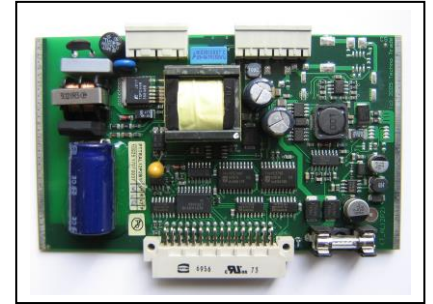


TBOX MS-PS230

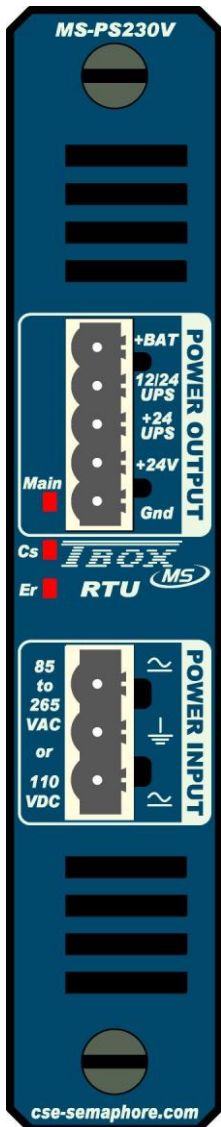
Version 3.07

TBOX MS-PS230

- Power Supplies 230 Volts AC
- 15 W



Technical Specifications



Revision

C-01, C-02, C-03	- No redundancy. Working with battery: 12/24V UPS only
CR-03	- With Redundancy. Working with battery: 12/24V UPS only
CRU-03	- With Redundancy. Working with backup battery: 24V UPS
IRU-03	- CRU-03 – Industrial

Input

Voltage input:	AC 85..265 VAC (47..440 Hz)
	DC 90..375 VDC
Connector	Screw connector (3 x 7.62mm) Wire range: 0.14 – 2.5 mm ² (or max. 12 AWG)

Power

Input Power at I out max.	Maximum: 20 W
Input Power in overload or short-circuit	Maximum: 50 W
Efficiency	Minimum: 60% at 2 A
Output Power	Maximum: 15 W

Output

Battery charger:	- Mode	Constant current / limited voltage
	- Voltage	Maximum: 13.8 V
	- Current	Typical: 90 mA
Output connections	+BAT	to the Battery (+12V)
	12/24 UPS	Backup power supply to another rack MS: +24VDC when mains is present otherwise +8V to +13.8V. <u>Current:</u> max. 625mA (minus current used by the rack)
	+24 UPS	+24VDC when mains or battery is active. <u>Current:</u> max. 120 mA
	+24 V	+24VDC when mains is present
	Gnd	Ground and 0V of Battery
Output current on the Bus (Vcc=3.3V)		3 A
Total current used by all secondary outputs: battery charger, Bus, 24 V output, UPS outputs: (Vp=24 V)		Max. 0.625 A
Connector		Screw connector (5 x 5.08mm) Wire range: 0.14 – 2.5 mm ² (or max. 12 AWG)

Protection

Test	Automatic test of the access of the card by the CPU (see LED 'CS' below)
EMC protection	
Overload and short-circuit	Maximum 1 second every minute Above this time, risk of permanent damage (output line is opened)
FUSE primary voltage	Soldered Fuse of 1.25 A. Not replaceable by user.
FUSE battery	Standard Glass Fuse of 2A fast (5x20). Replaceable by user.

Isolation

Input between Earth and secondary	Isolation reinforced according to IEC60950 standard. 3000 Vrms during 1 minute
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LED

Main	Input Voltage present
CS	Card Selection: card corresponds to a card declared in TWinSoft.
ER	Error: card type does not correspond to the one declared in TWinSoft.

Input

Active Power Supply	Digital input = 1 when power supply active (used in redundancy)
Power Fail	Digital input = 1 when 'main' power breaks down
Temperature	See above

Environment

Temperature storage	-40°C to 85°C
Temperature working (ambient)	Industrial Temperature: -40°C to 70°C
Humidity	15 to 95 % without condensation
Altitude	Max. 4000 m

Dimensions

Without connector	Height x Depth x Width: 150 x 83 x 29 mm
Weight (w/o connector)	350 g

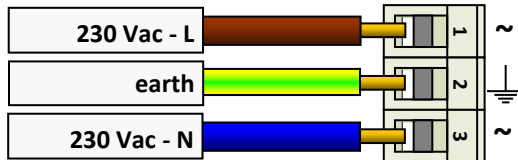
Approvals

CE, UL, CSA, C-Tick

Cabling Schematic

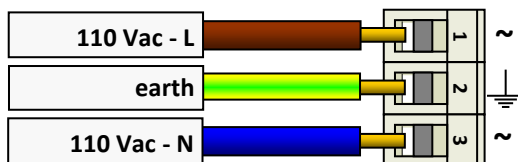
Cabling – Power Supply 230 VAC

Connector: POWER INPUT Screw connector (3 x 7.68 mm)



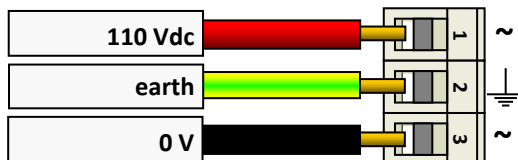
Cabling – Power Supply 110 VAC

Connector: POWER INPUT Screw connector (3 x 7.68 mm)



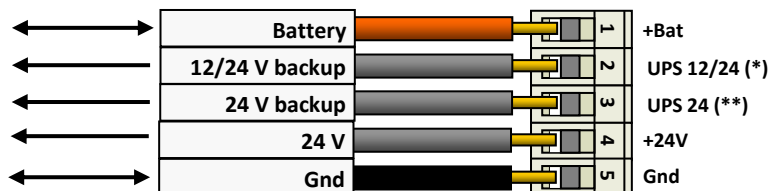
Cabling – Power Supply 110 VDC

Connector: POWER INPUT Screw connector (3 x 7.68 mm)



Cabling – Battery

Connector: POWER OUPUT Screw connector (5 x 5.08 mm)



(*): 12V when battery active; 24 V when mains active

(**): 24V when battery or mains active