

3-phase Squirrel Cage Asynchronous Induction Motor

MOD.7040-4

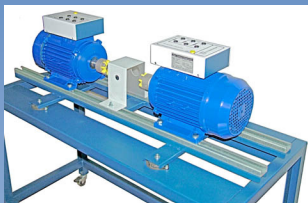
Technical specifications

Industrial, complete with base plate, provided with silk screened terminal board and with 4mm safety sockets.

Nominal voltage:
230 / 400Vac 50Hz (delta / star)

Nominal power:
5kW (other power on request)

Nominal speed:
1450 rpm (4 poles)



The squirrel cage asynchronous motor is the most used. It is also called rotating field motor, and it doesn't keep its speed rigorously constant, but it allows small speed variations in comparison with the synchronous one in the range: 1÷8%. Motor can be powered from an inverter to change speed from 0 to 200% and even reversed.

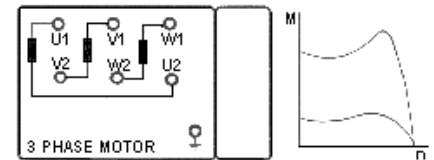
Stator winding can be divided into three coils, than the rotating field makes a complete turn for each period and the motor is called "2 pole type". If either the winding is divided in three contiguous triplets along the stator periphery, the magnetic field makes half of a turn for each period, and the motor is called "4 pole type". We have also 6, 8, 10 or 12 poles motors.

Didactical purpose:

- Motor connection
- Typical machine data evaluation
- Reversing the rotation direction
- Direct test for mechanical characteristic (torque as function of the speed)
- Direct test for electro-mechanical characteristic (torque, speed, input current, efficiency and power factor as function of the output power)
- Measure of the ohmic windings resistance
- No-load test of the motor
- Short-circuit test of the motor
- Direct test of the motor
- Measurement of the slip [s]

The rotor is short circuit type. The motor can be started connecting it directly to the main power both in star or delta (Y-D) configuration.

- Imprinted terminal boards with the synoptic.
- With coupling cog for easy engagement with other machines.
- Protection against thermal overload
- All connections on 4 mm safety sockets included thermal contact.
- Manual explaining theory and practice for laboratory experiments.



Options

Depending on the specific requirements of the application the machine can be provided with

- two shaft ends,
- other power values
- the appropriate number of poles in order to have the required nominal speed. (ie:MOD.7040: 2 poles 3PH squirrel cage motor 2880 rpm).



Accessories and options:

A full range of accessories and options are available like electromagnetic brakes, powder brakes, voltmeters, ammeters, power meters, connection cables, power supplies, Speed Encoders, Torque sensors etc.

	3PH motor speed regulator MOD.7240		Starting reverser switch MOD.7303		Direct starter MOD.7302
	STAR / DELTA switch MOD.7308		Starting rheostat for 3phase motor MOD.7011		Field regulator rheostat for dc & ac motor MOD.7012