

SPE HI-RECT SERIES RECTIFIER / CHARGER

Product Description

SPE HIRECT Series Rectifier / Battery Charger, using advanced rectifier with resonant converter technology to provide regulated and uninterrupted DC power (with sealed lead-acid or nickel cadmium industrial batteries) to critical loads. HIRECT System is designed with latest power semiconductor technology for manual / automatic voltage control and current limiting operations. The full system operation is monitored and controlled by DSP (Digital Signal Processor) controller with digital interface.

It provides necessary DC power which is critical for Communication and Industrial power distribution systems.



Features

- Smart control and high reliability with DSP (Digital Signal Processor)
- Float charge, equalizing charge and boost charge modes
- Automatic and manual charge modes
- Low output voltage ripple and high reliability
- 2x16 character LCD display, showing measurements, status and alarm messages
- Soft start
- LED displays for easy observation of Rectifier status & Audible alarm.
- Programmable current limits
- Operation as voltage source or current source
- Calibration of measurements from front panel
- Language selection from front panel (English / German / Turkish / Netherland / Portuguese)
- DC Low / High, Line Failure, Over Temperature, Short Circuit protections
- Ability to program all operation parameters (password protected)
- Programable alarm relay contact outputs (4 as standard, up to 16 relays as option)
- Possibility of monitor and control over RS232-RS485.
- Modbus communication. *Option
- Log records with date and time stamp up the 200 events.
- Earth leakage monitoring *Option
- Ability to monitor batteries and battery low alarm,
- AC Mains Monitoring *Input fails *option
- Battery temperature compensation *Option
- Active parallel (current sharing) operation up to 4 devices *Option
- Analog meters/gauges (input / output / battery voltages / currents) *Option
- Battery test with adjustable voltage and duration *Option



Technical Specifications

INPUT	
Voltage (Vac / Vdc)	220Vac – 230Vac, 2-Wires / 3x 380Vac – 3x 400Vac, 3 or 4-Wire or 50Vdc – 500Vdc, 2-Wire
Voltage Tolerance	± 15%
Frequency	50/60 Hz.
Frequency Tolerance	±10%
Power Factor	0.98 (THD 4%) / 0.92 (THD 30%)
OUTPUT	
Voltage	24, 48, 110, 220Vdc, -10% ... +35% (front panel selectable)
Current	15, 30, 60, 100A (others customizable)
Current Limiting	I nom x 102% (selectable from front panel between) 0 and 102%
Ripple	<0,5%
Voltage Regulation	±0.5% at float charge; ±1.0% at boost charge
Efficiency	3- Phase: >92% / 1- Phase: >85%
Protections	Input, output (thermal/magnetic) fuses, Advanced short circuit protection, Overvoltage protection, Overcurrent protection, Automatic restart
BATTERY	
Battery Charge Modes (Adjustable Charging Voltages)	Automatic charge, boost charge: 2.4 V / Cell Float Charge: 2.25 V / Cell
Boost Charge Time	Incrementable by 1 hour up to 24 hours
LCD Properties	2x16 character-wide display, Display: Output voltage & current, Output voltage high/low Load(%), Log Records up to 200 logs with Real Time Clock Calendar AC (AC available), Fault, Current limiting
Displays	Automatic charge, Float charge, Boost charge, Common alarm
Alarms	Common relay contact output for AC input low, DC output low and overheat
Operation and control	Via menu selections from buttons on front panel
Endurable Dielectric Voltage	2000 V Input-Output 2000 V Input-Chassis 500 V Output - Chassis (For PS with output voltage <50 V) 1000 V Output - Chassis (For PS with output voltage >50 V)
GENERAL FETURES	
Case Dimensions	3-Phase: 19" rack cabinet, 5Ux 54 cm / 1-Phase: 19" rack cabinet, 5U 54 cm wall-mount
Protection Class	IP 20 (others customizable)
Audible Noise (@ 1m)	50 dBA
Cooling	Mandatory cooling (Fan)
Operation Temperature	-5°C to 50°C
Storing Temperature	-20°C to 70°C
Operation Altitude	< 2000 meters
Relative Humidity	0 - 98% (Non-condensing)
STANDARDS	
Standards	VDE, DIN 41773 (Battery charger characteristics), ANSI-NEMA PE 5, TS 2000, EN 62040-1, 2
SPE-HIRECT Series 1 & 3 Phase Rectifier/Charger powered by EPC. Specifications Can change without notice. Datasheet v1.0	