



## Energy Storage Solution

# Power Conditioning System / PCS100HV

- 100 kW power conversion capacity with 400 Vac
- Scalable system configuration and integration with mainstream battery systems
- Support both grid-tied and power backup operation



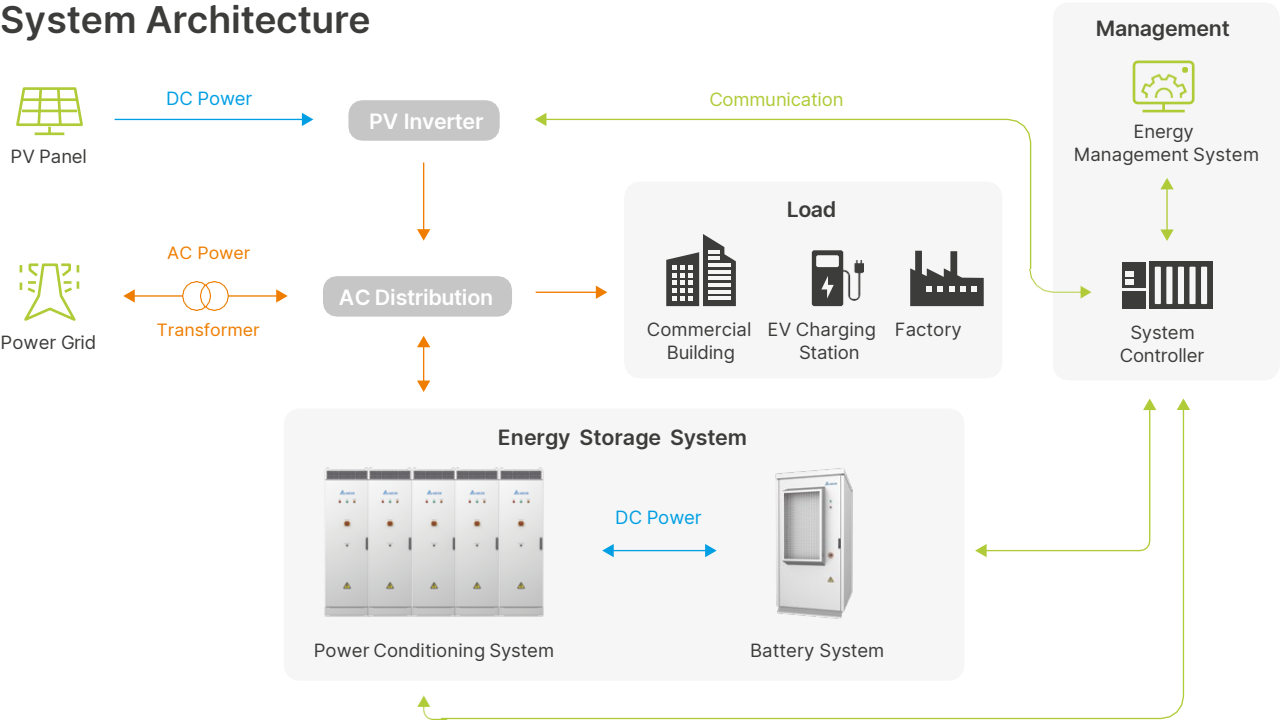
# The Leading Power for Energy Storage

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 and more. It demonstrates industry leading power performance with high power efficiency

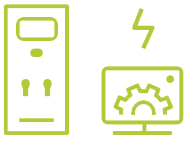
and low stand-by power loss. It is compact for space saving and offers scalability for various system configurations and integration with multiple battery types and models.



## System Architecture

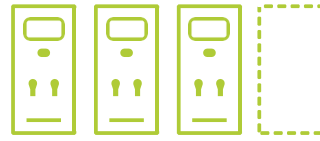


## Features



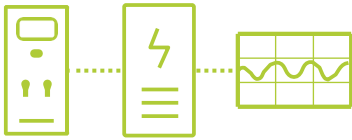
### Efficient and Precise Power Control

- Power capacity: 100 kW
- AC voltage: 400 Vac
- Peak efficiency: > 98%
- High power density: 167 W/l, 435 W/kg
- Quick power response time : < 20 ms



### Flexible System Configuration

- Scalable configuration with multiple units
- Support for 3-phase, 4-wire load without transformer



### 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	PCS100HV
<b>AC Connection</b>	
Rated Grid Voltage	400 Vac (3P-N-PE or 3P-PE)
Grid Voltage Range	310 to 450 Vac
Rated Grid Frequency	50 Hz
Rated AC Active Power	100 kVA / kW
Rated AC Current	145 A
Maximum AC Apparent Power	100kVA / kW
Current THD	< 3%
DC Current Injection	< 0.5% of rated current
Power Factor	-1 to 1, continuously adjustable
<b>DC Connection</b>	
DC Voltage Range	650 to 1,350 Vdc for 3P3W <sup>1)</sup> / 700 to 1,350 Vdc for 3P4W in Off-grid mode
DC Voltage Range (Full load)	650 to 1,250 Vdc
Rated Discharge / Charge Power	102 kW / 98 kW
Max. Discharge / Charge Current	157 A / 151 A
<b>Standalone Operation</b>	
Rated Output Voltage	400 Vac (3P-N-PE or 3P-PE)
Rated Output Power	100 kVA / kW with linear load; 80 kVA / kW with non-linear loads (I <sub>pk</sub> ≤ 240 A) <sup>1)</sup>
Rated Output Current	145 A
Output Voltage THD	< 3% @ rated linear load
<b>Performance</b>	
Peak Efficiency	> 98%
Standby Loss	< 25 W @ in cold mode
Inverter topology	Non-Isolated
Active anti-Islanding method	Reactive power injection
<b>Environment</b>	
Maximum Altitude	4,000 m, de-rating > 2,000 m
Operating Temperature	-30 °C to +60 °C, de-rating > 45 °C
Humidity	0 to 95% RH, non-condensing
Acoustic Noise	Maximum < 70 dBA @ 1 m
Cooling	Forced air with speed control
Enclosure Rating	IP55
Protective class	I
Over voltage category	OVC III(AC main) ,OVC II(DC battery)
Battery Type	Lithium-ion, lead-acid, flow battery
<b>General</b>	
User Interface	LED, EPO, Ethernet
Communication	Ethernet/Modbus TCP
Dimensions (W x H x D)	600 x 2000 x 500 mm
Net Weight	230 kg
Certifications	Safety: IEC 62477-1, EN 62477-1 Grid: AS/NZS 4777.2:2020, EN 50549-1:2019, G99, VDE-AR-N 4105:2018, VDE-AR-N 4110:2018, NTS, NTS SENP 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, UKCA

1) Transformer, motor or rectifier loads with large inrush currents (I<sub>pk</sub> > 240 A) are not supported

2) The enclosure is classified under the C5-Medium corrosivity category according to ISO 12944-2 standards. Ensure proper installation by following the guidelines of the installation manual for optimal performance.

## Manufacture:

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