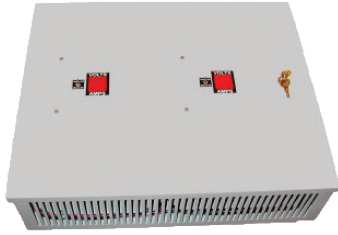


ANALYTIC SYSTEMS

Power Conversion Solutions

AC Battery Chargers

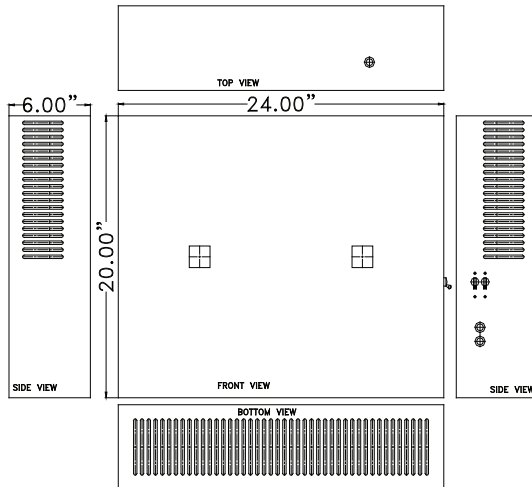
Model FBCS-2K Forklift Battery Charging System



(Full Enclosure)



(Open Enclosure)



Description

The FBCS-2K Forklift Battery Charging System provides up to 2000 watts to charge a 12, 24, 32, or 48 Volt battery system from a 110 or 220VAC source. The batteries must share a common ground.

This all-new single board design incorporates state-of-the-art, switchmode technology for unmatched efficiency and ultra-quiet operation. Multiple stages of filtering reduce radiated or conducted noise to very low levels. Extra features include adjustable output voltage, audible and visual indicators for low input voltage, low output voltage, over temperature and an equalize charging cycle. Safety features include both charger and battery over-temperature shutdown, current limiting, short circuit protection with automatic recovery, input undervoltage shutdown, reverse battery hook-up protection, a dry contact alarm relay output, output overvoltage crowbar, as well as added silicone and conformal spray.

All units come standard with two precision Digital Volt/Ammeters and two Battery Temperature Sensors. We are confident that you will get many years of reliable service from this AC Battery Charging System.

Benefits

- ◆ Ultra-Quiet
- ◆ Compact and Lightweight
- ◆ Rugged & Reliable
- ◆ Ensure years of safe and trouble free operation
- ◆ Provides a fast & accurate charge

Design Features

- ◆ Built for industrial plant and harsh shop environments
- ◆ Factory adjusted output voltage for charging standard or deep cycle lead-acid, VRLA or Gel cell type battery
- ◆ Temperature compensated charging
- ◆ High tolerance for shock and vibration
- ◆ Ultra-quiet, low EMI operation
- ◆ Can be left permanently connected
- ◆ 2-stage charger
- ◆ Dry contact output fail relay
- ◆ Conformally Sprayed
- ◆ Audible & visual indicators for output overload, low input voltage, low output voltage & over-temperature
- ◆ Over-temperature shutdown
- ◆ Short circuit protection
- ◆ Output over-voltage crowbar
- ◆ Inrush Current Limiting with solid state bypass
- ◆ Thermostatically controlled fans
- ◆ 3 year parts and labour warranty

Applications

- ◆ Forklift Charging Stations
- ◆ Materials Handling Facilities
- ◆ Electric Utilities and Manufacturing Plants
- ◆ OEM Applications

AC Battery Chargers

FBCS-2K Forklift Battery Charging System

Electrical (Input)				
Nominal Vac (ip)	110	208	220	
Actual (Vdc)	105-125	190-230	210-250	
Input Amps (max)	27.6	16.0	13.8	
Input Fuse (MDA)	20A x2	10A x2	10A x2	
Input Frequency	45-65 Hz			
Noise on Input	< 50 mV			
Electrical (Output)				
Output Nominal (op)	12	24	32	48
Output Volts (DC)	13.6	27.2	36.3	54.4
Absorption Voltage (Vdc)	14.4	28.8	38.4	57.6
Charging Amps	120	80	60	40
Output Adjustment (Vdc)	± 1.0V			
Output Fuses (ATC)	(40 x 2) x 2	(40 x 2) x 2	(40 x 2) x 2	(30 x 2) x 2
Battery Banks	1 or 2 (3 Bank Option Available)			
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	42.7 ± 1.3V	63.9 ± 2.0V
Battery Size (Amp Hrs.)	480 – 720	320 – 480	240 – 360	160 – 240
Output Ripple & Noise	< 50 mV			
Regulation (Line & Load)	< +/- 0.5%			
Temperature Comp.	-30 mV/°C	-60 mV/°C	-80 mV/°C	-120 mV/°C
Duty Cycle	Continuous 100% for 24 hours per day			
Efficiency	> 75% @ Maximum Output			
Stages	2			
Environmental Specification				
Operating Temp. Range	-25° to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C extra wide temp. operation avail.)			
Humidity	0 - 95°C Relative Humidity (non-condensing) with standard conformal coating			
Audible Noise	NONE Ødb @ 3 ft (34.5 dB when fan operating)			
Typical Service Life	> 10 yrs. (87,600 hrs)			
Isolation	Input-Case & Input-Output 1500VDC Output-Case 500VDC (1500VDC for 48V O/P)			
Mechanical Specification				
Length	24.0 in / 61.0 cm			
Width	20.0 in / 50.8 cm			
Depth	6.0 in / 15.3 cm			
Clearance	1 inch (2.5 cm) all around			
Material	Marine Grade Aluminium			
Finish	Black Anodize / Powder Epoxy Coat			
Fastenings	All 18-8 Stainless Steel			
Weight	30.0 lb / 15.0 kg			
Connections	Anderson Output Connectors			
Warranty	3 years			
Safety	Approval to CSA/UL Standard pending (Contact us for info)			

Note: Specifications are subject to change without notice.



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