

XKW 1 kW

1 kW Programmable DC Power Supply in a Low Profile Chassis



Provides 1 kW of DC Power for Test and Measurement Applications

The Xantrex XKW 1 kW programmable DC power supply provides 1 kW of clean, reliable power for OEM applications where high power and a wide adjustment of output voltage or current are required in a compact configuration. The supplies are ideal for research, product development, production test, ATE, electroplating, burn-in, and other bulk power applications.

The XKW 1 kW uses high frequency conventional PWM switching to achieve high power density in a compact 19-inch rack package. The XKW 1 kW is 1.75 inches (1U) high and is available in nine models.

Product Features

- ▶ Constant voltage with automatic crossover and mode indication
- ▶ Parallel or series connection
- ▶ External shutdown, external indicator signals
- ▶ Remote/local modes
- ▶ Remote sense, 1 V line loss compensation
- ▶ Analog programming
- ▶ LabVIEW® driver

Protection Features

- ▶ Over voltage protection
- ▶ Current limit
- ▶ Over temperature protection

Options

- ▶ GPIB interface card
- ▶ Isolated interface card (ISOL)
- ▶ Locking knobs for front panel controls

Note: The XKW Series is not available for purchase in the US.

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

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Electrical Specifications ¹

Models	XKW 8-125	XKW 20-50	XKW 33-33	XKW 40-25	XKW 60-18	XKW 80-13	XKW 150-7	XKW 300-3.5	XKW 600-1.7
Output ratings:									
Output Voltage	0-8 V	0-20 V	0-33 V	0-40 V	0-60 V	0-80 V	0-150 V	0-300 V	0-600 V
Output Current	0-125 A	0-50 A	0-33 A	0-25 A	0-18 A	0-13 A	0-7 A	0-3.5 A	0-1.7 A
Output Power	1000 W	1000 W	1000 W	1000 W	1080 W	1040 W	1050 W	1050 W	1020 W
Line regulation: ²									
Voltage	1 mV	1.5 mV	1.5 mV	3 mV	3 mV	5 mV	10 mV	10 mV	20 mV
Current	10 mA	5 mA	3 mA	2 mA	2 mA	2 mA	1 mA	1 mA	1 mA
Load regulation: ³									
Voltage	3 mV	3 mV	3 mV	5 mV	5 mV	5 mV	5 mV	10 mV	20 mV
Current	20 mA	5 mA	5 mA	5 mA	5 mA	5 mA	5 mA	2 mA	1 mA
Meter accuracy:									
Voltage (0.5% of Vmax + 1 count)	0.05 V	0.2 V	0.3 V	0.3 V	0.4 V	0.5 V	0.9 V	3 V	4 V
Current (0.5% of Imax + 1 count)	0.7 A	0.4 A	0.3 A	0.2 A	0.1 A	0.08 A	0.05 A	0.03 A	0.01 A
Output noise and ripple (rms):									
Voltage rms	7.5 mV	5 mV	5 mV	5 mV	5 mV	5 mV	15 mV	15 mV	75 mV
Voltage p-p (20 Hz - 20 Mhz)	60 mV	60 mV	60 mV	60 mV	60 mV	60 mV	175 mV	175 mV	500 mV
Analog Prog. Accuracy									
Voltage (1% of Vmax)	80 mV	200 mV	330 mV	400 mV	600 mV	800 mV	1.5 V	3 V	6 V
Current (1% of Imax)	1250 mA	500 mA	330 mA	250 mA	180 mA	130 mA	70 mA	35 mA	17 mA
Drift (8 hours): ⁴									
Voltage (1% of Vmax)	4 mV	10 mV	16.5 mV	20 mV	30 mV	40 mV	75 V	150 mV	300 mV
Current (1% of Imax)	62.5 mA	25 mA	16.5 mA	12.5 mA	9 mA	6.5 mA	3.5 mA	1.75 mA	0.85 mA
Temperature coefficient: ⁵									
Voltage (0.02% of Vmax/°C)	1.6 mV	4 mV	6.6 mV	8 mV	12 mV	16 mV	30 mV	60 mV	120 mV
Current (0.03% of Imax/°C)	37.5 mA	15 mA	9.9 mA	7.5 mA	5.4 mA	3.9 mA	2.1 mA	1.05 mA	0.51 mA
OVP Adjustment Range:									
(5% to 110% of Vmax)	0.4-8.8 V	1-22 V	1.65-36.3 V	2-44 V	3-66 V	4-88 V	7.5-165 V	15-330 V	30-660 V

- Specifications indicate typical performance at 25°C ± 5°C.
- For input voltage variation over the AC input voltage range, with constant rated load.
- For 0-100% load variation, with constant nominal line voltage.
- Maximum drift over 8 hours with constant line, load, and temperature, after 90-minute warm-up.
- Change in output per °C change in ambient temperature, with constant line and load.

General Specifications

Operational AC input voltage	200-250 VAC at 26 A rms 1-phase, or 100-130 VAC at 20 A rms 1-phase, 47-63 Hz
Remote analog programming	Voltage and current programming inputs: 0-5 k, 0-10 k resistances; 0-5 V, 0-10 V voltage sources (5 V default)
Remote analog monitoring	Voltage and current monitor outputs 0-5 V, 0-10 V (default) ranges for 0-100% of output (± 1%)
Operating temperature range	32 to 122° F (0 to 50° C)
Storage temperature range	-67 to 185° F (-55 to 85° C)
Humidity range	0 to 80% RH, non-condensing
Dimensions (HxWxD)	1.7 x 19 x 17.5" (41.6 x 482.6 x 443.9 mm)
Weight	18 lb (8.2 kg)
Warranty	Five years
Regulatory approvals	CE, CSA

Note: Specifications are subject to change without notice.