



Energy Storage Solution

Power Conditioning System / PCS125HV

- 125 kW power capacity with 480 V_{AC}
- Scalable system configuration and integration with mainstream battery systems
- Support both grid-tied and power backup operation



Commercial
Building



Charging
Station



Campus



Factory



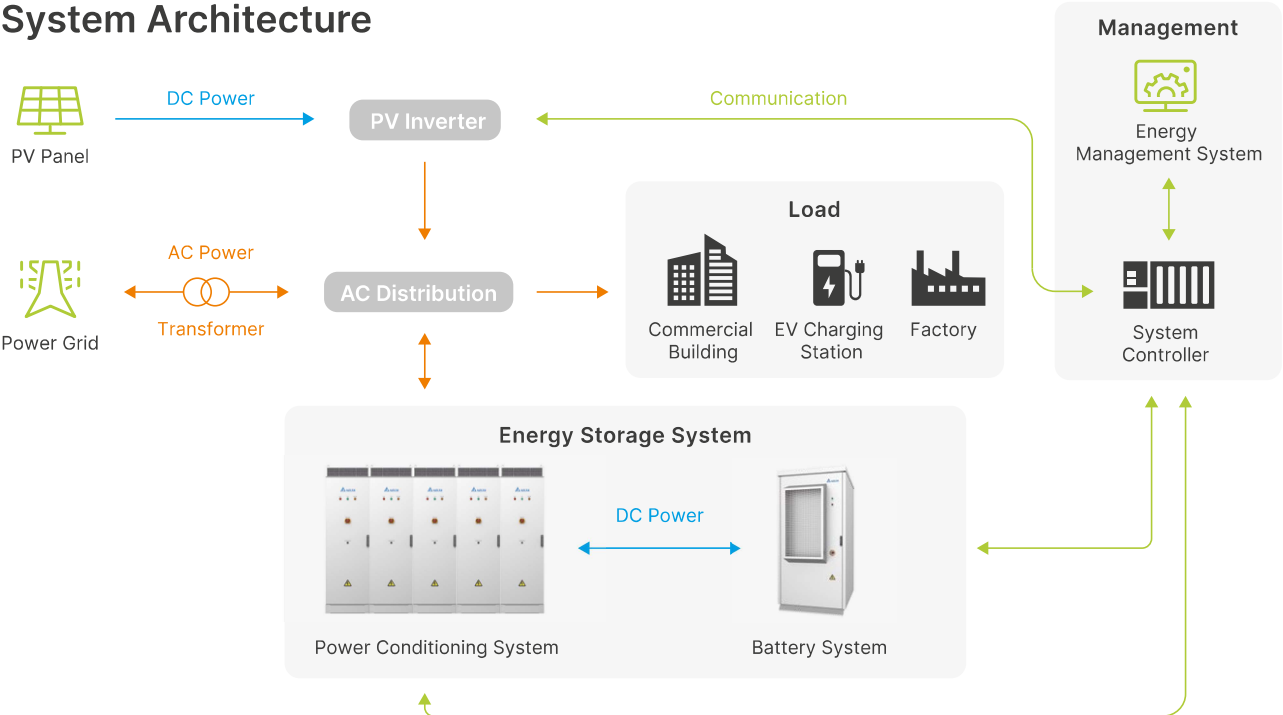
The Leading Power for Energy Storage

Delta Power Conditioning System (PCS) is a bi-directional energy storage inverter for grid-tied and off-grid applications including power backup, peak shaving, load shifting, PV self-consumption, PV smoothing and etc. It demonstrates industry leading power performance with

high power efficiency and low stand-by power loss. It is compact for space saving and offers scalability for various system configurations and integration with mainstream branded battery systems.



System Architecture

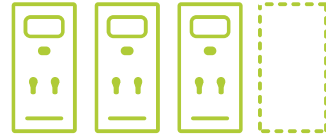


Features



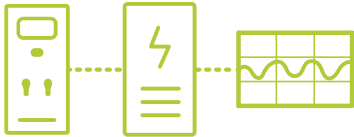
Efficient and Precise Power Control

- Power capacity: 125 kW
- AC voltage: 480 Vac
- Peak efficiency: >98%
- High power density: 208 W/l, 543 W/kg
- Quick power response time : <20 ms



Flexible System Configuration

- Scalable with multiple units in a configuration
- Battery independence provide high adaptability for energy storage system



Designed for Energy Storage Applications

- Real / reactive power compensation to improve power quality
- Peak shaving / demand charge management
- Load shifting for time-of-use savings
- Black start capability for power backup and microgrid applications
- Both grid-tied mode and power backup mode operation



Product at a Glance



Specifications

Model Name	PCS125HV
AC Connection	
Rated Grid Voltage	480Vac (3P,PE)
Grid Voltage Range	422 to 528 Vac (-12%, +10%)
Rated Grid Frequency	60 Hz
Frequency Range	59.3 to 60.5 Hz, adjustable
Rated AC Power	125 kVA /kW
Rated AC Current	151 A
Current THD	<3%
DC current injection	<0.5% rated current
Power Factor	-1 to 1, continuously adjustable
DC Connection	
DC Voltage Range	750 ~ 1,350 Vdc ^{1), 2)}
Rated Discharge / Charge Power	128 kW / 122 kW
Max. Discharge / Charge Current	157 A / 151A
Standalone Operation	
Rated Output Voltage	480Vac, 3P4W
Rated Output Power	125 kVA / 125 kW with linear load; 100 kVA with RCD load (I _{pk} ≤240A) ³⁾
Power Factor	0.8 ~ 1
Rated Output Current	151 A
Overload Capacity	110% for 30 mins
Output Voltage THD	< 3% @ linear load
Performance	
Peak Efficiency	>98%
Standby Loss	<25W @ cold mode
Environment	
Max. Altitude	4,000 m, de-rating >2000m
Operating Temperature	-30 ~ 60 °C, de-rating > 45°C
Humidity	0 to 95% RH, non-condensing
Acoustic Noise	< 70 dBA @ 1 m @ rated condition, max. 75 dB
Cooling	Forced air with speed control
Enclosure Rating	Type 3R / IP55
General	
User Interface	LED, EPO, Ethernet
Communication	Ethernet/Modbus TCP
Dimension (W x H x D)	600 × 2000 × 500 mm
Net Weight	230 kg
Certificate (in plan)	UL1741, UL 1741 SB, IEEE1547 : 2018, FCC part 15 class A
Protection	DC reverse protection/OVP/UVP/OCP/ DC insulation detection

1) Output power will be de-rating, if DC voltage is higher than 1250V

2) DC voltage should be larger than 815Vdc, if the load is 100% load

3) Transformer or motor load or rectifier load, which has large inrush current (I_{pk}>240A) is not included

* Specifications are subject to change without prior notice

* This leaflet is a draft version, and subject to customer's final specification in the later test



Delta Electronics (Americas), Ltd.

46101 Fremont Blvd, Fremont, CA 94538, U.S.A.
Sales : (510) -668-5118 / Support : (877) 442-4732
PCS@deltaww.com

More information

www.delta-americas.com



2022/11