CBI2420A
DC UPS

Features:

- Input: Single-phase 115 - 277 VAC
- 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 and Ni-Cd (option)
- Automatic diagnostic of battery status.
- Switching technology, output voltage 22-18.8 VDC
- Three charging levels: Boost, trickle and recovery
- Protection degree IP20 - DIN rail mountable

	Cat. No.	CBI2420A
INPUT	Nominal Input Voltage	115 / 230 ~ 277 VAC
	Voltage range	90-135 / 180-305 VAC
	Inrush Current (V_n – I_n nom. Load). I^2t	≤35 A ≤ 5 msec
	Frequency	47 – 63 Hz
	Input Current (115 – 230 VAC)	8.0 ~ 4.2 A
	Internal fuse (factory replaceable)	10 A
	External Fuse (recommended) MCB curve B	16 A
OUTPUT	Output Voltage (V_n) / Nominal Current (I_n)	24 VDC / 20A
	Output Current I_n	20 A
	Efficiency (at 50% of rated current)	≥ 91 %
	Turn-On delay after applying input voltage	1 sec. (max)
	Start up with Strong Load (capacitive load)	Yes, Unlimited
	Dissipation power load max	48 W
PROTECTION	Short-circuit protection	Yes
	Over Load protection	Yes
	Over Voltage Output protection	Yes (typ. 35 VDC)
	Over Temperature protection	Yes
LOAD OUTPUT	Output voltage (at I_n)	22 ~ 28.8 VDC
	Nominal current I_{load}	1.1 x In A ± 5%
	Continuous current (without battery) $I_{load}= I_n$	20 A
	Continuous current (with battery) $I_{load}= I_n+ I_{batt}$	40 A
	Max. Current Output Load (Main) I_{load} (4 sec.)	60 A max.
	Max. Current Output Load (Back Up) I_{load} (4 sec.)	40 A max.
	Push Button or Remote Input Control (RTCONN cable)	Start From Battery Without Main
	Time Buffering; min (switch output off without main input)	0.5,2,5,10,15,20,30,45,60,∞; Require SW
	Protection alarm against total discharge	19-20V DC battery
	Threshold alarm for battery almost flat	20-21 V DC battery
BATTERY OUTPUT	Boost charge (25 °C) (at I_n)	28.8 VDC
	Max. time Bust Charge	15 h
	Min. time Bust Charge	1 min.
	Trickle charge (25 °C) (at I_n)	27.5 VDC
	Jumper Configuration battery type (V cell) Ni-Cd (optional)	2.23; 2.25; 2.27; 2.30; NiCd: 1.50 (20 elem.)
	Recovery Charge	2 ~ 16 VDC
	Charging current max I_{batt}	20 A ± 5%
	Charging current limiting I_{adj}	10 – 100 % / Ibatt
	Reverse battery protection	Yes
	Sulfated battery check	Yes by Jumper
	Detection of element in short circuit	Yes
	Quiescent Current	≤ 100 mA
	Charging Curve automatic: I_{UoUo}	3 stage
	Remote Input Control (RTCONN cable)	Boost /Trickle / Recovery
OTHERS	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%
	Cooling	Auto convention
	MTBF (IEC 61709)	> 300.000 h

For the latest on Altech Power Supply specifications please visit www.altechcorp.com/power.

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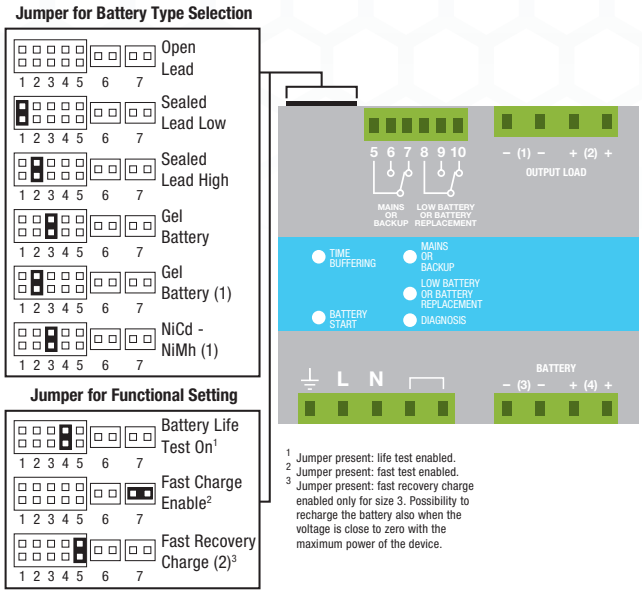
DC UPS

The Altech DC-UPS system is built to optimize power management. The available power is automatically allocated between load and battery, supplying power to the load is the first priority. For high inrush applications the charging power will reroute automatically to the load. In this case the maximum available current on the load output is two times the value of the device rated current.

The Battery Care concept based on algorithms that achieve rapid and automatic charging, battery optimization during charging time, flat batteries recovery and real time diagnostic The Real Time Auto-diagnostic system, monitors battery faults, sulfated battery, short circuit battery elements, reverse polarity connection, battery disconnect. This conditions are detected and identified by the number of blinks of the diagnosis Led.



[1] Jumper present: life test enabled.
[2] Jumper present: fast test enabled.
[3] Jumper present: fast recovery charge enabled only for size 3. Possibility to recharge the battery also when the voltage is close to zero with the maximum power of the device.

Signal Output Contacts

Main or Backup Power	Yes
Battery Power Low	Yes
Battery Fault	Yes
Max. Current Rating (Resistive Load)	1A 30 VDC/60 VAC
Minimum Permissible Current Rating	1mA @ 5 VDC

RJ45 Connection Input/Output

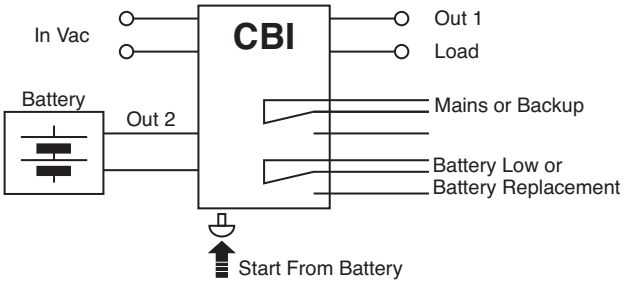
Temp. Comp. Battery (with ext. probe)	Yes - Optional
Remote monitoring display	Yes - Optional
Can Bus	No

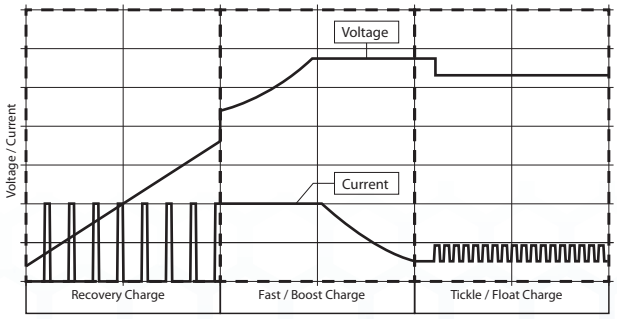
Environment

Insulation voltage (IN/OUT)	3000 VAC
Insulation voltage (input / ground)	1605 VAC
Insulation voltage (Output / ground)	500 VAC
Protection Class (EN/IEC 60529)	IP20
Pollution Degree Environment	2
Connection TB, Screw Terminal	4 mm² (30-10 AWG)
Protection class (Ground Connected)	Class I
Dimensions (WxHxD)	150x115x135 mm
5.91x4.53x5.32 in	
Weight (approx.)	1.55 kg (3.5 Lbs)

Safety and EMC

Battery charger standard compliance	IEC/EN 60335-2-29
Safety standards compliance:	EN60950 / UL1950 / CE
Fire Detection and alarm compliance	EN54-4
EMC Directive	89/336/EEC
Charging cycle	DIN41773
Emission	IEC 61000-6-4
Immunity	IEC 61000-6-2





The Altech DC-UPS system is designed to charge and monitor all battery types, by selecting the battery type via jumpers. The predefined curves include Open Lead Acid, Sealed Lead Acid, Gel, Ni-Cd (optional) battery types. The charging curve are programmed to automatically switch between Recovery Charge, Boost charge and Trickle charge. The continuous battery efficiency monitoring, reduces battery damage risk and allows a safe operation in permanent connection.

A compact and rugged metal case with DIN rail mounting bracket provide an easy installation and an IP20 protection.