

PCS1000HV/1200HV/1500HV

Bidirectional battery inverter from 1000-1500kW, can be used alone or with solar charge controllers and other accessories for different application scenarios.

Features



High yield

- Advanced three-level technology, max. efficiency 98.5%
- Effective forced air cooling, no derating up to 45°C
- Wide DC voltage operation window, full power operation at 1500V
- Max. 8 units in parallel in off-grid operation



Flexible application

- Bidirectional power conversion system with full four-quadrant operation
- Compatible with high voltage battery system, low system cost
- Battery charge & dis-charge management and black start function integrated
- VSG, VF, PQ and other operating modes

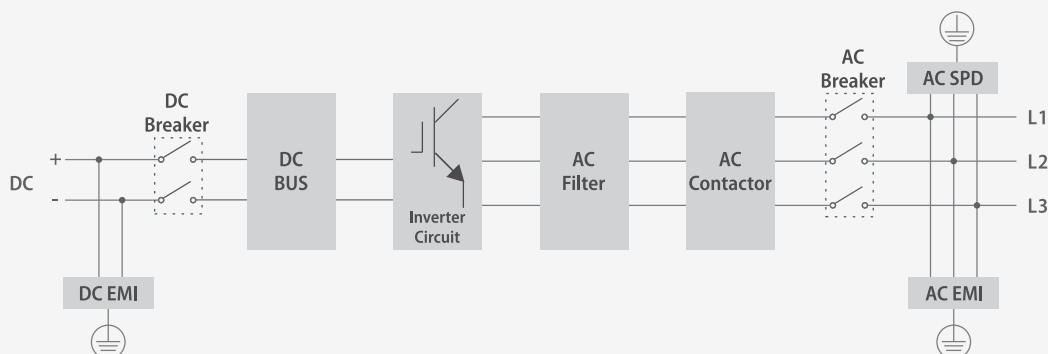


Grid support

- Fast active/reactive power response
- L/HVRT, FRT, soft start/stop, specified power factor control and reactive power support



Block Diagram



	PCS1000HV	PCS1200HV	PCS1500HV
AC(on-grid)			
Apparent power	1000kVA	1200kVA	1500kVA
Rated power	1000kW	1200kW	1500kW
Rated voltage	540V	550V	690V
Rated current	1443A	1260A	1260A
Voltage range	360V-440V	495V-605V	621V-759V
Rated frequency	50/60Hz	50/60Hz	50/60Hz
Frequency range	46-54/56-64Hz	46-54/56-64Hz	46-54/56-64Hz
THDI	<3%	<3%	<3%
PF	0.9 lagging~0.9 leading	0.9 lagging~0.9 leading	0.9 lagging~0.9 leading
AC connection	3/PE	3/PE	3/PE
Max. rectified power	1000kW	1200kW	1500kW

AC(off-grid)			
Apparent power	1000kVA	1200kVA	1500kVA
Rated power	1000kW	1200kW	1500kW
Rated voltage	400/540V*	550V	690V
Rated current	1443A	1260A	1260A
THDU	≤2% linear	≤2% linear	≤2% linear
Rated frequency	50/60Hz	50/60Hz	50/60Hz
Overload capability	110%-10 mins 120%-1 min	110%-10 mins 120%-1 min	110%-10 mins 120%-1 min

DC (Battery and PV)			
Rated power	1000kW	1200kW	1500kW
Current regulation	±1%	±1%	±1%
Voltage regulation	±1%	±1%	±1%
Voltage ripple	<3%	<3%	<3%
Current ripple	<2%	<2%	<2%
Voltage range	900V-1500V	900V-1500V	1000V-1500V
Max. charge/discharge current	1111A	1111A/1334A	1300A/1500A

General Information			
Max. efficiency	98.5%	98.5%	98.5%
Protection degree	IP20	IP20	IP20
Noise emission	<75dB(A)@1m	<75dB(A)@1m	<75dB(A)@1m
Operating temperature	-25°C~+55°C	-25°C~+55°C	-25°C~+55°C
Cooling method	Forced-air	Forced-air	Forced-air
Relative humidity	0-95% non-condensing	0-95% non-condensing	0-95% non-condensing
Max. altitude	5000m(derate over 2000m)	5000m(derate over 2000m)	5000m(derate over 2000m)
Dimension(W/H/D)	1510/2135/890mm	1510/2135/890mm	1510/2135/890mm
Weight	1524kg	1524kg	1524kg
Build-in transformer	No	No	No
Lightning protection	Type II	Type II	Type II
Transfer between on/off grid	Manual(default), Automatic(optional)≤10ms	Manual(default), Automatic(optional)≤10ms	Manual(default), Automatic(optional)≤10ms
Grid support	L/HVRT, FRT, active & reactive power control and power ramp rate control. Volt-var, Volt-watt. Frequency-watt		

Communication			
Display	Touch screen	Touch screen	Touch screen
Communication	RS485/CAN	RS485/CAN	RS485/CAN

Certificate			
CE, IEC 62109-1:2010, IEC 62109-2:2011, IEC 61000-6-2:2019, IEC 61000-6-4:2019, IEC 61000-4			

*The direct output voltage of PCS1000HV is 540V, and a transformer is required to output 400V or other voltages.