



ENERGY STORAGE SOLUTION

Megawatt PCS / PCS2000

Features

- Power capacity 2100-2800 kVA
- 97.8% efficiency for bi-directional power conversion
- Advanced P/Q, Frequency/Voltage, increase power quality
- Modular design realizes scalability and availability
- Battery independence provide high adaptability for energy storage
- Utility-grade protection designed for harsh environment
- AC coupled storage application



Utility Grid

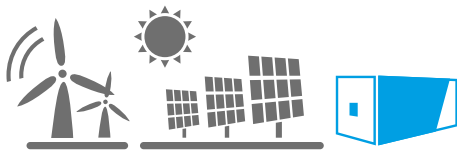


Optimizing the Value & Efficiency of Energy Storage System in Grid Applications

Delta Power Conditioning System (PCS) is a bi-directional energy storage inverter for grid applications including power backup, peak shaving, PV self-consumption, PV smoothing, etc. Delta Megawatt PCS provides power capacity from 2100 to 2800 kVA with 97.8% efficiency. Featuring high availability and adaptability, it is battery technology independent and can control energy storage system exactly when it is required.

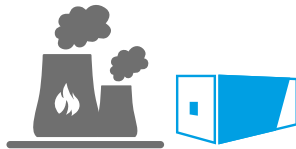


Applications



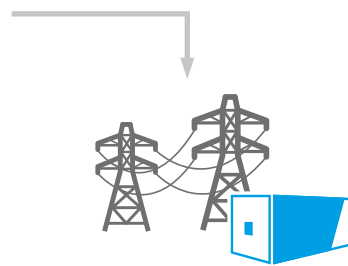
Renewable Power Plant Integration

- Ramp rate control
- Energy shifting
- Smoothing
- Capacity firming



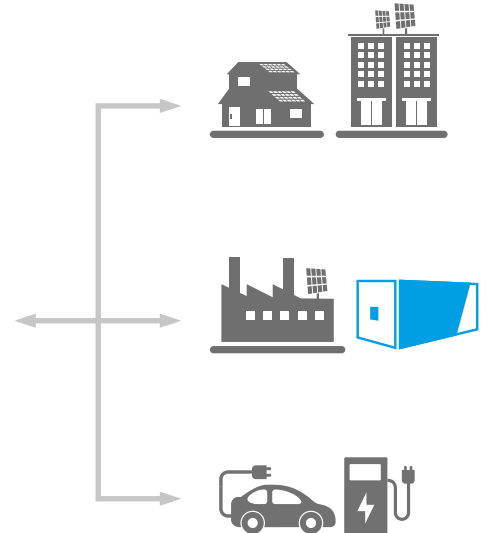
Hybridized Thermal Power Plant

- Black start



Grid Ancillary Control

- Frequency regulation
- Peak shaving



Distributed Network and Microgrid

- Peak shaving

Operating Modes

1. Power Dispatch Mode

Respond to External Power Demand

PCS can provide the optimal output to meet the system load at the short-term determination

3. Frequency-Watt / Voltage-Watt / Voltage-Var Mode

Dynamically Output Power Adjustment

PCS can monitor grid frequency or voltage continuously and adjust its output power based on the user-configured parameters dynamically

2. Peak Shaving Mode

Schedule for Demand Charge Reduction

PCS will dispatch battery power to shave the peak and avoid high demand charge once detected consumption overload

4. Standalone Mode

A Reliable Backup Power

PCS will disconnect itself from grid when grid blackouts. With an external UPS supplying emergency power, PCS can black start and continuously provide power from battery to critical loads

Advance Power Control for Improving Power Quality

- Automatic voltage and frequency regulation
- Active and reactive power compensation
- Anti-Islanding detection, islanding control operation

Specifications

Part Number	DWE2100-US	DWE2800-US
DC Connection		
Input Voltage V _{DC} , full load	760-1200 V	
Input Voltage V _{DC} , max	1200 V	
Max. Input Current I _{DC} , max (at 50°C)	2528 A	3370 A
Number of DC Inputs	1	
AC Connection		
AC Power / Current (at 25°C)	2100 kVA / 2010 kVA / 1875 kVA	2800 kVA / 2680 kVA / 2500 kVA
Max. AC Current I _{AC} , max (at 50°C)	2526 A	3368 A
Max. Total Harmonic Distortion ⁽¹⁾	< 3% at full load	
Nominal AC Voltage	480 V	
AC Power Frequency	60 Hz	
Power Factor	0 to 1 leading or lagging	
Performance		
Max. Efficiency ⁽²⁾	> 97.8%	
CEC Efficiency	97%	
Standby Loss ⁽³⁾	< 350 W	
Protection		
Input-side DC	DC load breaker switch + fuses	
Output-side AC	AC circuit breaker	
DC Overvoltage	Surge arrester, class II	
AC Overvoltage	Surge arrester, class II	
Ingress Protection	IP 65 , Type 3R	
General		
Dimensions (W x H x D)	4230 x 2290 x 1650 mm / 166.5 x 90 x 65 inches	
Weight	5500 kg / 12125.4 lbs	6500 kg / 14330 lbs
Power Module	3	4
Environment		
Operating Temperature	-30°C to +60°C, de-rating > 50°C	
Storage Temperature	-40°C to +70°C	
Relative Humidity	5 to 100% RH	
Altitude	< 3000 m, de-rating > 2000 m	
Acoustic Noise ⁽⁴⁾	< 85 dB(A)	
Cooling	Liquid cooling (integration)	
Compliance		
Safety	UL 1741	
EMC	FCC class A	
Grid Interconnection	IEEE 1547 / UL 1741 SA / CSA C22.2 107.1-1	

* Specifications are subject to change without prior notice

(1) I_{thd} measured under grid short current ratio≥5

(2) Efficiency measured without internal auxiliary power loss

(3) Standby loss measured under external power supply

(4) Noise measured at the distance of 3m



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