

MIZAR

10-15kVA

MIZAR product family is a **top-tier UPS** designed to set the reference in the future UPS market. 5th generation UPS for **highest efficiency**, with **Solar Energy Integration** and **“EnerClever”** feature.

100% made in Italy



The **Mizar** series by **Powertronix**, with 15+ years of market presence, showcases **exceptional performance** and **reliability**, embodying the company's vision for **emergency power supply solutions**. These products are specifically designed for demanding, mission-critical environments, proving their **efficiency and stability**. The MZ/AL family has consistently met the needs of critical sectors, delivering durable and reliable performance. **Powertronix's** ongoing commitment to **innovation** and **quality** is evident in this product line, which has earned longstanding **trust from its customers**.

TYPICAL APPLICATION:

- Offices & IT;
- Telecommunications;
- Servers/ Datacenter;
- Medical/ Hospitals;
- Broadcasting;
- Access & Presence

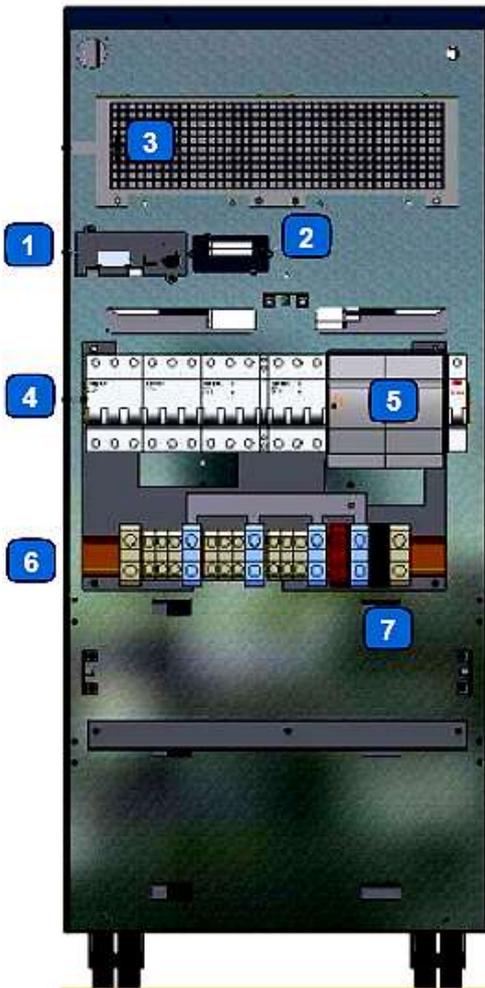
SPECIAL APPLICATION:

- Hybrid UPS
- Energy Manager
- EN 50171

VFI-SS-111	1-1 / 1-3 / 3-1 / 3-3	10kVA-15kVA
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UPS MODEL	MIZAR	
UPS NOMINAL RATING	10kVA	15kVA
UPS ACTIVE POWER	9kW	13.5kW
UPS EFFICIENCY (VFI -111-SS)	96.0%	96.4%

REAR VIEW



Input:

(*on-the-field user selectable)

INPUT NOMINAL VOLTAGE	3P+N 380/400/415VAC or 1P+N 220/230/240VAC
INPUT VOLTAGE TOLERANCE	300÷500VAC 100% load - Factory setting ±20% nominal voltage
INPUT NOMINAL FREQUENCY	50/60Hz
INPUT FREQUENCY TOLERANCE	40 ÷ 70 Hz
INPUT POWER FACTOR	0.99
INPUT THDI	THDI < 3%

Output:

OUTPUT NOMINAL VOLTAGE*	Three phase 380/400/415VAC or Single phase 220/230/240VAC
OUTPUT POWER FACTOR	0.9
OUTPUT THDV	< 2% with linear load & < 4% with non linear load
OVERLOAD	125% for 10 minutes - 150% for 60 seconds
OUTPUT NOMINAL FREQUENCY	50/60Hz ±0.1% stability

Bypass:

BYPASS NOMINAL V&F*	3P+N 380/400/415VAC or 1P+N 220/230/240VAC - 50/60Hz
BYPASS VOLTAGE TOLERANCE	±20% - Factory setting ±10%
BYPASS ACCEPTED OVERLOAD	10In per 100ms
MANUAL BYPASS	Available with mechanical security

Battery:

BATTERY CONFIGURATION	720VDC x string / up to 60 Blocks INTERNALLY INSTALLED
BATTERY CHARGING I&V*	20A (adjustable) - Factory setting 0.1C / 13,5VDC/block
BATTERY COMPATIBILITY	VRLA-AGM / VRLA-GEL / NiCd / Lithium / Others
BATTERY MANAGEMENT	Auto Test/ Equalization / Smart-battery management

Environment:

DIMENSION	390x930x910(h)mm - metal case - IP20 - complete with castors	
WEIGHT (W/O Battery)	74Kg	75Kg
TEMPERATURE & RH%	0÷40°C – RH% up to 95% non-condensing - 2.000m slm	

EXT INTERFACE	RS-232/RS485 + dry contacts as standard on board MODBUS-SNMP via external optional card; LED Status Display LCD Touch Display ; Remote panel
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Others:

EUROPEAN DIRECTIVES	LV 2014/35/EU Low Voltage Directive EMC 2014/30/EU Electromagnetic Compatibility Directive / CE marks
STANDARDS	Safety IEC EN 62040-1; IEC EN 62040-2 EMC; RoHS Compliance; IEC EN 62040-3 (Voltage and Frequency Independent) VFI-SS-111

Options :

0SDE1017	Mizar cold start capability	0SDE1341	LCD Touch-screen Display
0SDE1173	Mizar built in backfeed protection	0SDE0112	Mizar 2nd independent output AS+EO (emergency only)
0SDE1166	Mizar parallel capability - Optical fiber connection for up to 8 Ups's parallel connection		

- 1 RS 232 -RS 485
- 2 Smart Slot
- 3 Exhaust Air Outlet
- 4 In / Out / Reserve Switch
- 5 Bypass Switch
- 6 Dry contacts / Remote Epo
- 7 Ext Battery Terminals

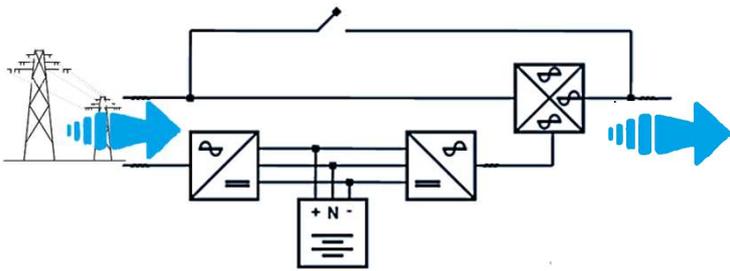
MIZAR

Working Mode:

+ UPS

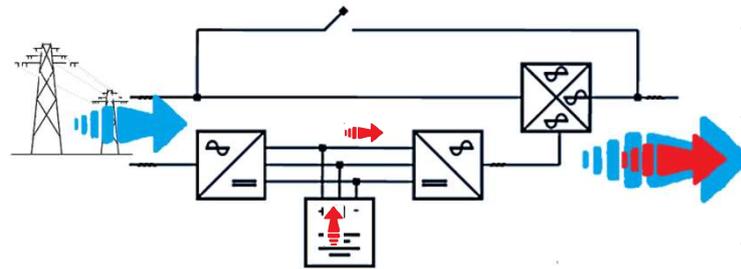
Mizar operates as a standard UPS in Online Double Conversion or ECO mode. In **Online Double Conversion**, the UPS constantly converts AC to DC and back to AC, providing your load with **clean, stable power, free from spikes and fluctuations**—ideal for critical applications.

In **ECO mode**, the UPS powers the load directly from the mains when input power is stable, switching to battery only if an issue is detected.



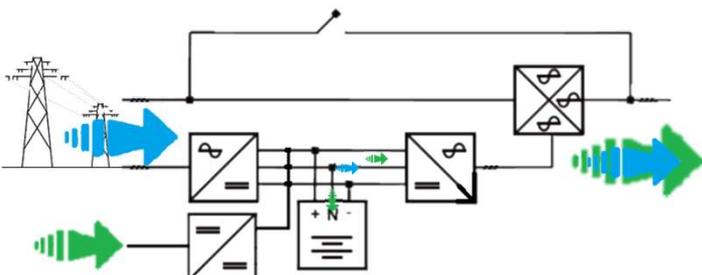
+ PEAK SHAVING

In addition to the standard mode, the Mizar will use the batteries as an **“energy boost”**, meeting the **instantaneous energy demand** by drawing it from the battery instead of from the grid. This also allows the system to **output more energy than is being drawn from the grid**, thanks to the intrinsic intelligence in the control logic, special design considerations, and advanced firmware functionalities.



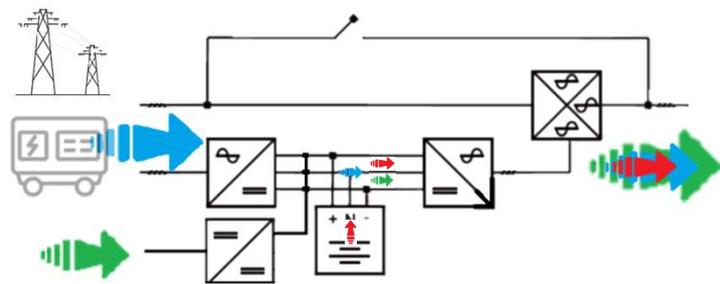
+ HYBRID UPS

In addition to the standard mode, the Mizar can be **directly connected to PV panels** via Powertronix's SBC to **maximize energy efficiency**. Solar energy **will integrate with and reduce the grid power demand** based on the availability of PV energy. If properly sized, the system can potentially eliminate grid power consumption altogether, ensuring **maximum power supply efficiency and load protection**. Extra PV energy may also be used to charge the batteries.



+ ENERCLEVER UPS - MIZAR

Enerclever functionality for Mizar -from 13 Kw- . The system will act as a **“SYSTEM ENERGY MANAGER,”** always giving the opportunity to switch seamlessly and use, among the available sources, the **most convenient energy**, while maintaining solid **continuity , stability and quality power provision** demands. it is also possible to combine EC UPS with Powertronix's specifically designed **Li-Ion based battery energy storage (BESS)**



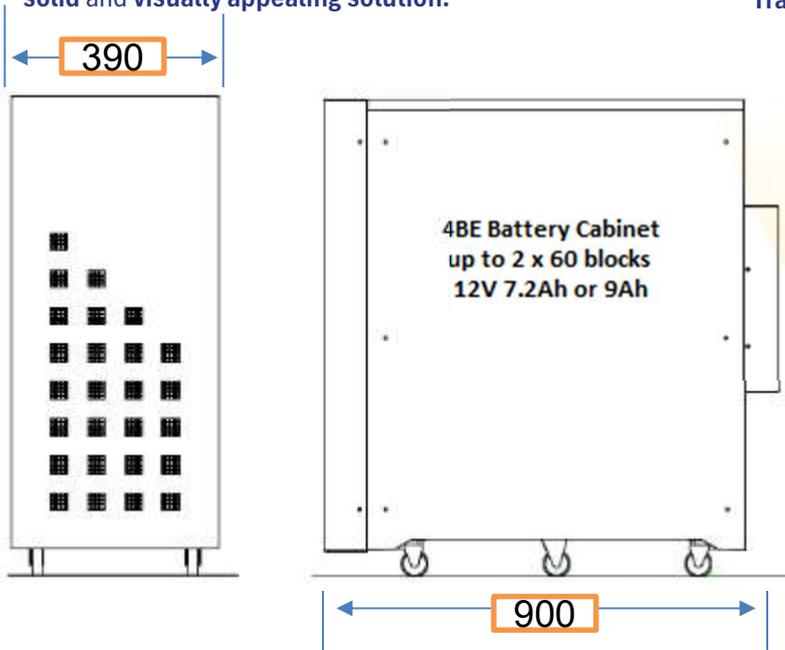
POWERTRONIX

Secure Power

Innovation That Saves

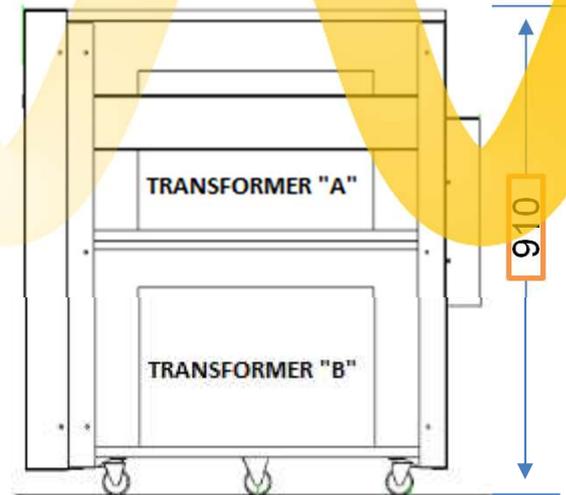
+ BATTERY CABINET

The **4BE cabinet** is specifically designed to optimize space and functionality, ensuring superior efficiency. With the capacity to **house up to 120 blocks of 7Ah or 9Ah**, the 4BE is entirely made of metal to provide maximum protection and functionality. Engineered to offer scalability in autonomy, the cabinet's design seamlessly integrates with the aesthetics of the Mizar series, delivering a **practical, solid and visually appealing solution**.



+ ISO-AUTO TRANSFORMERS

As an alternative to the **internal** batteries, the Mizar series offers mechanical kits for the solid installation of **2 isolation transformers or autotransformers** (up to 20kVA). These can be configured at either the UPS input or output. This capability provides the Mizar series with **exceptional operational flexibility**, allowing it to meet a wide range of installation requirements. **Transformers may also be installed in 4BE cabinet.**



Given that flexibility has been the key focus in the development of the product over the years, Mizar offer multiple communication options and external interfaces;

+ SNMP/TCP-IP

The Mizar series offers the possibility to integrate the UPS into your **Local Area Network**, enabling remote monitoring and control of the UPS status. The **OX-MGTBX506/4 SNMP** card provides full control over thresholds, allowing **alarms to be triggered and notifications to be sent via email** to the entire team or selected personnel. The freeware ViewPowerPro gives customers free access to a simple yet comprehensive monitoring tool



+ RELAY CARD

The Mizar series **comes standard with CS0191** cards. Powertronix's exclusive CS0191 card design **ensures full integration** of the MZ/AL series into your **Building Management System (BMS)** via RS232-RS485 com-protocols. **It supports five simultaneous active connections:**

- Potential-free contacts (NO/NC)
- RS232 port with DB9 connector
- RS485 Modbus RTU
- rEPO (Remote Emergency Power Off)
- External Bypass AUX contact



+ HMI

The Mizar series can be equipped as optional with a modern, functional, and user-friendly **5" LCD touch screen display** (OSDE1341). Additionally, with the **OSDE0124 remote panel**, control and monitoring of the UPS status can be **extended up to 100 meters**.

