EnergyCell PLC Series

ADVANCED PURE LEAD CARBON BATTERY

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

1. PURPOSE-BUILT

- Batteries designed for residential or light-commercial off-grid, backup or self-consumption renewable energy power demands
- 3,000 cycles at 50% DOD
- Pure lead extends the life of the battery versus traditional VRLA and allows for increased float capability for backup applications
- Advanced carbon technology reduces the effect of sulfation and is compatible with Partial State of Charge (PSoC) operation

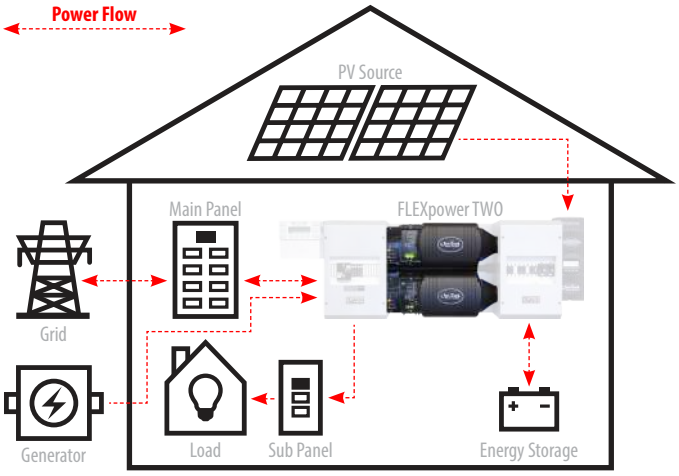
2. EASY-TO-INSTALL AND MAINTAIN

- PLC 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 OutBack's Integrated Battery Rack (IBR)
- 18 month shelf life at 25°C
- OPTICS RE connectivity means real-time access to critical battery performance data
- Batteries and power electronics can be installed in the same area*
- At end of life, lead acid batteries are 96% recyclable
- Full replacement warranty—6 year domestic, 4-5 year global

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 PLC Series 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, PLR, PLC and OPzV Batteries
- Battery Enclosures and Racking

MANAGE THE SYSTEM

- OPTICS RE System Monitoring and Control
- MATE3s System Display and Communications

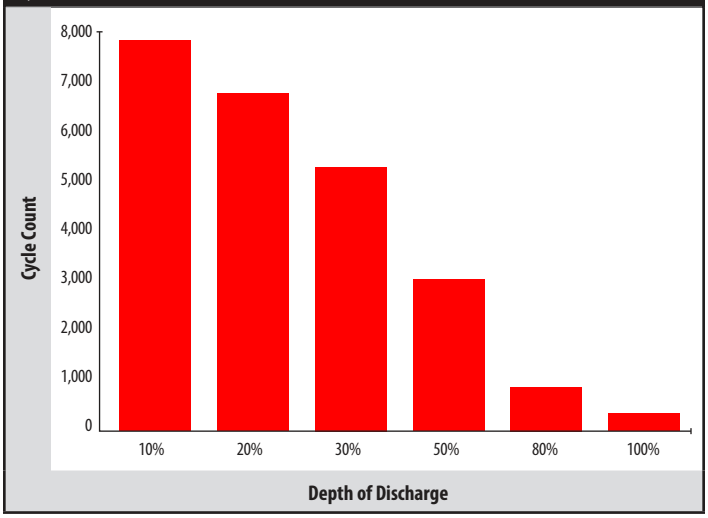
EnergyCell PLC Front Terminal SPECIFICATIONS

EnergyCell Models:	200PLC
Cells Per Unit	6
Nominal Voltage	12VDC
Cycle Life (50% DOD, 1.75VPC)	3000
Absorb Voltage (25°C)[1]	14.1VDC
Absorb Time[2]	5hrs
Float Voltage (25°C)[1]	13.5VDC
Float Time	6hrs (0.15C)
Equalize Voltage and Charge Frequency	14.1
Re-Bulk Voltage[3]	12.9VDC
Re-Float Voltage[3]	13.2VDC
Maximum Charge Current (Per Battery)	50ADC
Operating Temperature Range (w/Temperature Compensation)	**Discharge**: -40 to 149°F (-40 to 65°C) **Charge**: 5 to 140°F (-15 to 60°C) **Storage**: -4 to 104°F (-20 to 40°C)
Optimal Operating Temperature Range	68 to 86°F (20 to 30°C)
Temp-Comp Factor (Charging)	-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. For higher temperatures the time interval will be shorter
Terminal Type	T11
Terminal Hardware Initial Torque	11 to 14.7Nm)
Weight (lb/kg)	130 / 59
Dimensions H x D x W (in/cm)[4]	12.6 x 22 x 4.92 / 32 x 55.88 x 12.50
Warranty[5]	**Domestic**: 6 year full replacement **Global**: 4-5 year full replacement
Accessories	Ships with interconnect bars, terminal covers and hardware kit

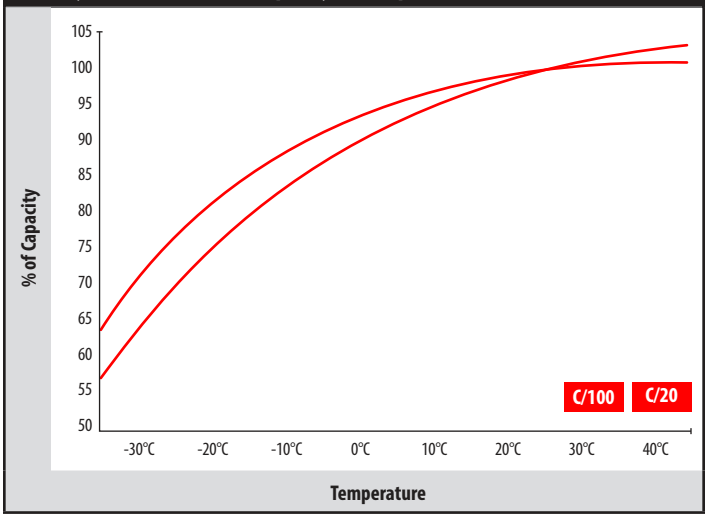
Note: PC-ABS flame retardant jar and cover to UL94V-0 [1] If using both inverter and charge controller, set the charge controller to 0.4V higher (0.2V for 24V systems) to give the charge controller charging priority. [2] Will always be 2 hours if charge rate is 10% of battery bank amp-hours. For higher 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**	**2**	**3**	**4**	**5**	**8**	**12**	**20**	**24**	**48**	**100**
EnergyCell 200PLC	104	120	132	140	145	160	168	178	182	191	200

Cycle Life



Battery Characteristics—Capacity vs Temperature



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