

Rapid-X SCR Rectifiers

Performance, reliability, and lowest lifetime cost

Our affordable Rapid-X SCR rectifier delivers the same reliability and longevity you expect from Dynapower, with unparalleled flexibility and speed of delivery.

We are pleased to offer an economy line of pre-engineered air and water-cooled SCR rectifiers that puts efficient, reliable power in your facility at a substantially lower cost than a custom-engineered SCR rectifier, with a faster delivery time. In fact, Rapid-X shipping times are up to 50% faster than custom SCR rectifiers.

Rapid-X SCR rectifiers utilize the same quality materials, construction, and extensive testing as do our custom-designed rectifiers—all built in our Vermont, USA facility. With decades of longevity and greater controls flexibility, it is a value-rich rectifier like no other on the market.

System Advantages

- Lowest lifetime cost in the industry
- Wide range of standard features and functionality
- Easy and inexpensive upgrade controls
- Multi-unit digital controller compatible



TECHNICAL SPECIFICATIONS

Electrical

Input Voltage & Frequency

460 / 480V_{AC}, 3Ph, 60Hz (Standard)

208 / 220 / 240V_{AC}, 3Ph, 60Hz

380 / 400 / 415V_{AC}, 3Ph, 50Hz

440 / 575 / 600V_{AC}, 3Ph, 60Hz

Output Voltage: Up to 100V_{DC} (see matrix below)

Output Amps: Air-Cooled up to 6000A_{DC}
Water-Cooled up to 10,000A_{DC} (see matrix below)

Ripple: ≤5% at Full Output
(additional 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

Enclosure: NEMA 1 (air-cooled) / NEMA 2 (water-cooled)

Max Ambient: 40°C

Utility Program

Power Supply Interface Terminal (PSIT)

Communications Interface

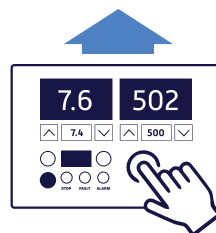
Ethernet IP Analog (4-20mA and 0-10V)

Modbus TCP

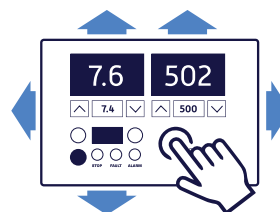
Protection Features

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

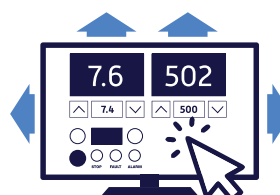
Control Options



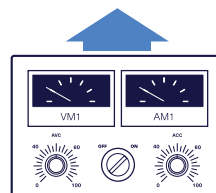
Single-Unit Touchscreen Controller: A programmable touchscreen controller designed to give users maximum control.



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.



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



STANDARD CONFIGURATION OPTIONS

Water-Cooled Configuration Options

VOLTS	AMPS															
6	500	750	1000	1500	2000	2500	3000	4000	5000	6000	7000	7500	8000	9000	10000	
9																
12																
15																
18																
24																
30																
36																
40																
48																
50																
60																
75																
85																
100																

Air-Cooled Configuration Options

VOLTS	AMPS										
6	500	750	1000	1500	2000	2500	3000	4000	5000	6000	
9											
12											
15											
18											
24											
30											
36											
40											
48											
50											
60											
75											
85											
100											



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