WAVESTAR™ SEAMLESS 4MS POWER TRANSFERS FOR CRITICAL LOADS

PDI Q

BCMS HUB FEATURE
WAVESTAR™ STS LINKS DIRECTLY TO DOWNSTREAM BCMS DEVICES!

PDI
creating the perfect wave

Fully Automatic, Transparent Dual-Source Switching

Over 25 years of experience has allowed PDI to become the preferred supplier of 4ms transfer switches to a wide range of industries. The new WaveStar™ communication package adds to this preference as it incorporates all of the features that the data center manager wants and needs in one compact package. The PDI static switch supplies critical loads with a choice between two available sources of electrical power. By continually monitoring power quality, the WaveStar™ switch automatically transfers to an alternate source without interruption of power to even your most sensitive critical loads. With a sense and transfer time of less than 4ms and the industry's best communication package, the WaveStar™ represents the highest performance power switching solution available.

The WaveStar™ communication package enhances the overall reliability and availability of power to your facility by:
- Providing instantaneous access to redundant sources of power
- Enabling on-line maintenance of upstream equipment
- Showing real time wave form captures on the LED screen

Home LCD screen with source identification

Waveform capture and event capture screen

- Preventing cross connection of sources during transfer and eliminating the possibility of cross current between sources.
- Redundant power supplies and operator interface panel
- Front access design for installation and maintenance

True System Redundancy

COMPONENT REDUNDANCY Redundant operator interface module, power supplies, control power circuits and sensors.
LOGIC REDUNDANCY Redundant voltage detection systems, voltage sensing/sampling systems and independent redundant logic with two different logic algorithms
SYSTEM REDUNDANCY Redundant static transfer mode power path, bypass power path and optional dual isolation switches.
STANDARD TRI-REDUNDANT SYSTEM The ultimate in power system reliability.

The PDI Difference

PACKAGING FLEXIBILITY Configurable as part of PDI's PowerPak PDU Series of complete Redundant Power Distribution Systems.
RIGOROUS PRODUCT TESTING Fully rated switching elements are tested to 6000 operations at 150% load and 50 operations at 600% load. This testing is backed by PDI's Five Step Quality Assurance Program.
MODULAR DESIGN Modular design results in higher quality throughout the line and a delivery schedule ready to meet the most demanding timelines.

PDI Service and Support

After your equipment has been installed, call on the PDI service team for 24 - 7 support. Our industry best sales and service team will stay with you from the design of your system through the life of your data center

PDI WAVESTAR™
STATIC SWITCH

PRODUCT PROFILE

REDUNDANCY

- Fail Safe Dual Redundant Display
- Triple Redundant Logic
- Triple Redundant Power Supplies
- Dual Redundant Gate Drivers for SCRs
  – Two gate drivers for each SCR

LOGIC

- Volt Second Synchronization (VSS) limits In-Rush for 480 volt systems during:
  – Initial Start Up, restarts and transfers
- VSS Start Up, restart or transfer limits to 1.5 Times In-Rush up to 180 degrees Out of Phase

COMMUNICATIONS PACKAGE

- – Web enabled through Web Browser (TCP/IP)
  – SNMP port
  – Modbus RTU through RS 422/485 port
- USB port for downloading stored data - event recapture

SECURITY

- Layered security through log on access
- User Logon ID and PIN number required for STS operation
- All Log Ins are time and date stamped for future reference
- Event/Alarm Memory is 2MB

DIMENSIONS

CURRENT RATINGS	STAND ALONE			STAND ALONE W/ (1) 9" SIDE FACING SIDE CAR			STAND ALONE W/ (1) 21" FRONT/SIDE FACING SIDE CAR		
	WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH	HEIGHT
100->400	36.5"	32.75"	74.75"	44.75"	32.75"	74.75"	56.75"	32.75"	74.75"
600->800	48.0"	32.75"	74.75"	56.25"	32.75"	74.75"	68.25"	32.75"	74.75"

1000 - 4000 amp available, call factory for dimensions.

MONITORING

- Fail Safe Dual Redundant Display
  – Redundant Analog Control Panel
- All Status, Event and Alarm logs may be viewed via Web Browser (STS may NOT be operated via the Internet)
- Events will continue to record up to 10 seconds after loss of power
- "Real Time" capture of Wave Forms
- Branch Circuit Monitoring System Graphing (BCMS) available
- Graphic depiction of load trends
- Graphic depiction of voltage and current harmonic trends
- All STS stored data is captured and available at the Switch

GRAPHICAL USER INTERFACE (GUI)

- Fully functional touch screen
- 10.4" X 10.4" LCD touch screen
- 640 X 480 resolution
- 262K color
- Redundant Fail Safe Analog Control Panel

INSTALLATION AND MAINTENANCE

- "Hot Swap" capability for Printed Circuit Boards (PCB)
  – Optical Bus allows for replacement of PCB while STS is powered and connected to the load
- "Hot Swap" capability for touch screen Graphical User Interface (GUI)
  – By engaging the Redundant Analog Control Panel, the GUI may be replaced without interrupting power
  – All connections are via Optical Bus Connections
- Front Access Only required for I/R scans of all terminations
- SCR Module is on draw-out slides for ease of service
- Logic Module is on draw-out slides for ease of service and greater access for I/R scans

PDI SETS INDUSTRY STANDARD WITH RIGOROUS FIVE STEP QUALITY PROCESS

1 Vendor quality partnership using PDI-designed test equipment and procedures

2 Functional component testing

3 Component level tests in simulated STS environment

4 Module level tests

5 Verification of final product's system performance