

Battery Chargers - Phase Three Modular

Charger Modules "Plug-and Play" Providing: Flexibility ■ Reliability ■ Serviceability in a Wall Mount Case

Phase Three Modular (PTM) Concept

With the expansion of communication networks to remote sites and mobile applications where 12 and 24 volt redundant power is essential for high reliability, there is increasing demand for DC power systems in wall mount configuration. The Phase Three Modular (PTM) system was specifically designed for this purpose and provides rack mount power redundancy features in a wall mount unit and gives installers a convenient and professional solution for this growing area of network power.

Recognizing that all equipment has a finite service life and random component failure can occur at any time, system reliability can be improved by reducing the number of single points of failure, thus diminishing the impact of a solitary fault on the overall system. The PTM series applies the "fault-tolerant" concept to battery chargers, by using multiple independent charger modules within the unit.

The PTM consists of a case which serves as connection point to AC input and battery bank output, as well as three front-facing power bays, each accommodating a 550 watt charger module which slides and locks in place. If a module fault occurs, a front panel indicator is activated and the system continues operating on the remaining modules.

Communication system managers will appreciate this system approach to reliability. A dead charger and dead batteries can disable a network, but with the PTM redundant charging system a fault in one of the modules is easily identified and it can be quickly replaced with an on-hand spare or an exchange unit from the factory, while the charging system continues to operate.

The system features three stage charging for rapid recharge and optimal battery life. See pages 20-21 for a complete description of the three stage charging process.



General System Specifications

Input Voltage/Frequency: 90-264 VAC, 47-63 Hz, single phase; derate linearly from 100% output @ 105 VAC to 80% output @ 90 VAC

Power Factor: .96-.99

Efficiency: 85 % typical

Nominal Charge/Float Voltages: Refer to chart on page 20

Temperature Compensation (Option): - 5 mV per cell per °C (typical)

Temperature Rating: 0-60° C; derate linearly from 100% output @ 50° C to 80% output @ 60° C

Recommended Battery Type/Capacity: Gel-Cell, Flooded or Sealed Lead-Acid;

12 Volt Systems: 6 Cell, 80-400 A-H (per installed module); 240-1200 A-H (per system)

24 Volt Systems: 12 Cell, 40-200 A-H (per installed module); 120-600 A-H (per system)

Output Battery Banks: 3

Module Bays: 3*

Status Indicators: Output OK, Low Output Voltage, Check System/Module Fault, Battery Hot/Reduced Output, Total Output Current Bar Graph, Output Voltage Test Points

Alarm Contacts: Check System; Output OK/Fail

Case Material: Powder Coated Stainless Steel

Case Size: Refer to diagram at right

Weight: Empty: 16 lbs/7.3 kg. - With three modules installed: 34 lbs/15.5 kg.

* Note: Charge modules are shipped in the same carton as the PTM case and are then placed in position by the installer.

Options

- Temperature Compensation Sensor - Model TCS-12/24:
See pages 20-21 for details

Specifications

System Model	Modules Installed*	Max Output Amps	Max Input Amps @ 115/230 VAC
PTMS-12-100	3	100 @ 12 V	9 / 18
PTMS-24-67	3	67 @ 24 V	9 / 18

Individual Module Specifications

Models: PTM -12-33 (12 volt); PTM-24-22 (24 volt)

Protection Features: Input Fuse, Output Fuse, Current Limiting, Over Voltage Protection, Cooling Fan, Automatic Thermal Shutdown/Recovery

Compliances: CE Mark, UL Recognized; E183223, Level 3 Safety; EN60950-1 USA, Canada, Europe EMI Radiated and Conducted; FCC Part 15 Level A; EN55022 Class A

Status Indicators: Output OK (Green)/FAULT (Red)

Weight: 6 lbs.

Output Current: PTM-12-33: 33 amps max

PTM-24-22: 22.5 amps max in Bulk Phase;

20 amps max in Absorption/Float Phases

Case Size

Inches			Centimeters		
H	W	D	H	W	D
20.9	10.9	8.8	53.1	27.7	22.4



Powering the Network