Multi Power2 Scalable

VFI TYPE
ONLINE

Modular

Li+
Lithium compatible

AI Ready

USB
USB plug

3:3   1000-1250-1600 kW

HIGHLIGHTS

- **Ultra-high efficiency**
- **Ultimate availability**
- **Risk-free scalability**
- **Truly sustainable**
- **Unmatched flexibility**

Multi Power2 Scalable is the ultimate modular UPS. This product range takes the best features of the Multi Power2 family (MP2) and elevates them to new levels of power protection.

M2S is capable of achieving a maximum power output of 1600 kW per unit (6400 kW with 4 units in parallel), making it the optimal choice when uncompromising protection of the most critical applications, such as Data Centers, is required. Furthermore, the unit is specifically designed to efficiently handle rapid load fluctuations, ensuring it is the perfect solution for AI applications and load profiles.

With several configurations available, the unit can adapt to all the different installations requirements without impacting the existing infrastructure.

HIGH POWER SUSTAINABILITY

- A new best-in-class power module, based on the latest silicon carbide (SiC) technology, enables more compact, reliable, and robust solutions.
- Ultra-high efficiency up to 98.1% in ON LINE double conversion, providing the best power supply to critical equipment.
- Minimized total cost of ownership thanks to the lowest operational expenses on the market.
- Reduced demand and consumption of cooling systems.

INCREDIBLE FLEXIBILITY

- Easy scalability to optimise both the initial investment and the TCO (total cost of ownership).
  The range consists of:
  - M2S 1000 up to 1000 kW;

- M2S 1250 up to 1250 kW;
- M2S 1600 up to 1600 kW.

Each unit is available in several configurations to adapt to existing electrical infrastructure and to meet any space constrains:

PC0: unit supplied without switches to simplify the integration with the existing electrical infrastructure.

PCS: fully integrated with main input, bypass, manual bypass and output switches.

CT0: space-efficient solution with embedded backfeed protection device and without other switches.

CT2: unit with backfeed protection device and main input and output switches.

- Two versions of 3U 67 kW Power Modules: the standard PM (IGBT) can reach up to 96.5% efficiency, whereas the BLUE (SiC) PM boasts outstanding efficiency of 98.1% in ON LINE Mode.
- PMs are designed to be fully independent, hot-swappable, mechanically segregated and with embedded selective disconnection at both the input and output stage.
- Bypass is modular and fully rated according to the maximum power of the system.

The units have been designed with several standard features:
- Air filter;
- Fan monitoring;
- Backfeed detection circuit and protection;
- Embedded backfeed device (CT0 & CT2)
- EFFICIENCY CONTROL Mode;
- ACTIVE ECO Mode;
- Power walk-in;
- Separate or common batteries;
- Compatibility with: VRLA, Li-Ion, Supercaps;
- Smart grid ready.

A full set of options is available to fit the requirements of each installation, in both IT and non-IT environments:
- Parallel kit;
- Cold start kit;
- Synchronisation device (UGS).

SMART & SAFE

- Intelligence is distributed throughout the system, safeguarding the equipment even in rare cases of power module failure.
- Each module undergoes an automatic health-check upon connection, ensuring its proper status and preventing the integration of defective components.
- Firmware automatically aligns when a module with different firmware is inserted.
- The firmware can be fully upgraded while the unit operates in ON LINE double conversion mode.
- Continuous monitoring via multiple sensors within each module optimizes performance and enables tailored predictive maintenance based on real operating conditions.
- Integrated interleaving technology effectively reduces ripple current, extending the life of batteries and DC capacitors.

RELIABLE AND RESILIENT

- An innovative internal communication structure utilizes two independent, fully redundant high-speed buses, ensuring maximum reliability.
- Every system component, from individual modules to the full cabinet, is meticulously designed and crafted in Italy.
- All parts are rigorously vetted through a stringent approval process to guarantee quality and durability.
- Each module and entire unit are tested intensively to verify the optimal functioning of all components.
- Collected data and measurements are continuously analyzed, driving ongoing product enhancement and delivering the latest technology to our customers.
- The UPS's extended lifespan is supported by embedded status counters and advanced sensors for temperature and humidity, providing real-time analytics for proactive monitoring.

Power Module 67 kW (IGBT) - MP2 67 PM.

Power Module 67 kW (SiC) MP2 67 PM BLUE.

USER FRIENDLY

Each M2S unit comes with:
- A 10" colour touchscreen display that clearly shows information, measurements, and operational status of the entire system and each individual power module, all in one place.
- A LED bar provides quick and easy-to-understand updates on the current UPS status.
- NetMan 208 network card.
- Configurable In/Out signals (10 inputs and 8 outputs) for flexible setup.
- Two free slots for optional communication accessories, such as additional network adapters or extra volt-free contacts.
- R.E.P.O. (Remote Emergency Power Off) for immediate emergency shutdown.

The units are also compatible with:
- PowerShield[3] monitoring and shutdown software, which supports Windows operating systems (11, 10, 8, Server 2022, 2019, 2016 and older), Windows Server Virtualization Hyper-V, macOS, Linux,

98%
Efficiency
ON LINE double conversion

=

45 tons
of CO_2 saved

30 k€
energy bill savings

Yearly values calculated for MP2 1250 kW UPS with BLUE modules compared to 96% efficiency UPS, considering 50% average load, cooling COP=3, 0.3 kg CO_2 & 0.2 € per kWh

Citrix XenServer, and other Unix systems.
• RielloConnect for remote and proactive monitoring, ensuring a smooth experience and extra peace of mind.

ULTRA SERVICEABILITY
• Each unit is designed to simplify positioning, installation, and maintenance tasks.
• Connection terminals are front-accessible, allowing quick and easy access.
• Key UPS components are modular, enabling engineers to easily add or replace parts, significantly reducing on-site intervention costs.
• With built-in intelligence, powerful computing capabilities, and exceptional connectivity, the system allows continuous monitoring of UPS status

and offers tailored, proactive services to extend its lifespan.
• The overall design prioritizes simple and efficient maintenance, making upkeep straightforward and cost-effective.

OVERVIEW

**Power cabinet
M2S 1250 PC0**

**Power cabinet
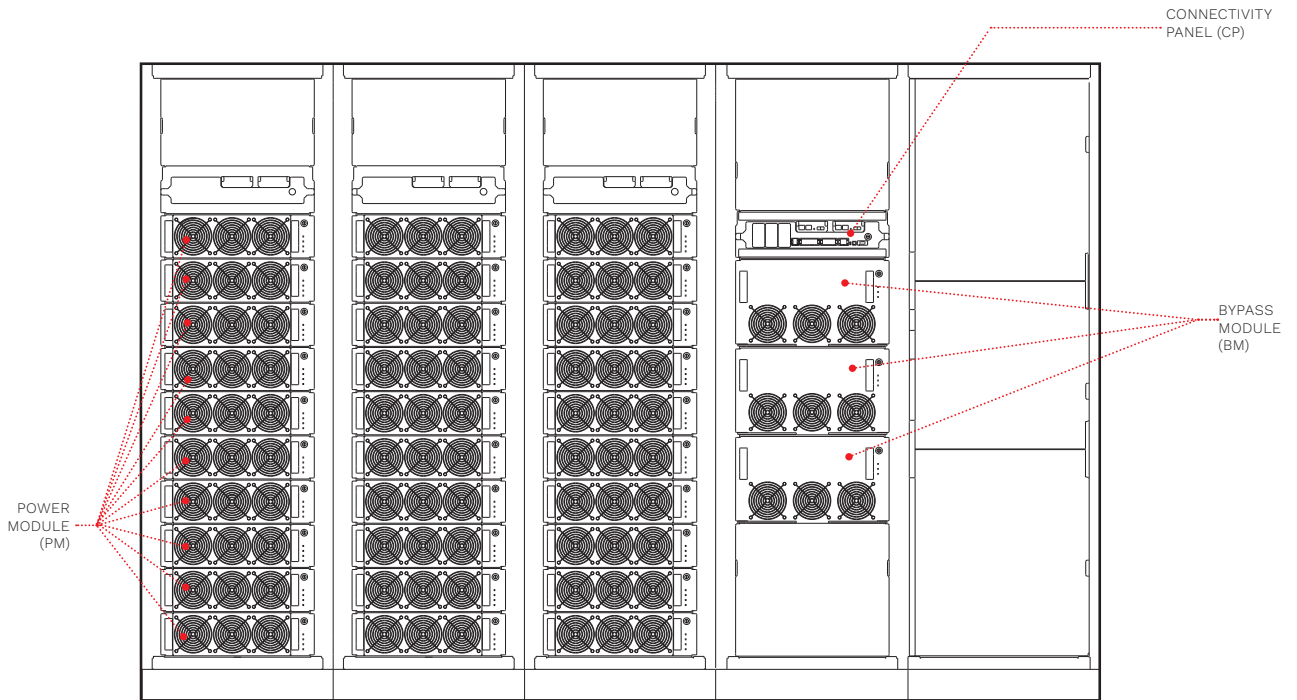M2S 1250 PCS**

1. 67 kW - 3U Power Modules.
2. Modular static bypass.
3. Connectivity Panel with:
   - In/Out signals (10 input, 8 output);
   - NetMan 208;
   - 2 extra communication slots;
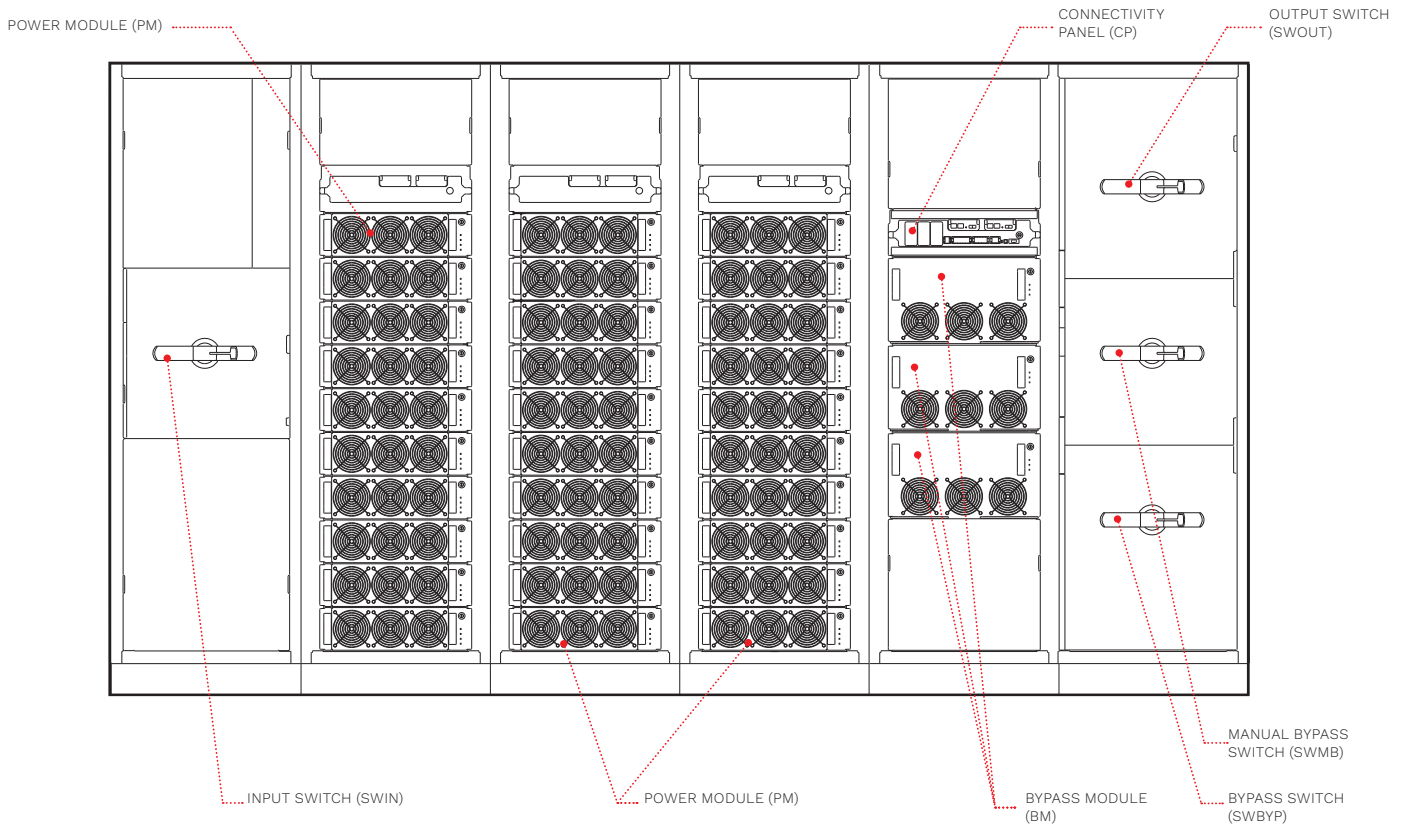   - R.E.P.O.
   - Parallel slots.

4. 5. I/O cabinets, the configuration varies according to the model*.
6. Cable entry:
   M2S PC0, PCS, CT2: Top or bottom;
   M2S CT0: Top.

*CT0 and CT2 are single input only.

DETAILS

M2S 1600 PC0
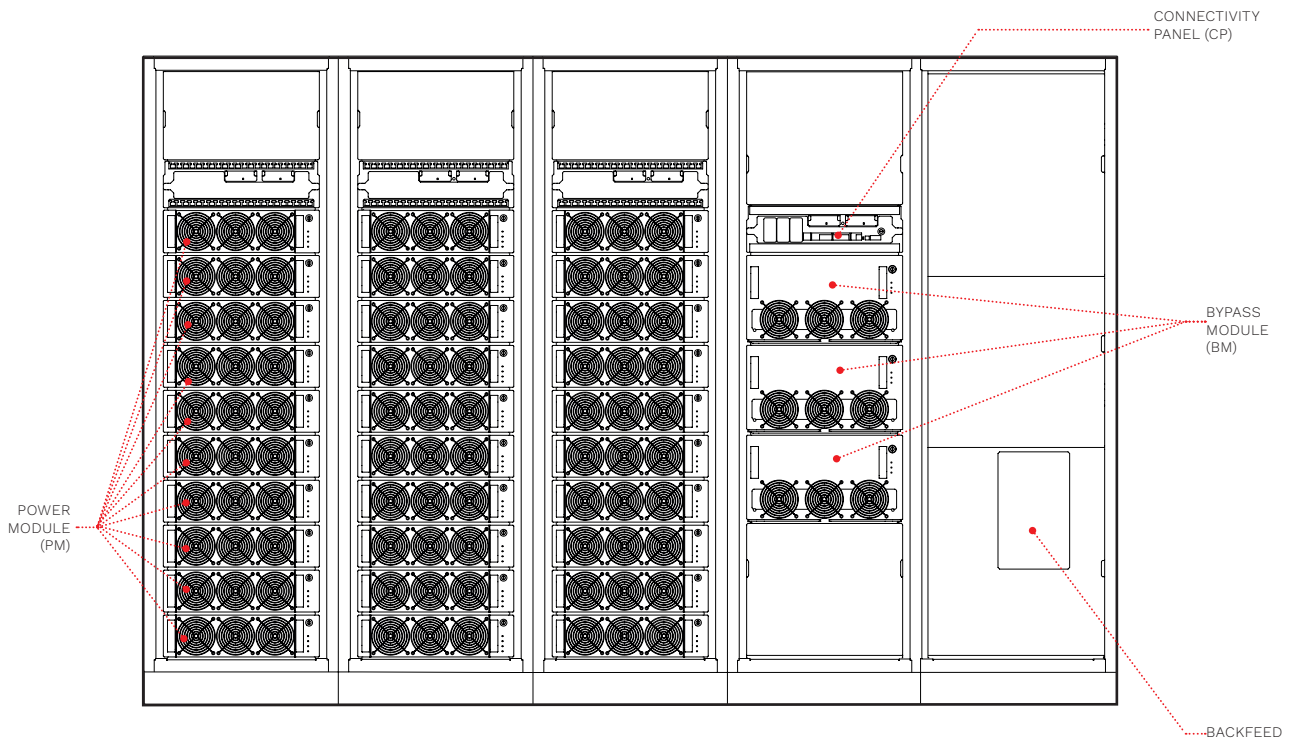**without switches, up to 1600 kW**
(front)

CONNECTIVITY
PANEL (CP)

BYPASS
MODULE
(BM)

POWER
MODULE
(PM)

M2S 1600 PCS
with input, bypass, output and manual bypass switches up to 1600 kW
(front)

POWER MODULE (PM)

CONNECTIVITY
PANEL (CP)

OUTPUT SWITCH
(SWOUT)

MANUAL BYPASS
SWITCH (SWMB)

INPUT SWITCH (SWIN)

POWER MODULE (PM)
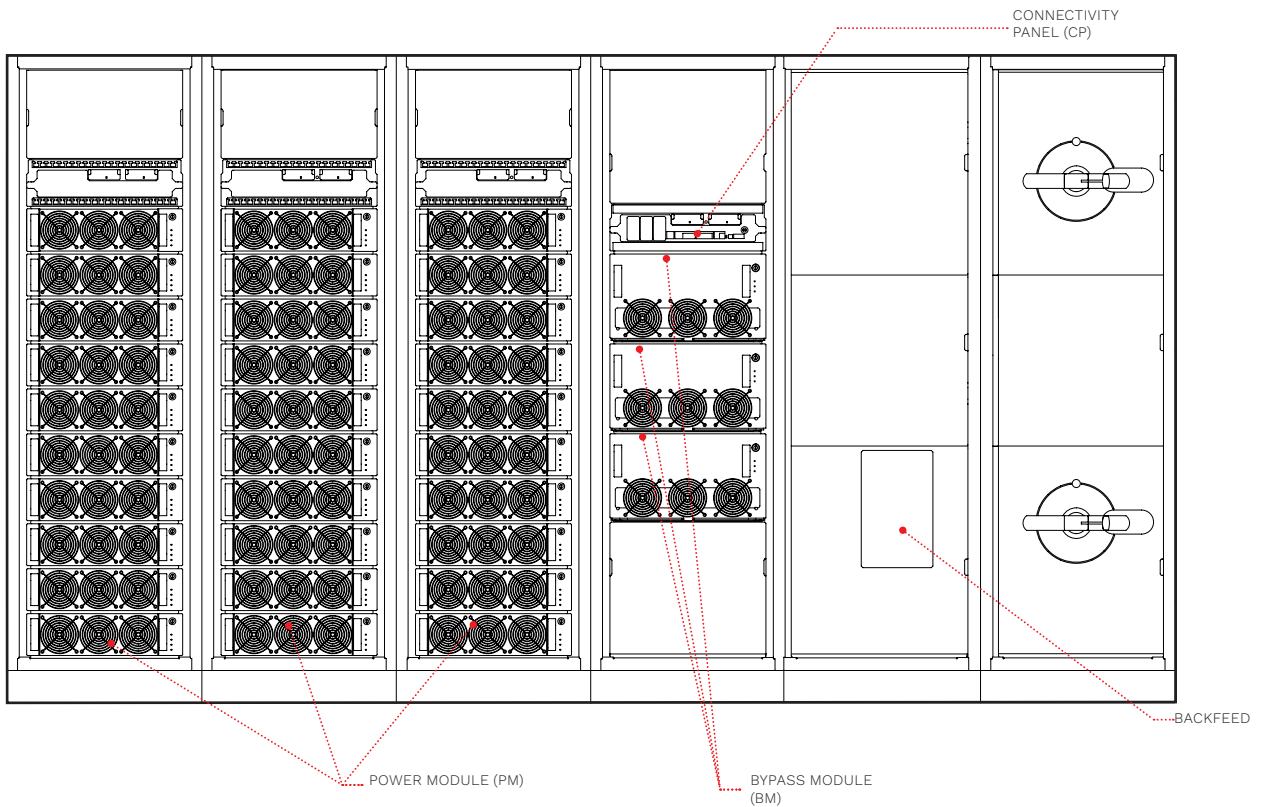
BYPASS MODULE
(BM)

BYPASS SWITCH
(SWBYP)

Note: Images regarding system layouts are for illustrative purposes only and referring to the biggest unit. The actual dimensions, configurations and number of modules varies depending on the power and redundancy requested.

DETAILS

M2S 1600 CT0
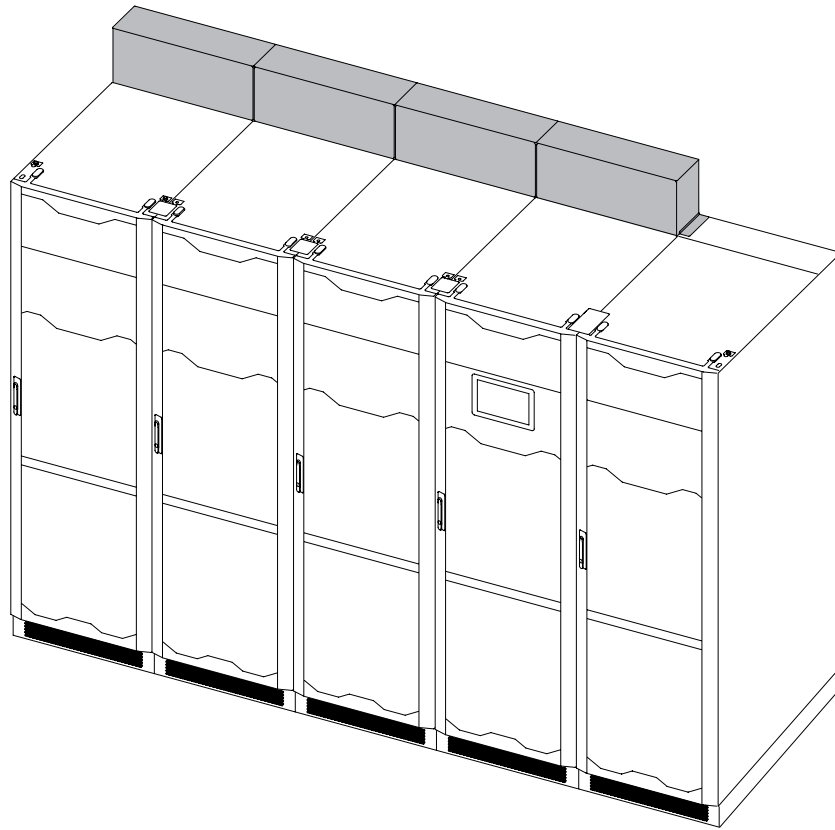### with backfeed protection device and without switches, up to 1600 kW
(front)

CONNECTIVITY PANEL (CP)

BYPASS MODULE (BM)

POWER MODULE (PM)

BACKFEED

M2S 1600 CT2
with backfeed protection device, input and output switches up to 1600 kW
(front)

CONNECTIVITY PANEL (CP)
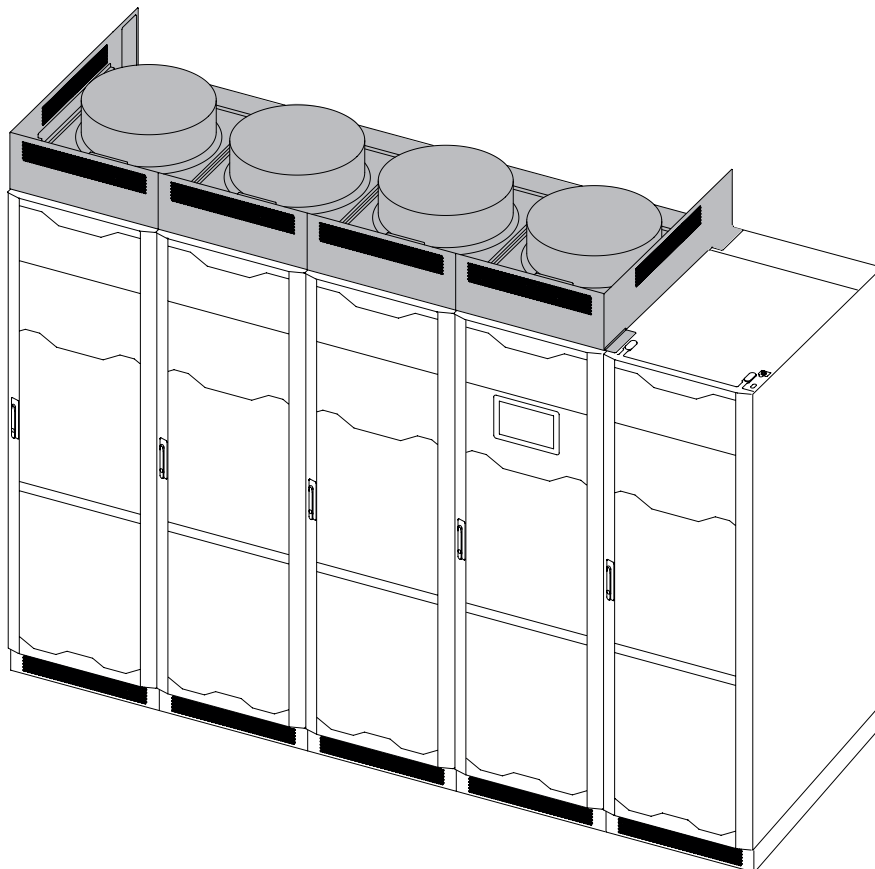
BACKFEED

POWER MODULE (PM)

BYPASS MODULE (BM)

Note: Images regarding system layouts are for illustrative purposes only and referring to the biggest unit. The actual dimensions, configurations and number of modules varies depending on the power and redundancy requested.
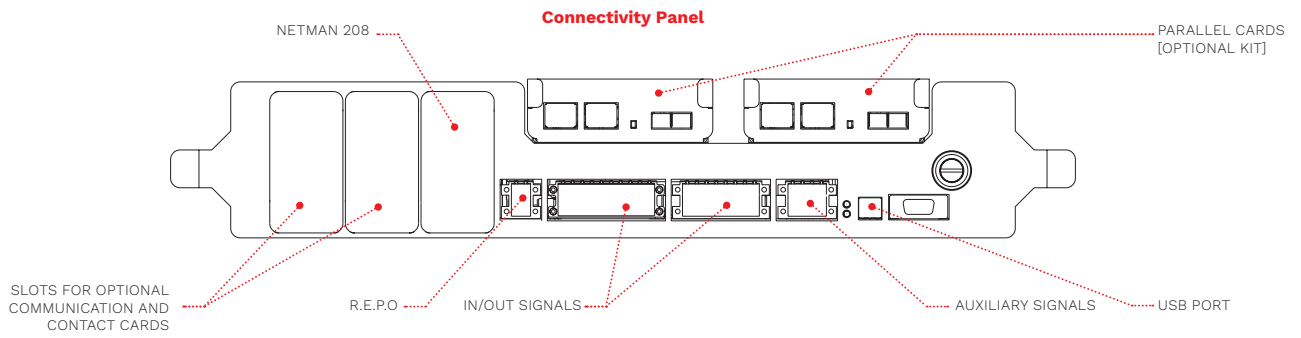
DC COUPLING KIT OPTION

TOP VENTILATION CONFIGURATION

DETAILS

Connectivity Panel

NETMAN 208

PARALLEL CARDS
[OPTIONAL KIT]

SLOTS FOR OPTIONAL
COMMUNICATION AND
CONTACT CARDS

R.E.P.O

IN/OUT SIGNALS

AUXILIARY SIGNALS

USB PORT

OPTIONS

SOFTWARE
PowerShield[3]
PowerNetGuard

ACCESSORIES
NETMAN 208
MULTICOM 302
MULTICOM 372
MULTICOM 411
MULTICOM 421
MULTI I/O
MULTIPANEL

PRODUCT ACCESSORIES
Parallel Kit
Top Ventilation (only with BLUE Power modules)
Battery temperature sensor
Programmable relay board MULTICOM 392
Cold Start
Coating treatment
ENERGYMANAGER
DC coupling kit
Single input kit (only for PC0)

MODEL	Multi Power2 Scalable - from 1000 to 1600 kW		
INPUT			
Rated voltage [V]	380 / 400 / 415 three-phase + neutral		
Rated frequency [Hz]	50 / 60		
Voltage tolerance [V]	240[1] - 480		
Frequency tolerance [Hz]	40 - 72		
Power factor	0.99		
THDI	<3%		
BYPASS			
Nominal power [kW]	1000 - 1250 - 1600 (According to system power configuration)		
Rated voltage [V]	380 / 400 / 415 three-phase + neutral		
Voltage tolerance [V]	from 180 (adjustable 180-200) to 264 (adjustable 250-264) referring to Neutral		
Rated frequency [Hz]	50 or 60		
Frequency tolerance	±5% (selectable)		
Overload	125% for 10 min; 150% for 1 min		
BATTERIES			
Battery arrangement (parallel systems)	Separate/common		
Type	VRLA, Li-Ion, Supercaps		
Recharging method	One level, Two level, Cyclic recharge (selectable)		
OUTPUT			
Rated voltage [V]	380[2] / 400 / 415 three-phase + neutral		
Rated frequency [Hz]	50 or 60		
Voltage stability	±1%		
Dynamic stability	EN62040-3 class performance 1 non linear load		
OVERALL SPECIFICATIONS			
Cabinet type	**M2S 1000**	**M2S 1250**	**M2S 1600**
UPS Nominal Power[3] [kW]	1000	1250	1600
Bypass Power [kW]	1000	1250	1600
Power factor [pf]	1		
Module slots available	16	20	30
Number of PM to reach full power	15x MP2 67 PM	19x MP2 67 PM	24x MP2 67 PM
Parallelable up to	4 units		
Max power expandability [kW]	4000	5000	6400
System Noise Level [dBA±2][1]	<75		
Dimensions (WxDxH) [mm] & weight [kg] PC0[4] Type	2400x1025x2000 1949	2400x1025x2000 2147	3000x1025x2000 2634
Dimensions (WxDxH) [mm] & weight [kg] PCS[5] Type	3000x1025x2000 2027	3000x1025x2000 2225	3600x1025x2000 2712
Dimensions (WxDxH) [mm] & weight [kg] CT0[6] Type	2400x1025x2000 1949	2400x1025x2000 2147	3000x1025x2000 2634
Dimensions (WxDxH) [mm] & weight [kg] CT2[7] Type	3000x1025x2000 2002	3000x1025x2000 2200	3600x1025x2000 2687
Efficiency ON LINE mode	up to 98.1%		
Cabinet IP rating	IP20 (others on request)		
Cable Input	Front access - top or bottom (top for CT0)		
Colour	RAL 9005		
Ambient temp. for the UPS	0 °C - +40 °C		
Ventilation	Front to rear (top ventilation optional)		
Range of relative humidity	5-95% non-condensing		
Standards	European directives: LV 2014/35/EU low voltage Directive EMC 2014/30/EU electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; RoHS compliant Classification in accordance with IEC 62040-3 (Voltage Frequency Indipendent) VFI - SS - 111		
Moving UPS cabinet types	Pallet jack		

[1] Conditions apply.
[2] For wider tolerance conditions apply.
[3] Power rating between 1000 kW and 1600 kW can be settled with a selected number of Power Modules.
[4] Without Switches, weight including Power Modules to reach full power.
[5] With Input, Bypass, Output, Manual Bypass switches, weight including Power Modules to reach full power.
[6] With backfeed device and without Switches, weight including Power Modules to reach full power.
[7] With Input, Output switches and backfeed device, weight including Power Modules to reach full power.