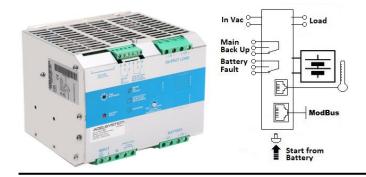
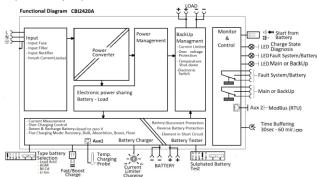
CBI2420A ALL In One



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 is 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 and Li-Ion. 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: cNus EN60950 / UL60950-1 and CSA C22.2 No. 60950-1-07 (Information Technology Equipment) – Safety – PartI: General Requirement. Electrical safety; EN54-4 Fire Detection and fire alarm systems; 2014/30/EU EMC Directive; 2014/35/EU Low Voltage Directive; Safety EN IEC 62368-1: 2014/AC:2015; DIN41773 (Charging cycle); Emission: IEC 61000-6-4; Immunity: IEC 61000-6-2. CE.

Climatic Data

Ambient temperature (operation)	-25 ÷ +70°C	
De Rating T ^a > 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	
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)	l, 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) I ² t	\leq 35 A \leq 5 msec.	
Frequency	47 ÷ 63 Hz	
Input Current (115 – 230 Vac)	9 – 4.5 A	

Input: Single-phase 115 – 277 Vac; 600W Output Load: power supply 24 Vdc; 20 A

Output Battery: charging 24 Vdc; 20 A

Suited for the following battery types: Open Lead Acid, Sealed Lead Acid, Lead Gel, Li-Ion 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 22-28.8Vdc 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

External Fuse (recommended) MCB curve B 16 A Output Data (internal power supply) Output Current I,= Iload 25 A Efficiency (at 50% of rated current) ≥ 91 % Residual Ripple S80 mV _{PP} Turn-On delay after applying mains voltage 1 sec. (max) Start up with Strong Load (capacitive load) Yes, Unlimited Disipation power load max (W) 48 Short-circuit protection) Yes Over Load protection Yes Over Voltage Output protection Yes Output Voltage Battery Follow the Out Load Boost-Fast Charge Jumper Configuration 25°C Lead Acid: 2.4 (V/cell), Jumper Configuration 25°C (V/cell) Lead Acid: 2.3; 2.25; 2.3 Jumper Configuration 55°C (V/cell) Lead Acid: 2.3; 2.25; 2.3 Jumper Configuration 25°C (V/cell) Lead Acid: 2.4 Max.Time Boost-Bulk charge (Typ. at IN) 15 h Min.Time Boost-Bulk charge (Typ. at IN) 15 h Min.Time Boost-Bulk charge (Typ. at IN) 16 h Min.Time Boost-Bulk Charge (Typ. at IN) 16 h Max.Time Boost-Bulk (Carge Circul 14) 20 A ± 5% Charging current max lbant 20 A ± 5% </th <th>Internal fuse (not replaceable)</th> <th>10 A</th> <th></th>	Internal fuse (not replaceable)	10 A		
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Residual Ripple $\leq 80 \text{ mV}_{\text{pe}}$ Turn-On delay after applying mains voltage1 sec. (max)Start up with Strong Load (capacitive load)Yes, UnlimitedDissipation power load max (W)48Short-circuit protectionYesOver Voltage Output protectionYesOver Voltage Output protectionYesBattery OutputShort-circuit protectionYesBattery OutputShort-circuit protectionYesBattery OutputShort-circuit protectionYesBoost-Fast charge Jumper Configuration 25°CLead Acid: 2.4(V/cell), Jumper Configuration battery typeNiCd:1.45; Li-ion: 3.65Float Charge Jumper Configuration 25°C (V/cell)Lead Acid: 2.23; 2.25; 2.3Jumper Configuration battery typeNiCd:1.4; Li-ion: 3.45Max.Time Boost-Bulk charge (Typ. at IN)1 min.Recovery Charge2 - 20 VdcCharging current max h _{batt} 20 A ± 5%Charging current max h _{batt} 20 A ± 5%Charging current max h _{batt} 2100 mACharging Current max. $\leq 100 \text{ mA}$ Charging Current max. $\leq 100 \text{ mA}$	· · · · · · · · · · · · · · · · · · ·			
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Remote monitoring data: RJ45: Aux 2 ModbusRT		PiTomn(cobio)	Auv1	
	Protocol:	(RS485)		

