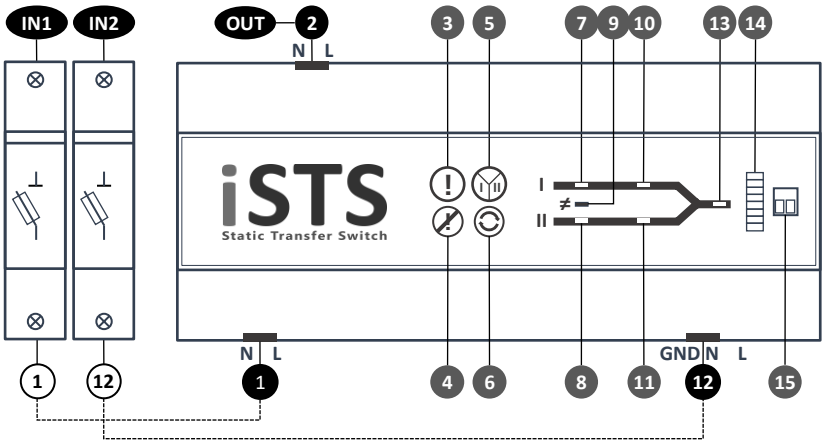
iSTS R

STATIC POWER
SMART | SOLID | SAFE



1	**Supply 1 Input**	Push-in terminal suits 4mm² cable, use a small blade type screwdriver in the top slot and press in; insert the cable and release. **DO NOT USE FERRULES OR TWIST THE WIRE ON THE PUSH IN CONNECTORS.** Repeat for the Neutral Conductor. Note the neutral is not fused. Bare the wire just 8mm.
2	**Output Terminal**	Push-in terminal suits 4mm² cable, use a small blade type screwdriver in the top slot and press in; insert the cable and release. Bare the wire just 8mm.
3	**Alarm LED**	When there is an alarm that has not been acknowledged this LEDs will flash. If the alarm has been acknowledged but the condition still exists, the LEDs will remain on. The Alarm LED and the Remote Contact will be triggered when: ▪ On Supply 1 when priority is Supply 2 ▪ On Supply 2 when priority is Supply 1 ▪ Not in Synchronism ▪ Supply 1 or Supply 2 are not in spec. ▪ There is/was an overcurrent/overload/load fault condition or Overtemperature condition ▪ There has been a thyristor/SCR Fault ▪ The Auto retransfer to preferred source has locked out & max number of automatic re-transfers has been exceeded.
4	**Alarm Cancellation Button**	Pressing this button acknowledges new alarms, causing the audible alarm to turn off and the LEDs to go from flashing to solid.
5	**Preferred Indicator**	These three LEDs indicate which supply is selected as the preferred supply. Supply 1 '**I**', Supply 2 '**II**' or neither may be selected.
6	**Preferred Button**	Pressing this button repeatedly will scroll through which supply is selected as the preferred supply.
7	**Supply 1 Okay LED**	Green/Red indicated that Supply 1 is within/out of tolerance. If fuse is open or blown or there is no power present the power available LED will be Red.
8	**Supply 2 Okay LED**	Green/Red indicated that Supply 2 is within/out of tolerance. If fuse is open or blown or there is no power present the power available LED will be Red.
9	**Sync Okay LED**	Green/Red indicated whether Supply 1 and Supply 2 are within/not within enough degrees of synchronisation of each other to perform a transparent transfer.
10	**On Supply 1 LED**	Green/Red indicates the load is on/not on Supply 1.
11	**On Supply 2 LED**	Green/Red indicates the load is on/not on Supply 2.
12	**Supply 2 Input**	Push-in terminal suits 4mm² cable, use a small blade type screwdriver in the top slot and press in; insert the cable and release. Repeat for the Neutral Conductor. Note the neutral is not fused. Bare the wire just 8mm. The **GND** connection is **optional** but required when some accessories are connected to the expansion port. **BE SURE NOT TO ACCIDENTLY CONNECT THE NEUTRAL TO THE EARTH AND THE ACTIVE TO THE NEUTRAL.**
13	**Output Okay LED**	Green/Red indicated the output is OK/faulty.
14	**Load LEDs**	There are eight LEDs, the bottom six are Green and indicate roughly 10% - 90% loaded. The seventh LED is orange and indicates 100% loaded. The eighth LED is Red and indicates that the iSTS is over loaded.
15	**Remote Contact**	Voltage free alarm for integration into BMS. **Do not connect any more than 50V/0.5A, not suitable for 230VAC.** Contacts are Normally Closed. Contact is held Open when there is no alarm. When power fails the relay contact closes (fail safe). The Remote Contact and the Red Alarm LED are driven by the same logic.

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iSTS R

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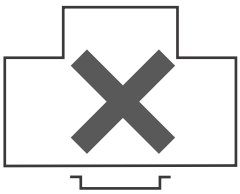
A. INSTALLATION

a. The Model R is a 2 pole, single phase DIN Rail mount STS that suits 35mm x 7.5mm rail.
b. The STS is powered from two separate sources. All precautions to guarantee people's safety shall be undertaken.
c. The iSTS R is supplied with 2 DIN rail mounted fuse disconnectors (10x38 aR - 20A) placed near the unit with sufficient space for cooling. **The iSTS and fuses can only be mounted vertically**.
d. Check that both the 115/230 voltage selection switches on the bottom of the unit are set for the correct line voltage for the application. If the incorrect line voltage is selected the unit will show red indicators for both supplies, both on supplies and the output on power up.



e. Incoming source should be terminated to the fused switch disconnector and then to the STS active inputs. The neutrals are not fused and should be terminated directly to the iSTS inputs. Ensure the cables are securely connected and supported.

B. SETUP

a. Ensure that the two input sources are within tolerance, and that they are in synchronism (±15% of rated voltage, <10% THD, <15º phase difference)
b. Connect your critical load to the OUTPUT. *NOTE: Due to the nature of Silicone Controlled Rectifiers (SCRs), some load (~0.2A) is required for correct operation.*
c. Connect the sources to SUPPLY 1 and SUPPLY 2. If you wish to Confirm Operation you will need to be able to switch both sources on and off.

C. STARTUP

a. Apply power to both input sources.
b. There will be a short (8 sec) start-up period, after which the iSTS will begin powering your load.
c. Confirm that the load is receiving power.
d. Ensure that LEDs are correctly representing the supply status and load. *NOTE: Only On Supply 1 LED or On Supply 2 LED should be Red.*

D. CONFIRM

a. Use the Preferred Button to highlight '**I**' on the Preferred Indicator. Wait for the On Supply 1 LED to turn green (if is not already).
b. Turn OFF Supply 1, and confirm that the iSTS transfers to '**II**' (On Supply 2 LED - green).
c. Turn ON Supply 1, and confirm that the iSTS auto transfers to Supply 1 after a 3 second delay (On Supply 1 LED - green).
d. Use the Preferred Button to highlight '**II**'. Wait for the iSTS to transfer to Supply 2 (On Supply 2 LED - green).
e. Turn OFF Supply 2, and confirm that the iSTS transfers to Supply 1 (On Supply 1 LED - green).
f. Turn ON Supply 2, and confirm that the iSTS auto transfers to Supply 2 after a 3 second delay (On Supply 1 LED - green).

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