Military Power Conditioners (MPC)

Wide Range of Input Voltages and Frequencies along with AC & DC output options

SynQor's Military Power Conditioner units are designed for the extreme environmental and demanding electrical conditions of Military/Aerospace applications. SynQor's MPC incorporates field proven high efficiency designs and rugged packaging technologies. This MPC will accept a wide range of input voltage and frequency values while delivering a well-conditioned AC output to the load. It is designed and manufactured in SynQor's USA facilities to comply with a wide range of military standards. Options include two DC outputs and the ability to also draw power from a military standard 28 Vdc input.

MPC Product Features

- Sealed, weather-proof, shock-proof construction
- 1250 W (1500 VA) output power
- Full power operation: -40°C to +55°C
- Universal AC input: 80-265 VAC; 47-65 Hz (see options)
- Power factor correction at AC input
- Dual input (AC and optional DC)
- True on-line double conversion
- Pure sinusoidal AC output voltage (115 VAC, 60 Hz)
- Handles 0.0 - 1.0 power factor loads and non-linear loads
- Up to 3 units can be combined for higher power, voltage or a 3-phase AC output
- Up to 32 units can be combined to form a higher power fault-tolerant, glitch-free system, perhaps with N+M
- redundancy, by ordering with the "AC Output Electronic Breaker" option and the appropriate configuration cable
- User I/O and Configuration signal ports
- MPC-1500, 1U high rack–mount unit (17.00" x 21.60")
- MPC-3000, 2U high rack–mount unit (17.00" x 22.22")
- Low weight: 24 lbs.

Specification Compliance

- MPC-1500 units are designed to meet:
  - MIL-STD-1399-300 - Interface Shipboard
  - MIL-STD-810 - Environmental Engineering
  - MIL-STD-461 - Electromagnetic Interference
  - MIL-STD-704 - Aircraft Electrical Power
  - MIL-STD-1275 - Vehicle Electrical Power

Options

- DC input (28 Vnom) for dual source
- Wide-range AC input frequency: 47 Hz to 800 Hz
- 115 Vrms or 230 Vrms AC output
- 50 Hz, 60 Hz, or 400 Hz output
- DC1: Auxiliary isolated DC output (up to 500 W)
- DC2: High power DC output (up to 1250 W) parallelable for higher power
- Total AC and DC1 and DC2 output power = 1250 W
- Shipboard version with floating neutral wire
- N+1 Redundancy