

High Voltage DC Power Supply PCH series

Introduction

The PCH series are high power output Switching DC power supply with rated power or 600W to 5KW. The PCH series adopts ZVZCS PWM technology, which greatly reduces switching consumption and therefore facilitates switching function with high efficiency and high stability.

The PCH series are built into a 2U 19-inch standard chassis. The maximum rated voltage is from +1000V to +12KV. There is option for negative output from -1000V to -12KV. RS232, RS485 and RS422 communication interfaces are made as standard part for PCH 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 5KW
- ✓ Max.rated voltage from +1000V to +12KV
- ✓ Option for negative output from -1000V to -12KV
- ✓ Constant voltage and constant current operations, auto CV/CC switch
- ✓ Built into 2U 19-inch standard chassis
- ✓ 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

Product photo



Specifications

Output		
Rated Voltage	Full range adjustable	
Rated Current	Full range adjustable	
OVP Range	Up to 105% of rated voltage adjustable	
Line Regulation	CV \leq 0.5%+2LSB, CC \leq 0.5%+2LSB	
Load Regulation	CV \leq 0.1%+2LSB, CC \leq 0.1%+2LSB	
Ripple & Noise	\leq 0.05% FS, \leq 0.1% FS	
Programming		
Programming	Voltage	1V
Resolution	Current	0.1mA/ 1mA
	OVP	1V
Interface	RS232, RS485 and RS422	
Commands	ModBus-RTU	
Display		
Meter	4 1/2 digits LED display for voltage and current	
Display	Voltage	1V
Resolution	Current	0.1mA/ 1mA
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
PCH600-10H	0~1000V	0~600mA	0~1050V	≤0.05% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-10HN	-100~-1000V	0~600mA	0~-1050V	≤0.05% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-12H	0~1200V	0~500mA	100~1260V	≤0.05% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-12HN	-120~-1200V	0~500mA	-100~-1260V	≤0.05% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-15H	0~1500V	0~400mA	100~1575V	≤0.05% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-15HN	-150~-1500V	0~400mA	-100~-1575V	≤0.05% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-20H	0~2000V	0~300mA	200~2100V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-20HN	-200~-2000V	0~300mA	-200~-2100V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-30H	200~3000V	0~200mA	200~3150V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-30HN	-200~-3000V	0~200mA	-200~-3150V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-40H	200~4000V	0~150mA	200~4200V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-40HN	-200~-4000V	0~150mA	-200~-4200V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-50H	300~5000V	0~120mA	300~5250V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-50HN	-300~-5000V	0~120mA	-300~-5250V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
PCH600-60H	500~6000V	0~100mA	500~6120V	≤0.1% FS	1V	0.01mA	1V	1V	0.01mA
PCH600-60HN	-500~-6000V	0~100mA	-500~-6120V	≤0.1% FS	1V	0.01mA	1V	1V	0.01mA
PCH600-80H	500~8000V	0~75mA	500~8400V	≤0.1% FS	1V	0.01mA	1V	1V	0.01mA
PCH600-80HN	-500~-8000V	0~75mA	-500~-8400V	≤0.1% FS	1V	0.01mA	1V	1V	0.01mA
PCH600-100H	800~10000V	0~60mA	800~10500V	≤0.1% FS	1V	0.01mA	1V	1V	0.01mA
PCH600-100HN	-800~-10000V	0~60mA	-800~-10500V	≤0.1% FS	1V	0.01mA	1V	1V	0.01mA
Dimensions	482W×88H×460D mm (2U)								
Weight	Approx 12kg								
AC Input	1φ3W, 220V±10% 47~63Hz								

High Voltage DC Power Supply



Model (4000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCH4000-10H	0~1000V	0~4000mA	0~1050V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH4000-10HN	-100~-1000V	0~4000mA	0~-1050V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH4000-15H	0~1500V	0~2600mA	100~1575V	≤0.1%FS	1V	1mA	1V	1V	1mA
PCH4000-15HN	-150~-1500V	0~2600mA	-100~-1575V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH4000-20H	0~2000V	0~2000mA	200~2100V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH4000-20HN	-200~-2000V	0~2000mA	-200~-2100V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH4000-30H	200~3000V	0~1300mA	200~3150V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH4000-30HN	-200~-3000V	0~1300mA	-200~-3150V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH4000-40H	200~4000V	0~1000mA	200~4200V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH4000-40HN	-200~-4000V	0~1000mA	-200~-4200V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH4000-50H	300~5000V	0~800mA	300~5250V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
PCH4000-50HN	-300~-5000V	0~800mA	-300~-5250V	≤0.1% FS	1V	0.1mA	1V	1V	0.1mA
Dimensions	482W×132H×460D mm (3U)								
Weight	Approx 18kg								
AC Input	3φ4W, 380V±10% 47~63Hz								

Model (5000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
PCH5000-10H	0~1000V	0~5000mA	0~1050V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-10HN	-100~-1000V	0~5000mA	0~-1050V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-15H	0~1500V	0~3333mA	100~1575V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-15HN	-150~-1500V	0~3333mA	-100~-1575V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-20H	0~2000V	0~2500mA	200~2100V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-20HN	-200~-2000V	0~2500mA	-200~-2100V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-30H	200~3000V	0~1600mA	200~3150V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-30HN	-200~-3000V	0~1600mA	-200~-3150V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-40H	200~4000V	0~1250mA	200~4200V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-40HN	-200~-4000V	0~1250mA	-200~-4200V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-50H	300~5000V	0~1000mA	300~5250V	≤0.1% FS	1V	1mA	1V	1V	1mA
PCH5000-50HN	-300~-5000V	0~1000mA	-300~-5250V	≤0.1% FS	1V	1mA	1V	1V	1mA
Dimensions	482W×132H×460D mm (3U)								
Weight	Approx 18kg								
AC Input	3φ4W, 380V±10% 47~63Hz								

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

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