



Eclipse 5000-II Solar Inverter

Installation and Operation Manual Rev 6

Addendum 1 14/7/2021

1. Australian Grid Settings
2. Power Quality Response Settings
3. External RCD
4. Safe Handling and Transport



ABOUT THIS MANUAL ADDENDUM

This addendum 1 to the manual rev 6 provides the following additional information on the MIL-Solar Eclipse Inverter.

1. Australian Grid Settings
2. Power Quality Response Settings
3. External RCD
4. Safe Handling and Transport

Updates to the manual

MIL-Solar reserves the right to revise this document and to make changes to the content from time to time without obligation to give prior notification of any such changes.

Please check with your Installation company or the MIL-Solar website for the latest information.

Revision Table

Revision	Release Date	Changes	Applicable Serial No.'s
6	August 2020	Updated WiFi information regarding channel and frequency selection	140100 - onwards
Add1	14/7/2021	Additions requested by CEC	140100 - onwards

The Eclipse inverter is designed and made in Australia by MIL-Systems Pty Ltd with the brand MIL-Solar.
The Eclipse inverter is not imported.



1. Australian Grid Settings

The Eclipse inverter is designed and made in Australia by MIL-Systems Pty Ltd with the brand MIL-Solar.



The Eclipse inverter is not imported and is only for the Australian market. The Eclipse has the standard Australian grid settings and not user or installer settings or adjustments are needed for Australia. The Eclipse inverter is Australian designed and made for the Australian grid.

2. Power Quality Response Settings

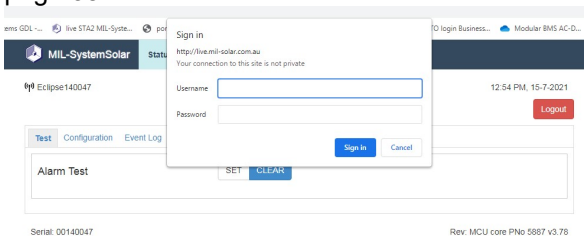
The Eclipse inverter is designed and made with the Australian standard AS4777.2:2015 power quality response requirements.

The Eclipse inverter is capability to contribute to maintaining the power quality at the point of connection or to provide support to a grid. The volt response mode is to vary the output power of the inverter in response to the voltage at its terminals.

To enable, disable and adjust the Power Quality Response Modes the installer needs a user name and password. This is available by contacting info@mil-systems.com.au.

The installer can access the Eclipse inverter Power Quality Response Modes via the Eclipse wifi interface, see page 28 of this manual.

The installer uses the wifi user interface Installation Page to access the Power Quality Response Modes, see page 38 of this manual.



The installer can check and adjust the Volt-Var, Volt-Watt and Power Rate modes and set points by going to the Power Quality Mode page from the Installation Page.

Power derating for voltage variation (Volt-Watt mode)

The Eclipse inverter power output will vary in response to the AC grid voltage. This is normally on from MIL-Systems factory. This mode has settings that can be adjusted by the installer.

Reactive power regulation for voltage variation (Volt-VAR mode)

The Eclipse reactive power will vary in response to the AC grid voltage. This is normally off from MIL-Systems factory. This mode has settings that can be adjusted by the installer.

Test Configuration Event Log Software Update **Power Quality Mode**

Power Quality Mode

Fixed power factor mode
 Volt - Watt response mode
 Volt - Var response mode

Fixed Power Factor

Power Factor Direction

Lagging (i.e. inverter imports reactive power)
 Leading (i.e. inverter exports reactive power)

Volt - Watt response

	Volt Reference Value		Volt-Watt	
	V		Max Value (P/P _{rated})	
V1	<input type="text" value="207"/>	<input type="text" value="V"/>	<input type="text" value="100"/>	<input style="width: 20px;" type="text" value="%"/>
V2	<input type="text" value="220"/>	<input type="text" value="V"/>	<input type="text" value="100"/>	<input style="width: 20px;" type="text" value="%"/>
V3	<input type="text" value="255"/>	<input type="text" value="V"/>	<input type="text" value="100"/>	<input style="width: 20px;" type="text" value="%"/>
V4	<input type="text" value="285"/>	<input type="text" value="V"/>	<input type="text" value="20"/>	<input style="width: 20px;" type="text" value="%"/>

Volt - Var response

	Volt Reference Value		Volt-Var	
	V		Var % rated VA	
V1	<input type="text" value="207"/>	<input type="text" value="V"/>	<input type="text" value="30"/>	<input style="width: 20px;" type="text" value="%"/>
V2	<input type="text" value="220"/>	<input type="text" value="V"/>	<input type="text" value="0"/>	<input style="width: 20px;" type="text" value="%"/>
V3	<input type="text" value="255"/>	<input type="text" value="V"/>	<input type="text" value="0"/>	<input style="width: 20px;" type="text" value="%"/>
V4	<input type="text" value="285"/>	<input type="text" value="V"/>	<input type="text" value="30"/>	<input style="width: 20px;" type="text" value="%"/>

Power rate limit W_{G18} - % Rated power/min

Serial: 00140047

Rev: MCU core PNo 5887 v3.78

3. RCD external to the Eclipse

The Eclipse inverter includes an integrated internal Residual Current Device RCD as required by AS4777.2. The Eclipse inverter is transformerless and in normal operation is allowed to have a DC current (A to N) in the AC connection of up to 100 mA. If an installation uses an additional RCD external to the Eclipse then it should be a bi-directional power flow Type B (for AC and DC) rated at 32 A continuous (or more) with a trip current of 30 mA (or more). Refer to the manual page 12 for overall system wiring.

4. Safe Handling, Packing and Transport

Safe handling

The Eclipse weight is 23 kg and is a two person lift.

Do not lift by holding the connectors, they do not support the weight and can be broken.

Make sure the Eclipse is placed on the centre line of the wall bracket and is seated evenly on the tabs.

Do not handle the Eclipse with AC or PV power connectors on.

Packing & Transport

The Eclipse Inverter is packed in a carton with the installer kit box with 25 mm foam end protectors. The packaging is suitable for road and air transport. Remove the installer kit which contains the wall plate and connectors. Remove the protectors before taking the Eclipse out of the carton.

Keep the carton and foam end protectors for repacking for warranty or service transport to MIL-Systems.

If the carton or protectors are lost, then the end connectors must be protected from weight or impact when using alternative packing for transport. The alternative packing must provide a 25 mm buffer zone to protect the connectors. Inadequate packing may result in transport damage and void the warranty.



Contact:

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