



## ATS004DMS Automatic Transfer Switch Controller

### Description

The configurable ATS Controller Model ATS 004DMS allows for many of the demanding applications in the modern power supply network to be achieved.

The ATS 004DMS is designed as an end of line transfer controller between two power supplies of typically similar security & availability. It includes single phase sensing & timing functions to take account of "Preferred Supply Failed" Delay & "Return to Preferred Supply" Delay as well as the delay between control outputs to take consideration of Contactor or MCCB operating times. Inputs are provided for the remote selection of the "Preferred Supply" and "Return Inhibit".

### How it works...

Under normal conditions with the default preferred supply as "Supply 1" & that supply being within range, the "Supply 1" output relay would be energized closing the "Supply 1" Contactor & Connecting "Supply 1" to the Load. Should "Supply 1" go out of range, the "Preferred Supply Failed" delay timer is initiated & should it time out, the "Supply 1" output relay would be de-energized opening the "Supply 1" Contactor & Disconnecting "Supply 1" from the Load. After the internal switching delay and considering "Supply 2" is within range, the "Supply 2" output relay would be energized closing the "Supply 2" Contactor & Connecting "Supply 2" to the Load. On return of "Supply 1" to a healthy state the "Return to Preferred Supply Delay" timer is initiated & should it time out successfully without disturbance, the "Supply 2" output relay would be de-energized opening the "Supply 2" Contactor & Disconnecting "Supply 2" from the Load. After the internal switching delay and considering "Supply 1" is within range, the "Supply 1" output relay would be energized closing the "Supply 1" Contactor & Re-Connecting "Supply 1" to the Load. If the "Return Inhibit" function was active, on return of "Preferred Supply" to a healthy state the controller would however remain on "Alternative Supply" until pressed the "RI" push button again.

Time delay's are set by wire jumpers on the controller terminals & selection possible as per table "A", typically the "Return to Preferred Supply" Delay is TWICE the "Preferred Supply Failed" Delay.

**Table "A" ~ Timing Function Jumper Settings**

| Delay Timer settings |              |               |               |                                       |                                    |
|----------------------|--------------|---------------|---------------|---------------------------------------|------------------------------------|
| T1<br>4 sec.         | T2<br>8 sec. | T3<br>16 sec. | T4<br>32 sec. | Preferred supply failed<br>delay sec. | Return to Preferred delay,<br>sec. |
|                      |              |               |               | 2                                     | 4                                  |
| ✓                    |              |               |               | 4                                     | 8                                  |
|                      | ✓            |               |               | 8                                     | 16                                 |
| ✓                    | ✓            |               |               | 12                                    | 24                                 |
|                      |              | ✓             |               | 16                                    | 32                                 |
| ✓                    |              | ✓             |               | 20                                    | 40                                 |
|                      | ✓            | ✓             |               | 24                                    | 48                                 |
| ✓                    | ✓            | ✓             |               | 28                                    | 56                                 |
|                      |              |               | ✓             | 32                                    | 64                                 |
| ✓                    |              |               | ✓             | 36                                    | 72                                 |
|                      | ✓            |               | ✓             | 40                                    | 80                                 |
| ✓                    | ✓            |               | ✓             | 44                                    | 88                                 |
|                      |              | ✓             | ✓             | 48                                    | 96                                 |
| ✓                    |              | ✓             | ✓             | 52                                    | 104                                |
|                      | ✓            | ✓             | ✓             | 56                                    | 112                                |
| ✓                    | ✓            | ✓             | ✓             | 60                                    | 120                                |

# Wiring Diagram

