



POWERSTAX D2000 Series

DC Input-Output 2U high 19" rack mount, up to 6000W

Outline Specification

FEATURES

- ❑ Very flexible modular system
- ❑ Standard Step-Down conversion and Step-Up conversion (eg: 24 up to 48)
- ❑ Up to 6,000W Total Power.
- ❑ 3 modules in 2U high 19-inch Rack
- ❑ Integral ORing Diodes
- ❑ Range of DC output Voltages 24VDC, 28VDC or 48VDC (*others upon request*)
- ❑ $\pm 10\%$ Output Adjustment Range
- ❑ Hot Plug Capability
- ❑ Active Load Sharing
- ❑ Remote Sensing
- ❑ Overvoltage Protection
- ❑ Group Output Voltage Adjustment
- ❑ Class B EMI filter per power unit
- ❑ Class A EMI per shelf

The fully isolated D2000 series provides a single high power unit solution for bulk DC requirements in a 2U high 19" rack.

Utilising up to 4 of the market leading Powerstax F501 series DC-DC converters in each power unit, the D2000 provides one of the most cost-effective and flexible solutions for power systems.

Available with 2 standard input ranges (others upon request) and a wide variety of output voltages, that D2000 has the added ability to supply STEP-UP conversion from 24VDC or 28VDC input to 48VDC output

Each unit provides up to 2,000W and when 3 units are mounted in the S6000 - a 2U 19" rack - they offer a high density 6,000W per rack or 4,000W of N +1 redundancy

Ideal for applications where maximum flexibility for a scalable and cost-effective bulk DC power solution with precisely regulated DC output is required.

2 Year Warranty



S6000 shelf shown c/w 3 x D2000 Power units



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INPUT SPECIFICATIONS

Input DC Voltage Range (1).....18V to 36V⁶
 (2).....36V to 75V
 Maximum Input Protection, Internal fuse.....4 x 40A
 Input Current, Full load104A
 Input EMI Filter, ConductedEN55022 Curve B
 Typical at Nominal Line, Full load and 25°C unless
 otherwise stated

OUTPUT SPECIFICATIONS

Total Output Power, Max.....2000W
 Output Voltage(s).....See table
 Voltage Adjustment Range,.....±10.0%
 Total Regulation¹.....±1.0%
 Ripple and noise, Pk-Pk²1%
 Dynamic Response³.....1ms
 Temperature Coefficient.....0.05%/°C
 Minimum Load 0A
 Overload Protection Constant Current Limiting
 Overvoltage Protection..... Auto Recovery
 Active Current Share⁴.....10% Differential from
 Rated Current
 Remote Sense.....Up to 1V per wire
 Efficiency Typ. 82% at Full Load

GENERAL SPECIFICATIONS

Switching Frequency, DC-DC Converter....150kHz Nom.
 Over Temperature Shutdown.....Auto Recovery
 Isolation, class 1.....2000VAC⁵ Input - Output
 1000VAC⁵ Input – Ground
 500VAC⁵ Output to Ground

STATUS INDICATORS

Power Good.....Open Collector Output
 Thermal Alarm.....Open Collector Output

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature.....0°C to 70°C Ambient
 Derating2.5%/°C, 50°C to 70°C
 Storage temperature-40°C to 85°C
 Cooling.....Internal DC Ball-Bearing Fans
 MTBF (predicted at 25C inlet air) 30k hours

PHYSICAL SPECIFICATIONS

Case Material (power unit)..... Aluminium
 Case Material (shelf).....Steel
 Dimensions..... See drawings below
 Weight (power unit).....2.8kg (6.16lbs)

Notes

1. At Remote sense point over full line load range and 0 – 100% load change.
2. 20MHz bandwidth. Measured with 0.1uF ceramic and 10uF tantalum capacitors in parallel across the output.
3. 5% deviation recovering to within 1% for 50% load change.
4. Using single wire current share with remote sense connected.
5. EMC components disconnected.
6. Ask factory for de-rating at low voltages

Range

Other input and output voltage available upon request - contact Powerstax

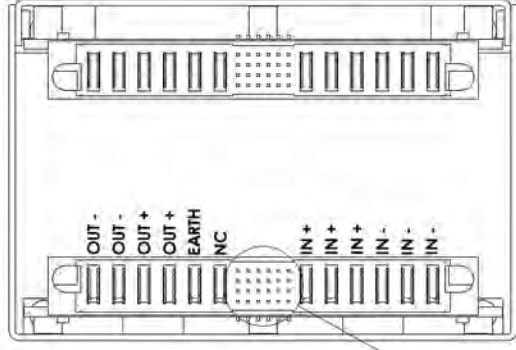
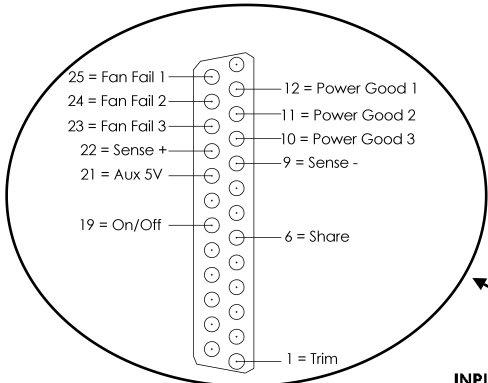
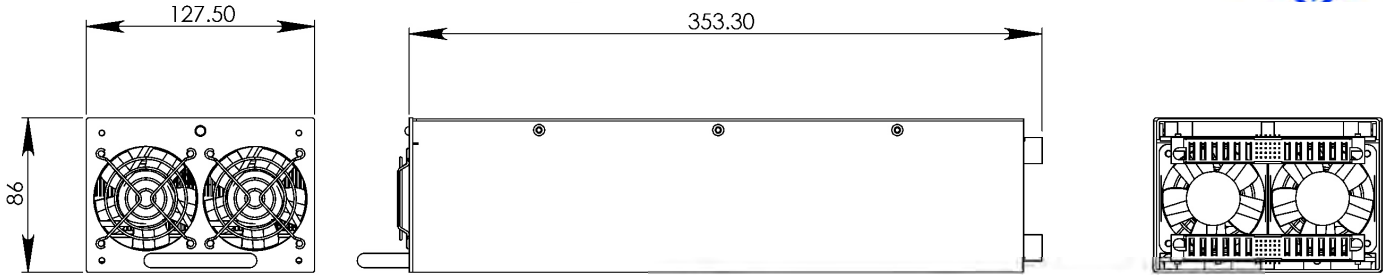
Model Reference	Input Voltage (VDC)	Output Voltage	Output Current (A)
D2000-024-240	24 (18 - 36)	24	83.3
D2000-024-280		28	71.4
D2000-024-480		48	41.7
D2000-048-240	48 (36 - 75)	24	83.3
D2000-048-280		28	71.4
D2000-048-480		48	41.7
S6000	2U HIGH POWER SHELF - TO FIT 19" RACK		
ZBLP-002	BLANKING PLATE TO SUIT -3 x S2000 SLOT		

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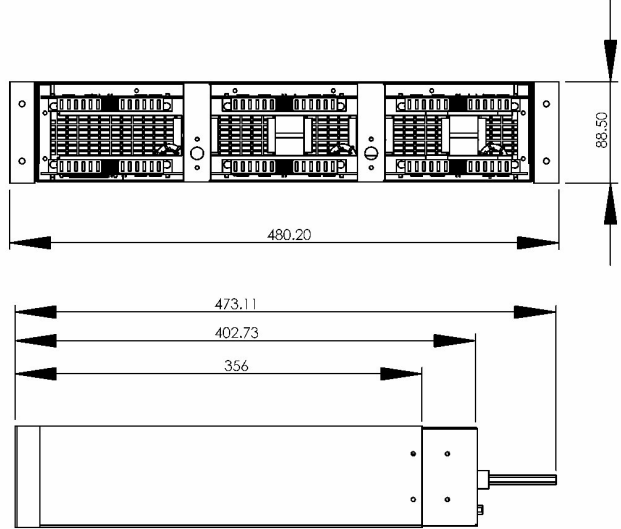
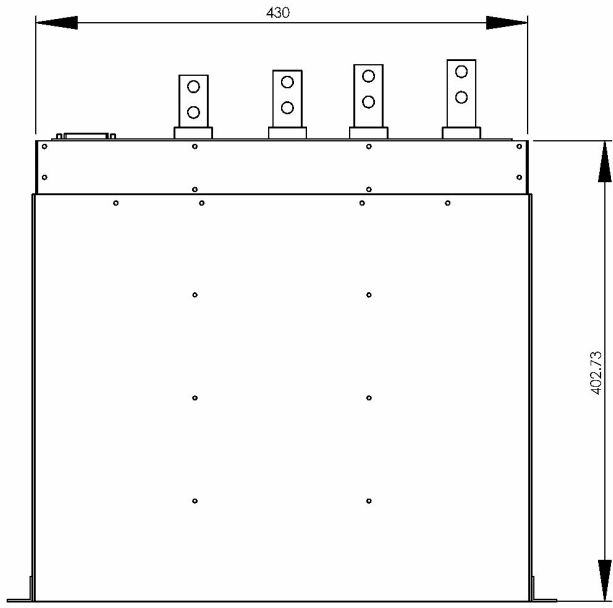
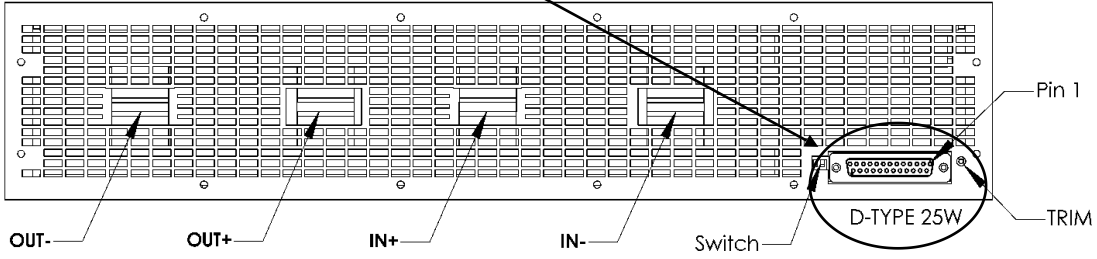
Mechanical Specifications



A1	Power Good	B1	NC	C1	Fan Fail	D1	Sense+
A2	Share	B2	Trim	C2	On/Off	D2	Sense-
A3	Enable (Short Pin)	B3	5V	C3	NC	D3	AUX 5V
A4	NC	B4	NC	C4	NC	D4	NC
A5	NC	B5	NC	C5	NC	D5	NC
A6	NC	B6	NC	C6	NC	D6	NC



INPUT & OUTPUT BUSBAR ARRANGEMENT



Exceeding absolute maximum ratings may cause permanent damage and may reduce reliability. Information and specifications contained in this data sheet are believed to be correct at the time of publication. However, Powerstax accept no responsibility for consequences arising from printing errors or inaccuracies. Specifications are subject to change without notice.

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