Ziegler

Redefine Innovative Metering

Technical Datasheet

ZAB BC 12xx | 24xx | 30xx

BATTERY CHARGER

ZAB BC 12xx | 24xx | 30xx

BATTERY CHARGER

A device which serves electrical feeding point to batteries is termed as a battery charger. A Battery Charger is useful in order to recharge drained batteries in different charging modes, enabling efficient battery charging.

Product Features

- Efficiency up to 86%
- Protection against Short circuit, Overload, Over voltage, Reverse Polarity Connection, Over Temperature
- Switch Mode Technology
- Automatic 3 Stage Charge Profile (Bulk, Absorption & Float)
- Additional facility of Boost Charge Function for charging deeply discharged batteries
- LED indicator for Power ON (Green), Charging (Green), Boost Charge (Green), Float (Green), Battery Reverse Connection / Fuse Blown (Red).
- Cooling by free air convection
- Input Nominal Voltage – 115 / 230VAC (90…280 VAC / 127…396 VDC)
- 3 Year warranty
- High MTBF: > 5,00,000 Hrs

Technical Specifications

Input Data	**ZAB BC 1203**	**ZAB BC 1206**	**ZAB BC 2403**	**ZAB BC 1210**	**ZAB BC 2405**	**ZAB BC 3003**	**ZAB BC 3002**
Nominal Input Voltage	115 - 230 Vac						
Input Voltage range	90 – 280 Vac / 127 – 396 Vdc						
Inrush Current (Vn and In Load) I^2t Frequency	≤ 45 A ≤ 5 msec, 45 – 65 Hz ±6%	≤ 40 A ≤ 5 msec, 45 – 65 Hz ±6%					
Input Current (115 - 230 Vac)	1.5 – 0.75 A	2.8 – 1.5 A					
AC Input Fuse	4 A						

Output Data	**ZAB BC 1203**	**ZAB BC 1206**	**ZAB BC 2403**	**ZAB BC 1210**	**ZAB BC 2405**	**ZAB BC 3003**	**ZAB BC 3002**
Absorption Voltage (VA)	14.2 V	14.2 V	28.4 V	14.2 V	28.4 V	35.52 V	35.52 V
Boost Voltage (VA)	14.4 V	14.4 V	28.8 V	14.4 V	28.8 V	36 V	36 V
Float Voltage (VB)	13.5 V	13.5 V	27 V	13.5 V	27 V	33.75V	33.75V
Max. Charging Current (IA) at < 40°C	2.6 A	5.2 A	2.6 A	9.6 A	4.8 A	3.4 A	2.5 A
Max. Charging Current (IA) at 50°C	80% of In (permanent)						
Max. Charging Current (IA) at 60°C	60% of In (permanent)						
End of charging current (IB)	In X 0.32A ±20 %						
Turn-On delay after applying mains voltage	2.5 sec. (max)						
Line regulation	< ±0.5 %						
Residual Ripple	≤ 120 mVpp						

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Output Data	ZAB BC 1203	ZAB BC 1206	ZAB BC 2403	ZAB BC 1210	ZAB BC 2405	ZAB BC 3003	ZAB BC 3002
Efficiency	≥ 75 %	≥ 86 %					
Short-circuit Protection	Constant Current						
Short-circuit current Max	1.2 X In ±10%						
Dissipation power load max (W)	15 W	20.5 W					
Over Load protection	Constant Current						
Over Voltage Output protection	Yes						
Over Temperature Protection	Yes						
Parallel connection	No						
Recommended Battery Capacity Range (Ah)	9 - 30 Ah	30 - 60 Ah	15 - 30 Ah	30 - 100 Ah	15 - 50 Ah	12 - 40 Ah	
Charge Fail Contact rating (EN60947-4-1)	Resistive load						
Max. 30 VDC 1A							
Max. 120 VAC 1A							
Min.1mA at 5 VDC	Min permissive load						

Climatic Data	
Ambient Temperature operation	-20°C to +70 °C (>60°C Derating 2.5%/°C)
Ambient Temperature Storage	-40°C up to +85 °C
Humidity at 25 °C, no condensation	95%
Cooling	Convection

General Data	
Isolation Voltage (In / Out)	3000 Vac
Isolation Voltage (In / PE)	1605 Vac
Isolation Voltage (Out / PE)	500 Vac
Protection Class (EN/IEC 60529)	IP 20
Reliability: MTBF IEC 61709	> 5,00,000 hrs
Pollution Degree Environment	2
Connection Terminal Blocks Screw Type	2.5 mm² (24 – 14 AWG)
Vibration (operation)	10 to 500Hz, 2G, 20min/sweep, period - 1Hr, Each along X,Y,Z axes.
Shock	30g in all direction in acc. with IEC 60068-2-27.
Protection class	1 with PE connected

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BATTERY CHARGER

Norms and certifications

The CE mark in According to EMC 2004/108/EC and Low voltage directive 2006/95/EC.

Electrical Safety

According to IEC/EN 60950 (VDE 0805) EN 50178 (VDE 0160) for assembling device. The unit must be installed according to IEC/EN 60950. Input / Output separation: SELV EN60950-1 and PELV EN 60204-1. Double or reinforced insulation.

EMC Immunity

EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN61000-4-6, EN61000-6-2

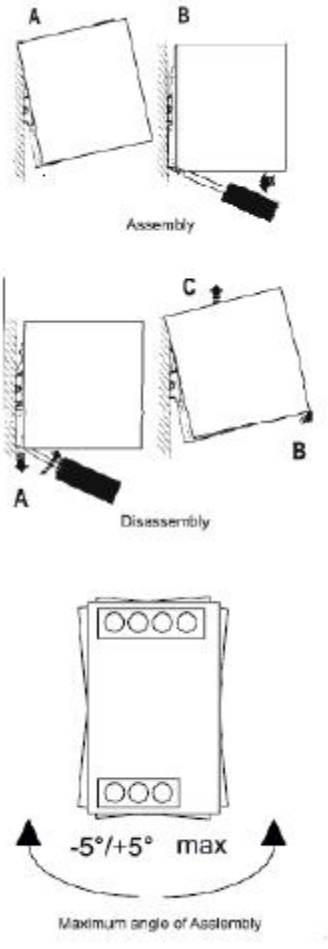
EMC Emission

EN61000-6-4, EN 61000-3-2

Standards Conformity

EN 60204-1 Safety of Electrical Equipment Machines.

Installation



Dimensional Details

W X h X d
55 X 110 X 105
All Dimensions are in mm

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