

# Rapid-X Air-Cooled Modular Power Supply

# Cost-effective, quality power that's easy to expand and repair

Our Rapid-X Air-Cooled Modular Power Supply combines reliability and longevity with greater flexibility, faster delivery, and lower cost. It features a stackable modular design, front-to-back cooling, and a dedicated air-cooling channel.

Compact and scalable, the air-cooled Rapid-X Air-Cooled Modular Power Supply combines the benefits of modular switch mode design with the repairability of 'monument' style switchmodes, allowing you to focus on applying the product to your process, not changing your process to fit our product. Available in seven cabinet sizes, it's designed to be the most versatile switch mode power supply you've ever owned.

For maintenance, individual modules can be pulled from the unit and serviced separately, giving you maximum flexibility over the systems that power your process.

Base configuration comes standard with an Ethernet IP port and Dynapower's integral Touchscreen Controller.

# **System Advantages**

- Easy to service with access only required from the front
- Wide range of configuration options, including multi-tower configuration and multiple-in-one configuration



# **TECHNICAL SPECIFICATIONS**

#### **Electrical**

| AC Input           | 400V <sub>AC</sub> , 3P, 60Hz                             |
|--------------------|---|
|                    | 440V <sub>AC</sub> , 3P, 60Hz                             |
|                    | 480V <sub>AC</sub> , 3P, 60Hz                             |
| Output Voltage:    | 6-200V <sub>DC</sub> (see matrix below)                   |
| Output Amps:       | 1000-19,000A <sub>DC</sub> per cabinet (see matrix below) |
| Ripple:            | ≤3% at full output  |
| Regulation Range:  | 10-100% of rated output                                   |
| Control Precision: | Voltage/current at +/- 1%                                 |

#### **Environmental**

| Cooling:     | Air Cooled, Front to Back |
|--------------|---------------------------|
| Enclosure:   | IP 32                     |
| Max Ambient: | 40°C                      |

## **Communications Interface**

Ethernet IP

#### **Protection Features**

| Short Circuit    | In-Rush Current  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|
| Over-Current     | Electronic Peak Current Detector                                     |  |  |  |  |  |  |
| Over-Voltage     | Environmental Alarm  Ambient Temperature Alarm  Module Failure Alarm |  |  |  |  |  |  |
| Under-Current    |  |  |  |  |  |  |  |
| Under-Voltage    |  |  |  |  |  |  |  |
| Over-Temperature |  |  |  |  |  |  |  |

## **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.

# **CONFIGURATION OPTIONS**

**DC Output Amps** 

|       |     | Module Quantity |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |
|-------|-----|-----------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
|       |     | 1               | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    |
|       | 6   | 1200            | 2400 | 3600 | 4800 | 6000 | 7200 | 8400 | 9600 | 10800 | 12000 | 13200 | 14400 | 15600 | 16800 | 18000 | 19200 |
|       | 10  | 1200            | 2400 | 3600 | 4800 | 6000 | 7200 | 8400 | 9600 | 10800 | 12000 | 13200 | 14400 | 15600 | 16800 | 18000 | 19200 |
|       | 12  | 1200            | 2400 | 3600 | 4800 | 6000 | 7200 | 8400 | 9600 | 10800 | 12000 | 13200 | 14400 | 15600 | 16800 | 18000 | 19200 |
|       | 16  | 1200            | 2400 | 3600 | 4800 | 6000 | 7200 | 8400 | 9600 | 10800 | 12000 | 13200 | 14400 | 15600 | 16800 | 18000 | 19200 |
|       | 18  | 1100            | 2200 | 3300 | 4400 | 5500 | 6600 | 7700 | 8800 | 9900  | 11000 | 12100 | 13200 | 14300 | 15400 | 16500 | 17600 |
|       | 20  | 1000            | 2000 | 3000 | 4000 | 5000 | 6000 | 7000 | 8000 | 9000  | 10000 | 11000 | 12000 | 13000 | 14000 | 15000 | 16000 |
|       | 25  | 800             | 1600 | 2400 | 3200 | 4000 | 4800 | 5600 | 6400 | 7200  | 8000  | 8800  | 9600  | 10400 | 11200 | 12000 | 12800 |
|       | 30  | 660             | 1320 | 1980 | 2640 | 3300 | 3960 | 4620 | 5280 | 5940  | 6600  | 7260  | 7920  | 8580  | 9240  | 9900  | 10560 |
|       | 35  | 570             | 1140 | 1710 | 2280 | 2850 | 3420 | 3990 | 4560 | 5130  | 5700  | 6270  | 6840  | 7410  | 7980  | 8550  | 9120  |
| δū    | 40  | 500             | 1000 | 1500 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500  | 5000  | 5500  | 6000  | 6500  | 7000  | 7500  | 8000  |
| Voits | 45  | 444             | 888  | 1332 | 1776 | 2220 | 2664 | 3108 | 3552 | 3996  | 4440  | 4884  | 5328  | 5772  | 6216  | 6660  | 7104  |
|       | 50  | 400             | 800  | 1200 | 1600 | 2000 | 2400 | 2800 | 3200 | 3600  | 4000  | 4400  | 4800  | 5200  | 5600  | 6000  | 6400  |
|       | 60  | 334             | 668  | 1002 | 1336 | 1670 | 2004 | 2338 | 2672 | 3006  | 3340  | 3674  | 4008  | 4342  | 4676  | 5010  | 5344  |
|       | 70  | 286             | 572  | 858  | 1144 | 1430 | 1716 | 2002 | 2288 | 2574  | 2860  | 3146  | 3432  | 3718  | 4004  | 4290  | 4576  |
|       | 80  | 250             | 500  | 750  | 1000 | 1250 | 1500 | 1750 | 2000 | 2250  | 2500  | 2750  | 3000  | 3250  | 3500  | 3750  | 4000  |
|       | 90  | 222             | 444  | 666  | 888  | 1110 | 1332 | 1554 | 1776 | 1998  | 2220  | 2442  | 2664  | 2886  | 3108  | 3330  | 3552  |
|       | 100 | 200             | 400  | 600  | 800  | 1000 | 1200 | 1400 | 1600 | 1800  | 2000  | 2200  | 2400  | 2600  | 2800  | 3000  | 3200  |
|       | 110 | 182             | 364  | 546  | 728  | 910  | 1092 | 1274 | 1456 | 1638  | 1820  | 2002  | 2184  | 2366  | 2548  | 2730  | 2912  |
|       | 120 | 166             | 332  | 498  | 664  | 830  | 996  | 1162 | 1328 | 1494  | 1660  | 1826  | 1992  | 2158  | 2324  | 2490  | 2656  |
|       | 150 | 134             | 268  | 402  | 536  | 670  | 804  | 938  | 1072 | 1206  | 1340  | 1474  | 1608  | 1742  | 1876  | 2010  | 2144  |
|       | 200 | 100             | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  |







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