

SolarTune - Solar PV Protection & Control

Integrated solution by PM Control

Woodward
Product Flyer
PMPF-AU-0004

Description

Most Australian utilities require grid connected solar installations over 30KW to include an independent protection system. Their prime concern is to prevent systems from back feeding into their grid during power outages. In other instances utilities also want to limit the amount of power feeding back into the grid during normal operation.

For these system requirements PM Control has two protection panels available, one for export and another for no-export allowed installations.



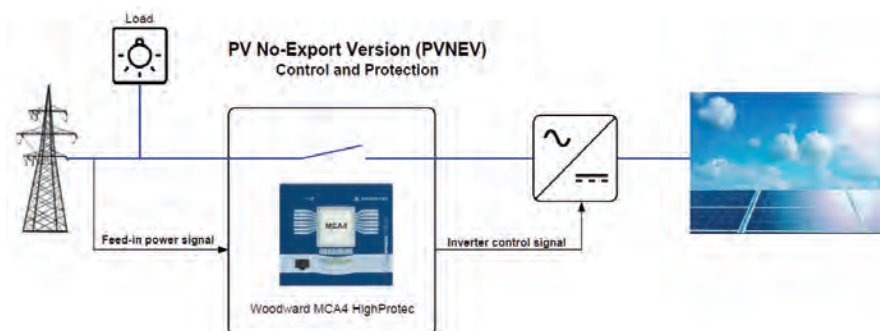
- Competitive pricing
- Plug and play solution
- Designed to exceed utility requirements
- High quality components
- IP56 Enclosure
- AS4777.3 - 2005
- IEC60255

No-Export Allowed Installation

Protection and Control of the solar installation using the Woodward MCA4 or MFR300 protection relay and transducer relay. This relay is third party certified to the highest utility protection standards (IEC60255-1) and therefore accepted for use throughout Australia.

While in operation this system continuously monitors the KW power at the utility interconnection point and controls the solar inverter(s) power output. Inverters with power control inputs via digital inputs or Modbus TCP and RS-485 can be used. This closed loop power control will maximise the solar use and therefore the return on investment.

The level of allowed KW import or export factor can be adjusted. In the event of a utility failure or e.g. unintended power back-feed the system will immediately open the contactor making the installation safe.



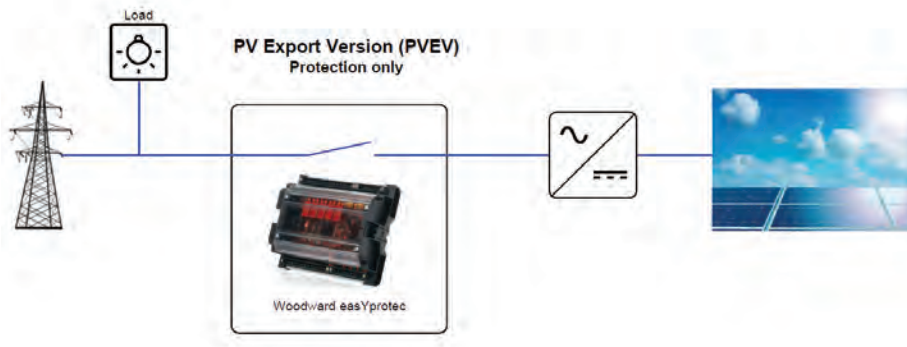
“ Certified to the highest protection standards and accepted by Australian Utilities ”
(e.g. Ausgrid NS194, Energex, Western Power and others)



Export Allowed Installation

This system protects the solar installation from adverse voltage and frequency events and complies with LV (415V) utility requirements. This allows for use in service areas of e.g. Energex and Ausgrid.

While the system is in operation and a protection event occurs the contactor will open for the period that the fault remains. Once the utility power returns, or during initial start-up, the protection relay will monitor the lines for a set period specified by the utility after which the contactor recloses. The door mounted lights indicate a system ready and trip event. For emergency situations a door mounted emergency button is fitted.



Export Allowed Solution includes:

- Woodward easYprotec protection unit
- 100KW ABB contactor
- Uninterrupted Power Supply
- 2 door mounted status lights
- Door mounted emergency push button
- Password protected

No Export Solution includes:

- Woodward MCA4 High Protec relay or MFR300 Relay
- ABB contactor, size depending on your installation
- Uninterrupted Power Supply
- LCD display with system status
- Door mounted emergency push button
- Password protected
- Inverter power control module
- Communications port for remote monitoring

Protection Function	ANSI Code
2 levels Overvoltage	59
2 levels Undervoltage	27
2 levels Overfrequency	81H
2 levels Underfrequency	81L
Rate of Change of Frequency (ROCOF)	81R
Vector Shift	78
2 levels Voltage Asymmetry	47
10 min avg Voltage Increase	
Time Dependent Voltage	

Additional Function	ANSI Code
Reverse Power (back feed protection/zero export)	32R
Syncrocheck	25
Neutral Voltage Displacement (NVD)	59N
Over Current and short circuit protection	50P,51P
Breaker Failure	50BF
Disturbance, Fault, Trend and Event recorders. Power Quality	
Plus many more	

About PM Control

PM Control delivers energy optimisation solutions that increase efficiency while lowering emissions. Serving the energy, process and transportation markets, PM Control is the appointed distributor and recognized retrofit partner for Woodward Inc., Regional Technical Centre for ABB Switzerland and Value Added Reseller for L&S Electric. Through our activities PM Control is having a positive impact on the lives of people across SE Asia, Australasia, India and beyond.

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