

SELECTION AND INSTALLATION OF SHORT-CIRCUIT ING DEVICES

Short-Circuiting and earthing should only be carried out by a competent person.

In order to select properly the device used in a defined installation two criteria should be followed:

- Electromagnetic forces (*fault current x peak factor multiplier*) should not exceed the forces for which the device is rated (IS EN 61230:2008)
- Joule heating (*fault current squared x tripping time*) should not exceed the heating for which the device is rated (IS EN 61230:2008)

To ensure the equipment is fit for purpose the fault level, peak factor and tripping times of the installation must be known otherwise proper and adequate protection from death or serious injury may not be achieved.

An analogous example is to attempt to lift a load of unknown weight with a lifting device of unknown capacity

To install Short-Circuit:

1. Adopt "Live" work procedure; i.e. gloves, face protection etc.
2. Switch off isolator. Complete and erect HOLD-OFF notice.
3. Test installation.
4. Fit short-circuit leads to grounded parking bar.
5. Using insulated applicator, transfer short-circuiting leads from parking bar to phase conductors. Fit Short-Circuit notice.

To remove Short-Circuit

- A. Adopt 'live' work procedure
- B. Reverse Procedure 5
- C. Reverse Procedure 4
- D. Remove Short-Circuit Notice.

OBSERVE THE RULES

THE FIVE GOLDEN RULES FOR ELECTRICAL SAFETY:

1. Disconnect from the power supply
2. Employ the necessary means to prevent closing of the isolating switches
3. Test for the absence of voltage
4. Provide earthing and short-circuiting as necessary
5. Provide protection against adjacent live parts

Maintain the limits of close proximity until equipment to be worked on is earthed.

For further information on short circuiting, time /current tables, fault levels and peak current visit our website www.tynaghnetworks.com and click on "Electrical Safety info "