

## **GRID PROTECTION**





# Is you Grid protection system compliant to AS 4777 requirements?

## DISTRIBUTION NETWORK SERVICE PROVIDER (DNSP) INSIST ON CERTIFIED PROTECTION RELAYS

When making an application to connect (if your system is above 30kW three phases or 10kW single phase), the Distribution Network Service Provider (DNSP) will insist on secondary protection to be provided. This will be in addition to the in-built protection offered by AS4777 compliant inverters. They will insist that the protection relay shall be certified.

IPD offers you a complete range of Anti Islanding Relays and Fully assembled Grid protection systems. Our complete product range complies with the latest AS/NZS 4777 standards.



Phone: 1300 556 601 www.ipd.com.au Grid protection

## PRODUCT RANGE

All products compliant to AS 4777 requirements

### RELAYS

Standalone Protection Relays





## PROTECTION CUBICLES

Decentralized protection systems





## **FULLY ASSEMBLED GRID PROTECTION SYSTEMS**





## FULLY ASSEMBLED GRID PROTECTION SYSTEMS

With integrated combiner section





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## STANDALONE RELAYS

### **MAINSPRO**

### **VOLTAGE BASED**

Are you generating power in parallel to the mains?

You will need 'loss of mains' protection. Essential to avoid supplying your electricity into an islanded grid, leading to possible equipment damage or safety issues.



Protective functionality	ANSI
Overvoltage	59
Under voltage	27
Over Frequency	81H
Under Frequency	81L
Voltage Unbalance	47
Vector Shift	78
ROCOF	81R

### **INTELIPROPV**

#### **CURRENT & VOLTAGE BASED**

You need InteliPro PV for

Photovoltaic systems connected to the utility grid, where export limitation or reverse power protection is required.

Intelipro PV has the data communications functionality and multiple protocol options are also available.





Export limitation and reverse power protection as standard. Other communication options available (RS232 standard).

Protective functionality	ANSI
Under/overvoltage and asymmetry	27, 59, 47
(two stage setting)	
Overfrequency, Underfrequency	81H, 81L
(two stage setting)	
Instantaneous over current	50
Time over current	51
Current asymmetry	46
Earth fault current	50N + 51N
Ground surge current	50GS + 51GS
Directional/Reverse power with time	32
delay	
Neutral voltage displacement	59N
Vector shift	78
Rate of change of frequency + rocof	81R
_filter	
Auto fault reset	
Maximum parallel time	
Analog and binary inputs related	
protections	
Battery voltage protection	
Breaker failure	

## **PROTECTION CUBICLES**

Decentralized protection systems

### **MAINSCUBE**

**VOLTAGE BASED** 



Part Number	Dimensions (HxWxD)
MAINSCUBE	400 x 600 x 200

## INTELICUBE CURRENT & VOLTAGE BASED



Export limitation and reverse power protection as standard. Other communication options available (RS232 standard).

Part Number	Dimensions (HxWxD)
INTELICUBE	400 x 600 x 200

\*Current Transformers to be ordered seperately

### **Features**

Surge Protection.

One hour battery backup as standard.

Modular enclosure.

Full size gland plate top and bottom.

IP43 rated.

Full powder coated mildsteel.

Stainless Steel 316 option available (made to order).

Voltage: 230/400 VAC

#### **Technology partners:**













## **FULLY ASSEMBLED GRID PROTECTION SYSTEMS**

## MAINSPRO-based Assemblies



Part Number	kVA	Current	Dimensions (HxWxD)
PVMGPS4P69	69	100A AC1	600 x 600 x 200
PVMGPS4P110	110	160A AC1	600 x 600 x 300
PVMGPS4P173	173	250A AC1	800 x 600 x 300
PVMGPS4P277	277	400A AC1	1200 x 600 x 300
PVMGPS4P436	436	630A AC1	1200 x 600 x 300

## **INTELIPROPV-based Assemblies**





Export limitation and reverse power protection as standard. Other communication options available (RS232 standard).

Part Number	kVA	Current	Dimensions (HxWxD)
PVIGPS4P69M	69	100A AC1	600 x 600 x 200
PVIGPS4P110M	110	160A AC1	600 x 600 x 300
PVIGPS4P173M	173	250A AC1	800 x 600 x 300
PVIGPS4P277M	277	400A AC1	1200 x 600 x 300
PVIGPS4P436M	436	630A AC1	1200 x 600 x 300

#### **Features**

Modular enclosure for easy connection between combiner box and grid protection system. IP43 rated.

Fully rated neutral bar.

Full size gland plate top and bottom.

One hour battery backup as standard.

Full powder coated mildsteel.

Stainless Steel 316 option available (made to order).

Fault rated : 50kARMS Voltage : 230/400VAC

#### **Technology partners:**













### **FULLY ASSEMBLED GRID PROTECTION SYSTEMS**

With integrated combiner box section

### **MAINSPRO-based assemblies**

### **VOLTAGE BASED**



Part Number	kVA	Current	Chassis Poles	Dimensions (HxWxD)
PVMGPS4P69AC18	69	100A AC1	18	1200 x 600 x 200
PVMGPS4P110AC18	110	160A AC1	18	1200 x 600 x 300
PVMGPS4P173AC18	173	250A AC1	18	1200 x 600 x 300

## **INTELIPROPV-based assemblies**

### **CURRENT & VOLTAGE BASED**



Export limitation and reverse power protection as standard. Other communication options available (RS232 standard).

Part Number	kVA	Current	Chassis Poles	Dimensions (HxWxD)
PVIGPS4P69MAC18	69	100A AC1	18	1200 x 600 x 200
PVIGPS4P110MAC18	110	160A AC1	18	1200 x 600 x 300
PVIGPS4P173MAC18	173	250A AC1	18	1200 x 600 x 300

#### **Features**

All of the advantages of the standard based assemblies with the added benefit of the AuxiClic Busbar system.

6 x 3-ph+ N Busbar AuxiClic 250A.

IP20 finger safe.

Easy 'Click and Lock' connection. No screw tightening required.

Prewired to the Contactor.

Variants with higher current ratings also available.

#### **Technology partners:**







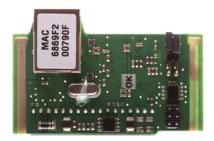






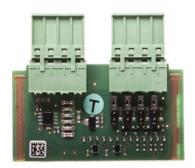
## **ACCESSORIES**

### **IB-LITE**



Plug-in communication module for InteliProPV controllers and their clones used with a standard firmware.

### **IL-NT-AIO**



Extension plug-in module increasing the number of analog inputs and output of InteliProPV.

4 configurable analog inputs for the sensors (in range 0 - 2400 ohm; 0/4-20mA; 0-4VDC).

### IL-NT-RS232-485



Extension plug-in module with RS232 AND RS485 INTERFACES (Dual Port). For use with InteliProPV  $\,$ 

### **AC COMBINER BOXES**



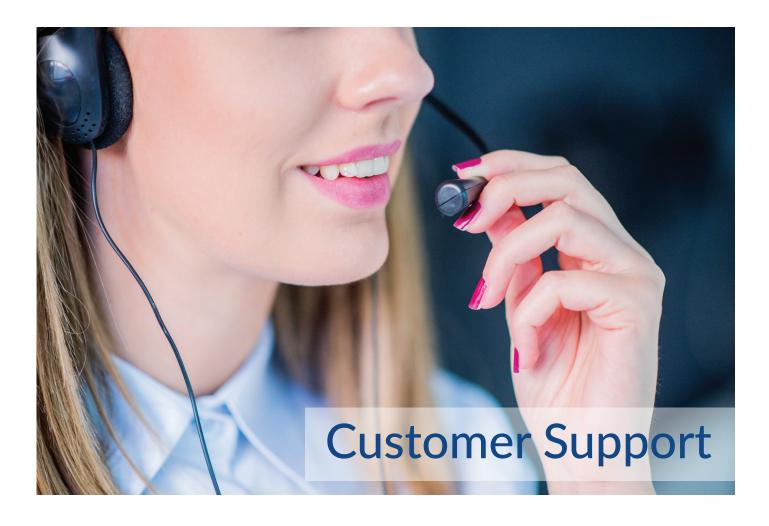
Modular enclosure for easy connection with standard grid protection systems.

IP65, RAL 7035 (Grey)

With and without AuxiClic Busbar system: 250A 3+N 18P Chassis 200mm & 300mm deep versions

Part Number	Description	Current Rating	Chassis Poles	Dimensions (HxWxD)
PVAC61	Including 18P chassis	250A	18	400 x 600 x 200
PVAC61-EB	DIN rail only	-	=	400 x 600 x 200
PVAC61-300	Including 18P chassis	250A	18	400 x 600 x 300
PVAC61-300EB	DIN rail only	-	-	400 x 600 x 300

## How can we help you?



IPD has an extensive technical sales network of more than 70 employees nationally, backed by a national customer service centre to handle customer related inquiries . We provide added value to our customers through in-house design, estimating and local manufacturing. These services are further supported by a flexible in-house and on-site training program to better utilise our products.

Call 1300 556 601 for any inquiries

Scan QR code below with a smartphone to view further information



ComAp MainsPro relay in IPD's grid protection cubicle



How to programme Intelipro PV

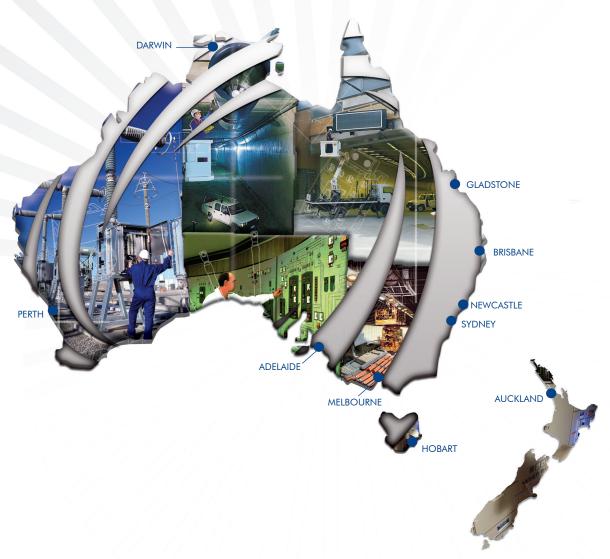


IntelliproPV spec



Mains protection spec

Please visit www.ipd.com.au for drawings, dimensions and other related documentation.



































QR Code Scan the code above with a smartphone to view the full IPD product range



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