

# Power Supplies Data Sheet

## Single, Dual, Triple and Quad Output

### Broad Product Range

**Current: Up to 6 Amps**

**Voltage: Up to 64 Volts**

**Power: Up to 217 Watts**



### Tools for Improved Debugging

- Models with from 1 to 4 outputs. ✔ Flexible choice of outputs to meet your DUT needs.
- Cutting edge Linear DC Power Supply Design. ✔ Improved power supply specifications meets your low noise power needs.
- Ch1 and Ch2 support Constant Voltage and Constant Current Operation. ✔ Flexible voltage and current output configurations for a broader application coverage.
- Low acoustic fan noise with automatic fan speed control circuit. ✔ Minimise the fan "on time" and fan noise in the users work environment.
- Remote Output On/Off Control (not programmable). ✔ Turn the output On or Off from an external device.
- Only 210 mm Wide x 155 mm High x 306 mm Deep. Weight Approx. 7 kg. ✔ High power/high performance whilst take up the minimum of bench space.

### Models and Characteristics

T3PS13206	Ch1	0–32 V / 0–6 A	No C.V. or C.C. mode.
T3PS23203	Ch1 / Ch2	0–32 V / 0–3 A	Support for C.V. and C.C. Modes
T3PS33203	Ch1 / Ch2	0–32 V / 0–3 A	Ch1 / Ch2 support for C.V. and C.C. Modes
	Ch3	5 V / 0–5 A	
T3PS43203	Ch1 / Ch2	0–32 V / 0–3 A	Ch1 / Ch2 support for C.V. and C.C. Modes
	Ch3	0–5 V / 0–1 A	
	Ch4	0–15 V / 0–1 A	

# MULTIPLE OUTPUT LINEAR D.C. POWER SUPPLY



Rear Panel

## T3PSXXXXX Series

- 1/2/3/4 Independent Isolated Output
- 4.3 Inch LCD Display
- Setting & Read Back Resolution 100 mV / 10 mA<sup>1)</sup>
- Output On/off
- Analog Control (Remote I/O) For Output ON/OFF
- Set View Function For Checking an Original V/I Setting During Output On
- Key Lock Function
- Tracking Series And Parallel Operation
- Smart Cooling Fan Achieving Low Noise

The T3PSXXXXX Series is cutting edge, economical linear DC Power supplies. The T3PSXXXXX Series features output power from 192 to 217 watts, up to four independent isolated output channels, high resolution, low noise, high reliability, and compact size.

The T3PSXXXXX Series has a built-in digital panel control design to replace conventional control method. This unique design allows the T3PSXXXXX Series linear DC power supply to provide users with more efficient functionalities, including set view and key lock so as to

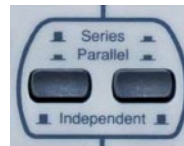
expedite the operation process. The key lock function protects DUTs by preventing others from changing voltage and current parameters. Additionally, output key light facilitates users in clearly reading the operational status of power supply.

## Applications

- Laboratories and Educational Facilities
- Product Testing and Quality Assurance
- Service Operation and Post-Sales Support
- Product Development and Debugging

### Tracking Series and Parallel Operation

In addition to independent output channels, the T3PSXXXXX Series provides tracking series and parallel operation (For T3PS23203/T3PS33203/T3PS43203). The series and parallel connections allow power supplies to output 32 V / 6 A (Parallel Connection) and 64 V / 3 A (Series Connection).



Internal connection for tracking Series and Parallel operation via control panel

### Convenient Function

The T3PSXXXXX Series has a built-in set view and key lock so as to expedite the operation process. The key lock function protects DUTs by preventing others from changing voltage/current parameters.



The key lock function prevent DUTs from unnecessary damages caused by mis-operation.

### Remote I/O for output On/Off function

The T3PSXXXXX Series also provides the analog control (Remote I/O) function for external output On/Off control.



For controlling the output On/Off function through the specific pin assignment of remote control connector which is in rear panel.

## Ordering Information

<b>Model</b>	<b>T3PS13206</b>	Single Channel, 192 W Linear DC Power Supply
	<b>T3PS23203</b>	2 Channels, 192 W Linear DC Power Supply
	<b>T3PS33203</b>	3 Channels, 217 W Linear DC Power Supply
	<b>T3PS43203</b>	4 Channels, 212 W Linear DC Power Supply
<b>Accessories</b>	User Manual (CD) x 1; Power Cord x 3	
	<b>T3PS13206</b>	Test Lead GTL-104 A x 1; GTL-105 x 1; or European GTL-204 A x 1, GTL-203 A x 1
	<b>T3PS23203</b>	Test Lead GTL-104 A x 2; or European GTL-204 A x 2
	<b>T3PS33203</b>	Test Lead GTL-104 A x 3; or European GTL-204 A x 3
	<b>T3PS43203</b>	Test Lead GTL-104 A x 2; GTL-105 A x 2 or European GTL-204 A x 2, GTL-203 A x 2

Warranty: 3 Years return to Teledyne LeCroy.

# SPECIFICATIONS

Model	T3PS43203				T3PS33203			T3PS23203		T3PS13206
-------	-----------	--	--	--	-----------	--	--	-----------	--	-----------

## Output Mode

Number of Channel	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH1	CH2	CH1
Voltage	0 ~ 32 V	0 ~ 32 V	0 ~ 5 V	0 ~ 15 V	0 ~ 32 V	0 ~ 32 V	5 V	0 ~ 32 V	0 ~ 32 V	0 ~ 32 V
Current	0 ~ 3 A	0 ~ 3 A	0 ~ 1 A	0 ~ 1 A	0 ~ 3 A	0 ~ 3 A	5 A	0 ~ 3 A	0 ~ 3 A	0 ~ 6 A
Tracking Series Voltage	0 ~ 64 V		-		0 ~ 64 V		-	0 ~ 64 V		-
Tracking Parallel Current	0 ~ 6 A		-		0 ~ 6 A		-	0 ~ 6 A		-

## Constant Voltage Operation

Line Regulation	$\leq 0.01\% + 3\text{ mV}$
Load Regulation	$\leq 0.01\% + 3\text{ mV}$ (rating current $\leq 3\text{ A}$ ); $\leq 0.02\% + 5\text{ mV}$ (rating current $> 3\text{ A}$ )
Ripple & Noise	$\leq 1\text{ mVrms}$ (5 Hz ~ 1 MHz)
Recovery Time	$\leq 100\text{ }\mu\text{s}$ (50 % Load Change, minimum load 0.5 A)

## Constant Current Operation

Line Regulation	$\leq 0.2\% + 3\text{ mA}$
Load Regulation	$\leq 0.2\% + 3\text{ mA}$
Ripple & Noise	$\leq 3\text{ mArms}$

## Tracking Operation (CH1, CH2)

Tracking Error	$\leq 0.1\% + 10\text{ mV}$ of Master (0 ~ 32 V) No Load, with Load add load regulation $\leq 100\text{ mV}$
Parallel Regulation	Line: $\leq 0.01\% + 3\text{ mV}$ Load: $\leq 0.01\% + 3\text{ mV}$ (rating current $\leq 3\text{ A}$ ); $\leq 0.02\% + 5\text{ mV}$ (rating current $> 3\text{ A}$ )
Series Regulation	Line: $\leq 0.01\% + 5\text{ mV}$
Ripple & Noise	Load: $\leq 100\text{ mV}$

## CH3 Operation For (T3PS33203)

Output Voltage	5.0 V, $\pm 5\%$
Output Current	5 A
Line Regulation	$\leq 3\text{ mV}$
Load Regulation	$\leq 5\text{ mV}$
Ripple & Noise	1 mVrms (5 Hz ~ 1 MHz)

## Meter

Voltage Resolution	100 mV <sup>1)</sup>
Current Resolution	10 mA <sup>1)</sup>
Setting Accuracy	Voltage $\pm (0.1\% \text{ of reading} + 30\text{ mV})$ ; Current $\pm (0.3\% \text{ of reading} + 6\text{ mA})$
Readback Accuracy	Voltage $\pm (0.1\% \text{ of reading} + 30\text{ mV})$ ; Current $\pm (0.3\% \text{ of reading} + 6\text{ mA})$

## Insulation

Chassis and Terminal	20 M $\Omega$ or above (DC 500 V)
Chassis and AC Cord	30 M $\Omega$ or above (DC 500 V)

## Environment Condition

Operation Temp	0 ~ 40 °C
Storage Temp	-10 ~ 70 °C
Operating Humidity	$\leq 80\%$ RH
Storage Humidity	$\leq 70\%$ RH

## Other

Power Source	AC 100 V / 120 V / 220 V $\pm 10\%$ ; 230 V (+10% ~ -6%); 50 / 60 Hz
Dimensions & Weight	210 (W) x 155 (H) x 306 (D) mm; Approx. 7 kg

<sup>1)</sup> For a higher resolution (10 mV / 1 mA), please follow the setting procedure of the user manual on p 35.  
When using a higher resolution, the current or voltage adjustment may be limited by the knob sensitivity.

Specifications subject to change without notice.

# ABOUT TELEDYNE TEST TOOLS



## Company Profile

Teledyne LeCroy is a leading provider of oscilloscopes, protocol analyzers and related test and measurement solutions that enable companies across a wide range of industries to design and test electronic devices of all types. Since our founding in 1964, we have focused on creating products that improve productivity by helping engineers resolve design issues faster and more effectively. Oscilloscopes are tools used by designers and engineers to measure and analyze complex electronic signals in order to develop high-performance systems and to validate electronic designs in order to improve time to market.

The Teledyne Test Tools brand extends the Teledyne LeCroy product portfolio with a comprehensive range of test equipment solutions. This new range of products delivers a broad range of quality test solutions that enable engineers to rapidly validate product and design and reduce time-to-market. Designers, engineers and educators rely on Teledyne Test Tools solutions to meet their most challenging needs for testing, education and electronics validation.

## Location and Facilities

Headquartered in Chestnut Ridge, New York, Teledyne Test Tools and Teledyne LeCroy has sales, service and development subsidiaries in the US and throughout Europe and Asia. Teledyne Test Tools and Teledyne LeCroy products are employed across a wide variety of industries, including semiconductor, computer, consumer electronics, education, military/aerospace, automotive/industrial, and telecommunications.

Distributed by:

## Teledyne LeCroy (US Headquarters)

700 Chestnut Ridge Road  
Chestnut Ridge, NY. USA 10977-6499

Phone: 800-553-2769 or 845-425-2000  
Fax Sales: 845-578-5985  
Phone Support: 1-800-553-2769  
Email Sales: [contact.corp@teledynelecroy.com](mailto:contact.corp@teledynelecroy.com)  
Email Support: [support@teledynelecroy.com](mailto:support@teledynelecroy.com)  
Web Site: <http://teledynelecroy.com/>

World wide support contacts can be found at:  
<https://teledynelecroy.com/support/contact>

World wide instrument service can be found at:  
<https://teledynelecroy.com/support/service.aspx>

RoHS and WEEE information can be found at:  
<https://teledynelecroy.com/support/rohs.aspx>

## Teledyne LeCroy (European Headquarters)

**Teledyne LeCroy GmbH**  
Im Breitenspiel 11c  
D-69126 Heidelberg, Germany

Phone: +49 6221 82700  
Fax: +49 6221 834655  
Phone Service: +49 6221 8270 85  
Phone Support: +49 6221 8270 28  
Email Sales: [contact.gmbh@teledynelecroy.com](mailto:contact.gmbh@teledynelecroy.com)  
Email Service: [service.gmbh@teledynelecroy.com](mailto:service.gmbh@teledynelecroy.com)  
Email Support: [tlc.t3.appsupport.eu@teledyne.com](mailto:tlc.t3.appsupport.eu@teledyne.com)  
Web Site: <http://teledynelecroy.com/>

[teledynelecroy.com](http://teledynelecroy.com)

