



# TwinSource

## DCC - II RM - ITSTS Static Transfer Switch

Introducing the new TwinSource Dual Cord Converter DCC-II-ITSTS static transfer switches for critical IT applications. This family of plug-in rack-mount IT static transfer switches (RM-ITSTS) utilizes the latest state-of-the-art, fault tolerant, patent pending logic topology which provides higher redundancy of critical components than other STS designs, with a first time ever predicted MTBF of over 10 million hours. This super high reliability and internal redundancy makes the DCC-II the number one choice to meet the ultra-high availability requirements of mission critical IT operations at critical data centers, air traffic control sites, and telecommunications centers demanding 7x24 availability. They are ideal to convert single corded IT loads to dual corded configuration so as to achieve the same availability as the dual corded loads.



The DCC-II RM-ITSTS uses a Power Quality Seeking sense circuit that enables the critical load to always be on the better of the two sources. The system does this through the use of a unique triple band power quality discriminator circuit that categorizes the voltage at each source into: Good Quality, Marginal Quality, and Unacceptable Quality power bands. The system always seeks the Good Power Quality band and the bands are user settable. This unique and advanced failure avoidance feature enables the ITSTS to keep the load in a safe zone of power quality unlike switching devices that stay on the edge of power failure before initiating a transfer at high risk. The built-in bypassing and isolation outer module, combined with the inner plug-in electronics module, give the TwinSource DCC-II RM-ITSTS the lowest MTTR (Mean Time To Repair) in the industry of less than 30 seconds. The comprehensive user adjustable settings for power quality allow the user full customization capability to match the specific load requirements to the facility power. The RM-ITSTS also comes with an optional Ethernet interface connectable to LAN's, or an optional RS-485 or RS-422 if interfacing with a BMS is desired. These interfaces enable responding to alarm silence and preferred source selection from a LAN PC or a BMS command console for ease of management and load leveling of large quantity of installed units, which would otherwise be unmanageable if manual intervention is required.

This product line is UL and CE labeled and is available in all worldwide voltages and frequencies making it ideal for multinational operations worldwide.

### Standard Features

- Two Pole Device (avoids ground circulating currents)
- Calculated MTBF > 1 million hours
- Predicted MTBF > 10 million hours
- Lowest MTTR in the industry; < 30 seconds
- Plug-in "hot swappable" electronic module
- UL-1008 & CE Labeled for International Use
- Redundant logic power supplies
- Redundant drive power supplies not tapped from logic power
- Redundant fans
- User selectable settings
- "Auto-retransfer Off" protection
- Anti-cross connection logic
- Power Quality Seeking System (seeks the better source)
- Shorted/Open SCR protection
- 22KA rated (highest in the industry – tested by UL)
- Internal Maintenance Bypass (with programmed pre-transfer to the side being bypassed, to avoid operator error)
- Operator "Do Not Bypass" alarm to help operator

### Applications

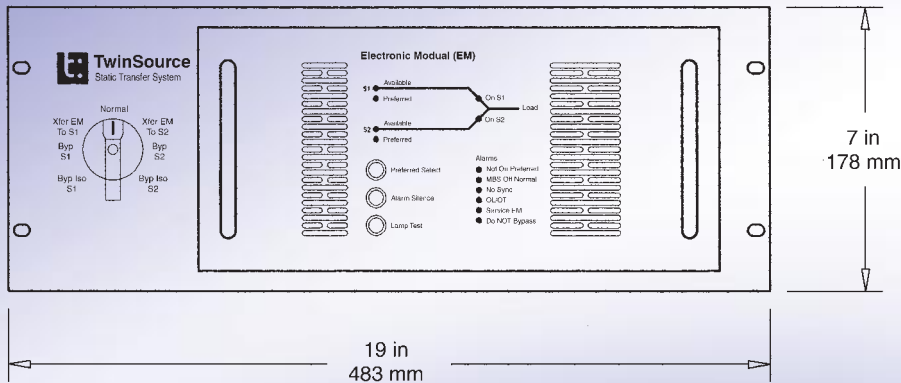
Critical Data Centers  
Telecommunications Sites  
Air Traffic Control Sites  
Petrochemical Plant Critical Controls  
Semiconductor Fab Plants Controls  
Critical Industrial Controls

### Options

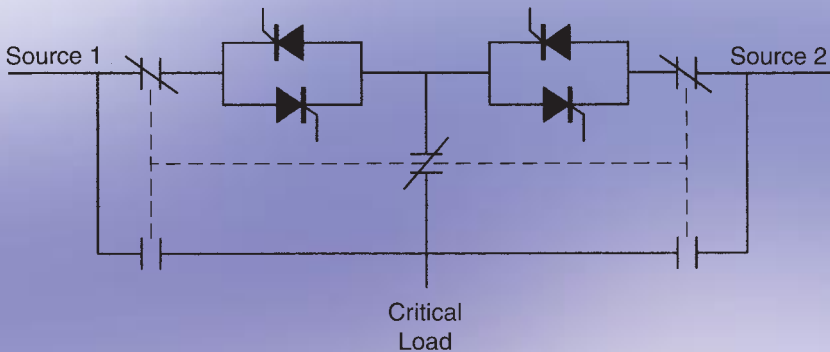
RS-422 or RS-485 (Modbus RTU)  
Ethernet LAN Interface

# DCC - II RM - ITSTS System Drawings

Front View



RM-ITSTS Schematic



## Basic Specifications

### Electrical Characteristics

Current Rating	10, 20, 30, 40, 50 A
Voltage	120, 208, 220, 230, 240V
	1-ph, 50 and 60Hz
Poles	2

### Operational Characteristics

Sense and transfer time  
1/4 cycle

### User Adjustable Settings

- Over and Under Voltage
- Phase Angle for Manual Transfer
- Default Preferred
- Unit Node Address
- Auto-retransfer On/Off

### Panel Controls

- Preferred Select
- Alarm Silence
- Lamp Test
- Bypass Isolation Selector Switch
- Diagnostics (selftest)

### Remote Contacts

- Service EM
- Summary Alarm

### Panel Indicators

- Source 1 Available
- Source 2 Available
- Source 1 Preferred
- Source 2 Preferred
- On Source 1
- On Source 2

### Alarms

- Not On Preferred
- MBS Off Normal
- No Sync
- OL/OT
- Service EM
- Do Not Bypass

### Environmental Specifications

Operating Temperature	
Range	0°C to 40°C
Relative Humidity	0% to 95% noncondensing

### Physical Specifications

Weight	49 lbs/23 kg
Dimensions	H - 7 in/178 mm
	W - 19 in/483 mm
	D - 21 in/526 mm

## TwinSource

TwinSource LLC with corporate offices in the US and UK is a worldwide leading supplier of single-phase, rack mount ITSTS transfer switches for a variety of applications. Our Dual Cord Converter II (DCC-II) solid state 1/4 cycle RM-ITSTS product, is ideal for protecting super-critical IT operations or transactions, where speed of transfer and ultra fault-tolerant reliability are pre-requisite requirements of transaction missions that can cost millions if disrupted.

Our electromechanical relay type RM-RTS product line is ideal for the less critical applications where some loads can tolerate a longer transfer time and the operation is not as critical. Both products utilize the same reliable TwinSource sense and control logic.

TwinSource has over 120 man-years of electrical and electronics engineering expertise onboard for developing its state of the art fault tolerant transfer mechanisms utilizing patent pending technology owned by the company. TwinSource product lines are well known for their high reliability, excellent quality of workmanship, ease of use, lowest MTTR, and have set a new standard for rack-mount transfer switches in the industry.

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