



UltraCell®

HIGH POWER MICRO FUEL CELLS™

A Bren-Tronics Company

MADE IN THE USA

BLADE 50

PN: SY011013

EXTREME MOBILE POWER FOR DEMANDING APPLICATIONS

The UltraCell Blade 50W fuel cell is designed to meet the rugged off-grid power needs of performance-demanding military and commercial users. This reformed methanol fuel cell will provide 50W of continuous power and comes in a highly durable and portable, battle-proven housing.

The fuel cell is powered by ultraclean, biodegradable methanol, providing quiet, nearly emissions-free operation. It can run continuously off the grid using the existing arsenal of UltraCell fuel cartridges. Its convenient form factor makes it easy for transportation, while its long life means that no servicing trips are needed for highly remote or covert surveillance applications.

The UltraCell Blade 50W is ideal for a wide variety of high-power electronic applications including radio and satellite communication gear, remote or mobile surveillance systems, laptop computers, and battery charging.



FEATURES AND BENEFITS

- ❖ UltraCell Reformed Methanol Fuel Cell (RMFC) technology does not contain materials which are damaged at temperature extremes
- ❖ Only UltraCell's unique RMFC chemistry allows for a single fuel mixture which operates from -30 to +50C unlike other technologies which require desert and winter fuel mixtures
- ❖ Only UltraCell fuel cells can be stored in OFF mode between -30 to +80C without artificial heating unlike other technologies which require complex heating kits for storage below 0C
- ❖ Only UltraCell fuel cells can startup from a -20C cold soak without additional thermal kits
- ❖ Autonomous operation with sleep mode functionality
- ❖ Safe for indoor and in-vehicle use: Emissions meet OSHA standards
- ❖ Unique hybrid battery system at 16.8V delivering 50 Watts of continuous power
- ❖ Industry-leading performance: Operates at high-altitude and cold temperatures
- ❖ Operates anywhere: Quiet, rugged design for jungle, desert, and arctic environments
- ❖ Extended runtime: Hot swappable cartridges and optional long runtime external fuel tanks
- ❖ Simplifies logistics: Powers different devices at different voltages with application-specific tethers

BLADE 50W SPECIFICATIONS



FUEL CELL SYSTEM

OPERATIONAL MODES
CONTINUOUS MAX POWER
OUTPUT VOLTAGE

On/Off/Sleep
0 to 50W
Default 16.8V
(Factory set to 10V-28V if required)
Methanol and water mixture
Internal 1.2kwHR tank or
external cartridges.

FUEL COMPOSITION
FUEL SOURCE

PHYSICAL SPECIFICATIONS

LCD DISPLAY
CABLES

MIL Spec NVG compatible display optional
Application-specific tethers available
(See Accessory Data Sheet)

OUTPUT CONNECTOR
DIMENSIONS

Military specified
Standard Packaging: 15.4" x 10.3" x 7.6"
(39.2cm x 26.2cm x 19.4cm)

WEIGHT

11.7lb (5.3 kg)
(without battery or cartridge)

BATTERY

Internal BB2590 or External
Customer Battery



ENVIRONMENTAL REQUIREMENTS

OPERATING TEMPERATURE
STARTUP TEMPERATURE
STORAGE TEMPERATURE

-22°F to +122°F (-30°C to +50°C)
Minimum -4°F (-20°C)
-40°F to +140°F (-40°C to +60°C)

FUEL OPTIONS

Option	Part Number	Weight	Dimensions	Capacity (Whr)	Runtime (40W)
550cc Cartridge	CR011051	1.4lb (620g)	9.25" x 2.95" x 2.56" (23.50cm x 7.50cm x 6.50cm)	440	11 hours
XRT-75	CR011052	3.0lb (1.4kg)	10.50" x 7.00" x 1.50" (26.25cm x 17.50 x 3.75cm)	1200	30 hours
XRT-200	AC611000	7.9lb (3.6kg)	12.25" x 5.75" x 5.75" (30.63cm x 14.38cm x 14.38cm)	2,500	2.6 days
XRT-400	AC611004	13lb (5.9kg)	13.2" x 9.8" x 7.5" (33.5cm x 24.9cm x 19.0cm)	5,000	5.2 days
XRT-1000	AC611001	37lb (16.8kg)	18.00" x 9.50" x 10.00" (45.00cm x 23.75cm x 25.00cm)	12,500	13 days

A filling station, CliC-it, is available upon request to re-fill cartridges in the field
UltraCell can assist in sourcing CliC-it certified fuel for onsite refilling



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