

# EmiratesGreen

الامارات الخضراء لتجارته المعدات الكهربائية والميكانيكية  
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# Declaration of Conformity for Radian Series Inverter/Chargers

## Purpose

The intent of this document is to specify that the OutBack models listed in the Scope below conform to the following standards for grid-interactive inverter/chargers.

This document supersedes any previous declarations for these OutBack models.

## Scope

OutBack models covered by this Declaration of Conformity include the following.

- GS3548E



### IMPORTANT:

This Declaration of Conformity covers only the Radian Series GS3548E. This Declaration does not cover any other models.

## Directives

- RoHS: Directive 2011/65/EU — *“The restriction of the use of certain substances in electrical and electronic equipment”*

## Certifications

This product is certified by ETL to the following standards:

- IEC 62109-1:2010 — Safety of Power Converters for use in Photovoltaic Systems (2010)
- IEC 62477-1:2012 — Safety Requirements for Power Electronic Converter Systems and Equipment
- EN 61000-6-1 — EMC Standard: Immunity for Residential, Commercial, and Light-Industrial Environments
- EN 61000-6-3 — EMC Standard: Emissions for Residential, Commercial, and Light-Industrial Environments
- EN 61000-3-3 — EMC Standard: Limitation of Voltage Changes, Voltage Fluctuations, and Flicker in Public Low-Voltage Supply Systems
- AS/NZS 3100 — General Requirements for Electrical Equipment
- AS4777.2 and AS4777.3 — Grid Connection of Energy Systems via Inverters

## Specification Conformity

This product is declared to conform to the following specifications:

This inverter/charger model has grid-interactive functions. It is tested to certain limits for acceptable output voltage ranges, acceptable output frequency, total harmonic distortion (THD) and anti-islanding performance when the inverter exports power to a utility source. The OutBack inverter/charger model listed in this document is validated through compliance testing. The following specifications refer to exporting power to a simulated utility source of less than 1% voltage total harmonic distortion (THD).

- The THD of the root mean square (RMS) current is less than 5%.
- The output of the Radian inverter exceeds the minimum power factor of 0.85 with a typical power factor of 0.96 or better.

The reconnection delay has a default setting of 1 minute. The settings for the reconnection delay and **Grid Interface Protection** are adjustable, but



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this is only available to operators with installer-level access. The reason for the limitation is that there are firm rules concerning acceptable voltage range, frequency range, clearance time during power loss, and reconnect delay when exporting power to the utility. The rules differ in different locations around the world, although generally it is expected that the settings cannot be altered by the end user. For this reason, the installer password must be changed from the default in order to get access to these settings. Once the password has been changed, the **Grid Interface Protection** settings can be accessed by using the installer password.

For programming navigation, see the *MATE3 System Display and Controller Owner's Manual*. For a full list of **Grid Interface Protection** default settings and available ranges, see the *Radian Series Operator's Manual*.

To meet the standard AS4777.3 for installations in Australia, the acceptance settings shall not exceed the following. The factory default settings meet these requirements.

Minimum Voltage	Maximum Voltage	Minimum Frequency	Maximum Frequency
200 Vac	270 Vac	45 Hz	55 Hz

**I hereby certify that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all applicable requirements.**



**Harvey Wilkinson, General Manager**

OutBack Power Technologies

Date: November 21, 2013

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