

PWS650-MS Series AC Power Supply



Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation
- Clean, Precise Power

Military Option

Most of the products manufactured by Analytic Systems can be adapted for military use (Commercial Off The Shelf).

We provide four different levels of ruggedization; most often, a product in military use will use the extra-wide temperature range components to allow operation to -55 degrees Celsius.

The printed circuit boards are also protected against condensation and are enhanced with vibration protection that meets or exceeds MIL-STD810D, Method 514-3 and Cat-1 Proc 1.

C.O.T.S. products are built to meet water tightness MIL-PRF 44485 and EMC radiated and conducted emissions MIL-STD 461E.

All C.O.T.S. products are manufactured in accordance with IPC-A-610.

AC Power Supply

PWS650-MS Series Power Supply

Description

The PWS650-MS Power Supply provides up to 650 watts to power a 26V military electrical system from a 110 or 220VAC source. This design features a unique rainproof chassis that easily meets the MIL-STD 810D vibration standard.

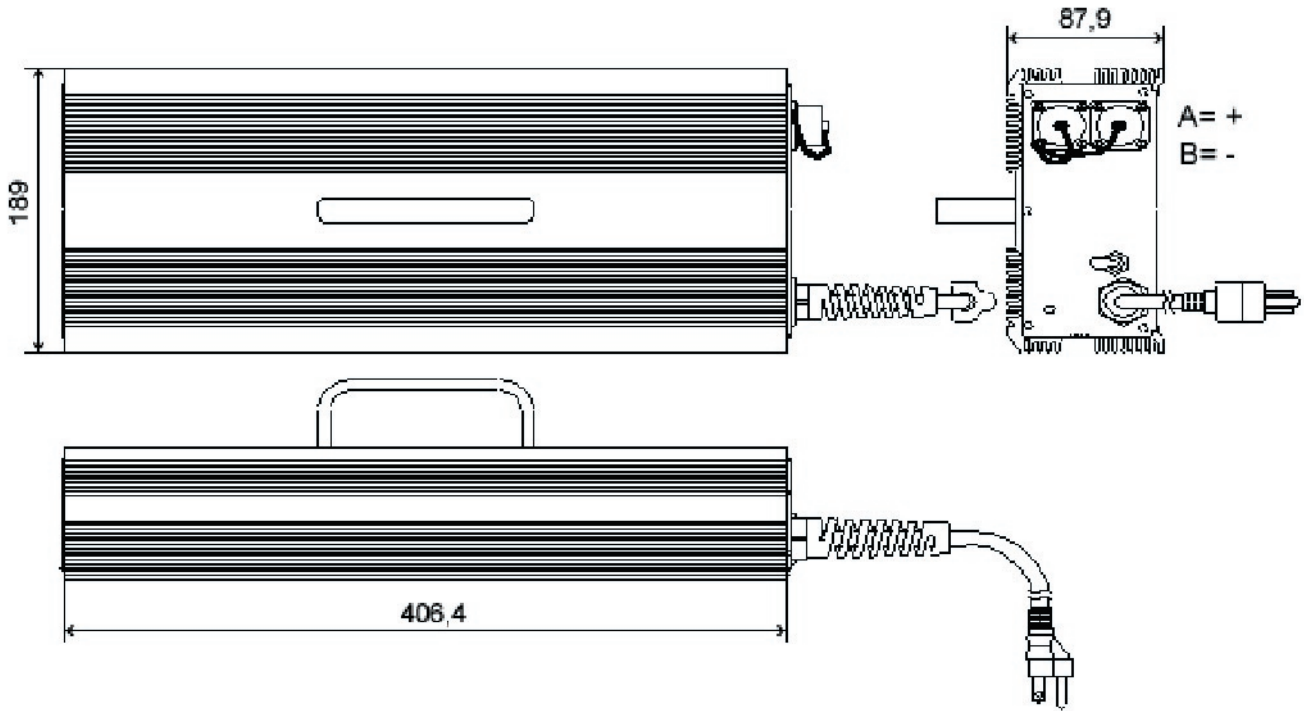
This all-new single board design incorporates state-of-the-art switchmode technology for unmatched efficiency and ultra-quiet operation. Multiple stages of filtering reduce radiated or conducted noise to very low levels to meet MIL461E. Extra features include visual indicators for output ON and output overload (single dual brightness LED). Safety features include over-temperature shutdown, current limiting, short circuit protection with automatic recovery, input undervoltage shutdown and output overvoltage crowbar.

This unit can also be built in a Full Battery Charger version with 2-Stage charging profile designed for Military Lead Acid battery systems (Lithium-Ion available by special order). We are confident that you will get many years of reliable service from this AC Power Supply.

Features

- Ideal as a COTS Power Supply for Military Applications
- Military-Grade extrusion ensures a high tolerance for shock and vibration
- Ultra-quiet, low EMI operation
- Can be left permanently connected
- Optional Carrying Handle available
- Battery Charging version Available
- Visual output current indicator
- Short circuit protection
- Inrush Current Limiting with solid state bypass
- Output over-voltage crowbar
- Meets MIL-STD 810D, Method 514-3, Cat-I Proc I for vibration
- Built according to the Q-Base Quality System
- 3 year parts and labour warranty (2 yr. Extension available)

Mechanical Diagram



Specifications (Specifications Subject to Change Without Notice)

Electrical (Input)

Nominal VAC (ip)	110	220
Actual (VAC)	90-140	180-284
Input Amps (max)	16.2	8.1
Input Circuit Breaker	25A Magnetic	
Input Frequency	45-405 Hz	
Noise on Input	< 50 mV	

Environmental Specifications

Operating Temp. Range	-40° to +50°C @ maximum output Derate Linearly 2.5% per °C from 50°C to 85°C (Optional pre-heater to allow -55°C operation available)
Humidity	0 - 95°C Relative Humidity (non-condensing) with standard conformal coating
Audible Noise	NONE Ødb @ 3 ft
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Input-Case & Input-Output 1500VDC / Output-Case 500VDC
Vibration	Meets MIL-STD 810D, Method 514-3, Cat-I Proc I

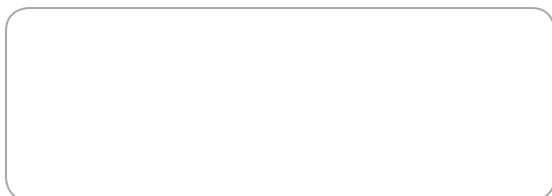
Electrical (Output)

Output Nominal (op)	24
Output Volts (DC)	26.0 ± 0.05V
Output Amps (A) cont.	26 (46A peak)
Output Fuses (ATC)	40 x 2
Output Crowbar	32.0 ± 1.0V
Output Ripple & Noise	< 50 mV
Regulation (Line & Load)	< +/- 0.5%
Duty Cycle	Continuous 100% for 24 hours per day (Peak current rating runs for 1 min.)
Efficiency	> 75% @ Maximum Output
EMC	Meets MIL461E

Mechanical Specifications

Length	16.0 in / 40.6 cm
Width	8.2 in / 20.8 cm
Height	3.5 in / 8.8 cm (without carrying handle)
Clearance	1 inch (2.5 cm) all around
Material	Marine Grade Aluminium - rainproof
Finish	Clear Chromate
Fastenings	All 18-8 Stainless Steel
Weight	14.4 lb / 6.6kg
Connections	AC: Power cord with ANSI 73.11 plug DC: Cannon Connectors # MS3102E16-11S
Safety	Meets UL458 & CSA 22.2.107.1
Warranty	3 years (2 yr. extension avail.)

Available from:



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The power conversion company

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