

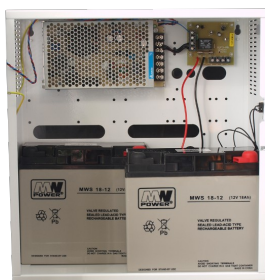
# ZBF-24V-5A-17Ah

Power supply with battery charger 27.6VDC/5A, space for battery 2 x 12V/17-20Ah



## ■ Features:

- Universal AC input / Full range
- Include high quality DELTA ELECTRONICS PSU module
- Output protections: Overload / Short circuit / Over voltage / Over temperature
- Battery protections: Battery reverse polarity / Battery cut off
- Case protections: against sabotage
- Battery charging current control
- Cooling by free air convection
- Optical alarm signals AC OK and DC OK



## ELECTRICAL SPECIFICATION

MODEL	ZBF-24V-5A-17Ah	Rev. R1.2/R1.3
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### OUTPUT

Rated DC Voltage – line mode	27.6VDC
Rated DC Voltage – battery mode	21 ÷ 27.6V
Rated current for load	5A
Current range for load	0 ÷ 5A
Rated power for load	138W
Rated power for charging	18W
Total rated power	156W
Voltage tolerance [3]	± 5%
Ripple & Noise (max.) [2]	120mV <sub>p-p</sub>

### BATTERY

Space for battery	24V / 17 ÷ 20Ah VRLA AGM – two battery 12V connected in series	
Rated voltage	24V	
Charging parameters	Current (max.)	Voltage
	0.65A	27.6V

### INPUT

Voltage range	90-132VAC, 180-264VAC (Selectable by Switch)
Frequency range	47 ÷ 63Hz
Efficiency (typ.)	86%
AC current (typ.)	3.0A/ 115VAC, 2.0A/ 230VAC
Inrush current (typ.)	45A / 230VAC

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OUTPUT PROTECTIONS	Line mode	Battery mode
Short circuit	Type: FS1 fuse blow on BUF module, recovers after fuse replacement	
Overload	Range: 110-150% total rated power	Range: above 110% total rated power
	Type: hiccup mode of power supply module and FS1 fuse blow on BUF module, recovers after fuse replacement and removal of fault condition	Type: FS1 fuse blow on BUF module, recovers after fuse replacement and removal of fault condition
Over voltage	Range: 105-150% rated DC voltage Type: hiccup mode of power supply module, auto-recovery	No protection
Over temperature	Range: <70°C Surrounding Air Temperature and 100% load Type: shut down of PSU module, recovers after removal of fault condition	No protection

## BATTERY PROTECTIONS

Short circuit	Type: FS1 (F6.3A) fuse blow on BUF module, recovers after fuse replacement
Battery reverse (polarity)	Type: one time, non auto-recovery
Battery cut-off	Range: 21V $\pm$ 1VDC, relay cut-off

## WORKING ENVIRONMENT

Working temperature	-10°C ÷ +45°C
Working humidity	20 ÷ 85% non-condensing
Storage temperature and humidity	-20°C ÷ +60°C, 10 ÷ 95% non-condensing

## SAFETY and EMC REGULATIONS

Safety standards	Compliance with EN60950-1
Withstand voltage	I-P/O-P: 3kVAC; I-P/GND: 1.5kVAC; O-P/GND: 0.5kVAC
EMC emission	Compliance with EN 55023
EMC immunity	Compliance with EN61000-4-2, -3, -4, -5, -6, -8, -11

## OTHERS

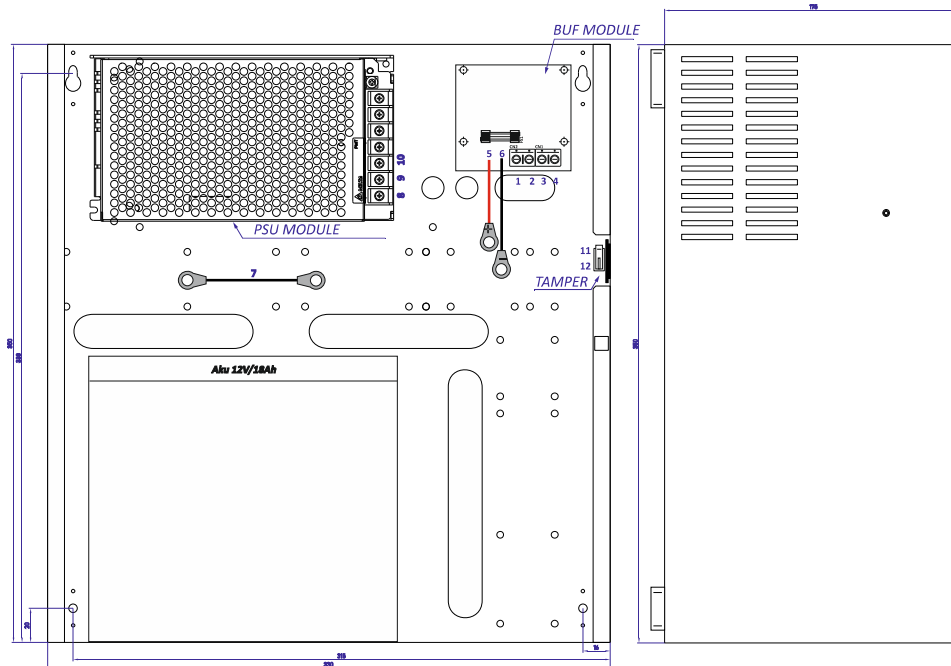
Dimensions Internal/External	330*350*175mm (szer. x wys. x gł.); 334*354*179mm (szer. x wys. x gł.)
Weight	4.6kg / 4.8kg

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## MECHANICAL SPECIFICATION



PSU module – input			TAMPER – protection against sabotage		
Pin No.	Assignment	Description	Pin No.	Assignment	Description
8	AC/L	Line AC	11	NO	Normally open contact
9	AC/N	Neutral AC	12	COM	Common contact
10	GND	Ground			

Battery cut off module – battery and output		
1,3	V <sub>OUT+</sub>	Positive DC
2,4	V <sub>OUT-</sub>	Negative DC
5	BAT+ ( <b>red</b> ) ring terminal KO5	Positive battery 24V
6	BAT- ( <b>black</b> ) ring terminal KO5	Negative battery 24V
7	BAT ( <b>black</b> ) ring terminal KO5	Wire to connect two batteries in series

LED AC OK (yellow)	LED DC OK (green)	Description	Check
		Normal work – AC mode	
		Battery mode work, AC power failure	Possibility of AC fuse blow
		Both AC and DC power failure	Possibility of AC fuse blow and battery fuse blow.
 - light off	 - light on		