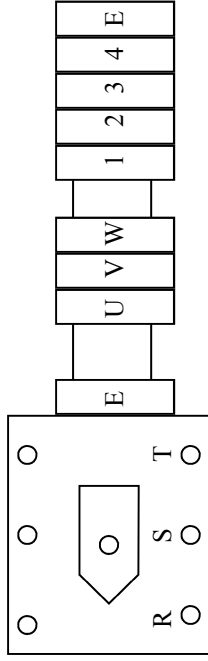


4.0 Control and power wiring



MAINS INPUT
3 PH 415V 50/60HZ

MOTOR OUTPUT
CONTROL TERMINALS
FOR EXTERNAL
START/STOP
(STANDARD OPTION)

MANUFACTURER:

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DISTRIBUTOR



**R54 SERIES OF SOFT STARTERS
TQM2KA 5.5Kw TO 15Kw**



**INSTALLATION AND TECHNICAL
INSTRUCTIONS**

www.ralspeed.com

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1.0 Safety

1.1 SAFETY CONSIDERATIONS The R54 economy range of soft starters have been designed for application in industrial electrical power installations. The user must gain any particular or general permits relating to local regulations and meet any requirements regarding: *safety of personnel, *environmental protection * product disposal * packaging disposal

NOTE

The safety measures outlined must remain in force at all times. Should questions or uncertainties arise please contact your supplier.

1.2 USERS RESPONSIBILITY

Dangerous voltages exist within the soft start unit. Always isolate the power before any service or maintenance work is carried out

- ◆ Do not MEGGER any part of the soft start unit
- ◆ Do not fit power factor capacitors on the output side of the soft starter
- ◆ Do not remove any terminal covers before isolating the power.
- ◆ Always refit any covers on the live side of the motor circuit breaker

1.3 Standards

The unit is manufactured in accordance with the following standards

- ◆ IEC 947-4-2
- ◆ EN 60947-4-2, IEC 947-4-2
- ◆ EN 50081-2 EMC Emissions
- ◆ EN 50081-1 EMC Emissions with by-pass
- ◆ EN 50082-2 EMC Immunity

2.0 Installation

2.1 UNIT TYPE After unpacking check for any damage and that the correct KW size unit has been supplied.

2.2 LOCATION The starter is a wall mounting IP54 type and should not be subjected to extremes of temperature, vibration or direct water splashes.

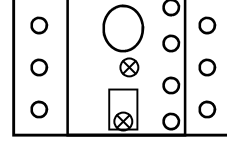
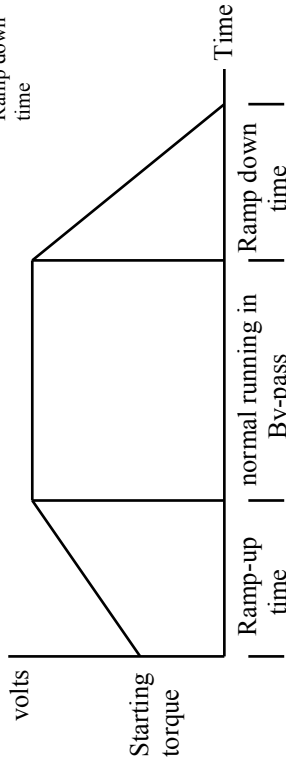
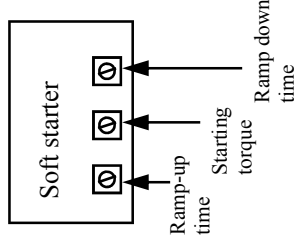
2.3 CABLING Wire directly to the isolator a supply of **380-415v + or - 10%** at **50/60Hz**. The user must ensure that the starter is **earthed**. The motor connections are wired to terminals **U - V - W**. In the event of the motor having 6 cables the user will have to double-up in the **delta** configuration.

2.4 CONTROL CABLING the basic starter is supplied with stop/start pushbuttons but the user can have the option of a local/remote switch and control from an external source. In this case use control terminals 1,2,3 & 4.

3.0 Adjustments & Diagrams

3.1 USER ADJUSTMENTS The user adjustments are confined to the soft starter and the thermal overload. The overload, starting torque and ramp to full speed settings are factory set and normally do not need to be altered. However if the user needs to make adjustments follow the instructions below:

The ramp-up time 'pot' sets the time in seconds from the initial voltage through to the final voltage, normally set for 10s. At full speed or top of ramp an internal by-pass relay energises and the thyristors turn-off. This means there is no heat loss from the starter. Ramp-down or soft stop is not set, therefore the user must adjust the 'pot' to suit the application.



The thermal overload provides for over current protection in case of a motor problem. This unit is normally Factory set at the FLC of the motor to be controlled. The user may change this value by operating the rotary dial as shown.

3.2 STOP/START PUSHBUTTONS The buttons on the front of the unit are directly wired from the soft start electronics and are at 24v+ potential. On units where an optional manual/auto switch is fitted the user can connect external push buttons, a relay or other stop/start methods such as float switches.