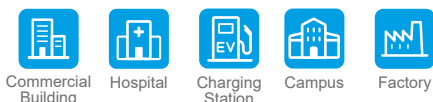


ENERGY STORAGE SOLUTION

Power Conditioning System / PCS100HV

Features

- Power capacity: 100 kW; AC voltage: 400 Vac
- High voltage input: up to 1350Vdc
- High efficiency: Peak 98%
- High power density: 167 W/l, 435 W/kg
- Quick power transfer time (<20 ms)
- IP55 design for outdoor application
- Scalable with multiple units in configuration
- Black start capability for power backup
- Support 3 phase 4 wire load without transformer
- Support both grid-tied mode and power backup mode operation

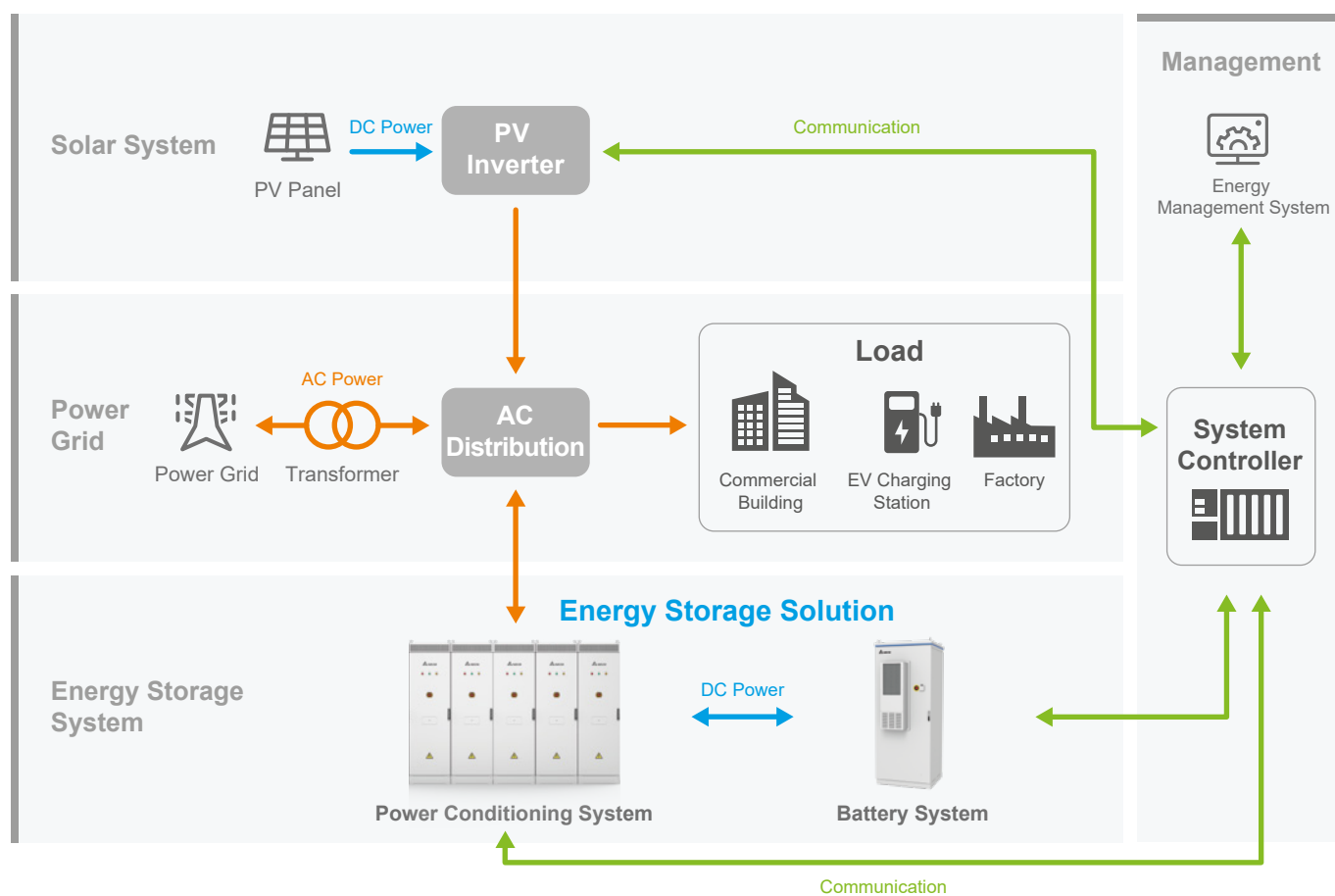


The Leading Power for Energy Storage

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, 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



Applications

- Real and reactive power compensation
- Power backup for local load
- Demand charge management / peak shaving
- Load shifting for time-of-use savings

* Micro-grid operation without utility grid, with other distributed energy resource, such as Diesel Generator, Solar and etc. is not supported in the current design.

Specifications

Model Name	PCS100HV
AC Connection	
Rated Grid Voltage	400 Vac (3P,N,PE) or (3P,PE)
Grid Voltage Range	310 ~ 450 Vac
Rated Grid Frequency	50 Hz
Frequency Range	45~55 Hz
Rated AC Power	100 kVA / kW
Rated AC Current	145 A
Max. Continuous AC Current	167 A
Maximum AC Power	110 kVA / kW
Current THD	< 3%
DC current injection	<0.5% rated current
Power Factor	-1 to 1, continuously adjustable
DC Connection	
DC Voltage Range	650 ~ 1,350 Vdc for 3P3W ¹⁾ / 700 ~ 1,350 Vdc for 3P4W in Off-grid mode ^{1), 2)}
Start Up DC Voltage	650V
Rated Discharge / Charge Power	102 kW / 98 kW
Max. Discharge / Charge Current	157A / 151A
Standalone Operation	
Rated Output Voltage	400Vac (3P,N,PE)
Rated Output Power	100 kVA / kW with linear load ; 80 kVA with RCD load (I _{pk} ≤ 240A) ³⁾
Rated Output Current	145 A
Output Voltage THD	< 3% @ rated linear load
Performance	
Peak Efficiency	98%
Standby Loss	<25W @ sleep mode
Environment	
Max. Altitude	4,000 m, de-rating >3000m
Operating Temperature	-30 °C to +60 °C, de-rating >45°C
Humidity	0 to 95% RH, non-condensing
Acoustic Noise	< 70 dB @ 1 m @25°C @ rated condition, max. 75 dB
Cooling	Forced air with speed control
Enclosure Rating	IP55
General	
User Interface	LED, EPO, Ethernet
Communication	Ethernet/Modbus TCP, RS-485 / Modbus RTU (optional)
Dimension (W x H x D)	600 x 2000 x 500 mm
Net Weight	230 kg
Certificate	Safety: IEC 62477-1, EN62477-1 Grid Code: AS/NZS 4777.2:2020 EMC: IEC/EN 61000-6-2, IEC/EN 61000-6-4 Vibration: IEC 60068-2-6:2007
Protection	DC reverse protection/OVP/UVF/OCP/ DC insulation detection
Product Conformity	CE, RCM
Applicable Battery Chemistry	Lithium-ion, lead-acid, flow battery

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

2) The minimum DC voltage should be larger than 750V, if the load is 100% unbalanced 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



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