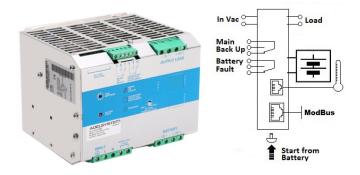
CBI4810A ALL In One



Input: Single-phase 115 – 277 Vac; 600W Output Load: power supply 48 Vdc; 10 A

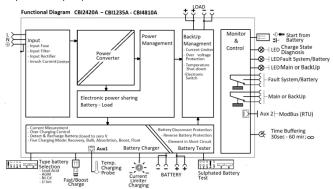
Output Battery: charging 48 Vdc; 10 ASuited for the following battery types: Open Lead Acid, Sealed Lead Acid, lead Gel and Ni-Cd

Automatic diagnostic of battery status. Charging curve IUoU, constant voltage and constant current Battery Life Test function (Battery Care)

Switching technology, output voltage 44-57.6 Vdc
Three charging levels: Boost, Float 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; Space saving

Technical features

Thanks to the All In One units (DC-UPS), it will be possible to optimize power management. The available power is automatically allocated between load and battery, supplying power to the load it the first priority of the unit thus it is not necessary to double the power, because also the power going to the battery will go to the load if the load so requires. The maximum available current on the load output is 2 times the value of the device rated current In. We call "Battery Care" the concept base on algorithms that implement rapid and automatic charging, battery charge optimization during time, flat batteries recovery and real time diagnostic during installation and operation. The Real Time Auto-diagnostic system, monitoring battery faults such as, battery Sulfated, elements in short circuit, accidental reverse polarity connection, disconnection of the battery, they can easily be detected and removed by help of Blink Code of Diagnosis Led; during the installation and after sell. The continuous monitoring of battery efficiency, reduces battery damage risk and allows a safe operation in permanent connection. Each device is suited for all battery types, by means of jumpers it is possible setting predefined curves for Open Lead Acid, Sealed Lead Acid, Gel, Ni-Cd (option). They are programmed for two charging levels, boost and charge, but they can be changed to single charging level by the user. A rugged casing with bracket for DIN rail mounting provides IP20 protection degree. They are extremely compact and cost-effective.



Norms and Certifications

In Conformity to: c Lus EN60950 / UL60950-1 and CSA C22.2 No. 60950-1-07 (Information Technology Equipment) – Safety – Part1: General Requirement. Electrical safety; EN54-4 Fire Detection and fire alarm systems; 89/336/EEC EMC Directive; 2014/35/UE (Low Voltage); Safety EN EEC 62368-1: 2014/AC:2015; DIN41773 (Charging cycle); Emission: IEC 61000-6-3; Immunity: IEC 61000-6-2. CE.

Climatic Data

Ambient temperature (operation)	-25 ÷ +70°C		
De Rating Ta > 50°C	- 2.5%(In) / °C		
Ambient temperature Storage	-40 ÷ +85°C		
Humidity at 25 °C no condensation	95% to 25°C		
Altitude: 0 to 2 000m - 0 to 6 560ft	No restrictions		
Altitude: 2 000 to 6 000m - 6 560 to 20 000ft	De-rating 5°C/1000m		
Cooling	Auto convention		
General Data			
Insulation voltage (IN/OUT)	3000 Vac		
Insulation voltage (Input / Earth, PE)	2000 Vac		
Insulation voltage (Out Load & Battery / Earth, PE)	500 Vac		
Insulation voltage (Out Load, Battery, Aux2 / Fault	500 Vac		
System & Main or Back Up terminal)			
Protection Class (EN/IEC 60529)	IP20		
Reliability: MTBF IEC 61709	> 300.000 h		
Pollution Degree Environment	2		
Connection Terminal Blocks screw Type	2,5mm(24–14AWG)		
Protection class (PE Connected)	I, with PE		
Dimensions (w-h-d)	150x115x135 mm		
Weight	1.55 kg approx.		
Input Data			
Nominal Input Voltage Vac	115 – 230– 277		
Voltage range Vac	90 - 135 180 - 305		
Inrush Current (Vn – In nom. Load) I²t	≤ 35 A ≤ 5 msec.		
Frequency	47 ÷ 63 Hz		

Input Current (115 – 230 Vac)	9 - 4.5	5 A		
Internal fuse (not replaceable)	10 A			
External Fuse (recommended) MCB curve B	16 A			
Output Data (internal power supply)				
Output Voltage (Vn) / Nominal Current (In)	48 Vdc			
Output Current I _n = Iload	12.5 A			
Efficiency (at 50% of rated current)	≥91%			
Residual Ripple	≤ 80 mV _{pp}			
Turn-On delay after applying mains voltage	1 sec. (max)			
Start up with Strong Load (capacitive load)	Yes, Unlimited			
Dissipation power load max (W)	54			
Short-circuit protection)	Yes			
Over Load protection	Yes			
Over Voltage Output protection	Yes (typ. 90 Vdc)			
Overheating Thermal protection	Yes			
Battery Output				
Boost charge (25 °C) (at I _n)	57.6 Vd	lc		
Max.Time Boost–Bulk charge (Typ. at IN)	15 h			
Min.Time Boost–Bulk charge (Typ. at IN)	1 min.			
Float charge (25 °C) (at I _n) (min)	53.4 Vdc			
Jumper Configuration battery type	2.23;2.25;2.27;2.3;			
(V/cell)	NiCd:1.4; Li-ion 3.45			
Recovery Charge	6 – 42 Vdc			
Charging current max I _{batt}	10 A ± 5%			
Charging current limiting I _{adj}	10 ÷ 100 % / I _{bat}			
Reverse battery protection	Yes			
Sulfated battery check	Yes by .	Jumper		
Short circuit Element Detection	Yes			
Detection of element in short circuit	Yes			
Quiescent Current max.	≤ 100 n	nA		
Charging Curve automatic: IUoU	4 stage			
Remote Input Control (RTCONN cable)	Boost /	Float		
Load Output				
Output voltage Vdc (at In)	44 – 57	.6 V		
Nominal current I _{load}	1.1 x I _n A ± 5%			
Continuous current (Without battery) I _{load=} I _n	10 A			
Continuous current (With battery) I _{load=} I _{n+} I _{batt}	20 A			
Max. current Output Load (Main) I _{load (4 sec.)}	30 A max.			
Max. current Output Load (Back Up)I _{load (4 sec.)}	20 A max.			
Start From Battery Without Main (Remote Input Control)	Push B	N (cable) utton		
Time Buffering; min (switch output off without main		;10;15; 20	; 30;	
input)	45;60;			
Threshold alarm Battery almost flat	38 – 40 Vdc batt			
LVD. (Protections against total Batt. discharge)	40 – 42	Vdc batt		
Signal Output (free switch contacts)				
Main or Backup Input Power	Yes			
Low Battery	Yes			
Fault Battery or system	Yes			
Type of Signal Output Contact				
Dry Contact. Current can be switched (EN60947.4.1): Max:		Vdc 1 A;	AC1: 60	
Vac 1A (Resistive load) Min: 1mA at 5 Vdc (Min permissive	e load)			
Fault System / Low Battery	С	NC	NO	
Main or Back Up	С	NC	NO	
Signal Input / Output (RJ45)				
Temp. Comp. Battery (with external probe)	RJ Temp (cable) Aux 1			
Remote monitoring data:	RJ45: Aux 2 ModbusRTU			
Protocol:	(RS485)			

