



FlightSafety International
Flight Simulator



Simulator PDU Cabinet



Control Loading and
Motion PDU Cabinet

TEAL ELECTRONICS CORPORATION
CONTACT: BOB CLOSE
1-800-888-TEAL (8325)
WWW.TEAL.COM

FlightSafety

International SimPWR

TEAL

We Power Technology™

POWER DISTRIBUTION UNITS FOR THE FLIGHTSAFETY INTERNATIONAL FULL FLIGHT SIMULATORS

FUNCTIONALITY

Today's advanced fully electric flight simulators are very high performance systems, demanding very high quality from the power line. The TEAL **SimPWR** product family is an innovative line of power distribution units designed specifically for the high fidelity simulator subsystems including electric motion, electric control loading, and high definition visual systems. **SimPWR** provides the clean power necessary to enable the highest system uptime and performance while reducing or eliminating the problems created by electrical noise and ground loops.

SimPWR distribution units are self contained units that provides voltage conversion and distribution, impedance control, high-energy filtering, surge suppression, ethernet control and monitoring, and the TEALwatch® remote power monitoring. **SimPWR** distribution units are designed around a high performance, high reliability isolation transformer that enables input voltage selection and conversion integrated into a modular rack mount package with a number of distribution and control options. **SimPWR** distribution units offer a clean power source protected against common mode noise, transients, and harmonics.

FEATURES & BENEFITS

- ✦ Modular design - custom distribution modules in the 24" wide rack cabinet enable simple modifications for various simulator subsystems.
- ✦ Single point power and grounding eliminates ground loops and provides clean power to noise sensitive systems.
- ✦ Patented low impedance isolation transformer design enables high peak currents during full motion in a compact quiet package. Fully isolated outputs for the motion and control loading systems eliminate noise and coupling.
- ✦ Universal input voltage (208VAC to 480VAC), 50/60Hz, allows system to be installed virtually anywhere in the world, and reduces wiring costs.
- ✦ System Control Module features the UEI Cube analog and digital I/O system for control and monitoring, including:
 - 16 channels of Analog Inputs
 - 48 channels of Digital I/O
 - 64 channels of Digital Outputs
- ✦ TEALwatch® internet based remote power monitor with the capability to display and log waveforms, events and power consumption
- ✦ Patented noise and transient filtering and suppression, significantly reducing the possibility of equipment damage.
- ✦ Agency approved product for guaranteed safety, quality and ease of electrical inspection.



We Power Technology™

FlightSafety International SimPWR - SPECIFICATIONS

MAXIMUM PROTECTION FROM INCOMING (LINE SIDE) NOISE

TEAL's patented TEALwave® high energy filtering & surge suppression are built in, providing better protection against voltage spikes (normal-mode noise) than most field assembled systems. The isolation transformer's high-performance shield protects against ground line impulses (common-mode noise). With a worst case power disturbance 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 & 150dB @ 1MHz, as measured into 50 Ohms. (*defined by the ANSI/IEEE Standard C62.41 6000V 3000A Capability Category B Impulse)

TEALWATCH® POWER MONITOR

An embedded internet-based remote power monitor that enables the user to display & log waveforms, events, & power consumption supplied to their equipment 24x7 at every installation, the TEALwatch® is a proactive diagnostic tool for power quality issues that will decrease your service costs for each site or installation. The user interface is via a standard web-browser through Ethernet & can be monitored from virtually anywhere, any time, day or night.

MODEL NUMBER:
INPUT VOLTAGE:
MAIN OUTPUTS:

SIM-PDU & CLM-PDU

208/220/240/380/400/415/440/480VAC 3-Phase Delta (4-wire), 50/60Hz

- 480/277VAC 3-Phase Wye (5-wire) - standard on **CLM-PDU**
- 230/132VAC 3-Phase Wye (5-wire) - standard on **CLM-PDU**
- 208/120VAC 3-Phase Wye (5-wire) - standard on **SIM-PDU / CLM-PDU**

POWER RATING:

- 64kVA continuous, 185A/ph, typical nominal draw is <29kVA for **SIM-PDU**
- 100kVA continuous, 290A/ph, typical nominal draw is <56kVA for **CLM-PDU**

OUTPUTS:
INPUT PROTECTION:
CONTROLS:

Modular 24" rack mount custom design - contact factory for options

Input circuit breaker, adjustable for 208VAC to 480VAC input

- EN-954-1 Category 4 redundant safety circuitry, includes under-voltage control of input circuit breaker for Emergency Power Off (EPO)
- System Control Module with analog and digital I/O featuring the UEI Cube for control and monitoring

EFFICIENCY & HEAT LOSS:

- >96% at full load; <8700 Btu/hour full load, <3000 Btu/hour typical load for **SIM-PDU**
- >96% at full load; <14000 Btu/hour full load, <6000 Btu/hour typical load for **CLM-PDU**

WEIGHT:

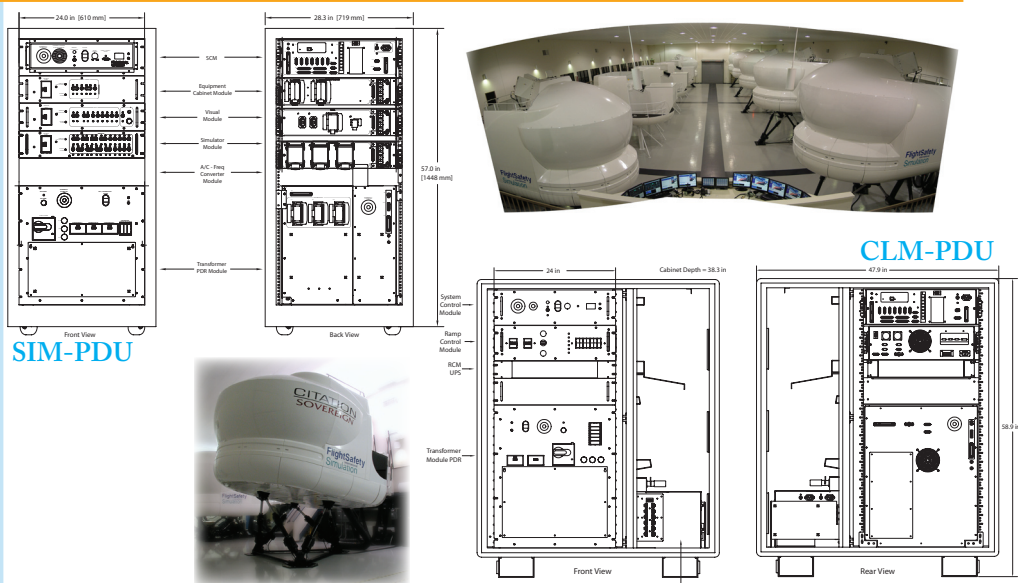
- < 1750 lbs for **SIM-PDU**
- < 2500 lbs for **CLM-PDU**

AUDIBLE NOISE*:
AGENCY APPROVALS:

Less than 50dB (A) audible noise measured at 1 meter (*excluding optional cooling fans)

cETL 1012: CE Mark for EN954-1, EN60204-1, EN61000-6-1, & EN61000-1-4

PHYSICAL SPECIFICATIONS:



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