



TEAL
We Power Technology™

Global-GUARDIAN®

POWER CONDITIONING & DISTRIBUTION UNITS; MODELS STW02T & STW05T

FUNCTIONALITY

The TEAL **Global-GUARDIAN®** product family of field transportable power subsystems are the first of their kind, available to persons working with measuring, transmitting, imaging, or other sensitive equipment in the aerospace, geological, and defense industries.

The **Global-GUARDIAN®** product family are full featured power subsystems that protect against transient electrical noise and mitigate most common-mode and normal-mode power problems related to long power line runs, uncertain mains quality, or poor grounding. **Global-GUARDIAN®** is designed to operate in hostile environments, eliminating the guesswork in system set-up and calibration while operating from almost any available 3-phase power source.

These COTS power conditioners consist of a low impedance 3-phase isolation transformer, patented TEALwave® filtering and transient voltage surge suppression (TVSS), voltage conversion (via automatic tap-switching with integrated output voltage meter), and power distribution integrated into the industries most compact **2-person lift** transit package. Each unit also performs control and protection functions to maintain compliance with multiple safety standards and agency approvals. These units are available in 2kVA and 5kVA models.

All **Global-GUARDIAN®** products may be modified to provide custom interfaces for both input and output.

FEATURES & BENEFITS

- ✦ Single point system power and grounding eliminates ground loops and provides clean power during development and setup of any noise sensitive system.
- ✦ Wide range input voltage (200VAC to 415VAC), 50/60Hz, with automatic input voltage tap-switching allows system to be installed virtually anywhere in the world and reduces wiring costs.
- ✦ Patented ultra low impedance isolation transformer isolates input from output and provides the highest level of common-mode noise rejection.
- ✦ Patented TEALwave® high energy low-pass filtering and transient voltage surge suppression (TVSS) reduce transients and electrical noise disturbances across a broad frequency spectrum, mitigate line transient problems typical in field and at depot level operations, resulting in improvement of the MTBF of your system.
- ✦ Integrated phase monitoring, Elapsed Time Meter, and output voltage meter for visual confirmation of proper hookup.
- ✦ 2-person lift rackmount design reduces installed cost (\$ per square foot).
- ✦ Multiple outputs with Military and Standard outlets and connectors in standard voltages enable easy equipment connection.
- ✦ Eliminates need for multi-box distribution, isolation and protection solutions.
- ✦ Simplification of installations by allowing plug and play setup.

TEAL ELECTRONICS CORPORATION
1-800-888-TEAL (8325)
WWW.TEAL.COM



Global-GUARDIAN® SPECIFICATIONS

MAXIMUM PROTECTION FROM INCOMING (LINE SIDE) NOISE

TEAL's patented TEALwave® high energy filtering and surge suppression are built in, providing better protection against voltage spikes (normal-mode noise) than with field assembled systems. The isolation transformer's high-performance shield protects against ground line impulses (common-mode noise).

With a worst case power disturbance as defined by the ANSI/IEEE Standard C62.41 6000V 3000A Capability Category B Impulse applied to the input, less than 80% above sine wave peak of the line voltage will be let through to the outputs. Less than 20V of the 6000V Category A Ringwave will pass through to the outputs. Effective filter attenuation is greater than 100dB @ 100kHz and 150dB @ 1MHz, as measured into 50 Ohms.

MAXIMUM PROTECTION FROM LOAD GENERATED (LOAD SIDE) NOISE

Today's electronic loads take their current in short bursts whose equivalent frequency is up to 1kHz. This power conditioner has 10 times less transfer impedance than old technology isolation transformers at this same frequency. This ensures that electronic loads can be supplied with a minimum of voltage waveform distortion. Low impedance and tight load regulation minimize transients caused by load switching.

PHYSICAL & ELECTRICAL

Power Rating	Model Name	Input Voltage Range - Delta	Output Voltage - WYE	Amps/Phase	Outputs			BTU per Hour	19" Rack Height	Case Size H"xW"xD"	Wt. Lbs.
2kVA	PCDU-STW02T	200-415VAC	120/208VAC	6A	1	1	4	< 300	7.0"	7x19x26	< 100
5kVA	PCDU-STW05T	200-415VAC	120/208VAC	14A	1	3	4	< 500	9.1"	9.1x19x26	< 150

- Typical configurations shown - Other distribution, receptacles, connections, and international voltages (50/60Hz) are available on request.
- Input Voltage selection controlled by automatic tap controller (with Output Voltage Meter).
- All outputs are protected by circuit breakers.
- Standard features include Emergency Power Off control and Main Input circuit breaker.
- Audible noise less than 50dB (A) at 1 meter.
- Specifications subject to change without notice.



Rear View - PCDU-STW05T



Front View - PCDU-STW05T

TEAL ELECTRONICS CORPORATION

10350 Sorrento Valley Road
San Diego, CA 92121
Phone: 800.888.8325 • 858.558.9000
Fax: 858.558.9500
WWW.TEAL.COM

