

Smart choice for power

xantrex

## XTR Series



850 W 1U Programmable  
DC Power Supplies

### High Power Density with Comprehensive Interface Options

The XTR Series is the new standard for powerful, programmable DC power systems. Designed for test, production, laboratory, OEM and quality assurance applications, the XTR provides a wealth of features to ensure accuracy and greater efficiency. It puts clean, reliable power at your disposal and delivers stable, variable output voltage and current for a broad range of development, test and system requirements.

High frequency, soft switching technology in the XTR Series provides up to 850 Watts in a 1U half-rack package. This represents the highest power density available from any manufacturer. With 12 models at 850 Watts, there is a configuration available to meet every application.

#### Product Features

- ▶ 850 Watt model
- ▶ High power density
- ▶ Comprehensive digital and analog interface options
- ▶ Scalable, multi-unit design
- ▶ Five year warranty

#### Protection Features

- ▶ Foldback mode
- ▶ Foldback mode delay
- ▶ Under-voltage protection (UVP)
- ▶ Over-temperature protection lock (OTP)
- ▶ Local lockout
- ▶ External shutdown
- ▶ Interlock

#### Mechanical Specifications

- ▶ XTR 850 Watt (W × H × D): 8.4 × 1.7 × 19.0 inch (214 × 43.6 × 483 mm)
- ▶ Weight: 11 lb (5kg)

#### Options

- ▶ Ethernet and GPIB interfaces
- ▶ Rack mount kits

### Xantrex Technology Inc.

Headquarters  
8999 Nelson Way  
Burnaby, British Columbia  
Canada V5A 4B5  
800 670 0707 Toll Free  
604 420 1591 Fax

5916 195th Street NE  
Arlington, Washington  
USA 98223  
800 446 6180 Toll Free  
360 925 5144 Fax

[www.xantrex.com](http://www.xantrex.com)

**XTR 850 Watt Electrical Specifications for 6 V to 600 V Models**

Models	6-110	8-100	12-70	20-42	33-25	40-21	60-14	80-10.5	100-8.5	150-5.6	300-2.8	600-1.4
<b>Output ratings</b>												
Output voltage <sup>1</sup>	6 V	8 V	12 V	20 V	33 V	40 V	60 V	80 V	100 V	150 V	300 V	600 V
Output current <sup>2</sup>	110 A	100 A	70 A	42 A	25 A	21 A	14 A	10.5 A	8.5 A	5.6 A	2.8 A	1.4 A
Output power <sup>3</sup>	670 W	810 W	850 W	850 W	835 W	850 W	850 W	850 W	860 W	850 W	850 W	850 W
<b>Line regulation</b>												
Voltage (0.005% of rated output voltage +2 mV) <sup>4</sup>	2.3 mV	2.4 mV	2.6 mV	3.0 mV	3.7 mV	4 mV	5 mV	6 mV	7 mV	9.5 mV	17 mV	32 mV
Current (0.01% of rated output current +2 mA) <sup>5</sup>	13 mA	12 mA	9 mA	6.2 mA	4.5 mA	4.1 mA	3.4 mA	3.1 mA	2.9 mA	2.6 mA	2.3 mA	2.1 mA
<b>Load regulation</b>												
Voltage (0.005% of rated output voltage +2 mV) <sup>6</sup>	2.3 mV	2.4 mV	2.6 mV	3.0 mV	3.7 mV	4 mV	5 mV	6 mV	7 mV	9.5 mV	17 mV	32 mV
Current (0.02% of rated output current +5 mA) <sup>7</sup>	27 mA	25 mA	19 mA	13.4 mA	10 mA	9.2 mA	7.8 mA	7.1 mA	6.7 mA	6.1 mA	5.6 mA	5.3 mA
<b>Output noise (rms, 300 kHz)</b>												
Voltage	8 mV	8 mV	8 mV	8 mV	8 mV	8 mV	8 mV	8 mV	8 mV	10 mV	25 mV	50 mV
Current <sup>8</sup>	200 mA	180 mA	120 mA	75 mA	60 mA	45 mA	35 mA	25 mA	20 mA	16 mA	10 mA	6 mA
<b>Output noise (p-p, 20 MHz)</b>												
Voltage	50 mV	50 mV	50 mV	50 mV	50 mV	50 mV	50 mV	80 mV	80 mV	100 mV	150 mV	250 mV
Maximum recommended remote sense Line drop compensation per line <sup>9</sup>	1 V	1 V	1 V	1.5 V	2 V	2 V	3 V	5 V	5 V	5 V	5 V	5 V
Up-prog. response time, 0-Vmax <sup>10</sup>	60 ms	60 ms	60 ms	60 ms	60 ms	60 ms	60 ms	100 ms	100 ms	100 ms	150 ms	250 ms
Down-prog. response time: full load	50 ms	50 ms	50 ms	50 ms	50 ms	50 ms	50 ms	80 ms	100 ms	150 ms	150 ms	250 ms
Down-prog. response time: no load	300 ms	400 ms	500 ms	600 ms	700 ms	800 ms	900 ms	1000 ms	1200 ms	1800 ms	2200 ms	3500 ms
Over-voltage trip point	0.5-7.5 V	0.5-10 V	1-15 V	1-24 V	2-39 V	2-44 V	3-66 V	3-95 V	3-125 V	3-180 V	5-330 V	5-660 V
Efficiency <sup>11</sup>	75/77%	77/80%	81/84%	82/85%	83/86%	83/87%	83/87%	83/87%	83/87%	83/87%	83/87%	83/87%

1. Minimum output voltage is guaranteed to be 0.2% of the rated voltage at zero output setting.  
 2. Minimum output current is guaranteed to be 0.4% of the rated current at zero output setting when measured with rated load resistance.  
 3. Total output power is also based on AUX1 Output Voltage (5 V) and AUX1 Output Current (0.5 A) and AUX2 Output Voltage (15 V) and AUX2 Output Current (0.5 A).  
 4. From 85-132 Vac or 170-265 Vac, constant load.  
 5. From 85-132 Vac or 170-265 Vac, constant load.  
 6. From no load to full load, constant input voltage.  
 7. For load voltage change, equal to the unit voltage rating, constant input voltage.  
 8. For 6 V models the ripple is measured at 2-6 V output voltage and full output current. For other models, the ripple is measured at 10-100% output voltage and full output current.  
 9. When using remote sense, the total of the load voltage and the load line drops must not exceed the rated output of the power supply. For example, for an XTR 6-110 in an application with 1 V of load line loss (0.5 V/Line), the maximum available load voltage would be 6-1 = 5 V. Note: The unit may operate at higher output voltages than this, but there is no guarantee that the power supply will meet performance specifications. Ultimately, the upper limit of the output voltage will be determined by internal circuitry of the power supply (non-adjustable).  
 10. With rated, resistive load.  
 11. At 100/200 Vac input voltage and maximum output power.  
 Applies to all footnotes:  
 Programming and readback: RS-232, RS-485, USB built in. GPIB, Ethernet optional.  
 Specifications are guaranteed from 1% to 100% of the rated output voltage, current, and power.