UTILITY-SCALE ESS SOLUTION

DEYE WINTER WS SERIES



Ultimate Safety
- 3+3 Fire Protection System
- 3+3 Electrical Safety Safeguards
- AC Leakage & DC Insulation detection
- High-Voltage Interlock

Seamless Scalability
- Modular Architecture
- Flexible 2/4h Energy Storage Solutions
- Compact Design, High Energy Density

Versatile Applications
- Peak Shaving & Energy Arbitrage
- Virtual Power Plant (VPP) Ready
- Off-Grid & Microgrid Capable
- PV and BESS DC Coupling
- Hybrid Solar-BESS-Diesel Systems

Smart Cloud Management
- AI-Powered Load Optimization
- 24/7 Remote Monitoring & O&M
- Real-Time Battery Health & Safety Alerts
- Cloud-Connected Ecosystem

High Energy Density
- 4300kWh in 20' BESS Container
- 125kW PCS, 1800kW PV in Mppt Stacked Module

Cluster Management
- One Cluster Management, High Availability More Friendly to the Cell

IP54
Protection Rating
Battery enclosure IP55
PCS enclosure IP54

1800kW
PV DC Coupling

6 Levels
Fire Protection

Liquid-Cooled ESS



Model	WS-L4300-BC-3
DC Battery	
Battery Type	$LiFePO_4$
Nominal Capacity (Cell)	314Ah
Nominal Energy	4340kWh
PACK Configuration	1P48S
RACK Configuration	18 × 1P240S
Nominal DC Voltage	768Vdc
DC Voltage Range	648Vdc ~ 876Vdc
Charge and Discharge Rate	⩽0.5P
Max. Charging / Discharging Current	3150A (18 × 175A)
No. of DC Output	18
System	
Operating Temperature	-30°C ~ +55°C
Storage Temperature	-30°C ~ +60°C
Humidity	0 ~ 95% (No condensation)
Type of Cooling	Liquid cooling
Fire Suppression	Aerosol、Water
Ingress Protection	IP55
Anticorrosion Grade	C4-M (Optional C5)
Altitude	⩽2000m
Communication	CAN、RS485、TCP、DIDO
Weight	38000kg
Dimensions (W × D × H)	6058 × 2438 × 2896mm

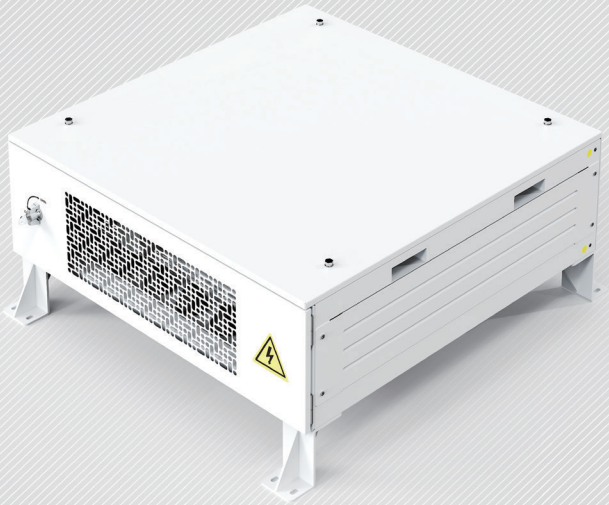
Liquid-Cooled ESS

Model	WS-PCS1125-2-A
PCS Data	
AC Rated Power	1125kW (9 × 125kW)
AC Rated Voltage / Frequency	400Vac / 50Hz (3L+N+PE)
AC Rated Current	1624A (9 × 180.4A)
Power Factor	-1 ~ +1
Battery Input Voltage Range	630Vdc ~ 1000Vdc
Max. Charging / Discharging Current	1710A (9 × 190A)
System Data	
General Data	
Operating Temperature	-30°C ~ +55°C (Discharge derating >45°C; Charge derating ⩾40°C)
Humidity	0 ~ 95% (No condensation)
Ingress Protection	IP54
Anticorrosion Grade	C4-M (Optional C5)
Altitude	⩽3000m
Weight	⩽2000kg
Dimensions (W × D × H)	1850 × 1120 × 2450mm

Model	WS-TS1000-2-A
Grid Side Data	
Rated AC Input/Output Active Power (kw)	1000
Rated AC Input/Output Current(A)	1450
Rated Input/Output Voltage(V)	220/380,230/400 (three phase)
Grid Connection Form	3L/N/PE
Rated input/Output Grid Frequency	50Hz/60Hz
Load Side Data	
Rated AC Input/Output Active Power(kw)	1000
Rated AC Input/Output Current	1450
Rated Input/Output Voltage(V)	220/380,230/400(three phase)
Grid Connection Form	3L/N/PE
Rated Input/Output Grid Frequency	50Hz/60Hz
GEN Side Data	
Rated AC Input/Output Active Power (kW)	1000
Rated AC Input/Output Current(A)	1450
Rated Input/Output Voltage(V)	220/380,230/400 (three phase)
Grid Connection Form	3L/N/PE
Rated Input/Output Grid Frequency	50Hz/60Hz
System Data	
Dimension (W x D x H, mm)	2000 × 1200 × 2450mm
Weight Appr. (kg)	1600
System Operating temperature range	-20°C ~ 55°C
Max. Working Altitude (m)	⩽3000
IP Rating of Enclosure	IP54
Switching Time (ms)	⩽20

C&I Air-Cooled EMS

Model	MS-EMS
System	
Configuration	EMS controller, lightning protection module, switch power supply, UPS module, switch
Function	Basic functions : peak valley arbitrage, anti backflow, main transformer overload protection, load tracking, demand control, backup power function, phase separation control, SOC balancing, Deye Cloud monitoring Advanced features : load forecasting, production planning, electricity price planning, optimal economic curv
Communicate	
Ethernet (5 channels)	10 / 100 / 1000 Mbps
Fiber optic port (2 channels)	1Gbps
USB (2 channels)	Host
CAN (3 channels)	Isolation, with 2 Channels Supporting CAN-FD
RS485 (8 channels)	Isolation
RS232 (3 channels)	2 Isolated Channels, 1 Non Isolated Debugging Channel (DB9 socket)
TF Card (1 channel)	Standard TF Card Holder
LVDS (1 channel)	The Physical Interface is DVI (Including 1 USB for Touch)
M. 2 Interfaces (1 channel)	PCIe2.0 X1, Scalable SSD (standard 1TB)
MiniPCIe Interface (1 channel)	4G Card with Expandable Usb Communication Protocol (Standard)
Nano SIM Interface (1 channel)	Used in Conjunction with the miniPCIe Expansion 4G Module
DI (17 channels)	Optocoupler Isolation
DO (8 channels)	Relay Isolation
WLAN	802.11 b / AC g n，HT 20 / 40，2.4 GHz 5 Ghz
4G Antenna	Support Multi Country Frequency Bands
Power Supply	
Communication Input	220Vac
DC IN	24Vdc
UPS Backup Power	24Vdc
Consumption	Max 25W
Environmental Parameters	
Operation Temperature	-15°C ~ +50°C
Storage Temperature	-15°C ~ +50°C
Working Humidity	5% ~ 95%
Max. Working Altitude (m)	⩽3000m
IP Rating of Enclosure	IP54
Anti-Corrosion Grade	C4-M (Optional C5)
Mechanical Parameters	
Dimension (W × D × H, mm)	488 × 188 × 588
Weight Appr. (kg)	⩽24.5kg
Installation Location	Indoor or Outdoor, Wall-mounted
Box Material	Metal
Incoming Specifications	AC power cord : Recommended wire diameter 1.5mm^2 DC power cord : Recommended wire diameter of 1.5mm^2 Eight core Ethernet cable: Recommended CAT5e Ethernet cable RS485 : Recommended 0.75mm^2~1.5mm^2 outdoor UV protection with shielding layer twisted pair cable length<1000m (baud rate 9600)

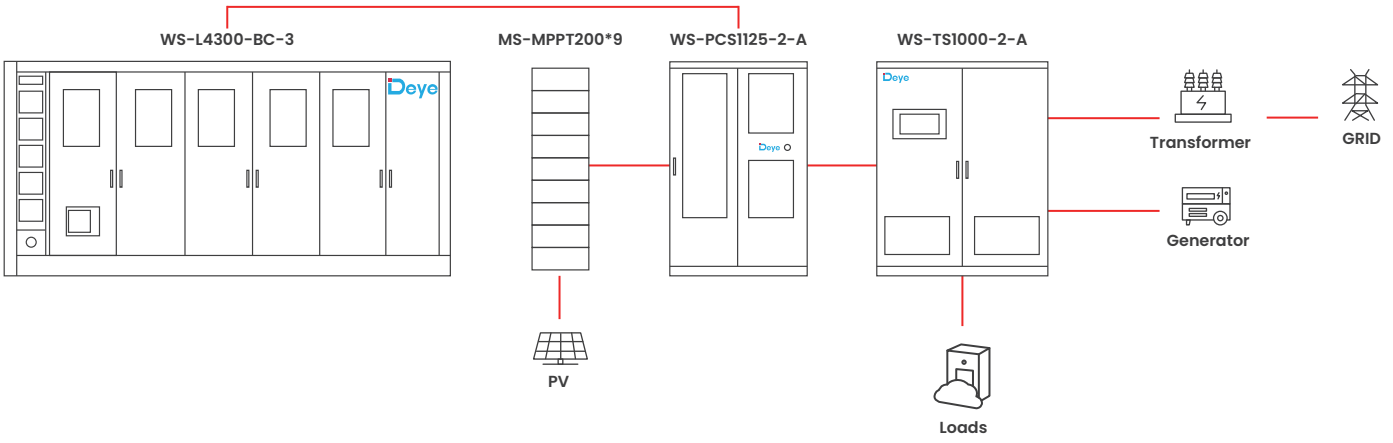


MS-MPPT200-2

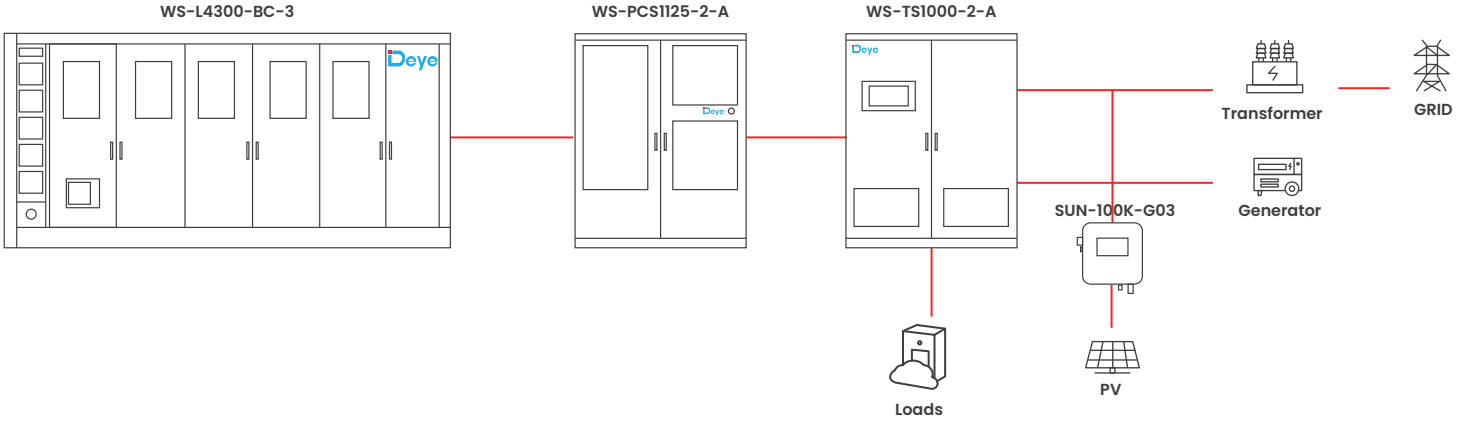
Model	MS-MPPT200-2
PV String Input Data	
Max.PV Access Power(kW)	200
Max. PV Input Power (kW)	160
Max. PV Input Voltage (V)	800
Start-up Voltage (V)	200
MPPT Voltage Range (V)	180-750
Full Load MPPT Voltage Range （V）	450-750
Rated PV Input Voltage （V）	600
Max. Operating PV Input Current (A)	40+40+40+40+40+40+40+40
Max. Input Short-Circuit Current (A)	60+60+60+60+60+60+60+60
No. of MPP Trackers	8
Efficiency	
Max. Efficiency	>99%
MPPT Efficiency	>99.9%
Equipment Protection	
DC Input Reverse Protection	YES
DC ARC Protection	Optional
Anti-PID(Potential Induced Degradation)	Optional
DC Switch	YES
Surge Protection Level	TYPE II
General Data	
Ingress Protection(IP) Rating	IP65
Over Voltage Category	OVC I
Cabinet Size[W×H×D] (mm)	543x198x700
Weight (kg)	70
Type of Cooling	Intelligent Air Cooling
Safety EMC/Standard	IEC/EN 62109-1
DC Output Data	
DC Output Voltage Range(V)	630-1000
Max. DC Output Current(A)	200

Typical Application Scenarios

PV-BESS DC-Coupled Solution

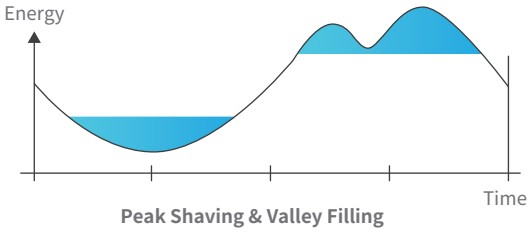


PV-BESS AC-Coupled Solution



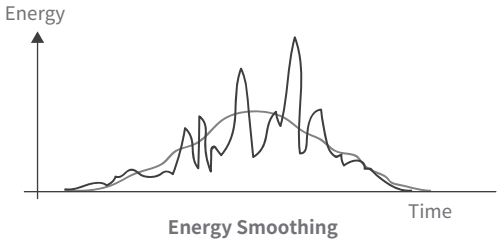
Application Scenarios
Ideal for medium to large C&I microgrid applications

1.Applied in medium to large-scale C&I applications (Peak Shaving & Valley Filling)



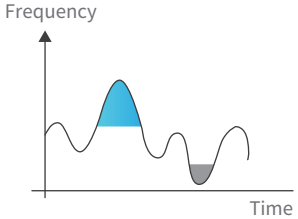
Peak Shaving & Valley Filling

2.Integrated with renewable energy storage systems to smooth power output

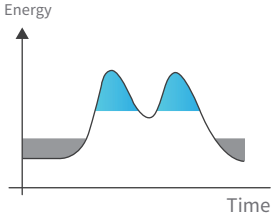


Energy Smoothing

3.Used for Peak Shaving and Frequency Regulation on the power generation side



Frequency Regulation



Peak Shaving

4.Participates in virtual power plants to provide ancillary power services (electricity trading)

