

The ZUP-230V power supplies have been designed to supply 230 Vac and 24 Vdc voltage to fire protection indication, smoke and heat control systems and fire protection devices.

The power supply provides the uninterruptible voltage of 230 V from the mains or after its failure, from the DC/AC 230 Vac inverter powered from the internal 24 V battery bank at a certain time and after the appearance of a fire alarm or other signal.



- **Certificate No. 1438-CPR-0593**
- **Declaration of performance DWU-MX-15**
- **Certificate of approval No. 3183/2018**



### FEATURES AND BASIC APPLICATIONS

The power supply enables 230 V voltage distribution between 4 different types of loads that require input, switching or disconnection of power in specific time and depending on the function being performed; after receiving a signal from outside. Response times for individual output types can be set by a user in a wide range using the slide switches.

The power supply is not an UPS. Most fire protection devices supplied with 230 V voltage during supervision stay in standby mode - no power is consumed. The organization of the power supply's work takes into account this fact by setting specific time periods of the inverter's activity, while it takes energy from the battery. Apart from those time periods the battery is relieved while waiting for a fire alarm. This allows to extend the supervision time to 72 h while maintaining the readiness to operate powered devices with full power (depending on the type 400 ÷ 1500 W).

The main application of the ZUP-230V power supplies includes:

- aeration gates;
- PWP current switches of fire protection devices with shunt trip coils;
- bidirectional self-locking actuators of smoke control dampers;
- drives of fire zone separating gates;
- spring actuators for fire dampers;
- blinds for ceiling smoke tanks;
- fans of smoke exhaust ducts, activated after passing the shut-off damper into open position;
- bidirectional self-locking actuators of smoke control dampers, closed after stopping fan;
- cascade-operated devices to reduce inrush current.

In addition, there is an uninterruptible voltage output of 24 Vdc, 100 W available to supply other fire protection devices. This output is protected against short circuit.

### CONSTRUCTION

The power supply is made in the form of a metal wall cabinet for hanging at the wall in the direct or distanced way. The cabinet includes a 230 Vac voltage distribution unit, a 24 Vdc / 230 Vac inverter, a 24 V power supply, two 12 V batteries and a battery disconnecter. The cables of the external installation can be led from the top or bottom of the cabinet through the glands. The six holes have been prepared to be punched by using hand tools to mount the glands.

### ADDITIONAL FUNCTIONS

- LED signalization of the operating status on the cabinet door and diagnostic signalization inside the power supply
- possibility to receive fire signal from control panel equipment or from smoke exhausting equipment
- possibility to control manually from multiple locations
- possibility to set or turn off the control line monitoring system
- internal, manual test button
- internal „cold start“ button allowing to start the power supply from the batteries only, when the mains absent
- output of external relay signalization of the power supply failure
- full battery monitoring, including LVD and battery circuit resistance monitoring

### COMPLIANCE WITH STANDARDS AND DIRECTIVES

- EN 54-4 Fire indication systems. Part 4. Power supplies.
- EN 12101-10 Smoke and heat control systems. Part 10. Power supplies.
- 2014/35/EU [LVD] Low-voltage electrical devices.
- 2014/30/EU [EMC] Electromagnetic compatibility.



ISO 9001 and 14001 certified

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The producer reserves the right to make changes without notice

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- 305/2011/EU [CPR] Harmonized conditions for marketing of construction products.
- 2011/65/EU [RoHS 2] Restrictions of the use of certain hazardous substances in electrical and electronic equipment, together with the new change introduced by the directive 2015/863 [RoHS 3].

#### BASIC PARAMETERS

Type	Max. power of 230 Vac outputs	Max. battery capacity	Dimensions [mm]	Weight with battery
ZUP-230V-400	400 W	45 Ah	455 × 406 × 207	42 kg
ZUP-230V-700	700 W	45 Ah	455 × 406 × 207	42 kg
ZUP-230V-1000	1000 W	45 Ah	455 × 406 × 207	42 kg
ZUP-230V-1500	1500 W	75 Ah	555 × 456 × 207	65 kg

#### BASIC ELECTRICAL AND ENVIRONMENTAL PARAMETERS

Power	
Mains voltage	230 V -15% +10% 50 Hz
Outputs 230 Vac *1)	
Output voltage 230 Vac - when mains present *2) - during battery operation *2)	equals to mains voltage 230 V ±3% 50 Hz *3)
Fuses on - AC-1 output - AC-2, AC-3 and AC-4 outputs	20 mm 10AF 20 mm 6.3AF
Output 24 Vdc	
Rated voltage of output 24 Vdc *4)	27.1 V
Voltage regulation range 24 Vdc *5)	21...28.8 V
Battery bank	
Maximum battery charging current	2.8 A
Quiescent current consumption from battery - when inverter operating  - when inverter off - when battery discharged	0.78 A / 400 W, 0.93 A / 700 W, 1.08 A / 1000 W, 1.33 A / 1500 W 26 mA 0.33 mA
Maximal, additional resistance in the Ri max battery circuit *6)	25 mΩ / 45 Ah; 19 mΩ / 75 Ah
Environment	
Operating temperature	-5...+40°C
Protection degree EN 60529	IP 42

\*1) The 230 Vac power and output circuits have a common N cable

\*2) The presence of the mains voltage is recognized for the voltages above 184 V ± 11 V

\*3) The voltage is not synchronized with the mains voltage

\*4) With a charged battery at 25°C

\*5) The specified range includes the voltage between the voltage of the discharged battery (at the end of the battery cycle) and the voltage of the bulk charging

\*6) Markings according to EN 54-4 + AC + A1 + A2

#### Example of an order

1. **ZUP-230V-1000** power supply for fire protection, automation and ventilation
2. **Batteries 12 V / 45 Ah 2 pcs**

#### MANUFACTURER

**MERAWEX Sp. z o.o.**  
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