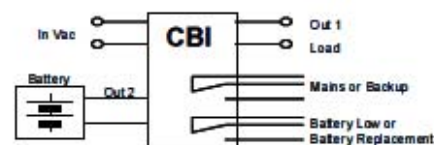


CBI2410A

24 V 10 A Intelligent Battery Charger & Power Supply

CoolPower
Solutions

- Universal Input Range 93-264VAC, 47-63 Hz
- Output 1: Load power supply 24 VDC, 10 A
- Output 2: Battery charging 24 VDC, 10 A
- Suited for the following battery types: Open Lead Acid, Sealed Lead Acid, lead Gel and Ni-Cd (option)
- Automatic diagnostic of battery status. Charging curve UI, constant voltage and constant current Battery Life Test function
- Switching technology, output voltage 22-28,8VDC
Three charging levels: Boost, Trickle and Recovery
- Protected against short circuit and inverted polarity
- Signal output (contact free) for discharged or damaged battery
- Signal output (contact free) for mains or Back-up
- Protection degree IP20 - DIN rail or bracket mounting



Technical features

The CBI series is a range of microprocessor control battery chargers able to optimize charging and discharging cycles while ensuring extended battery life. Boost and trickle charging are under micro-processor supervision. Continuous monitoring of battery efficiency reduces battery damage risk and allows a safe operation also in case of permanent connection. They are suited for several battery types, Open Lead Acid, Sealed Lead Acid, Lead Gel and Ni-Cd. They are programmed for two charging levels, boost and charge, but they can be changed to single charging level by the user.

Suitable for recharging, supply and recharging, supply and Back-Up battery module. A rugged casing with bracket for DIN rail mounting provide IP20 protection degree.

Charging curve selection
By means of jumpers. Predefined curves for Open Lead Acid, Sealed Lead Acid, Gel, Ni-Cd(option) or Single charging level

Type of Signal Output Contact
Maximum current can be switched: 1 A – 30 VDC.

Installation

The device must be installed according to EN 60950 norm, with a proper isolation switch.

Electrical specifications

Input Data

Voltage Range	93 - 264 VAC
Frequency	47 - 63 Hz
Internal Fuse, not replaceable	Yes

Output Data

Output Voltage (Vn) / Current (In)	24 VDC / 10 A
Minimum Load	No
Efficiency at 50% of rated Current	≥83%
Short-circuit Protection	Yes
Over Load Protection	Yes
Over Voltage Output Protection	Yes

Battery Output (Battery type 3 – 50 Ah)

Boost Charge (25°C at In)	28.8 VDC
Trickle Charge (25°C at In)	27.5 VDC
Output 2: Battery Charging Current	10 A ± 5%
Setting Range of Charging Current	20 - 100% of In
Recovery Charge	Yes
Jumper Charging Configuration	Yes
Reverse Battery Protection	Yes
Sulfated Battery Check	Yes
Detection of Element in Short Circuit	Yes

Load Output

Output Voltage (at In)	22 – 28.8 VDC
Max Nominal Current	1.1 x 10 A ± 5%
	$I_n = I_{load} + I_{batt}$ (120 W)
Output 1: Load Current Main I_{load}	20 A max
Output 1: Load Current Backup I_{load}	15 A max

Signal Output (free switch contacts)

Main or Backup power	Yes
Low Battery	Yes
Fault Battery	Yes

Signal Input / Output (RJ45)

Temperature Compensation Battery	Option with ext. Probe
Voltage Drop Compensation	Option with ext. Cable
Remote Monitoring Display	Option

Climatic Data

Range of ambient working Temperature	-10 - +50°C
Range of ambient stocking Temperature	-25 - +85°C
Max Relative Humidity, w/o condens.	95%, 25°C

General Data

Insulation Voltage (Input/Output)	3000 VAC
Insulation Voltage (Input/Ground)	1605 VAC
Insulation Voltage (Output/Ground)	500 VAC
Protection degree	IP20
Protection class	I, with PE connected
Dimensions (WxHxD)	100 x 115 x 135 mm

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Battery Modules

Model	HOLDER1.2	HOLDER3.2	HOLDER7.2	HOLDER12
Output Vn - In	24 V – 1.2 Ah	24 V – 3.2 Ah	24 V – 7.2 Ah	24 V – 12 Ah
Features				
End-of-charge Vdc (trickle)	27.5 (20°C); 27 (30°C); 26.5 (40°C)			
Max. charging current	0.30 A	0.80 A	1.7 A	3.0 A
Short-circuit protection	Yes	Yes	Yes	Yes
Protection Fuse	25 A	25 A	25 A	25 A
Working Temperature	+5...+40°C	+5...+40°C	+5...+40°C	+5...+40°C
Stocking Temperature	-20...+50°C	-20...+50°C	-20...+50°C	-20...+50°C
Self-discharge rate	20 °C 15% per month			
Generic Data				
Dimension (WxHxD)	170x100x80 mm	170x140x90 mm	170x155x120 mm	170x155x120 mm
Weight (approx)	0.55 kg	1.2 kg	2.2 kg	2.2 kg
Protection class	IP20	IP20	IP20	IP20
Assembly using 4 holes	For hanging onto M4 screws			
Buffering Time (min)				
Load : 1.5 A	30	60	180	600
Load : 3 A	10	40	90	260
Load : 5 A	4	20	40	120
Load : 7 A	2	10	30	60
Load : 10 A	-	5	20	45