
   5. The motor of special requirements for property.
   6. The motor of the other special requirement.
   7. The technical data is subject to change without notice because of technical progress and the revising for domestic and international standards. Please ask for formal drawing and correlative information from O.M.E Srl after placing an order.