

Three Reasons to Choose the EnergyCell NC High Capacity Series from OutBack Power:

1. PURPOSE-BUILT

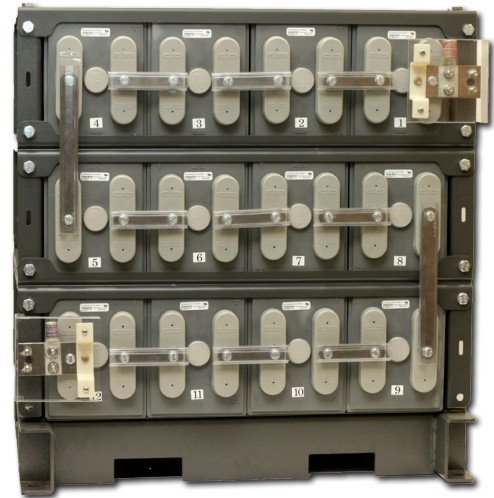
- Batteries designed for residential or light-commercial off-grid or self-consumption renewable energy power demands
- High round trip efficiency—up to 95%
- Partial State of Charge (PSoC) Operation insures long life—increases cycle life versus traditional VRLA batteries
- High amperage recharge acceptance allows for fast recharge
- High carbon surface area on negative active material allows for increased conductivity

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
- Pre-assembled steel racking included with intercell connects and front access to cell connections
- 3 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*

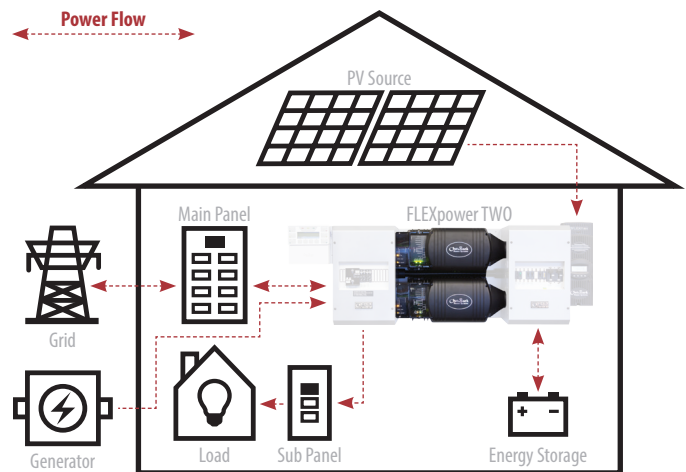
3. SINGLE-BRAND SYSTEM SOLUTION

- 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



EnergyCell 1100NC

OutBack EnergyCell NC High Capacity 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

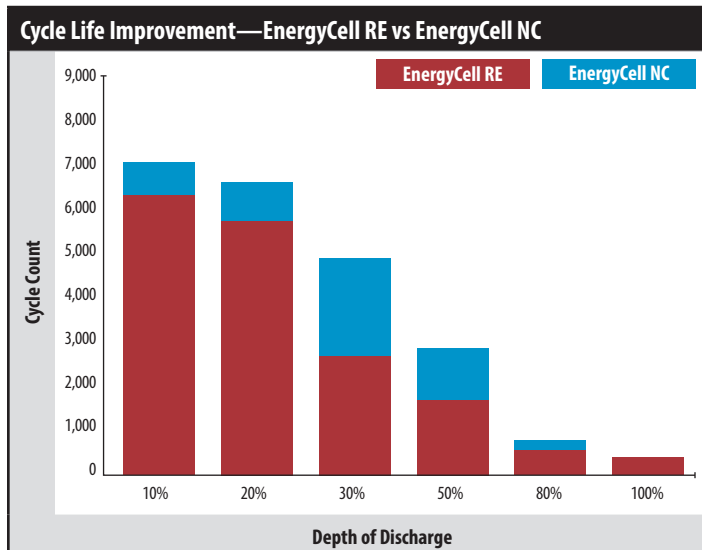
- OPTICS RE System Monitoring and Control
- MATE3 System Display and Communications

EnergyCell Models:	1100NC	1600NC	2000NC	2200NC
Nominal Voltage Per Cell	2V	2V	2V	2V
Nominal Voltage Per System	48VDC	48VDC	48VDC	48VDC
Cycle Life (50% DOD, 1.75VPC)	2000	2000	2000	2000
Absorb Voltage (25°C) ¹	57.6VDC	57.6VDC	57.6VDC	57.6VDC
Absorb Time ²	2hrs	2hrs	2hrs	2hrs
Float Voltage (25°C) ¹	54.4VDC	54.4VDC	54.4VDC	54.4VDC
Float Time	= absorb time	= absorb time	= absorb time	= absorb time
Equalize Voltage	2.32VDC	2.32VDC	2.32VDC	2.32VDC
Re-Bulk Voltage ³	24VDC / 48VDC	24VDC / 48VDC	24VDC / 48VDC	24VDC / 48VDC
Re-Float Voltage ³	12.5VDC / 25VDC / 50VDC	12.5VDC / 25VDC / 50VDC	12.5VDC / 25VDC / 50VDC	12.5VDC / 25VDC / 50VDC
Maximum Charge Current (Per Battery)	397A	595A	744A	794A
Operating Temperature Range (w/temperature compensation)	-40 to 140°F (-40 to 60°C)	-40 to 140°F (-40 to 60°C)	-40 to 140°F (-40 to 60°C)	-40 to 140°F (-40 to 60°C)
Optimal Operating Temperature Range	67 to 87°F (19.5 to 30.5°C)	67 to 87°F (19.5 to 30.5°C)	67 to 87°F (19.5 to 30.5°C)	67 to 87°F (19.5 to 30.5°C)
Temp-Comp Factor (Charging)	-2 mV/cell/°F above 77°F, +2 mV/cell/°F below 77°F			
Self-Discharge Time	12 months @ 25°C	12 months @ 25°C	12 months @ 25°C	12 months @ 25°C
Hardware Specification (Intercell Connects)	Threaded copper alloy insert terminal to accept M6-16 bolt		Threaded copper alloy insert terminal to accept M6-25 bolt	
Terminal Hardware Initial Torque	110in-lbs (12.4Nm)	110in-lbs (12.4Nm)	110in-lbs (12.4Nm)	110in-lbs (12.4Nm)
Weight (lb/kg)	3320 / 1461	4420 / 2205	5365 / 2434	5740 / 2604
48V System Dimensions H x D x W (in/cm) ⁴	45.78 x 26.38 x 28.25 / 11.63 x 6.70 x 7.18	63.78 x 26.38 x 28.25 / 16.20 x 6.70 x 7.18	77.28 x 26.38 x 28.25 / 19.63 x 6.70 x 7.18	81.78 x 26.38 x 28.25 / 20.77 x 6.70 x 7.18
Warranty	3 years	3 years	3 years	3 years
48V Standard System Configuration**	4w x 6h	4w x 6h	4w x 6h	4w x 6h

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 Equalize in the following conditions if float voltage of any cell is less than 2.17VPC or the float voltage range after 6 months is outside the ±0.08V of nominal setting. 24hrs after current stabilization, (3hrs without charge), at ambient temperatures from 70 to 90°F (21 to 32°C). ⁶ Other configurations available with longer lead times. Ask your OutBack distributor for details.

48V Ampere Hour Capacity to 1.75 Volts Per Cell at 77°F (25°C)

Discharge in Hours:	1	2	3	4	8	10	12	20	24	48	100
EnergyCell 1100NC	391.1	543.0	621.0	674.0	794.4	829.0	854.4	918.0	926.4	998.4	1060.0
EnergyCell 1600NC	586.7	814.6	931.8	1011.6	1191.2	1243.0	1282.8	1376.0	1392.0	1497.6	1600.0
EnergyCell 2000NC	733.4	1018.2	1164.6	1264.4	1489.6	1554.0	1603.2	1720.0	1740.0	1872.0	1990.0
EnergyCell 2200NC	782.3	1086.2	1242.3	1348.8	1588.8	1658.0	1710.0	1834.0	1855.2	1996.8	2130.0



Note: EnergyCell NC assumes partial state of charge (PSoC) operation at 50-80%.

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

