Open Energy for All

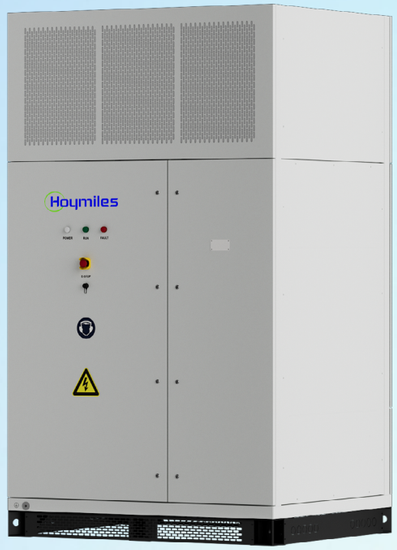
Power Conversion System

The HPCS3500-E series is an ANPC PCS launched by Hoymiles, with a maximum efficiency of over 99% and a footprint of only 1.7 m².
Featuring an intelligent liquid-cooling design, the PCS operates without derating even at 51 °C ambient temperature. With an IP65 protection rating, the PCS adapts to complex outdoor environments, including high altitude, high salt fog, high temperature, and extreme cold.

HPCS3150-E

HPCS3348-E

HPCS3500-E



Features

01 ANPC topology, peak efficiency > 99%.

02 Supports constant voltage/current/power modes.

03 Supports functions including primary frequency regulation, rapid voltage adjustment, and VSG.

04 Millisecond-level response enables multiple system protections.

05 Intelligent liquid-cooling design maintaining full power at 51°C ambient temperature.

06 IP65 protection rating, adapts to complex outdoor environments.

Region: Global Version: REV1.4

Technical Specifications

Model	HPCS3150-E	HPCS3348-E	HPCS3500-E
DC Side			
DC Voltage Range	915 V - 1500 V	960 V - 1500 V	1000 V - 1500 V
Max. Continuous DC-Side Current @40°C	1936 A × 2	1964 A × 2	
Number of inputs	2		
AC Side (On-Grid)			
Rated Output Power @51°C	3150 kVA	3348 kVA	3500 kVA
Max. Continuous Output Power @40°C	3465 kVA	3683 kVA	3850 kVA
Rated Output Current	2887 A	2929 A	
Max. Output Current	3176 A	3222 A	
Rated AC Voltage	630 V	660 V	690 V
AC Voltage Range	535.5 V - 693 V	561 V - 726 V	586.5 V - 759 V
Rated Grid Frequency / Grid Frequency Range	50 Hz / 45 Hz - 55 Hz, 60 Hz / 54 Hz - 66 Hz		
DC Injection	< 0.5%In		
AC Current Harmonic	< 2% (@Rated Power)		
Power Factor	> 0.99 (@Rated Power)		
Power Control Precision	≤ 1%Pn (Output Power > 20% * Pn)		
Reactive Power Adjustment Range	-105% - 105%		
Grid Type	3P3W		
Switching Time			
Charge / Discharge Switching Time	< 20 ms (@Rated charging and discharging power)		
AC Side (Off-Grid)			
Rated AC Voltage	630 V	660 V	690 V
AC Voltage Range	535.5 V - 693 V	561 V - 726 V	586.5 V - 759 V
Output Voltage Precision	< 2%		
Rated Grid Frequency / Grid Frequency Range	50 Hz / 45 Hz - 55 Hz, 60 Hz / 54 Hz - 66 Hz		
Output Voltage Imbalance	< 2% (< 4% in short time)		
AC Voltage Harmonic	< 3% (Linear load)		
DC Injection	< 0.5%Un (balanced linear load)		
Efficiency			
Peak Efficiency	99%		
Protection and Overload			
DC Input	Load Switch + Fuses		
Reverse Polarity Protection	Integrated		
AC Output Protection	Circuit Breaker		
Surge Protection	DC Type II / AC Type II		
Grid Monitoring and Grounding Fault Monitoring	Integrated		
Insulation Monitoring	Integrated		
Overheat and Overtemperature Protection	Integrated		
Short Circuit Protection	Integrated		
DC Overvoltage and Undervoltage Protection	Integrated		
AC Line Phase Sequence Error Protection	Integrated		
Cooling System Failure Protection	Integrated		
Communication Failure Protection	Integrated		
Anti-islanding Protection	Integrated, Combination of active and passive		
Overload Capacity	Operate for a long time at 1.1 times the rated load. Operate for no less than 2 minutes at 1.2 times the rated load		
General Data			
Dimensions (W×H×D)	1450 mm × 2490 mm × 1180 mm		
Weight	≈ 2000 kg		
Operating Temperature	-40°C to 60°C (> 51°C, Derating operation)		
Operating Humidity	0% - 100%RH (Non-condensing)		
Altitude	≤ 5000 m (> 3000 m, Derating operation)		
IP Rating	IP65, C4 (C5 Optional)		
Cooling Method	Intelligent Liquid Cooling		
Isolation Method	Transformerless Isolation		
Overvoltage Degree	DC port : II, AC port : III		
Display and Communication			
Display	Web		
Communication Interface	RS485, CAN, Ethernet, DIDO		
Communication Protocol	ModbusRTU, ModbusTCP, CAN2.0, IEC61850		
Standard and Regulation			
Compliance	IEC/EN 62477, IEC/EN 61000, IEC/EN 50549		

* Subject to change without notice.

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