

## Product Description

The Olson intelligent remote monitoring and control PDU is a modular system which comprises a main AC monitor module with a built-in graphical display and keypad with the option to connect, via a 4-wire control bus, up to four 8 output switching modules allowing a total of 32 16A switched outputs to be controlled.

The PDU controller with optional switching modules can be incorporated into any of Olson's existing vertical zero U or 19" rack mounting PDU range or a bespoke PDU design.

Without switching modules, the PDU controller module can be used to locally display volts, amps, power, power factor, frequency and KWh consumption of a locally connected AC load.

In addition, the module has a built-in web server allowing remote display of the measured values on any web browser. Email alarm sending to up to 5 recipients is also supported.

Built-in SNMP functionality enables measured values to be read remotely using an SNMP network management system. Other features such as external temperature\* and humidity\* measurement and the ability to load and save configuration data via USB memory stick are also provided.

In addition to the PDU controller module the system also supports the connection of up to four 8 output, 16A 250VAC switching modules\* giving the capability to control and monitor up to 32 AC outlets, either locally from the PDU keypad, or remotely via a web browser or SNMP network management system.

Metering of each outlet is also provided. Load current, power and KWh consumption is displayed either locally or remotely for each switched outlet.

\*Option requiring additional hardware

### PDU Controller front Panel



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MANUFACTURERS OF PORTABLE MAINS DISTRIBUTION PANELS AND CABLE MANAGEMENT

## PDU Monitor Module Product Features

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### Remote Monitor Module Features

<b>Local Display</b>	Display of all measured values on local 2.5" graphical display. Display configurable to operate in 4 different orientations.
<b>Local Configuration</b>	Local configuration of settings via keypad and local display
<b>AC Monitor</b>	Voltage, Current, True Power, Power Factor, Frequency & KWh
<b>Environmental</b>	Internal Temperature, external temperature & humidity monitor compatible with the 1-wire interface standard.
<b>Web Server</b>	Internal web server for remote display of all monitored values in standard web browser and remote management of settings and configurations User login password protected
<b>SNMP</b>	Allows remote SNMP based network management system to retrieve all measured values and manage configuration. SNMP trap capability for sending alarms if measured values fall outside of programmable limits
<b>Email</b>	Allows sending of alarm email notifications if measured values fall outside of programmable limits
<b>FTP</b>	Remote update of configuration and firmware update capability
<b>Network</b>	RJ45 Ethernet connector, auto detect 10/100 Mbps
<b>USB</b>	Firmware updating and configuration saving and loading available via local USB interface
<b>Switching Module Control*</b>	Controls up to four 8 output switching modules.

\*Option requiring additional hardware

## Switching Module Features

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<b>Output Control</b>	Individual control of 8 16A AC outputs with total output load capability of 32A
<b>Output Monitor</b>	Individual monitoring of output current, power & KWh
<b>Breaker/Fuse</b>	Individual monitoring of fuse/breaker state
<b>Total module</b>	Monitor module configurable to display total PDU power & energy
<b>Power &amp; Energy</b>	readings from monitor module power meter or alternatively from the aggregate of all switching modules. This allows total power and energy to be monitored if switching modules are powered directly, rather than via the monitor module.
<b>Sequential Start</b>	Programmable sequential start on power up. Programmable sequence delay Programmable opt in/out
<b>Power on state</b>	Programmable output state on power up: All On, All off, Previous state
<b>UPS Active Signal</b>	All outputs can be selected to be enabled or disabled when the UPS is active to save UPS power
<b>Local Display</b>	Local control of switched outputs via display and keypad on monitor module
<b>Web Server</b>	Remote control and state of all output switches via web server or SNMP on monitor module
<b>Loss of Control Module</b>	The state of the switch outputs will remain indefinitely if the control signal is lost from the master module. e.g. during master module swop or failure.
<b>Switching Module bus</b>	4 wire control bus for connection to master (monitor) module

## Specifications

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### PDU Controller Module

#### Display

Type White on Blue backlit LCD graphic display  
Size 2.5" square aspect  
Orientation 0°, 90°, 180° or 270° - configurable,

#### Keypad

Type Tactile membrane, incorporated into front panel graphic overlay  
Keys 5, 4 cursor + enter

#### AC measurements

Volts (RMS): 000.0 to 299.9  
Amps (RMS): 00.00 to 49.99  
Power (W): 0000 to 9999  
Energy (KWh) 000000.0 to 999999.9 (15.5 years @ full 32A load) with reset to zero function.  
Frequency 40 to 70Hz  
Power Factor .00 to .99  
Accuracy 1% maximum error

#### Internal Temperature Measurement

Range 0-99°C  
Accuracy 3%

#### External Temperature & Humidity Port

Interface Conforms to 1-Wire standard  
Sensor Type Configurable for various sensor types.

#### Network Port

Ethernet 10/100baseT auto sensing.  
Connector RJ45 with speed and data indicator LEDs  
IP Address Configurable static, or dynamic using DHCP protocol  
Protocols IP, ARP, DHCP, DNS, TCP, UDP, HTTP, TFTP, SNMP, SMTP

#### Web Server

Internal web server for remote display of all monitored values in standard web browser and remote management of settings and configurations. User login password protected

#### SNMP

Monitor & Control SNMP V1 & V2c supported. Allows remote SNMP based network management system to retrieve all measured values and manage configuration.  
Traps SNMP trap capability for sending alarms if measured values fall outside of programmable limits

## Specifications

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### Alarms

General	High/Low AC Volts, High/Low AC current, High internal temperature, High external Temperature* High external humidity* Outlet Fault
Email	Any of the above alarms can send an alarm notification email
SNMP	Any of the above alarms can send an SNMP V1/V2c trap alarm notification

### USB Port

Type	USB 2.0
Connector	USB Type A
Format	FAT 16/32
Functions	USB Memory stick support for saving and loading configuration files, Firmware updates, Web server updates.

### Switching Module Control Port

Type	4 wire multi-drop bus supporting up to 4 switching modules
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### Mains Input

90-260 VAC, 50/60Hz, 32A maximum load

### Environmental

Operating Temperature 0-55°C

Operating Humidity 10-90%

\*Option requiring additional hardware

## Specifications

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### PDU Switching Module\*

#### Mains Outputs

Number	8
Current	16A maximum load per circuit
Type	Relay
Total Load	Total maximum load for all 8 outputs combined 32A

#### Switching

Control	On/Off control via local keypad, Web Interface or SNMP
Power On	All outputs can be configured to be ON, OFF or previous state following a power fail
Sequential Start	Programmable sequential start delay after power fail Individual outputs can be configured to opt in or out of sequential start

#### Monitoring

Measurements	Individual measurement of output current (A) and power (W) and Energy (KWh)
Fuse/Breaker	Individual status of each output fuse/breaker

#### Alarms

Switching Module	Fuse/Breaker open alarm and relay stuck alarm for each output.
Email	Any of the above alarms can send an alarm notification email
SNMP	Any of the above alarms can send an SNMP V1/V2c trap alarm notification

#### Switching Module Control Port

4 wire multi-drop bus supporting for connecting switching module to monitor (master) module.

#### Mains Input

90-260 VAC, 50/60Hz, 32A maximum load

#### Environmental

Operating Temperature	0-55°C
Operating Humidity	10-90%

\*Option requiring additional hardware

All specifications correct at time of issue and subject to change without notice