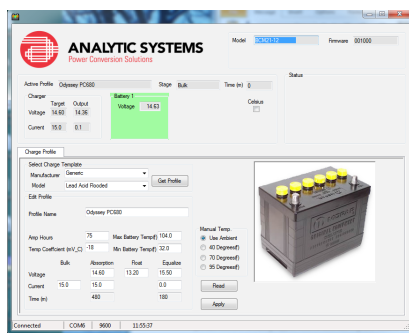
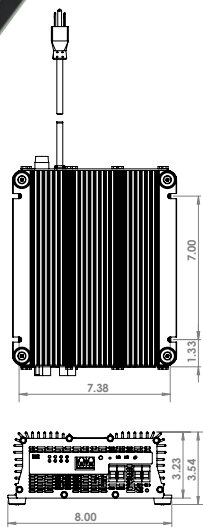




# ANALYTIC SYSTEMS

Power Conversion Solutions



PowerWizard Software

## Description

The IBC320 Intelligent Battery Charger provides up to 300 watts to charge a 12, 24, 36 or 48 volt, one or two bank battery system (batteries must share a common ground). The charger is preprogrammed for Flooded (traditional Lead Acid), AGM (Absorbed Glass Mat Lead Acid) and Gel or VRLA (Valve Regulated Lead Acid). It also has a 4th custom program where all charging parameters can be adjusted to suit a particular type of battery including bulk charging current, absorption voltage, float voltage, temperature compensation and more.

This charger uses advanced Power Factor Correction circuitry on the AC input so it will work from any standard AC voltage anywhere in the world. LLC Resonant Converter Technology allows Zero Voltage/Zero Current switching on the Primary or high voltage side of the main power transformer, and Active Rectification on the Secondary or Low Voltage side offers maximum efficiency and lowest Electromagnetic Interference (EMI) to ensure that the IBC320 does not disturb sensitive voice or data RF communication equipment.

Eight dual color LEDs and audible alert clearly indicate charging levels and stages as well as indicating faults with either the charger or the batteries. The 'PowerWizard' software that is free to download adds advanced charging algorithm programming and charger monitoring as well as a graphing function through the built in USB port.

Safety features include charger and battery over temperature shutdown, current limiting, short circuit protection, input under voltage shutdown and output over-voltage protection, all with automatic recovery.

We are so confident that you will get years of reliable service from this Intelligent Battery Charger that we have backed it with a Five Year Warranty!

# MODEL IBC320

## INTELLIGENT BATTERY CHARGER

### Benefits

- Improved battery life
- More complete battery charging for improved battery runtime
- No interference with radios or other sensitive electronics
- Ultra Quiet Operation (no fans)
- Simple Operation
- Can operate as a Power Supply
- Rugged & Reliable
- Most efficient use of available AC power

### Design Features

- State of the art Digital Signal Processor
- LLC resonant converter technology
- Synchronous Rectification
- Worldwide Universal AC Input with PFC
- Advanced Charging Algorithms
- Programmable from front panel
- Includes 'PowerWizard' software for advanced programming through standard USB port
- Military-Grade extrusion ensures a high tolerance for shock and vibration
- High Efficiency
- Ultra-quiet low EMI operation
- Can be permanently connected to batteries
- Optional Dry contact output fail relay
- Optional Custom Battery Voltages
- User selectable 2 or 3 stage charging profile
- User selectable Float or Rest 'End of Charge'
- Temperature compensated charging
- Battery Over-temperature shutdown & recovery
- Charger Over-temperature shutdown & recovery
- Audible & visual indicators for operation and errors
- Output short circuit protection
- Output over-voltage protection
- Inrush Current Limiting
- Worldwide AC Input
- Five Year warranty



### Applications

- Marine (Commercial and Recreational)
- Industrial
- Military and DHS
- Electric Utilities and Substations
- OEM Applications
- Emergency Power Backup (UPS)
- Security Systems

An ISO9001 and AS9100 Registered Company Battery Chargers • Inverters • Power Supplies • Voltage Converters

8128 River Way, Delta B.C. V4G 1K5 Canada T. 604.946.9981 F. 604.946.9983 TF. 800.668.3884 (US/CANADA)

www.analiticsystems.com

# MODEL IBC320 INTELLIGENT BATTERY CHARGER

Input	
Volts	85 - 265VAC, 1 Phase, 45 - 65 Hz
Current (max) *	4 Amps w/ Inrush Protection
Input Fuse	AGC 5 Amp
Power Factor	>0.99 at Full Load
Efficiency	>90% at Full Load
*	Maximum Input Current Specified at 85 VAC

Output				
Nominal Voltage	12 VDC	24 VDC	36 VDC	48 VDC
Voltage Range **	12.0 - 15.5 VDC	24.0 - 31.0 VDC	36.0 - 46.5 VDC	48.0 - 62.0 VDC
Output Current	20 Amps	10 Amps	6.8 Amps	5 Amps
Recommended Battery Amp-Hours	100	50	37	25
Charging Stages	2 or 3 stage user selectable			
End of Charge	Float or Rest user selectable			
**	Actual Output Voltage determined by User Settings or by Charger Firmware			

Mechanical	
Dimensions	9.5"/24.1cm Long x 8.0"/20.3cm Wide x 3.25"/8.3cm High
Clearance	1.0"/2.5cm all around
Weight	6.2 lb / 2.8 kg
Material and Finish	Marine Grade Black Anodized Aluminum with 18-8 Stainless Fasteners
Mounting	Wall or Shelf Mount
Connections	Integrated Color Coded Terminal Blocks

Options	
Ruggedization Option	Added conformal coating, Option "C"
Marine/Industrial Option	Added conformal coating and siliconging, Option "V"
Military Option	Includes wide temperature components, added conformal dipping and siliconging, Option "MS"
Encapsulated Potting	Includes wide temperature, Option "E"
Extra Wide Temperature Operation	-40°C to +55°C Includes added conformal coating, Option "W"

Environmental and Safety	
Operating Temperature Range	-25 to +40 C (-40 to +55 C Optional)
Storage Temperature Range	-55 to +85 C
Humidity	0 - 95% Relative Humidity (non-condensing)
Vibration	Built to meet MIL810g
Emissions	Built to meet MIL461f
Isolation	> 1500 VDC Input-Output, Input-Case, Output-Case
Audible Noise	None
Duty Cycle	Continuous
Warranty	Five Years Parts and Labor
Safety	Built to meet ABS, CE, UL458 and CSA 22.2.107.1



**ANALYTIC SYSTEMS**  
Power Conversion Solutions

An ISO9001 and AS9100 Registered Company Battery Chargers • Inverters • Power Supplies • Voltage Converters

8128 River Way, Delta B.C. V4G 1K5 Canada T. 604.946.9981 F. 604.946.9983 TF. 800.668.3884 (US/CANADA)

www.analiticsystems.com