

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 off-grid mode and grid-tied mode operation



Commercial Building



Hospital



Charging Station



Campus



Factory



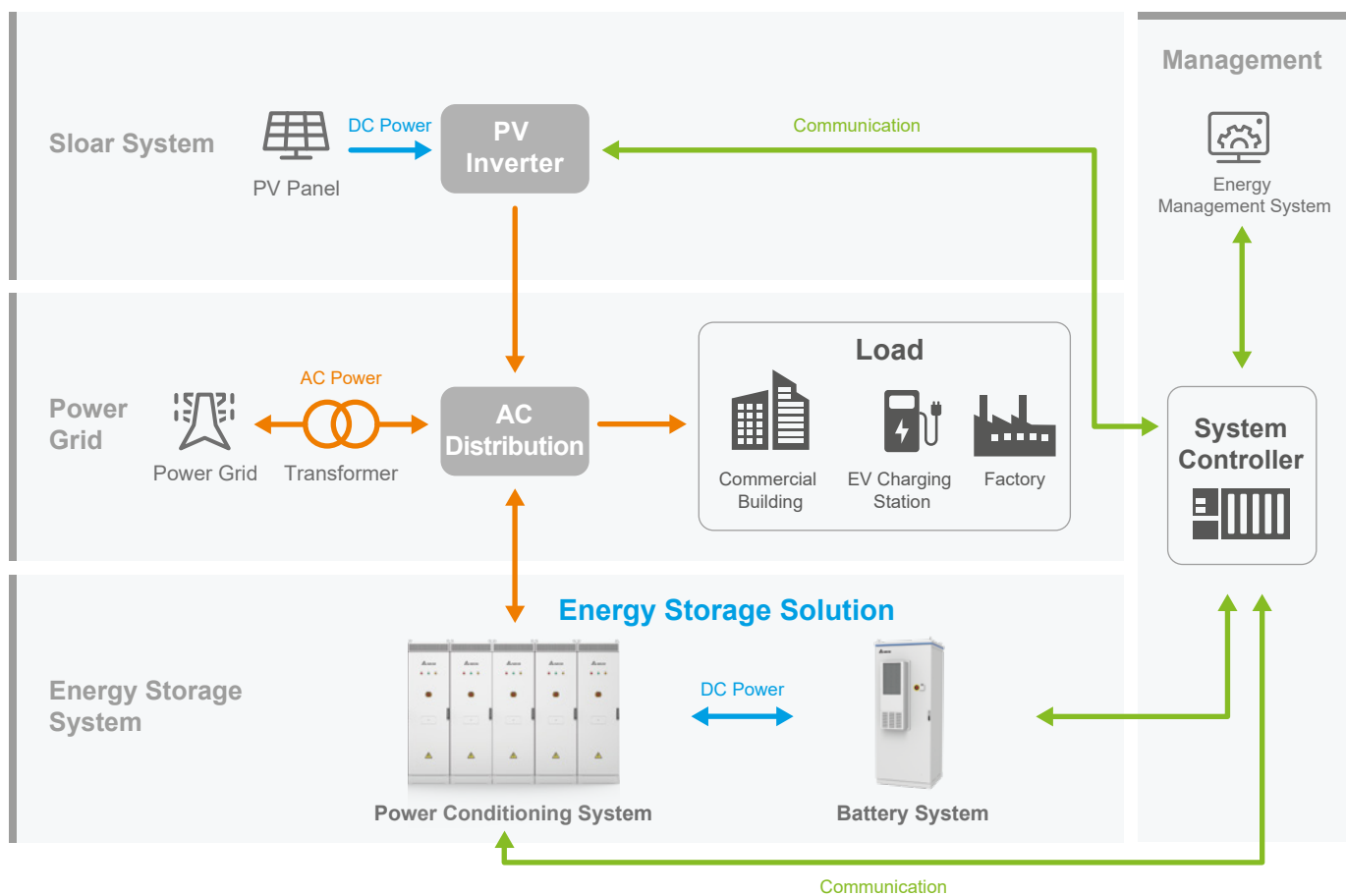
DELTA

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
- Off-grid operation for power backup
- Demand charge management / peak shaving
- Load shifting for time-of-use savings

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)}
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/UVP/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



Delta Electronics Australia

20-21/45 Normanby Road Notting Hill,
VIC 3168, Australia

TEL: +61-3-9543-3720
FAX: +61-3-9544-0606
PCS@deltaww.com

www.deltaww.com