

HPD

Voltage Range

0-15 VDC to

0-60 VDC

Current Range

0-20 A to

0-5 A



The Xantrex **HPD** Series stands for "**High Power Density**". **300 watts** in a **quarter-rack-wide** chassis represents the highest power density available for a DC power supply in this power range. The HPD uses switch-mode technology combined with linear post regulation to provide performance comparable to an all linear design. Excellent line and load regulation is matched by low noise and good transient response. This series is available in **singles and duals** 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 300 watt outputs**. Further, the 300 watt HPD can be combined in mix and match rack combinations with the quarter-rack 60 watt XT Series units. The **small size** and **high power density** of the HPD Series also makes it the smart choice for **OEM** applications where wide adjustment of output voltage or current is required in a compact package, providing up to 300 watts of clean power.

HPD

Three models

Smallest 300 watt programmable power supply available

Low noise and ripple

Excellent line/load regulation

Constant voltage or constant current operation with automatic crossover and mode indication

Current limit

Optional internal analog programming, 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 HPD300 W Series (Specifications are subject to change without notice.)

Model	HPD 15-20	HPD 30-10	HPD 60-5
Output Ratings:			
Output Voltage	0-15 V	0-30 V	0-60 V
Output Current	0-20 A	0-10 A	0-5 A
Output Power	300 W	300 W	300 W
Line Regulation:²			
Voltage (0.01% of Vmax + 2 mV)	3.5 mV	5 mV	8 mV
Current (0.01% of Imax + 1 mA)	3 mA	2 mA	1.5 mA
Load Regulation:³			
Voltage (0.01% of Vmax + 2 mV)	3.5 mV	5 mV	8 mV
Current (0.01% of Imax + 1 mA)	3 mA	2 mA	1.5 mA
Meter Accuracy:			
Voltage (1% of Vmax + 1 count)	0.25 V	0.4 V	0.7 V
Current (1% of Imax + 1 count)	0.3 A	0.2 A	0.06 A
Output Noise & Ripple:			
rms	5 mV	5 mV	5 mV
p-p (0-20 MHz)	100 mV	100 mV	100 mV
Drift (8 hours):⁴			
Voltage (0.02% of Vmax)	3 mV	6 mV	12 mV
Current (0.03% of Imax)	6 mA	3 mA	1.5 mA
Temperature Coefficient:⁵			
Voltage (0.015% of Vmax/°C)	2.25 mV	4.5 mV	9 mV
Current (0.02% of Imax/°C)	4 mA	2 mA	1 mA

Interface Specifications¹ for the HPD300 W Series with RS-232 or GPIB Interface Installed (Specifications are subject to change without notice.)

Model	HPD 15-20	HPD 30-10	HPD 60-5
Program Resolution (16-bit)			
Voltage (mV)	0.25	0.5	1.01
Current (mA)	0.34	0.17	0.08
OVP (mV)	0.25	0.5	1.01
Program Accuracy			
Voltage (mV) (0.2%+10 mV)	40	70	130
Current (mA) (0.3%+10 mA)	70	40	25
OVP (mV) (0.5%+100 mV)	175	250	400
Readback Resolution (16-bit)			
Voltage (mV)	0.25	0.5	1.01
Current (mA)	0.34	0.17	0.08
Readback Accuracy			
Voltage (mV) (0.2%+20 mV)	50	80	140
Current (mA) (0.3%+20 mV)	80	50	35

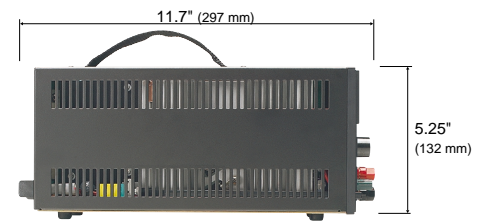
- Specifications indicate typical performance at 25° C ± 5° C, nominal line input of 120 VAC.
- For input voltage variation over the AC input voltage range, with constant rated load.
- For 0-100% load variation, with constant nominal line voltage.
- Maximum drift over 8 hours with constant line, load, and temperature, after 60-minute warm-up.
- Change in output per ° C change in ambient temperature, with constant line and load.

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XANTREX

HPD300 W



Optional GPIB Interface Card



Optional RS-232 Interface Card



Optional APG Interface Card

HPD 300 W General Specifications (Specifications are subject to change without notice.)

Operational AC Input Voltage	Single unit: 104-127 VAC at 6 Arms; Dual Unit: 104-127 VAC at 12 Arms, 47-63 Hz
Switching Frequency	Nominal 100 kHz
Voltage Mode Transient Response Time	<500 μ s recovery to 50 mV band for \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 3.5 kg (7.7 lb.)
Approvals	CE-marked units meet standards: EN55011 (Group 1 Class A), EN50081-2, EN50082-1, and IEC 1010-1, NRTL/C, 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% of rated voltage or current \pm 1.0%, 0-10 k Ω for 0-100% of rated voltage or current \pm 1.0%
Remote Monitoring	0-10 VDC for 0-100% or rated voltage or current \pm 1.0%
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.

HPD 300 W Options	GPIB-HPD	GPIB Interface card (16-bit)
	RS-232-HPD	RS-232 Interface card (16-bit)
	APG-HPD	Analog programming interface card
	M2	200-250 VAC Input (50/60 Hz)
	M2S	Switch selectable input 110 VAC or 220 VAC
	M11	10-turn current potentiometer
	M13	Locking bushings for front panel controls
	RM-XHS	19-inch rack mount kit for up to 4-HPD or XT power supplies

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