

**Water-Cooled SMPS**

# Efficient, compact and high-quality DC Power

**We offer the latest in water-cooled Switchmode Power Supply (SMPS), featuring a stainless-steel enclosure purpose-built for long-term operation in caustic environments.**

Our water-cooled SMPS rectifier is a flexible, easy-to-use rectifier with <2% AC RMS of full-scale ripple, 1% regulation over the operating range and a power factor of up to >0.99. Its high-efficiency power supply design offers a conversion efficiency that is greater than standard SCR-type rectifiers, with DC output capabilities of up to 900kW. Our stainless-steel units can be placed close to your process, saving power, energy, and installation costs.

This rectifier includes our integrated touchpad controller, offering advanced functions such as ramp, cycle, pulse, amp-hour counter and a program mode, allowing any combination of these functions.



## System Advantages

- Cost-effective, efficient power in a compact footprint
- Stainless steel NEMA 4X enclosure suitable for caustic environments
- Low AC RMS ripple content

## TECHNICAL SPECIFICATIONS

### Electrical

Input Voltage:	480V <sub>AC</sub> 3PH
Frequency:	60Hz
Output Voltage:	Up to 36V <sub>DC</sub> (see matrix below)
Output Amps:	Up to 6,000A <sub>DC</sub> (see matrix below)
Ripple:	≤2% from 10-100% of unit output
Regulation Range:	10-100% of rated output
Control Precision:	Voltage/current at +/- 1%
Duty Cycle:	Designed for continuous operation at rated load

### Environmental

Cooling:	Direct Water
Enclosure:	NEMA 4X
Max Ambient:	40°C

### Communications Interface

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

### Protection Features

Over-Current
Over-Voltage
Over-Temperature
Short Circuit
IGBT Failure (results in unit shutdown)

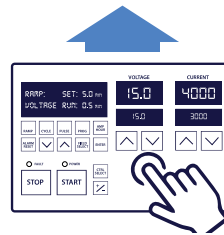
### Standard Configurations Options

VOLTS	AMPS									
	100	250	500	750	1000	1500	2000	2500	3000	
6										
9										
12										
15										
18										
24										
30										
36										

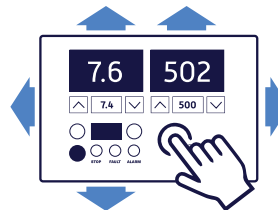
### Controls

Standard Controller:	Integrated Touchpad
Control Settings:	Custom Recipe Storage Pulse Ramp & Cycle Timer Set Current Set Voltage ON / OFF Start / Stop Stand by / Run Amp Hours
Control Outputs:	Onscreen Diagnostics Current and Voltage Feedback On Signal Run Signal Actual Amp Hours Actual Run Time Diagnostic Alarms

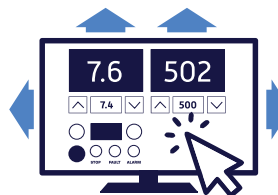
### Control Options



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



**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.

