

XKW 1 kW

xantrex

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.

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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.