

MOD.3122

Technical specifications

Provided with silk screened front panel and with 4mm CE safety sockets.

Nominal voltage:
230Vca / 50Hz

Nominal power:
0,24kW (Other power on request)

Nominal speed:
2815 rpm

Cos φ :
0,94

Dimensions (LxWxH):
35x18x25 cm

Weight:
8,5 kg



The CAPACITOR START / CAPACITOR RUN motor is widely used for onerous applications, for the starting up as well as for the normal operating of electric apparatus, refrigerator compressors, washing machine drives, power tools, aspirators, fans, water pumps, etc.

In order to reduce the starting current, but also to increase the starting couple of a single phase asynchronous motor, the auxiliary phase is supplied by two capacitors.

The auxiliary phase is supplied at the starting through two A.C. electrolytic capacitors CR and CS with a big capacity value. CS operates for short time only (it has been studied and proportioned for the motor starting). CS is then excluded by an automatic switch when the rotor reaches the 3/4 of the synchronous speed.

The CR capacity is always insert in the circuit to prevent the motor speed to decrease under onerous working conditions.

Different connection can be accomplished in order to study behaviour with different conditions.

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]

Options

Depending on the specific requirements of the application the machine can be provided with two shaft ends, with other power values and can be designed with the appropriate number of poles in order to have the required nominal speed. (MOD.3122-4: 4 poles capacitor start / capacitor run motor 1500 rpm).

Accessories

A full range of accessories and options are available like electromagnetic brakes, powder brakes, measuring modules such as voltmeter, ammeter power meter, connection cables and power supplies



- Imprinted terminal boards with the synoptic.
- Base plate with four rubber feet.
- 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