UPS DIRECT powerprotection

DATACENTER TRANSPORT

Multi Power2-M2X

3:3 15-120 kW

VFI TYPE
ONLINE

Modular

Hot swap battery

Lithium compatible

SmartGrid ready

USB plug

HIGHLIGHTS

- **Utmost availability**
- **Ultimate scalability**
- **Unmatched power density**
- **Efficiency up to 98%**
- **Multiple controls**
- **Highly flexible**
- **Advanced comms**

Multi Power2 - M2X is our next-generation of modular UPS. It's engineered for unmatched reliability, compactness and sustainability, delivering the best performance available on the market today.
It's the best power solution for Small Data Centers & Critical Applications; designed to safeguard IT environments, the M2X ensures maximum availability while adapting seamlessly to your growing business needs. Say goodbye to oversized UPS systems—our solution scales effortlessly, optimizing both your initial investment and Total Cost of Ownership (TCO).
As your power demands increase, M2X expands its power capabilities maintaining top-tier power protection, availability, and redundancy, maximizing, at the same time, cost savings.
Multi Power2 - M2X empowers the Digital Age with Scalable, Secure & Efficient Energy. From healthcare and telecommunications to commerce, and education, digital technology drives every aspect of modern life. To keep these essential services running smoothly, data storage, processing and transfer systems require an ultra-reliable power source and that's exactly what Multi Power delivers.

OUTSTANDING EFFICIENCY
Sustainability is one of today's major challenges, no matter if we are dealing with huge data centers or small telecom applications.
That's why we developed a brand new

2U power module able to reduce cooling needs and, at the same time, it creates more compact, reliable, and durable solutions even for small and medium power requirements.
Our modules achieve up to 98% efficiency in ON LINE double conversion, ensuring top-quality power supply for critical equipment while minimizing energy losses and operating costs.
Thanks to EFFICIENCY CONTROL Mode, our system automatically adjusts the number of active Power Modules based on demand. This optimizes efficiency, ensures redundancy, and maintains high performance, even at low loads.
Additionally, M2X operates efficiently in temperatures up to 40°C without loss of performance, reducing the need for extra cooling.
With advanced technology, our system enables faster, and more reliable communication between components and delivers exceptional dynamic performance.

up to
98%
Efficiency
ON LINE double conversion

SCALABILITY
The Multi Power2 - M2X has been conceived to be fully customizable to meet the specific needs of each installation and quickly adapt to the load increase.
Thanks to the hot-swappable features, the increase of power can be done while the unit is working in ON LINE double conversion without any disruption to the load. All the major components of the UPS are modular and can be easily added or replaced by the engineer, minimizing the site intervention costs.
M2X is available in three main configurations:
• PCS - Power cabinet up to 120 kW;
• CBC - Combo cabinet up to 120 kW;
• CBC - Combo cabinet up to 90 kW.
The Power cabinet can accommodate either 15 kW or 30 kW Power Modules.
The available UPS power and redundancy level can be expand vertically from:
- 15 to 75 kW in one single Power cabinet (M2X 120 PCS with PM 15 BLUE or PM 15)
- 30 to 120 kW plus redundancy in one single Power cabinet (M2X 120 PCS with PM 30 BLUE).

M2X Combo, instead, is built combining Power Modules and Battery Units in a unique cabinet.
This solution can be utilized within extremely compact areas requiring a small footprint with maximum power density.
This modular and reliable solution is perfect for any small to medium business applications.
The Combo Cabinet M2X 120 CBC 6 has five slots for PMs and 6 battery shelves (up to 6 battery strings) and it can expand vertically from 15 to 75 kW (with PM 15 BLUE or PM 15) or 30 to 120 kW plus redundancy (with PM 30 BLUE).
The Combo Cabinet M2X 90 CBC 4 has three slots for PMs and 4 battery shelves (up to 4 battery strings) and it can expand vertically from 15 to 45 kW (with PM 15 BLUE or PM 15) or 30 to 90 kW (with PM 30 BLUE).
The combo units are engineered to accept cables coming from the top or the bottom, providing peace of mind to end users and installers.
The PMs are designed to be independent, hot-swappable, mechanically segregated and with embedded selective disconnection at both the input and output stage.
The Bypass is fully rated according to the maximum power of the UPS, enabling it to clear higher short circuit currents.
The units have been designed with several standard features:
• Fans monitoring;
• Backfeed detection circuit and protection;
• Power walk-in;
• Separate or common batteries (parallel systems).

Power Module 30 kW - M2X 30 PM BLUE
Power Module 15 kW - M2X 15 PM BLUE

Power Module 15 kW - M2X 15 PM

A full set of options is available to fit the requirements of each installation, in both IT and non-IT environment:
• Parallel kit;
• Cold start kit;
• Top Ventilation for M2X 120 CBC;
• Seismic kit.

THE MOST ADVANCED TECHNOLOGY
M2X, as per all Multi Power2 family, is the result of a new design focused on a deep interconnection between hardware and software.
• Intelligence is distributed to ensure the protection of the equipment even on the off chance of a failure.
• Internal communication structure is based on two separate and fully redundant high-speed buses.
• Automatic health-checks are performed during the plug-in of each module to verify its status and avoid defective components.
• Operation is completely risk-free and enables the user to increase the power or redundancy of the system while the UPS is protecting the load. If a module has a different firmware version, the system aligns it to one of the other modules.
• Continuous monitoring via several sensors embedded in each module: to check the status of the UPS and analyze the running and environmental parameters to ensure the best operating performances.
• Embedded interleaving technology grants a significant reduction of the ripple current values and extends the lifespan of the batteries and DC capacitors.

MULTIPLE CONTROLS
To provide the highest level of quality and process control, each component of the system, from the modules to the cabinet, is designed and manufactured in Italy; moreover, all suppliers are carefully selected through a strict process of approval. At the end of our production line, all modules and full units undergo specific tests to grant rated performances and product integrity.
All collected measurements and data are analyzed to keep improving our products and provide our customers with the most updated technologies.
To enhance the lifespan of the UPS, each module incorporates status counters, as well as temperature and humidity sensors, providing real-time analytics for operators.

FLEXIBLE MODULARITY

The Multi Power2 - M2X is equipped with a 10” colour touch screen display that simultaneously provides information, measurements and operating states of the entire system and of each individual power module.

The user interface also includes an LED bar which delivers immediate and clear information regarding the current status of the UPS. To ensure a simple, quick and full connection to the existing infrastructure, by default all Multi Power2 - M2X units are equipped with:

- network card NetMan 208;
- embedded configurable In/Out signals (5 inputs and 4 outputs);
- 2 free slots for the installation of optional communication accessories such as network adaptors and extra volt free contacts;
- R.E.P.O. Remote Emergency Power Off.

The units are also compatible with:

- PowerShield[3] monitoring and shutdown software included for Windows operating systems 11, 10, 8, Server 2022, 2019, 2016 and previous versions, Windows Server Virtualization Hyper-V, macOS, Linux, Citrix XenServer and other Unix operating systems.

ULTRA SERVICEABILITY

The unit was carefully engineered to simplify positioning, installation and maintenance operations.

Connection terminals are easily accessible for a safe and simple installation of the UPS. Thanks to the embedded intelligence, powerful computing capacity and outstanding connectivity, we can monitor remotely the status of the UPS and provide dynamic and dedicated services to increase its lifespan.

OPTIONS

SOFTWARE
PowerShield[3]
PowerNetGuard

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

PRODUCT ACCESSORIES
Parallel Kit
Battery temperature sensor
Programmable relay board MULTICOM 392
ENERGYMANAGER
Top ventilation (M2X 120 CBC 6)
Cold start kit
Seismic Kit
Coating treatment
Air filter

OVERVIEW

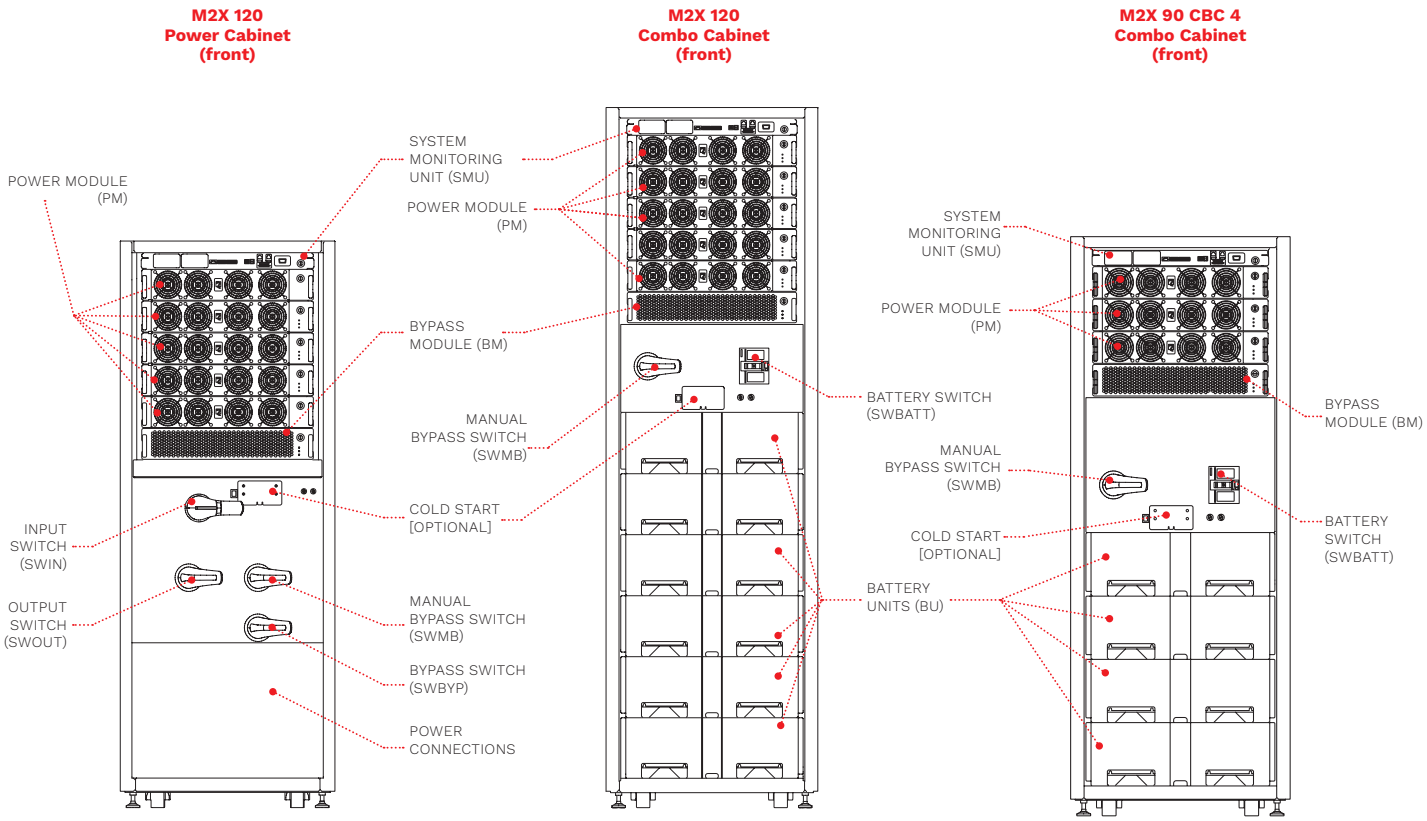
M2X 120
Power Cabinet

M2X 120
Combo Cabinet

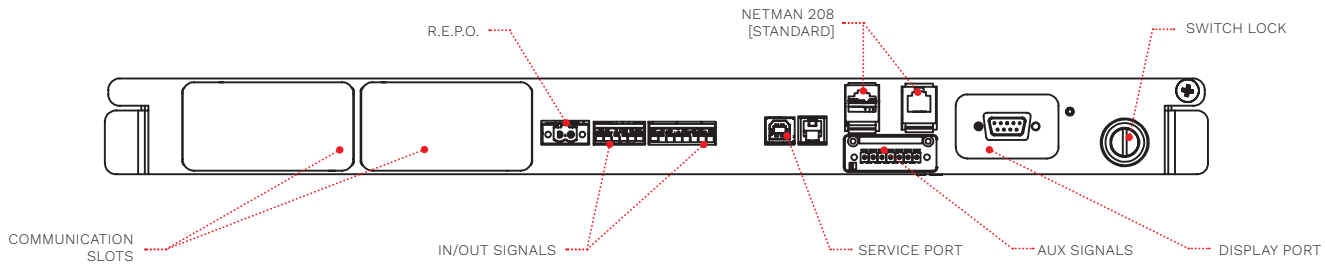
M2X 90 CBC 4
Combo Cabinet

1. 15 kW or 30 kW - 2U Power Modules.
2. Modular static bypass.
3. Battery Units (4 BU per each string).
4. System Monitoring Unit (SMU) with:
   - In/Out signals (5 input, 4 output);
   - NetMan 208;
   - 2 extra communication slots;
   - R.E.P.O.
5. Battery switch and manual bypass switch.
6. Main input, bypass, manual bypass and output switches.
7. Power Connection:
   M2X 120 PCS: Front access - bottom;
   M2X 120 CBC 6: Rear side either top or bottom;
   M2X 90 CBC 4: Rear side either top or bottom.

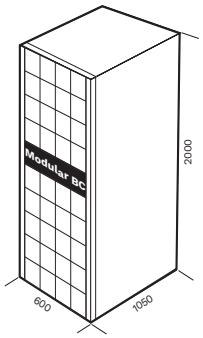
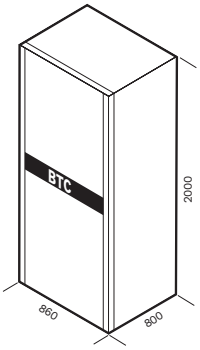
DETAILS



System Monitoring Unit (SMU)



BATTERY CABINETS

MODELS	**MPW BATTERY CABINET / MPW 170 BTC (MODULAR BATTERY CABINET)***	**BTC 2000 480V BB V6 3T / BTC 2000 480V BB V7 3T BTC 2000 480V BB V8 3T / BTC 2000 480V BB V9 3T BTC 2000 480V AB V9 3T (CONVENTIONAL BATTERY CABINET)**
UPS MODELS	Select the Battery configuration according to Multi Power range	
Dimensions [mm]		

**Single Battery Unit monitoring not supported.*

MODEL	Multi Power2 - M2X - 15 - 120 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]	90 - 120 (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% (adjustable)		
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 levels, 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	**M2X 120 PCS[3] Power Cabinet**	**M2X 120 CBC 6[4] Combo Cabinet**	**M2X 90 CBC 4[5] Combo Cabinet**
Power Module nominal power [kW] (named PM)	30 (M2X 30 PM BLUE) 15 (M2X 15 PM, M2X 15 PM BLUE)		
UPS Nominal Power [kW]	75 / 120		45 / 90
Power factor [pf]	1		
Power Module slots available	5		3
Cabinet layout description	4+1 x M2X 30 PM BLUE or 5 x M2X 15 PM or 5 x M2X 15 PM BLUE		3 x M2X 30 PM BLUE or 3 x M2X 15 PM or 3 x M2X 15 PM BLUE
Battery shelves available	N.A.	6 (6 strings max)	4 (4 strings max)
Parallelable up to	6 units		
Max power expandability [kW]	480		360
Dimensions (WxDxH) [mm]	600x940x1590	600x985x1995	600x985x1590
Weight [kg]	301	1148	790
System Noise Level [dBA±2][1]	60		
Efficiency ON LINE Mode	up to 98%		
Cabinet IP rating	IP20 (others on request)		
Cable Input	Front access - bottom	Rear side either top or bottom	
Color	RAL 9005		
Ambient temp. for the UPS	0 °C - +40 °C		
Ventilation	Front to rear	Front to rear (front to top optional)	Front to rear
Recommended temperature for battery life	+20 °C - +25 °C		
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 Independent) VFI - SS - 111		
Moving UPS	Castors (cabinets shipped without PM and BU)		

[1] *Conditions apply.*
[2] *For wider tolerance condition apply.*
[3] *With main Input, Bypass, Output, Manual Bypass switches, weight including 5x Power Modules to reach full power + redundancy.*
[4] *With Manual Bypass switch and battery switch, weight including 5x Power Modules to reach full power + redundancy and 6x fully populated battery shelves.*
[5] *With Manual Bypass switch and battery switch, weight including 3x Power Modules to reach full power and 4x fully populated battery shelves.*

The information in this document is subject to change without notice. Riello UPS assumes no responsibility for any errors that may appear in this document.

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