

# 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.

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# XKW 1 kW

## 1 kW Programmable DC Power Supply in a Low Profile Chassis

### Electrical Specifications <sup>1</sup>

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
<b>Output ratings:</b>									
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
<b>Line regulation: <sup>2</sup></b>									
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
<b>Load regulation: <sup>3</sup></b>									
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
<b>Meter accuracy:</b>									
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
<b>Output noise and ripple (rms):</b>									
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
<b>Analog Prog. Accuracy</b>									
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
<b>Drift (8 hours): <sup>4</sup></b>									
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
<b>Temperature coefficient: <sup>5</sup></b>									
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
<b>OVP Adjustment Range:</b>									
(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.

# 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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# XKW 3 kW

## 3 kW Programmable DC Power Supply in a Low Profile Chassis

### Electrical Specifications <sup>1</sup>

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
<b>Output ratings:</b>										
<b>Output Voltage</b>	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
<b>Output Current</b>	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
<b>Output Power</b>	2800 W	3000 W	3000 W	3000 W	3000 W	3025 W	3000 W	2960 W	3000 W	3000 W
<b>Line regulation: <sup>2</sup></b>										
<b>Voltage</b>	2 mV	2 mV	2 mV	2 mV	2 mV	2 mV	2 mV	2 mV	7.5 mV	15 mV
<b>Current</b>	15 mA	15 mA	15 mA	15 mA	5 mA	2 mA	2 mA	2 mA	2 mA	2 mA
<b>Load regulation: <sup>3</sup></b>										
<b>Voltage</b>	5 mV	5 mV	5 mV	5 mV	5 mV	5 mV	5 mV	5 mV	5 mV	15 mV
<b>Current</b>	15 mA	15 mA	15 mA	15 mA	5 mA	5 mA	5 mA	5 mA	5 mA	5 mA
<b>Meter accuracy:</b>										
<b>Voltage (0.5% of Vmax + 1 count)</b>	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
<b>Current (0.5% of Imax + 1 count)</b>	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
<b>Output noise and ripple (rms):</b>										
<b>Voltage rms</b>	10 mV	12 mV	12 mV	12 mV	15 mV	15 mV	15 mV	15 mV	20 mV	20 mV
<b>Voltage p-p (20 Hz - 20 Mhz)</b>	90 mV	90 mV	90 mV	90 mV	100 mV	100 mV	100 mV	150 mV	150 mV	200 mV
<b>Analog Prog. Accuracy:</b>										
<b>Voltage (1% of Vmax)</b>	80mV	100 mV	120 mV	200 mV	400 mV	550 mV	600 mV	800 mV	1.5 V	3 V
<b>Current (1% of Imax)</b>	3500 mA	3000 mA	2500 mA	1500 mA	750 mA	550 mA	500 mA	370 mA	200 mA	100 mA
<b>Drift (8 hours): <sup>4</sup></b>										
<b>Voltage (0.05% of Vmax)</b>	4 mV	5 mV	6 mV	10 mV	20 mV	27.5 mV	30 mV	40 mV	75 mV	150 mV
<b>Current (0.05% of Imax)</b>	175 mA	150 mA	150 mA	75 mA	37.5 mA	27.5 mA	25 mA	18.5 mA	10 mA	5 mA
<b>Temperature coefficient: <sup>5</sup></b>										
<b>Voltage (0.02% of Vmax/°C)</b>	1.6 mV	2 mV	2.4 mV	4 mV	8 mV	11 mV	12 mV	16 mV	30 mV	60 mV
<b>Current (0.03% of Imax/°C)</b>	105 mA	90 mA	75 mA	45 mA	22.5 mA	16.5 mA	15 mA	11.1 mA	6 mA	3 mA
<b>OVP Adjustment Range: (5% to 110% of Vmax)</b>										
	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

<b>Operational AC input voltage</b>	200-250 VAC at 26 A rms 1f, or 190-250 VAC at 16 A rms 3-phase, 47-63 Hz 3-phase
<b>Remote analog programming</b>	Voltage and current programming inputs: 0-5 k, 0-10 k resistances; 0-5 V, 0-10 V voltage sources (5 V default)
<b>Remote analog monitoring</b>	Voltage and current monitor outputs 0-5 V, 0-10 V (default) ranges for 0-100% of output (± 1%)
<b>Operating temperature range</b>	32 to 122°F (0 to 50°C)
<b>Storage temperature range</b>	-67 to 185°F (-55 to 85°C)
<b>Humidity range</b>	0 to 80% RH, non-condensing
<b>Dimensions (HxWxD)</b>	3.45 x 19 x 20" (87.6 x 482.6 x 508 mm)
<b>Weight</b>	35 lb (16 kg)
<b>Warranty</b>	Five years
<b>Regulatory approvals</b>	CE, CSA