



TPP 시리즈의 Programmable DC Power Supply는 고성능의 마이크로 프로세서를 탑재하여 다양한 기능, 높은 안정성 및 정확도를 갖추고 있습니다. 출력 전압 및 전류의 가변이 매우 용이하며 RS-232C 인터페이스를 기본으로 내장되어 컴퓨터와의 통신 및 제어가 매우 간단합니다. 연구개발 및 엄격한 생산관리를 위한 자동화 환경 구축에는 최적의 프로그래머블 직류 전원 공급기입니다.

또한 출력 전압 리플, 전압 및 부하변동율이 매우 낮은 것이 특징이며, 전압, 전류 등의 각종 설정값들을 메모리에 저장(Store)하거나, 저장된 각종 설정값들을 불러오는(Recall) 기능이 있습니다. 뿐만 아니라 각종 임의파형을 구현하고, 정밀한 전류 미세조정이 가능하며, 정상부하 이내에 순간적으로 접촉할 시 순간 전압을 유지할 수 있는 부가 기능이 있으며, 전압 또는 전류의 설정 오류 시 경고음이 발생하는 고성능 전원공급기입니다.

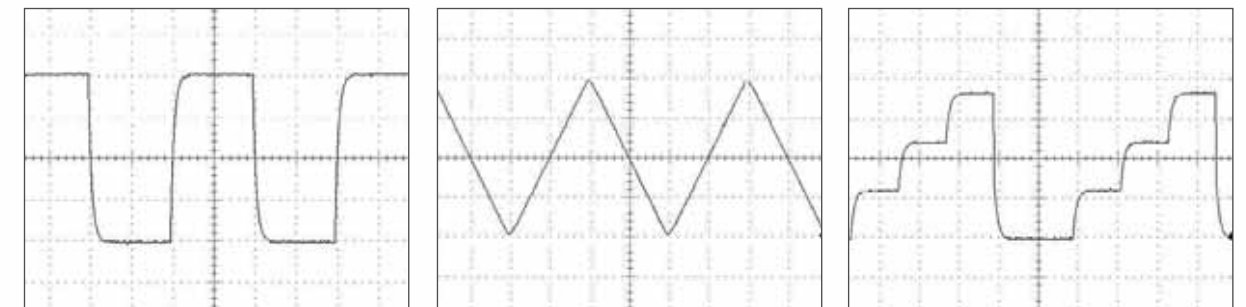
Applications

- ▶ Products and component test
- ▶ Process control system
- ▶ Capacitor and battery charging
- ▶ Power system
- ▶ Long aging test
- ▶ Load test
- ▶ R&D parts and laboratory
- ▶ LCD Manufacturer

Feature

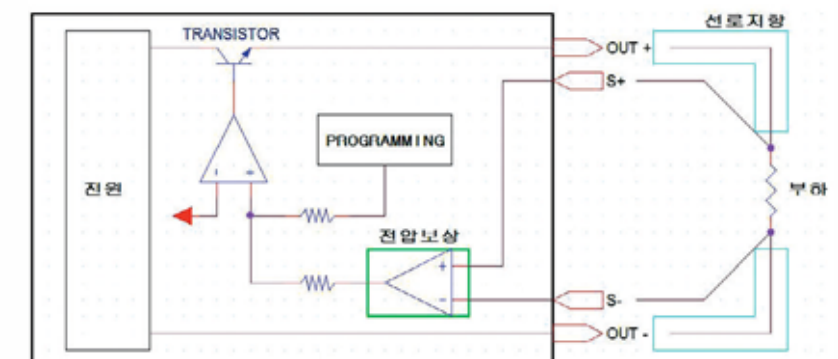
- ▶ High reliability
- ▶ Easy operation
- ▶ Low ripple and noise
- ▶ Excellent line and load regulation
- ▶ CV and CC operation
- ▶ Front and rear output
- ▶ Thermal shutdown
- ▶ Output voltage, current adj. by 10-turn-trimmer to precise control
- ▶ Memory store and recall

TPP Series는 Programmable DC Power Supply 입니다. TPP Series는 빠른 출력가변 모드로 다양한 출력 지원이 가능하며, 전압, 전류, 기율기, 유지시간 및 단계를 설정함으로써 사용자의 요구 및 개별적 환경에 적합한 다양한 실험을 수행할 수 있습니다. 또한 구형파를 만들어 릴레이를 실험하거나, 삼각파를 만들어 모터를 구동, 혹은 계단파를 만들어 다양한 응용 실험을 할 수 있습니다.



TPP Series는 RS-232C 인터페이스를 기본으로 제공하고 있습니다. RS-232C 인터페이스를 통해서 PC, PLC등으로 자유롭게 TPP Series를 제어하거나 입, 출력 데이터를 활용하여 양, 불 판정 및 다양한 용도로 활용할 수 있습니다.

TPP Series는 Remote Voltage Sensing (V-Sensing)기능을 제공하여 선로저항으로 인한 전압 손실을 보상합니다. 따라서 더욱 안정되고 정밀한 전원의 부하 전달을 가능하게 합니다.





Programmable Power Supply

TPP3000-Series

30V, 10A~200A



Feature

- ▶ Auto step running with timer setting
- ▶ High reliability
- ▶ Easy operation by keypad
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C standard interface
- ▶ 2years warranty

Specification

Model		TPP-3010	TPP-3020	TPP-3030	TPP-3050	TPP-30100	TPP-30200	주문형
Channel		1 CH						1 or 2 CH
Output	Voltage	30V	30V	30V	30V	30V	30V	0~30V
	Current	10A	20A	30A	50A	100A	200A	0~500A
Line regulation		0.003 % ±3m V						15kW 이내
Load regulation		0.005 % ±3m V						
Ripple noise(rms.)		〈5m Vrms						
Attack time of current		100 μs						
Display	Voltage	2 × 16 LCD, 10mV step, display						
	Current	2 × 16 LCD, 10mA step, display			2 × 16 LCD, 100mA step, display			
Control	Local	Switch						
	Remote	RS-232						
OVP		Over voltage protection program						
OCP		Over current protection program						
Variable mode	Step	1 ~ 10 step						
	Slope	0.1 ~ 10.000 sec						
	Hold	0.2 ~ 10000.000 sec						
	Repeat	0 ~ 100000 (“0” repeats forever)						
	Memory	10						
Temperature		0 ~ 40℃ / -20℃ ~ 60℃						
Cooling system		Fan						
Insulation resistance		10 MΩ min, At 500V DC between power supply and case						
		10 MΩ min, At 500V DC between input terminals and case						
Withstanding voltage		1500V AC between power supply and case for 1 minute						
Power		AC 220V ± 10%, 60Hz, Approx. A						
Dimension (W × H × D)mm		435 × 132 × 360	435 × 177 × 360	435 × 177 × 360	435 × 132 × 500	435 × 221 × 500	435 × 221 × 500	

Programmable Power Supply



TPP5000-Series

50V, 10A~200A



Feature

- ▶ Auto step running with timer setting
- ▶ High reliability
- ▶ Easy operation by keypad
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C standard interface
- ▶ 2years warranty

Specification

Model		TPP-5010	TPP-5020	TPP-5030	TPP-5050	TPP-50100	TPP-50200	주문형
Channel		1 CH						1 or 2 CH
Output	Voltage	50V	50V	50V	50V	50V	50V	30 ~ 50V
	Current	10A	20A	30A	50A	100A	200A	0~300A
Line regulation		0.003 % ±3m V						15kW 이하
Load regulation		0.005 % ±3m V						
Ripple noise(rms.)		〈5m Vrms						
Attack time of current		100 μs						
Display	Voltage	2 ×16 LCD, 10mV step, display						
	Current	2 ×16 LCD, 10mA step, display			2 ×16 LCD, 100mA step, display			
Control	Local	Switch						
	Remote	RS-232						
OVP		Over voltage protection program						
OCP		Over current protection program						
Variable mode	Step	1 ~ 10 step						
	Slope	0.1 ~ 10.000 sec						
	Hold	0.2 ~ 10000.000 sec						
	Repeat	0 ~ 100000("0" repeats forever)						
	Memory	10						
Temperature		0 ~ 40℃ / -20℃ ~ 60℃						
Cooling system		Fan						
Insulation resistance		10 MΩ min, At 500V DC between power supply and case						
		10 MΩ min, At 500V DC between input terminals and case						
Withstanding voltage		1500V AC between power supply and case for 1 minute						
Power		AC 220V ± 10%, 60Hz, Approx. A						
Dimension (W×H×D)mm		435×177×360	435×177×360	435×177×360	435×132×500	435×221×500	435×221×500	



Programmable Power Supply

TPP10000-Series

100V, 3A~50A



Feature

- ▶ Auto step running with timer setting
- ▶ High reliability
- ▶ Easy operation by keypad
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C standard interface
- ▶ 2years warranty

Specification

Model		TPP-1003	TPP-1005	TPP-10010	TPP-10020	TPP-10030	TPP-10050	주문형
Channel		1 CH						1 or 2 CH
Output	Voltage	100V	100V	100V	100V	100V	100V	50~100V
	Current	3A	5A	10A	20A	30A	50A	0~100A
Line regulation		0.003 % \pm 3m V						10kW 이내
Load regulation		0.005 % \pm 3m V						
Ripple noise(rms.)		< 5m Vrms						
Attack time of current		100 μ s						
Display	Voltage	2 \times 16 LCD, 10mV step, display						
	Current	2 \times 16 LCD, 10mA step, display					100mA step	
Control	Local	Switch						
	Remote	RS-232						
OVP		Over voltage protection program						
OCP		Over current protection program						
Variable mode	Step	1 ~ 10 step						
	Slope	0.1 ~ 10.000 sec						
	Hold	0.2 ~ 10000.000 sec						
	Repeat	0 ~ 100000 (“0” repeats forever)						
	Memory	10						
Temperature		0 ~ 40℃ / -20℃ ~ 60℃						
Cooling system		Fan						
Insulation resistance		10 M Ω min, At 500V DC between power supply and case						
		10 M Ω min, At 500V DC between input terminals and case						
Withstanding voltage		1500V AC between power supply and case for 1 minute						
Power		AC 220V \pm 10%, 60Hz, Approx. A						
Dimension (W \times H \times D)mm		435 \times 132 \times 360	435 \times 132 \times 360	435 \times 177 \times 360	435 \times 221 \times 500	435 \times 221 \times 500	600 \times 800 \times 650	

Programmable Power Supply



TPP20000-Series

200V, 2A~30A



Feature

- ▶ Auto step running with timer setting
- ▶ High reliability
- ▶ Easy operation by keypad
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C standard interface
- ▶ 2years warranty

Specification

Model		TPP-2002	TPP-2003	TPP-2005	TPP-20010	TPP-20020	TPP-20030	주문형
Channel		1 CH						1 or 2 CH
Output	Voltage	200V	200V	200V	200V	200V	200V	100 ~ 200V
	Current	2A	3A	5A	10A	20A	30A	0 ~ 50A
Line regulation		0.003 % \pm 3m V						10 kW 이하
Load regulation		0.005 % \pm 3m V						
Ripple noise(rms.)		< 5m V rms						
Attack time of current		100 μ s						
Display	Voltage	2 \times 16 LCD, 10mV step, display						
	Current	2 \times 16 LCD, 10mA step, display			2 \times 16 LCD, 100mA step, display			
Control	Local	Switch						
	Remote	RS-232						
OVP		Over voltage protection program						
OCP		Over current protection program						
Variable mode	Step	1 ~ 10 step						
	Slope	0.1 ~ 10.000 sec						
	Hold	0.2 ~ 10000.000 sec						
	Repeat	0 ~ 100000 ("0" repeats forever)						
	Memory	10						
Temperature		0 ~ 40℃ / -20℃ ~ 60℃						
Cooling system		Fan						
Insulation resistance		10 M Ω min, At 500V DC between power supply and case						
		10 M Ω min, At 500V DC between input terminals and case						
Withstanding voltage		1500V AC between power supply and case for 1 minute						
Power		AC 220V \pm 10%, 60Hz, Approx. A						
Dimension (W \times H \times D)mm		435 \times 132 \times 360	435 \times 177 \times 360	435 \times 177 \times 360	435 \times 221 \times 500	435 \times 221 \times 500	435 \times 221 \times 500	



Programmable Power Supply

TPP30000-Series

300V, 1A~20A



Feature

- ▶ Auto step running with timer setting
- ▶ High reliability
- ▶ Easy operation by keypad
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C standard interface
- ▶ 2years warranty

Specification

Model	TPP-3001	TPP-3002	TPP-3003	TPP-3005	TPP-30010	TPP-30020	주문형
Channel	1 CH						1 or 2 CH
Output	Voltage	300V	300V	300V	300V	300V	200 ~ 300V
	Current	1A	2A	3A	5A	10A	0 ~ 50A
Line regulation		0.003 % \pm 3m V					
Load regulation		0.005 % \pm 3m V					
Ripple noise(rms.)		< 5m Vrms					
Attack time of current		100 μ s					
Display	Voltage	2 \times 16 LCD, 100mV step, display					
	Current	2 \times 16 LCD, 10mA step, display					
Control	Local	Switch					
	Remote	RS-232					
OVP		Over voltage protection program					
OCP		Over current protection program					
Variable mode	Step	1 ~ 10 step					
	Slope	0.1 ~ 10.000 sec					
	Hold	0.2 ~ 10000.000 sec					
	Repeat	0 ~ 100000 ("0" repeats forever)					
	Memory	10					
Temperature		0 ~ 40 $^{\circ}$ C / -20 $^{\circ}$ C ~ 60 $^{\circ}$ C					
Cooling system		Fan					
Insulation resistance		10 M Ω min, At 500V DC between power supply and case					
		10 M Ω min, At 500V DC between input terminals and case					
Withstanding voltage		1500V AC between power supply and case for 1 minute					
Power		AC 220V \pm 10%, 60Hz, Approx. A					
Dimension (W \times H \times D)mm		435 \times 132 \times 360	435 \times 177 \times 360	435 \times 177 \times 500	435 \times 177 \times 500	435 \times 221 \times 500	435 \times 221 \times 500

Programmable Power Supply



TPP50000-Series

500V, 1A~20A



Feature

- ▶ Auto step running with timer setting
- ▶ High reliability
- ▶ Easy operation by keypad
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C standard interface
- ▶ 2years warranty

Specification

Model		TPP-5001	TPP-5002	TPP-5003	TPP-5005	TPP-50010	TPP-50020	주문형
Channel		1 CH						1 or 2 CH
Output	Voltage	500V	500V	500V	500V	500V	500V	300 ~ 500V
	Current	1A	2A	3A	5A	10A	20A	0 ~ 50A
Line regulation		0.003 % \pm 3m V						25 kW 이하
Load regulation		0.005 % \pm 3m V						
Ripple noise(rms.)		< 5m Vrms						
Attack time of current		100 μ s						
Display	Voltage	2 \times 16 LCD, 10mV step, display						
	Current	2 \times 16 LCD, 10mA step, display			2 \times 16 LCD, 100mA step, display			
Control	Local	Switch						
	Remote	RS-232						
OVP		Over voltage protection program						
OCP		Over current protection program						
Variable mode	Step	1 ~ 10 step						
	Slope	0.1 ~ 10.000 sec						
	Hold	0.2 ~ 10000.000 sec						
	Repeat	0 ~ 100000("0" repeats forever)						
	Memory	10						
Temperature		0 ~ 40℃ / -20℃ ~ 60℃						
Cooling system		Fan						
Insulation resistance		10 M Ω min, At 500V DC between power supply and case						
		10 M Ω min, At 500V DC between input terminals and case						
Withstanding voltage		1500V AC between power supply and case for 1 minute						
Power		AC 220V \pm 10%, 60Hz, Approx. A						
Dimension (W \times H \times D)mm		435 \times 177 \times 360	435 \times 177 \times 360	435 \times 221 \times 500	435 \times 221 \times 500	435 \times 221 \times 500	600 \times 800 \times 650	



Programmable Power Supply

TPP80000-Series

800V, 1A~20A



Feature

- ▶ Auto step running with timer setting
- ▶ High reliability
- ▶ Easy operation by keypad
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C standard interface
- ▶ 2years warranty

Specification

Model		TPP-8001	TPP-8002	TPP-8003	TPP-8005	TPP-80010	TPP-80020	주문형
Channel		1 CH						1 or 2 CH
Output	Voltage	800V	800V	800V	800V	800V	800V	500~800V
	Current	1A	2A	3A	5A	10A	20A	0~50A
Line regulation		0.003 % \pm 3m V						40 kW 이내
Load regulation		0.005 % \pm 3m V						
Ripple noise(rms.)		< 5m Vrms						
Attack time of current		100 μ s						
Display	Voltage	2 \times 16 LCD						
	Current	2 \times 16 LCD						
Control	Local	Switch						
	Remote	RS-232						
Control resolution	Voltage	100mV						
	Current	10mA						
OVP		Over voltage protection program						
OCP		Over current protection program						
Variable mode	Step	1 ~ 10 step						
	Slope	0.1 ~ 10.000 sec						
	Hold	0.2 ~ 10000.000 sec						
	Repeat	0 ~ 100000("0" repeats forever)						
	Memory	10						
Temperature		0 ~ 40℃ / -20℃ ~ 60℃						
Cooling system		Fan						
Insulation resistance		10 M Ω min, At 500V DC between power supply and case						
		10 M Ω min, At 500V DC between input terminals and case						
Withstanding voltage		1500V AC between power supply and case for 1 minute						
Power		AC 220V \pm 10%, 60Hz, Approx. A						
Dimension (W \times H \times D)mm		435 \times 177 \times 360	435 \times 177 \times 500	435 \times 177 \times 500	435 \times 221 \times 500	600 \times 800 \times 650	600 \times 800 \times 650	

Programmable Power Supply



TPP100000-Series

1000V, 1A~2A



Feature

- ▶ Auto step running with timer setting
- ▶ High reliability
- ▶ Easy operation by keypad
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C standard interface
- ▶ 2years warranty

Specification

Model	TPP-10001	TPP-10002	주문형
Channel	1 or 2 CH		1 or 2 CH
Output	Voltage	1000V	800~1000V
	Current	1A	0~2A
Line regulation		0.003% \pm 3mV	
Load regulation		0.005% \pm 3mV	
Ripple noise(rms.)		<5mVrms	
Attack time of current		100 μ s	
Display	Voltage	2 \times 16 LCD, 100mV step, display	
	Current	2 \times 16 LCD, 10mA step, display	
Control	Local	Switch	
	Remote	RS-232	
OVP		Over voltage protection program	
OCP		Over current protection program	
Variable mode	Step	1 ~ 10 step	
	Slope	0.1 ~ 10.000 Sec	
	Hold	0.2 ~ 10000.000 Sec	
	Repeat	0 ~ 100000("0" repeats forever)	
	Memory	10	
Temperature		0 ~ 40°C / -20°C ~ 60°C	
Cooling system		Fan	
Insulation resistance		10 M Ω min, At 500V DC between power supply and case	
		10 M Ω min, At 500V DC between input terminals and case	
Withstanding voltage		1500V AC between power supply and case for 1 minute	
Power		AC 220V \pm 10%, 60Hz, Approx. A	
Dimension (W \times H \times D)mm		435 \times 177 \times 500	435 \times 221 \times 500