

XT

Voltage Range

0-7 VDC to
0-250 VDC

Current Range

0-6 A to
0-0.25 A



The XT Series provides **60 watts** of programmable **linear** DC power in a **quarter-rack** package. A proven product introduced in 1983, the XT is the smart choice for both bench top and system applications where up to 60 watts of programmable, clean DC power is required. Internal analog, GPIB (IEEE 488), and RS-232 interface options make the XT a preferred source for system development and test. This series is available in **singles, duals, triples, and quads** in a single package for **benchtop** use. For systems applications, multiple units can also be rack mounted in one to four unit configurations for up to **four independent 60 watt outputs**. Further, the 60 watt XT can be combined in mix-and-match rack combinations with the 300 watt HPD Series units. The XT Series is also the smart choice for **OEM** applications where wide adjustment of output voltage or current is required for up to 60 watts in a compact package.

Seven models

Very low noise and ripple

Excellent line/load regulation

Fast transient response

Constant voltage or constant current mode, automatic crossover, and mode indication

Current limit

Optional internal analog programming includes OVP

Optional internal 16-bit GPIB (IEEE-488) and RS-232 control interface cards

Remote sense

CE, CSA approvals



Four Units Rack Mounted

Electrical Specifications¹ for the XT60 W Series (Specifications are subject to change without notice.)

Model	XT 7-6	XT 15-4	XT 20-3	XT 30-2	XT 60-1	XT 120-0.5	XT 250-0.25
Output Ratings:							
Output Voltage	0-7 V	0-15 V	0-20 V	0-30 V	0-60 V	0-120 V	0-250 V
Output Current	0-6 A	0-4 A	0-3 A	0-2 A	0-1 A	0-0.5 A	0-0.25 A
Output Power	42 W	60 W	60 W	60 W	60 W	60 W	60 W
Line Regulation:²							
Voltage (0.01% of V _{max} + 2 mV)	2.7 mV	3.5 mV	4 mV	5 mV	8 mV	14 mV	27 mV
Current (0.01% of I _{max} + 250 µA)	0.85 mA	0.65 mA	0.55 mA	0.45 mA	0.35 mA	0.3 mA	0.275 mA
Load Regulation:³							
Voltage (0.01% of V _{max} + 2 mV)	2.7 mV	3.5 mV	4 mV	5 mV	8 mV	14 mV	27 mV
Current (0.01% of I _{max} + 250 µA)	0.85 mA	0.65 mA	0.55 mA	0.45 mA	0.35 mA	0.3 mA	0.275 mA
Output Noise & Ripple (20 Hz-20 MHz):							
Voltage	<1 mVrms	<1 mVrms	<1 mVrms	<1 mVrms	<1 mVrms	<1 mVrms	<5 mVrms
Current	<2 mArms	<2 mArms	<2 mArms	<2 mArms	<2 mArms	<2 mArms	<1 mArms
Meter Accuracy:							
Voltage (1% of V _{max} + 1 count)	0.08 V	0.25 V	0.3 V	0.4 V	0.7 V	2.2 V	3.5 V
Current (1% of I _{max} + 1 count)	0.07 A	0.05 A	0.04 A	0.03 A	0.02 A	0.006 A	0.003 A
Drift (8 hours):⁴							
Voltage (0.02% of V _{max})	1.4 mV	3 mV	4 mV	6 mV	12 mV	24 mV	50 mV
Current (0.03% of I _{max})	1.8 mA	1.2 mA	0.9 mA	0.6 mA	0.3 mA	0.15 mA	0.075 mA
Temperature Coefficient:⁵							
Voltage (0.015% of V _{max} /°C)	1.05 mV	2.25 mV	3 mV	4.5 mV	9 mV	18 mV	37.5 mV
Current (0.02% of I _{max} /°C)	1.2 mA	0.8 mA	0.6 mA	0.4 mA	0.2 mA	0.1 mA	0.05 mA

Interface Specifications¹ for the XT60 W Series with RS-232 or GPIB Interface Installed (Specifications are subject to change without notice.)

Model	XT 7-6	XT 15-4	XT 20-3	XT 30-2	XT 60-1	XT 120-0.5	XT 250-0.25
Program Resolution (16-bit)							
Voltage (mV)	0.12	0.25	0.34	0.5	1.01	2.01	4.2
Current (mA)	0.1	0.07	0.05	0.03	0.02	0.01	0.01
OVP (mV)	0.12	0.25	0.34	0.5	1.01	2.01	4.2
Program Accuracy							
Voltage (mV) (0.2%+10 mV)	24	40	50	70	130	250	510
Current (mA) (0.3%+10 mA)	28	22	19	16	13	11.5	10.8
OVP (mV) (0.5%+100 mV)	135	175	200	250	400	700	1350
Readback Resolution (16-bit)							
Voltage (mV)	0.12	0.25	0.34	0.5	1.01	2.01	4.2
Current (mA)	0.1	0.07	0.05	0.03	0.02	0.01	0.01
Readback Accuracy							
Voltage (mV) (0.2%+20 mV)	34	50	60	80	140	260	520
Current (mA) (0.3%+20 mA)	38	32	29	26	23	21.5	21

1 Specifications indicate typical performance at 25° C ± 5° C, nominal line input of 115 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.

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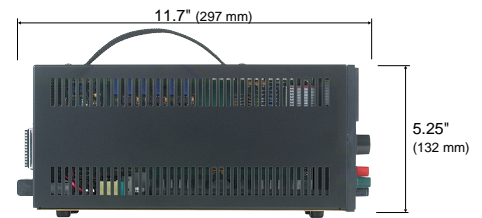
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Optional GPIB Interface Card



Optional RS-232 Interface Card



Optional APG Interface Card

XT 60 W General Specifications (Specifications are subject to change without notice.)

Operational AC Input Voltage	Standard: 115 VAC $\pm 10\%$, 57-63 Hz; Optional: 110/220/230/240 VAC $\pm 10\%$, 47-63 Hz
AC Input Current	Single Unit: 1.2 A, Dual Unit: 2.4 A, Triple Unit: 3.6 A, Quad Unit: 4.8 A, at 115 VAC
Voltage Mode Transient Response Time	<100 μ s recovery to 0.05% band, $\pm 50\%$ load change in the range of 25% to 100% of the rated load
Operating Ambient Temperature	0 to 30° C for full rated output. Above 30° C, derate output linearly to zero at 70° C
Storage Temperature Range	-55 to 85° C
Humidity Range	0 to 80% RH, non-condensing
Front Panel Voltage and Current Control	10-turn voltage and 1-turn current potentiometers (10-turn current optional)
Front Panel Voltage Control Resolution	0.02% of maximum voltage
AC Input Connector Type	IEC 320 connector
Weight (one unit)	Approximately 4.3 kg (9.5 lb.)
Approvals	CE-marked units meet standards: EN55011 (Group 1 Class A) 1991, EN50081-1 1992 and EN50082-1 1992, (IEC 1010-1:1990), CSA certified

Analog Programming With optional APG interface installed

Remote Start/Stop and Interlock	2.5-15 V signal or TTL-compatible input, selectable logic
Remote Analog Programming Option	0-10 VDC for 0-100% or rated voltage or current $\pm 0.1\%$, 0-10 k Ω for 0-100% of rated voltage or current $\pm 0.1\%$
Remote Monitoring	0-10 VDC for 0-100% of rated voltage or current $\pm 0.1\%$
Over Voltage Protection Trip Range	3 V to full output +10%
Remote ON/OFF	2 to 25 VDC high; <0.8 VDC low; User-selectable logic
Tracking Accuracy	$\pm 1\%$ for series operation

Consult the Operating Manual for complete product specifications.

XT 60 W Options	Options	Description
GPIB-XT	GPIB Interface card (16-bit)	
RS-232-XT	RS-232 Interface card (16-bit)	
APG-XT	Analog programming interface card	
M1 110	110 VAC Input (50/60 Hz)	
M2 220	220 VAC Input (50/60 Hz)	
M3 230	230 VAC Input (50/60 Hz)	
M4 240	240 VAC Input (50/60 Hz)	
M11	10-turn current potentiometer	
M13	Locking bushings for front panel controls	
M43	Switch Selectable Input 110 VAC or 220 VAC	
RM-XHS	19-inch rack mount kit for up to four XT or HPD power supplies	

Contact Xantrex for custom voltage and current combinations, dual configurations, and other options.