

Custom SCR Rectifiers

Flexible and upgradable for reliable DC power

Our custom rectifiers can be engineered to power your company's specific needs with your choice of input and output ratings, controls, enclosure options, and other features.

Companies often choose a custom rectifier to power a very specific industrial or manufacturing process. We offer a full line of air-cooled and water-cooled custom SCR rectifiers that serve a wide variety of applications, including plating, anodizing, DC cranes, hydrogen production, and steel production.

Reasons to choose a custom SCR rectifier:

- Higher power ratings than are available with our pre-engineered RapidX SCR rectifiers
- Specific safety requirements within your plant that call for custom rectifiers
- The need for additional features so that maintenance can be safely performed on a high-voltage rectifier, or a rectifier with very high arc flash potential (for example, a custom-designed preventative maintenance port or a special layout for reduced risk to maintenance personnel)
- Processes with high precision or high volume that require additional resiliency features to minimize downtime

All of our rectifiers are designed to the highest safety standards to mitigate inherent safety risks. With the most comprehensive warranty in the industry, our rectifiers ensure years of maintenance-free operation and a long operating lifetime.



System Advantages

- Fully customizable for your specific application and safety requirements
- Industry-leading 5 year comprehensive warranty
- Flexible controls options
- Built-in hardware protection features

TECHNICAL SPECIFICATIONS

Electrical

Input Voltage:	Up to 6000V _{AC} 3 Ph
Frequency:	50Hz / 60Hz
Output Voltage:	Up to 1000V _{DC}
Output Amps:	Up to 50,000A _{DC}
Ripple:	≤5% at Full Output (multiple ripple filter options available)
Regulation Range:	10-100% of rated output
Control Precision:	Voltage/current at +/- 1%
Duty Cycle:	Designed for continuous operation at rated load

Environmental

Cooling:	Forced Air, Direct Water or Closed Loop
Enclosure:	NEMA 1 (air cooled) NEMA 2 (water-cooled) Custom options available
Max Ambient:	40°C (higher temperatures available on request)

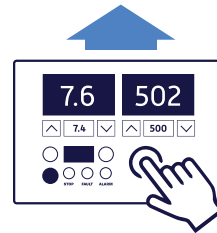
Communications Interface

Ethernet IP
Modbus TCP
Analog (4-20mA and 0-10V)
Profibus
DeviceNet

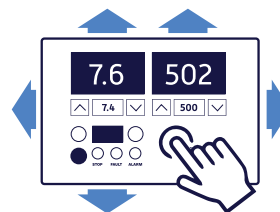
Standard Protection Features

Over-Current
Over-Voltage
Over-Temperature
Short Circuit
Voltage Stabilization (± 0.5%)
Electronic Peak Current Detector
Step-Start Circuit on AC Line
SCR Watchdog

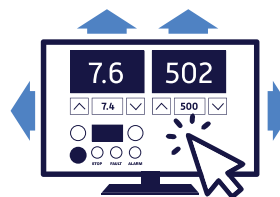
Control Options



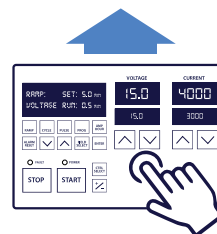
Single-Unit Touchscreen Controller: A programmable touchscreen controller designed to give users maximum control.



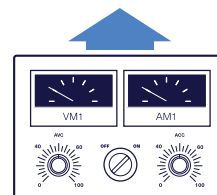
Multi-Unit Touchscreen Controller: Control up to 10 rectifiers from a single intuitive touchscreen interface.



PC-Based Process Controller: Graphical interface PC application designed for process control of 1 to 10 rectifiers.



Touchpad Controller: Flexible, reliable, and user-friendly programmable controller with precision digital controls and intuitive recipe storage.



Analog Controls: Reliable and straightforward controls designed to withstand the harshest environments



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