

Multiple Output Linear DC Power Supply

180W~315W Series



TP-2305TK

100mV
10mA



► Introduction

The TP2000 and TP2000TK series are linear DC power supplies with 3 channels, 195W to 315W output. In constant voltage and current operations, the power supply provides high regulation and low ripple & noise. Auto series and parallel operations double output voltage and current. Heat sink and automatic cooling fan control give sufficient cooling to the power supply and minimize fan noise. The output ON/OFF control and preset voltage & current function protect the power supply and related loads from unexpected damages. The TP2000 and TP2000TK series are widely used in applications of powering operational amplifier, push pull stages, logic circuit and definition systems.

► Features

- ✓ Two independent adjustable outputs 0~30V/0~3A/5A ×2, one fixed output 5V/3A ×1
- ✓ Constant voltage and constant current operations
- ✓ Low ripple and noise, low temperature drift
- ✓ Auto Series and Parallel tracking operations
- ✓ Output ON/OFF control
- ✓ Preset voltage and current (TP-2303TK/2305TK)
- ✓ High efficiency, high power density
- ✓ Over load and reverse polarity protections
- ✓ Dual-color four digital panel meters

Constant voltage operation		
Line regulation		$\leq 0.01\% + 3\text{mV}$
Load regulation		$\leq 0.01\% + 3\text{mV}$ ($I \leq 3\text{A}$); $\leq 0.02\% + 5\text{mV}$ ($I > 3\text{A}$)
Ripple & Noise		$\leq 1\text{mVrms}$ ($I \leq 3\text{A}$); $\leq 2\text{mVrms}$ ($I > 3\text{A}$)
Temperature co-efficient		$\leq 300\text{ppm}/^\circ\text{C}$
Recovery time		$\leq 100\mu\text{s}$ (50% load change, minimum load 0.5A)
Constant current operation		
Line regulation		$\leq 0.2\% + 3\text{mA}$
Load regulation		$\leq 0.2\% + 3\text{mA}$ ($I \leq 3\text{A}$); $\leq 0.2\% + 5\text{mA}$ ($I > 3\text{A}$)
Ripple & Noise		$\leq 3\text{mArms}$ ($I \leq 3\text{A}$); $\leq 6\text{mArms}$ ($I > 3\text{A}$)
Tracking operation		
Parallel	Line regulation	$\leq 0.01\% + 3\text{mV}$
	Load regulation	$\leq 0.01\% + 3\text{mV}$ ($I \leq 3\text{A}$); $\leq 0.02\% + 5\text{mV}$ ($I > 3\text{A}$)
Series	Line regulation	$\leq 0.01\% + 5\text{mV}$
	Load regulation	$\leq 300\text{mV}$
	Tracking error	$\leq 0.5\% + 10\text{mV}$ of the master, no load (with load, add load regulation $\leq 300\text{mV}$)
Fixed output		
Output voltage		$5\text{V} \pm 0.25\text{V}$
Output current		3A
Line regulation		$\leq 25\text{mV}$
Load regulation		$\leq 25\text{mV}$
Ripple & noise		$\leq 2.0\text{mVrms}$
Protection		Over load and reverse polarity protections
Display		
Voltmeter		3 digits LED display
Ammeter		3 digits LED display
Resolution		100mV/10mA
Accuracy	Voltage	$\pm (0.5\% \text{ reading} + 2 \text{ digits})$
	Current	$\pm (1\% \text{ reading} + 2 \text{ digits})$
Protection		Over load and reverse polarity protections
Power source		AC110V/220V $\pm 10\%$ selectable, 50/60Hz
Operating environment		0°C~40°C, $\leq 80\%\text{RH}$
Storage environment		-10°C~70°C, $\leq 70\%\text{RH}$
Accessories		Power cord $\times 1$, Operation manual $\times 1$, Test lead $\times 1$

Multiple Output Linear DC Power Supply Selection Guide (180W~315W)

Model	TP-2303E	TP-2305E	TP-2303	TP-2305	TP-2303TK	TP-2305TK
Output voltage	0~30V $\times 2$	0~30V $\times 2$	0~30V $\times 2$	0~30V $\times 2$	0~30V $\times 2$	0~30V $\times 2$
Output current	0~3A $\times 2$	0~5A $\times 2$	0~3A $\times 2$	0~5A $\times 2$	0~3A $\times 2$	0~5A $\times 2$
Fixed output			5V/3A	5V/3A	5V/3A	5V/3A
Preset V&I					√	√
Output ON/OFF			√	√	√	√
Tracking operation	√	√	√	√	√	√
Dimension	260×160×330mm		260×160×370mm			
Weight	7kg	9kg	8kg	10kg	8kg	10kg