



INTRODUCTION TO PRSi LTD AND
THE IPOWERRANGE OF PRODUCTS



WHO WE ARE

PRSi Ltd is a UK based supplier of infrastructure and enclosure power solutions for use in data centre and associated environments that have a requirement for power distribution. Working in conjunction with its strategic partner G4MPS Ltd, as the product manufacturer, we source where ever possible UK supplied materials and components for use within all our products. This is particularly so for all key components used with our IPower range of intelligent units.

PRSI Ltd (in conjunction with IPT Ltd) own all the intellectual proprietary hardware and software rights to the IPower brand of intelligent power solutions.




WHAT DO WE DO

In simple terms we manufacture and supply power solutions that are used within data centres or environments where infrastructure or power distribution is required. Primarily through PDU,s (Power Distribution Units) but also through bespoke designs to meet clients specific power related requirements.

The product range of units covers the full spectrum from basic passive power assemblies through to fully remote and network managed solutions.

Our goal is to provide a UK manufactured, competitively priced, technically competent products in a realistic lead time frame to meet clients requirements with the comfort of ongoing support and a 5 year warranty cover.

Should our partners require products customised to complement their particular “brand” this can be supported.




WHAT IS OUR ETHOS

Simply to do as we say and communicate with clients in an honest and straight forward manner. Keeping a breast in the latest standards and product developments to ensure clients receive accurate and up to date guidance and information from which decisions can be made.

To understand our product set that will enable us to provide an none biased technical comparison with other manufacturers.

To ensure that our technical and quality ethos prevails we look to educate and train our production and support personnel on an ongoing basis.

We understand and appreciate our clients and partners are our future and we look to offer support and guidance where ever possible on an ongoing basis irrespective of location or elapsed time.



PRODUCT SET

The range of products we manufacture is wide and varied, below is a summary of the main product types:

PASSIVE PRODUCTS

IPOWER PRODUCTS

IPowerREM

IPowerLITE

IPowerIT RANGE

IPowerATS

IPowerDC



PASSIVE PRODUCT

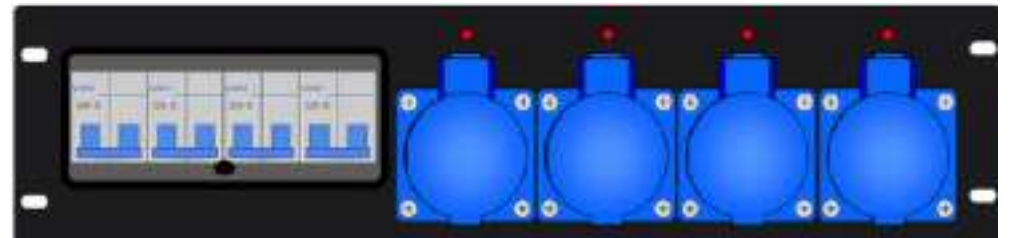
A full array of basic passive AC PDU,s constructed with any combination of sockets type or socket quantity (C13,C19,UK Schuko etc) in either 1Ph or 3Ph options up to 125V with and without local power monitoring.



In addition to the AC range we also offer a range of DC products



We also manufacturer an array of various other power based products such as splitter, rotary switches and fan tray assemblies – if its power related we can manufacture.



IPOWER PRODUCTS

In addition to the above passive solutions our core product set is our intelligent range of power solutions which come under our brand of “IPower”.

All key components used within the construction are UK developed, sourced and manufactured. As with the passive units the IPower units can be constructed to meet clients specific requirements.

Within the IPower product set are a range of monitoring options all based around the key objective of providing accurate power monitoring information. This is done by using a calibrated resistor measuring the full wave form providing what we believe to be the most accurate base line information from which other parameters are calculated.

While power monitoring is the primary objective we also integrate within the build a range of environmental and security function commonly used with the environments the products are being used.

Real time alerts and alarms can be set for all key measured parameters whether that be power or environmental and security.
(product dependant)

The product set offers a range of management protocols and network interface encryption along with daisy chaining capability of up to 32 individual units over 50 x separate IP address (IPLite and IT versions) Available at no additional cost is our PDU Agent Management Software that provides reports and logging of events.

Remote viewing of the information, and control where applicable. is via the inbuilt HTML WEB browser. Remote access uses the latest level encryption protocols.

Our aim is to provide a simple to configure and use product with no hidden costs therefore all software and support based around the 5 year warranty cover is available at no additional cost.

Built as per the endless range of passive units with regard to socket types and socket quantities we have the following remote monitoring options for consideration:




IPowerREM

Singe phase up to 32A stand alone overall local and remote power monitoring with single point to point network capability. No daisy chaining or environmental capabilities included in this option. This is a cost effective solution as an alternative to a local only power metering solution.



Example



IPowerLITE

Single phase up to 32A overall local and remote power monitoring with the ability to daisy chaining up to 32 devices along with environmental monitoring and reporting capabilities.



Example

IPower IT Range

The IPower IT range uses the modular construction of boards offering the flexibility of construction using any socket combination and quantity up to 48 sockets (IP2/3 and 4). This uses the same calibrated resistor offering the highest possible level of accuracy and available in AC versions up to 63amp in single and 3phase options. The IT range also offers the highest level of encryption and network management protocols.

While accurate power monitoring is the key function of all IPower products the IT range also offers an array of environmental and security capabilities which include:

- 8 x temperature and 1 x temperature and humidity port

- 3 x Closed contact connections


- 1 x Remote Display option

- Door locking and door open/close ports

- USB port for WEB cam connection and other function.

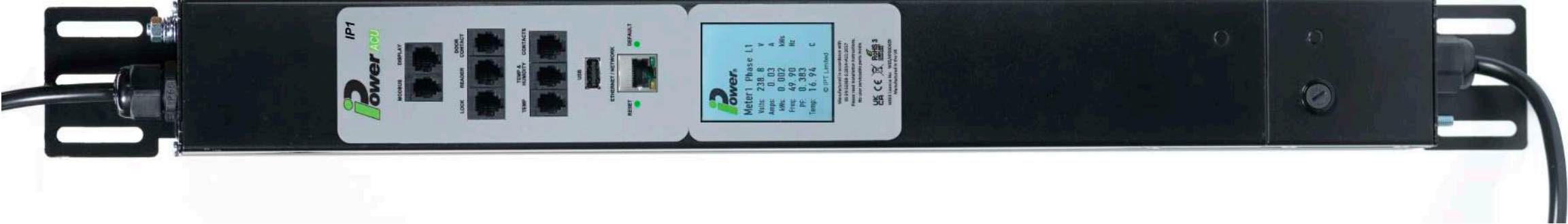
The IT range can be daisy chained with up to 32 devices and the free issued software will support up to 50 IP addresses.

All software is available free of charge and can be incorporated into 3rd part management platforms by means of the MIB files.



IP1 VERSION

Offers local and remote overall power monitoring along with environmental and security options.



Example

IP2 VERSION

Offers overall and per socket power monitoring along with environmental and security options..



Example

IP3 VERSION

Offers overall and per socket power monitoring and per socket switching along with environmental and security options..



Example

IP4 VERSION

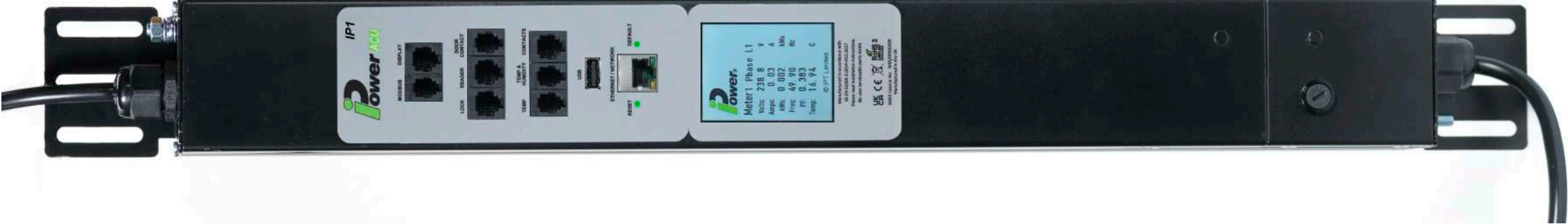
Offers overall and per socket power monitoring and per socket switching with sequence start up along with environmental and security options.



Example

IP5 VERSION

The IP5 range covers all other IPower products that fall outside of the defined IP1 to IP4 construction. These include items such as splitters, in-line units or other customer special requirements. These to can include environmental and security options.



Example

IpowerATS

A range of 32Amp rated Automatic Transfer Switches based upon the IPower platform.



We can also offer the IPower IT range as a DC construction. Individual data sheets on each of the above are available. Full details on the above and to view the HTML page layouts go to www.ipowertech.co.uk

IPowerDC

A range of DC Units available to meet customers specific requirements



EXAMPLES OF DRAWINGS

A range of 32Amp rated Automatic Transfer Switches based upon the IPower platform.

VERTICAL PDU TO IP3
Image for reference do not scale

IP1: O/A power monitoring
IP2: O/A & per port power monitoring
IP3: O/A & per port power monitoring & per port switching
IP4: As IP3 with sequential start
IP5: Custom configuration

Body Dimensions: 65mm Wide 70mm Deep 1327mm Long Approx
Fixing Centres: 1200mm
Material: Sheet MS
Finish: Black powder coat
Other colours available
Fixing Method: End Brackets
Input: 3mtr. 300A 4mm HD7 cable to 32A Commando
Output: 6x IEC C13 Locking (Type F)
3x IEC C19 Locking (Type J)
2x IEC A Flush FE Thermal Trip
Protection: Front display, individual outlet power present.

Earthling: M5 Earth stud to end
Rating: 32A @ 230V AC 50/60 Hz
Standards: Conforms to BS EN50520-1:2005 2nd edition + AM1 & AM2
Conforms to BS EN50520-1:2014+AM1:2017
UK CA: CE
WEEE: Compliant
RoHS: Compliant
CE: Compliant
Operating Temp: -10° to +50°C
Warranty: 5 years return to base

Environmental & safety notes including:
• 10 to 4 temperature services
• Surge protection system
• 2 sets of this contact
• Customer Area lock
• Case number

Comments/Issues & Protocols:
• IEC 60950
• IEC 60950-2
• IEC 60950-2-2
• IEC 60950-2-3
• IEC 60950-2-4
• IEC 60950-2-5
• IEC 60950-2-6
• IEC 60950-2-7
• IEC 60950-2-8
• IEC 60950-2-9
• IEC 60950-2-10
• IEC 60950-2-11
• IEC 60950-2-12
• IEC 60950-2-13
• IEC 60950-2-14
• IEC 60950-2-15
• IEC 60950-2-16
• IEC 60950-2-17
• IEC 60950-2-18
• IEC 60950-2-19
• IEC 60950-2-20
• IEC 60950-2-21
• IEC 60950-2-22
• IEC 60950-2-23
• IEC 60950-2-24
• IEC 60950-2-25
• IEC 60950-2-26
• IEC 60950-2-27
• IEC 60950-2-28
• IEC 60950-2-29
• IEC 60950-2-30
• IEC 60950-2-31
• IEC 60950-2-32

Electrical Rating: Power rating, these calculations are based on an assumed ambient temperature of 40°C AC and a Power Factor of 0.9. Voltage fluctuations will affect the VA & kW values. The VA & kW ratings are for indication purposes only.

INPUT			OUTPUT			PDU TOTAL		
Type	RMS Volts	RMS Amps	Type	RMS Volts	RMS Amps	PF	VA	kW
1 Phase	415V	32A	1 Phase	230V	32A	0.9	7.36	6.624

IT-075B-IP3-3C

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Project Ref: 09/11/22

Vertical PDU to IP1, overall & per port monitoring
DO NOT SCALE

2000mm

Earth post

Blind bushes for optional button fixings. 1000mm centred

Order code, RIGHT hand cable drop: IT-261BR-IP1-3R-WH

Order code, LEFT hand cable drop: IT-261BL-IP1-3R

General Construction Requirements:

- Wired internally as a ring in 2.5sq mm Tri-rated wire
- Wires to have insulated ferrules fitted when terminated in to screw down terminals except for UK T sockets (use daisy chain)
- Body printed with phase and port ident numbers

Earth Post Construction requirements:

Main Cable earth to be secured first with double

Supplementary earth cable(s) to be secured on top of main cable lock out.

Caution!
This product should be installed by a suitably competent engineer.
Read the installation instructions included with the product before installation.
If in doubt consult a qualified electrician.
Do not attempt to open the case or make changes to this product.
Caution: when working and operating 2 phase 415V equipment, voltage higher than 230V are present.

Electrical Rating: Power rating, these calculations are based on an assumed ambient temperature of 40°C AC and a Power Factor of 0.9. Voltage fluctuations will affect the VA & kW values. The VA & kW ratings are for indication purposes only.

INPUT			OUTPUT			PDU TOTAL		
Type	RMS Volts	RMS Amps	Type	RMS Volts	RMS Amps	PF	VA	kW
1 Phase	415V	32A	1 Phase	230V	32A	0.9	7.36	6.624

2U Horizontal PDU to IP3 , Overall Monitoring & per port switching with environmental monitoring.
DO NOT SCALE

Body Dimensions: 482mm Wide 44mm Deep 88mm High
Fixing Centres: 482mm
Material: Sheet MS
Finish: Black powder coat
Other colours available
Fixing Method: End Brackets
Input: 3mtr. 300A 4mm HD7 cable to 32A Commando
Output: 6x IEC C13 Locking (Type F)
3x IEC C19 Locking (Type J)
2x IEC A Flush FE Thermal Trip
Protection: Front display, individual outlet power present.

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UK CA: CE
WEEE: Compliant
RoHS: Compliant
CE: Compliant
Operating Temp: -10° to +50°C
Warranty: 5 years return to base

Environmental & safety notes including:
• 10 to 4 temperature services
• Surge protection system
• 2 sets of this contact
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Comments/Issues & Protocols:
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PRODUCT SUMMERY

	IP1 Overall Monitoring	IP2 Overall + Individual Socket Monitoring	IP3 Overall + Individual Socket Monitoring + Switching	IP4 Overall + Individual Socket Monitoring + Switching	iPLite	iPowerREM	iPower Advanced Control Unit
KEY FLEXIBILITY							
Standard Build Spec	✓	✓	✓	✓	✓	✓	✓
Custom Build Capability (NO MOQ)	✓	✓	✓	✓	✓	✓	✓
Custom Design Availability	Short Lead Time	Short Lead Time	Short Lead Time	Short Lead Time	Short Lead Time	Short Lead Time	Short Lead Time
Full Manufacturer / Design Support within UK	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PDU INFO							
Rack Mount Vertical (1U)	✓	✓	✓	✓	✓	✓	✓
Rack Mount Horizontal (1U+)	✓	✓	✓	✓	✓	✓	✓
Inline Unit	✓	-	-	-	✓	✓	✓
Construction	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel
Finish	Powder Coated	Powder Coated	Powder Coated	Powder Coated	Powder Coated	Powder Coated	Powder Coated
Mains Lead	H07	H07	H07	H07	H07	H07	H07
Lead Length (Standard)	3 Mtr	3 Mtr	3 Mtr	3 Mtr	3 Mtr	3 Mtr	3 Mtr
Maximum Number of Sockets	∞	48	48	48	∞	∞	∞ / 48 Socket Mon Units
Socket Types C13, C19, Uk, Schuko, Plus Other							
ELECTRICAL CHARACTERISTICS							
Single / Three Phase Options	Both	Both	Both	Both	Single Phase Only	Single Phase Only	Both
Main Input	85 - 265 VAC	85 - 265 VAC	85 - 265 VAC	85 - 265 VAC	85 - 265 VAC	85 - 265 VAC	85 - 265 VAC
Frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overall Meter Current Range	0 - 63 Amps	0 - 63 Amps	0 - 63 Amps	0 - 63 Amps	0 - 63 Amps	0 - 32 Amps	0 - 63 Amps
Socket Current Range	-	0 - 16 Amps	0 - 16 Amps	0 - 16 Amps	-	-	0 - 16 Amps
Overall Meter Accuracy	+/- 1% Typical	+/- 1% Typical	+/- 1% Typical	+/- 1% Typical	+/- 1% Typical	+/- 1% Typical	+/- 1% Typical
OVERALL MEASUREMENT							
RMS Volts	✓	✓	✓	✓	✓	✓	✓
RMS Amps	✓	✓	✓	✓	✓	✓	✓
Kilowatts	✓	✓	✓	✓	✓	✓	✓
Frequency	✓	✓	✓	✓	✓	✓	✓
Power Factor	✓	✓	✓	✓	✓	✓	✓
Internal PDU Temperature	✓	✓	✓	✓	✓	✓	✓
Peak Voltage	✓	✓	✓	✓	✓	✓	✓
Peak Current	✓	✓	✓	✓	✓	✓	✓
KVA	✓	✓	✓	✓	✓	✓	✓
KWh (Cumulative)	✓	✓	✓	✓	✓	✓	✓
Kg/CO2 (Cumulative)	✓	✓	✓	✓	✓	✓	✓
BTU/h (Cumulative)	✓	✓	✓	✓	✓	✓	✓
KJ/h (Cumulative)	✓	✓	✓	✓	✓	✓	✓
Cost (Cumulative)	✓	✓	✓	✓	✓	✓	✓
OVERALL METER ACCURACY							
Class II	✓	✓	✓	✓	✓	✓	✓
Billing Quality	✓	✓	✓	✓	✓	✓	✓
Sampling Rate 4000 times a second	✓	✓	✓	✓	✓	✓	✓
INDIVIDUAL SOCKET MEASUREMENT							
Amps	-	✓	✓	✓	-	-	✓
Watts	-	✓	✓	✓	-	-	✓
VA	-	✓	✓	✓	-	-	✓
KWh (Cumulative)	-	✓	✓	✓	-	-	✓
SOCKET CONTROL							
Individual Socket Switching	-	-	✓	✓	-	-	✓
Individual Socket Power Cycle	-	-	✓	✓	-	-	✓
Sequential Start Up (100 - 5000ms)	-	-	-	-	-	-	✓
Programmable Startup Sequence (IP4 Only)	-	-	-	-	-	-	✓
CONNECTIVITY							
Web GUI	✓	✓	✓	✓	✓	✓	✓
SNMP v1 and v2	✓	✓	✓	✓	✓	✓	✓
SNMP v3	✓	✓	✓	✓	-	-	✓
HTTP	✓	✓	✓	✓	✓	✓	✓
HTTPS	✓	✓	✓	✓	-	-	✓
XML	✓	✓	✓	✓	✓	✓	✓
Email Alerts	✓	✓	✓	✓	✓	✓	✓
IPv4	✓	✓	✓	✓	✓	✓	✓
IPv6	✓	✓	✓	✓	-	-	✓
TelNet	✓	✓	✓	✓	-	-	✓
Syslog	✓	✓	✓	✓	✓	✓	✓
On Board Log Storage	✓	✓	✓	✓	-	-	✓
DAISY CHAINING							
RS485 Modbus - 1 Master up to 31 Slaves	✓	✓	✓	✓	✓	-	✓
DISPLAY OPTIONS							
RGB Display Fitted within PDU	✓ (1U)	✓ (1U)	✓ (1U)	✓ (1U)	✓	-	✓
Remote Display Option	✓	✓	✓	✓	✓	✓	✓
LED Display	-	-	-	-	-	✓	-
Graphical Display	✓ (1.5U+ / Vert)	✓ (1.5U+ / Vert)	✓ (1.5U+ / Vert)	✓ (1.5U+ / Vert)	-	-	✓
CAPABILITY ONLY, SENSORS / ACCESSORIES AVAILABLE SEPARATELY							
ENVIRONMENTAL SENSORS							
Temperature Sensor Port (Up to 8 Sensors)	✓	✓	✓	✓	✓	-	✓
Humidity / Temperature Sensor	✓	✓	✓	✓	✓	-	✓
Volt Free Contacts (3 Sets)	✓	✓	✓	✓	-	-	✓
CABINET SECURITY PORTS							
Door Contacts	✓	✓	✓	✓	-	-	✓
Electronic Door Handle	✓	✓	✓	✓	-	-	✓
Card Reader / Pin Pads	✓	✓	✓	✓	-	-	✓
OTHER							
USB Port	✓	✓	✓	✓	-	-	✓

GET IN TOUCH

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