

BATTERY CHARGERS 1-PHASE 10 – 300A

Transformer Based, SCR controlled battery chargers operate as industrial AC/DC rectifier systems featuring automatic constant voltage and constant current regulation. The integrated isolation transformer ensures full galvanic separation between the utility grid and the connected DC load and battery bank, enhancing operational safety, system reliability, and protection against grid disturbances.

GENERAL SPECIFICATIONS

- Internal isolation transformer at input
- Float charge, equalizing charge and boost charge modes
- Automatic and manual charge modes
- Operation as voltage source or current source
- Programmable current limitation
- Low output voltage ripple and high reliability
- Calibration of measurements from front panel
- DC Low / High, Line Failure, Over Temperature, Short Circuit protections
- Programmable dry contacts
- Advanced Communication Capabilities
- 256 Real Time Event Log with Detailed Parameters
- Soft start



1-PHASE

- **12/24VDC: 10A-300A**
- **36/48VDC: 10A-150A**
- **110VDC: 10A-200A**
- **220VDC: 10A-100A**

BATTERY CHARGERS 1-PHASE 10 – 300A

MODEL	HYDRA 1000
General	
Topology	Transformer Isolated, SCR Control
Cooling	Forced Cooling, Natural Cooling (Optional)
Efficiency	≥85% @ Full Load
Isolation Voltage	1500 or 3000 VAC Input/Chassis and Output/Chassis
Input Phase Count	100% - 120% of Floating Charge
Measurements	Load Output Voltage and Current / Battery Output Voltage and Current / Utility Voltage / Line voltage / Frequency / Power factor (Optional) / Batt. ambient temperature (Optional)
Optionals	Individual Outputs for Battery and Load / Additional LVD Contactor Separating Load and Battery From Each Other / DC +/- Ground Leakage Protection / Battery Monitoring / Management System (BMS) / Analog Measurement Indicator
Input	
Input Phase Count	1 Phase
Input Voltage	110VAC / 127VAC / 208VAC / 220VAC / 230VAC / 240VAC
Voltage Tolerance (%100 load)	±15%, ±20% (Optional)
Nominal Frequency	-36%, +20%
Input Power Factor	50/60 Hz 5%
Input Current THD	30%
Input Protections	Overcurrent Protection, Overvoltage Protection
Output	
Output Voltage	24 VDC / 48 VDC / 110 VDC / 220 VDC
Output Voltage Adjustment	100% - 120% of Nominal Output Voltage
Output Current Adjustment	10% - 100% of Nominal Current
Charge Current Adjustment	10% - 100% of Nominal Current
Boost Charge	100% - 120% of Floating Charge
Float Charge Voltage (V/C)	2.23V Lead Acid, 1.4V NiCd
Boost Charge Voltage (V/C)	2.4V Lead Acid, 1.6V NiCd
Output Protections	Short Circuit / Over Voltage / Over Temperature / Over Current Reverse Voltage (Reverse Connection) Protection
Communication & Paralleling	
Communication	RS232 (Standard), Dry Contacts (Optional), RS485 (Optional), Modbus TCP (Optional), GSM (Optional)
Paralleling	Redundant Operation with Active or Passive Load Sharing Option
Environmental	
Operating Temperature	-5°C - +50°C
Storage Temperature	-20°C - + 70°C
Relative Humidity	0 - 95% non condensing
Noise (@ 1 Meter)	45 - 55 dBA (According to Ratings)
Altitude	1000m
Protection Class	IP 20 (Higher Ratings are Optional)
Compliance	
Standards	EN60146-1-1, EN62477-1 (LVD), EN61204-3, EN61003-3-12, EN61003-3-11 (EMC)