

XKW 3 kW

3 kW Programmable DC Power Supply in a Low Profile Chassis



Provides 3 kW of DC Power for Test and Measurement Applications

The Xantrex XKW 3 kW programmable DC power supply provides 3 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 3 kW uses high frequency conventional PWM switching to achieve high power density in a compact 19-inch rack package. The supplies are 3.5 inches (2U) high and are available now in ten 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 8-350	XKW 10-300	XKW 12-250	XKW 20-150	XKW 40-75	XKW 55-55	XKW 60-50	XKW 80-37	XKW 150-20	XKW 300-10
Output ratings:										
Output Voltage	0-8 V	0-10 V	0-12 V	0-20 V	0-40 V	0-55 V	0-60 V	0-80 V	0-150 V	0-300 V
Output Current	0-350 A	0-300 A	0-250 A	0-150 A	0-75 A	0-55 A	0-50 A	0-37 A	0-20 A	0-10 A
Output Power	2800 W	3000 W	3000 W	3000 W	3000 W	3025 W	3000 W	2960 W	3000 W	3000 W
Line regulation: ²										
Voltage	2 mV	2 mV	2 mV	2 mV	2 mV	2 mV	2 mV	2 mV	7.5 mV	15 mV
Current	15 mA	15 mA	15 mA	15 mA	5 mA	2 mA	2 mA	2 mA	2 mA	2 mA
Load regulation: ³										
Voltage	5 mV	5 mV	5 mV	5 mV	5 mV	5 mV	5 mV	5 mV	5 mV	15 mV
Current	15 mA	15 mA	15 mA	15 mA	5 mA	5 mA	5 mA	5 mA	5 mA	5 mA
Meter accuracy:										
Voltage (0.5% of Vmax + 1 count)	0.05 V	0.06 V	0.07 V	0.2 V	0.3 V	0.4 V	0.4 V	0.5V	0.9 V	3 V
Current (0.5% of Imax + 1 count)	3 A	3 A	2 A	0.9 A	0.5 A	0.4 A	0.4 A	0.3 A	0.2 A	0.06 A
Output noise and ripple (rms):										
Voltage rms	10 mV	12 mV	12 mV	12 mV	15 mV	15 mV	15 mV	15 mV	20 mV	20 mV
Voltage p-p (20 Hz - 20 Mhz)	90 mV	90 mV	90 mV	90 mV	100 mV	100 mV	100 mV	150 mV	150 mV	200 mV
Analog Prog. Accuracy:										
Voltage (1% of Vmax)	80mV	100 mV	120 mV	200 mV	400 mV	550 mV	600 mV	800 mV	1.5 V	3 V
Current (1% of Imax)	3500 mA	3000 mA	2500 mA	1500 mA	750 mA	550 mA	500 mA	370 mA	200 mA	100 mA
Drift (8 hours): ⁴										
Voltage (0.05% of Vmax)	4 mV	5 mV	6 mV	10 mV	20 mV	27.5 mV	30 mV	40 mV	75 mV	150 mV
Current (0.05% of Imax)	175 mA	150 mA	150 mA	75 mA	37.5 mA	27.5 mA	25 mA	18.5 mA	10 mA	5 mA
Temperature coefficient: ⁵										
Voltage (0.02% of Vmax/°C)	1.6 mV	2 mV	2.4 mV	4 mV	8 mV	11 mV	12 mV	16 mV	30 mV	60 mV
Current (0.03% of Imax/°C)	105 mA	90 mA	75 mA	45 mA	22.5 mA	16.5 mA	15 mA	11.1 mA	6 mA	3 mA
OVP Adjustment Range: (5% to 110% of Vmax)										
	0.4-8.8 V	0.5-11 V	0.6-13.2 V	1-22 V	2-44 V	2.75-60.5 V	3-66 V	4-88 V	7.5-165 V	15-330 V

1. Specifications indicate typical performance at 25° C ± 5° C.
2. For input voltage variation over the AC input voltage range, with constant rated load.
3. For 0-100% load variation, with constant nominal line voltage.
4. Maximum drift over 8 hours with constant line, load, and temperature, after 90-minute warm-up.
5. 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 1f, or 190-250 VAC at 16 A rms 3-phase, 47-63 Hz 3-phase
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)	3.45 x 19 x 20" (87.6 x 482.6 x 508 mm)
Weight	35 lb (16 kg)
Warranty	Five years
Regulatory approvals	CE, CSA