

## Datacenter and Networking Power Solution

### Engineered to Empower™ the future of datacenter power

MEGMEET delivers advanced power solutions that span the full spectrum of communications infrastructure high-efficiency modules for networking equipment to fully integrated turnkey datacenter systems. Purpose-built for performance, our products offer exceptional power density, reliability, and energy efficiency to support critical applications across core routers, edge devices, and hyperscale environments. With compact designs and long-term durability, MEGMEET empowers networks and datacenters to achieve superior system performance while minimizing operational costs and environmental impact.



## About Us

MEGMEET is a \$1.3B global power and energy company specializing in high-efficiency power solutions for datacenter, e-Mobility, healthcare, industrial automation and renewable energy. With R&D, manufacturing facilities and global operations across North America, India, Thailand, China and Germany, MEGMEET is Engineered to Empower™ the future of Datacenter, Industrial, and e-Mobility Markets.



**\$1.3B USD**

Revenue 2025



**28%**

Revenue CAGR  
2015-2025



**10**

R&D Centers



**8**

Manufacturing  
Centers



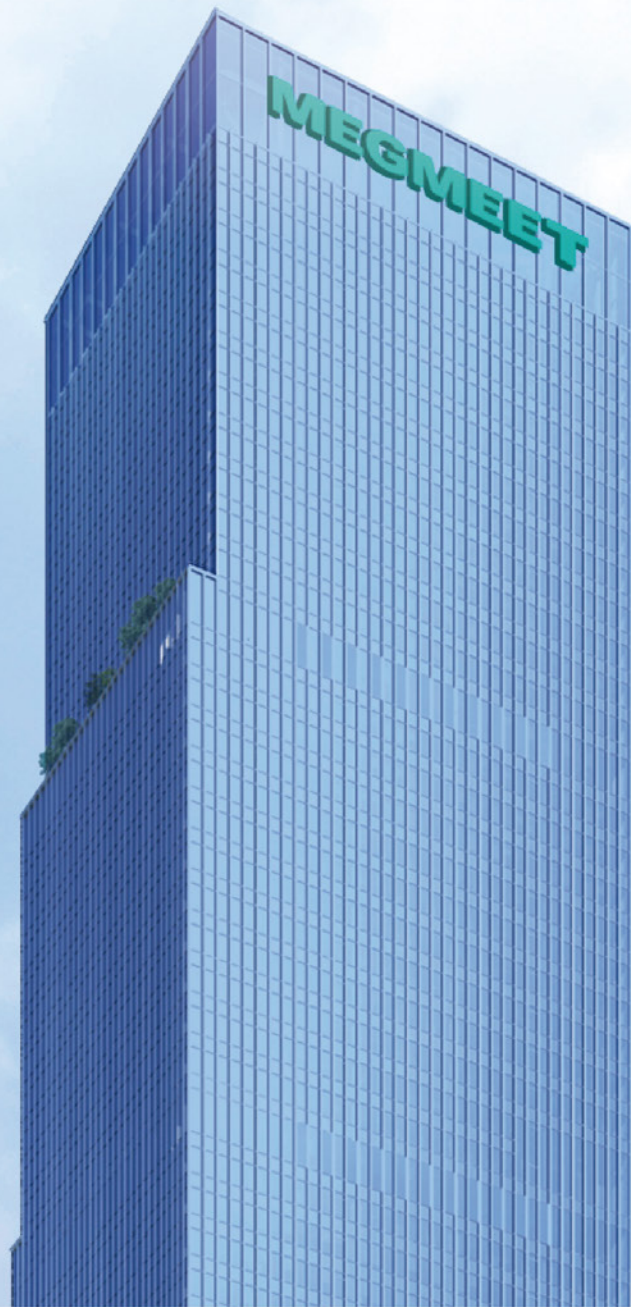
**34%**

R&D Staff



**10K+**

Total Employees



# ORV3 8 kVA Inverter Shelf

As datacenter platforms continue to evolve, rack-level power architectures increasingly adopt high-voltage DC distribution. However, some devices inside server rooms still require AC power. MEGMEET's 8 kVA inverter power shelf converts 50 VDC input into 230 VAC output, enabling localized AC power distribution within the rack. Compared with traditional 230 VAC power supply methods, it reduces AC cabling complexity while improving installation flexibility and power distribution reliability. The shelf integrates DC-to-AC inverter power distribution and four independent protected AC output sockets, allowing stable rack-mounted AC power supply for auxiliary equipment inside server racks while improving fault isolation and maintenance convenience.

## Key Features

- ORV3 rack-mounted system design
- Maximum system capacity of 8 kVA
- DC input with AC inverter output distribution
- Four independent AC output sockets with individual circuit protection
- Controller monitoring for inverter status and shelf input temperature



CB cULus

IPU8KV-B2A41A

## Industry Trends

As datacenter platforms continue to evolve, rack-level power architectures increasingly adopt high-voltage DC distribution. However, some devices inside server rooms still require AC power. MEGMEET's 8 kVA inverter power shelf converts 50 VDC input into 230 VAC output, enabling localized AC power distribution within the rack. Compared with traditional 230 VAC power supply methods, it reduces AC cabling complexity while improving installation flexibility and power distribution reliability.

## Core Module Introduction

### Inverter: IPI2302000G2A-DATS

The power module is the core power conversion unit of the 8 kVA Power Shelf. It converts DC input power into stable AC output, supplying auxiliary AC equipment inside server cabinets. It supports high efficiency and hot-swap maintenance.



### Controller: MPSC6000-PMC-INV

The controller is the power shelf management controller. It monitors and manages power module operation, system status, communication, and protection functions, enabling reliable control, remote monitoring, and easier maintenance of the 8 kVA Power Shelf.



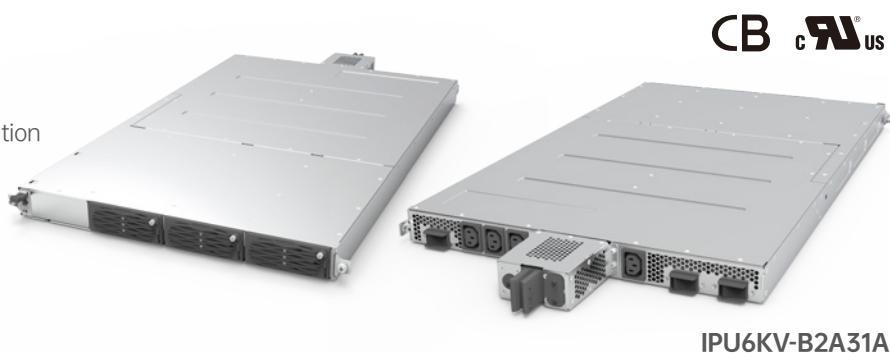
| Parameter                        | ORV3 8 kVA Inverter Shelf (IPU8KV-B2A41A) |                                                                                                                          |
|----------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| System                           | Dimension (D x W x H)                     | 788.7 x 537 x 48 (mm)                                                                                                    |
|                                  | Weight                                    | 11 to 12 kg (without inverter)                                                                                           |
|                                  | Cooling mode                              | Forced air cooling, airflow front to rear                                                                                |
|                                  | Installation mode                         | Installed on 21-inch rack                                                                                                |
|                                  | Cabling mode                              | Rear inlet & outlet                                                                                                      |
|                                  | Maintenance mode                          | Front and Back maintenance                                                                                               |
|                                  | Protection level                          | IP20                                                                                                                     |
| DC Distribution                  | Input voltage                             | 50 VDC                                                                                                                   |
|                                  | Maximum current                           | 200 A                                                                                                                    |
| AC Distribution                  | Output voltage                            | 230 VAC                                                                                                                  |
|                                  | Maximum current                           | 8.7 A                                                                                                                    |
|                                  | Output port                               | 4 x C13 IEC outlets                                                                                                      |
| Inverter<br>(IPI2302000G2A-DATS) | Dimension (D x W x H)                     | 291 x 106.4 x 41.5 (mm)                                                                                                  |
|                                  | Weight                                    | <2.0 kg                                                                                                                  |
|                                  | DC Input Voltage                          | 42 to 58 VDC; 60 VDC no damage                                                                                           |
|                                  | Rated input voltage                       | 53.5 VDC                                                                                                                 |
|                                  | Max Input current                         | 62.5 A                                                                                                                   |
|                                  | Starting impulse current                  | <45 A                                                                                                                    |
|                                  | Output Voltage                            | 220 / 230 VAC, settable                                                                                                  |
|                                  | Output Frequency                          | 50 / 60 Hz, settable; Default 60 Hz                                                                                      |
|                                  | Peak Efficiency                           | 91.5% with fan                                                                                                           |
|                                  | Operation Temperature                     | -20 °C to +75 °C                                                                                                         |
| Controller<br>(MPSC6000-PMC-INV) | Communication port                        | 1 * Ethernet, 1 * CAN                                                                                                    |
|                                  | Protocol                                  | Northbound: PMI, Redfish, SNMP; Southbound: PMBus, SMBus                                                                 |
|                                  | Display mode                              | Web GUI                                                                                                                  |
|                                  | Dimension (D x W x H)                     | 442.6 x 37.9 x 15.9 (mm)                                                                                                 |
|                                  | Weight                                    | ≤ 2 kg                                                                                                                   |
| Environment                      | Operating temperature                     | -10 °C to +45 °C                                                                                                         |
|                                  | Storage temperature                       | -40 °C to +75 °C                                                                                                         |
|                                  | Operating humidity                        | 5% to 95% (non-condensing)                                                                                               |
|                                  | Altitude                                  | 0 to 4000 m (if altitude is within 2000 to 4000 m, max operating temp decreases by +1 °C as altitude increases by 200 m) |

# 6 kVA Inverter Shelf

As datacenter platforms continue to evolve, rack-level power architectures increasingly adopt high-voltage DC distribution. However, some devices inside server rooms still require AC power. MEGMEET's 6 kVA inverter power shelf converts 50 VDC input into 230 VAC output, enabling localized AC power distribution within the rack. Compared with traditional 230 VAC power supply methods, it reduces AC cabling complexity and improves installation flexibility. The shelf integrates DC-to-AC inverter power distribution and protected AC output circuits, providing stable rack-mounted AC power for auxiliary equipment and other critical post-conversion power supply scenarios.

## Key Features

- Maximum system capacity of 6 kVA
- DC input with AC inverter output distribution
- Four C13 AC output outlets with independent circuit protection
- Controller monitoring for inverter status and shelf input temperature



## Industry Trends

As datacenter platforms continue to evolve, rack-level power architectures increasingly adopt high-voltage DC distribution. However, some devices inside server rooms still require AC power. MEGMEET's 6 kVA inverter power shelf converts 50 VDC input into 230 VAC output, enabling localized AC power distribution within the rack. Compared with traditional 230 VAC power supply methods, it reduces AC cabling complexity and improves installation flexibility.

## Core Module Introduction

### Inverter: IPI2302000G2A-DATS

The power module is the core power conversion unit of the 6 kVA Power Shelf. It converts DC input power into stable AC output, supplying auxiliary AC equipment inside server cabinets. It supports high efficiency and hot-swap maintenance.

### Controller: MPSC6000-PMC-INV

The controller is the power shelf management unit. It monitors and manages power module operation, system status, communication, and protection functions, enabling reliable control, remote monitoring, and easier maintenance of the 6 kVA Power Shelf.



| Parameter                        | 6 kVA Power Shelf (IPU6KV-B2A31A) |                                                                                                                          |
|----------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| System                           | Dimension (D x W x H)             | 811.5 x 448 x 44 (mm)                                                                                                    |
|                                  | Weight                            | 9 to 10 kg (without inverter)                                                                                            |
|                                  | Cooling mode                      | Forced air cooling, airflow front to rear                                                                                |
|                                  | Installation mode                 | Installed on 19-inch rack, compatible 21-inch rack with optional bracket                                                 |
|                                  | Cabling mode                      | Rear inlet & outlet                                                                                                      |
|                                  | Maintenance mode                  | Front and Back maintenance                                                                                               |
|                                  | Protection level                  | IP20                                                                                                                     |
| DC Distribution                  | Input voltage                     | 50 VDC                                                                                                                   |
|                                  | Maximum current                   | 200 A                                                                                                                    |
| AC Distribution                  | Output voltage                    | 230 VAC                                                                                                                  |
|                                  | Maximum current                   | 8.7 A                                                                                                                    |
|                                  | Output port                       | 4 x C13 IEC outlets                                                                                                      |
| Inverter<br>(IPI2302000G2A-DATS) | Dimension (D x W x H)             | 291 x 106.4 x 41.5 (mm)                                                                                                  |
|                                  | Weight                            | <2.0 kg                                                                                                                  |
|                                  | DC Input Voltage                  | 42 to 58 VDC; 60 VDC no damage                                                                                           |
|                                  | Rated input voltage               | 53.5 VDC                                                                                                                 |
|                                  | Max Input current                 | 62.5 A                                                                                                                   |
|                                  | Starting impulse current          | <45 A                                                                                                                    |
|                                  | Output Voltage                    | 220 / 230 VAC, settable                                                                                                  |
|                                  | Output Frequency                  | 50 / 60 Hz, settable; Default 60 Hz                                                                                      |
|                                  | Peak Efficiency                   | 91.5% with fan                                                                                                           |
|                                  | Operation Temperature             | -20 °C to +75 °C                                                                                                         |
| Controller<br>(MPSC6000-PMC-INV) | Communication port                | 1 * Ethernet, 1 * CAN                                                                                                    |
|                                  | Protocol                          | Northbound: PMI, Redfish, SNMP; Southbound: PMBus, SMBus                                                                 |
|                                  | Display mode                      | Web GUI                                                                                                                  |
|                                  | Dimension (D x W x H)             | 442.6 x 37.9 x 15.9 (mm)                                                                                                 |
|                                  | Weight                            | ≤ 2 kg                                                                                                                   |
| Environment                      | Operating temperature             | -10 °C to +45 °C                                                                                                         |
|                                  | Storage temperature               | -40 °C to +75 °C                                                                                                         |
|                                  | Operating humidity                | 5% to 95% (non-condensing)                                                                                               |
|                                  | Altitude                          | 0 to 4000 m (if altitude is within 3000 to 4000 m, max operating temp decreases by +1 °C as altitude increases by 200 m) |

# 110 kW AC-52VDC Air-cooled Power Shelf

The IPU4110K-A9636A Power Shelf is a compact, ultra-high-capacity centralized power system designed for next-generation GPU servers. It adopts a centralized modular architecture and distributes stable 52 VDC power to rack-mounted compute trays through a common shared bus structure. For high-density racks requiring larger total power budgets, multiple 110 kW / 52 VDC power shelves can operate in parallel. With redundancy and hot-swap capability, the solution enables higher power delivery efficiency and power density.

## Key Features

- 110 kW system capacity with N+1 / N+N redundancy
- Six rectifier slots, each supporting an 18.5 kW rectifier module
- Standard 19-inch width, compatible with 21-inch racks via optional brackets
- 3U compact design for high power density
- Supports IPMI, Redfish, and SNMP for flexible networking and remote monitoring
- Hot-pluggable rectifier, controller, and power shelf for quick online maintenance



IPU4110K-A9636A

## Industry Trends

As datacenter platforms drive rapid growth in rack-level power demand, datacenter power architectures are evolving toward higher power density, modularization, and better O&M visibility. Traditional distributed or non-modular architectures may increase cabling complexity, power distribution difficulty, maintenance workload, and system cost in high-density rack deployments. MEGMEET's 110 kW Power Shelf adopts a compact 3U design with N+1 redundancy, hot-swappable modules, monitoring and telemetry, and parallel capacity expansion. It improves reliability, serviceability, and power density within the same footprint, meeting the demand for flexible and efficient power delivery in high-density racks.

## Core Module Introduction

### Rectifier: MPS5218K5-AI-AN

The rectifier is the core power conversion module of the 110 kW Power Shelf. It converts input power into tightly regulated DC output to supply large-scale server clusters. It supports high-efficiency operation, hot-swap maintenance, in-shelf parallel operation, and redundancy to ensure service continuity and maintainability.

### Controller: MPSC6000-PMC-VR

The controller is the power shelf management controller. It monitors and manages rectifier operation, system status, communication, and protection functions, enabling reliable control, remote monitoring, and easier maintenance of the 110 kW Power Shelf.



| Parameter                       | 110 kW Power Shelf (IPU4110K-A9636A) |                                                                                                                   |
|---------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| System                          | Dimension (D x W x H)                | 880 x 448 x 131.4±0.5 (mm)                                                                                        |
|                                 | Weight                               | 25 to 26 kg (without rectifiers)                                                                                  |
|                                 | Cooling mode                         | Forced air cooling, airflow front to rear (support reverse air cooling)                                           |
|                                 | Installation mode                    | Installed on 19-inch rack, compatible 21-inch rack with optional bracket                                          |
|                                 | Cabling mode                         | Rear inlet & outlet                                                                                               |
|                                 | Maintenance mode                     | Front maintenance                                                                                                 |
|                                 | Protection level                     | IP20                                                                                                              |
| AC Distribution                 | Input mode                           | 3PH+E (415 to 480 VAC)                                                                                            |
|                                 | Input frequency                      | 47 to 63 Hz, rated value: 50 Hz / 60 Hz                                                                           |
| DC Distribution                 | Output voltage                       | 54 VDC @ 0% load, 52 VDC @ 100% load                                                                              |
|                                 | Maximum current                      | 2115.4 A                                                                                                          |
|                                 | Output port                          | BUS Bar for positive & negative                                                                                   |
| Rectifier<br>(MPS5218K5-AI-AN)  | Input voltage                        | 311 to 528 VAC, rated 415 to 480 VAC                                                                              |
|                                 | Efficiency                           | ≥ 95.5% VAC 50 to 100% load                                                                                       |
|                                 | Rated power                          | 18.5 kW (380 to 480 VAC), 16.5 kW (346 to 380 VAC)                                                                |
|                                 | Hold up time                         | 20 ms @ 100% load                                                                                                 |
|                                 | Working temperature                  | -5 °C to +40 °C                                                                                                   |
|                                 | Dimension (D x W x H)                | 710±0.5 x 204±0.5 x 40±0.5 (mm)                                                                                   |
|                                 | Weight                               | 9 kg                                                                                                              |
|                                 | Cooling mode                         | Forced air cooling, airflow front to rear                                                                         |
|                                 | Power factor                         | ≥ 0.96 @ (415 to 480 VAC) 20 to 50% load, ≥ 0.98 @ (415 to 480 VAC) 50 to 100% load                               |
|                                 | iTHD                                 | ≤ 10% @ (415 to 480 VAC) 20 to 50% load,<br>≤ 5% @ (415 to 480 VAC) 50 to 100% load                               |
| Controller<br>(MPSC6000-PMC-VR) | Signal input                         | 4*AI (2* Busbar temp, 1*SOC, 1*Ishare), 20* DI (6*PSU_PRESENT, 6*PMALERT, 6*PSU_AC_LOSS, 1*Power Brake, 1*PSKILL) |
|                                 | Digital output                       | 6 * RESET_LATCH_FAULT_PSU                                                                                         |
|                                 | Communication port                   | 1 * Ethernet, 1 * CAN, 1 * VCOM, 3 * I2C                                                                          |
|                                 | Protocol                             | Northbound: PMI, Redfish, SNMP; Southbound: PMBus, SMBus                                                          |
|                                 | Display mode                         | Web GUI                                                                                                           |
|                                 | Dimension (D x W x H)                | 450±0.5 x 41.9±0.3 x 17.8±0.3 (mm) (without clip and handle)                                                      |
|                                 | Weight                               | ≤ 2 kg                                                                                                            |
| Environment                     | Operating temperature                | -5 °C to +40 °C                                                                                                   |
|                                 | Storage temperature                  | -40 °C to +60 °C                                                                                                  |
|                                 | Operating humidity                   | 8% to 85% (non-condensing)                                                                                        |
|                                 | Altitude                             | 0 to 3050 m                                                                                                       |

# 33 kW Power Shelf

The IPU433K-NB-A1616 is a 1U high-density intelligent power shelf designed for compute cabinets. It supports GPU clusters based on the latest ultra-high-performance computing architecture and is compatible with both legacy and next-generation datacenter power systems. With up to 97.5% peak conversion efficiency, N+N redundancy, hot-swap capability, and energy storage buffering, it helps reduce load fluctuations and ensure stable 24/7 operation. Integrated monitoring and remote O&M support simplify deployment, operation, and maintenance for supercomputing, large-model training, and high-density GPU clusters.

## Key Features

- Standard 19-inch rack design with front network connector, rear power wiring, and parallel machine RJ45 ports; Can be expanded to a standard 21-inch shelf system via an expansion frame;
- 16.5 kW (N+N) Output Power with 6 x 5.5 kW rectifiers, 27.5 kW (N+1) Output Power with 6 x 5.5 kW rectifiers, 33 kW (N+0) Output Power with 6 x 5.5 kW rectifiers;
- Current sharing between multiple shelves with up to 12 parallel power shelves;
- Hot pluggable rectifiers and controller;
- Telemetry and Monitoring over Redfish; Boot loader to field upgrade controller and rectifier firmware.



IPU433K-NB-AA1616

## Industry Trends

As datacenter platforms drive higher rack-level power demand, datacenter power systems must become more compact, efficient, and scalable. MEGMEET's 33 kW Power Shelf provides a modular power conversion solution for high-density server racks, helping reduce cabling complexity, improve reliability, and support flexible power delivery.

## Core Module Introduction

### Rectifier: IPS495500-AIT-N1BA

This power module is the core power conversion unit for the 33 kW power shelf. With an AC input range of 180 to 305 VAC, it delivers 5,500 W rated output power and provides 50 V and 12 VSB outputs. The rated current is 112.25 A for 50 V and 1.0 A for 12 VSB. Measuring 640 mm × 68 mm × 40 mm, it supports hot-swap maintenance, redundant operation, and front-to-rear air cooling.



### Controller: MPSC6000-PMC-3

The controller is the power shelf management controller. It monitors and manages rectifier operation, system status, communication, and protection functions, enabling reliable control, remote monitoring, and easier maintenance of the 33 kW Power Shelf.



| Parameter                         | 33 kW Power Shelf (IPU433K-NB-A1616) |                                                                                                                            |
|-----------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| System                            | Dimension (D x W x H)                | 809.5 x 448 x 43.6 (mm)                                                                                                    |
|                                   | Weight                               | ≤ 35 kg (without rectifiers)                                                                                               |
|                                   | Cooling mode                         | Forced air cooling, airflow front to rear                                                                                  |
|                                   | Installation mode                    | Installed on 19-inch rack, compatible 21-inch rack with optional bracket                                                   |
|                                   | Cabling mode                         | Rear inlet                                                                                                                 |
|                                   | Maintenance mode                     | Front maintenance                                                                                                          |
|                                   | Protection level                     | IP20                                                                                                                       |
| AC Distribution                   | Input mode                           | 3PH+N+E (346 to 480 VAC)                                                                                                   |
|                                   | Input frequency                      | 45 to 65 Hz, rated value: 50 Hz / 60 Hz                                                                                    |
| DC Distribution                   | Output voltage                       | 50 VDC @ 0% load, 49 VDC @ 100% load, 48.5 VDC @ 150% load                                                                 |
|                                   | Maximum current                      | 673.5 A                                                                                                                    |
|                                   | Output port                          | BUS Bar for positive & negative                                                                                            |
| Rectifier<br>(IPS495500-AIT-N1BA) | Input voltage                        | 176 to 305 VAC, rated 200 to 277 VAC                                                                                       |
|                                   | Efficiency                           | > 96.5% VAC @ 230 to 277 VAC / 50% load, > 95.5% VAC @ 230 to 277 VAC / 100% load                                          |
|                                   | Rated power                          | 5.5 kW (180 to 305 VAC)                                                                                                    |
|                                   | Hold up time                         | 23 ms @ 100% load                                                                                                          |
|                                   | Working temperature                  | -10 °C to +45 °C                                                                                                           |
|                                   | Dimension (D x W x H)                | 640 x 68 x 40 (mm)                                                                                                         |
|                                   | Weight                               | < 3.3 kg                                                                                                                   |
|                                   | Cooling mode                         | Forced air cooling, airflow front to rear                                                                                  |
|                                   | Power factor                         | ≥ 0.95 @ 208 to 277 VAC / 10 to 20% load, ≥ 0.98 @ 208 to 277 VAC / 20 to 100% load                                        |
|                                   | iTHD                                 | ≤ 15% @ 208 to 277 VAC / 5 to 10% load, ≤ 10% @ 208 to 277 VAC / 10 to 30% load<br>≤ 5% @ 208 to 277 VAC / 30 to 100% load |
| Controller<br>(MPSC6000-PMC-3)    | Signal input                         | 2 * AI (* Bus bar temp.), 1 * Reserved, 1 * DI (* PSU_PRESENT, * PMALERT, * PSU_AC_LOSS)                                   |
|                                   | Digital output                       | 6 * RESET_LATCH_FAULT_PSU                                                                                                  |
|                                   | Communication port                   | 1 * Ethernet                                                                                                               |
|                                   | Protocol                             | Northbound: IPMI, Redfish, Https; Southbound: PMBus, CAN                                                                   |
|                                   | Display mode                         | Web GUI, Redfish, IPMI                                                                                                     |
|                                   | Dimension (D x W x H)                | 15.9 x 37.9 x 450 (mm)                                                                                                     |
|                                   | Weight                               | 0.27 kg                                                                                                                    |
| Environment                       | Operating temperature                | -10 °C to +45 °C                                                                                                           |
|                                   | Storage temperature                  | -40 °C to +60 °C                                                                                                           |
|                                   | Operating humidity                   | 5% to 95% (non-condensing)                                                                                                 |
|                                   | Altitude                             | 0 to 4000 m (if altitude is within 3000 to 4000 m, max operating temp decreases by 1 °C as altitude increases by 200 m)    |

# ORV3 33 kW Power Shelf

The IPU433K-A1616-OL/R is a compact, high-capacity power shelf designed to support the demanding power requirements of servers and the open compute ecosystem. It adopts a centralized modular architecture and delivers power to connected devices through a shared bus structure. For racks with higher power demands, multiple power shelves can be deployed in parallel to scale capacity efficiently.

## Key Features

- 33 kW system capacity with N+1 / N+N redundancy
- Wide input voltage range of 200 to 277 VAC, with 346 to 480 VAC line-to-line nominal input  $\pm 10\%$
- Six rectifier slots, each supporting a 5.5 kW rectifier module
- Current sharing between multiple shelves, supporting up to 12 parallel power shelves
- Standard 21-inch width for wide deployment compatibility
- 1U compact design to save rack space and installation cost
- Supports IPMI, Redfish, and Web UI for flexible networking and remote monitoring
- Hot-pluggable rectifier, controller, and power shelf for quick online maintenance



**IPU433K-A1616-OL/R**

## Industry Trends

As datacenter platforms drive higher rack-level power demand, datacenter power systems need to be more compact, efficient, scalable, and serviceable. Traditional power architectures may increase cabling complexity, maintenance effort, and system cost. MEGMEET's 33 kW ORV3 Power Shelf provides a modular power conversion solution for high-density server racks. With a 1U design, N+1 redundancy, hot-swappable modules, current sharing, and monitoring support, it improves system reliability, scalability, and serviceability. It is suitable for datacenter requiring flexible and efficient power delivery.

## Core Module Introduction

### Rectifiers: IPS495500-AIT-01A

The Rectifiers is the core power conversion module of the 33 kW ORV3 Power Shelf. It converts the input power into stable DC output for server power delivery, supporting high efficiency, hot-swap maintenance, and redundant operation within the power shelf system.



### Controller: MPSC6000-PMC-O

The Controller is the power shelf management controller. It monitors and manages Rectifiers operation, system status, communication, and protection functions, enabling reliable control, remote monitoring, and easier maintenance of the 33 kW ORV3 Power Shelf.



| Parameter                        | ORV3 33 kW Power Shelf (IPU433K-A1616-OL/R) |                                                                                                                          |
|----------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| System                           | Dimension (D x W x H)                       | 537 x 788.7 x 46 (mm)                                                                                                    |
|                                  | Weight                                      | 12.85 kg (without rectifiers)                                                                                            |
|                                  | Cooling mode                                | Forced air cooling, airflow front to rear (support reverse air cooling)                                                  |
|                                  | Installation mode                           | Installed on 21-inch rack                                                                                                |
|                                  | Cabling mode                                | Rear inlet & outlet                                                                                                      |
|                                  | Maintenance mode                            | Front maintenance                                                                                                        |
|                                  | Protection level                            | IP20                                                                                                                     |
| AC Distribution                  | Input mode                                  | 3PH+N+E (346 to 480 VAC)                                                                                                 |
|                                  | Input frequency                             | 45 to 65 Hz, rated value: 50 Hz / 60 Hz                                                                                  |
| DC Distribution                  | Output voltage                              | 50 VDC @ 0% load, 49 VDC @ 100% load, 48.5 VDC @ 150% load                                                               |
|                                  | Maximum current                             | 673.5 A                                                                                                                  |
|                                  | Output port                                 | BUS Bar for positive & negative                                                                                          |
| Rectifier<br>(IPS495500-AIT-01A) | Input voltage                               | 180 to 305 VAC, rated 200 to 277 VAC                                                                                     |
|                                  | Efficiency                                  | >96.5% @ 230 to 277 VAC / 50% load, >95.5% @ 230 to 277 VAC / 100% load                                                  |
|                                  | Rated power                                 | 5.5 kW (180 to 305 VAC)                                                                                                  |
|                                  | Hold up time                                | 20 ms @ 100% load                                                                                                        |
|                                  | Working temperature                         | -5 °C to +45 °C                                                                                                          |
|                                  | Dimension (D x W x H)                       | 640 x 73.5x 40 (mm)                                                                                                      |
|                                  | Weight                                      | 3.24 kg                                                                                                                  |
|                                  | Cooling mode                                | Forced air cooling, airflow front to rear                                                                                |
|                                  | Power factor                                | ≥0.95 @ 208 to 277 VAC / 10 to 20% load, ≥0.98 @ 208 to 277 VAC / 20 to 100% load                                        |
|                                  | iTHD                                        | ≤15% @ 208 to 277 VAC / 5 to 10% load, ≤10% @ 208 to 277 VAC / 10 to 30% load, ≤5% @ 208 to 277 VAC / 30 to 100% load    |
| Controller<br>(MPSC6000-PMC-O)   | Signal input                                | 2 *AI (*Bus bar temp),<br>18*DI (*Rectifier_PRESENT,*PMALERT,*Rectifier_AC_LOSS),<br>4 * DI (*ShelfID), 6* DI (Reserved) |
|                                  | Digital output                              | 6 * RESET_LATCH_FAULT_Rectifier                                                                                          |
|                                  | Communication port                          | 1 * Ethernet                                                                                                             |
|                                  | Protocol                                    | Northbound: IPMI, Redfish, Https; Southbound: PMBus, CAN                                                                 |
|                                  | Display mode                                | Web GUI, Redfish, IPMI                                                                                                   |
|                                  | Dimension (D x W x H)                       | 450 x 48 x 40 (mm)                                                                                                       |
|                                  | Weight                                      | 0.36 kg                                                                                                                  |
| Environment                      | Operating temperature                       | -5 °C to +45 °C                                                                                                          |
|                                  | Storage temperature                         | -40 °C to +70 °C                                                                                                         |
|                                  | Operating humidity                          | 5% to 85% (non-condensing)                                                                                               |
|                                  | Altitude                                    | 0 to 4000 m (if altitude is within 3000 to 4000 m, max operating temp decreases by 1 °C as altitude increases by 200 m)  |

# 40 kW Capacitor Shelf

The IPC4930K is a 40 kW supercapacitor shelf designed for servers and datacenter. It helps address instantaneous bus voltage drops during the operation of high-power chips such as GPUs. Together with a high-power power shelf, it forms a "primary power + backup power" protection scheme to support stable datacenter operation.

## Key Features



- 53.5 VDC discharge interface voltage with ACLOSS signal
- 51 VDC discharge interface voltage without ACLOSS signal
- Backup time >900 ms, typically 1 s, at 40 kW continuous load
- Standard 19-inch rack design with front network connector, rear power wiring, and RJ45 parallel ports
- Air-cooled design with front-to-back airflow and internally controlled variable-speed fan
- Telemetry and monitoring over Redfish, with bootloader support for capacitor shelf and controller firmware upgrades



IPC4930K

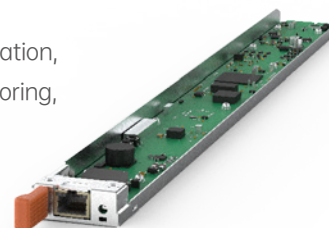
## Industry Trends

As GPU power continues to increase, server loads experience millisecond-level fluctuations, creating higher requirements for transient voltage stabilization. Traditional uninterruptible power supply systems have slower response and shorter cycle life, making them insufficient for fast bus voltage drop protection. The power supply architecture is evolving toward a three-tier structure: primary power, backup power, and transient voltage stabilization. In this architecture, the power shelf provides the main power supply, the battery backup unit shelf or capacitor backup shelf provides backup power, and the capacitor shelf delivers microsecond-level response to smooth power spikes and support stable GPU operation.

## Core Module Introduction

### Controller: MPSC6000-PMC-VR-C

The controller is the power shelf management controller. It monitors and manages rectifier operation, system status, communication, and protection functions, enabling reliable control, remote monitoring, and easier maintenance of the 40 kW Capacitor Shelf.



| Parameter                         | 40 kW Capacitor Shelf (IPC4930K) |                                                                                                                                                                  |
|-----------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shelf                             | Dimension (D x W x H)            | 839.5 x 448 x 43.6 (mm)                                                                                                                                          |
|                                   | Weight                           | ~23 kg                                                                                                                                                           |
|                                   | Cooling mode                     | Forced air cooling, airflow front to rear                                                                                                                        |
|                                   | Installation mode                | Installed on 19-inch rack, compatible 21-inch rack with optional bracket                                                                                         |
|                                   | Cabling mode                     | Rear inlet & outlet                                                                                                                                              |
|                                   | Maintenance mode                 | Rear & Front maintenance                                                                                                                                         |
|                                   | Protection level                 | IP20                                                                                                                                                             |
|                                   | Rated power                      | 40 kW                                                                                                                                                            |
|                                   | Efficiency                       | 85% @ charge & 92% @ discharge                                                                                                                                   |
|                                   | Working temperature              | -10 °C to +45 °C                                                                                                                                                 |
| DC Distribution                   | Input voltage                    | 51.5 to 54.5 V                                                                                                                                                   |
|                                   | Output voltage                   | With AC_loss Signal:<br>53.5 VDC @ 100% SOC<br>52.0 VDC @ 0% SOC<br>Without AC_loss Signal:<br>51.0 VDC @ 100% SOC<br>50.6 VDC @ 0% SOC<br>range: 45.0 to 55.5 V |
|                                   | Maximum current                  | 800 A                                                                                                                                                            |
|                                   | Output port                      | BUS Bar for positive & negative                                                                                                                                  |
| Controller<br>(MPSC6000-PMC-VR-C) | Signal input                     | 2 * AI (* Bus bar temp.), 1 * Reserved, 1 * DI (* PSU_PRESENT, * PMALERT, * PSU_AC_LOSS)                                                                         |
|                                   | Digital output                   | 6 * RESET_LATCH_FAULT_PSU                                                                                                                                        |
|                                   | Communication port               | 1 * Ethernet                                                                                                                                                     |
|                                   | Protocol                         | Northbound: IPMI, Redfish, Https; Southbound: PMBus, CAN                                                                                                         |
|                                   | Display mode                     | Web GUI, Redfish, IPMI                                                                                                                                           |
|                                   | Dimension (D x W x H)            | 15.9 x 37.9 x 450 (mm)                                                                                                                                           |
|                                   | Weight                           | 0.27 kg                                                                                                                                                          |
| Environment                       | Operating temperature            | -10 °C to +45 °C                                                                                                                                                 |
|                                   | Storage temperature              | -40 °C to +65 °C                                                                                                                                                 |
|                                   | Operating humidity               | 10% to 90% (non-condensing)                                                                                                                                      |
|                                   | Altitude                         | 3050 m (10,000 feet)                                                                                                                                             |

# 33 kW Capacitor Shelf

The IPC4930K is a 33 kW supercapacitor shelf designed for servers and datacenter. It helps address instantaneous bus voltage drops during the operation of high-power chips such as GPUs. Together with a high-power power shelf, it forms a "primary power + backup power" protection scheme to support stable datacenter operation.

## Key Features

- 49.5 VDC discharge interface voltage with ACLOSS signal
- 48.5 VDC discharge interface voltage without ACLOSS signal
- Backup time >1.2 s, typically 1.3 s, at 33 kW continuous load
- Standard 19-inch rack design with front network connector, rear power wiring, and RJ45 parallel ports
- Air-cooled design with front-to-back airflow and internally controlled variable-speed fan
- Telemetry and monitoring over Redfish, with bootloader support for capacitor shelf and controller firmware upgrades



IPC4930K

## Industry Trends

As GPU power continues to increase, server loads experience millisecond-level fluctuations, creating higher requirements for transient voltage stabilization. Traditional uninterruptible power supply systems have slower response and shorter cycle life, making them insufficient for fast bus voltage drop protection. The power supply architecture is evolving toward a three-tier structure: primary power, backup power, and transient voltage stabilization. In this architecture, the power shelf provides the main power supply, the battery backup unit shelf or capacitor backup shelf provides backup power, and the capacitor shelf delivers microsecond-level response to smooth power spikes and support stable GPU operation.

## Core Module Introduction

### Controller: MPSC6000-PMC-C

The controller is the power shelf management controller. It monitors and manages rectifier operation, system status, communication, and protection functions, enabling reliable control, remote monitoring, and easier maintenance of the 33 kW Capacitor Shelf.



| Parameter                      | 33 kW Capacitor Shelf (IPC4930K) |                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shelf                          | Dimension (D x W x H)            | 839.5 x 448 x 43.6 (mm)                                                                                                                                                                                                                                                                                                                                  |
|                                | Weight                           | ~23 kg                                                                                                                                                                                                                                                                                                                                                   |
|                                | Cooling mode                     | Forced air cooling, airflow front to rear                                                                                                                                                                                                                                                                                                                |
|                                | Installation mode                | Installed on 19-inch rack, compatible 21-inch rack with optional bracket                                                                                                                                                                                                                                                                                 |
|                                | Cabling mode                     | Rear inlet & outlet                                                                                                                                                                                                                                                                                                                                      |
|                                | Maintenance mode                 | Rear & Front maintenance                                                                                                                                                                                                                                                                                                                                 |
|                                | Protection level                 | IP20                                                                                                                                                                                                                                                                                                                                                     |
|                                | Rated power                      | 33 kW                                                                                                                                                                                                                                                                                                                                                    |
|                                | Efficiency                       | 85% @ charge & 92% @ discharge                                                                                                                                                                                                                                                                                                                           |
|                                | Working temperature              | -10 °C to +45 °C                                                                                                                                                                                                                                                                                                                                         |
| DC Distribution                | Input voltage                    | 48.8 to 54.5 V                                                                                                                                                                                                                                                                                                                                           |
|                                | Output voltage                   | With AC_loss Signal:<br>49.5 VDC @ 100% SOC & 0% Load,<br>49.2 VDC @ 100% SOC & 100% Load,<br>49.0 VDC @ 0% SOC & 0% Load,<br>48.7 VDC @ 0% SOC & 100% Load;<br>Without AC_loss Signal:<br>48.5 VDC @ 100% SOC & 0% Load,<br>48.2 VDC @ 100% SOC & 100% Load,<br>48.3 VDC @ 0% SOC & 0% Load,<br>48.0 VDC @ 0% SOC & 100% Load;<br>range: 45.0 to 53.0 V |
|                                | Maximum current                  | 900 A                                                                                                                                                                                                                                                                                                                                                    |
|                                | Output port                      | BUS Bar for positive & negative                                                                                                                                                                                                                                                                                                                          |
| Controller<br>(MPSC6000-PMC-C) | Signal input                     | 2 * AI (* Bus bar temp.), 1 * Reserved, 1 * DI (* PSU_PRESENT, * PMALERT, * PSU_AC_LOSS)                                                                                                                                                                                                                                                                 |
|                                | Digital output                   | 6 * RESET_LATCH_FAULT_PSU                                                                                                                                                                                                                                                                                                                                |
|                                | Communication port               | 1 * Ethernet                                                                                                                                                                                                                                                                                                                                             |
|                                | Protocol                         | Northbound: IPMI, Redfish, Https; Southbound: PMBus, CAN                                                                                                                                                                                                                                                                                                 |
|                                | Display mode                     | Web GUI, Redfish, IPMI                                                                                                                                                                                                                                                                                                                                   |
|                                | Dimension (D x W x H)            | 15.9 x 37.9 x 450 (mm)                                                                                                                                                                                                                                                                                                                                   |
|                                | Weight                           | 0.27 kg                                                                                                                                                                                                                                                                                                                                                  |
| Environment                    | Operating temperature            | -10 °C to +45 °C                                                                                                                                                                                                                                                                                                                                         |
|                                | Storage temperature              | -40 °C to +65 °C                                                                                                                                                                                                                                                                                                                                         |
|                                | Operating humidity               | 10% to 90% (non-condensing)                                                                                                                                                                                                                                                                                                                              |
|                                | Altitude                         | 3050 m (10,000 feet)                                                                                                                                                                                                                                                                                                                                     |

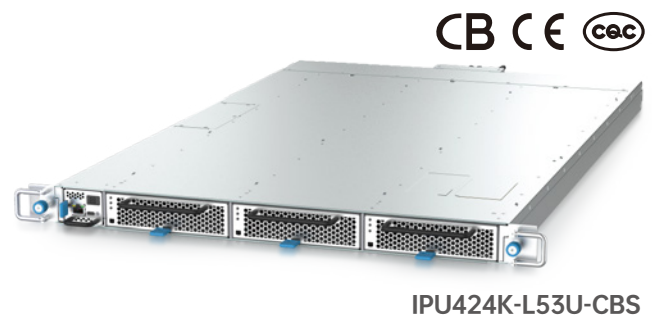
# 24 kW Capacitor Shelf

The 24 kW Capacitor Shelf is a high-power supercapacitor backup system designed for servers, datacenter racks, storage equipment, and high-density computing clusters. It uses high-performance electric double-layer capacitors (EDLCs) and an integrated battery management system to provide active cell balancing, multi-loop real-time monitoring, and comprehensive protection against overvoltage, undervoltage, overcurrent, overtemperature, and over-discharge.

A single capacitor shelf supports up to three hot-swappable capacitor backup unit modules. Faulty modules can be replaced online without shutting down the entire system, improving maintainability and reducing downtime. When used with a high-power power shelf, the capacitor backup shelf smooths input current fluctuations and provides millisecond-level backup power during sudden voltage drops or momentary power interruptions.

## Key Features

- Hot-swappable modular design for easy online maintenance
- High-performance EDLC supercapacitors with integrated BMS
- Active cell balancing and comprehensive electrical protection
- Millisecond-level seamless power hold-up for data security
- Long cycle life with maintenance-free operation



## Industry Trends

As computing clusters and full-rack datacenter expand, server loads increasingly exhibit millisecond-level power fluctuations. Traditional uninterruptible power supply and lead-acid battery solutions may respond too slowly, require frequent maintenance, occupy substantial space, and offer limited cycle life.

Rack-mounted supercapacitor systems are becoming an important part of next-generation datacenter power architectures. MEGMEET's modular capacitor shelf provides rapid power hold-up, hot-swappable maintenance, active cell balancing, and scalable deployment. It improves system reliability and serviceability while reducing lifecycle maintenance requirements for high-density server racks.

## Core Module Introduction

### Capacitor unit: MPS548000-LI-CBU

The capacitor unit is a hot-swappable EDLC supercapacitor backup module developed for servers and high-density datacenter power systems. It integrates high-power-density EDLC cells, an intelligent capacitor management system, passive cell balancing, real-time monitoring, and protection against overvoltage, undervoltage, overcurrent, overtemperature, and over-discharge.

The module provides millisecond-level power hold-up during input power loss or instantaneous voltage drops. Its modular design supports online replacement and flexible capacity expansion, helping maintain continuous operation while simplifying maintenance.



| Parameter                            | 24 kW Capacitor Shelf (IPU424K-L53U-CBS) |                                                                                    |
|--------------------------------------|------------------------------------------|------------------------------------------------------------------------------------|
| Shelf                                | Dimension (D x W x H)                    | 900 x 537 x 46.2 (mm)                                                              |
|                                      | Weight                                   | 14 kg (without capacitor backup unit)                                              |
|                                      | Cooling mode                             | Air-cooled and Front to back airflow with internally controlled variable-speed fan |
|                                      | Installation mode                        | Non-standard, customer customized                                                  |
|                                      | Cabling mode                             | Rear inlet & outlet                                                                |
|                                      | Maintenance mode                         | Front maintenance                                                                  |
|                                      | Protection level                         | IP20                                                                               |
| DC Distribution                      | Input mode                               | 44.5 to 57.5V VDC                                                                  |
|                                      | Input frequency                          | N/A                                                                                |
|                                      | Output voltage                           | 44.5 to 57.5V VDC                                                                  |
|                                      | Maximum current                          | 447 A                                                                              |
|                                      | Output port                              | BUS Bar for positive & negative                                                    |
| Capacitor unit<br>(MPS548000-LI-CBU) | Input voltage                            | 44.5 to 57.5V VDC                                                                  |
|                                      | Output voltage                           | 44.5 to 57.5V VDC                                                                  |
|                                      | Rated power                              | 8000 W                                                                             |
|                                      | Output current                           | 148 A                                                                              |
|                                      | Efficiency                               | 97% (DC-DC conversion test condition)                                              |
|                                      | Working temperature                      | -5 °C to +45 °C                                                                    |
|                                      | Dimension (D x W x H)                    | 900 x 537 x 46.2 (mm)                                                              |
|                                      | Cooling mode                             | Air-cooled, front-to-back airflow with internally controlled variable-speed fan    |
|                                      | Protection                               | UVP, OVP, OCP, SCP, OTP                                                            |
|                                      | Communication protocol                   | PMBus 1.2                                                                          |
| Environment                          | Operating temperature                    | -5 °C to +45 °C                                                                    |
|                                      | Storage temperature                      | -20 °C to +60 °C                                                                   |
|                                      | Operating humidity                       | 5% to 95% (non-condensing)                                                         |
|                                      | Altitude                                 | 3000 m                                                                             |

# 15 kW Capacitor Shelf

The MCBS15K-50S is a 15 kW supercapacitor-based power compensation shelf designed for servers and datacenter. It mitigates instantaneous bus voltage drops and rapid power fluctuations caused by high-power devices such as GPUs. When operating with a high-power power shelf, it provides fast transient power compensation to stabilize the DC bus and support reliable server operation.

## Key Features

- 15 kW transient power compensation capability with a 50 VDC interface
- Standard 19-inch rack design with front network interface and rear power connections
- Expandable to a standard 21-inch shelf system through an optional expansion frame
- Air-cooled design with front-to-back airflow
- Input and output voltage range of 47.5 to 53.0 VDC
- Telemetry and monitoring through Redfish
- Bootloader-based firmware upgrades for the Capacitor Shelf and controller
- IP20 protection rating

CB cULus CE FCC



MCBS15K-50S

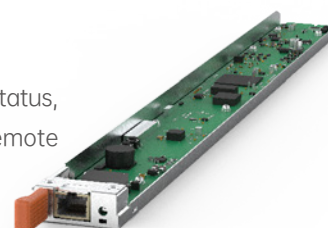
## Industry Trends

As GPU power continues to increase, server loads exhibit millisecond-level fluctuations, creating greater demand for rapid transient voltage stabilization. Conventional power systems may not respond quickly enough to sudden load changes, resulting in bus voltage drops and reduced system stability. The Capacitor Shelf provides microsecond-level response and short-duration power compensation to smooth power spikes and stabilize the DC bus. Its modular architecture, monitoring capability, and fast response make it suitable for high-density server racks requiring reliable transient power support.

## Core Module Introduction

### Controller: MPSC6000-PMC-C

The controller is the Capacitor Shelf management controller. It monitors and manages system status, communication, protection functions, and shelf operation, enabling reliable control, remote monitoring, firmware management, and easier maintenance of the 15 kW Capacitor Shelf.



| Parameter                      | 15 kW Capacitor Shelf (MCBS15K-50S) |                                                                                                                                                   |
|--------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Shelf                          | Dimension (D x W x H)               | 839.5 x 448.0 x 43.6 (mm)                                                                                                                         |
|                                | Weight                              | ~23 kg                                                                                                                                            |
|                                | Cooling mode                        | Forced air cooling, airflow front to rear                                                                                                         |
|                                | Installation mode                   | Installed on 19-inch rack, compatible 21-inch rack with optional bracket                                                                          |
|                                | Cabling mode                        | Rear inlet & outlet                                                                                                                               |
|                                | Maintenance mode                    | Rear & Front maintenance                                                                                                                          |
|                                | Protection level                    | IP20                                                                                                                                              |
|                                | Rated power                         | 15 kW                                                                                                                                             |
|                                | Efficiency                          | 85% @ charge & 98% @ discharge                                                                                                                    |
|                                | Working temperature                 | -5 °C to +45 °C                                                                                                                                   |
| DC Distribution                | Input voltage                       | 48.3 to 53.0 V                                                                                                                                    |
|                                | Output voltage                      | 49.9 to 50.1 VDC Discharge voltage @ 0% load<br>49.45 to 49.55 VDC Discharge voltage @ 50% load<br>48.9 to 49.1 VDC Discharge voltage @ 100% load |
|                                | Maximum current                     | Input: 300 A max<br>Output: 500 A max                                                                                                             |
|                                | Output port                         | BUS Bar for positive & negative                                                                                                                   |
| Controller<br>(MPSC6000-PMC-C) | Signal input                        | 2 * AI (* Bus bar temp.), 1 * Reserved, 1 * DI (* PSU_PRESENT, * PMALERT,)                                                                        |
|                                | Digital output                      | 6 * RESET_LATCH_FAULT_PSU                                                                                                                         |
|                                | Communication port                  | 1 * Ethernet                                                                                                                                      |
|                                | Protocol                            | Northbound: IPMI, Redfish, Https; Southbound: PMBus, CAN                                                                                          |
|                                | Display mode                        | Web GUI, Redfish, IPMI                                                                                                                            |
|                                | Dimension (D x W x H)               | 15.9 x 37.9 x 450 (mm)                                                                                                                            |
|                                | Weight                              | 0.27 kg                                                                                                                                           |
| Environment                    | Operating temperature               | -10 °C to +45 °C                                                                                                                                  |
|                                | Storage temperature                 | -40 °C to +65 °C                                                                                                                                  |
|                                | Operating humidity                  | 10% to 90% (non-condensing)                                                                                                                       |
|                                | Altitude                            | 3050 m (10,000 feet)                                                                                                                              |

# Power Distribution Unit



## Key Features

- 80 A high-capacity power distribution for high-density racks, available in three-phase and single-phase models
- 24 × C19 output sockets with up to 16 A per outlet
- Full digital monitoring via LCD, Web, SNMP, Modbus TCP / RTU and Telnet
- Per-outlet load monitoring, energy metering and remote output control
- Built-in environment monitoring for temperature, humidity, smoke, water and door status
- Dual RS485 and 100 M Ethernet interfaces for cascading and system integration

| Parameter                          | Power Distribution Unit                                                 |
|------------------------------------|-------------------------------------------------------------------------|
| Model                              | IPUPDU-PA80A (Three-phase) / IPUPDU-PA80B (Single-phase)                |
| Rated Input Voltage                | 200 to 250 VAC                                                          |
| Maximum Supported Input Current    | 80 A                                                                    |
| Default Input Circuit Breaker      | 63 A                                                                    |
| Input Frequency                    | 50 to 60 Hz                                                             |
| Input Wiring                       | Air breaker + terminal connection; 5 × 16 mm <sup>2</sup> cable         |
| Output Sockets                     | 24 × C19                                                                |
| Max. Output Current per Socket     | 16 A                                                                    |
| Single Relay Module Output Current | 80 A Max.                                                               |
| Communication Interfaces           | 100 M Ethernet × 1, RS485 × 1                                           |
| Supported Protocols                | Web, Telnet, MODBUS TCP / RTU, SNMP V1 / V2c / V3                       |
| Monitoring Parameters              | Voltage, current, power, energy, frequency, temperature, humidity, etc. |
| Environment / Alarm Inputs         | Door, water, smoke; temperature and humidity monitoring                 |
| Dry Contact Output                 | 2 outputs, 30 VDC / 1 A or 60 VDC / 0.5 A                               |
| Display                            | LCD display with 4-button operation                                     |
| Dimensions (L × W × H)             | 1600 × 110 × 90 (mm)                                                    |
| Mounting                           | Vertical rack-mount                                                     |
| Operating Temperature              | -20 °C to +55 °C                                                        |
| Storage Temperature                | -30 °C to +70 °C                                                        |
| Relative Humidity                  | 10% ~ 80% (non-condensing)                                              |
| Altitude                           | ≤ 4000 m                                                                |
| Protection Rating                  | IP20                                                                    |
| MTBF                               | ≥ 100,000 hours                                                         |
| Compliance / Standards             | CE, RoHS 2.0, EN55032 / GB9254 Class A, IEC 61000-4 series              |

# 800 VDC Solutions

## MEGMEET Turnkey 800 VDC Solutions

### Power Shelf with Integrated Rectifiers and Battery Backup Units

MEGMEET's high-power series power supply solutions are engineered for next-generation server racks and high-density datacenter infrastructure. Designed around an 800 VDC power rack, the system supports dual AC input feeds and delivers a regulated 800 VDC output bus for rack-level power distribution. Each power shelf provides up to 110 kW output capability, integrating high-efficiency power supply units and battery backup unit shelves into a compact, all-in-one power shelf platform.

## Key Features

- Wide input voltage range: 311 to 528 VAC, 3-phase line voltage
- 800 VDC / 110 kW output, configured with 6 × 18.5 kW rectifiers and
- 5 × 22 kW battery backup units
- Supports current sharing between multiple power shelves, with up to 6 power shelves in parallel
- Hot-pluggable rectifiers and controller for online maintenance
- Telemetry and real-time system monitoring
- Bootloader support for field firmware upgrades of controller and rectifiers
- Front-to-back airflow with internally controlled variable-speed fans
- Surge protection: AC input >1 kV line-to-line, >2 kV line-to-earth; IP20 protection rating



**MPR660K-81R**

## Industry Trends

With integrated AC-DC power conversion, battery backup support, power management, and system-level monitoring, the solution enables reliable, scalable, and serviceable power delivery for computing, HPC clusters, machine learning servers, and customized high-performance server platforms. The architecture helps improve power density, simplify rack-level deployment, and enhance power continuity for mission-critical workloads.

## Core Module Introduction

### 110 kW 6RU Power Shelf + Battery Backup Shelf: MPSF110k-818k51

Supports a wide input voltage range of 311–528 V, compatible with global power grids, with a regulated 800 VDC output.

Each power shelf integrates six 18.3 kW rectifier modules, two shelf controllers (one for the PSU and one for the BBU), and Battery Backup Unit (BBU) modules. Each shelf delivers up to 110 kW at full load and supports EDPP dynamic load compensation.

The BBU supports up to 90 kW of discharge power with a backup duration of 60 seconds.

The PSU, BBU, and controller modules all support hot-swappable maintenance, improving system serviceability and operational continuity. The controllers support flexible networking to enable system expansion across different application scenarios.



| Parameter                       | 800 VDC Power Rack (MPR660K-81R) |                                                                |
|---------------------------------|----------------------------------|----------------------------------------------------------------|
| Rack                            | Dimension (D x W x H)            | 1300 x 600 x 2236 (mm)                                         |
|                                 | Weight                           | 1100 kg Rack with 6 pcs Power shelf                            |
|                                 | Cooling mode                     | Forced air cooling, airflow front to rear                      |
|                                 | Cabling mode                     | Rear inlet & outlet                                            |
|                                 | Maintenance mode                 | Front maintenance                                              |
|                                 | Maximum output power             | 660 kW                                                         |
|                                 | Protection level                 | IP20                                                           |
| Power shelf                     | Input mode                       | 3PH+E (342 to 528 VAC) : 415 / 480 VAC                         |
|                                 | Maximum input current            | 100 A ×2                                                       |
|                                 | Input frequency                  | 47 to 63 Hz, rated value: 50 / 60 Hz                           |
|                                 | Output voltage                   | 810 VDC @ 0% load, 790 VDC @ 100% load                         |
|                                 | Maximum output current           | 140 A                                                          |
|                                 | Output port                      | Connector                                                      |
|                                 | Dimension (D x W x H)            | 860 x 438 x 263 (mm)                                           |
| Rectifier<br>(MPS80018K5-AI-AN) | Weight                           | ≤38 kg (without Rectifier & BBU)                               |
|                                 | Input voltage                    | 3PH+E (311 to 528 VAC) : 380 to 480 VAC                        |
|                                 | Efficiency                       | >97% VAC 50% to 100% load                                      |
|                                 | Rated power                      | 18.5 kW (380 to 480 VAC)                                       |
|                                 | Hold up time                     | 20 ms @ 100% load                                              |
|                                 | Working temperature              | +5 °C to +45 °C                                                |
|                                 | Dimension (D x W x H)            | 70 x 204 x 40 (mm)                                             |
|                                 | Weight                           | ≤18 kg                                                         |
|                                 | Cooling mode                     | Forced air cooling, airflow front to rear                      |
|                                 | Power factor                     | ≥0.95 @ 10% to 20% load, ≥0.98 @ 20% to 100% load              |
|                                 | iTHD                             | ≤10% @ 10% to 30% load, ≤5% @ 30% to 10 % load                 |
| Controller<br>(MPSC6000-PMC-8A) | Signal input                     | 1 * Reserved, 1 * DI (* PSU_PRESENT, * PMALERT, * PSU_AC_LOSS) |
|                                 | Digital output                   | 6 * RESET_LATCH_FAULT_PSU                                      |
|                                 | Communication port               | 1 * Ethernet, 1 * CAN, 1 * VCOM, 3 * I2C                       |
|                                 | Protocol                         | Northbound: PMI, Redfish, SNMP; Southbound: PMBus, SMBus       |
|                                 | Display mode                     | Web GUI                                                        |
|                                 | Dimension (D x W x H)            | 442.6 x 37.9 x 15.9 (mm)                                       |
|                                 | Weight                           | ≤ 2 kg                                                         |
| Environment                     | Operating temperature            | +5 °C to +45 °C                                                |
|                                 | Storage temperature              | -40 °C to +60°C                                                |
|                                 | Operating humidity               | 8% to 85% (non-condensing)                                     |
|                                 | Altitude                         | 0 to 3050 m ( Operation above 3050m need derating guideline)   |

# 110 kW AC-800 VDC Power Shelf

The MPSF110K-818K52 is a high-power 800 VDC power shelf designed for datacenter power infrastructure and high-density server rack applications. It adopts a centralized modular architecture and converts three-phase AC input into regulated 800 VDC output through multiple hot-pluggable rectifier modules. The system integrates PSU modules, PMC monitoring and control, battery backup unit interface support, and communication functions to provide reliable, scalable, and serviceable power delivery for next-generation server racks.

## Key Features

- 110 kW system capacity with regulated 800 VDC output
- Six rectifier slots, each supporting 18.5 kW PSU modules
- Wide AC input voltage range of 311–528 VAC, rated 415–480 VAC line-to-line
- 3RU power shelf design for high-density server rack deployment
- Hot-pluggable PSU and PMC modules with current sharing for online maintenance
- Front-to-back airflow with internally controlled variable-speed fans



**MPSF110K-818K52**

## Industry Trends

As server platforms move toward higher rack-level power density, datacenter power systems require higher output voltage, higher power capacity, better scalability, and easier maintenance. Traditional low-voltage power architectures may increase current stress, cabling complexity, power loss, and system integration difficulty when supporting high-power racks. MEGMEET's 110 kW 800 VDC Power Shelf provides a centralized high-voltage DC power conversion solution for next-generation datacenter infrastructure. With 800 VDC output, 110 kW shelf-level capacity, hot-pluggable rectifier modules, PMC-based monitoring, battery backup unit interface support, and parallel shelf scalability, it helps improve power delivery efficiency, system reliability, maintainability, and deployment flexibility for high-density server racks.

## Core Module Introduction

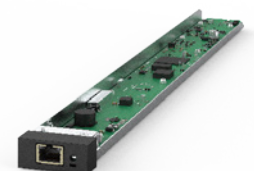
### Rectifier: MPS80018K5-AI-AN

The rectifier is the core power conversion module of the 110 kW Power Shelf. Each rectifier supports 18.5 kW output power and converts three-phase AC input into stable 800 VDC output for server power delivery. Six rectifier modules can be configured in the shelf to achieve 110 kW output capacity. The rectifier modules support hot swapping, current sharing, front-to-back airflow, and online maintenance.



### Controller: MPCS6000-PMC-8A

The controller is the power shelf monitoring and control unit. It monitors and manages overall system status, rectifier operation, communication, protection, and control functions. It supports telemetry and monitoring, bootloader-based firmware upgrades, RJ45 network interface, reset button, LED status indication, and system communication management.



| Parameter                       | 110 kW AC-800 VDC Power Shelf (MPSF110K-818K52) |                                                                                                                      |
|---------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| System                          | Dimension (D x W x H)                           | 830 x 438 x 131 (mm)                                                                                                 |
|                                 | Height                                          | 3RU                                                                                                                  |
|                                 | Weight                                          | ≤ 38 kg without PSU                                                                                                  |
|                                 | Cooling mode                                    | Front-to-back airflow, internally controlled variable-speed fan                                                      |
|                                 | Installation mode                               | Power shelf rack installation                                                                                        |
|                                 | Maintenance mode                                | Hot-pluggable PSUs and PSC                                                                                           |
|                                 | Protection level                                | IP20                                                                                                                 |
|                                 | Parallel operation                              | Current sharing between multiple shelves, up to 6 parallel power shelves                                             |
| AC Distribution                 | Rated input voltage range                       | 342 to 480 VAC line-to-line                                                                                          |
|                                 | Input voltage range                             | 311 to 528 VAC line-to-line                                                                                          |
|                                 | Input frequency                                 | 50 / 60 Hz, operating range 47 to 63 Hz                                                                              |
|                                 | Input voltage configuration                     | 3-phase + PE                                                                                                         |
|                                 | Maximum current per input feed phase            | 100 A × 2                                                                                                            |
| DC Distribution                 | Output voltage                                  | 810 VDC @ no load, 790 VDC @ 100% load                                                                               |
|                                 | Rated output power                              | 110 kW @ 415 to 528 VAC; 100 kW @ 311 to 415 VAC                                                                     |
|                                 | Output ripple and noise                         | ≤ 8Vp-p                                                                                                              |
|                                 | Voltage regulation accuracy                     | ± 0.25% @ 100% load                                                                                                  |
|                                 | Voltage adjustment rate                         | ± 3%                                                                                                                 |
|                                 | Output connector                                | 800 VDC output connector                                                                                             |
| Rectifier<br>(MPS80018K5-AI-AN) | Rectifier quantity                              | 6 PSU modules                                                                                                        |
|                                 | Single rectifier power                          | 18.5 kW                                                                                                              |
|                                 | Hot plug                                        | Supported                                                                                                            |
| Controller<br>(MPCS6000-PMC-8A) | Controller model                                | MPCS6000-PMC-8A                                                                                                      |
|                                 | Function                                        | Power shelf monitoring and control                                                                                   |
|                                 | Communication / network                         | RJ45 network connector                                                                                               |
|                                 | Status indication                               | Green: power supply OK; Yellow: environmental over-temperature warning;<br>Red: environmental over-temperature fault |
|                                 | Firmware upgrade                                | Boot loader supports field upgrade for PSC and PSU firmware                                                          |
| Environment                     | Operating temperature                           | -5 °C to +45 °C                                                                                                      |
|                                 | Transportation temperature                      | -40 °C to +60 °C                                                                                                     |
|                                 | Storage temperature                             | -40 °C to +60 °C                                                                                                     |
|                                 | Operating humidity                              | 8% to 85%, non-condensing                                                                                            |
|                                 | Storage humidity                                | 5% to 95%, non-condensing                                                                                            |
|                                 | Altitude                                        | 0 to 3050 m ( Operation above 3050m need derating guideline)                                                         |
| Reliability                     | MTBF                                            | ≥ 300,000 hours                                                                                                      |
| Certification / Compliance      | Safety certification                            | UL, CE                                                                                                               |
|                                 | Environmental compliance                        | RoHS                                                                                                                 |

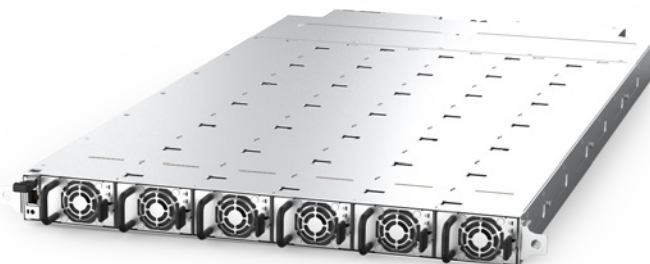
# 90 kW 800-50 VDC Power Shelf

The IPU490K-H9616A is a high-power-density, high-efficiency 90 kW air-cooled server power supply system designed for 800 VDC input platforms. It consists of six 15 kW sub-modules and supports N+1 / N+N redundant design. For higher power requirements, the system supports multi-shelf expansion to provide scalable power capacity for high-density server applications.



## Key Features

- 90 kW system capacity with N+1 / N+N redundancy
- Six rectifier slots, each supporting a 15 kW sub-module
- Standard 19-inch width, compatible with 21-inch racks via optional brackets
- 1U compact design to save rack space and installation cost
- Supports IPMI, Redfish, and SNMP for flexible networking and remote monitoring
- Hot-pluggable rectifier, controller, and power shelf for quick online maintenance
- 800 VDC input with 52 to 54 VDC output
- Up to 98% peak efficiency



**IPU490K-H9616A**

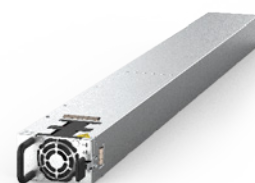
## Industry Trends

To meet the growing demand for higher efficiency and greater power density in centralized power supply systems for next-generation datacenter, MEGMEET has developed an HVDC platform power shelf solution. The 90 kW HVDC 800 VDC to 50 VDC Power Shelf features a high-power-density 19-inch architecture, a sub-module power density of 144 W/in<sup>3</sup>, and up to 98% peak efficiency, helping address market demand for compact, efficient, and scalable server power systems.

## Core Module Introduction

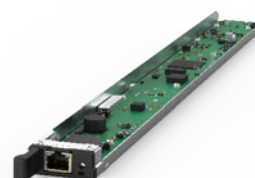
### Rectifier: MPS5215K-HI-NA

The 90 kW shelf integrates six PSU-MPS5215K-HI-NA sub-modules. Each module provides 52 to 54 VDC output, supports online firmware upgrades, hot swapping, and redundant design, and achieves up to 98% peak efficiency.



### Controller: MPSC6000-PMC-H

The controller is the power shelf management controller. It monitors and manages rectifier operation, system status, communication, and protection functions, enabling reliable control, remote monitoring, and easier maintenance of the 90 kW Power Shelf.



| Parameter                      | 90 kW 800-50VDC Power Shelf (IPU490K-H9616A) |                                                                                          |
|--------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------|
| System                         | Dimension (D x W x H)                        | 830 x 438 x 40 (mm)                                                                      |
|                                | Weight                                       | 13 to 14 kg (without rectifiers)                                                         |
|                                | Cooling mode                                 | Forced air cooling, airflow front to rear (support reverse air cooling)                  |
|                                | Installation mode                            | Installed on 19-inch rack, compatible 21-inch rack with optional bracket                 |
|                                | Cabling mode                                 | Rear inlet & outlet                                                                      |
|                                | Maintenance mode                             | Front maintenance                                                                        |
|                                | Protection level                             | IP20                                                                                     |
| AC Distribution                | Input mode                                   | 800 VDC ±5%                                                                              |
| DC Distribution                | Output voltage                               | 54 VDC @ 0% load, 52 VDC @ 100% load, 51 VDC @ 150% load                                 |
|                                | Maximum current                              | 1666.7 A                                                                                 |
|                                | Output port                                  | BUS Bar for positive & negative                                                          |
| Rectifier<br>(MPS5215K-HI-NA)  | Input voltage                                | 800 VDC ±5%                                                                              |
|                                | Efficiency                                   | >98% Peak                                                                                |
|                                | Rated power                                  | 15 kW                                                                                    |
|                                | Hold up time                                 | 4 ms @ 100% load                                                                         |
|                                | Working temperature                          | -10 °C to +40 °C                                                                         |
|                                | Dimension (D x W x H)                        | 640 x 68 x 40 (mm)                                                                       |
|                                | Weight                                       | <4 kg                                                                                    |
| Controller<br>(MPSC6000-PMC-H) | Cooling mode                                 | Forced air cooling, airflow front to rear                                                |
|                                | Signal input                                 | 2 * AI (* Bus bar temp.), 1 * Reserved, 1 * DI (* PSU_PRESENT, * PMALERT, * PSU_DC_LOSS) |
|                                | Digital output                               | 6 * RESET_LATCH_FAULT_PSU                                                                |
|                                | Communication port                           | 1 * Ethernet, 1 * CAN, 1 * VCOM, 3 * I2C                                                 |
|                                | Protocol                                     | Northbound: PMI, Redfish, SNMP; Southbound: PMBus, SMBus                                 |
|                                | Display mode                                 | Web GUI                                                                                  |
|                                | Dimension (D x W x H)                        | 442.6 x 37.9 x 15.9 (mm)                                                                 |
| Environment                    | Weight                                       | 2 kg                                                                                     |
|                                | Operating temperature                        | -10 °C to +40 °C                                                                         |
|                                | Storage temperature                          | -40 °C to +75 °C                                                                         |
|                                | Operating humidity                           | 5 to 95% (non-condensing)                                                                |
|                                | Altitude                                     | 0 to 3050 m                                                                              |

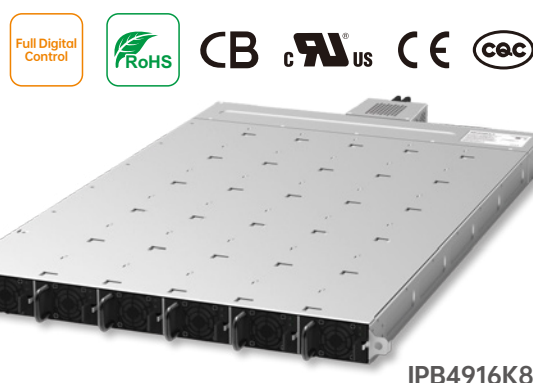
# 16.8 kW Battery Backup Shelf

The 16.8 kW Battery Backup Shelf is built to deliver dependable backup power for servers, datacenter racks, and other critical infrastructure. It helps ensure uninterrupted operation of servers and essential equipment during mains power failures or short-term outages, preventing data loss and minimizing system downtime.

The system consists of two core modular components: the battery backup unit and the controller. The battery backup unit integrates a high-efficiency bidirectional DC-DC converter with built-in lithium-ion battery packs to provide stable backup power for server systems. The controller handles comprehensive monitoring and intelligent management of system status, communication, protection, and control. Thanks to its modular architecture, the shelf enables streamlined installation, simplified maintenance, and flexible deployment for mission-critical environments.

## Key Features

- 1U form factor for flexible deployment and configuration
- 90 s backup duration at 16.8 kW load, and 150 s at 12.6 kW load
- Supports peak power up to 33.6 kW
- Hot-swappable module design for zero-downtime maintenance
- Millisecond-level response eliminates the risk of power interruptions
- Full monitoring of cell voltage, current, temperature, and SOC / SOH
- High-precision battery cell balancing and automatic SOH diagnosis
- Complies with UL 1973 and UL 9540A safety standards



IPB4916K8

## Industry Trends

As the computing power density of high-powerplatforms continues to increase, datacenter require fast, reliable, and compact rack-level backup power. Traditional centralized uninterruptible power supply systems may suffer from slow response, large footprint, lower efficiency, and limited flexibility.

MEGMEET's high-density battery backup unit solution provides modular short-term backup power for rack-level power architectures. With a compact 1U form factor, redundant design, hot-swappable modules, and intelligent monitoring, it improves power availability, maintainability, and deployment flexibility. When combined with supercapacitors, the solution supports a dual protection architecture of millisecond-level voltage stabilization and minute-level backup power.

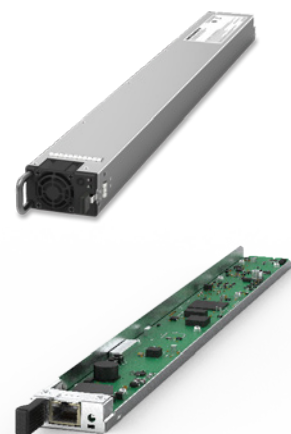
## Core Module Introduction

### Battery Backup Unit: IPS492800-DIT-NA

The battery backup unit is the core backup power module of the 16.8 kW Battery Backup Shelf. It integrates lithium-ion batteries and a bidirectional DC-DC converter to provide energy storage, stable DC bus regulation, and backup power for server racks. It supports high power conversion efficiency, hot-swap maintenance, and redundant system deployment.

### Controller: MPSC6000-PMC-B

The controller monitors and manages battery backup unit operation, system status, communication, and protection functions, enabling reliable control, remote monitoring, and simplified maintenance of the 16.8 kW Battery Backup Shelf.



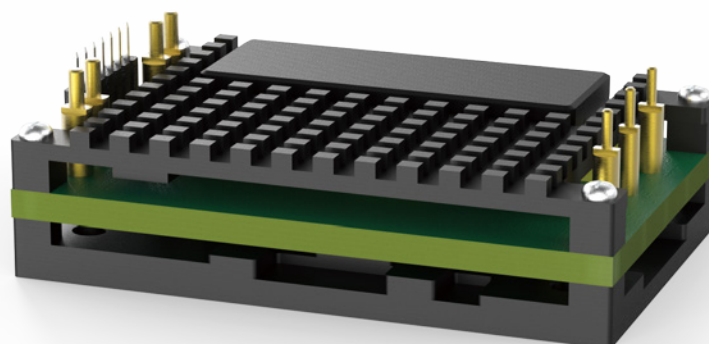
| Parameter                                 | 16.8 kW Battery Backup Shelf (IPB4916K8) |                                                     |
|-------------------------------------------|------------------------------------------|-----------------------------------------------------|
| System                                    | Dimension (D x W x H)                    | 809.6 x 448 x 43.6 (mm)                             |
|                                           | Weight                                   | 32.4 kg                                             |
|                                           | Cooling mode                             | Forced air cooling, airflow front to rear           |
|                                           | Installation mode                        | Plug-in                                             |
|                                           | Cabling mode                             | Direct Connection Mode                              |
|                                           | Maintenance mode                         | Replacing modules                                   |
|                                           | Protection level                         | IP20                                                |
| DC Distribution                           | Input voltage                            | Charge: 49.1 to 53 VDC                              |
|                                           | Output voltage                           | 50 VDC / 0 A, 49 VDC / 343.2 A                      |
|                                           | Maximum current                          | 343.2 A                                             |
|                                           | Output port                              | BUS Bar for positive & negative                     |
| Battery Backup Unit<br>(IPS492800-DIT-NA) | Input voltage                            | Charge: 49.1 to 53 VDC                              |
|                                           | Output Power                             | 2.8 kW                                              |
|                                           | Output Voltage                           | 50 VDC / 0 A, 49 VDC / 57.2 A                       |
|                                           | Efficiency                               | Charge Efficiency > 95%, Discharge Efficiency > 97% |
|                                           | Rated power                              | Charge: 175 W, discharge: 2800 W                    |
|                                           | Backup Time                              | 2.8 kW: 90 s, 2.1 kW: 150 s                         |
|                                           | Working temperature                      | -5 °C to +45 °C                                     |
|                                           | Dimension (D x W x H)                    | 693 x 68 x 40 (mm)                                  |
|                                           | Weight                                   | 3.8 kg                                              |
|                                           | Cooling mode                             | Forced air cooling, airflow front to rear           |
|                                           | Standby Consumption                      | <15 W                                               |
|                                           | Certification                            | UL1973, UL9540A, UL62368, IP20                      |
| Controller<br>(MPSC6000-PMC-B)            | Communication port                       | Ethernet                                            |
|                                           | Protocol                                 | Redfish, PMBus                                      |
|                                           | Display mode                             | Web GUI                                             |
|                                           | Dimension (D x W x H)                    | 442.6 x 37.9 x 15.9 (mm)                            |
|                                           | Weight                                   | 0.27 kg                                             |
| Environment                               | Operating temperature                    | -5 °C to +45 °C                                     |
|                                           | Operating humidity                       | <85%                                                |
|                                           | Altitude                                 | ≤3000 m                                             |

# 2000 W Digital Quarter Brick DC/DC Power Module

The power module is a high-power digital DC/DC converter. It achieves peak efficiency of up to 98.3% at 54 V input and 50% load. The module is a non-isolated quarter-brick converter, delivering a fully regulated 12.0 V output with a continuous power rating of 2000 W and a peak power capability of up to 3000 W for a limited duration. It is designed for through-hole mounting using wave soldering or pin-in-paste production processes. The module also incorporates an optimized baseplate design to improve thermal performance while minimizing overall height.

## Key Features

- Peak efficiency up to 98.3% at 54 V input
- Fully regulated output voltage
- Comprehensive protection: input UVLO, input OVP, output OVP, OCP, and OTP
- Monotonic startup and pre-biased startup
- No minimum load required
- Parallel operation with direct output connection and active current sharing
- Non-isolated topology



IPM54U120167QPN

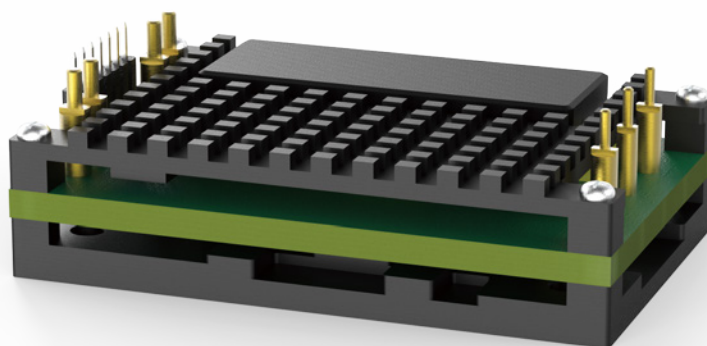
| Parameter              | 2000 W Digital Quarter Brick DC/DC Power Module (IPM54U120167QPN) |
|------------------------|-------------------------------------------------------------------|
| Rated Power            | 2000 W                                                            |
| Peak Power             | 3000 W                                                            |
| Product series         | RBC                                                               |
| Dimension (D x W x H)  | 58.4 x 36.8 x 15.1 (mm)                                           |
| Input Voltage          | 40 to 60 V                                                        |
| Output Voltage         | 12.0 V                                                            |
| Output Current         | 167 A                                                             |
| Efficiency             | 98.3% @ 54Vin 50% load                                            |
| Cooling Method         | Force air cooling / Water cooling                                 |
| Altitude               | 3050 m                                                            |
| Ripple & Noise         | 120 mV (peak-to-peak)                                             |
| Current Sharing        | Tolerance ±5% @ 20%-50% load; Tolerance ±2% @ >50% load           |
| Protection             | UVP, OVP, OCP, SCP, OTP                                           |
| Safety Standard        | CB, UL, CE                                                        |
| IEC                    | 62368 / 60950                                                     |
| Communication Protocol | PMBus1.2                                                          |

# 1600 W Digital Quarter Brick DC/DC Power Module

The power module is a high-power digital DC/DC converter. It achieves peak efficiency of up to 98.3% at 54 V input and 50% load. The module is a non-isolated quarter-brick converter, delivering a fully regulated 12.0 V output with a continuous power rating of 1600 W and a peak power capability of up to 2400 W for a limited duration. It is designed for through-hole mounting using wave soldering or pin-in-paste production processes. The module also incorporates an optimized baseplate design to improve thermal performance while minimizing overall height.

## Key Features

- Peak efficiency up to 98.3% at 54 V input
- Fully regulated output voltage
- Comprehensive protection: input UVLO, input OVP, output OVP, OCP, and OTP
- Monotonic startup and pre-biased startup
- No minimum load required
- Parallel operation with direct output connection and active current sharing
- Non-isolated topology



IPM54U120136QPN

| Parameter              | 1600 W Digital Quarter Brick DC/DC Power Module (IPM54U120136QPN) |
|------------------------|-------------------------------------------------------------------|
| Rated Power            | 1600 W                                                            |
| Peak Power             | 2400 W                                                            |
| Product series         | RBC                                                               |
| Dimension (D x W x H)  | 58.4 x 36.8 x 15.1 (mm)                                           |
| Input Voltage          | 40 to 60 V                                                        |
| Output Voltage         | 12.0 V                                                            |
| Output Current         | 167 A                                                             |
| Efficiency             | 98.3% @ 54Vin 50% load                                            |
| Cooling Method         | Force air cooling / Water cooling                                 |
| Altitude               | 3050 m                                                            |
| Ripple & Noise         | 120 mV (peak-to-peak)                                             |
| Current Sharing        | Tolerance ±5% @ 20%-50% load; Tolerance ±2% @ >50% load           |
| Protection             | UVP, OVP, OCP, SCP, OTP                                           |
| Safety Standard        | CB, UL, CE                                                        |
| IEC                    | 62368 / 60950                                                     |
| Communication Protocol | PMBus1.2                                                          |

# CRPS™ and M-CRPS™ Series for 5.5 kW Power Platforms

## Modular Common Redundant Power Supply Platform for Scalable Infrastructure

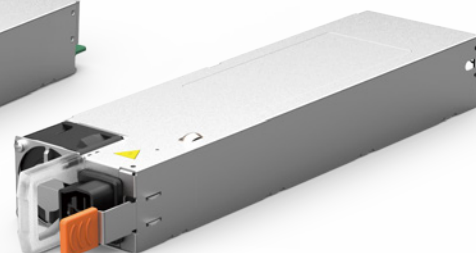
MEGMEET's CRPS™ and M-CRPS™ series are high-efficiency, hot-swappable power solutions designed for networking, server, storage, and datacenter applications. Featuring high power density, modular architecture, and comprehensive protections including OCP, OVP, OTP, and SCP, the series delivers reliable and scalable power for space-constrained systems. Certified to major global safety and EMC standards including CQC, UL, CB, TÜV, UKCA, BSMI and BIS, the CRPS™ and M-CRPS™ platforms provide a cost-effective and widely adopted solution for modern intelligent infrastructure.

### Key Features

- 80 PLUS Ruby
- Support CRPS™ & MCRPS™
- High power density
- Support PMBus 1.2
- Bootloader
- Smart ON (Cold redundancy)
- Black box record
- EEPROM for FRU data
- Support N+1 Redundancy
- Meet IEC 60950 / 62368
- Internal ORing



**MC5500HOR54WL00**



**MM5500HOR50WL00**

| Power                  | 5500 W                                                            |
|------------------------|-------------------------------------------------------------------|
| Model Name             | MC5500HOR54WL00 & MM5500HOR50WL00                                 |
| Dimension (D × W × H)  | 265 × 73.5 × 40 (mm)                                              |
| Frequency              | 47 to 63 Hz                                                       |
| Input Voltage          | 90 to 305 VAC / 180 to 400 VDC                                    |
| Output Voltage         | 50 V / 12 VSB (Optional), 54 V / 12 VSB (Optional)                |
| Output Current         | 110 A / 3 A, 102 A / 3 A                                          |
| Efficiency             | 80 PLUS Ruby                                                      |
| Operating Temperature  | -5 °C to +55 °C                                                   |
| Surger Voltage         | CM ±2 kV / DM ±2 kV, Criteria A                                   |
| Input Connector Type   | ANDERSON (2007G1S-BK)                                             |
| Cooling Method         | Force air cooling, air flows from the gold finger to the AC inlet |
| EDPP                   | Yes, up to 180% load                                              |
| Altitude               | 3050 m                                                            |
| Ripple & Noise         | Main output: 500 mV pk-pk / Vsb output 120 mV pk-pk               |
| Current Sharing        | Tolerance ±5% @ 20% to 50% load; Tolerance ±2% @ 50% to 100% load |
| EMI                    | Class A with 6 dB                                                 |
| Protection             | UVP, OVP, OCP, SCP, OTP                                           |
| Safety Standard        | CQC, cULus, FCC, ICES-003, CB, CE-EMC, TUV, BSMI, BIS             |
| IEC                    | 62368 / 60950                                                     |
| Communication Protocol | PMBus1.2                                                          |

# CRPS™ and M-CRPS™ Series for 4.5 kW Power Platforms

## Modular Common Redundant Power Supply Platform for Scalable Infrastructure

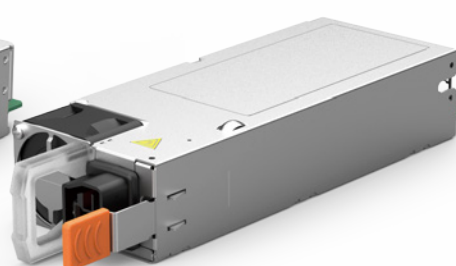
MEGMEET's CRPS™ and M-CRPS™ series are high-efficiency, hot-swappable power solutions designed for networking, server, storage, and datacenter applications. Featuring high power density, modular architecture, and comprehensive protections including OCP, OVP, OTP, and SCP, the series delivers reliable and scalable power for space-constrained systems. Certified to major global safety and EMC standards including CQC, UL, CB, TÜV, UKCA, BSMI and BIS, the CRPS™ and M-CRPS™ platforms provide a cost-effective and widely adopted solution for modern intelligent infrastructure.

### Key Features

- 80 PLUS Ruby
- Support CRPS™ & MCRPS™
- High power density
- Support PMBus 1.2
- Bootloader
- Smart ON (Cold redundancy)
- Black box record
- EEPROM for FRU data
- Support N+1 Redundancy
- Meet IEC 60950 / 62368
- Internal ORing



**MC4500AOR54WS00**



**MM4500AOR54WS00**

| Power                  | 4500 W                                                                                               |
|------------------------|------------------------------------------------------------------------------------------------------|
| Model Name             | MM4500AOR54WS00 & MC4500AOR54WS00                                                                    |
| Dimension (D × W × H)  | 185 × 73.5 × 40 (mm)                                                                                 |
| Frequency              | 47 to 63 Hz                                                                                          |
| Input Voltage          | 90 to 264 VAC / 180 to 320 VDC                                                                       |
| Output Voltage         | 54 V / 12 VSB                                                                                        |
| Output Current         | 84 A / 3 A                                                                                           |
| Efficiency             | 80 PLUS Ruby                                                                                         |
| Operating Temperature  | -5 °C to +55 °C                                                                                      |
| Surge Voltage          | CM ±2 kV / DM ±2 kV, Criteria A                                                                      |
| Input Connector Type   | ANDERSON (2007G1S-BK)                                                                                |
| Cooling Method         | Force air cooling, air flows from the gold finger to the AC inlet                                    |
| EDPP                   | Yes, up to 180% load                                                                                 |
| Altitude               | 3050 m                                                                                               |
| Ripple & Noise         | Main output: 540 mV pk-pk / Vsb output 120 mV pk-pk                                                  |
| Current Sharing        | Tolerance ±0.6 A @ 5% to 20% load; Tolerance ±5% @ 20% to 50% load; Tolerance ±2% @ 50% to 100% load |
| EMI                    | Class A with 6 dB                                                                                    |
| Protection             | UVP, OVP, OCP, SCP, OTP                                                                              |
| Safety Standard        | CB, UL, CQC, UKCA, BSMI, TÜV, BIS                                                                    |
| IEC                    | 62368                                                                                                |
| Communication Protocol | PMBus1.2                                                                                             |

# CRPS™ and M-CRPS™ Series for 3.3 kW Power Platforms

## Modular Common Redundant Power Supply Platform for Scalable Infrastructure

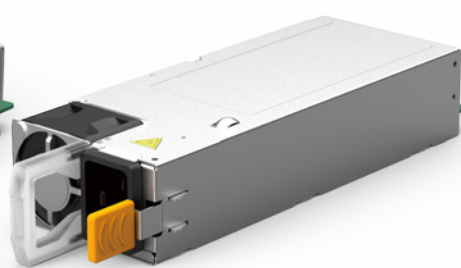
MEGMEET's CRPS™ and M-CRPS™ series are high-efficiency, hot-swappable power solutions designed for networking, server, storage, and datacenter applications. Featuring high power density, modular architecture, and comprehensive protections including OCP, OVP, OTP, and SCP, the series delivers reliable and scalable power for space-constrained systems. Certified to major global safety and EMC standards including CQC, UL, CB, TÜV, UKCA, BSMI and BIS, the CRPS™ and M-CRPS™ platforms provide a cost-effective and widely adopted solution for modern intelligent infrastructure.

### Key Features

- 80 PLUS Titanium+
- Support CRPS™ & MCRPS™
- High power density
- Support PMBus 1.2
- Bootloader
- Smart ON (Cold redundancy)
- Black box record
- EEPROM for FRU data
- Support N+1 Redundancy
- Meet IEC 60950 / 62368
- Internal ORing
- RoHS 2.0 standards



MC3300AOT12WS20



MM3300AOT12WS20

| Power                  | 3300 W                                                                                               |
|------------------------|------------------------------------------------------------------------------------------------------|
| Model Name             | MC3300AOT12WS20 & MM3300AOT12WS20                                                                    |
| Dimension (D × W × H)  | 185 × 73.5 × 40 (mm)                                                                                 |
| Frequency              | 47 to 63 Hz                                                                                          |
| Input Voltage          | 90 to 264 VAC / 180 to 320 VDC                                                                       |
| Output Voltage         | 12 V / 12 VSB (Optional)                                                                             |
| Output Current         | 270 A / 3 A                                                                                          |
| Efficiency             | 80 PLUS Titanium+                                                                                    |
| Operating Temperature  | -5 °C to +55 °C                                                                                      |
| Surger Voltage         | CM ±2 kV / DM ±2 kV, Criteria A                                                                      |
| Input Connector Type   | ANDERSON (2007G1S-BK)                                                                                |
| Cooling Method         | Force air cooling, air flows from the gold finger to the AC inlet                                    |
| EDPP                   | Yes, up to 180% load                                                                                 |
| Altitude               | 3050 m                                                                                               |
| Ripple & Noise         | Main output: 540 mV pk-pk / Vsb output 120 mV pk-pk                                                  |
| Current Sharing        | Tolerance ±0.6 A @ 5% to 20% load; Tolerance ±5% @ 20% to 50% load; Tolerance ±2% @ 50% to 100% load |
| EMI                    | Class A with 6 dB                                                                                    |
| Protection             | UVP, OVP, OCP, SCP, OTP                                                                              |
| Safety Standard        | CQC, UL, CB, TÜV, UKCA, BSMI, BIS                                                                    |
| IEC                    | IEC/UL/EN 62368-1, CSA 62368-1 3rd edition                                                           |
| Communication Protocol | PMBus1.2                                                                                             |

# CRPS™ and M-CRPS™ Series for 3.3 kW Power Platforms

## Modular Common Redundant Power Supply Platform for Scalable Infrastructure

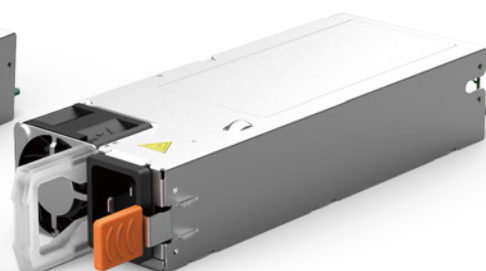
MEGMEET's CRPS™ and M-CRPS™ series are high-efficiency, hot-swappable power solutions designed for networking, server, storage, and datacenter applications. Featuring high power density, modular architecture, and comprehensive protections including OCP, OVP, OTP, and SCP, the series delivers reliable and scalable power for space-constrained systems. Certified to major global safety and EMC standards including UL, CE, TÜV, CCC, and CQC, the CRPS™ and M-CRPS™ platforms provide a cost-effective and widely adopted solution for modern intelligent infrastructure.

### Key Features

- 80 PLUS Titanium
- Support PMBus 1.2
- Internal ORing
- Bootloader
- Smart ON (Cold redundancy)
- Black box record
- High power density
- Support N+1 Redundancy
- EEPROM for FRU data
- Reverse airflow option
- Meet IEC 60950 / 62368
- Support CRPS™ & MCRPS™



MC3300AOT54WS00



MM3300AOT54WS00

| Power                  | 3300 W                                                                                       |
|------------------------|----------------------------------------------------------------------------------------------|
| Model Name             | MC3300AOT54WS00 & MM3300AOT54WS00                                                            |
| Dimension (D × W × H)  | 185 × 73.5 × 40 (mm)                                                                         |
| Frequency              | 47 to 63 Hz                                                                                  |
| Input Voltage          | 90 to 264 VAC / 180 to 320 VDC                                                               |
| Output Voltage         | 54 V / 12 VSB (Optional)                                                                     |
| Output Current         | 61 A / 3 A                                                                                   |
| Efficiency             | 80 PLUS Titanium                                                                             |
| Operating Temperature  | -5 °C to +55 °C                                                                              |
| Surger Voltage         | CM ±2 kV / DM ±1.5 kV, Criteria A                                                            |
| Input Connector Type   | IEC 320C-20                                                                                  |
| Cooling Method         | Force air cooling, air flows from the gold finger to the AC inlet                            |
| EDPP                   | Yes, up to 180% load                                                                         |
| Altitude               | 3050 m                                                                                       |
| Ripple & Noise         | Main output: 120 mV pk-pk / Vsb output 120 mV pk-pk                                          |
| Current Sharing        | Tolerance ±2 A @ 5% to 20% load; Tolerance ±5% @ 20% to 50% load; Tolerance ±2% @ > 50% load |
| EMI                    | Class A with 6 dB                                                                            |
| Protection             | UVP, OVP, OCP, SCP, OTP                                                                      |
| Safety Standard        | CB, UL, CE, CQC, UKCA, BSMI, BIS, KC                                                         |
| IEC                    | 62368 / 60950                                                                                |
| Communication Protocol | PMBus1.2                                                                                     |

# CRPS™ and M-CRPS™ Series for 2.7 kW Power Platforms

## Modular Common Redundant Power Supply Platform for Scalable Infrastructure

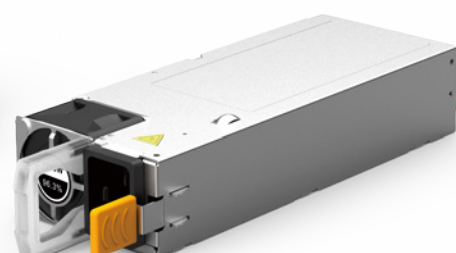
MEGMEET's CRPS™ and M-CRPS™ series are high-efficiency, hot-swappable power solutions designed for networking, server, storage, and datacenter applications. Featuring high power density, modular architecture, and comprehensive protections including OCP, OVP, OTP, and SCP, the series delivers reliable and scalable power for space-constrained systems. Certified to major global safety and EMC standards including CQC, UL, CB, TÜV, UKCA, BSMI and BIS, the CRPS™ and M-CRPS™ platforms provide a cost-effective and widely adopted solution for modern intelligent infrastructure.

### Key Features

- 80 PLUS Titanium+
- Support CRPS™ & MCRPS™
- High power density
- Support PMBus 1.2
- Bootloader
- Smart ON (Cold redundancy)
- Black box record
- EEPROM for FRU data
- Support 1+1, 2+2, 3+1 Redundancy
- Meet IEC 60950 / 62368
- Internal ORing
- RoHS 2.0 standards



**MC2700AOT12WS20  
/ MC2700AOT12WS40**



**MM2700AOT12WS20  
/ MM2700AOT12WS40**

| Power                  | 2700 W                                                                                               |
|------------------------|------------------------------------------------------------------------------------------------------|
| Model Name             | CRPS™: MC2700AOT12WS20 / MC2700AOT12WS40<br>M-CRPS™: MM2700AOT12WS20 / MM2700AOT12WS40               |
| Dimension (D × W × H)  | 185 × 73.5 × 40 (mm)                                                                                 |
| Frequency              | 47 to 63 Hz                                                                                          |
| Input Voltage          | 90 to 264 VAC / 180 to 320 VDC                                                                       |
| Output Voltage         | 12 V / 12 VSB (Optional)                                                                             |
| Output Current         | 225 A / 3 A                                                                                          |
| Efficiency             | 80 PLUS Titanium+                                                                                    |
| Operating Temperature  | -5 °C to +55 °C                                                                                      |
| Surge Voltage          | CM ±2 kV / DM ±2 kV, Criteria A                                                                      |
| Input Connector Type   | ANDERSON (2007G1S-BK)                                                                                |
| Cooling Method         | Force air cooling, air flows from the gold finger to the AC inlet                                    |
| EDPP                   | Yes, up to 180% load                                                                                 |
| Altitude               | 3050 m                                                                                               |
| Ripple & Noise         | Main output: 12 mV pk-pk / Vsb output 120 mV pk-pk                                                   |
| Current Sharing        | Tolerance ±2.5 A @ 5% to 20% load; Tolerance ±5% @ 20% to 50% load; Tolerance ±2% @ 50% to 100% load |
| EMI                    | Class A with 6 dB                                                                                    |
| Protection             | UVP, OVP, OCP, SCP, OTP                                                                              |
| Safety Standard        | CQC, UL, CB, TÜV, UKCA, BSMI, BIS                                                                    |
| IEC                    | IEC/UL/EN 62368-1, CSA 62368-1 3rd edition                                                           |
| Communication Protocol | PMBus1.2                                                                                             |

Global Infrastructure

MEGMEET's global footprint includes advanced R&D centers, integrated manufacturing, and regional offices enabling fast response, localized support, and efficient deployment worldwide.

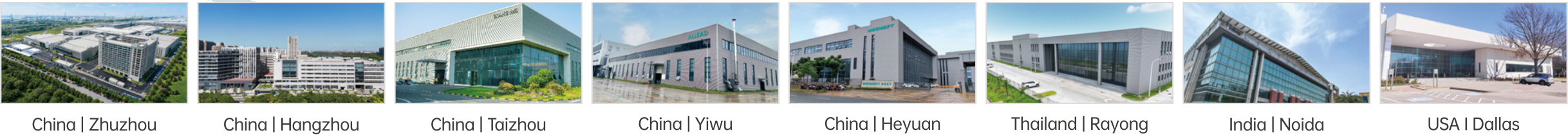
MEGMEET's international engineering network supports close customer collaboration, rapid validation, and region-specific adaptation to deliver reliable, high-performance solutions globally.



10 R&D Centers



8 Owned Manufacturing



## Power Solutions

- ☐ Telecom Power    ☐ Medical Power    ☐ Smart Display Power    ☐ LED Display Power    ☐ Industrial enclosed Power
- ☐ Laser Power    ☐ OA Power    ☐ Utility Power    ☒ Datacenter and Networking Power Solutions
- ☐ BESS    ☐ EV Charging Solutions    ☐ Portable Solar Generator
- ☐ Bi-directional Inverters for Portable Power

## Industrial Automation

- ☐ Servo System    ☐ Control System    ☐ Elevator Controller    ☐ Linear Motor    ☐ IoT Solutions    ☐ Encoder
- ☐ Variable Frequency Drive    ☐ Internal Gear Pump

## e-Mobility & EV Infrastructure

- ☐ Integrated Charging System (OBC & DC-DC)    ☐ Power Electronic Unit (2-in-1, 3-in-1)
- ☐ E-Compressor    ☐ TV EDU    ☐ Inverter    ☐ Construction Vehicle Controller
- ☐ Intelligent Active Hydraulic Suspension (i-AHS)    ☐ Railway A/C Controller    ☐ Railway VFD
- ☐ Thermal Mgmt. System    ☐ Micro-Mobility Motor, Inverter, and Charging System    ☐ Oxygen Generator

## Intelligent Equipment

- ☐ Intelligent Welding    ☐ Electric Submersible Progressing Cavity Pump    ☐ Medium-Voltage Soft Open Point (SOP)
- ☐ Industrial Microwave    ☐ Polysilicon Water Quenching Equipment    ☐ Ultraviolet Curing Equipment
- ☐ Automated Car Washing Machine    ☐ Booster Manipulator    ☐ High-Precision Positioning Stage

## Smart Building

- ☐ Residential A/C Controller    ☐ Commercial A/C Controller    ☐ Heat Pump Controller
- ☐ Vehicle A/C Controller    ☐ Solar A/C Controller    ☐ Mini Compressor Controller
- ☐ Refrigerator Controller    ☐ Washer/Dryer Controller    ☐ Residential Microwave
- ☐ Industrial Microwave    ☐ Smart Bidet    ☐ RF Thawing System
- ☐ Fan Heater Controller    ☐ Oxygen Concentrator

## Precision Connection

- ☐ Micro Motor    ☐ Water Pump Motor    ☐ Inductor    ☐ Transformer    ☐ FFC    ☐ FPC
- ☐ Coaxial Cable    ☐ CCS    ☐ Litz Wire

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Version: 10202026

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