



## Flexible Power and Energy Configurations

### 48 V Plug 'n' Play Energy Storage System powered by



With 17 kWh of usable storage at 60% range of charge and 20 kW of peak power, the high-cycling, energy-efficient Ecoult™ UltraFlex™ 48 V system is safe and simple to deploy, operate, and maintain, making it the plug 'n' play energy storage device of choice for a range of applications and environments, including:

- Residential
- Small and medium commercial
- Agricultural
- Distributed infrastructure, e.g. mobile telecoms and utilities
- Rugged and remote locations

### Integrated Battery Solution

The Ecoult UltraFlex 48 V system offers both high power and high energy. Each Ecoult UltraFlex unit comprises:

- 16 x Deka® UltraBattery® 12 V monoblocs with integrated monitors
- System monitoring and control
- Over-current protection on each string



### Flexible Applications

#### Renewables Integration

- + **Smoothing:** Smoothing of renewable energy power sources
- + **Feed-in management and ramp-rate control:** Distributed management of renewable energy sources feeding into the electricity grid

#### Diesel and Off-Grid

- + **Hybrid energy systems:** Downsizing of diesel/fossil-fuel generators and reduction of generator use greatly lowers costs and fuel consumption reducing CO<sub>2</sub> and other emissions
- + **Remote-area power supply:** Reliable off-grid renewable power solutions

#### Energy Shifting/Cost Control

- + **Peak lopping/peak demand management:** Shifting of energy availability to cover demand peaks
- + **Energy arbitrage:** Storage of off-peak energy for use during peak charge times

#### Revenue Generation

- + **Frequency regulation:** Provision of distributed grid ancillary services or demand response

#### Any other partial-state-of-charge (PSoC) use

Where batteries may need to charge and discharge rapidly and frequently

## Power and Energy Data

Ecoulit UltraFlex  
4 x 48 V

DC Energy <sup>1</sup>	17.4 kWh
Additional Reserve Capacity	up to 8.5 kWh
Maximum Power	20 kW

<sup>1</sup> At 77° F (25° C). When used at high power, voltage limits may be encountered before full capacity is realized.

## Cabinet Specifications

Nominal Voltage	48 V
Assembly Weight	2293 lbs (1040 kg)
Installed Dimensions (W x D x H)	43.3 in x 23.9 in x 78.1 in (1100 mm x 606 mm x 1985 mm)

## Key System Features

Feature	Benefits
<b>Modular Design</b> 1, 2, 3 & 4 x 48 V string configurations possible, with up to 16 x 12 V Deka UltraBattery monoblocs per cabinet	Flexible sizing for different power and energy requirements
<b>Plug 'n' Play Solution</b> Available pre-installed or pre-wired for integration onsite, depending on site accessibility	Reduced onsite labor and accelerated installation time
<b>Small Footprint</b> Offers 20 kW power with a 43 in x 24 in footprint	Fewer batteries required, so space onsite is optimized
<b>Passive Thermal Design</b> Maximizes battery life by channeling airflow to promote operation within optimum temperature bands	Maximizes your business case and return on investment by reducing diverging effects of temperature on Deka UltraBattery cells
<b>Battery Monitoring</b> Provides access to state of charge and other vital information to assist with operating the system within its optimal performance range	Be proactive – save time and cost on site by diagnosing issues remotely
<b>Over-current Protection</b> Protects the system from excessive current and faults	Included switch fuses maximize safety and longevity of the batteries
<b>Recyclability</b> The Deka UltraBattery is virtually 100% recyclable. Each of the three major components (lead, plastic, and acid) can be safely recycled and used in making new energy storage devices	Closed-loop recycling of Deka UltraBattery reduces the environmental footprint of your energy storage solution

All data subject to change without notice.

### Energy Storage Excellence – Partners

Ecoulit™ is the global energy storage arm of the world's largest single-site lead battery manufacturing facility, East Penn Manufacturing (EPM), known worldwide for its quality and environmental excellence. Ecoulit™ provides software, hardware, systems integration and engineering to monitor and control the energy storage systems and maximize their capabilities. EPM manufactures the Deka® UltraBattery® cells inside every system.



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