

**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<sub>AC</sub>, 3Ph, 60Hz (Standard)

208 / 220 / 240V<sub>AC</sub>, 3Ph, 60Hz

380 / 400 / 415V<sub>AC</sub>, 3Ph, 50Hz

440 / 575 / 600V<sub>AC</sub>, 3Ph, 60Hz

Output Voltage: Up to 100V<sub>DC</sub> (see matrix below)

Output Amps: Air-Cooled up to 6000A<sub>DC</sub>  
Water-Cooled up to 10,000A<sub>DC</sub> (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

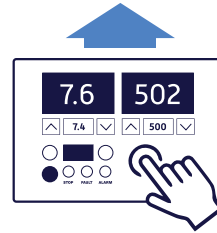
Over-Current Voltage Stabilization (± 0.5%)

Over-Voltage Electronic Peak Current Detector

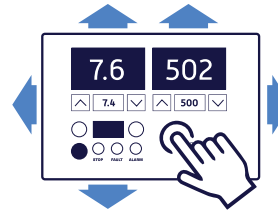
Over-Temperature Step-Start Circuit on AC Line

Short Circuit SCR Watchdog

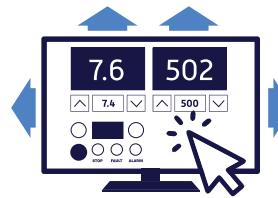
### Control Options



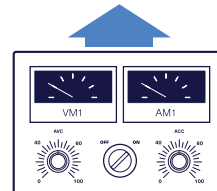
**Single-Unit Touchscreen Controller:** A programmable touchscreen controller designed to give users maximum control.



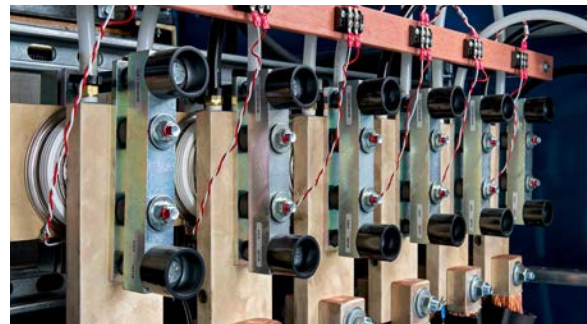
**Multi-Unit Touchscreen Controller:** Control up to 10 rectifiers from a single intuitive touchscreen interface.



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

Air-Cooled Configuration Options

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



85 Meadowland Drive, South Burlington, Vermont USA 05403

1.802.860.7200 | sales@dynapower.com

[dynapower.com](http://dynapower.com)

