

Specialised UPS – Traffic Management Solutions

Traffic Signal UPS

In the event of a power failure, the potential for carnage on the road is immense. Police, traffic authorities and motorists all need the peace of mind that comes with a reliable, high-quality power support solution for traffic lights. The Magellan Power Traffic Signal UPS is one such solution.

Providing up to six hours of uninterrupted 240V AC power to the Traffic Light Control System, the Magellan Power Traffic Signal UPS gives traffic and power authorities a sizable window in which to resolve mains power problems. Additionally - in the case of a prolonged grid outage - a generator can be connected to a secure hatch that is provided with the unit. When mains power is restored, the UPS automatically shifts the load back to the Grid.

Product Features

- Designed for extreme outdoor conditions
- Durable, marine grade aluminium enclosure with anti-graffiti paint
- Double skin enclosure design, keeps sun's rays out
- Continuous full load operation
- High surge load capacity
- High efficiency inverter design
- Automatic emergency flashing amber light operation
- Manual mains by-pass facility
- External generator input with automatic changeover
- Perfect sine-wave output
- Inbuilt data logging
- Advanced battery monitoring
- Comprehensive battery testing
- Maintenance free industrial batteries
- Optional remote monitoring
- Optional system monitoring with SMS reporting
- Optional solar input with solar priority battery charging



Technical Specification

Item	Specification
Model	HPS020-048-000-1-T
Continuous Inverter Power Rating	2000VA
Maximum Charger Current Rating	37A
Surge Rating	3000 VA for 30 seconds 2400 VA for 30 minutes @ 25°C
Battery	Stationary Maintenance-free VRLA AGM 4 x 12V 150Ah (1 string or optional 2 strings)
Operating Time Under Normal Load (Approximate)	4 hours for 1 string (8 hours for 2 strings)
Nominal Battery Voltage	48V DC
Battery Voltage Range	42 to 60V DC (Inverter) 37 to 60V DC (Charger)
Nominal AC Output Voltage	240V AC
Mains Input Voltage Range	190 to 265V
Mains Input Frequency Range	45 to 55Hz
Inverter Efficiency	>92%
User Interface	128 x 64 Graphical Blue LCD with White LED Backlight Membrane AND Keypad
Genset Charging Interface	Automatic changeover to Genset if Mains lost Automatic changeover to Mains if re-established
Solar Charge Interface (Optional)	Pulse Width Modulated Regulator
Inverter/Charger Protections	Inverter Over Voltage Monitoring, Inverter Over Load Monitoring, Inverter Current Limit Monitoring, Inverter Over Temperature Monitoring, Mains Under/Over Voltage Monitoring, Mains Under/Over Frequency Monitoring, Mains Relay Fault, Sensing Fault, Temperature Controlled Cooling Fan, Automatic Timed Restart on Fail
Battery Protections	3 Stage Battery Charger, Battery Over Temperature Monitoring, Battery Voltage - Temperature Monitoring, Battery Voltage - Temperature Compensation, Battery Under Voltage Monitoring, Battery Over Voltage Monitoring, Battery Health Impedance Monitoring, Battery Periodic Capacity Test
Voltage-Free Relay Outputs (Normally Open & Closed)	UPS operating from battery UPS low battery (programmable level)
Emergency Mode Operation (Optional)	Active with UPS low battery alarm and mains not present inverter output switched from Traffic Light to Amber light circuit (Normally open) Operate to minimum possible battery voltage
Monitored System Parameters	Battery Voltage, Current, Temperature & Impedance, Inverter Voltage, Current & Temperature, Mains Voltage, Current and Frequency, Ambient Temperature, Transformer Temperature, Battery % Ah, Standby Time estimate
Communication Ports	Isolated RS232 DB9, Isolated RS485, Ethernet 10-BASE-T
Communication Protocols	Modbus RTU (RS232/RS485), Modbus TCP (Ethernet), Distributed Network Protocol 3 (Ethernet), Inbuilt Website (Ethernet), Optional GSM SMS
Inbuilt Diagnostic System	Periodic Data Logging into Non-Volatile Memory (1 year of logged data at 2 hour intervals), Battery Voltage, Current & Temperature, Mains Voltage & Frequency, Inverter Temperature, Inverter/Charger Power, Fault Event Recorder, Data accessible via Communication Ports
Enclosure	Marine Grade Aluminum Free Standing, Double Skin Thermal Insulation, IP55

