

This document must be retained for future reference.

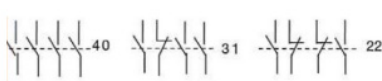
It is the responsibility of the person installing the electrical equipment to ensure that the installation meets the requirements of the IET wiring regulations and is therefore 'fit for purpose'. Factors such as correct selection of components, cable sizing, protective devices and Earth bonding are all critical and should be checked prior to full testing and power-up. Any other regulations applicable to the equipment being installed such as the Machinery Directive and current health and safety legislation must also be adhered to.

All connections (including factory made) must be checked for the correct tightness prior to commissioning of the electrical installation.  
 All connections should also be inspected periodically to ensure correct tightness.

**DO NOT USE POWER TOOLS ON THESE PRODUCTS**



## TCA2 Control Relays

| Code                                                                              | AC                                                                                                                                                                         | TCA2-DN                                                                             |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |                                                                                                                                                                            | 40<br>31<br>22<br>-                                                                 |
| Maximum Rated Operational Voltage                                                 |                                                                                                                                                                            |                                                                                     |
| Maximum rated current for motor control<br>(3 phase 440V, 50-60Hz, for AC3 Duty)  |                                                                                                                                                                            | AC 15 duty (IEC 60947-5-1)<br>AC 11 duty                                            |
| Maximum standard power rating<br>for motor control as AC3 Duty 0≤55°C, 415V       |                                                                                                                                                                            | (IEC 861) 6A at 500V                                                                |
| EN 60947-4-1                                                                      | <br> | 230V HP -                                                                           |
|                                                                                   |                                                                                                                                                                            | 460/480V HP -                                                                       |
| 3 Phase AC3                                                                       |                                                                                                                                                                            | 575/600V HP -                                                                       |
| Mounting position<br>(w.r.t normal vertical mounting plane)*                      |                                                                                                                                                                            | ± 30°                                                                               |
| Maximum thermal current I <sub>th</sub> (0 ≤ 40°C)                                |                                                                                                                                                                            | 10A                                                                                 |
| Maximum Operating Rate                                                            | AC                                                                                                                                                                         | 10800                                                                               |
| (operations / hr)                                                                 | DC                                                                                                                                                                         | 3600                                                                                |
| Average Coil Consumption<br>(inrush / sealed)                                     | 50 Hz                                                                                                                                                                      | 60 / 7 VA                                                                           |
|                                                                                   | 60 Hz                                                                                                                                                                      | 70 / 7.5 VA                                                                         |
|                                                                                   | 50/60 Hz                                                                                                                                                                   | 70 / 8 VA                                                                           |
|                                                                                   | DC                                                                                                                                                                         | 9 / 9W                                                                              |
| Heat dissipation at                                                               | AC                                                                                                                                                                         | 2 to 3W                                                                             |
|                                                                                   | DC                                                                                                                                                                         | 9W                                                                                  |
| Mechanical Life<br>(in millions of operations)                                    | TC1 50 or 60 Hz                                                                                                                                                            | 30                                                                                  |
|                                                                                   | 50 / 60 Hz                                                                                                                                                                 | 20                                                                                  |
|                                                                                   | TP1                                                                                                                                                                        | 30                                                                                  |
| Power contact terminal capacity mm <sup>2</sup>                                   |                                                                                                                                                                            | 2.5                                                                                 |
| Recommended Tightening Torque                                                     |                                                                                                                                                                            | 1.2Nm                                                                               |
| Over-all dimensions in mm                                                         | AC                                                                                                                                                                         |  |
| Projection (TCA2-D/TC1-D)                                                         |                                                                                                                                                                            | 80mm                                                                                |
| Over-all dimensions in mm                                                         | DC                                                                                                                                                                         |  |
| Projection (TP1-D)                                                                |                                                                                                                                                                            | 115mm                                                                               |
| Weight (TC1-D/TP1-D)                                                              | kg                                                                                                                                                                         | 0.32 / 0.58                                                                         |



| Part Number | Description         |
|-------------|---------------------|
| TCA2-DN22B7 | 24V AC 2N/O + 2N/C  |
| TCA2-DN22E7 | 48V AC 2N/O + 2N/C  |
| TCA2-DN22F7 | 110V AC 2N/O + 2N/C |
| TCA2-DN22P7 | 230V AC 2N/O + 2N/C |
| TCA2-DN31B7 | 24V AC 3N/O + 1N/C  |
| TCA2-DN31E7 | 48V AC 3N/O + 1N/C  |
| TCA2-DN31F7 | 110V AC 3N/O + 1N/C |
| TCA2-DN31P7 | 230V AC 3N/O + 1N/C |
| TCA2-DN40B7 | 24V AC 4N/O         |
| TCA2-DN40E7 | 48V AC 4N/O         |
| TCA2-DN40F7 | 110V AC 4N/O        |
| TCA2-DN40P7 | 230V AC 4N/O        |