

Intelligent Battery Charger

A revolution in Battery Charging



Typical Application

- Generator
- Remote measurement station
- Mini UPS in industrial applications
- Battery chargers for automotive and nautical

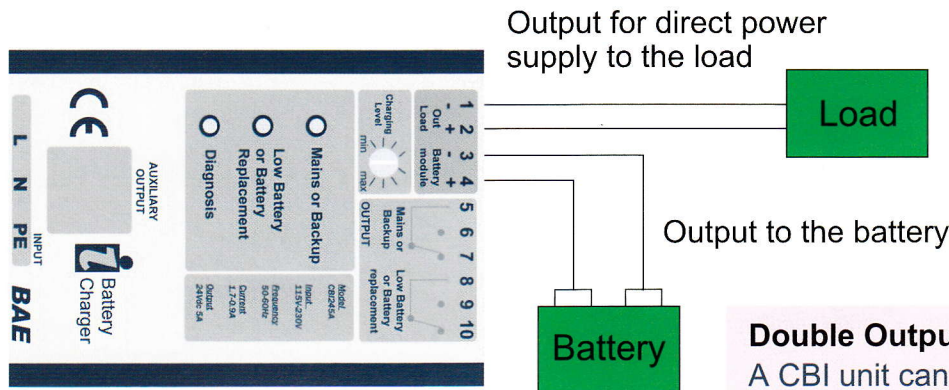
Maximise the performance and life span of your battery

Features

- Nominal input voltage : 115 - 230 Vac
- OUTPUT 1 : For connection to Battery
- OUTPUT 2 : For connection to Load
- Fast and Trickle battery charge in according to DIN 41773
- Signaling : replace battery, low battery, mains or buffering
- Overload and short circuit protections
- Safety isolation in according with EN 60950
- Degree of protection IP20
- Rail DIN mounting

BAE

Intelligent Battery Charger



Double Output

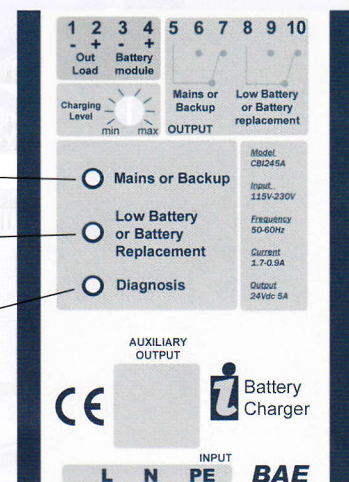
A CBI unit can be used as:

- a simple battery charger or
- an energy stations able to deliver continuous power supply to the load, even if the mains is off, like a UPS

Display Features

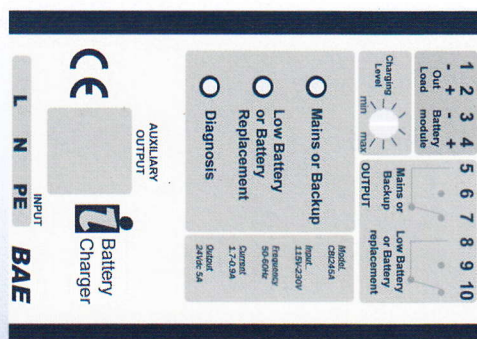
- Clear and straightforward identification of unit's operating status by means of LEDs display

Mains Loss
Battery fault alarm, when the mains is ON
Battery capacity below 30%, when the mains is off
Two functions :
Trickle or boost charge
Fault diagnostics with flashing code



Signal on Voltage-free Contacts

- CBI features the contact signals normally available on low voltage UPS systems

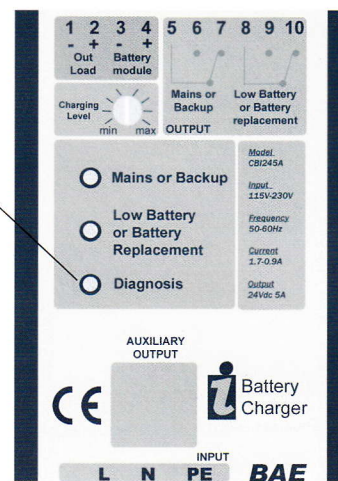
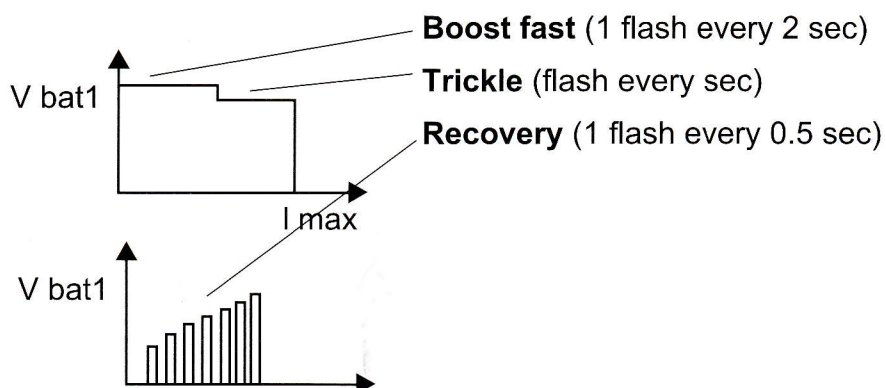


Mains on – Back UP change over NO-NC contact galvanic insulation

Low Battery – Battery replacement change over NO-NC contact galvanic insulation

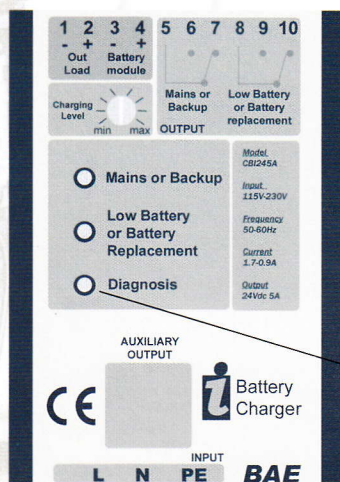
Three Charging modes

- Mode switching occurs automatically



Diagnosis of battery status

- CBI makes installation and maintenance easier.
- A flashing sequence code allows to discriminate among various possible malfunctions.

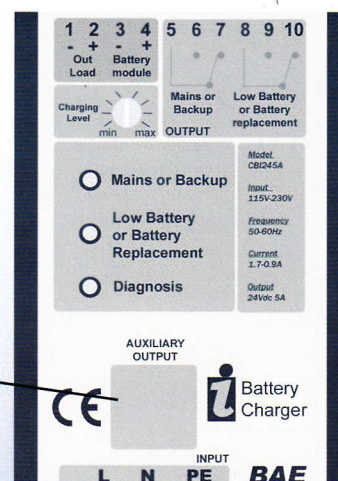


- 1 flash = Reverse polarity, wrong battery voltage
- 2 flashes = Disconnected battery
- 3 flashes = Battery element in short circuit
- 4 flashes = Overload
- 5 flashes = Battery to be replaced

Accessories

- All CBI units can be made available with the following options:

- Temperature sensor for Boost (fast) charging
- Cable voltage drop compensation
- Remote repetition of LEDs



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Features

CBI245A

Input Data

Nominal Input Voltage (2 x Vac)	110 - 230 Vac
Input voltage range	93 - 264 Vac
Inrush Current (Vn - In)	≤ 14 ≤ 5 msec.
Frequency	47 - 63 Hz
Input Current (Nominal input Voltage)	1,5 - 0,9 A
Internal Fuse	F 4 A
External Fuse (recommended)	Fast 6 A

Output Data

Output Voltage Battery Bulk Charge / Nominal Current	Max 28.8 Vdc / 5 A
Output Voltage Battery Trickle Charge / Nominal Current	Max 27.0 Vdc / 5 A
Adjustment range of charge (In adj)	20 - 100% In
Output voltage in Backup mode	27 - 22 Vdc
Type of charging characteristic	U/I
End of charging voltage (Bulk charge)	Max 28.8 Vdc
End of charging current (Bulk charge)	0.3 A
Type battery up to	50 Ah
Start up with capacitv load	≤ 30.000 µF
Switching on after applying mains voltage	2, 5 sec. max
Current max.	1.1 x In ± 5%
Residual Ripple	≤ 60 mV _{pp}
Minimum Load	No
Efficiency	≥ 81 %
Short-circuit protection	Yes
Over Load protection	Yes
Over Voltage Output protection	Yes
Reverse battery protection	Yes

Climatic Data

Ambient Temperature (operation)	-10 - +50 °C
Ambient Temperature (Storage)	-25 - +85 °C
Humidity; no moisture condensation	95 % a 25 °C

General Data

Isolation Voltage (Input/ output)	3000 Vac
Input ground insulation	1605 Vac
Electrcal safety	EN 60950
Degree of protection	IP 20
Protection class	I with PE connected
Dimension (w-h-d)	65 x 115 x 135
Weight	0.6 Kg approx

CBI2410A

Input Data

Nominal Input Voltage (2 x Vac)	115 / 230 Vac
Input voltage range	93 - 132
Inrush Current (Vn - In)	187 - 264 Vac ≤ 14 ≤ 5 msec.
Frequency	47 - 63 Hz
Input Current (Nominal input Voltage)	3,5 - 1.6 A
Internal Fuse	F 6 A
External Fuse (recommended)	Fast 6 A

Output Data

Output Voltage Battery Bulk Charge / Nominal Current	Max 28.8 Vdc / 10 A
Output Voltage Battery Trickle Charge / Nominal Current	Max 27 Vdc / 10 A
Adjustment range of charge (In adj)	20 - 100% In
Output voltage in Backup mode	27 - 22 Vdc
Type of charging characteristic	U/I
End of charging voltage (Bulk charge)	Max 28.8 Vdc
End of charging current (Bulk charge)	0.3 A
Type battery up to	100 Ah
Start up with capacitv load	≤ 30.000 µF
Switching on after applying mains voltage	2, 5 sec. max
Current max.	1.1 x In ± 5%
Residual Ripple	≤ 60 mV _{pp}
Minimum Load	No
Efficiency	≥ 81 %
Short-circuit protection	Yes
Over Load protection	Yes
Over Voltage Output protection	Yes
Reverse battery protection	Yes

Climatic Data

Ambient Temperature (operation)	-10 - +50 °C
Ambient Temperature (Storage)	-25 - +85 °C
Humidity; no moisture condensation	95 % a 25 °C

General Data

Isolation Voltage (Input/ output)	3000 Vac
Input ground insulation	1605 Vac
Electrcal safety	EN 60950
Degree of protection	IP 20
Protection class	I with PE connected
Dimension (w-h-d)	100 x 115 x 135
Weight	0.85 Kg approx

CBI126A

Input Data

Nominal Input Voltage (2 x Vac)	110- 230 Vac
Input voltage range	93 - 264 Vac
Inrush Current (Vn - In)	≤ 14 ≤ 5 msec.
Frequency	47 - 63 Hz
Input Current (Nominal input Voltage)	1,1 - 0.6 A
Internal Fuse	F 4 A
External Fuse (recommended)	Fast 6 A

Output Data

Output Voltage Battery Bulk Charge / Nominal Current	Max 14.4 Vdc / 6 A
Output Voltage Battery Trickle Charge / Nominal Current	Max 13.5 Vdc / 6 A
Adjustment range of charge (In adj)	20 - 100% In
Output voltage in Backup mode	13.5 - 11 Vdc
Type of charging characteristic	U/I
End of charging voltage (Bulk charge)	Max 14.4 Vdc
End of charging current (Bulk charge)	0.3 A
Type battery up to	50 Ah
Start up with capacitv load	≤ 30.000 µF
Switching on after applying mains voltage	2, 5 sec. max
Current max.	1.1 x In ± 5%
Residual Ripple	≤ 60 mV _{pp}
Minimum Load	No
Efficiency	≥ 81 %
Short-circuit protection	Yes
Over Load protection	Yes
Over Voltage Output protection	Yes
Reverse battery protection	Yes

Climatic Data

Ambient Temperature (operation)	-10 - +50 °C
Ambient Temperature (Storage)	-25 - +85 °C
Humidity; no moisture condensation	95 % a 25 °C

General Data

Isolation Voltage (Input/ output)	3000 Vac
Input ground insulation	1605 Vac
Electrcal safety	EN 60950
Degree of protection	IP 20
Protection class	I with PE connected
Dimension (w-h-d)	65 x 115 x 135
Weight	0.6 Kg approx

In according to EMC 89/336/EEC and Low voltage 93/68/EEC



Available Models

Input: 110-230Vac
Output: 12 Vdc

- CBI23A
- CBI126A
- CBI1210A

Input: 110-230Vac
Output: 24 Vdc

- CBI245A
- CBI2410A
- CBI2420A

Input: 110-230Vac
Output: 48 Vdc

- CBI485A

Available Models

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