

# HB5

## Switch-Mode Battery Charger



# PRODUCT SPECIFICATIONS

HB5

## Description

The HB5 is their most durable, digitally controlled switch-mode battery charger to date.

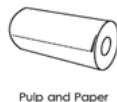
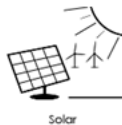
Built for industries that demand rugged and long-lasting equipment, HB5 boasts mean time between failure, or MTBF of 200,000 hours and mean time to repair, or MTR of just 20 minutes.

HB5 provides flexible power output (12, 24, 32, 36 and 48VDC) and built in protection (AC/DC breakers) to meet varying industry needs.

Including an LCD screen, customizable alarms, push button control, and Modbus RS-485 communication, HB5 is your solution for providing power to critical standby applications.



## Industries



## Standard Features

- Wide range AC input (optional DC input)
- AC input and DC output breakers
- Filtered output for valve regulated batteries
- Back lit 2 line LCD display with 4 button user interface
- Modbus RS485 communications
- 4 mode equalize – manual, 30 day, start up and AC fail
- Temperature compensation (optional probe is required)
- Modify output voltage and current, alarm set points and equalize timer via keypad or communication protocol
- 6 form C alarm relays (configurable to any alarms)

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## Alarming & Monitoring

### Form C Contact Alarms

- Common alarm
- Low battery voltage
- High battery voltage
- Rectifier fail
- AC/DC fail
- Equalize

### Communication Alarms

- Common alarm (configurable)
- Low battery voltage
- High battery voltage
- AC/DC fail
- Low temperature
- Equalize
- Shunt trip
- Rectifier fail
- + GND fault
- - GND fault
- High temperature



## Technical Specifications

<b>Input</b>	
Input AC Voltage	1PH 100-240VAC ( 3PH input on 100amp DC output units)
Input DC Voltage	Optional DC 18-32VDC
Frequency	45 – 65 Hz
Short Circuit Protection	Electronically current limited
<b>Output</b>	
Output DC Voltage	12, 24, 32, 36, 48VDC
Regulation	+/- 1%
Ripple	50mV
<b>Environment</b>	
Operation Temperature	-20° to 40° (Optional: Extended temperature -40° to 40°)
Storage Temperature	-40 to 50°C
Altitude Above Sea Level	1000m w/o derating
Method of Cooling	Natural Convection
Noise Level	<60 dBA
Humidity	0 to 95%, non-condensing
<b>General Features</b>	
Efficiency	>90%
Enclosure	NEMA 1 (optional: NEMA 2, 3R, 4, 4X and 12)
Soft Start	Electronic soft start
Certification	CSA 107.1/107.2/UL1012
Communication	Modbus: RS-485 (optional: DNP3: RS-485, RS-232, Ethernet; Fiberoptic; SNMP)
Form C Relays	6
Mounting Positions	Wall mount / floor mount
Warranty	18 months from date of shipment

## Available Options

- Battery monitoring
- Enclosure options:
  - NEMA 2
  - NEMA 3R
  - NEMA 4/4X
  - NEMA 12
  - Floor mount/wall mount
- Integrated battery rack
- Parallel operation (redundant configuration)
- 19" or 23" rack mountable
- Battery/load distribution breakers
- Din rail mount or special OEM package
- Temperature probe
- Extended temperature -40° to 40° C
- Conformal coating
- Blocking diode
- Communication:
  - DNP3: RS-485, RS-232, Ethernet
  - Fiberoptic
  - SNMP



80A charger w/ monitoring, integrated distribution on the door and internal battery shelves.

## Battery Monitoring Option

HB5 battery monitoring module adds battery monitoring and low battery voltage disconnect capabilities. It protects the battery by disconnecting the load from the battery when the battery voltage is below a critical setpoint value (voltage setpoint fully adjustable). The following monitoring and alarming features are included in this option, in addition to the standard monitoring and alarming features standard in HB5.

### Additional Monitoring:

- Load voltage
- Battery voltage
- Midpoint 1 voltage
- Midpoint 2 voltage
- Current
- Battery charge/discharge

### Additional Alarming:

- Low battery voltage
- Midpoint 1 battery voltage imbalance
- Midpoint 2 battery voltage imbalance
- Battery fuse open