

ZBF-12V-10A-17Ah

Power supply with battery charger 13.8VDC/10A, space for battery 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-12V-10A-17Ah	Rev. R1.4 / Rev. R1.5
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OUTPUT

Rated DC Voltage – line mode	13.8VDC
Rated DC Voltage – battery mode	10.5 – 13.8V
Rated current for load	10A
Current range for load	0 ÷ 10A
Rated power for load	138W
Rated power for charging	12.5W
Total rated power	150.5W
Voltage tolerance [3]	± 5%
Ripple & Noise (max.) [2]	120mV _{p-p}

BATTERY

Space for battery	12V / 17 ÷ 20 Ah VRLA AGM	
Rated voltage	12V	
Charging parameters	Current (max.)	Voltage
	0.9A	13.8V

INPUT

Voltage range	90-132 VAC, 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 (M12.5A) fuse blow on BUF module, recovers after fuse replacement
Battery reverse (polarity)	Type: one time, non auto-recovery
Battery cut-off	Range: 10.5V $\pm$ 0.5VDC, relay cut-off

WORKING ENVIRONMENT	
Working temperature	-10°C $\div$ +45°C
Working humidity	20 $\div$ 85% non-condensing
Storage temperature and humidity	-20°C $\div$ +60°C, 10 $\div$ 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 55032
EMC immunity	Compliance with EN 55024

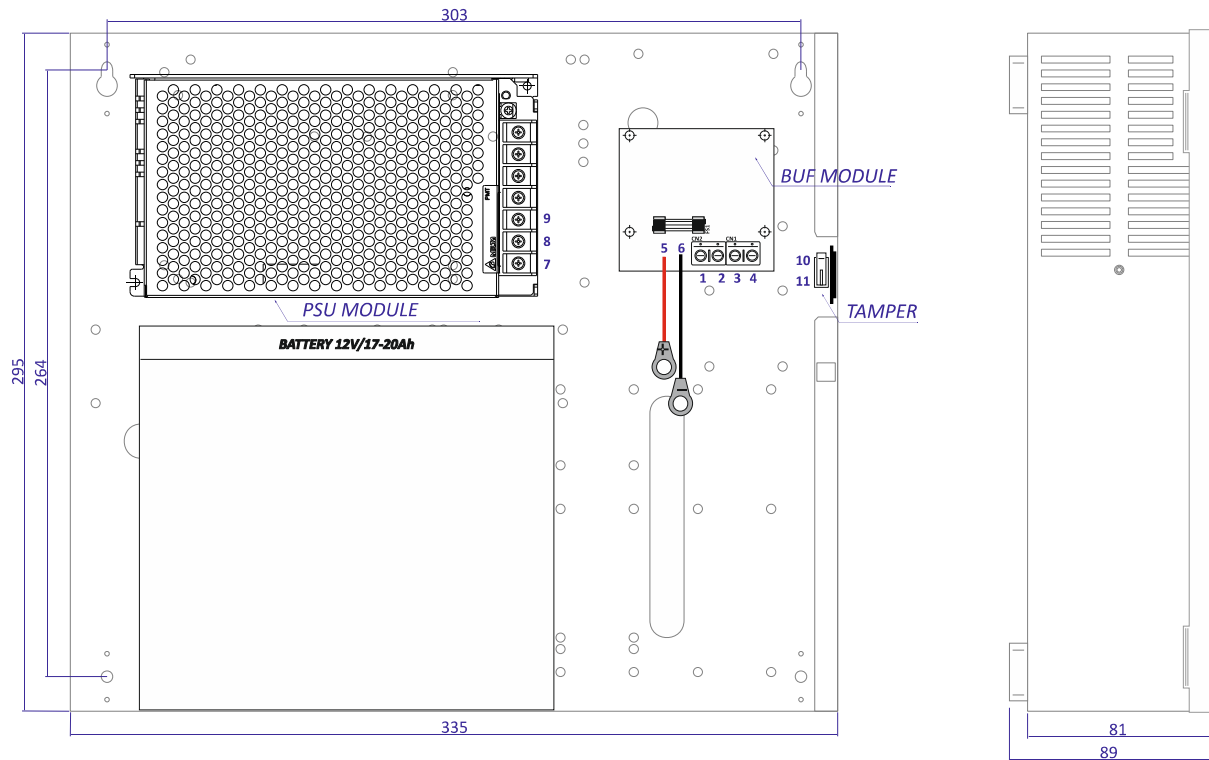
OTHERS	
Dimensions Internal/External	335*295*80mm (W x H x D); 339*299*89mm (W x H x D)
Weight	2.4kg / 2.6kg

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MECHANICAL SPECIFICATION



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

Battery cut off module – battery and output		
1,3	V _{OUT+}	Positive DC
2,4	V _{OUT-}	Negative DC
5	BAT+ (red) ring terminal KO5	Positive battery 12V
6	BAT- (black) ring terminal KO5	Negative battery 12V

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		