



### Product Description

The Booster Series is a battery-powered system designed to optimize energy usage in peak shaving applications. It provides uninterrupted and stable power, reducing reliance on oversized generators and lowering operational costs. The system enables off-grid operation when necessary, minimizing excess power generation and improving energy efficiency.

### Peak Power, Zero Compromise

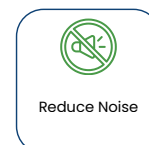
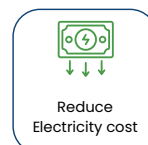
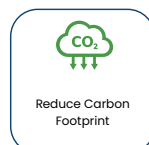
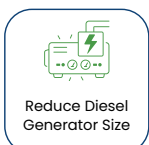
Metrobit offers a robust and adaptable battery-powered energy system, designed to perform in diverse site conditions. With a plug-and-play configuration, the system enables rapid deployment and seamless site transitions.

Our battery-powered peak shaving cabinet introduces an innovative, sustainable, and efficient solution for powering energy-intensive construction equipment. Simply connect a 16A 480VAC power source to maintain optimal system performance and keep batteries fully charged. The system's backup battery power ensures uninterrupted operation for extended periods, even without an external power source.

Designed with a modular hardware configuration, the system allows for scalable power solutions, enabling users to upsize or downsize based on specific requirements. Additionally, customizable power connectors and sockets further enhance plug-and-play capabilities, providing a tailored and efficient energy solution for construction and industrial applications.

### Key Features

- Cuts fuel use and emissions by minimizing generator size.
- Integrates easily with grid and off-grid setups without major upgrades.
- Built to handle extreme Middle Eastern and African climates.
- Uses high-temp batteries that last twice as long as standard lead-acid.
- Modular inverter design adapts easily to changing system needs.



## Applications

- **Tower Cranes:** Delivers peak power without running diesel generators 24/7.
- **Welding Machines:** Maintains a stable energy flow for precision and productivity.
- **Material Hoists:** Handles variable loads effortlessly for smoother operations.
- **Passenger Hoists:** Ensures safe, uninterrupted vertical transport on-site.
- **Bar Benders & Cutters:** Powers high-torque tools with zero flicker or delay.
- **Concrete Mixers & Pumps:** Supports consistent mixing and pumping even during grid fluctuations.
- **Lighting Systems:** Keeps the entire site well-lit with clean, stable power.
- **Power Tools & Grinders:** Protects sensitive equipment from voltage dips.
- **Cooling & Ventilation Fans:** Maintains airflow and comfort without straining the system.
- **Temporary Office Cabins:** Powers ACs, IT equipment, and lighting without overloading.

## Examples of Other Applications

### Industrial Welding



### Industrial Motors



### Passenger Hoist



### Material Hoist



## Technical Specifications

### B1-V: Engineered for Europe, Middle East & Africa

#### AC Input Specifications

|                              |                                              |
|------------------------------|----------------------------------------------|
| Nominal Voltage - VAC        | 400 V / 3phase +N                            |
| Voltage Range                | 150 - 293 Vac (derating from 195 to 150 Vac) |
| Frequency Range              | 50 Hz (47 - 53 Hz) or 60 Hz (57 - 63 Hz)     |
| Recommend Connection Current | 16 A to 32 A connections                     |
| AC Connection                | DG Socket/Terminals                          |
| Power Source                 | Grid or Diesel Generator                     |

#### AC Output Specifications

|                          |                             |
|--------------------------|-----------------------------|
| Nominal Voltage - VAC    | 400 V 3Phase +N             |
| Frequency Range          | 50 or 60 Hz                 |
| AC Connection            | Camlock/BusBar Terminals    |
| Max Rated Supply Current | 250 A (MCCB)   400 A (MCCB) |

| General Data : Model No. | B1V-100                             | B1V-120 | B1V-160 | B1V-200 |
|--------------------------|-------------------------------------|---------|---------|---------|
| Power Rating             | 100 KW                              | 120 KW  | 160 KW  | 200 KW  |
| Nominal Current          | 145/P A                             | 174/P A | 232/P A | 290/P A |
| Short Time Overload      | 125% (15 seconds) across all models |         |         |         |
| Peak Current             | 180/ P A                            | 217/P A | 289/P A | 361/P A |
| Inverter Modules         | 5×20KW                              | 6×20KW  | 8×20KW  | 10×20KW |
| Weight                   | 3332 kg                             | 3358 kg | 3410 kg | 3462 kg |

#### Mechanical Data

|                                     |                                                       |
|-------------------------------------|-------------------------------------------------------|
| Dimensions W×D×H (mm)               | 2050 x 1596 x 2447                                    |
| Operating Temperature               | -20°C to 55°C                                         |
| Cooling                             | Recirculation Air-conditioning with integrated heater |
| Number of Cooling Units             | 1 (+1 Optional)                                       |
| Standards - Safety/Grid Interaction | IEC62040-1 / IEC60950/ EN 50272-2                     |
| Standards - EMC                     | EN300386V1.6.1 / EN61000-1-2-3-4                      |
| Cabinet Rating                      | IP 55                                                 |

#### DC Battery Specifications

|                          |                                   |
|--------------------------|-----------------------------------|
| Nominal Voltage - VDC    | 408V                              |
| Capacity Installed       | 69.36 KWh                         |
| Useable Capacity         | 55.49 KWh (80% DOD)               |
| Energy Storage Chemistry | AGM High Temperature Deep Cycling |

\*Specifications are subject to change without prior notice