

# Spectra II Rectifier Battery Charger

Industrial Rectifier for Applications Requiring DC Power Supply

Spectra II is a **robust, industrial-grade rectifier**, designed to supply critical DC loads and charge all battery types. Based on standardized IGBT power conversion systems and available in various rated enclosures, this power system **provides superior reliability, efficiency** and **cost effectiveness** for mission-critical applications such as oil & gas plants, power stations and substations, manufacturing plants and transportation.



- Robust and reliable layout for industrial applications
- Standard configurations for cost effective, short lead time solutions
- Microprocessor control
- Full set of battery charging methods, with battery voltage/temperature compensation
- Extensive range of options and customized solutions
- Easy accessibility and maintenance

AC Input				
<b>Standard Voltages:</b>	Single-Phase: 120, 208, 240 Three-Phase: 208, 240, 380, 480, 600 Frequency: 50 / 60Hz $\pm$ 5Hz			
<b>Efficiency:</b>	>90%			
<b>Power Factor:</b>	Single-Phase: 90% Three-Phase (12 pulse output): >95%			
DC Output				
<b>Standard Voltages:</b>	Nominal Battery Voltages: 24, 48, 120 and 240VDC			
<b>Current Ratings:</b>	10, 20, 30, 40, 50, 100, 150, 200, 320 and 500A			
<b>Charging Characteristics:</b>	IU (DIN 41773), U1U2I, I12U			
<b>Recommended Operating Voltages</b> (V/Cell, Adjustable):		NiCad	VLA	VRLA
	<b>Float</b>	1.40 - 1.50	2.20 - 2.30	2.27
	<b>Equalize</b>	1.50 - 1.65	2.40 - 2.45	—
	<b>Refresh</b>	1.70	2.70	—
<b>Output Regulation:</b>	Static Voltage Regulation: <1% Voltage Ripple: <1%			
<b>Overload Capacity:</b>	<120% for 30 minutes, <150% for 3 minutes, >150% for 3 seconds			
Protection				
<b>Battery Polarity Reversal:</b>	If the battery is connected with reverse polarity, the rectifier remains in stand-by mode and gives error/warning message			
<b>Electronic Overload Protection:</b>	Complete protection in case of output short circuit, overload, over-temperature			
<b>Anti-Arcing:</b>	When the battery is connected, no arcing is generated at the connectors			
<b>Power-On Self-Test:</b>	Every time the unit is powered, and automatic self-test of the power electronics and the control boards is executed in less than 10 seconds. In case of fault, the unit remains in safe stand-by mode and gives fault messages.			
Mechanical		Optional Features		
<b>Dimensions W x H x D</b> (in/mm):	Cabinet A: 19.7 x 35.4 x 17.3 / 500 x 900 x 440 Cabinet B: 21.7 x 51.2 x 21.7 / 550 x 1300 x 550 Cabinet C: 31.5 x 63 x 19.7 / 800 x 1600 x 500 Cabinet D: 31.5 x 78.7 x 23.6 / 800 x 2000 x 600			
<b>Color:</b>	RAL 7035, light gray			
<b>Dimensions W x H x D</b> (in/mm):	Cabinet A: 19.7 x 35.4 x 17.3 / 500 x 900 x 440 Cabinet B: 21.7 x 51.2 x 21.7 / 550 x 1300 x 550 Cabinet C: 31.5 x 63 x 19.7 / 800 x 1600 x 500 Cabinet D: 31.5 x 78.7 x 23.6 / 800 x 2000 x 600			
<b>Color:</b>	RAL 7035, light gray			
Environmental				
<b>Cooling:</b>	Rating dependent			
<b>Audible Noise:</b>	<65dBA at 1 meter			
<b>Environmental Protection:</b>	IP21 (standard), IP31 (optional), IP54 (optional), NEMA 1, NEMA 3R, NEMA 12			
<b>Ambient Temperature:</b>	Operation: -10 to +50°C Storage: -20 to +70°C			
<b>Altitude:</b>	<2000m, derating according to EN62040-3			
User Interface and Connectivity				
<b>User Interface:</b>	Alphanumeric LCD display, 5x LEDs, keyboard and audible			
<b>Connectivity:</b>	<ul style="list-style-type: none"> <li>RS-232 / RS-485 (standard)</li> <li>Web-based supervision and control system (standard)</li> <li>Integrated data-logger with USB port (optional)</li> <li>Integrated data-logger with wireless connectivity</li> </ul>			
Standards				
<b>Quality:</b>	ISO 9001:2008			
<b>Marking:</b>	CE, UL 1012, UL 60950			
<b>EMD:</b>	IEC EN 61000-6-2, IEC EN 61000-6-4			
<b>Safety:</b>	IEC EN 50178, IEC EN 62040-1, UL 1012, UL 60950			
<b>Test and Performance:</b>	IEC EN 62040-3			