

PRODUCT CATALOGUE

Power Supply



Introduce

(주)티엠에스는 1995년에 설립되어 전기&전자산업 분야에서 필요로 하는 테스트 및 계측 솔루션을 제공해 온 계측전문 기업으로서, 급변하는 시대적 흐름에 발맞추고, 나날이 다양해지는 고객의 니즈(Needs)에 부응하고자 그 동안의 축적된 경험과 기술력을 바탕으로 새롭게 전원공급기 개발/제조업체로서의 힘찬 향해를 시작하였습니다.

이미 2007년 기업부설연구소의 설립으로 체계화된 연구개발 환경을 구축하였으며, 현재는 고객의 요구에 맞춘 차별화되고 최적화된 고품질/고신뢰성의 제품을 지속적으로 개발, 생산 하는 데 주력하고 있습니다. 최근 대용량 스위칭 모드 전원공급기의 성공적인 연구개발 성과는 향후 지속적인 연구 개발로 이어져 국내 전기/전자 산업의 근간이 되는 전원공급기 분야의 획기적인 발전 기틀을 마련할 것으로 확신하고 있습니다. 뿐만 아니라, 꾸준한 고객친화적 기술 개발 및 핵심기술역량 강화 등 전원공급기 개발/제조업체로서 면모를 강화하고 확고히 자리매김하고자 끊임없이 노력하고 있습니다.

항상 고객의 소리에 귀 기울이는 고객 여러분의 파트너이자 동시에 업계 최고의 미래 지향적 가치를 지닌 기술선도기업으로서 성장할 수 있도록 아낌없는 성원과 격려 부탁드립니다.

감사합니다.

(주)티엠에스
대표이사 우 원 제

Power Supply

Programmable Power Supply	A1 - A10
Regulated Power Supply	B1 - B8
Laboratory Programmable Power Supply	C1 - C3
Constant Current Power Supply	D1
Laboratory Power Supply	E1 - E2
Electric Load	F1
Inpluse Winding Tester	G1



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, 전원 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.

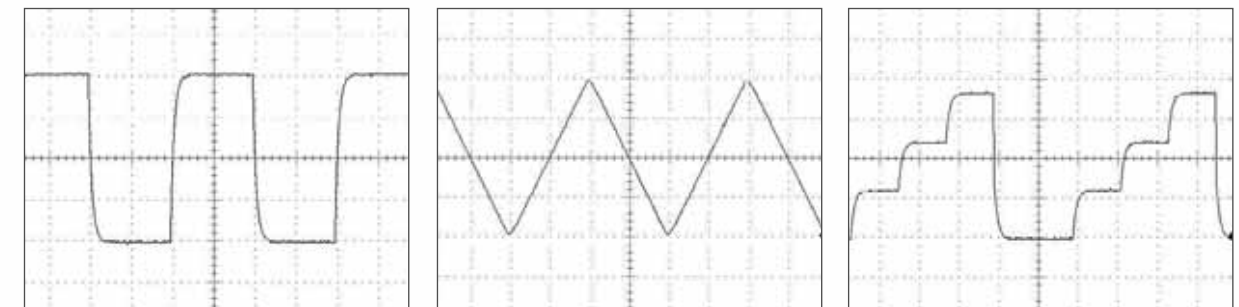
Applications

- ▶ 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

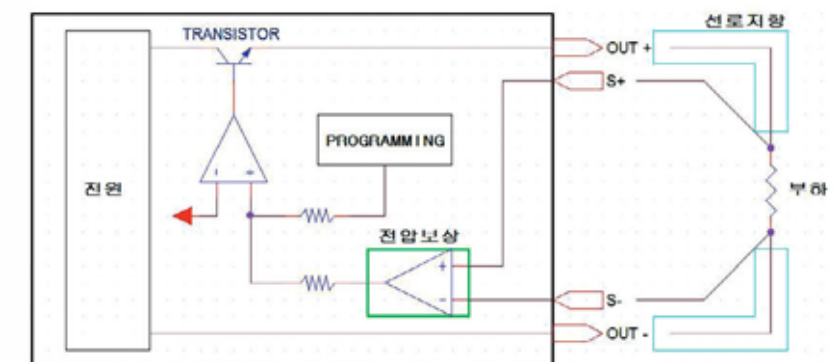
- ▶ High reliability
- ▶ Easy operation
- ▶ Low ripple and noise
- ▶ Excellent line and load regulation
- ▶ CV and CC operation
- ▶ Front and rear output
- ▶ Thermal shutdown
- ▶ Output voltage, current adj. by 10-turn-trimmer to precise control
- ▶ Memory store and recall

TPP Series는 Programmable DC Power Supply 입니다. TPP Series는 빠른 출력가변 모드로 다양한 출력 지원이 가능하며, 전압, 전류, 기울기, 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.





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	0~30V
	Current	10A	20A	30A	50A	100A	200A
Line regulation	0.003% ±3mV						15kW 이내
Load regulation	0.005% ±3mV						
Ripple noise(rms.)	<5mV rms						
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°C / -20°C ~ 60°C						
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	



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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% ±3mV						15kW 이내	
Load regulation	0.005% ±3mV							
Ripple noise(rms.)	<5mV rms							
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°C / -20°C ~ 60°C							
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		



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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	50~100V	
	Current	3A	5A	10A	20A	30A	0~100A	
Line regulation	0.003% ±3mV						10kW 이내	
Load regulation	0.005% ±3mV							
Ripple noise(rms.)	<5mVrms							
Attack time of current	100 μs							
Display	Voltage	2 × 16 LCD, 10mV step, display						100mA step
	Current	2 × 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 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 × 132 × 360	435 × 177 × 360	435 × 221 × 500	435 × 221 × 500	600 × 800 × 650		



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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	100 ~ 200V	
	Current	2A	3A	5A	10A	20A	30A	0 ~ 50A
Line regulation	0.003% ±3mV						10kW 이내	
Load regulation	0.005% ±3mV							
Ripple noise(rms.)	<5mVrms							
Attack time of current	100 μs							
Display	Voltage	2 × 16 LCD, 10mV step, display						2 × 16 LCD, 100mA step, display
	Current	2 × 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 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 × 221 × 500	435 × 221 × 500	435 × 221 × 500		



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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	20A
Line regulation	0.003% ±3mV						15kW 이내
Load regulation	0.005% ±3mV						
Ripple noise(rms.)	<5mVrms						
Attack time of current	100 μs						
Display	Voltage	2 × 16 LCD, 100mV step, display					
	Current	2 × 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 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 × 500	435 × 177 × 500	435 × 221 × 500	435 × 221 × 500	



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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	300 ~ 500V
	Current	1A	2A	3A	5A	10A	20A
Line regulation	0.003% ±3mV						25kW 이내
Load regulation	0.005% ±3mV						
Ripple noise(rms.)	<5mVrms						
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°C / -20°C ~ 60°C						
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 × 221 × 500	435 × 221 × 500	435 × 221 × 500	600 × 800 × 650	



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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	500~800V	
	Current	1A	2A	3A	5A	10A	20A	0~50A
Line regulation	0.003% ±3mV						40kW 이내	
Load regulation	0.005% ±3mV							
Ripple noise(rms.)	<5mVrms							
Attack time of current	100 μs							
Display	Voltage	2 × 16 LCD						
	Current	2 × 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 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 × 500	435 × 177 × 500	435 × 221 × 500	600 × 800 × 650	600 × 800 × 650		



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Specification

Model	TPP-10001	TPP-10002	주문형	
Channel	1 or 2 CH		1 or 2 CH	
Output	Voltage	1000V	1000V	800~1000V
	Current	1A	2A	0~2A
Line regulation	0.003% ±3mV		2kW 이내	
Load regulation	0.005% ±3mV			
Ripple noise(rms.)	<5mVrms			
Attack time of current	100 μs			
Display	Voltage	2 × 16 LCD, 100mV step, display		
	Current	2 × 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℃ / -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 × 500	435 × 221 × 500		



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Specification

Model	TIP-3010	TIP-3020	TIP-3030	TIP-3050	TIP-30100	TIP-30200	주문형
Channel	1 CH						1 or 2 CH
Output	Voltage	30V	30V	30V	30V	30V	0 ~ 30V
	Current	10A	20A	30A	50A	100A	0 ~ 500A
Line regulation	0.003% ±3mV						15 kW 이내
Load regulation	0.005% ±3mV						
Ripple noise(rms.)	< 5mVrms						
Attack time of current	100 μs						
Display	Voltage	LED, 100mV step, display fan 4 digit					
	Current	LED, 10mA step, display		LED, 100mA step, display			
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 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	



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Model	TIP-5010	TIP-5020	TIP-5030	TIP-5050	TIP-50100	TIP-50200	주문형
Channel	1 CH						1 or 2 CH
Output	Voltage	50V	50V	50V	50V	50V	30~50V
	Current	10A	20A	30A	50A	100A	0~300A
Line regulation	0.003% ±3mV						15 kW 이내
Load regulation	0.005% ±3mV						
Ripple noise(rms.)	< 5mVrms						
Attack time of current	100 μs						
Display	Voltage	LED, 100mV step, display fan 4 digit					
	Current	LED, 10mA step, display		LED, 100mA step, display			
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 MΩ min, At 500V DC between power supply and case						
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Specification

Model	TIP-1003	TIP-1005	TIP-10010	TIP-10020	TIP-10030	TIP-10050	주문형
Channel	1 CH						1 or 2 CH
Output	Voltage	100V	100V	100V	100V	100V	100V
	Current	3A	5A	10A	20A	30A	50A
Line regulation	0.003% ±3mV						
Load regulation	0.005% ±3mV						
Ripple noise(rms.)	< 5mV rms						
Attack time of current	100 μs						
Display	Voltage	LED, 100mV step, display fan 4 digit					
	Current	LED, 10mA step, display			LED, 100mA step, display		
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	435×132×360	435×177×360	435×221×500	435×221×500	600×800×650	10 kW 이내



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	TIP-2002	TIP-2003	TIP-2005	TIP-20010	TIP-20020	TIP-20030	주문형
Channel	1 CH						1 or 2 CH
Output	Voltage	200V	200V	200V	200V	200V	200V
	Current	2A	3A	5A	10A	20A	30A
Line regulation	0.003% ±3mV						
Load regulation	0.005% ±3mV						
Ripple noise(rms.)	< 5mV rms						
Attack time of current	100 μs						
Display	Voltage	LED, 100mV step, display fan 4 digit					
	Current	LED, 10mA step, display					
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	435×221×500	435×221×500	435×221×500	10 kW 이내



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	TIP-3001	TIP-3002	TIP-3003	TIP-3005	TIP-30010	TIP-30020	주문형	
Channel	1 CH						1 or 2 CH	
Output	Voltage	300V	300V	300V	300V	300V	200~300V	
	Current	1A	2A	3A	5A	10A	20A	
Line regulation	0.003% ±3mV						15kW 이내	
Load regulation	0.005% ±3mV							
Ripple noise(rms.)	< 5mV rms							
Attack time of current	100 μs							
Display	Voltage	LED, 100mV step, display fan 4 digit						
	Current	LED, 10mA step, display						
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	435×177×500	435×177×500	435×221×500	435×221×500		



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	TIP-5001	TIP-5002	TIP-5003	TIP-5005	TIP-50010	TIP-50020	주문형	
Channel	1 CH						1 or 2 CH	
Output	Voltage	500V	500V	500V	500V	500V	300 ~ 500V	
	Current	1A	2A	3A	5A	10A	20A	
Line regulation	0.003% ±3mV						25kW 이내	
Load regulation	0.005% ±3mV							
Ripple noise(rms.)	< 5mV rms							
Attack time of current	100 μs							
Display	Voltage	LED, 100mV step, display fan 4 digit						
	Current	LED, 10mA step, display						
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	435×221×500	435×221×500	435×221×500	600×800×650		



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	TIP-8002	TIP-8003	TIP-8005	TIP-80010	TIP-80020	주문형
Channel	1 CH						1 or 2 CH
Output	Voltage	800V	800V	800V	800V	800V	800V
	Current	1A	2A	3A	5A	10A	20A
Line regulation	0.003% ±3mV						
Load regulation	0.005% ±3mV						
Ripple noise(rms.)	< 5mV rms						
Attack time of current	100 μs						
Display	Voltage	LED, 100mV step, display fan 4 digit					
	Current	LED, 10mA step, display					
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	435×177×500	435×177×500	435×221×500	600×800×650	600×800×650	40kW 이내



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	TIP-10001	TIP-10002	주문형
Channel	1 or 2 CH		1 or 2 CH
Output	Voltage	1000V	1000V
	Current	1A	2A
Line Regulation	0.003% ±3mV		
Load Regulation	0.005% ±3mV		
Ripple Noise(rms.)	< 5mV rms		
Attack time of current	100 μs		
Display	Voltage	LED, 10mV step, display fan 4 digit	
	Current	LED, 10mA step, display	
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	435×177×500	435×221×500	2kW 이내



TGP-Series는 기본적으로 RS-232C와 GPIB가 인터페이스를 내장하여 컴퓨터와의 통신 및 제어가 간단하고, 2개의 출력단자는 완전히 독립적으로 되어있습니다. 또한 2개 채널의 전압과 전류를 동시에 변화시킬 수 있는 Tracking도 가능할 뿐만 아니라 로타리 노브에 의해 전압과 전류를 간단히 설정할 수 있는 고정밀 실험실용 전원공급기입니다.

Feature

- ▶ High reliability
- ▶ Auto tracking
- ▶ V-Sensing
- ▶ Self-test and software calibration
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C and GPIB interface
- ▶ Built in buzzer alarm
- ▶ Easy operation with rotary knob

Specification

Model	TGP-3002D	TGP-3002T	TGP-3003D	TGP-3003T	주문형
Channel	2CH	2+1CH	2CH	2+1CH	2 or 2+1CH
Output	Voltage	30V	30V	30V	30V
	Current	2A	2A	3A	3A
Line regulation	0.005% ±3mV				300W 이내
Load regulation	0.005% ±3mV				
Ripple & Noise	< 2mVrms				
Display	Voltage	7 Segment LED 10mV step, display			
	Current	7 Segment LED 1mA step, display			
Control	Local	Jog, Switch			
	Remote	RS-232, GPIB			
Protection	OVP, OCP, OTP				
Withstanding voltage	1500V AC between power supply and case for 1 minute				
Insulation resistance	10 MΩ min, At 500V DC between input terminals and case				
Cooling system	Fan				
Temperature	0 ~ 40°C / -20°C ~ 60°C				
Dimension / Weight	330(W) × 100(H) × 320(D) / 약 10.6kg				
AC Power	AC 100/110/220/240V ± 10%, 50/60Hz				
Accessories	Manual, Power, Code, Fuse				



TGP-Series는 기본적으로 RS-232C와 GPIB가 인터페이스를 내장하여 컴퓨터와의 통신 및 제어가 간단하고, 2개의 출력단자는 완전히 독립적으로 되어있습니다. 또한 2개 채널의 전압과 전류를 동시에 변화시킬 수 있는 Tracking도 가능할 뿐만 아니라 로타리 노브에 의해 전압과 전류를 간단히 설정할 수 있는 고정밀 실험실용 전원공급기입니다.

Feature

- ▶ High reliability
- ▶ Auto tracking
- ▶ V-Sensing
- ▶ Self-test and software calibration
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C and GPIB interface
- ▶ Built in buzzer alarm
- ▶ Easy operation with rotary knob

Specification

Model	TGP-3005	TGP-3010	TGP-6002	TGP-10001	주문형	
Channel	1CH				1CH	
Output	Voltage	30V	30V	60V	100V	200V
	Current	5A	10A	2A	1A	1A
Line regulation	0.005% ±3mV				300W 이내	
Load regulation	0.005% ±3mV					
Ripple & Noise	< 2mVrms					
Display	Voltage	7 Segment LED 10mV step, display				
	Current	7 Segment LED 1mA step, display				
Control	Local	Jog, Switch				
	Remote	RS-232, GPIB				
Protection	OVP, OCP, OTP					
Withstanding voltage	1500V AC between power supply and case for 1 minute					
Insulation resistance	10 MΩ min, At 500V DC between input terminals and case					
Cooling system	Fan					
Temperature	0 ~ 40°C / -20°C ~ 60°C					
Dimension / Weight	330(W) × 100(H) × 320(D) / 약 10.6kg					
AC Power	AC 100/110/220/240V ± 10%, 50/60Hz					
Accessories	Manual, Power, Code, Fuse					



DTGP Series는 RS-232C와 GPIB 인터페이스가 기본적으로 내장되어있어 통신에 의한 제어가 쉽고 2중 출력 기능이 있어 사용자가 원하는 전압과 전류의 범위를 바꿀 수 있습니다. 또한 낮은 리플 노이즈로 인한 정밀한 테스트 및 실험을 가능케 하여 고성능 전원공급기로서 측정품질을 향상시키고 테스트 시간을 절감시킬 수 있도록 설계되어 있습니다.

Feature

- ▶ Dual range output
- ▶ Remote sensing
- ▶ Low noise and excellent regulation
- ▶ Front and rear output terminal
- ▶ Over voltage, over current & over temperature protection
- ▶ RS-232C and GPIB interface
- ▶ Self-test and software calibration
- ▶ Easy operation with rotary knob

Specification

Model	DTGP-3004		DTGP-6003		주문형
Channel	1 CH				1CH
Output	Voltage	30V	15V	60V	30V
	Current	4A	7A	3A	6A
Line regulation	0.005% ±3mV				300W 이내
Load regulation	0.005% ±3mV				
Ripple & Noise	< 2mVrms				
Display	Voltage	7 Segment LED 10mV step, display			
	Current	7 Segment LED 1mA step, display			
Control	Local	Jog, Switch			
	Remote	RS-232, GPIB			
Protection	OVP, OCP, OTP				
Withstanding voltage	1500V AC between power supply and case for 1 minute				
Insulation resistance	10 MΩ min, At 500V DC between input terminals and case				
Cooling system	Fan				
Temperature	0 ~ 40°C / -20°C ~ 60°C				
Dimension / Weight	330(W) × 100(H) × 320(D) / 약 10.6kg				
AC Power	AC 100/110/220/240V ± 10%, 50/60Hz				
Accessories	Manual, Power, Code, Fuse				

TCC-10004 (1000V, 4mA) 8채널 정전류 Power Supply



8채널 정전류 Power Supply! 정전류를 여러 부하로 공급하고자 할 때 유용한 정전류용 Power Supply 입니다. 다양한 사양으로 주문 생산도 가능합니다.

Feature

- ▶ 8채널로 구성
- ▶ 부하에 따라 출력 전압은 변화
- ▶ 부하가 변동하여도 출력 전류를 일정하게 공급하는 Power Supply
- ▶ 출력 : 0~1000V, 4mA

TCD-7502 (750V, 1.999mA) 가변형 정전류 Power Supply



가변형 정전류 Power Supply! 10진수 방식으로 정전류를 출력하고 싶을 때 꼭 맞는 정전류용 Power Supply입니다. 합리적인 가격에 고품질의 제품을 이용하실 수 있는 절호의 제품입니다.

Feature

- ▶ 각 스텝 가변형의 다이얼 방식
- ▶ 스텝 : 10 μ A, 100 μ A, 1mA, 10mA (1CH)
- ▶ 다양한 모델로 주문 제작이 가능
- ▶ 부하가 변동하여도 출력 전류를 일정하게 공급하는 Power Supply
- ▶ 부하에 따라 출력 전압은 변화
- ▶ 출력 : 1 μ A ~ 100mA



Feature

- ▶ Triple output (Fixed 1, Variable2)
- ▶ Laboratory power supply
- ▶ Low ripple and noise
- ▶ Series of parallel with tracking control function
- ▶ High stability & Low cost
- ▶ Over load protected
- ▶ 3 1/2 Digit digital display
- ▶ 5V 3A Fixed output

Specification

Model		TOP3003 - 3	TOP3005 - 3	TOP5003 - 2
Output	Voltage	0 ~ 30V, 5V (FIXED)	0 ~ 30V, 5V (FIXED)	0 ~ 50V
	Current	0 ~ 3A, 3A (FIXED)	0 ~ 5A, 3A (FIXED)	0 ~ 3A
Channel		2 + 1 CH		2 CH
Ripple & Noise		< 1m Vrms		
Line regulation	Voltage	≤ 0.02 % + 1m V		
	Current	0.02 % ± 2m A		
Load regulation	Voltage	≤ 0.01 % + 5m V		
	Current	5m A		
Voltage regulation		0.1 V		
Current regulation		0.01 A		
Transient recovery time		100 μs (50% Load charge, minimum load 0.5 A)		
Display	Voltage	3 1/2 Digital range digital display		
	Current	3 1/2 Digital range digital display		
Protection	Over voltage	Full scale of DC output voltage + 9%		
	Over current	Full scale of DC output voltage + 9%		
	Temperature	Only heat sink 85°C		
Operating environment		0~40°C, 80% R.H.		
AC power source		AC 110/220V ± 10%, 50/60 Hz (Customer made)		
Analog input for voltage control		0 ~ 10V DC Input / 0 ~ Full scale DC output voltage		
Accessories		Input power cord, Manual, Output cable		
Weight (kg)		8 ~ 13 kg		
Dimension (W×D×Hmm)		365 X 265 X 164		



Feature

- ▶ Single output
- ▶ Laboratory power supply
- ▶ Low ripple and noise
- ▶ High stability & Low cost
- ▶ Over load protected
- ▶ 3 1/2 Digit digital display

Specification

Model		TOP3003	TOP3005	TOP5003
Output	Voltage	0 ~ 30V	0 ~ 30V	0 ~ 50V
	Current	0 ~ 3A	0 ~ 5A	0 ~ 3A
Channel		1 CH		
Ripple & Noise		< 1m Vrms		
Line regulation	Voltage	≤ 0.02 % + 1m V		
	Current	0.02 % ± 2m A		
Load regulation	Voltage	≤ 0.01 % + 5m V		
	Current	5m A		
Voltage regulation		0.1 V		
Current regulation		0.01 A		
Transient recovery time		100 μs (50% Load charge, minimum load 0.5 A)		
Display	Voltage	3 1/2 Digital range digital display		
	Current	3 1/2 Digital range digital display		
Protection	Over voltage	Full scale of DC output voltage + 9%		
	Over current	Full scale of DC output voltage + 9%		
	Temperature	Only heat sink 85°C		
Operating environment		0~40°C, 80% R.H.		
AC power source		AC 110/220V ± 10%, 50/60 Hz (Customer made)		
Analog input for voltage control		0 ~ 10V DC Input / 0 ~ Full scale DC output voltage		
Accessories		Input power cord, Manual, Output cable		
Weight (kg)		3~6 kg		
Dimension (W×D×Hmm)		291 X 158 X 136		

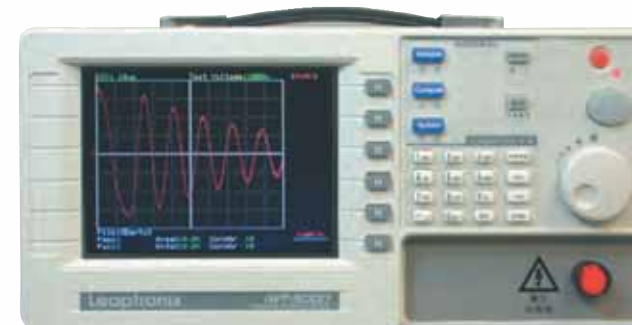


Feature

- ▶ LCD display with backlight
- ▶ High resolution measurement
- ▶ Number keypad and rotary knob
- ▶ Can be controlled by PC
- ▶ Over voltage / over current / over power / over temperature / polarity reversion protection
- ▶ CC/CP/CR mode
- ▶ Multifunction menu
- ▶ 10 steps program
- ▶ Can be connected in parallel

Specification

Model	3710A	3711A	
Number of inputs	1		
Input	Voltage	0 ~ 360V DC	0 ~ 360V DC
	Current	0 ~ 30A DC	0 ~ 30A DC
	Power	0 ~ 150 W	0 ~ 300 W
Voltage accuracy	0.000 ~ 3.999V : 0.2% + 3m V	0.000 ~ 3.999V : 0.2% + 3m V	
	4.00 ~ 35.99V : 0.2% + 30m V	4.00 ~ 35.99V : 0.2% + 30m V	
	36.0 ~ 360.0V : 0.2% + 300m V	36.0 ~ 360.0V : 0.2% + 300m V	
Current accuracy	0.000 ~ 2.999A : 0.2% + 3m A	0.000 ~ 2.999A : 0.2% + 3m A	
	3.00 ~ 30.00A : 0.2% + 30m A	3.00 ~ 30.00A : 0.2% + 30m A	
Minimum regulation	Voltage 1m V, Current 1m A		
Lowest conductive resistance	< 0.08Ω		
Ripple	< 10m Vpp		
Interface	RS232 / RS485 / USB		
Protection	Over voltage / over current / over power / over temperature / Polarity-reversion		
Program memory	10 Steps program, EEPROM		
AC input	110V / 220V AC +/-15%, 47 ~ 63Hz		
Operating environment	0~50℃, 80% RH		
Software	Electronic load software, ActiveX and DLL tools for VB, VC++, Delphi, Labview		
Weight	5.0Kg		
Dimensions (W×D×H)mm	212.6 x 88.1 x 250		
Standard accessories	User's manual, AC cable, handle bars, software CD		
Optional accessories	RS232 adapter, RS485 adapter, USB adapter, Mounting rack		



IWT-5000(Impulse Winding Tester) is the advanced design of the test instrument for the insulation performance of the coil. It tests electrical characteristics of coil windings without damage to the samples. Moreover, It analyzes the decay waveform to detect changes in Material, shorted and damaged windings and other errors.

Feature

- ▶ It offers a 500V~5000V programmable winding range to test voltage and low-power without damaging the coil.
- ▶ 100MHz high speed sampling to enhance partial discharge ability.
- ▶ 320x240 color LCD display clearly to view the waveform and test result.
- ▶ Offers 4 kinds of detection comparison to test the bad insulation of the coil easily.
- ▶ Mini volume saves the working space and provides "Auto-Scale" function for a convenient operation.

Specification

Applied voltage (Step)	500V~5000V(100V Steps)
Applied energy	Max. 0.25 J
Inductance test range	up to 20 μH
Sampling speed	8 bit / 10ns(100MHz)
Sampling memory	5000Byte
Input impedance	10MΩ
Display	320x240, 5.7" color LCD
Detection mode	Detection by area size comparison, Differential area comparison, Corona discharge, Phase difference comparison
Memory	100 Waveforms
Detection output	Pass/Fail indicator, Alarm
PC-Link interface	USB 2.0
Temperature & Humidity	0℃, ≤90%RH
Input voltage	AC 110/220V 50/60Hz
Dimension(WxHxD)	31(W)x15(H)x18(D) cm
Weight	5.3kg

Memo

A large white rectangular area containing two columns of horizontal dotted lines for writing, set against a background of colorful abstract patterns.

<http://www.tmsinc.co.kr>



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