



Radian[™] Series

GS8048A & GS4048A Inverter/Chargers



- Grid-interactive and stand-alone capability in the same package
- GridZero technology optimizes the balance between stored and renewable energy sources, minimizing grid dependence
- Advanced Battery Charging (ABC) supports leading-edge battery technologies including lithium-ion
- 8000 and 4000W of continuous power, respectively
- Field-adjustable input/output voltage and frequency boundaries of 50/60Hz, 170-280VAC L-L and 200-260V nominal, respectively
- Unsurpassed surge capacity
- 120/240V split-phase voltage
- Dual AC inputs
- Field upgradeable firmware
- Field serviceable modular design
- Simplified stacking design
- GS load center option allows for quick and easy installation

OutBack Power's acclaimed Radian Series made the benefits of Grid/Hybrid technology available and accessible in one agile powerful, platform ideal for nearly all off-grid or grid-connected system architectures.

The new Radian Series inherit the hallmark features of the original design, including: dual AC inputs for grid/generator flexibility with no external switching required, unparalleled surge capability and operational stability, easy field upgradeability and stacking capability for large system scaling, simplified system commissioning through a powerful, easy-to-use configuration wizard, and multi-mode operational flexibility.

In addition, both models have a new Advanced Battery Charging (ABC) profile option to support leading-edge battery technologies such as Lithium-Ion and others, and enhanced diagnostics for improved performance. And both incorporate OutBack's GridZero technology, a superior level of intelligence in energy management for self-generation and self-consumption programs, providing precise balancing between using stored energy, solar and utility power, blending-in the latter to overcome surges and load spikes when needed. GridZero operation makes it possible for a smaller inverter and battery system to perform like a much larger one when required, putting stored and renewable energy sources to work and minimizing grid dependence. GridZero technology make the

new Radians ideal for use in complex utility environments such as California and Hawaii.

Both models also support AC-Coupling through a compatible OutBack load center to provide an economical solution for upgrading existing grid-tied systems to battery back-up capability. Complete system interfacing using the OutBack MATE3 and HUB communications manager enables the Radian to be connected with other OutBack Power electronics providing industry leading integration and a scalable power solution. Up to 10 units can be connected in parallel for systems up to 80kW continuous power output.

The GS8048A and GS4048A are certified to UL 1741 for US applications, and CSA C22.2 No. 107.1 for Canada, and is IEC 62109-1 certified to meet the most stringent worldwide PV safety and emission standards.

This product is for selected North, Central and Latin American markets.

Radian Series GS8048A and GS4048A Specifications

11/2015 Rev. 2

Models:	GS8048A	GS4048A
Nominal DC Input Voltage	48VDC	48VDC
Continuous Output Power (@ 25°C)	8000VA	4000VA
AC Output Voltage (Selectable)	120/240VAC (200-260VAC)	120/240VAC (200-260VAC)
AC Output Frequency (Selectable)	60Hz (50Hz)	60Hz (50Hz)
Continuous AC Output Current (@ 25°C)	33.3AAC @ 240VAC	16.7AAC
Idle Consumption (Invert Mode, No Load)	34W	34W
Efficiency	Typical: 93% CEC Weighted: 92.5%	Typical: 93% CEC Weighted: 92.5%
Total Harmonic Distortion	Max. Total Harmonic: <5% Max. Single Voltage Harmonic: <2%	Max. Total Harmonic: <5% Max. Single Voltage Harmonic: <2%
Output Voltage Regulation	±2%	±2%
Maximum Output Current	1ms Peak: 100AAC @ 240VAC, 200AAC @ 120VAC 100ms RMS: 70.7AAC @ 240VAC	1ms Peak: 50AAC @ 240VAC 100ms RMS: 35.35AAC @ 240VAC
Overload Capacity	100ms Surge: 16.97kVA 5 Seconds: 12.0kVA 30 Minutes: 9.0kVA	100ms Surge: 8.5kVA 5 Seconds: 6.0kVA 30 Minutes: 4.5kVA
AC Input Voltage Range (Adjustable)	(L1-N or L2-N) 85 to 140VAC	(L1-N or L2-N) 85 to 140VAC
AC Input Frequency Range (Default)	54 to 66Hz @ 60Hz (45 to 55Hz @ 50Hz)	
Grid-Interactive Voltage Range (Default)	(L1-N or L2-N) 108 to 132VAC	(L1-N or L2-N) 108 to 132VAC
Grid-Interactive Frequency Range	59.3 to 60.5Hz	59.3 to 60.5Hz
Maximum AC Input Current	50AAC @ 240VAC	50AAC @ 240VAC
Maximum Utility Interactive Current	30A	15A
Continuous Battery Charge Output	115.0ADC	57.5ADC
DC Input Voltage Range	40 to 64VDC	40 to 64VDC
Temperature Range (Power derated above 25°C)	Rated: -20 to 50°C Maximum: -40 to 60°C	Rated: -20 to 50°C Maximum: -40 to 60°C
Accessory Ports	Remote Temperature Sensor, MATE3 & HUB Communications	Remote Temperature Sensor, MATE3 & HUB Communications
Non-Volatile Memory	Yes	Yes
Field Upgradable Firmware	Yes	Yes
Chassis Type	Vented	Vented
Certifications	ETL Listed to UL1741, CE, CSA C22.2 No.107.1, UL 1778 Annex F, IEC 62109-1 ETL, RoHS compliant per directive 2011/65/EU, FCC Class B, IEEE 1547.1, EN61000-6-1, EN61000-6-3, EN61000-3-2, EN61000-3-3	ETL Listed to UL1741, CE, CSA C22.2 No.107.1, UL 1778 Annex F, IEC 62109-1 ETL, RoHS compliant per directive 2011/65/EU, FCC Class B, IEEE 1547.1, EN61000-6-1, EN61000-6-3, EN61000-3-2, EN61000-3-3
Warranty	Standard 5 year, available 10 year	Standard 5 year, available 10 year
Weight (lb/kg)	Unit: 125.0 / 56.7 Shipping: 140.0 / 63.5	Unit: 82.0 / 37.2 Shipping: 94.0 / 42.6
Dimensions H x W x D (in/cm)	Unit: 28 x 16 x 8.7 / 71.1 x 40.6 x 22.1 Shipping: 34.5 x 21 x 14.5 / 87.6 x 53.3 x 36.8	Unit: 28 x 16 x 8.7 / 71.1 x 40.6 x 22.1 Shipping: 34.5 x 21 x 14.5 / 87.6 x 53.3 x 36.8

