Voltage Range
0-10 VDC to
0-600 VDC

Current Range
0-600 A to
0-10 A

XDC Series *Digital DC Power Supply*

The new digitally controlled Xantrex 6kW XDC Series represents today's state-of-the-art technology in high power, programmable DC supplies. It has been designed for rack mounted ATE and OEM use as well as "burn-in", magnet charging and "on-the-bench" test & measurement applications that require high power in a relatively small package. Packaged in a 3U (5.25 in.) high chassis, the XDC provides 20% more power than competitive 5kW products at a comparable price. An embedded controller gives the XDC a unique, menu driven "auto sequencing" capability that allows powerful and timesaving test programs to be entered and saved via the front panel. The availability of up to ten different programs of 99 steps each allows user programming of voltage sequences (steps, ramps, etc.) of varying duration to construct automated and semiautomatic test setups. A technician can single step through a sequence, run "n" times or run continuously when triggered from the front panel or remotely. This stand-alone capability allows test programming to be off loaded from other programmers and processors. Usage ranges from constructing simple voltage ramps, to battery charging and simulation of battery voltage at engine start-up, to component tests, to MIL 704E testing. Tests unique to your application are now possible using the XDC's powerful auto sequencing capability. In addition to the ten auto sequencing programs, ten store/recall registers are available for quick recall of complete setups. RS-232 is standard, as is fully isolated analog control. GPIB (IEEE 488.2 with SCPI) control is an available option. A CANbus hardware link is an option for linking multiple units together for higher current with master/slave current sharing. The GPIB/CANbus option provides multiple addressing capability and eliminates the need for multiple GPIB cards and multiple GPIB addresses. In addition to zero-voltage or "soft" switching for better noise performance, efficiency and reliability, power factor correction (PFC) assures lower input current draw and low harmonic current generation in order to meet CE requirements. The XDC offers three different front panel digital control choices. Included is a numerical keypad for fast, accurate data input, digital encoder knobs for incremental adjustments with analog feel and up/down arrow keys for menu selections or incremental adjustments. The unit has extensive self-protection mechanisms. The Xantrex XDC Series is today's smart choice for your high power requirements.

XANTREX
Smart Choice For Power

XDC

Nine models

3fl 208 VAC input (optional 3fl 342-500 VAC HV input)

Power Factor Correction (PFC)

Zero voltage "soft" switching for low noise, high efficiency and high reliability

Constant power mode

Digital processing with 16-bit control for high accuracy

Ten 99-step Auto Sequence programs for easy benchtop programming of complex test routines

Ten store/recall setup locations

Digital keypad, directional arrows and digital encoded knobs for fast and tactile front panel operation

Nine self-protection mechanisms

Isolated analog programming and readback standard

RS-232 standard

GPIB (IEEE 488.2 with SCPI) optional

LabView® and LabWindows® drivers

CANbus communications link option for multiple unit current sharing and addressing

Bright Vacuum Fluorescent Display with status annunciators, alarms and over/under trip point indication

Front panel soft calibration

Remote sense with 5 V line loss compensation

CE, CSA, UL approvals; FCC compliant

5 FIVE YEAR WARRANTY

Electrical Specifications[1] for the **XDC** *6 kW* Series (Specifications are subject to change without notice.)

Model	XDC *10-600*	XDC *20-300*	XDC *40-150*	XDC *60-100*	XDC *80-75*	XDC *100-60*	XDC *150-40*	XDC *300-20*	XDC *600-10*
Output Ratings:									
Output Voltage [2]	0-10 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 [3]	0-600 A	0-300 A	0-150 A	0-100 A	0-75 A	0-60 A	0-40 A	0-20 A	0-10 A
Output Power	6000 W	6000 W	6000 W	6000 W	6000 W	6000 W	6000 W	6000 W	6000 W
Line Regulation: [4]									
Voltage (0.01% of Vmax)	1 mV	2 mV	4 mV	6 mV	8 mV	10 mV	15 mV	30 mV	60 mV
Current (0.05% of Imax ± 5 mA)	305 mA	155 mA	80 mA	55 mA	42.5 mA	35 mA	25 mA	15 mA	10 mA
Load Regulation: [5]									
Voltage (0.05% of Vmax + 5 mV)	10 mV	15 mV	25 mV	35 mV	45 mV	55 mV	80 mV	155 mV	305 mV
Current (0.1% of Imax + 20 mA)	620 mA	320 mA	170 mA	120 mA	95 mA	80 mA	60 mA	40 mA	30 mA
Meter Accuracy:									
Voltage (0.15% of Vmax)	15 mV	30 mV	60 mV	90 mV	120 mV	150 mV	225 mV	450 mV	900 mV
Current (0.15% of Imax)	900 mA	450 mA	225 mA	150 mA	113 mA	90 mA	60 mA	30 mA	15 mA
Output Noise (0-20 MHz):									
Voltage (p-p)	75 mV	75 mV	75 mV	100 mV	100 mV	100 mV	150 mV	250 mV	350 mV
Output Ripple (rms):									
Voltage (p-p)	10 mV	10 mV	15 mV	15 mV	15 mV	20 mV	20 mV	30 mV	80 mV
Current[6]	3100 mA	1600 mA	750 mA	450 mA	320 mA	230 mA	120 mA	50 mA	25 mA
Drift (30 minutes): [7]									
Voltage (0.04% of Vmax)	4 mV	8 mV	16 mV	24 mV	32 mV	40 mV	60 mV	120 mV	240 mV
Current (0.6% of Imax)	3600 mA	1800 mA	900 mA	600 mA	450 mA	360 mA	240 mA	120 mA	60 mA
Drift (8 hours): [8]									
Voltage (0.02% of Vmax)	2 mV	4 mV	8 mV	12 mV	16 mV	20 mV	30 mV	60 mV	120 mV
Current (0.04% of Imax)	240 mA	120 mA	60 mA	40 mA	30 mA	24 mA	16 mA	8 mA	4 mA
Temperature Coefficient: [9]									
Voltage (0.04% of Vmax/°C)	4 mV	8 mV	16 mV	24mV	32 mV	40 mV	60 mV	120 mV	240 mV
Current (0.06% of Imax/°C)	360 mA	180 mA	90 mA	60 mA	45 mA	36 mA	24 mA	12 mA	6 mA
OVP Adjustment Range:									
(5% to 103% of Vmax)	0.5-10.3 V	1-20.6 V	2-41.2 V	3-61.8 V	4-82.4 V	5-103 V	7.5-154.5 V	15-309 V	30-618 V
Efficiency [10]	85%	87%	87%	89%	89%	90%	90%	91%	91%

Interface Specifications[1] for the **XDC** *6 kW* Series with RS-232 (standard) or GPIB Interface (optional) Installed (Specifications are subject to change without notice.)

Model		XDC *10-600*	XDC *20-300*	XDC *40-150*	XDC *60-100*	XDC *80-75*	XDC *100-60*	XDC *150-40*	XDC *300-20*	XDC *600-10*
Model: V		10	20	40	60	80	100	150	300	600
Model: I		600	300	150	100	75	60	40	20	10
Program Resolution (16-bit)										
Voltage (mV)	0.002%	0.2	0.4	0.8	1.2	1.6	2	3	6	12
Current (mA)	0.002%	12	6	3	2	1.5	1.2	0.8	0.4	0.2
Program Accuracy										
Voltage (mV)	0.10%	10	20	40	60	80	100	150	300	600
Current (mA)	0.15%	900	450	225	150	112.5	90	60	30	15
Readback Resolution (16-bit)										
Voltage (mV)	0.002%	0.2	0.4	0.8	1.2	1.6	2	3	6	12
Current (mA)	0.002%	12	6	3	2	1.5	1.2	0.8	0.4	0.2
Power (W)	0.005%	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Readback Accuracy										
Voltage (mV)	0.15%	15	30	60	90	120	150	225	450	900
Current (mA)	0.30%	1800	900	450	300	225	180	120	60	30
Power (W)	0.5%	30	30	30	30	30	30	30	30	30

1 All electrical specifications are represented at the full operating temperature range for all models, unless otherwise stated.
2 Minimum output voltage is <0.15% of rated voltage at zero output setting for 10 V, 20 V, 40 V, 60 V, 80 V, and 100 V models and <0.3% for 150 V, 300 V, and 600 V models.
3 Minimum output current is <0.2% of rated current at zero setting when measured with rated load resistance.
4 For input voltage variation over the AC input voltage range, with constant rated load.
5 For 0-100% load variation, with constant nominal line voltage.
6 Current mode noise is measured from 10% to 100% of rated output voltage, full current, unit in current mode.
7 Maximum drift over 30 minutes with constant line, load, and temperature, after power up.
8 Maximum drift over 8 hours with constant line, load, and temperature, after 30 minute warm-up.
9 Change in output per °C change in ambient temperature, with constant line and load.
10 Typical efficiency at nominal input voltage and full output power.

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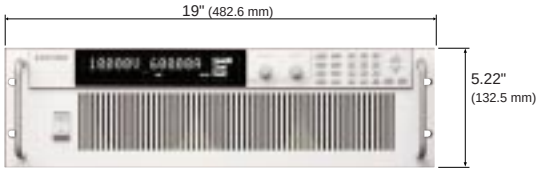
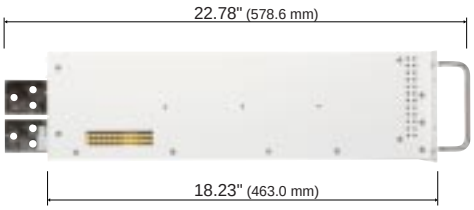
XANTREX

FIVE YEAR WARRANTY





XDC 6 kW General Specifications (Specifications are subject to change without notice.)

Operational AC Input Voltage	3ϕ 190-242 VAC (optional 3ϕ 342 - 500 VAC) 3 wire and safety ground, 47-63 Hz
Switching Frequency	Nominal 35 kHz (70 kHz output ripple)
Time Delay	5 s maximum from power on until output stable
Voltage Mode Transient Response Time	<3 ms for output voltage to recover within 0.75% of its rated voltage after a step change in load current from 50% to 100% of rated output or from 100% to 50%
Maximum Voltage Differential	±600 VDC from output to safety ground
Remote On/Off and Interlock	4-15 V signal or TTL-compatible input, selectable logic
Remote Analog Programming	Voltage and current programming inputs; 0-5 V, 0-10 V (default) voltage sources. Inputs galvanically isolated from supply output
Remote Analog Monitoring	Voltage and current monitor outputs 0-5 V, 0-10 V (default) ranges for 0-100% of output. Galvanically isolated from supply output.
Remote Programming and Monitoring Accuracy	<±0.3% of full scale output
Maximum Remote Sense Line Drop Compensation	5 V/line (Line drop is subtracted from total voltage available at supply output.)
Operating Temperature Range	0 to 50° C
Storage Temperature Range	–40 to 85° C
Humidity Range	30 to 95% RH, non-condensing
Front Panel Voltage and Current Control	Rotary encoder knobs or keypad entry
Front Panel Voltage Control Resolution	0.002% with keypad
AC Input Connector Type	4-terminal, wire clamp connector with strain relief cover
Main Output Connector	10 V to 100 V models: nickel-plated copper bus bars with bus bar shield; 150 V to 600 V models: 4-terminal wire clamp connector with strain relief
Weight (one unit)	Approximately 34 kg (70 lb.)
Approvals	CE-marked units meet IEC 1010-1 safety standard and EN50081-2 and EN50082-2 EMC standards. Additional standards: CSA C22.2 No. 1010.1, UL 3111-1, and FCC, part 15, Class A EMI standard, CSA certified, UL listed.

Consult the Operating Manual for complete product specifications.

XDC 6 kW Options	**GPIB-XDC**	Multi-channel GPIB Interface card (16-bit)
	CAN-XDC	Multi-channel CANbus interface
	HV-Input	3ϕ 342-500 VAC 3 wire and safety ground, 47-63 Hz

Contact Xantrex for custom voltage and current combinations and other options.