

XFR 2.8 kW

XFR 2.8 kW Programmable DC Power Supply with Zero Voltage "Soft Switching"



Provides 2.8 kW of DC Power for OEM Applications

The Xantrex XFR 2.8 kW programmable DC power supply provides clean, reliable power for research, product development, and production test applications. The supplies are ideal for OEM applications where high power and a wide adjustment of output voltage or current are required in a full 19-inch rack package.

The XFR 2.8 kW has excellent thermal management allowing for units to be stacked in rack mounts without any ventilation space required between each unit. The supplies offer high reliability with zero voltage, or "soft switching", which virtually eliminates switching transients for high efficiency, decreased heat generation, and reduced stress on the switching transistors.

Product Features

- ▶ Zero voltage "Soft Switching"
- ▶ Simultaneous front panel display of output voltage and current
- ▶ Constant voltage or constant current operation
- ▶ Standby mode
- ▶ Remote sense with 5 V line loss compensation
- ▶ LabVIEW® and LabWindows® drivers

Protection Features

- ▶ Over voltage protection
- ▶ Over temperature protection

Options

- ▶ Isolated analog control (ISOL)
- ▶ RS-232 interface card
- ▶ GPIB interface card
- ▶ GPIB-multichannel

Xantrex Technology Inc.

Headquarters
8999 Nelson Way
Burnaby, British Columbia
Canada V5A 4B5
604 422 8595 Phone
604 421 3056 Fax

5916 195th Northeast
Arlington, Washington
USA 98223
360 671 2966 Phone
360 671 3095 Fax

161-G South Vasco Road
Livermore, CA
USA 94551
925 245 5400 Phone
925 245 1022 Fax

800 667 8422 Sales & Support
prg.info@xantrex.com

XFR 2.8 kW

XFR 2.8 kW Programmable DC Power Supply with Zero Voltage “Soft Switching”

Electrical Specifications ¹										
Models	7.5-300	12-220	20-130	40-70	60-46	80-37	100-28	150-18	300-9	600-4
Output ratings										
Output Voltage	0-75 V	0-12 V	0-20 V	0-40 V	0-60 V	0-80 V	0-100 V	0-150 V	0-300 V	0-600 V
Output Current	0-300 A	0-220 A	0-130 A	0-70 A	0-46 A	0-37 A	0-28 A	0-18 A	0-9 A	0-4 A
Output Power	2250 W	2640 W	2600 W	2800 W	2760 W	2960 W	2800 W	2700 W	2700 W	2400 W
Line regulation ²										
Voltage (0.01% of Vmax + 2 mV)	2.75 mV	3.2 mV	4 mV	6 mV	8 mV		12 mV	17 mV	32 mV	62 mV
Current (0.01% of Imax + 2 mA)	32 mA	24 mA	15 mA	9 mA	6.6 mA		4.8 mA	3.8 mA	2.9 mA	2.4 mA
Load regulation ³										
Voltage (0.05% of Vmax + 5 mV)	6.5 mV	7.4 mV	9 mV	13 mV	17 mV		27 mV	35 mV	65 mV	125 mV
Current (0.05% of Imax + 5 mA)	65 mA	49 mA	31 mA	19 mA	14.2 mA		10.6 mA	8.6 mA	6.8 mA	5.8 mA
Meter accuracy										
Voltage (0.5% of Vmax + 1 count)	0.05 V	0.07 V	0.2 V	0.3 V	0.4 V		0.6 V	0.9 V	3 V	4 V
Current (0.5% of Imax + 1 count)	3 A	2 A	0.8 A	0.5 A	0.3 A		0.2 A	0.01 A	0.06 A	0.03 A
Output noise and ripple										
Voltage rms	4 mV	5 mV	6 mV	6 mV	6 mV		12 mV	15 mV	20 mV	35 mV
Voltage p-p (0-20 mHz)	50 mV	50 mV	60 mV	60 mV	60 mV		75 mV	100 mV	120 mV	200 mV
Current rms	400 mA	200 mA	100 mA	50 mA	30 mA		10 mA	5 mA	5 mA	0.7 mA
Drift (8 hours) ⁴										
Voltage (0.05% of Vmax)	3.8 mV	6 mV	10 mV	20 mV	30 mV		50 mV	75 mV	150 mV	300 mV
Current (0.05% of Imax)	150 mA	110 mA	65 mA	35 mA	23 mA		14 mA	9 mA	4.5 mA	2 mA
Temperature coefficient ⁵										
Voltage (0.02% of Vmax/°C)	1.5 mV	2.4 mV	4 mV	8 mV	12 mV		20 mV	30 mV	60 mV	120 mV
Current (0.03% of Imax/°C)	90 mA	70 mA	40 mA	25 mA	15 mA		9 mA	5.5 mA	2.7 mA	1.2 mA
Program slew rate ⁶										
Rise time	100 ms	100 ms	100 ms	100 ms	100 ms		170 ms	170 ms	170 ms	170 ms
Fall time	100 ms	100 ms	100 ms	100 ms	100 ms		170 ms	170 ms	170 ms	170 ms
OVP adjustment range (5% to 110% of Vmax)	0.3-7.5-8.25 V	0.6-13.2 V	1-22 V	2-44 V	3-66 V	4-88 V	5-110 V	7.5-165 V	15-330 V	30-660 V
Efficiency: ⁷	81%	84%	87%	86%	88%		89%	90%	90%	90%

¹ Specifications indicate typical performance at 25° C ±5°C, nominal line input of 208 VAC.

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 30-minute warm-up.

⁵ Change in output per °C change in ambient temperature, with constant line and load.

⁶ Measured at full rated output with a resistive load.

⁷ Typical efficiency at 200 VAC input and rated output power.

General Specifications

Operational AC input voltage	190-264 VAC, 1-phase (22.6 A at 208 VAC; 20.5 A at 230 VAC typical), 47-63 Hz
Switching frequency	Nominal 31 kHz (62 kHz output ripple)
Remote analog programming	Voltage and current programming inputs: 0-5 k, 0-10 k (2%) resistances; 0-5 V, 0-10 V (1%) voltage sources (10 V default)
Remote analog monitoring	Voltage and current monitor outputs 0-5 V, 0-10 V (default) ranges for 0-100% of output (1%)
Dimensions (HxWxD)	3.5 x 19.0 x 21.0" (88.9 x 429.4 x 533.5 mm)
Weight	33 lb (15 kg)
Warranty	Five years
Regulatory approvals	CE, CSA, UL

Note: Specifications are subject to change without notice.