

T3PS3000 Data Sheet

Programmable DC Power Supply

Power with Confidence

**32 Volts –
3.2 Amps –
220 Watts**



Tools for Improved Debugging

- **3 Independent isolated outputs** – 32 V/3.2 Ax2, 2.5 V/3.3 V/5 V 3.2 Ax1, total 220 W.
 - ✓ More application coverage from a single power supply.
- **High Resolution, High Precision Output** – 5 digits Voltage, 4 digits Current Display, Minimum Resolution: 1 mV/1 mA.
 - ✓ Excellent setting and read back accuracy.
- **3 output modes:** Series, Parallel and Independent.
 - ✓ Combine two channels into one for greater power output flexibility.
- **4.3 inch (10.92 cm) color TFT-LCD 480 x 272 display.**
 - ✓ Clear and flexible display aids ease of use.
- **Graphical display interface with waveform display function.**
 - ✓ View waveform shape and timing settings.
- **Intelligent temperature controlled cooling fan.**
 - ✓ Quieter operation by reducing fan speed during low load usage.

Key Specifications

Independent Output Operation	0 V – 32 V, 3.2 A x 2, 2.5V/3.3 V/5 V x 1, 3.2 A
Parallel Output Operation	0 V – 32 V, 6.4 A x 1, 2.5 V/3.3 V/5 V x 1, 3.2 A
Series Output Operation	0 V – 64 V, 3.2 A x 1, 2.5 V/3.3 V/5 V x 1, 3.2 A
Maximum Power	220 Watts
Connectivity	USB Device, LAN
Remote Control	SCPI, LabView Driver

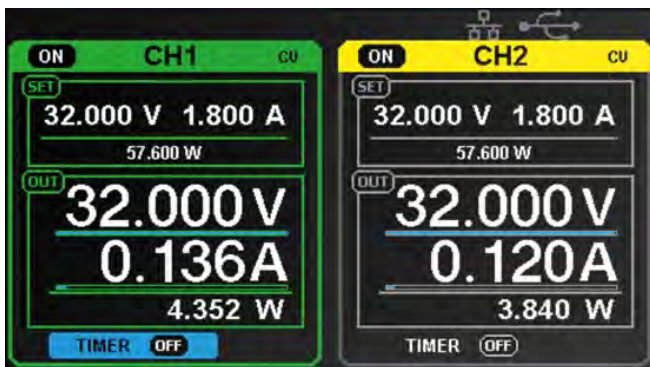
PRODUCT OVERVIEW

Teledyne Test Tools new T3PS3000 is a Linear Programmable DC Power Supply with a 4.3 inch TFT LCD display. It has three isolated outputs: two adjustable channels and one selectable channel from 2.5 V, 3.3 V, and 5 V with output short and overload protection for each channel. Support for series and parallel operation of the two main channels extends its flexibility beyond the standard specification. The T3PS3000 features include programmability via USB or LAN, a graphical display of power waveforms, and the high resolution numeric display of voltage and current. Typical users are Education, Production, and Design and Development.

FUNCTIONS AND CHARACTERISTICS

High Resolution and High Precision Output

The highest resolution of 1 mV / 1 mA provides excellent setting and read back accuracy. This ensures accurate output even with very small changes in voltage or current.



Series / parallel / independent output configurations

Teledyne Test Tools T3PS3000 supports series and parallel output configurations allowing the two main channels to be combined into one output with more power output capability, extending the application range. Alternatively each output can be used independently giving the T3PS3000 maximum configuration flexibility and the widest range of application support.



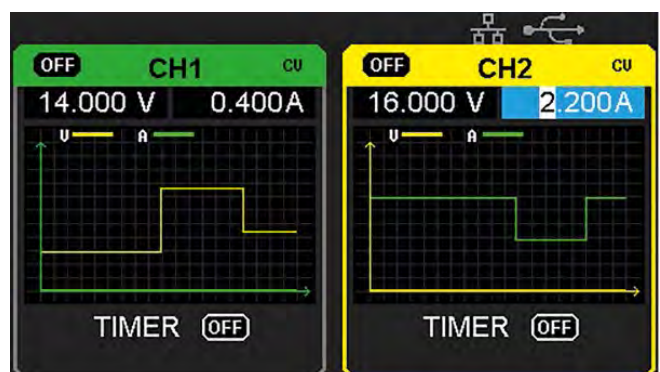
Series output mode



Parallel output mode

T3PS3000 displays output waveforms and data tables

Through front panel operation, 5 groups of timing settings and output control settings can be displayed on the built in color TFT LCD display, which provides users a simple power programming function and visual indication of output waveform shape. Further control is available via USB or LAN connection to a PC, providing a full range of communication and control capability.



SPECIFICATIONS

T3PSU3000

Channel	CH1 output voltage: 0 ~ 32 V, output current: 0 ~ 3.2 A	
	CH2 output voltage: 0 ~ 32 V, output current: 0 ~ 3.2 A	
	CH3 output voltage: 2.5 / 3.3 / 5.0 V, output current: 3.2 A	
Display	4.3 inch color TFT-LCD 5 digits voltage 4 digits current	
Resolution	1 mV / 1 mA	
Program Accuracy	Voltage $\pm$ (0.03 % of reading + 10 mV) Current $\pm$ (0.3 % of reading + 10 mA)	
Readback Accuracy	Voltage $\pm$ (0.03 % of reading + 10 mV) Current $\pm$ (0.3 % of reading + 10 mA)	
Constant Voltage Mode	Line Regulation	$\leq 0.01 \% + 3 \text{ mV}$
	Load Regulation	$\leq 0.01 \% + 3 \text{ mV}$
	Ripple & Noise	$\leq 1 \text{ mVrms}$ (5 Hz ~ 1 MHz)
	Recovery Time	$< 50 \mu\text{s}$ (50 % load change, minimum load 0.5 A)
Constant Current Mode	Line Regulation	$\leq 0.2 \% + 3 \text{ mA}$
	Load Regulation	$\leq 0.2 \% + 3 \text{ mA}$
	Ripple & Noise	$\leq 3 \text{ mArms}$
Parallel Mode	Line Regulation	$\leq 0.01 \% + 3 \text{ mV}$
	Load Regulation	$\leq 0.01 \% + 3 \text{ mV}$
Series Mode	Line Regulation	$\leq 0.01 \% + 5 \text{ mV}$
	Load Regulation	$\leq 300 \text{ mV}$
CH3	Output Voltage	$(2.5 / 3.3 / 5 \text{ V}) \pm 8 \%$
	Line Regulation	$\leq 0.01 \% + 3 \text{ mV}$
	Load Regulation	$\leq 0.01 \% + 3 \text{ mV}$
	Ripple & Noise	$\leq 1 \text{ mVrms}$ (5 Hz ~ 1 MHz)
Locking Key	Yes	
Memory Save / Recall	5 Sets	
Max Output Power	220 W	
Power Source	AC 100 V / 120 V / 220 V / 230 V $\pm 10 \%$ 50/60 Hz	
Standard Configuration Interface	USB Device, LAN	
Insulation	Case to Terminal $\geq 20 \text{ M}\Omega$ (DC 500 V)	
	Case to AC line $\geq 30 \text{ M}\Omega$ (DC 500 V)	
Operating Environment	Outdoor Usage: Elevation: $\leq 2000 \text{ m}$, Environment Temperature $0 \sim 40^\circ\text{C}$ Relative Humidity $\leq 80 \%$, Installation Level: II, Pollution Level: 2	
Storage Environment	Environment Temperature: $-10 \sim 70^\circ\text{C}$, Relative Humidity $\leq 70 \%$	
Dimension	225 (W) $\times$ 143 (H) $\times$ 278 (D) mm	
Weight	$\approx 8.0 \text{ kg}$	

Ordering information

Product Name	T3PS3000: 3 channels independent output, min resolution 1 mV / 1 mA, USB Device & LAN, 4.3 inch LCD display
Standard Accessories	USB Cable -1
	Quick Start -1
	Product Certificate -1
	Calibration Certificate -1
	Power cord -1
	Output Test Cord -2 Sets