

# statomatic starters for cage motors RC2 - RZ2

RED statomatic starters offer an unrivalled starting capability and have the following advantages:

- Reliability
  - They do not have any moving parts other than the short circuit contactor.
  - There is no current peak at the end of the starting period.

- Savings
  - The electrical and mechanical maintenance is considerably reduced.
  - The units are pre-wired.

- Easy use
 

The starting characteristics are "made to measure" and can be altered for a change of motor or machine by simply replacing the electrolyte.



- For motors up to 30 kW
- Proven technology
- Reduced maintenance
- Absence of noise (radiofrequency and harmonic interference)

## description

The RC2/3 starter comprises the electrolytic resistance with thermostat and an enclosure containing a shorting contactor and timer. Alternatively, the enclosure can be

fitted with start and run contactors, thermal overload, etc. The RZ2/3 comprises only the electrolytic resistance with thermostat.

These assemblies are in modular form and include all internal connections.

## operating principle

The decrease in resistance of an electrolyte when heated is utilised inside an electrode chamber.

The resistance is connected in series with the motor windings to reduce terminal volts, starting torque and current drawn from the line. As the motor runs up to

speed, there is an automatic decrease in resistance value with a consequent increase in motor voltage, giving smooth acceleration without torque or current peaks.

At the end of the run-up period a timed contactor closes and short circuits the

residual resistance.

Reduction of the starting torque is determined according to the requirements of the driven machine or the current limitation.

## specifications

Electrical characteristics.....

- Rating: 30 kW (40 HP) maximum for RC2 or RZ2
- Above this rating, see starters RC5, RW5 or RZ5.
- Voltage between phases: 690 V.
- Incorporated short circuit contactor for model RC2/3: 25 A - 50 A - 125 A.
- Number of electrode assemblies: 3 (one per phase).
- External connections: via undrilled gland

plates (to be made in accordance with the circuit diagram supplied with the equipment).

- Delay time by timing relay.

Electrolyte.....

- In powder or crystal form for mixing with drinking water and anti-evaporation oil. Electrolyte is included with each starter.
- Electrolyte temperature is controlled by thermostat 16 A/400 V.

- Electrolyte level: level is visible through transparency of tanks. Level lamps provide visual indication when tanks are covered with louvres.

Environment.....

- IP 31 for RC2P/3
- IP 52 for RC2E/3
- IP 11 for RZ2/3 and the resistance portion of RC2/3.

Presentation.....  
 - Finish: resin polyester based textured paint.  
 Thickness: 60 microns minimum.

Shade grey-beige RAL 7032.  
 - Average weight with contactor  
 without electrolyte:  
 20 kg for RC2/3

7 kg for RZ2/3  
 with electrolyte:  
 26 kg for RC2/3  
 13 kg for RZ2/3.

### electrode assembly

This is a standard component designed for a unit power of 30 kW.  
 The value of resistance is preset at our works according to drive and motor par-

ticulars.  
 It is always possible to make adjustments on site, either for a change of drive or for a different duty.

This is easily carried out by changing the electrolyte and/or the size of the electrode chamber.

### options

Antifreeze .....  
 Protection down to - 20°C.  
 Can be used throughout the year but cannot be added to existing electrolyte as it

alters the value of resistivity.

Thermostat.....  
 One per phase.

Tropicalisation

Louvres.

### control panels

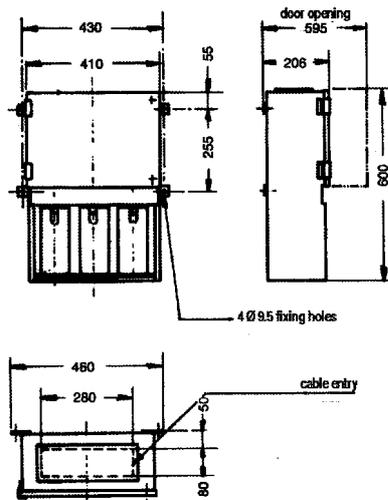
These can be supplied to customer requirements, and include items such as isolators, HRC fuses, ammeters, special

protection relays, etc.  
 Panel builders can also incorporate either RZ frames or sets of tanks fitted with elec-

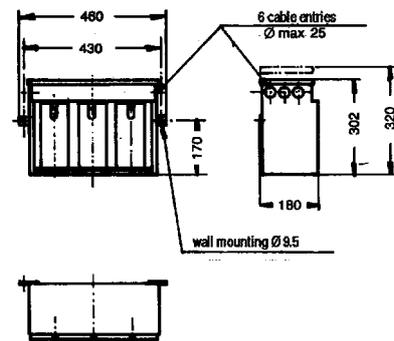
trode assemblies in their cubicles (must be mounted at the bottom of the panel).

### dimensions

RC2/3



RZ2/3



Dimensions in mm

### ordering instructions

Starter enclosure protected version RC2P/3  
 Starter enclosure dust and water protected version RC2E/3  
 Resistance frame RZ2/3

Consumables and accessories.....  
 - Electrolyte  
 - Thermostat  
 - Antifreeze  
 - Level lamps  
 - Anti-evaporation oil

Options.....  
 - For both the RC2 and RZ2:  
 • Louvre doors,  
 • Tropicalisation.  
 - For starter enclosure RC2 protected version:  
 • Dust and water protected enclosure IP52.  
 - Complete starter panel.



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Specifications above are subject to modifications without prior notice.