

Date: July 10, 2013

To our valuable business partners

Subject: Product Upgrade on Single Channel Programmable DC Power Supply

We would like to inform you about product upgrade information about Single Channel Programmable DC Power Supply:

**1. For model TP-3003 and TP-3005:**

- 1). Specifications for these two models remain the same.
- 2). USB interface to be installed as a default configuration, while RS232 interface as optional.  
(Note: only USB or RS232 can be installed at one time).
- 3). Product model number to be changed to **TPM-3003** and **TPM-3005**.

**2. For model TP-3003E, TP-3005E, TP-6001E, TP-6003E:**

- 1). The current (Ampere) resolution to be upgraded from 1mA to 0.1mA.
- 2). USB interface to be installed as a default configuration, while RS232 interface as optional.  
(Note: only USB or RS232 can be installed at one time).
- 3). Product model number to be changed to: **TPM-3003E, TPM-3005E, TPM-6001E, TPM-6003E**.

The above product upgrade will be applied to production from August 1, 2013.

We deeply thank you for your kind support and co-operation in the past.

With our best regards.

# Programmable Linear DC Power Supply Selection Guide



## Programmable Linear DC Power Supply Selection Guide

Model	TPM3000 Series	TPM3000E Series	TP3300 Series	TP3300U Series	TP3300D Series	TP3300E Series
Output range	2	1	1	1	1	1
Adjustable output channel	1	1	2	2	2	2
Fixed output channel	—	—	1	1	1	1
Voltage resolution	1mV	1mV	1mV	100mV	10mV (0~9.99V) 100mV (10~30V)	100mV
Current resolution	1mA	0.1mA	1mA	10mA	10mA	10mA
Voltmeter	5 digits LCD	5 digits LCD	5 digits LED	3 digits LED	3 digits LED	3 digits LED
Ammeter	4 or 5 digits LCD	4 digits LCD	4 digits LED	3 digits LED	3 digits LED	3 digits LED
CC/CV operation	√	√	√	√	√	√
Tracking serial/parallel operation	—	—	√	√	√	√
Output ON/OFF	√	√	√	√	√	√
Panel control	Rotary knob & key pad	Rotary knob & key pad	Rotary knob	Rotary knob	Rotary knob	Rotary knob
Panel settings save & recall	100 sets	100 sets	4 sets	4 sets	4 sets	4 sets
Coarse & fine control for voltage & current			√	√	√	√
Panel lock	√	√	√	√	√	√
Buzzer	√	√	√	√	√	√
Intelligent cooling fan	√	√	√	√	√	√
Over voltage protection	√	√	—	—	—	—
Over current protection	√	√	—	—	—	—
Reverse polarity protection	√	√	√	√	√	√
Interface	USB or RS-232	USB or RS-232	USB	USB	—	—

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## TPM3000 series (1mV/1mA, with USB or RS-232)

### Introduction

TPM3000 series are 2-in-1 programmable DC power supply with 2 output ranges from 1 output channel. The output power of TPM3000 series is 90W to 180W. As the most remarkable feature of the TPM3000 series, the two selectable output ranges offer output either at 36V/3A/5A or 15V/6A/10A to accommodate a wide range of applications. Delay Time and Auto Run facilitate automatic test in different applications. RS-232/USB interface, SCPI command sets make remote control easier. The smart cooling fan ensures low noise. OVP, OCP, OTP and reverse polarity protection protect the TPM3000 series and their load from unexpected conditions. High stability and high accuracy further make TPM3000 series an ideal option for various applications requiring high resolution and accurate control.

### Features

- ✓ 1-CH output with dual ranges
- ✓ High resolution 1mV/1mA and 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 122x32 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
- ✓ RS-232 or USB interface for PC remote control
- ✓ Support SCPI commands

### Product photo



# Programmable Linear DC Power Supply



## Specifications

Model		TPM-3003	TPM-3005
Output			
High range		0~36V/0~3A	0~36V/0~5A
Low range		0~15V/0~6A	0~15V/0~10A
OVP range		0.1~38V	0.1~38V
OCP range		0.1~6.5A	0.1~11A
Voltage regulation			
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		≤1mV rms (I≤3A) (5Hz~1MHz); ≤2mV rms (I>3A) (5Hz~1MHz)	
Output range		0 to rated voltage continuously adjustable	
Temperature co-efficient		≤300PPm/°C	
Current regulation			
Line regulation		≤0.2%+3mA	
Load regulation		≤0.2%+3mA (I≤3A); ≤0.2%+5mA (I>3A)	
Ripple & Noise		≤3mA rms (I≤3A); ≤6mA rms (I>3A)	
Output range		0 to rated current continuously adjustable	
Display			
Ammeter		4 digits LCD display	5 digits LCD display
Voltmeter		5 digits LCD display	5 digits LCD display
Resolution		1mV/1mA	
Programming accuracy	Voltage	±(0.03% reading+10mV) (0~60V)	
	Current	±(0.2% reading+10mA) (0~10A)	
Reading accuracy	Voltage	±(0.03% reading+10mV) (0~60V)	
	Current	±(0.2% reading+10mA) (0~10A)	
Protection		Over load, over voltage, over current, over temperature and reverse polarity protections	
Panel lock		Provided	
Programming interface		RS-232 or USB, support SCPI commands	
Memory		100 sets	
Insulation		Between base and output terminal≥20MΩ/500VDC	
		Between base and power cord≥30MΩ/500VDC	
Operating environment		0°C~40°C, <80%	
Storage environment		-10°C~70°C, <70%	
Accessories		Power cord ×1, Operation manual ×1, Test lead ×1, RS-232 or USB cable ×1, Software CD ×1	
Dimension		126×143×296mm	
Weight		5.5kg	6.2kg

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## TPM3000E series (1mV/0.1mA, with USB or RS-232)

### Introduction

TPM3000E series are high precision programmable DC power supply with 1 output channels. The output power of TPM3000E series is 60W to 180W. A remarkable feature of the TPM3000E series is high resolution 1mV/0.1mA. Delay Time and Auto Run facilitate automatic test in different applications. RS232/USB interface, SCPI command sets make remote control easier. The smart cooling fan ensures low noise. OVP, OCP, OTP and reverse polarity protection 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 and 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 122x32 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
- ✓ RS-232 or USB interface for PC remote control
- ✓ Support SCPI commands

### Product photo



# Programmable Linear DC Power Supply



## Specifications

Model		TPM-3003E	TPM-3005E	TPM-6001E	TPM-6003E
Output					
Voltage		0~30V	0~30V	0~60V	0~60V
Current		0~3A	0~5A	0~1A	0~3A
OVP range		0.1~34V	0.1~34V	0.1~64V	0.1~64V
OCP range		0~3.5A	0~5.5A	0~1.5A	0~3.5A
Voltage regulation					
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		≤1mV rms (I≤3A) (5Hz~1MHz); ≤2mV rms (I>3A) (5Hz~1MHz)			
Output range		0 to rated voltage continuously adjustable			
Temperature co-efficient		≤300PPm/°C			
Current regulation					
Line regulation		≤0.2%+3mA			
Load regulation		≤0.2%+3mA (I≤3A); ≤0.2%+5mA (I>3A)			
Ripple & Noise		≤3mA rms (I≤3A); ≤6mA rms (I>3A)			
Output range		0 to rated current continuously adjustable			
Display					
Ammeter		4 digits LCD display			
Voltmeter		5 digits LCD display			
Resolution		1mV/0.1mA			
Programming accuracy	Voltage	±(0.03% reading+10mV) (0~60V)			
	Current	±(0.2% reading+10mA) (0~10A)			
Reading accuracy	Voltage	±(0.03% reading+10mV) (0~60V)			
	Current	±(0.2% reading+10mA) (0~10A)			
Protection		Over load, over voltage, over current, over temperature and reverse polarity protections			
Panel lock		Provided			
Programming interface		RS-232 or USB, support SCPI commands			
Memory		100 sets			
Insulation		Between base and output terminal≥20MΩ/500VDC			
		Between base and power cord≥30MΩ/500VDC			
Operating environment		0°C~40°C, <80%			
Storage environment		-10°C~70°C, <70%			
Accessories		Power cord ×1, Operation manual ×1, Test lead ×1, RS-232 or USB cable ×1, Software CD ×1			
Dimension		126×143×296mm			
Weight		5.5kg	5.5kg	5.5kg	5.5kg

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## TP3300 series (1mV/1mA, with USB interface)

### Introduction

The TP3303 series programmable DC power supply are light weight, adjustable, multi-functional work stations. They have three independent outputs: two with adjustable voltage level and one with fixed level selectable from 2.5V, 3.3V and 5V. The power supply can be used for logic circuits where various output voltage or current are needed, and for tracking mode definition systems where positive and negative voltages with good accuracy are required.

### Features

- ✓ Two independent adjustable outputs: 0~30V/3A x2
- ✓ One fixed output 2.5V/3.3V/5V/3A
- ✓ Minimum resolution: 1mV/1mA
- ✓ Digital panel control, Coarse/Fine volume control for voltage and current
- ✓ 4 sets panel settings save & recall
- ✓ Panel lock
- ✓ Preset voltage and current
- ✓ Output ON/OFF
- ✓ Auto tracking, Auto Series and Parallel operation
- ✓ Intelligent cooling fan control
- ✓ USB interface for PC control

### Product photo



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# Programmable Linear DC Power Supply



## Specifications

<b>Model</b>		<b>TP-3303</b>
<b>Output</b>	<b>Voltage</b>	<b>0-30V ×2, 2.5V/3.3V/5V ×1</b>
	<b>Current</b>	<b>0~3A ×2, fixed 3A</b>
<b>Constant voltage operation</b>		
Line regulation		≤0.01%+3mV
Load regulation		≤0.01%+3mV
Recovery time		≤100μs (50% load change, minimum load 0.5A)
Ripple & Noise		≤1mV rms (5Hz~1MHz)
Output range		0 to rating voltage continuously adjustable
Temperature co-efficient		≤300PPm/°C
<b>Constant current operation</b>		
Line regulation		≤0.2%+3mA
Load regulation		≤0.2%+3mA
Ripple & Noise		≤3mA rms
Output range		0 to rating current continuously adjustable
<b>Tracking operation</b>		
Parallel	Line regulation	≤0.01%+3mV
	Load regulation	≤0.01%+5mV
Serial	Line regulation	≤0.01%+5mV
	Load regulation	≤300mV
Tracking error		≤0.5%+10mV (No load; with load, added ≤300mV)
<b>CH3 output</b>		
Regulation		Line regulation≤25mV, Load regulation≤25mV
Ripple & Noise		≤2mV rms
Output voltage		2.5V, 3.3V, 5V (selectable), ±8%
Output current		3A
Protection		Over load and reverse polarity protections
<b>Display</b>		
Ammeter		3.200A full scale, 4 digits 0.4" LED display
Voltmeter		32.000V full scale, 5 digits 0.4" LED display
Resolution		1mV/1mA
Programming accuracy	Voltage	±(0.03% reading+10mV)
	Current	±(0.3% reading+10mA)
Reading accuracy	Voltage	±(0.03% reading+10mV)
	Current	±(0.3% reading+10mA)
<b>Protection</b>		Over load, voltage limit, current limit and reverse polarity protections
<b>Insulation</b>		Between base and output terminal≥20MΩ/500VDC
		Between base and power cord≥30MΩ/500VDC
<b>Operating environment</b>		0°C~40°C, <80%
<b>Storage environment</b>		-10°C~70°C, <80%
<b>Accessories</b>		Power cord ×1, Operation manual ×1, USB cable ×1, Software CD ×1, Test lead ×1
<b>Dimension</b>		310×250×150mm
<b>Weight</b>		7.5kg

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## TP3300U series (100mV/10mA, with USB interface)

### Introduction

The TP3300U series programmable DC power supply are light weight, adjustable, multi-functional work stations. They have three independent outputs: two with adjustable voltage level and one with fixed level selectable from 2.5V, 3.3V and 5V. The power supply can be used for logic circuits where various output voltage or current are needed, and for tracking mode definition systems where positive and negative voltages with good accuracy are required.

### Features

- ✓ Two independent adjustable outputs: 0~30V/3A/5A ×2
- ✓ One fixed output 2.5V/3.3V/5V/3A
- ✓ Minimum resolution: 100mV/10mA
- ✓ Digital panel control, Coarse/Fine volume control for voltage and current
- ✓ 4 sets panel settings save & recall
- ✓ Panel lock
- ✓ Preset voltage and current
- ✓ Output ON/OFF
- ✓ Auto tracking, Auto Series and Parallel operation
- ✓ Intelligent cooling fan control
- ✓ USB interface for PC control

### Product photo



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# Programmable Linear DC Power Supply



## Specifications

Model		TP-3303U	TP-3305U
Output	Voltage	0-30V ×2, 2.5V/3.3V/5V ×1	0-30V ×2, 2.5V/3.3V/5V ×1
	Current	0~3A ×2, fixed 3A	0~5A ×2, fixed 3A
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		≤1mV rms (I≤3A) (5Hz~1MHz); ≤2mV rms (I≤3A) (5Hz~1MHz)	
Output range		0 to rating voltage continuously adjustable	
Temperature co-efficient		≤300PPm/°C	
Constant current operation			
Line regulation		≤0.2%+3mA	
Load regulation		≤0.2%+3mA (I≤3A); ≤0.2%+5mA (I>3A)	
Ripple & Noise		≤3mA rms (I≤3A); ≤6mA rms (I>3A)	
Output range		0 to rating current continuously adjustable	
Tracking operation			
Parallel	Line regulation	≤0.01%+3mV	
	Load regulation	≤0.01%+5mV (I≤3A); ≤0.02%+10mV (I>3A)	
Serial	Line regulation	≤0.01%+5mV	
	Load regulation	≤300mV	
Tracking error		≤0.05%+50mV (No load; with load, added ≤300mV)	
CH3 output			
Regulation		Line regulation≤25mV, Load regulation≤25mV	
Ripple & Noise		≤2mV rms	
Output voltage		2.5V, 3.3V, 5V (selectable), ±8%	
Output current		3A	
Protection		Over load and reverse polarity protections	
Display			
Ammeter		3.20A full scale, 3 digits 0.5" LED display	
Voltmeter		32.0V full scale, 3 digits 0.5" LED display	
Resolution		100mV/10mA	
Programming accuracy	Voltage	±(0.5% reading+2 digits)	
	Current	±(0.5% reading+2 digits) (I≤3A); ±(0.5% reading+5 digits) (I>3A)	
Reading accuracy	Voltage	±(0.5% reading+2 digits)	
	Current	±(0.5% reading+3 digits) (I≤3A); ±(0.5% reading+5 digits) (I>3A)	
Protection		Over load, voltage limit, current limit and reverse polarity protections	
Insulation		Between base and output terminal≥20MΩ/500VDC	
		Between base and power cord≥30MΩ/500VDC	
Operating environment		0°C~40°C, <80%	
Storage environment		-10°C~70°C, <80%	
Accessories		Power cord ×1, Manual ×1, USB cable ×1, Software CD ×1, Test lead ×1	
Dimension		310×250×150mm	
Weight		7.5kg	10kg

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## TP3300D series

### Introduction

The TP3300D series programmable DC power supply are light weight, adjustable, multi-functional work stations. They have three independent outputs: two with adjustable voltage level and one with fixed level selectable from 2.5V, 3.3V and 5V. The power supply can be used for logic circuits where various output voltage or current are needed, and for tracking mode definition systems where positive and negative voltages with good accuracy are required.

### Features

- ✓ Two independent adjustable outputs: 0~30V/3A/5A x2
- ✓ One fixed output 2.5V/3.3V/5V/3A
- ✓ Minimum resolution: 10mV/10mA
- ✓ Digital panel control, Coarse/Fine volume control for voltage and current
- ✓ 4 sets panel settings save & recall
- ✓ Panel lock
- ✓ Preset voltage and current
- ✓ Output ON/OFF
- ✓ Auto tracking, Auto Series and Parallel operation
- ✓ Intelligent cooling fan control

### Product photo



# Programmable Linear DC Power Supply



## Specifications

Model		TP-3303D	TP-3305D
Output	Voltage	0-30V x2, 2.5V/3.3V/5V x1	0-30V x2, 2.5V/3.3V/5V x1
	Current	0~3A x2, fixed 3A	0~5A x2, fixed 3A
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		≤1mV rms (I≤3A) (5Hz~1MHz); ≤2mV rms (I≤3A) (5Hz~1MHz)	
Output range		0 to rating voltage continuously adjustable	
Temperature co-efficient		≤300PPm/°C	
Constant current operation			
Line regulation		≤0.2%+3mA	
Load regulation		≤0.2%+3mA (I≤3A); ≤0.2%+5mA (I>3A)	
Ripple & Noise		≤3mA rms (I≤3A); ≤6mA rms (I>3A)	
Output range		0 to rating current continuously adjustable	
Tracking operation			
Parallel	Line regulation	≤0.01%+3mV	
	Load regulation	≤0.01%+5mV (I≤3A); ≤0.02%+10mV (I>3A)	
Serial	Line regulation	≤0.01%+5mV	
	Load regulation	≤300mV	
Tracking error		≤0.05%+50mV (No load; with load, added ≤300mV)	
CH3 output			
Regulation		Line regulation≤25mV, Load regulation≤25mV	
Ripple & Noise		≤2mV rms	
Output voltage		2.5V, 3.3V, 5V (selectable), ±8%	
Output current		3A	
Protection		Over load and reverse polarity protections	
Display			
Ammeter		3.20A full scale, 3 digits 0.5" LED display	
Voltmeter		32.0V full scale, 3 digits 0.5" LED display	
Resolution	Voltage	10mV (0~9.99V); 100mV (10~30V)	
	Current	10mA	
Programming accuracy	Voltage	±(0.2% reading+3 digits) (0~9.99V); ±(0.5% reading+2 digits) (10~30V)	
	Current	±(0.5% reading+2 digits) (I≤3A); ±(0.5% reading+5 digits) (I>3A)	
Read back accuracy	Voltage	±(0.2% reading+3 digits) (0~9.99V); ±(0.5% reading+2 digits) (10~30V)	
	Current	±(0.5% reading+3 digits) (I≤3A); ±(0.5% reading+5 digits) (I>3A)	
Protection		Over load, voltage limit, current limit and reverse polarity protections	
Insulation		Between base and output terminal≥20MΩ/500VDC	
		Between base and power cord≥30MΩ/500VDC	
Operating environment		0°C~40°C, <80%	
Storage environment		-10°C~70°C, <80%	
Accessories		Power cord x1, Operation manual x1, Test lead x1	
Dimension		310x250x150mm	
Weight		7.5kg	10kg

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## TP3300E series (Economic models)

### Introduction

The TP3300E series programmable DC power supply are light weight, adjustable, multi-functional work stations. They have three independent outputs: two with adjustable voltage level and one with fixed level selectable from 2.5V, 3.3V and 5V. The power supply can be used for logic circuits where various output voltage or current are needed, and for tracking mode definition systems where positive and negative voltages with good accuracy are required.

### Features

- ✓ Two independent adjustable outputs: 0~30V/3A/5A ×2
- ✓ One fixed output 2.5V/3.3V/5V/3A
- ✓ Minimum resolution: 100mV/10mA
- ✓ Digital panel control, Coarse/Fine volume control for voltage and current
- ✓ 4 sets panel settings save & recall
- ✓ Panel lock
- ✓ Preset voltage and current
- ✓ Output ON/OFF
- ✓ Auto tracking, Auto Series and Parallel operation
- ✓ Intelligent cooling fan control

### Product photo



# Programmable Linear DC Power Supply



## Specifications

Model		TP-3303E	TP-3305E
Output	Voltage	0-30V ×2, 2.5V/3.3V/5V ×1	0-30V ×2, 2.5V/3.3V/5V ×1
	Current	0~3A ×2, fixed 3A	0~5A ×2, fixed 3A
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		≤1mV rms (I≤3A) (5Hz~1MHz); ≤2mV rms (I>3A) (5Hz~1MHz)	
Output range		0 to rating voltage continuously adjustable	
Temperature co-efficient		≤300PPm/°C	
Constant current operation			
Line regulation		≤0.2%+3mA	
Load regulation		≤0.2%+3mA (I≤3A); ≤0.2%+5mA (I>3A)	
Ripple & Noise		≤3mA rms (I≤3A); ≤6mA rms (I>3A)	
Output range		0 to rating current continuously adjustable	
Tracking operation			
Parallel	Line regulation	≤0.01%+3mV	
	Load regulation	≤0.01%+5mV (I≤3A); ≤0.02%+10mV (I>3A)	
Serial	Line regulation	≤0.01%+5mV	
	Load regulation	≤300mV	
Tracking error		≤0.05%+100mV (No load; with load, added ≤300mV)	
CH3 output			
Regulation		Line regulation≤25mV, Load regulation≤25mV	
Ripple & Noise		≤2mV rms	
Output voltage		2.5V, 3.3V, 5V (selectable), ±8%	
Output current		3A	
Protection		Over load and reverse polarity protections	
Display			
Ammeter		3.20A full scale, 3 digits 0.5" LED display	
Voltmeter		32.0V full scale, 3 digits 0.5" LED display	
Resolution		100mV/10mA	
Programming accuracy	Voltage	±(0.5% reading+2 digits)	
	Current	±(0.5% reading+2 digits) (I≤3A); ±(0.5% reading+5 digits) (I>3A)	
Read back accuracy	Voltage	±(0.5% reading+2 digits)	
	Current	±(0.5% reading+3 digits) (I≤3A); ±(0.5% reading+5 digits) (I>3A)	
Protection		Over load, voltage limit, current limit and reverse polarity protections	
Insulation		Between base and output terminal≥20MΩ/500VDC	
		Between base and power cord≥30MΩ/500VDC	
Operating environment		0°C~40°C, <80%	
Storage environment		-10°C~70°C, <80%	
Accessories		Power cord ×1, Operation manual ×1, Test lead ×1	
Dimension		310×250×150mm	
Weight		7.5kg	10kg

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## TP-2606

### Introduction

TP-2606 Switching mode DC power supply provides 375W output capacity with three independent outputs and CH1/CH2 dual-range output (30V/ 6A or 60V/3A), which accommodates a wide range of applications. On the basis of fixed output capacity, it enables output voltage or current to the maximum. With high power density and high conversion efficiency, multiple protections, high reliability, low noise and compact design, TP-2606 is completely adequate for satisfying mainstream power supply demands.

### Features

- ✓ CH1/ CH2 dual-range output of 30V/6A or 60V/3A
- ✓ CH3 0.1~5V/3A, adjustable output
- ✓ Auto series/parallel tracking operation, providing flexible output of 30V/12A, 60V/6A or 120V/3A
- ✓ High power conversion efficiency, improving the power efficiency by 25%
- ✓ Manual and remote ON/OFF control
- ✓ Manual protection: OVP
- ✓ Over voltage, over load, over temperature and reverse polarity protections for CH3 output
- ✓ Power source AC115V/230V auto switch
- ✓ Fan speed control circuit, minimizing fan acoustic noise
- ✓ Compact design, light weight

### Product photo



# Multi-output Dual-range DC Power Supply



## Specifications

<b>Model</b>	<b>TP-2606</b>
<b>Output</b>	CH1&CH2 Independent mode: 0~30V/0~6A; 0~60V/0~3A CH1&CH2 Series mode: 0~60V/0~6A; 0~120V/0~3A CH1&CH2 Parallel mode: 0~30V/0~12A; 0~60V/0~6A CH3: 0.1~5V/3A
<b>Constant voltage operation</b>	
Line regulation	$\leq 0.01\% + 3\text{mV}$
Load regulation	$\leq 0.01\% + 5\text{mV}$ (rating current $\leq 6\text{A}$ ); $\leq 0.01\% + 8\text{mV}$ (rating current $\leq 12\text{A}$ )
Ripple & Noise	$\leq 5\text{mV rms}$ (5Hz~1MHz); $\leq 50\text{mVpp}$ (20Hz~20MHz)
Recovery time	$\leq 100\mu\text{s}$ (50% load change, minimum load 0.5A)
<b>Constant current operation</b>	
Line regulation	$\leq 0.2\% + 3\text{mA}$
Load regulation	$\leq 0.2\% + 3\text{mA}$
Ripple & Noise	$\leq 3\text{mA rms}$
<b>Tracking Operation</b>	
Tracking error	$\leq (0.5\% + 10\text{mV})$ of the master
Series regulation	$\leq 300\text{mV}$
Ripple & Noise	$\leq 10\text{mVrms}$ (5Hz~1MHz); $\leq 100\text{mVpp}$ (20Hz~20MHz)
<b>Output On/Off Response Time</b>	
Voltage up (10%~90%)	$\leq 100\text{ms}$ ( $\leq 95\%$ rated load)
Voltage down (90%~10%)	$\leq 100\text{ms}$ ( $\geq 10\%$ rated load)
<b>CH3 output</b>	
Output voltage	0.1~5V, adjustable
Output current	3A
Protection	Over voltage, over load, over temperature and reverse polarity protections
<b>Over voltage protection</b>	
Accuracy	$\pm(0.5\% \text{ reading} + 0.5\text{V})$
<b>Display</b>	
Meter	3 <sup>1/2</sup> digits 0.39" LED display
Resolution	100mV/10mA
Accuracy	$\pm(0.5\% \text{ reading} + 2 \text{ digits})$
<b>Protection</b>	Over voltage and reverse polarity protections
<b>Remote control</b>	Output On/Off
<b>Fan noise</b>	$\leq 50\text{dB}$
<b>Temperature co-efficient</b>	Voltage: $\leq 100\text{ppm}/^\circ\text{C} + 3\text{mV}$
	Current: $\leq 150\text{ppm}/^\circ\text{C} + 3\text{mA}$
<b>Insulation</b>	Between chassis & terminal: $\geq 100\text{M}\Omega/1000\text{VDC}$
	Between chassis and AC code: $\geq 100\text{M}\Omega/1000\text{VDC}$
<b>Operating environment</b>	Ambient temperature: 0~40°C
	Relative humidity: $\leq 80\%$
<b>Storage environment</b>	Ambient temperature: 0°C~70°C
	Relative humidity: $\leq 70\%$
<b>Power source</b>	AC 115V/230V $\pm 15\%$ , 50/60Hz
<b>Accessories</b>	Operation manual x1, Power cord x1
<b>Dimension</b>	310x250x150mm
<b>Weight</b>	5.5kg

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## Single Output Linear DC Power Supply 90W~185W

### Introduction

The TP1000 series are linear DC power supplies with 2 channels, 95W to 185W output. The TP1000C series provide a simpler option of only 1 channel, 90W to 180W output. In constant voltage and current operations, the power supply provides high regulation and low ripple & noise. The output ON/OFF control and coarse/fine control enables safe and easy operation. The TP1000/1000C series are widely used in applications of powering operational amplifier, push pull stages, logic circuit and definition systems.

### Features

- ✓ Constant voltage, constant current operation
- ✓ Output ON/OFF control
- ✓ High efficiency, light and compact design
- ✓ High power density
- ✓ Over load and reverse polarity protections
- ✓ Dual-color two digital panel meters

### Product photo

TP-1303



TP-1303C



# Single Output Linear DC Power Supply



## Specifications

Constant voltage Operation		
Load regulation		≤0.01%+3mV
Line regulation		≤0.02%+5mV (I>3A), ≤0.01%+3mV (I≤3A)
Ripple & Noise		≤2mV rms
Temperature co-efficient		≤300ppm/°C
Recovery time		≤100us (50% load change, minimum load 0.5A)
Constant current operation		
Load regulation		≤0.2%+3mA
Line regulation		≤0.2%+3mA
Temperature co-efficient		≤500ppm/°C
Fixed 5V/1A output		
Output accuracy		±1%
Ripple & noise		≤2mV rms
Protection		Over load and reverse polarity protections
Display		
Meter		3 digits LED display
Resolution		100mV/10mA
Accuracy	Voltage	±(0.5% reading+2 digits)
	Current	±(0.1% reading+2 digits)
Protection		Over load and reverse polarity protections
Power source		AC110V/220V ±10% selectable, 50/60Hz
Operating environment		0°C~40°C, <80%
Storage environment		-10°C~70°C, <80%
Accessories		Power cord ×1, Operation manual ×1, Test lead ×1

## Selection guide

Model	Output Voltage	Output Current	Fixed output	Preset V&I	Output ON/OFF	Dimension (mm)	Weight (kg)
TP-1303	0~30V	0~3A	5V/1A		√	160×130×310	5.0
TP-1305	0~30V	0~5A	5V/1A		√	160×130×310	6.3
TP-1603	0~60V	0~3A	5V/1A		√	160×130×310	6.5
TP-1303C	0~30V	0~3A			√	160×130×310	5.0
TP-1305C	0~30V	0~5A			√	160×130×310	6.3
TP-1603C	0~60V	0~3A			√	160×130×310	6.5

## Single Output Linear DC Power Supply 300W/600W

### Introduction

The TP300W/600W series are linear DC power supplies with 1 channel, 300W/600W output. In constant voltage and current operations, the power supply provides high regulation and low ripple & noise. The output ON/OFF control and coarse/fine control enables safe and easy operation. The TP300W/600W series are widely used in applications of powering operational amplifier, push pull stages, logic circuit and definition systems.

### Features

- ✓ Constant voltage, constant current operation
- ✓ Output ON/OFF control
- ✓ Preset voltage and current (TP-3020/6010)
- ✓ High efficiency, light and compact design
- ✓ High power density
- ✓ Over load and reverse polarity protections
- ✓ Dual-color two digital panel meters

### Product photo



### TP-3010



## Specifications

Constant voltage Operation		
Load regulation		≤0.01%+3mV
Line regulation		≤0.02%+5mV (I>3A), ≤0.01%+3mV (I≤3A)
Ripple & Noise		≤2mV rms
Temperature co-efficient		≤300ppm/°C
Recovery time		≤100us (50% load change, minimum load 0.5A)
Constant current operation		
Load regulation		≤0.2%+3mA
Line regulation		≤0.2%+3mA
Temperature co-efficient		≤500ppm/°C
Display		
Meter		3 digits LED display
Resolution		100mV/10mA
Accuracy	Voltage	±(0.5% reading+2 digits)
	Current	±(0.1% reading+2 digits)
Protection		Over load and reverse polarity protections Additional over temperature protection for TP-3020/6010
Power source		AC110V/220V ±10% selectable, 50/60Hz
Operating environment		0°C~40°C, <80%
Storage environment		-10°C~70°C, <80%
Accessories		Power cord ×1, Operation manual ×1, Test lead ×1

## Selection guide

Model	Output Voltage	Output Current	Fixed output	Preset V&I	Output ON/OFF	Dimension (mm)	Weight (kg)
TP-3010	0~30V	0~10A			√	260×160×370	10
TP-6005	0~60V	0~5A			√	260×160×370	10
TP-3020	0~30V	0~20A		√	√	260×160×370	14
TP-6010	0~60V	0~10A		√	√	260×160×370	14

## High-voltage Single Output Linear DC Power Supply 120W~600W

### Introduction

The high-voltage series are linear DC power supplies with 1 channel, max.600W output. In constant voltage and current operations, the power supply provides high regulation and low ripple & noise. The output ON/OFF control and coarse/fine control enables safe and easy operation. The high-voltage series are widely used in applications of powering operational amplifier, push pull stages, logic circuit and definition systems.

### Features

- ✓ Constant voltage, constant current operation
- ✓ Output ON/OFF control
- ✓ Preset voltage and current
- ✓ 0~10V Remote control
- ✓ Adjustable OVP and OCP limits
- ✓ High efficiency, light and compact design
- ✓ High power density
- ✓ Over load, over voltage, over current, over temperature and reverse polarity protections
- ✓ Dual-color two digital panel meters

### Product photo

**TP-12005**



# Single Output Linear DC Power Supply



## Specifications

Constant voltage Operation		
Load regulation		$\leq 0.01\% + 3\text{mV}$
Line regulation		$\leq 0.02\% + 5\text{mV}$ ( $I > 3\text{A}$ ), $\leq 0.01\% + 3\text{mV}$ ( $I \leq 3\text{A}$ )
Ripple & Noise		$\leq 2\text{mV rms}$
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		
Load regulation		$\leq 0.2\% + 3\text{mA}$
Line regulation		$\leq 0.2\% + 3\text{mA}$
Temperature co-efficient		$\leq 500\text{ppm}/^\circ\text{C}$
Display		
Meter		3 digits LED display
Resolution		100mV/10mA
Accuracy	Voltage	$\pm(0.5\% \text{ reading} + 2 \text{ digits})$
	Current	$\pm(0.1\% \text{ reading} + 2 \text{ digits})$
Protection		Over load, over voltage, over current, over temperature and reverse polarity protections
Power source		AC110V/220V $\pm 10\%$ selectable, 50/60Hz
Operating environment		0°C~40°C, <80%
Storage environment		-10°C~70°C, <80%
Accessories		Power cord x1, Operation manual x1, Test lead x1

## Selection guide

Model	Output Voltage	Output Current	0~10V Remote Control	Preset V&I	Output ON/OFF	Dimension (mm)	Weight (kg)
TP-12001	0~120V	0~1A	√	√	√	250×150×420	10
TP-12003	0~120V	0~3A	√	√	√	250×150×420	12
TP-12005	0~120V	0~5A	√	√	√	250×150×420	14
TP-25001	0~250V	0~1A	√	√	√	250×150×420	11
TP-25002	0~250V	0~2A	√	√	√	250×150×420	14

## Multiple Output Linear DC Power Supply 180W~315W

### 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/3A/5A x2, one fixed output 5V/3A x1
- ✓ Constant voltage, constant current operation
- ✓ Low ripple and noise, low temperature drift
- ✓ Auto Tracking
- ✓ Auto Series and Parallel operation
- ✓ 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

### Product photo

TP-2305TK



TP-2303K



TP-2303E





## Specifications

Constant voltage operation		
Load regulation		$\leq 0.01\% + 3\text{mV}$ ( $I \leq 3\text{A}$ ); $\leq 0.02\% + 5\text{mV}$ ( $I > 3\text{A}$ )
Line regulation		$\leq 0.01\% + 3\text{mV}$
Ripple & Noise		$\leq 1\text{mV rms}$ ( $I \leq 3\text{A}$ ); $\leq 2\text{mV rms}$ ( $I > 3\text{A}$ )
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		
Load regulation		$\leq 0.2\% + 3\text{mA}$ ( $I \leq 3\text{A}$ ); $\leq 0.2\% + 5\text{mA}$ ( $I > 3\text{A}$ )
Line regulation		$\leq 0.2\% + 3\text{mA}$
Ripple & Noise		$\leq 3\text{mA rms}$ ( $I \leq 3\text{A}$ ); $\leq 6\text{mA rms}$ ( $I > 3\text{A}$ )
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	$\leq 300\text{mV}$
Slave error		$\leq 0.5\% + 10\text{mV}$ of the master, no load (with load, add load regulation $\leq 300\text{mV}$ )
Fixed output 5V/3A		
Output accuracy		$5\text{V} \pm 0.25\text{V}$
Max. output current		3A
Regulation		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		
Meter		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 $\pm 10\%$ , 50/60Hz
Operating environment		0°C~40°C, <80%
Storage environment		-10°C~70°C, <80%
Accessories		Power cord x1, Operation manual x1, Test lead x2

## Selection guide

Model	Output Voltage	Output Current	Fixed output	Preset V&I	Output ON/OFF	Tracking Operation	Dimension (mm)	Weight (kg)
TP-2303	0~30V x2	0~3A x2	5V/3A		√	√	260×160×370	8
TP-2303TK	0~30V x2	0~3A x2	5V/3A	√	√	√	260×160×370	8
TP-2303K	0~30V x2	0~3A x2	5V/3A		√	√	260×160×330	7
TP-2303E	0~30V x2	0~3A x2				√	260×160×330	7
TP-2305	0~30V x2	0~5A x2	5V/3A		√	√	260×160×370	10
TP-2305TK	0~30V x2	0~5A x2	5V/3A	√	√	√	260×160×370	10
TP-2305K	0~30V x2	0~5A x2	5V/3A		√	√	260×160×330	9
TP-2305E	0~30V x2	0~5A x2				√	260×160×330	9



## Dual Output Linear DC Power Supply 600W

### Introduction

The TP600W series are linear DC power supplies with 2 channels, 600W 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. 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 TP600W 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/10A x2, 0~60V/5A x2
- ✓ Constant voltage, constant current operation
- ✓ Low ripple and noise, low temperature drift
- ✓ Auto Tracking
- ✓ Auto Series and Parallel operation
- ✓ Output ON/OFF control
- ✓ Preset voltage and current
- ✓ High efficiency, high power density
- ✓ Over load and reverse polarity protections
- ✓ Dual-color four digital panel meters

### Product photo



TP-30102



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## Specifications

Constant voltage operation		
Load regulation		$\leq 0.01\% + 3\text{mV}$ ( $I \leq 3\text{A}$ ); $\leq 0.02\% + 5\text{mV}$ ( $I > 3\text{A}$ )
Line regulation		$\leq 0.01\% + 3\text{mV}$
Ripple & Noise		$\leq 1\text{mV rms}$ ( $I \leq 3\text{A}$ ); $\leq 2\text{mV rms}$ ( $I > 3\text{A}$ )
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		
Load regulation		$\leq 0.2\% + 3\text{mA}$ ( $I \leq 3\text{A}$ ); $\leq 0.2\% + 5\text{mA}$ ( $I > 3\text{A}$ )
Line regulation		$\leq 0.2\% + 3\text{mA}$
Ripple & Noise		$\leq 3\text{mA rms}$ ( $I \leq 3\text{A}$ ); $\leq 6\text{mA rms}$ ( $I > 3\text{A}$ )
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	$\leq 300\text{mV}$
Slave error		$\leq 0.5\% + 10\text{mV}$ of the master, no load (with load, add load regulation $\leq 300\text{mV}$ )
Display		
Meter		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 $\pm 10\%$ , 50/60Hz
Operating environment		0°C~40°C, <80%
Storage environment		-10°C~70°C, <80%
Accessories		Power cord x1, Operation manual x1, Test lead x2

## Selection guide

Model	Output Voltage	Output Current	Fixed output	Preset V&I	Output ON/OFF	Tracking Operation	Dimension (mm)	Weight (kg)
TP-30102	0~30V x2	0~10A x2		√	√	√	260x160x460	16
TP-60052	0~60V x2	0~5A x2		√	√	√	260x160x460	16

## Multiple Output Linear DC Power Supply

### Introduction

This series are a 4-in-1 linear DC power supplies, with two fully adjustable outputs and two auxiliary outputs. 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. Automatic cooling fan control give sufficient cooling to the power supply and minimize fan noise. The output ON/OFF control and over load & short circuit protections protect the power supply and related loads from unexpected damages. As a 4-in-1 power supply, this series provide multiple solutions for powering operational amplifier, push pull stages, logic circuit and definition systems.

### Features

- ✓ Four independent adjustable outputs (TP-4303/4305)
- ✓ Constant voltage, constant current operation
- ✓ Low ripple and noise, low temperature drift
- ✓ Auto Tracking
- ✓ Auto Series and Parallel operation
- ✓ Output ON/OFF control
- ✓ Preset current
- ✓ High efficiency, high power density
- ✓ Dual-color four digital panel meters

### Product photo

**TP-4303**



**TP-2603**



## Specifications

Constant voltage operation		
Load regulation		$\leq 0.01\% + 3\text{mV}$ ( $I \leq 3\text{A}$ ); $\leq 0.02\% + 3\text{mV}$ ( $I > 3\text{A}$ )
Line regulation		$\leq 0.01\% + 3\text{mV}$
Ripple & Noise		$\leq 1\text{mV rms}$ (5Hz~1MHz)
Temperature co-efficient		$\leq 300\text{ppm}/^\circ\text{C}$
Recovery time		$\leq 100\text{ms}$ (50% load change, minimum load 0.5A)
Constant current operation		
Load regulation		$\leq 0.2\% + 3\text{mA}$
Line regulation		$\leq 0.2\% + 3\text{mA}$
Ripple & Noise		$\leq 3\text{mA rms}$
Tracking operation		
Parallel	Line regulation	$\leq 0.01\% + 5\text{mV}$
	Load regulation	$\leq 0.02\% + 5\text{mV}$
Series	Line regulation	$\leq 0.01\% + 3\text{mV}$
	Load regulation	$\leq 300\text{mV}$
CH3 output 8~15V/1A		
Output accuracy		$\pm 8\%$
Max. output current		1A
Regulation		Line regulation $\leq 5\text{mV}$ , Load regulation $\leq 15\text{mV}$
Ripple & noise		$\leq 2.0\text{mVrms}$ (5Hz~1MHz)
CH4 output 2.2~5.2V/1A		
Output accuracy		$\pm 8\%$
Max. output current		1A
Regulation		Line regulation $\leq 5\text{mV}$ , Load regulation $\leq 15\text{mV}$
Ripple & noise		$\leq 2.0\text{mVrms}$ (5Hz~1MHz)
Display		
Meter		3 digits LED display
Resolution		Voltage: 100mV, Current: 10mA
Accuracy	Voltage	$\pm(0.5\% \text{ reading} + 2 \text{ digits})$
	Current	$\pm(1\% \text{ reading} + 2 \text{ digits})$
Power source		AC110V/220V $\pm 10\%$ , 50/60Hz
Operating environment		0°C~40°C, <80%
Storage environment		-10°C~70°C, <80%
Accessories		Power cord x1, Operation manual x1, Test lead x4

## Selection guide

Model	CH1 Output	CH2 Output	CH3 output	CH4 output	Preset V&I	Output ON/OFF	Tracking Operation	Dimension (mm)	Weight (kg)
TP-2603	0~60V 0~3A	0~60V 0~3A	5V 3A		Preset current	√	√	250x150x305	9.5
TP-4303	0~30V 0~3A	0~30V 0~3A	8~15V 1A	2.2~5.2V 1A	Preset current	√	√	250x150x305	6.9
TP-4305	0~30V 0~5A	0~30V 0~5A	8~15V 1A	2.2~5.2V 1A	Preset current	√	√	250x150x305	8.2

Specifications are subject to change without prior notice.

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