

The **ZDSO500-DR** power supplies are dedicated to operate with voice alarm systems (VAS). They act as battery charger and supervision system for external batteries for backup voltage 24 V, according to the EN 54-4 + A1 + A2 standard.

The two versions of power supplies have structurally similar enclosures, designed for mounting in a 19" rack. The ZDSO500-DR3 version is 2U high and has the number of outputs for power amplifiers and additional outputs increased and allows the cooperation with 3 battery banks.

This design allows for flexible selection of power supplies depending on the requirements of a given VAS system: number of batteries, number of outputs for amplifiers and additional outputs.



By equipping all current outputs of the power supplies with internal blade fuses, they are short-circuit proof and their status is signalled by a LED assigned to each output. The fuse replacement requires the cover to be removed.

A special terminal has been derived for each of the batteries, allowing automatic voltage equalization between both batteries connected in series.

### FUNCTIONALITIES

- dependence of floating operation and bulk charging voltages on temperature
- low & high battery voltage control
- battery circuit continuity control and measurement of its resistance
- battery protection against too deep discharge
- internal temperature control
- optical and remote signalling of failures

### STANDARD EQUIPMENT

- set of four signalling LEDs
- error reset button
- Ethernet communication connector on the rear panel (optional)
- internal deep discharge disconnecter of battery
- slide switch for selecting the battery capacity and resistance of the battery circuits
- remote signalling terminals with NO and NC contacts: collective, battery and mains failure
- external fault input connector (active when open) referred to the negative common rail of the power supply
- two external temperature probe connectors for measuring the temperature of battery bank and ambient temperature (probes included)
- IEC C14 socket for connecting the power supply

**COMPLIANCE WITH STANDARDS AND DIRECTIVES**

- EN 54-4 *Fire alarm systems. Part 4. Power Supplies.*
- 2014/35/EU *Low voltage directive [LVD]*
- 2014/30/EU *Electromagnetic Compatibility Directive [EMC].*
- 305/2011/EU *Harmonized conditions for the marketing of construction products. [CPR]*
- 2011/65/EU + 2015/863 *Restrictions on the use of certain hazardous substances [RoHS 2 + RoHS 3]*

MAIN PARAMETERS OF THE DEVICES	ZDSO500-DR2	ZDSO500-DR3
Mains input	230 / 115 V 50 / 60 Hz	PF > 0.94 / 0.98
	2.9 / 5.8 A	5.8 / 11.6 A
<b>Output parameters</b>		
Overcurrent protection at the OUT outputs	3 x 75 A 3 x 40 A	5 x 75 A 6 x 40 A
Max total number of power amplifiers	3 x 2000 W 3 x 1000 W	5 x 2000 W 6 x 1000 W
Overcurrent protection at the AUX outputs	2 x 8 A 2 x 4 A	4 x 8 A 4 x 4 A
Max total current at the AUX outputs	15 A	2x15 A
<b>Battery operation</b>		
Floating voltage @ 25°C	27.1 V	
Maximum total external battery capacity at 230V / 115V power supply *1)	400 / 350 Ah	810 / 750 Ah
Max charging current	18 A	36 A
Max resistance of a single battery circuit	65 mΩ	
Maximum load current of a single battery bank	200 A	
<b>Others</b>		
Dimensions (H x W x D) [mm]	43 x 483 x 323	86 x 483 x 323
Weight	5.4 kg	8.0 kg
Operational temperature / cooling method	-5°C ... 40°C / internal, forced	
IP ingress protection *2)	IP20	
<b>Standard compliance</b>		
Electric safety	EN 62368-1 cl. I	
EMC emission	EN 61000-6-3 level B	
EMC immunity	EN 50130-4	

\*1) Assuming no power consumption from the AUX outputs. The load on the AUX outputs reduces the maximum available battery capacity.

\*2) In order to comply with the EN 54-4 standard, the power supply should be mounted in a cabinet with minimum IP30 ingress protection.

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