Single Output Programmable Linear DC Power Supply

TPM3000E Series

NEW

TPM-6003E

USB | RS-232 | PC Software | 1mV 0.1mA | RoHS Compliant | CE

► Introduction

TPM3000E series are high precision programmable DC power supply with 1 output channel. The output power of TPM3000E series is 60W to 375W. A remarkable feature of the TPM3000E series is high resolution 1mV/0.1mA. Delay Time and Auto Run facilitate automatic test in different applications. USB/RS-232 interface, SCPI command sets make remote control easier. The smart cooling fan ensures low noise. OLP, OVP, OCP, OTP and reverse polarity protections protect the TPM3000E series and their load from unexpected conditions. High stability and high accuracy further make TPM3000E series an ideal option for various applications requiring high resolution and accurate control.

► Features

- ✓ High resolution 1mV/0.1mA
- ✓ 24-bit ADC and 16-bit DAC, high accuracy
- ✓ Over load, over voltage, over current, over temperature and reverse polarity protections
- ✓ Constant voltage (CV) and constant current (CC) operations; Auto CV and CC switch
- ✓ Back-light 122×32 LCD display for full output details
- ✓ High speed rotary dial and keypad input
- ✓ Built-in beeper alarm
- ✓ Panel lock and output ON/OFF function
- ✓ 100 sets save & recall for V&I setup
- ✓ Delay time setup (99999s) and AUTO running program for easy AUTO test
- ✓ USB or RS-232 interface for PC remote control
- ✓ Support SCPI commands

Constant voltage operation			
Line regulation		≤0.01%+3mV	
Load regulation		≤0.01%+3mV (I≤3A); ≤0.02%+5mV (I>3A)	
Recovery time		≤100us (50% load change, minimum load 0.5A)	
Ripple & Noise		≤1mVrms (I≤3A) (5Hz~1MHz); ≤2mVrms (I>3A) (5Hz~1MHz)	
Output range		0 to rated voltage continuously adjustable	
Temperature co-efficient		≤300PPm/℃	
Constant current operation			
Line regulation		≤0.2%+3mA	
Load regulation		≤0.2%+3mA (I≤3A); ≤0.2%+5mA (I>3A)	
Ripple & Noise		≤3mArms (I≤3A); ≤6mArms (I>3A)	
Output range		0 to rated current continuously adjustable	
Display			
Voltmeter		5 digits LCD display	(TPM-3003E/3005E/6001E/6003E/2010E/3510E/6005E)
		4 digits LCD display	(TPM-7503E/7505E)
Ammeter		5 digits LCD display	(TPM-3003E/3005E/6001E/6003E/2010E/3510E)
		4 digits LCD display	(TPM-6005E/7503E/7505E)
Resolution		1mV/0.1mA	(TPM-3003E/3005E/6001E/6003E)
		1mV/1mA	(TPM-2010E/3510E/6005E)
		10mV/1mA	(TPM-7503E/7505E)
Programming accuracy	Voltage	±(0.03% reading+10mV) (25±5℃)	(TPM-3003E/3005E/6001E/6003E/2010E/3510E/6005E)
		±(0.03% reading+20mV) (25±5℃)	(TPM-7503E/7505E)
	Current	±(0.2% reading+10mA) (25±5℃)	
Reading accuracy	Voltage	±(0.02% reading+5mV) (25±5℃)	(TPM-3003E/3005E/6001E/6003E)
		±(0.03% reading+10mV) (25±5℃)	(TPM-2010E/3510E/6005E)
		±(0.03% reading+20mV) (25±5℃)	(TPM-7503E/7505E)
	Current	±(0.02% reading+5mA) (25±5℃)	(TPM-3003E/3005E/6001E/6003E)
		±(0.2% reading+10mA) (25±5℃)	(TPM-2010E/3510E/6005E)
		±(0.2% reading+20mA) (25±5℃)	(TPM-7503E/7505E)
Protection		Over load, over voltage, over current, over temperature and reverse polarity protections	
Panel lock		Provided	
Programming interface		USB or RS-232, support SCPI commands	
Memory		100 sets	
Insulation		Between base and output terminal≥20MΩ/500VDC	
		Between base and power cord≥30MΩ/500VDC	
Operating environment		0℃~40℃, ≤80%RH	
Storage environment		-10℃~70℃, ≤70%RH	
Power source		AC110V/220V±10% selectable, 50/60Hz	
Accessories		Power cord ×1, Operation manual ×1, Test lead ×1, USB or RS-232 cable ×1, Software CD ×1	

Single Output Programmable Linear DC Power Supply Selection Guide

Model	TPM-3003E	TPM-3005E	TPM-6001E	TPM-6003E	TPM-2010E	TPM-3510E	TPM-6005E	TPM-7503E	TPM-7505E
Voltage	0~30V	0~30V	0~60V	0~60V	0~20V	0~35V	0~60V	0~75V	0~75V
Current	0~3A	0~5A	0~1A	0~3A	0~10A	0~10A	0~5A	0~3A	0~5A
OVP range	0.1~34V	0.1~34V	0.1~64V	0.1~64V	0.1~22V	0.1~37V	0.1~44V	0.1~78V	0.1~78V
OCP range	0~3.5A	0~5.5A	0~1.5A	0~3.5A	0.1~11A	0.1~11A	0~5.5A	0~3.5A	0~5.5A
Voltmeter	5 digits	5 digits	5 digits	5 digits	5 digits	5 digits	5 digits	4 digits	4 digits
Ammeter	5 digits	5 digits	5 digits	5 digits	5 digits	5 digits	4 digits	4 digits	4 digits
Resolution	1mV/0.1mA	1mV/0.1mA	1mV/0.1mA	1mV/0.1mA	1mV/1mA	1mV/1mA	1mV/1mA	10mV/1mA	10mV/1mA