

High Power DC Power Supply PCL series

Introduction

The PCL series are high power output Switching DC power supply with rated power from 600W to 9KW. The PCL series adopts ZVZCS PWM technology, which greatly reduces switching consumption and therefore facilitates switching function with high efficiency and high stability.

The PCL series are built into a 2U/3U 19-inch standard chassis. The maximum rated voltage is from 6V to 600V and the maximum rated current is from 2A to 300A. RS232, RS485 and RS422 communication interfaces are made as standard part for PCL series, providing multiple communication choices for digital control.

Features

- ✓ Adopting ZVZCS PWM technology, high efficiency and high stability
- ✓ 4 1/2 digits LED display for voltage and current
- ✓ Max.rated output 600W to 9KW
- ✓ Max.rated voltage from 6V to 600V, max.rated current from 2A to 300A
- ✓ Constant voltage and constant current operations, auto CV/CC switch
- ✓ Built into 19-inch standard chassis: 2U chassis for 600W~5KW, 3U chassis for 6KW~9KW
- ✓ Thermostatic control fan, low noise
- ✓ Low ripple, high stability
- ✓ No overshoot during startup
- ✓ List mode function, Auto Run function
- ✓ Preset function, setting of voltage and current with output open circuit
- ✓ Front panel operation: preset voltage and current, output ON/OFF
- ✓ Multiple protections: OVP, OTP, UVP and current limit protections
- ✓ Multiple programming interfaces: RS232, RS485 and RS422
- ✓ Support ModBus-RTU commands

High Power DC Power Supply

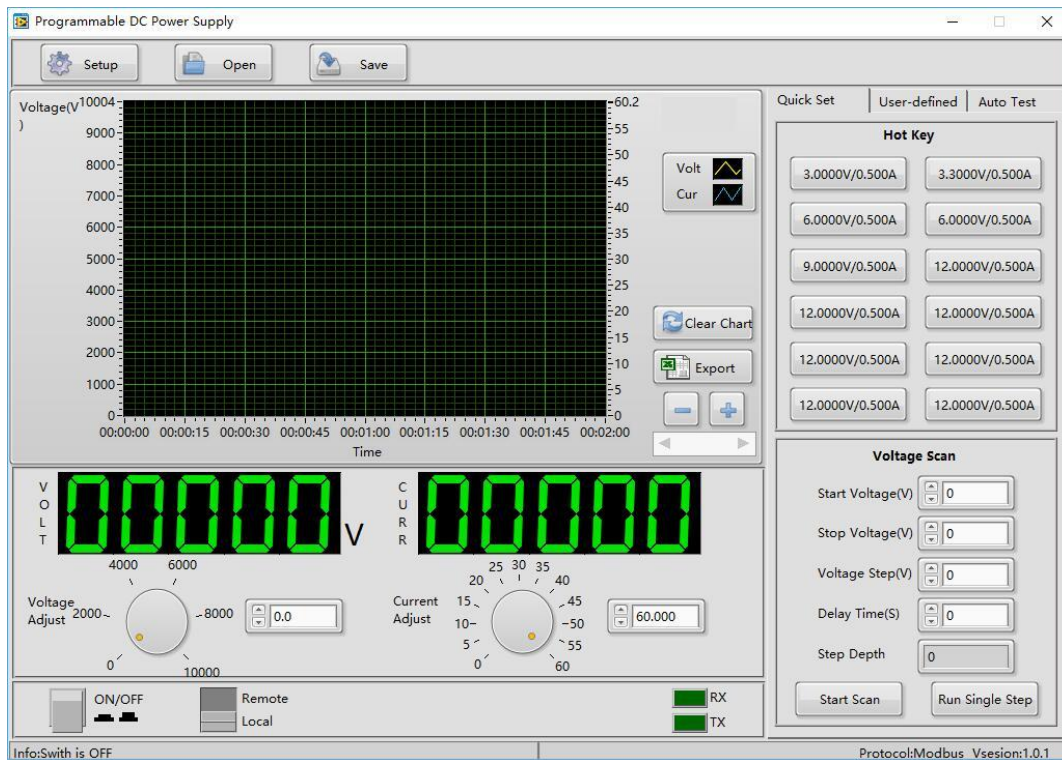
Product photo



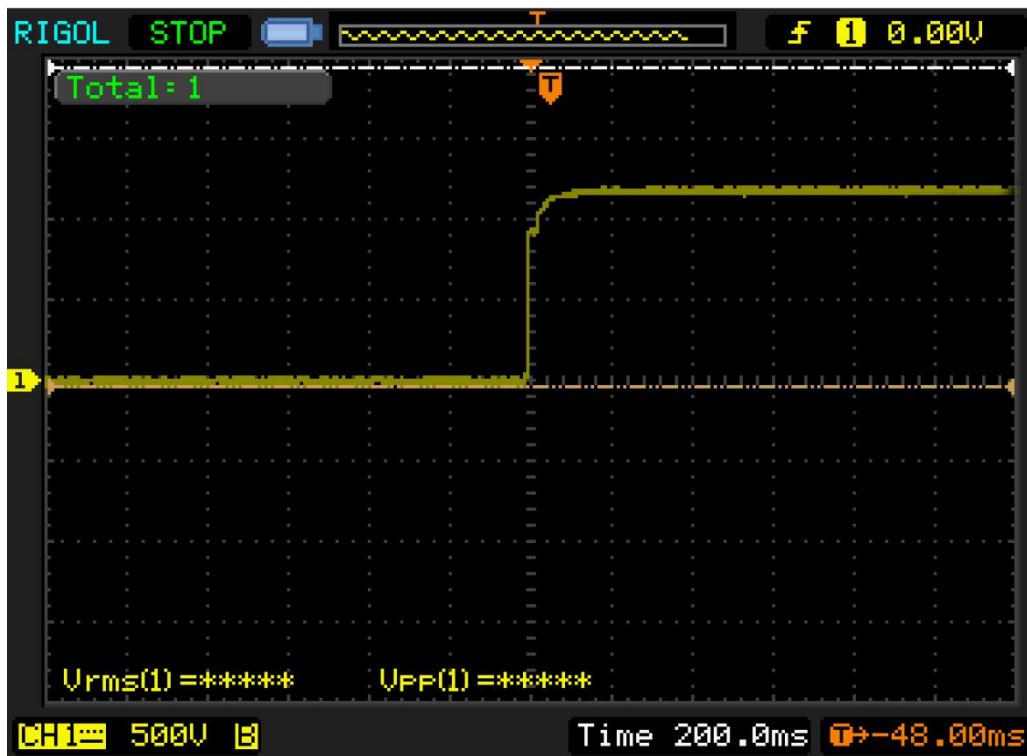
High Power DC Power Supply

Free PC Software

Multiple remote control and sampling functions. Such as: voltage & current setup, voltage & current feedback, data recording, export data to EXCEL, List mode function, voltage scan function, auto run function.

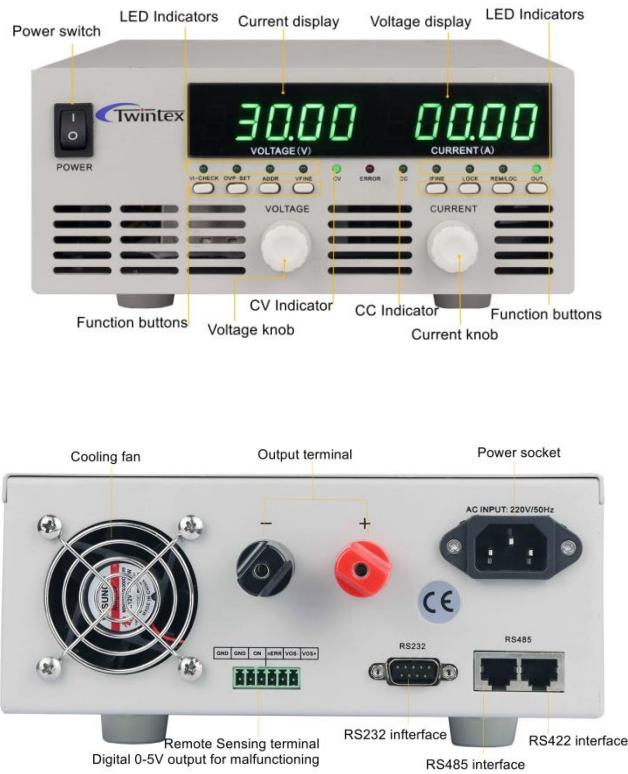


No overshoot during startup

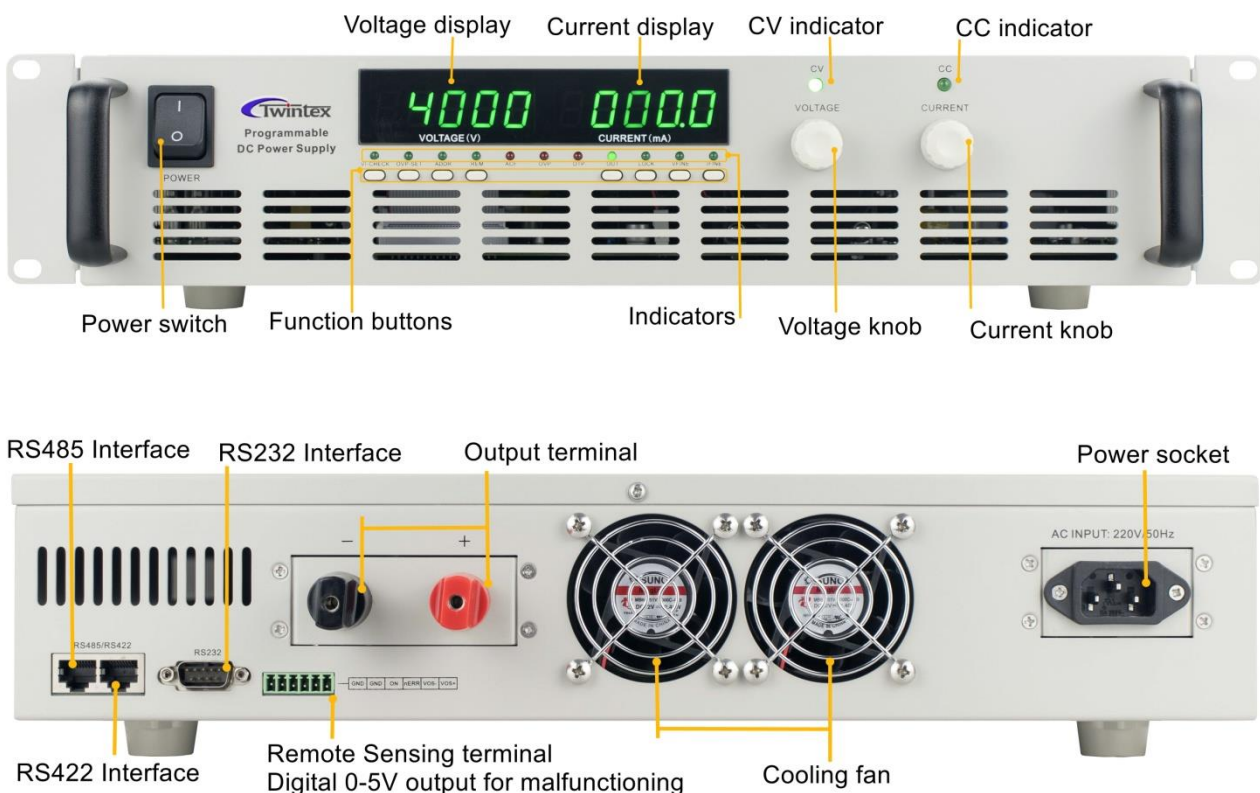


High Power DC Power Supply

Panel Descriptions (600W~1.2KW)

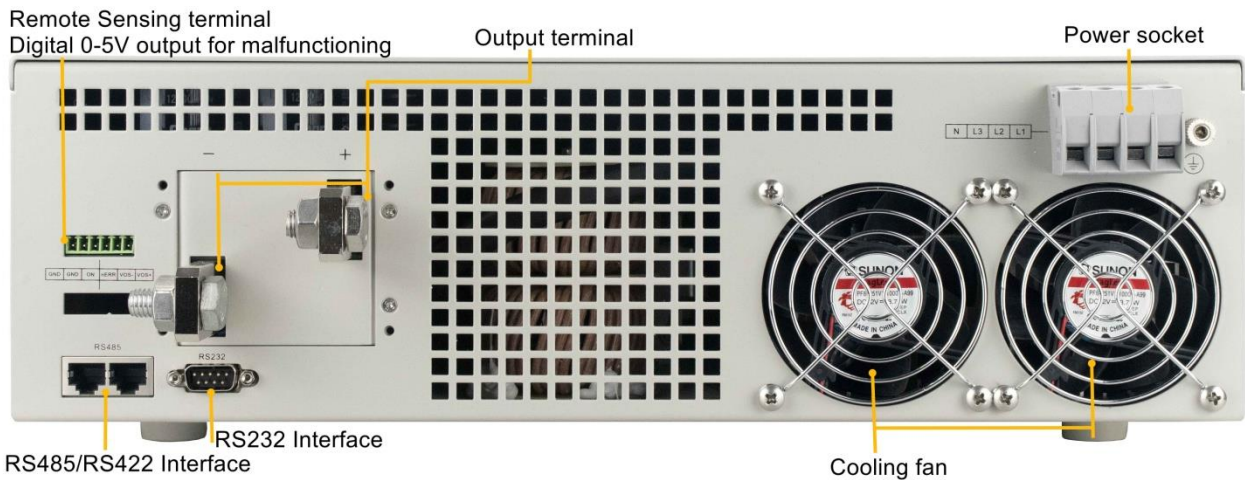
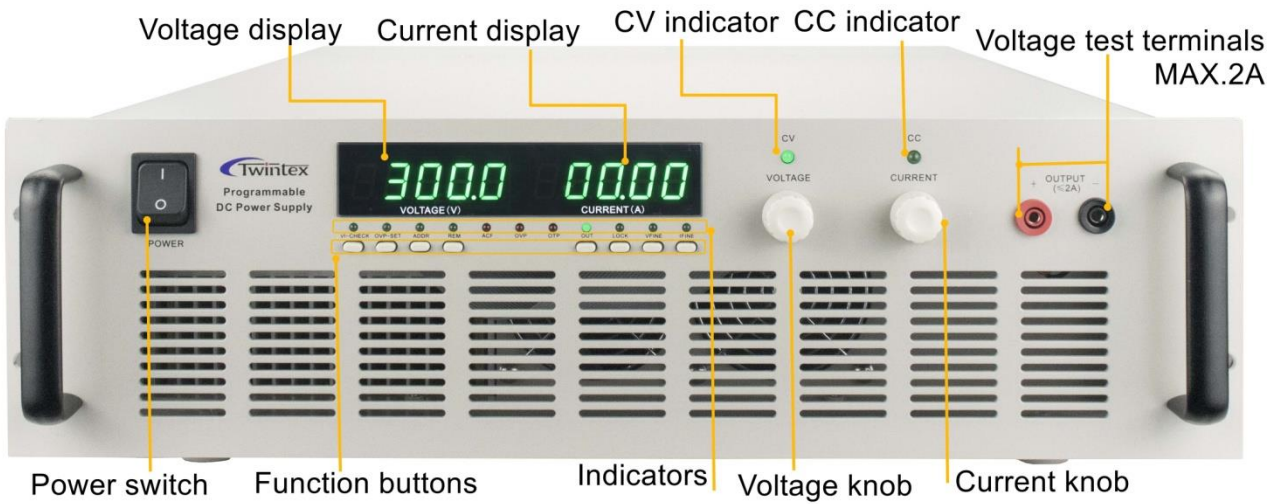


Panel Descriptions (1.2KW~5KW)



High Power DC Power Supply

Panel Descriptions (6KW~9KW)



High Power DC Power Supply

Specifications

Output		
Rated Voltage	DC 0~100% full range adjustable	
Rated Current	DC 0~100% full range adjustable	
OVP Range	DC 0~105% of rated voltage adjustable	
Line Regulation	CV \leq 0.1%+2LSB, CC \leq 0.2%+2LSB	
Load Regulation	CV \leq 0.1%+2LSB, CC \leq 0.1%+2LSB	
Ripple & Noise	\leq 50mV / 100mV / 200mV	
Programming		
Programming	Voltage	0.001V / 0.01V / 0.1V
Resolution	Current	0.001A / 0.01A / 0.1A
	OVP	0.001V / 0.01V / 0.1V
Interface	RS232, RS485 and RS422	
Commands	ModBus-RTU	
Display		
Meter	4 1/2 digits LED display for voltage and current	
Display	Voltage	0.001V / 0.01V / 0.1V
Resolution	Current	0.001A / 0.01A / 0.1A
Display	Voltage	\leq 0.2%FS+2LSB
Accuracy	Current	\leq 0.5%FS+2LSB
Protection		
Over Voltage Protection (O.V.P.)	Built-in OVP protection with limit of 105% rated output voltage. The output will be shut down when OVP is activated.	
Over Temperature Protection (O.T.P.)	Built-in OTP protection with heat sink temperature limit of 50°C \pm 5%. The output will be shut down when OTP is activated.	
Under Voltage Protection (U.V.P.)	Built-in UVP protection with limit of 165Vac. The output will be shut down when UVP is activated.	
General		
Cooling method	Cooling fan	
Operating environment	0°C~40°C, 10%~80%RH	
Storage environment	-20°C~70°C, 10%~90%RH	

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Model (600W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL600-1H	0~100V	0~6A	0~105V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL600-150	0~150V	0~4A	0~157.5V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL600-2H	0~200V	0~3A	0~210V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL600-3H	0~300V	0~2A	0~315V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL600-4H	0~400V	0~1.5A	0~420V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL600-5H	0~500V	0~1.2A	0~525V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
Dimensions	213Wx88Hx340D mm (1/2 2U)								
Weight	Approx 5kg								
AC Input	1φ3W (L, N, PE), 220V±10% 47~63Hz								

Model (1200W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL1200-20S	0~20V	0~60A	0~21V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1200-30S	0~30V	0~40A	0~31.5V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1200-60S	0~60V	0~20A	0~63V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1200-1HS	0~100V	0~12A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL1200-150S	0~150V	0~8A	0~157.5V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-2HS	0~200V	0~6A	0~210V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-3HS	0~300V	0~4A	0~315V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-4HS	0~400V	0~3A	0~420V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-5HS	0~500V	0~2.4A	0~525V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-6HS	0~600V	0~2A	0~630V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
Dimensions	213Wx88Hx340D mm (1/2 2U)								
Weight	Approx 6kg								
AC Input	1φ3W (L, N, PE), 220V±10% 47~63Hz								

High Power DC Power Supply

Model (1200W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL1200-6 ^①	0~6V	0~200A	0~6.3V	≤50mV	0.001V	0.1A	0.001V	0.001V	0.1A
PCL1200-12 ^①	0~12V	0~100A	0~12.6V	≤50mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL1200-15	0~15V	0~80A	0~15.75V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1200-20	0~20V	0~60A	0~21V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1200-30	0~30V	0~40A	0~31.5V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1200-60	0~60V	0~20A	0~63V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1200-1H	0~100V	0~12A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL1200-150	0~150V	0~8A	0~157.5V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-2H	0~200V	0~6A	0~210V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-3H	0~300V	0~4A	0~315V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-4H	0~400V	0~3A	0~420V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-5H	0~500V	0~2.4A	0~525V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1200-6H	0~600V	0~2A	0~630V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
Dimensions	482W×88H×460D mm (2U)								
Weight	Approx 11kg								
AC Input	1φ3W (L, N, PE), 220V±10% 47~63Hz								

Remarks^①: Load Regulation: CV≤0.21%+2LSB

Model (1500W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL1500-12 ^①	0~12V	0~125A	0~12.6V	≤50mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL1500-15	0~15V	0~100A	0~15.75V	≤50mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL1500-20	0~20V	0~75A	0~21V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1500-30	0~30V	0~50A	0~31.5V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1500-60	0~60V	0~25A	0~63V	≤50mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL1500-1H	0~100V	0~15A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL1500-150	0~150V	0~10A	0~157.5V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL1500-2H	0~200V	0~7.5A	0~210V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1500-3H	0~300V	0~5A	0~315V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1500-4H	0~400V	0~3.75A	0~420V	≤100mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1500-5H	0~500V	0~3A	0~525V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL1500-6H	0~600V	0~2.5A	0~630V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
Dimensions	482W×88H×460D mm (2U)								
Weight	Approx 11.5kg								
AC Input	1φ3W (L, N, PE), 220V±10% 47~63Hz								

Remarks^①: Load Regulation: CV≤0.21%+2LSB

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Model (2400W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL2400-12	0~12V	0~200A	0~12.6V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL2400-20	0~20V	0~120A	0~21V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL2400-30	0~30V	0~80A	0~31.5V	≤100mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL2400-40	0~40V	0~60A	0~42V	≤100mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL2400-60	0~60V	0~40A	0~63V	≤100mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL2400-1H	0~100V	0~24A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL2400-150	0~150V	0~16A	0~157.5V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL2400-2H	0~200V	0~12A	0~210V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL2400-3H	0~300V	0~8A	0~315V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL2400-4H	0~400V	0~6A	0~420V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL2400-5H	0~500V	0~4.8A	0~525V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL2400-6H	0~600V	0~4A	0~630V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
Dimensions	482W×88H×460D mm (2U)								
Weight	Approx 12~13kg								
AC Input	1φ3W (L, N, PE), 220V±10% 47~63Hz								

Model (3000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL3000-20	0~20V	0~150A	0~21V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL3000-30	0~30V	0~100A	0~31.5V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL3000-40	0~40V	0~75A	0~42V	≤100mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL3000-60	0~60V	0~50A	0~63V	≤100mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL3000-1H	0~100V	0~30A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL3000-150	0~150V	0~20A	0~157.5V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL3000-2H	0~200V	0~15A	0~210V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL3000-3H	0~300V	0~10A	0~315V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL3000-4H	0~400V	0~7.5A	0~420V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL3000-5H	0~500V	0~6A	0~525V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
Dimensions	482W×88H×460D mm (2U)								
Weight	Approx 12~14kg								
AC Input	1φ3W (L, N, PE), 220V±10% 47~63Hz								

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Model (4000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL4000-15	0~15V	0~267A	0~15.75V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL4000-30	0~30V	0~133A	0~31.5V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL4000-40	0~40V	0~100A	0~42V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL4000-60	0~60V	0~67A	0~63V	≤100mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL4000-1H	0~100V	0~40A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL4000-150	0~150V	0~26.7A	0~157.5V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL4000-2H	0~200V	0~20A	0~210V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL4000-3H	0~300V	0~13.3A	0~315V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL4000-4H	0~400V	0~10A	0~420V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL4000-5H	0~500V	0~8A	0~525V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
PCL4000-6H	0~600V	0~6.7A	0~630V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
Dimensions	482W×88H×460D mm (2U)								
Weight	Approx 16kg								
AC Input	3φ4W (L1, L2, L3, PE), 380V±10% 47~63Hz								

Model (5000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL5000-20	0~20V	0~250A	0~21V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL5000-30	0~30V	0~167A	0~31.5V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL5000-40	0~40V	0~125A	0~42V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL5000-60	0~60V	0~83A	0~63V	≤100mV	0.01V	0.01A	0.01V	0.01V	0.01A
PCL5000-1H	0~100V	0~50A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL5000-150	0~150V	0~33.3A	0~157.5V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL5000-2H	0~200V	0~25A	0~210V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL5000-3H	0~300V	0~16.7A	0~315V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL5000-4H	0~400V	0~12.5A	0~420V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL5000-5H	0~500V	0~10A	0~525V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL5000-6H	0~600V	0~8.3A	0~630V	≤200mV	0.1V	0.001A	0.1V	0.1V	0.001A
Dimensions	482W×88H×460D mm (2U)								
Weight	Approx 16kg								
AC Input	3φ4W (L1, L2, L3, PE), 380V±10% 47~63Hz								

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Model (6000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL6000-20	0~20V	0~300A	0~21V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL6000-30	0~30V	0~200A	0~31.5V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL6000-40	0~40V	0~150A	0~42V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL6000-60	0~60V	0~100A	0~63V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL6000-1H	0~100V	0~60A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL6000-150	0~150V	0~40A	0~157.5V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL6000-2H	0~200V	0~30A	0~210V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL6000-3H	0~300V	0~20A	0~315V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL6000-4H	0~400V	0~15A	0~420V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL6000-5H	0~500V	0~12A	0~525V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL6000-6H	0~600V	0~10A	0~630V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
Dimensions	482Wx132Hx535D mm (3U)								
Weight	Approx 20~21kg								
AC Input	3φ4W (L1, L2, L3, PE), 380V±10% 47~63Hz								

Model (7000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL7000-40	0~40V	0~175A	0~42V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL7000-60	0~60V	0~116.7A	0~63V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL7000-1H	0~100V	0~70A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL7000-150	0~150V	0~46.7A	0~157.5V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL7000-2H	0~200V	0~35A	0~210V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL7000-3H	0~300V	0~23.3A	0~315V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL7000-4H	0~400V	0~17.5A	0~420V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL7000-5H	0~500V	0~14A	0~525V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL7000-6H	0~600V	0~11.7A	0~630V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
Dimensions	482Wx132Hx535D mm (3U)								
Weight	Approx 22kg								
AC Input	3φ4W (L1, L2, L3, PE), 380V±10% 47~63Hz								

High Power DC Power Supply

Model (8000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL8000-40	0~40V	0~200A	0~42V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL8000-60	0~60V	0~133A	0~63V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL8000-1H	0~100V	0~80A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL8000-150	0~150V	0~53A	0~157.5V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL8000-2H	0~200V	0~40A	0~210V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL8000-3H	0~300V	0~26.7A	0~315V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL8000-4H	0~400V	0~20A	0~420V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL8000-5H	0~500V	0~16A	0~525V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL8000-6H	0~600V	0~13.3A	0~630V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
Dimensions	482Wx132Hx535D mm (3U)								
Weight	Approx 22kg								
AC Input	3φ4W (L1, L2, L3, PE), 380V±10% 47~63Hz								

Model (9000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCL9000-40	0~40V	0~225A	0~42V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL9000-60	0~60V	0~150A	0~63V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
7PCL9000-90	0~90V	0~100A	0~94.5V	≤100mV	0.01V	0.1A	0.01V	0.01V	0.1A
PCL9000-1H	0~100V	0~90A	0~105V	≤100mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL9000-150	0~150V	0~60A	0~157.5V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL9000-2H	0~200V	0~45A	0~210V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL9000-3H	0~300V	0~30A	0~315V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL9000-4H	0~400V	0~22.5A	0~420V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL9000-5H	0~500V	0~18A	0~525V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
PCL9000-6H	0~600V	0~15A	0~630V	≤200mV	0.1V	0.01A	0.1V	0.1V	0.01A
Dimensions	482Wx132Hx535D mm (3U)								
Weight	Approx 25kg								
AC Input	3φ4W (L1, L2, L3, PE), 380V±10% 47~63Hz								

For the purpose of product improvement, specifications are subject to change without prior notice.