



TEAL
We Power Technology™

PowerHinge®

POWER CONDITIONING & RECTIFIER UNITS; 5KVA TO 30KVA MODELS

FUNCTIONALITY

The TEAL **PowerHinge®** product family are full featured power subsystems that include an isolation transformer, filtering and surge suppression, voltage conversion, rectification, and DC regulation integrated into a compact rackmount package with a number of distribution and control options.

These Commercial-Off-The-Shelf (COTS) regulated DC power sources offer a clean DC power bus protected against common mode noise, transients, and harmonics. Capable of operating from most worldwide line voltages, the TEAL **PowerHinge®** is ideally suited for test systems requiring fixed and programmable DC/DC converters, inductive loads such as DC motors and drives, radar phased array power sources, and production burn-in systems. Because of TEAL's unique low impedance transformer windings, the **PowerHinge®** is capable of providing high levels of in-rush current while maintaining package sizes suitable to your system's steady state loads.

PowerHinge® products come in standard power conditioner sizes of 5kVA, 10kVA, 15kVA, 20kVA, and 30kVA, and can provide standard outputs of 28VDC or 48VDC. All models may be modified to provide special voltage requirements and custom controls and interfaces for both input and output. Ask for single phase input alternatives for power levels below 10kVA.

FEATURES & BENEFITS

- ✧ Single point system power & grounding eliminates ground loops & provides clean power during development & setup of any noise sensitive system.
- ✧ Universal input voltage (200VAC to 480VAC), 50/60Hz, allows system to be installed virtually anywhere in the world & reduces wiring costs.
- ✧ Patented ultra low impedance isolation transformer isolates input from output & provides the highest level of common-mode noise rejection.
- ✧ Patented TEALwave® high energy low-pass filtering & transient voltage surge suppression (TVSS) reduce transients and electrical noise disturbances across a broad frequency spectrum, mitigates line transient problems typical in field & at depot level operations, improving MTBF of your system.
- ✧ Rackmount design reduces installed cost (\$ per square foot).
- ✧ Multiple DC output options with remote digital or analog control.
- ✧ AC outputs with DC power-share options.
- ✧ Optional output voltages available.
- ✧ Simplification of installations by allowing plug and play setup.

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



PowerHinge® 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).

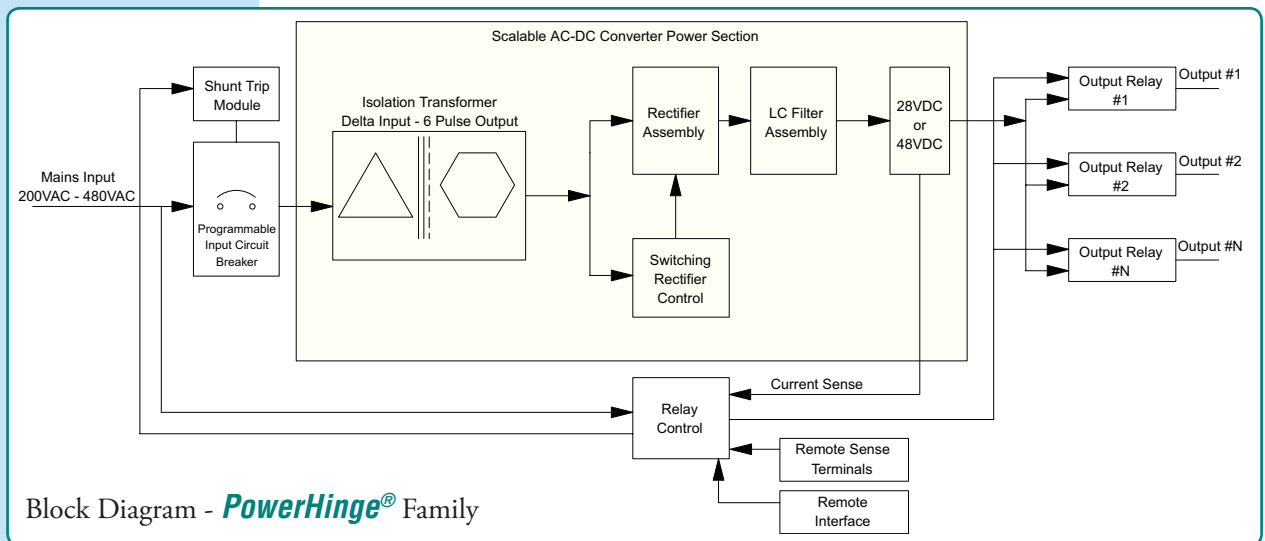
With a worst case power disturbance as defined by the ANSI/IEEE Standard C62.41 6000V 3000A Capability Category B Impulse applied to the input, less than 80% above sine wave peak of the line voltage will be let through to the outputs. Less than 20V of the 6000V Category A Ringwave will pass through to 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	19" Rack Height	19" Rack Depth	Wt. Lbs.
5kVA	STR05R-01-28DC	200-480VAC	28/48VDC	8U	26"	< 150
10kVA	STR10R-01-28DC	200-480VAC	28/48VDC	10U	26"	< 350
15kVA	STR15R-01-28DC	200-480VAC	28/48VDC	16U	26"	< 450
20kVA	STR20R-01-28DC	200-480VAC	28/48VDC	18U	26"	< 500
30kVA	STR30R-01-28DC	200-480VAC	28/48VDC	24U	26"	< 600



Block Diagram - **PowerHinge®** Family

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

