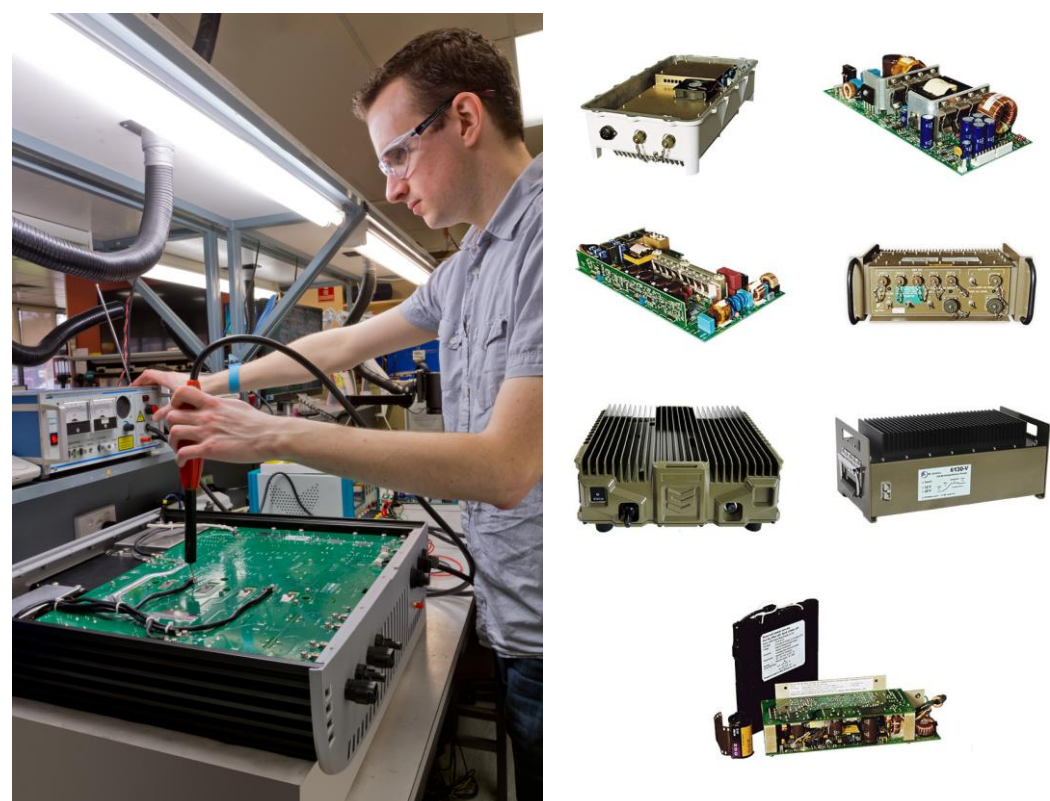## About MILSolar Eclipse Inverters

Local design for Australian conditions and long lasting product quality are two of the keys to success of Melbourne power electronics manufacturer, MIL-Systems Pty Ltd that designs and makes MILSolar brand inverters for the Australian solar PV market.

MILSolar employs around 20 people in design and construction of solar inverters that are priced to compete with the top European brands. The company has been operating for over 30 years creating electrical power equipment for the Australian Defence Forces and broader communications industry.

How to buy Eclipse Inverters

Eclipse Inverters must be installed by companies registered with the Australian Clean Energy Council and approved for trading in STCs. MILSolar can provide you with contact details for accredited installer companies that would be happy to provide a quotation for your proposed installation including the supply of an Eclipse Inverter.

MILSolar Sales and Engineering Support
Mr Geoff Lowe, MIL-Solar
34 Roberts St, West Footscray Australia +61 3 9325 3455
www.mil-solar.com.au   info@mil-solar.com.au

Advancing Australia through R&D
Designed, Made and Supported for Life

AUSTRALIAN MADE AND OWNED

ECLIPSE 5000-II with Reactive Power Control and optional *MyPower* monitoring

Wide ranging dual MPPT provides maximum installation flexibility.
With the Safety and Reactive Power Control features for Solar Victoria Rebates.

High Solar yield	System Safety Protection	Appearance	Communications
• Reactive Power Control for continued solar generation and export when grid voltage is high	Designed and built in Australia to the new Safety & Installation standards for Solar Vic Rebates.	• Elegant styling with minimized status display	• WiFi communications as standard on all models
• Dual Maximum power point tracking PV inputs	• Inbuilt RCD – system wide earth fault detection	• Low profile to wall	• Inbuilt Browser interface to any networked device – PC, Tablet, Smart phone
• Harvest sun all day – East to West	• Solar Panel isolation monitoring	• Low impact design - better blending with various house architectures	• Inbuilt option to upload solar information to PVOvoutput.org
•	• Wiring and isolator fault detection	• Front facing cooling fins for ease of cleaning	

ECLIPSE 5000-II with Reactive Power Control
Unique robust technology. Designed for the extreme Australian Grid conditions and harsh environment.

The latest Eclipse Solar Inverter is the ideal solution for maximising solar power output utilizing Reactive Power Control output to the grid and with two fully independent PV panel array input controls. Dual MPPT maximises power harvest from East, North and West PV arrays simultaneously. The Reactive Power Control maximizes power fed into the grid by keeping the inverter connected and outputting where other technology inverters have to drop out. With an Eclipse inverter you won't miss out on the opportunity to install solar and maximise your electricity production.

ECLIPSE 4950-II /5000-II with dual MMPT PV Input

Export Limit option available all models

Technical data	Eclipse 4950-II	Eclipse 5000-II
Input (DC)		
Maximum input voltage	750 V	750 V
Minimum input voltage – ON	80 V	80 V
MPPT operating range	90 V ... 600 V	90 V ... 600 V
Number of independent MPPT channels	2	2
Maximum operating input current	12 A / 12 A	12 A / 12 A
I_{sc} PV - Maximum input short circuit current.	15 A / 15 A	15 A / 15 A
Output (AC)		
Rated power (Maximum at Unity power factor)	4950 W	5000 W
Rated power conditions	230 V, 50 Hz	230 V, 50 Hz
Maximum AC VA (250V AC)	4950 VA	5000 VA
Nominal AC voltage	230 V	230 V
Maximum AC withstand voltage	300 V	300 V
Nominal AC frequency / range	50 Hz ± 5 Hz	50 Hz ± 5 Hz
Max. output current	21.5 A	21.7 A
Power factor at rated power	1	1
Reactive Power Control	YES	YES
Variable Power factor - leading/lagging	±0.8	±0.8
AC mains connection phases	1 Φ	1 Φ
Efficiency		
Maximum efficiency / European efficiency	97 % / 96.3 %	97 % / 96.3 %
Protection systems		
Anti-Islanding IEC62116	YES	YES
PV panel fault – Array isolation	YES	YES
Ground fault monitoring	YES	YES
DC reverse polarity – PV panel miswired	YES	YES
AC short-circuit current protection	YES	YES
AC miswired	YES	YES
'Safety switch' – Residual current monitoring	YES	YES
Protection class (IEC 62103)	I	I
Overvoltage category (IEC 60664-1)	AC Output - III, Solar PV inputs - II	
Environment		
Dimensions (H / W / D)	514 / 512 / 150 mm	
Weight	24 kg	24 kg
Operating temperature range	-25°C to +50°C	-25°C to +50°C
Relative humidity	4 % to 100 % (condensing)	4 % to 100 % (condensing)
Noise emission (typical)	25 dB(A)	25 dB(A)
Standby consumption (overnight)	1 W	1 W
Topology	Transformerless. Non galvanically isolated.	
Cooling method	Convection	Convection
Degree of protection (AS/IEC 60529)	IP44	IP44
Altitude (maximum operating)	2000 m	2000 m
Maximum relative humidity (non-condensing)	100 %	100 %
Installation location	Outdoor. Sheltered from direct sun and rain.	
Standard DC connections	MC4	MC4
Standard AC connections	RST25i35 equivalent	RST25i35 equivalent
Features		
Display - Status / Information	LED / Browser	LED / Browser
WiFi Ethernet interface	YES	YES
Export Limit functionality (inc Power Meter)	Optional	Optional
MyPower, generation, consumption & export	Optional	Optional
Alarm output relay	YES	YES
DRED control	DRM 0	DRM 0
Power Quality modes	Fixed Power Factor, Volt-Watt, Volt-VAR	
Warranty	Standard - 5 Year	
Warranty - extended	Optional - 10 Years	
Standards and approvals	AS 4777.2(2015), IEC62116, ASNZS 3100, AS/NZS60950, IEC 62109.1 & .2, AS/NZS 61000.6.3, AS/IEC 60529	

Yes	Included as standard feature on Eclipse models
Option	Refer to your distributor for options and pricing

Option – *MyPower* Usage

ECLIPSE xxxx-II-1P/3P

Third party compliance accredited to Powercor/CityPower requirements for export limit control.

Smart phone display
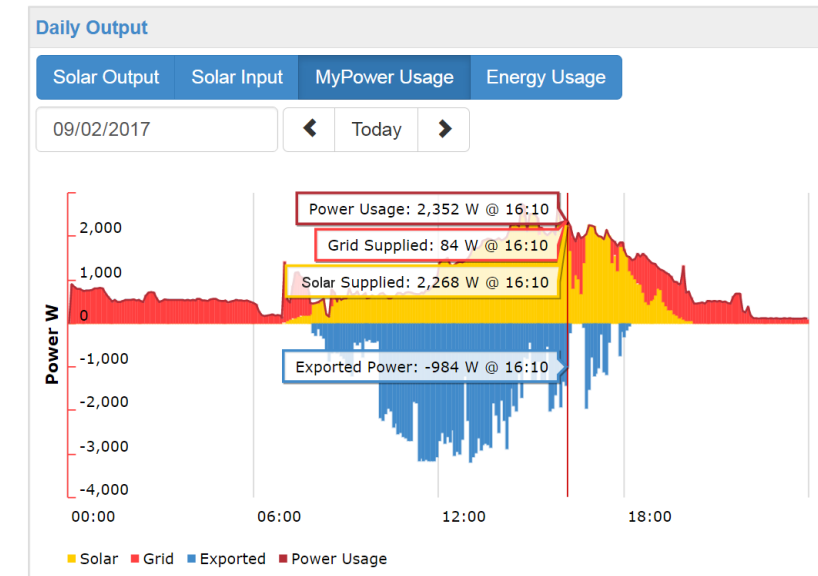
All Eclipse models with optional MyPower feature are supplied with a power usage sensor.

Single phase - 80A
Three phase – 100A

Solar Power Generation
5,156 W

House Power Consumption
4,310 W

Grid Power
Exporting 846 W

Models fitted with the *MyPower* option provides users with their total power use information, both displayed and logged.

Ideal for monitoring and managing your power savings.

Standard Browser display interface

 www.pvoutput.org

Automatic uploading* of data to independent global logging site for comparing and monitoring of live solar photovoltaic power and energy performance. Apps available for many mobile devices providing live information monitoring any time, any place.

*When the Eclipse is connected to the internet via WiFi

www.mil-solar.com.au