

Ease of installation

Easy and simple to install using industry standard connectors – no need to disassemble unit

Mains connection



Wieland gesis® to IEC 61535

PV panel connections



Phoenix photovoltaic series

Standard Browser display interface



MIL-Solar

ECLIPSE Inverter with all new Reactive Power Control 3kW to 5kW

The Inverter that empowers you to connect to the Grid



Eclipse inverters from MIL-Solar enable you to connect to the Grid where network constraints are restricting installation approvals.

<p>High Solar yield</p> <ul style="list-style-type: none"> • Dual Maximum power point tracking PV inputs • Harvest sun all day – East to West • Extended generating period - Early On, Late Off • Reactive Power Control for highest daily yield 	<p>System Safety Protection</p> <p>Designed and built in Australia to the new Safety & Installation standards</p> <ul style="list-style-type: none"> • Inbuilt RCD – system wide earth fault detection • Solar Panel isolation monitoring • Wiring and isolator fault detection 	<p>Appearance</p> <ul style="list-style-type: none"> • Low profile to wall • Low impact design - better blending with various house architectures • Elegant styling with minimised status display • Front facing cooling fins for ease of cleaning 	<p>Communications</p> <ul style="list-style-type: none"> • WiFi communications as standard on all models • Inbuilt Browser interface to any networked device – PC, Tablet, Smart phone • Inbuilt option to upload solar information to PVOoutput.org
---	---	---	--



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 Eclipse is connected to a home/office network with Internet access



www.mil-systems.com.au/products_ms_solar

ECLIPSE 3000 / 3600 / 4200 / 5000 with Reactive Power Control

Unique robust technology. Designed for the extreme Australian Grid conditions and harsh environment.

The latest Eclipse RPC 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 all new Reactive Power Control maximises power fed into the grid by keeping the inverter connected and outputting where other technology inverters have to drop out. With an Eclipse RPC inverter you won't miss out on the opportunity to install solar and maximise your electricity production.

ECLIPSE 3000-I / 3600-I with Reactive Power Control

Single channel PV input models

Technical data	Eclipse 3000-I	Eclipse 3600-I
Input (DC)		
Max. DC power	3150 W	3780 W
Maximum input voltage	750 V	750 V
Minimum input voltage - ON	90 V	90 V
MPPT operating range	90 V ... 600 V	90 V ... 600 V
Number of independent MPPT channels	1	1
Maximum operating input current	12 A	12 A
I _{sc} PV - Maximum input short circuit current	15 A	15 A
Output (AC)		
Rated power (Unity power factor)	3000 W	3600 W
Rated power conditions	230 V, 50 Hz	230 V, 50 Hz
Maximum AC VA (250V AC)	3000 VA	3600 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
Maximum output current	13 A	16 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 weighted efficiency	97 % / 96 %	97 % / 96.3 %
Protection systems		
PV panel fault – Array isolation	YES	YES
Ground fault monitoring	YES	YES
DC reverse polarity protection – PV panel miswired	YES	YES
AC short-circuit current protection	YES	YES
AC miswired	YES	YES
'Safety switch' – Residual current monitoring unit	YES	YES
Protection class (IEC 62103)	I	I
Overvoltage category (IEC 60664-1)	III	III
Environment		
Dimensions (W / H / D)	490 / 519 / 185 mm	490 / 519 / 185 mm
Weight	23 kg	23 kg
Operating temperature range	-25°C to +50°C	-25°C to +50°C
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	2000 m	2000 m
Maximum relative humidity (non-condensing)	100 %	100 %
Installation location	External. Sheltered from direct sun and rain.	
Features		
Display – Status / Information	LED / Browser	LED / Browser
WiFi Ethernet interface	YES	YES
Power Line Communications Ethernet interface	Optional	Optional
Ethernet wired RJ485 interface	Optional	Optional
Standard DC connections	Phoenix	Phoenix
Standard AC connections	Wieland <i>gesis</i> ®	Wieland <i>gesis</i> ®
Alarm output relay	Pending	Pending
DRED control	Pending	Pending
Warranty	Standard 5 Year	
Warranty – extended	Optional : 10 / 15 / 20 years	
Standards and approvals	AS 4777.2, AS 4777.3, AS/NZS 3100, AS/NZS60950, AS/NZS 61000.6.3, AS/IEC 60529	

YES	Included as standard feature on Eclipse model
Optional	Refer sales representative for availability and pricing
Pending	Pending release of new Australian standard AS4777, 2015

Eclipse 3000-II /3600-II /4200-II /5000-II with Reactive Power Control

Dual channel PV input models

Technical data	Eclipse 3000-II	Eclipse 3600-II	Eclipse 4200-II	Eclipse 5000-II
Input (DC)				
Max. DC power	3150 W	3780 W	4400 W	5250 W
Maximum input voltage	750 V	750 V	750 V	750 V
Minimum input voltage – ON	90 V	90 V	90 V	90 V
MPPT operating range	90 V ... 600 V	90 V ... 600 V	90 V ... 600 V	90 V ... 600 V
Number of independent MPPT channels	2	2	2	2
Maximum operating input current	12 A / 12 A	12 A / 12 A	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 (Unity power factor)	3000 W	3600 W	4200 W	5000 W
Rated power conditions	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz
Maximum AC VA (250V AC)	3000 VA	3600 VA	4200 VA	5000 VA
Nominal AC voltage	230 V	230 V	230 V	230 V
Maximum AC withstand voltage	300 V	300 V	300 V	300 V
Nominal AC frequency / range	50 Hz ± 5 Hz			
Max. output current	13 A	16 A	19 A	21 A
Power factor at rated power	1	1	1	1
Reactive Power Control	YES	YES	YES	YES
Variable Power factor - leading/lagging	±0.8	±0.8	±0.8	±0.8
AC mains connection phases	1 φ	1 φ	1 φ	1 φ
Efficiency				
Maximum efficiency / European efficiency	97 % / 96 %	97 % / 96.3 %	97 % / 96.3 %	97 % / 96.3 %
Protection systems				
PV panel fault – Array isolation	YES	YES	YES	YES
Ground fault monitoring	YES	YES	YES	YES
DC reverse polarity protection – PV panel miswired	YES	YES	YES	YES
AC short-circuit current protection	YES	YES	YES	YES
AC miswired	YES	YES	YES	YES
'Safety switch' – Residual current monitoring	YES	YES	YES	YES
Protection class (IEC 62103)	I	I	I	I
Overvoltage category (IEC 60664-1)	III	III	III	III
Environment				
Dimensions (W / H / D)	490 / 519 / 185 mm			
Weight	24 kg	24 kg	24 kg	24 kg
Operating temperature range	-25°C to +50°C	-25°C to +50°C	-25°C to +50°C	-25°C to +50°C
Noise emission (typical)	25 dB(A)	25 dB(A)	25 dB(A)	25 dB(A)
Standby consumption (overnight)	1 W	1 W	1 W	1 W
Topology	Transformerless. Non galvanically isolated.			
Cooling method	Convection	Convection	Convection	Convection
Degree of protection (AS/IEC 60529)	IP44	IP44	IP44	IP44
Altitude	2000 m	2000 m	2000 m	2000 m
Maximum relative humidity (non-condensing)	100 %	100 %	100 %	100 %
Installation location	External. Sheltered from direct sun and rain.			
Features				
Display - Status / Information	LED / Browser	LED / Browser	LED / Browser	LED / Browser
WiFi Ethernet interface	YES	YES	YES	YES
Power Line Communications Ethernet interface	Optional	Optional	Optional	Optional
Ethernet wired RJ485 interface	Optional	Optional	Optional	Optional
Standard DC connections	Phoenix	Phoenix	Phoenix	Phoenix
Standard AC connections	Wieland <i>gesis</i> ®	Wieland <i>gesis</i> ®	Wieland <i>gesis</i> ®	Wieland <i>gesis</i> ®
Alarm output relay	Pending	Pending	Pending	Pending
DRED control	Pending	Pending	Pending	Pending
Warranty	Standard 5 Year			
Warranty - extended	Optional : 10 / 15 / 20 years			
Standards and approvals	AS 4777.2, AS 4777.3, AS/NZS 3100, AS/NZS60950, AS/NZS 61000.6.3, AS/IEC 60529			

YES	Included as standard feature on Eclipse model
Optional	Refer sales representative for availability and pricing
Pending	Pending release of new Australian standard AS4777, 2015