

OSR

OEM SCR Rectifier



PRODUCT SPECIFICATIONS

Description

OSR is the OEM rectifier solution for manufacturers who wish to integrate chargers in their systems. This solution is highly customizable and provides a number of options based on budget and technical specifications. The OSR uses silicon controlled rectification (SCR) and ensures high durability and efficiency with low ripple output.



Base: PCB and Magnetics

The base of the SR7 is the Rectifier/PCB and magnetics. Available configurations are 1 phase and 3 phase. Included is the:

- Power and Control PCB
- Transformer
- Inductor

Features:

- Output blocking diode
- Output voltage and current metering
- Battery test mode
- Temperature compensation
- Modbus communications RS-485
- AutoEqualize w/ time (0-96 Hours)
- High temperature shutdown

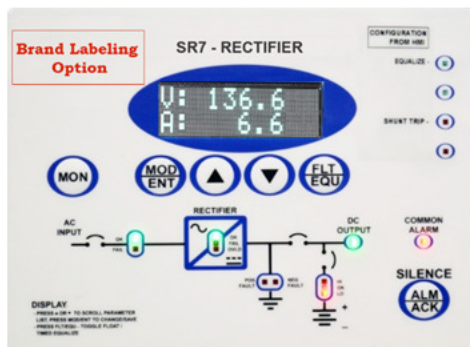


Option: AC & DC Breakers

AC and DC breakers can be added or, based on budget, fuses can be used.

Option: HMI and Enclosure

Steel enclosure and human-machine interface (HMI) are available. Based on quantity, RIC Electronics can rebrand the HMI with “Your Company” logo.



Alarming:

- Programmable common alarm
- Programmable LEDs, form C relays & digital inputs
- High DC voltage
- AC failure/loss
- Rectifier failure
- Ground fault (+/-)
- Charger overload
- Control card temperature (high/low)
- Low DC voltage/end of battery voltage
- High ripple alarm

Technical Specifications



OSR

Input	
Input AC Voltage	1ph - 120, 208, 240, 480, 600V (other voltages optional) 3ph - 208, 480, 600 V
Input Breaker Short Circuit rating	240VAC – 65kAIC (standard) – up to 200 kAIC (optional) 480VAC – 35 kAIC (standard) – up to 200 kAIC (optional) 600VAC – 18 kAIC (standard) – up to 100 kAIC (optional)
Frequency	50 / 60 Hz
Power Factor Model Dependent	≤ 0.95
Input Voltage Tolerance	±10%
Frequency Tolerance	± 2 Hz
Short Circuit Protection	Auto shutdown at 250% of rated output (Auto Recovery)
Operation Temperature	-25° to 40° C
Output	
Output DC Voltage	12, 24, 48, 120, 240VDC (others upon request)
Output DC Voltage Range	12VDC: 1-15, 24VDC: 1-30V, 48VDC: 1-60V , 120VDC: 1-150V, 240VDC: 1-300
Output Breaker Short Circuit rating	240VDC – 10 kAIC (standard) – up to 30 kAIC (optional)
Output Current	5 to 75A
Efficiency Model Dependent:	≤ 93%
Regulation	<0.5% for input variation of 10%
Ripple (off battery)	1% (150mV optional)
Technical Features	
Programmable Form C Relays	9
Programmable LEDs	4 (with optional HMI)
Programmable Digital Inputs	3
Environmental	
Operating Temperature	-25 to 40°C
Storage Temperature	-40 to 50°C
Altitude Above Sea Level	1000m w/o derating
Method of Cooling	Convection
Noise Level (1 meter)	<60 dBA
Humidity	0 to 95%, non-condensing
General Features	
Enclosure	NEMA 1 (with HMI and enclosure option)
Certification	CSA 107.1/107.2/UL1012
Communication	Modbus: RS-485/RS-232 (non-isolated) Modbus: TCP, RS-485/RS-232 (isolated with optional HMI)
Warranty	18 months from date of shipment

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