DC UPS: Mobile Data Power

The Mobile Data Power, model MDP-25.0, is a DC UPS that solves the common problem of lengthy reboot sequences, system crash, data and hard drive corruption in mobile computer work stations due to a low voltage and loss of power as a result of intermittent or poor vehicle battery condition. In addition, the MDP provides a low voltage output warning signal to terminals (such as Motorola® MW 800 series work stations) allowing orderly automatic shutdown of the powered device, protecting data and preventing hard drive corruption.

Utilizing a high speed sensor circuit, when primary vehicle voltage drops below a critical point, the internal 9AH battery is switched on-line in milli-seconds, assuring no interruption to the powered device(s). The MDP-25.0 has an internal 3 step, temperature compensated charger that maintains its reserve battery at full charge, ready to go on-line when a fault or degradation of primary vehicle battery occurs. This functionality assures continued operation of mobile computers under a variety of adverse vehicle battery conditions. An optional timed load feature (TMR), when activated, begins timing when the vehicle battery drops to a 12.0 VDC or less for added battery protection.

Housed in a rugged aluminum case and heavy duty mounting plate, the unit is designed for installation in service and other utility vehicles that require a steady source of voltage for mobile computers, work stations, and electronics.

Features

Protects mobile computers against system crash, lengthy reboot sequences, and loss of data due to:

- Voltage dip during engine cranking
- Voltage drop and decay due to loading high power accessories, and aging batteries
- Voltage loss due to cycling of master disconnect switch and battery failure.
- Noise, interference or voltage spikes

Provides supplemental voltage in milli-seconds to mobile electronics when low vehicle battery is sensed.

Optional timed load disconnect feature (TMR)

Provides output warning signals to mobile computers (such as Motorola® MW 810 work stations and MVX 1000 video recorder)

- Initiates low voltage shut down sequence in mobile computer, protecting data and hard drive.
- Alerts when system is operating on battery back-up

Internal 3 stage, temperature compensated charger maintains back-up battery in fully charge stand-by state

- Provides reserve (isolated) power source, 12 volts @ 5 amps for 60 minutes, 10 amps for 20 minutes, 25 amps for 8 minutes

Model	Input Range	Output Voltage	Maximum Load Current	Standby Current Draw	Dimensions			Weight
					H	W	D	
MDP-25.0	10.2 - 15.5V (start-up @ 11.5V)	12VDC	25A	<50mA - operating mode, <30mA - sleep mode	5.75	6	8.5	9.4 Lbs.

General Specifications

Battery Connect Sequences

- Internal battery switches online when vehicle battery voltage = 10.0 V ± 1.0 V (Vehicle battery disconnects after 3 seconds if low voltage condition persists)
- Vehicle battery reconnects @ 11.5 V ± 1.0 V
- Internal Battery Low Voltage Disconnect: <9.6V

Temperature Rating: Operating Temp: 0 – 50° C

Mechanical

- Aluminum case with access door for easy removal of battery
- Heavy duty mounting suitable for commercial vehicle use

Battery Specification

- 9 AH, sealed Lead Acid - typical life 5 years, easily replaced via front panel access door.
- Power delivery @ > 10.2 volts @ 25°C
  - 5 amps @ 60 minutes
  - 10 amps @ 20 minutes
  - 25 amps @ 8 minutes
- When imminent Voltage decay to 11.5 VDC is projected (adjustable set point
- On Charge/Discharge
- Internal Battery Charger
- Charge Current: 2 amps max., three-stage (Bulk, Absorption, Float)
- Temperature Compensated

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