EnergyCell GH

VRLA BATTERY FOR GRID/HYBRID ENERGY STORAGE

Three Reasons to Choose the EnergyCell GH from OutBack Power:

1. PURPOSE-BUILT

- Batteries designed for residential or light-commercial grid-tied battery backup renewable energy power demands
- Thin-plate pure lead AGM technology ensures long float life in battery backup applications
- Wide operating temperature range
- 18-month shelf life at 25°C

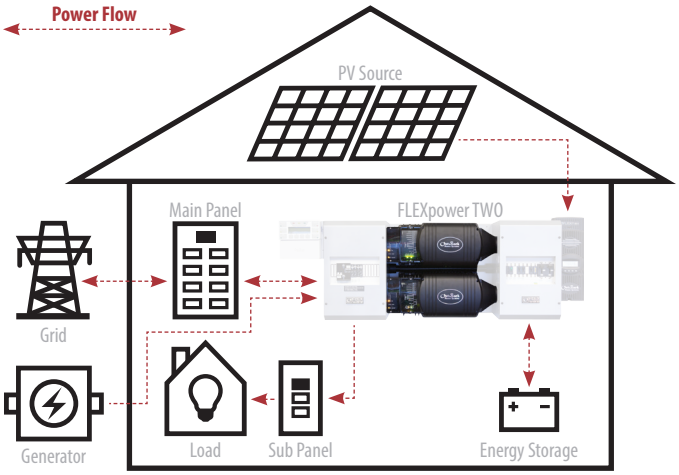
2. EASY-TO-INSTALL AND MAINTAIN

- VRLA-AGM technology means 99% gas recombination efficient, no periodic watering of cells, no re-torquing of terminal connections, and no equalization charge under standard operating conditions
- Modular space-saving design when installed with IBR rack
- IBR racking included with intercell connects and front access to cell connections
- 4 year full replacement warranty
- OPTICS RE connectivity means real-time access to critical battery performance data
- Batteries and power electronics can be installed in the same area*

3. SINGLE-BRAND SYSTEM SOLUTION

- Optimized to work seamlessly with OutBack power conversion equipment
- Ease of ordering with SystemEdge package configurations—to learn more visit www.outbackpower.com
- Single point of contact for all technical system inquiries
- Quality and reliability from OutBack Power assures customers receive the best technologies for renewable energy systems in the market today

OutBack EnergyCell GH Typical System Integration:



OUTBACK POWER—MASTERS OF THE OFF-GRID. FIRST CHOICE FOR THE NEW GRID.

MAKE THE POWER

- FLEXpower Integrated Systems
- Inverter/Chargers & Charge Controllers

STORE THE ENERGY

- EnergyCell RE, GH, NC and OPzV Batteries
- Battery Enclosures and Racking

MANAGE THE SYSTEM

- OPTICS RE System Monitoring and Control
- MATE3 System Display and Communications

EnergyCell Models:	**200GH** (Front Terminal)	**220GH** (Front Terminal)
Cells Per Unit	6	6
Nominal Voltage	12VDC	12VDC
Cycle Life (50% DOD, 1.75VPC)	650	650
Absorb Voltage (25°C)[1]	14.4VDC	14.4VDC
Absorb Time[2]	2hrs	2hrs
Float Voltage (25°C)[1]	13.6VDC	13.6VDC
Float Time	= absorb time	= absorb time
Equalize Voltage	—	—
Re-Bulk Voltage[3]	12VDC / 24VDC / 48VDC	12VDC / 24VDC / 48VDC
Re-Float Voltage[3]	12.5VDC / 25VDC / 50VDC	12.5VDC / 25VDC / 50VDC
Maximum Charge Current (Per Battery)	106.2A	118.8A
Operating Temperature Range (w/temperature compensation)	-40 to 122°F (-40 to 50°C)	-40 to 122°F (-40 to 50°C)
Optimal Operating Temperature Range	68 to 86°F (20 to 30°C)	68 to 86°F (20 to 30°C)
Temp-Comp Factor (Charging)	±4mV per °C per cell (2V)	±4mV per °C per cell (2V)
Self-Discharge Time	Batteries can be stored up to 18 months at 25°C (77°F) before a freshening charge is required. Batteries stored at temperature greater than 25°C (77°F) will require recharge sooner than batteries stored at lower temperatures.	
Terminal Type	Threaded copper alloy insert terminal to accept ¼"-20 UNC bolt	Threaded copper alloy insert terminal to accept ¼"-20 UNC bolt
Terminal Hardware Initial Torque	M6 = 80in-lbs (9.0Nm)	M6 = 80in-lbs (9.0Nm)
Weight (lb/kg)	116 / 53	132 / 60
Dimensions H x D x W (in/cm)[4]	11.1 x 22.1 x 4.9 / 28.2 x 56.1 x 12.4	12.4 x 22.1 x 4.9 / 31.5 x 56.1 x 12.4
Warranty[5]	4 years	4 years
Accessories	Ships with interconnect bars, terminal covers and hardware kit	Ships with interconnect bars, terminal covers and hardware kit

[1] If using both inverter and charge controller, set the charge controller to 0.4V higher (0.2V for 24V systems) to give the charge controller charging priority. [2] Will always be 2 hours if charge rate is 10% of battery bank amp-hours. For higher or lower charge rates, use the formula AR ÷ (CR x 0.5) = absorb time where AR = amp-hours remaining after absorb voltage is first reached (10% of battery bank Ah) and Cr = amp-hours of current charge. [3] Default values for 12/24/48V systems. May need to be adjusted for site application. [4] Batteries to be installed with 0.5in (12.7mm) spacing minimum and free air ventilation. [5] See OutBack EnergyCell warranty document for full details.

	12V Ampere Hour Capacity to 1.75 Volts Per Cell at 77°F (25°C)								
Discharge in Hours:	**1**	**3**	**4**	**5**	**8**	**12**	**20**	**24**	**100**
EnergyCell 200GH	120	148.5	154.8	159	168.8	176.4	191	189.6	200
EnergyCell 220GH	133.5	166.2	173.2	178	188.8	198	214	216	220

* Consult local and regional electrical code for proper installation of energy storage requirements.