



Valen's Intelligent Lithium Storage Solution

Valen is redefining storage technology with its intelligent storage systems.



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Battery module

PSF280 Battery Module



Features

PSF280 is the special LFP module for energy storage applications independently developed by Valen Group. With excellent air duct design, integrated BMU and module-level built in fire protection unit, PSF280 is widely used in multiple ESS applications.

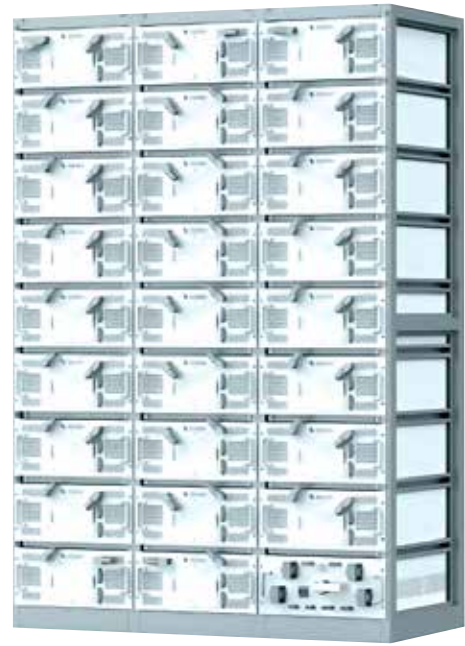
- High energy density and long cycle life.
- Efficient duct design ensures the extraordinary temperature consistency of the module.
- Integrate module-level built-in fire protection unit ensures excellent fire protection performance.
- WM speed regulating fan makes energy saving and efficient.



Specifications

ITEM	SPECIFICATIONS
Model	CSF280
Cell Type	LFP 3.2V/280Ah
Rated Capacity	280Ah
Rated Energy	14.336kWh
Rated Voltage	51.2V
Operating Voltage Range	44.8-57.6V
Charge-Discharge ratio	≤1C
Weight	120kg
Dimensions (W*D*H)	480*785*230mm

Battery Cluster



Features

CSF280-26 is the LFP battery cluster independently developed by Valen. With efficient air duct design and flexible configuration options, CSF280-26 has extraordinary adaptability for multiple energy storage applications.

- Flexible configuration options up to 26 clusters in one string.
- Efficient air duct design ensures the extraordinary temperature. Real-time online estimation of SOC, SOH and SOE
- Two-stage short-circuit protection, graded fast current limiting

Specifications

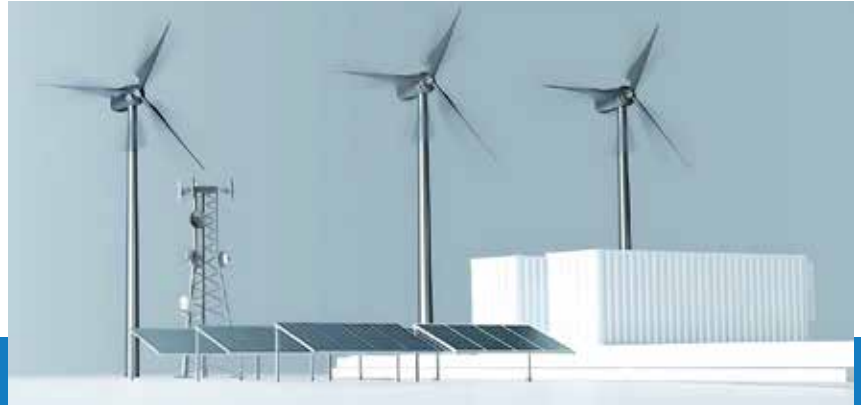
ITEM	SPECIFICATIONS
Model CSF280-26	CSF280
Cell Type LFP 3.2V/280Ah	LFP 3.2V/280Ah
Pack Mode	1P416S
Rated Capacity	280Ah
Rated Energy	372.736kWh
Rated Voltage	1331.2V
Operating Voltage Range	1164-1500V
Charge-Discharge ratio	≤1C
Weight	3100kg
Dimensions (W*D*H)	1570*785*2330mm

ENERGY STORAGE SYSTEM

Large ESS Solution

Overview

Relieve wind and light abandonment, smooth power fluctuation, track dispatching plan, and improve the friendliness and reliability of power grid. In addition, energy storage can be combined with thermal power to participate in frequency modulation to obtain frequency modulation compensation.



Applications:



Large wind and light power station



Frequency modulation of thermal power station



Power grid independent energy storage

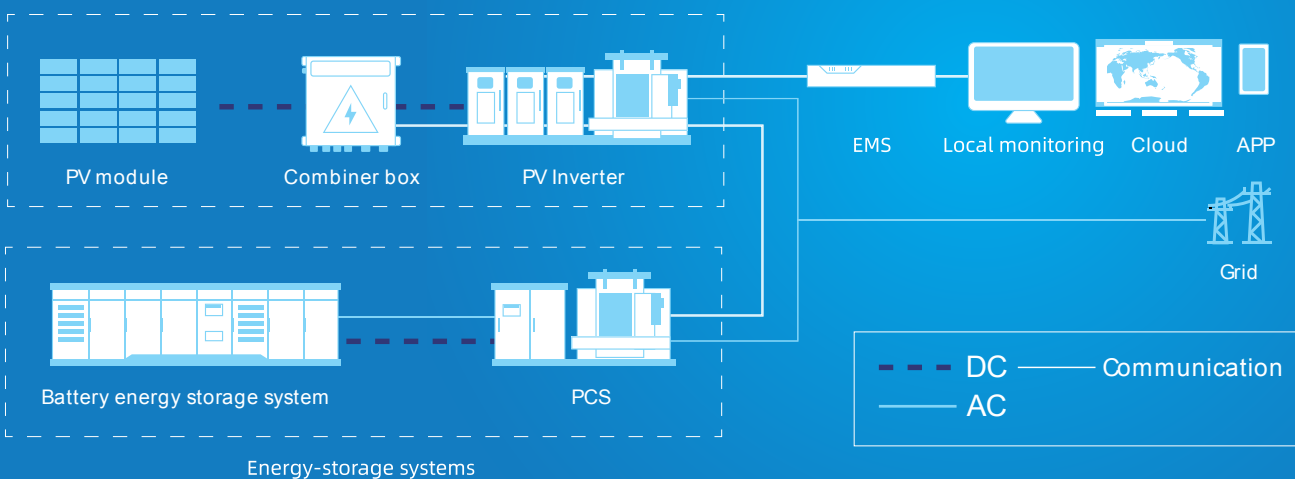


Large micro-grid



Large user side energy storage

Topology diagram of system scheme



Scheme characteristics

- AC coupling, centralized management, easy installation and maintenance.
- Independent AC/DC unit design & integrated station design
- Safe and reliable, layer upon layer protection from cell to system.
- Coordinated operation option with peak regulation and voltage regulation function.

Large ESS — Product

Centralized ESS Compartment Solution



Features

- Multi-level BMS management, multi-sampling point coverage, real-time data feedback, safe and intelligent operation
- Dual fire protection system, multi-level prevention and control, efficient fire fighting and re-ignition prevention.
- Advanced air duct design, thermal management system and BMS linkage, real-time accurate temperature control, battery cell temperature difference $\leq 5^{\circ}\text{C}$
- IP54 protection grade, C3 anti-corrosion grade, easy to deal with outdoor harsh environment.

Specifications

ITEM	PARAMETER	
Model	CBES-3.35MWh	CBES-5MWh
Rated Energy	3.354MWh	5.017MWh
Cell Type	3.2V/280Ah	3.2V/280Ah
Battery Configuration	1P416S	1P400S
Number of battery strings	9	14
Rated Charge/ Discharge Rate	0.5C	0.5C
Operating Voltage Range	1164-1500VDC	1120-1460VDC
DOD	90%	90%
Air Conditioning Refrigeration Power	15kW*4	20kW*4
Fire Protection Scheme	Aerosol & Heptafluoropropane	Aerosol & Heptafluoropropane
IP Grade	IP54	IP54
Anticorrosion grade	C3	C3
Dimension(LxWxH)	9125*2438*3100mm	13716*2438*2896mm
Weight	35t	45t

ENERGY STORAGE SYSTEM

Containerized ESS — Solution

Overview

Delaying the upgrading of distribution network, coping with transmission line faults and participating in frequency modulation and peak shaving have improved the reliability of power grid, and at the same time, it can meet the needs of industrial and commercial energy storage and reduce the cost of electricity consumption.



Applications:



Small industrial and commercial energy storage



Platform energy storage

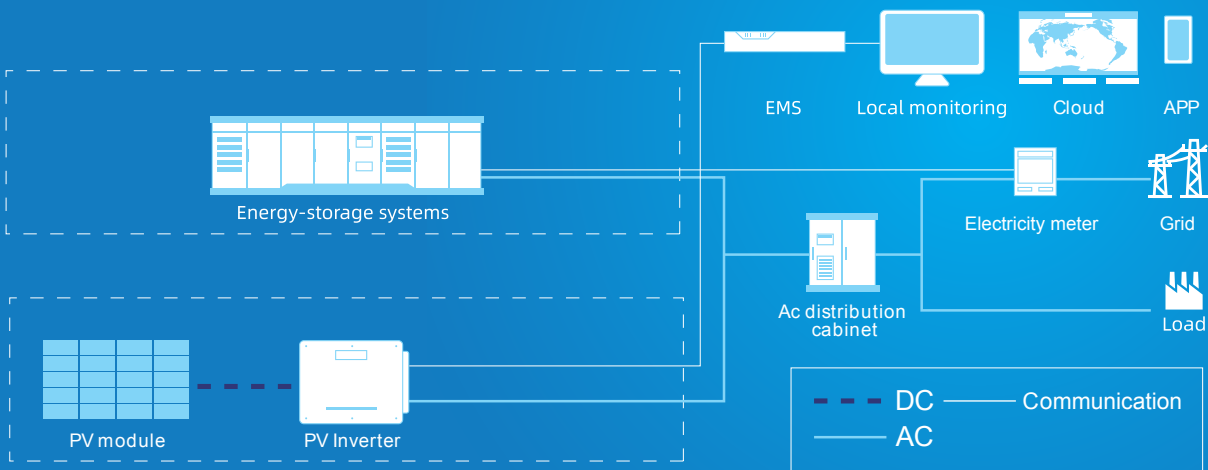


Optical storage charging station



Small microgrid

Topology diagram of system scheme



Scheme characteristics

- Integrated AC/DC unit design, smaller space required.
- Safe and reliable, layer upon layer protection from cell to system.
- Optimizing charging and discharging plan to minimize the charging cost.
- Option of remote monitoring function through APP.

Container ESS — Product

AC/DC energy storage integrated cabin (800kW/1.9MWh)



Features

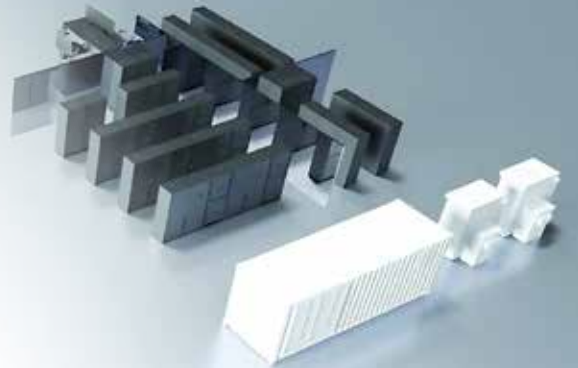
- The AC coupling system design makes the system stronger.
- AC/DC integrated design, lower initial investment cost.
- Meet many application scenarios such as peak load shedding, demand management and microgrid construction.
- Support multiple sets of parallel use, covering a wide range of capacity.

Specifications

	Item	CIES-800kW/1.9MWh
Battery Data	Cell spec	LFP 3.2V/280Ah
	String configuration	1P272S
	Number of strings	8
	DC rated energy capacity	870.4V/734.4V-992.8V
	Rated voltage/ Voltage range	1,949kWh
AC Data	Rated AC power	800kW
	Maximum AC power	880kW
	Rated grid voltage	400V,3P+N+PE
	Grid voltage range	340-460V(Optional)
	AC rate of current	1264A
	AC PF	-1-1 leading or lagging (Controllable)
General Data	Dimension (L*W*H)	6,058x2,438x2,591mm
	Weight of the whole system	22t
	Degree of protection	IP54
	Operating temperature range	-20-40°C
	Relative humidity	0-95% (non-condensing)
	Max working altitude	4,000m/13,123ft
	Cooling concept of DC hatch	HVAC
	Fire Protection Scheme	Aerosol & Heptafluoropropane

ENERGY STORAGE SYSTEM

Distributed ESS – Solution



Overview

Peak load shedding, dynamic capacity expansion and demand side response can save electricity and electricity charges, and in addition, energy storage can assist the access of distributed power supply and provide friendly power supply for power grid.

Applications:



Small industrial and commercial energy storage



Platform energy storage

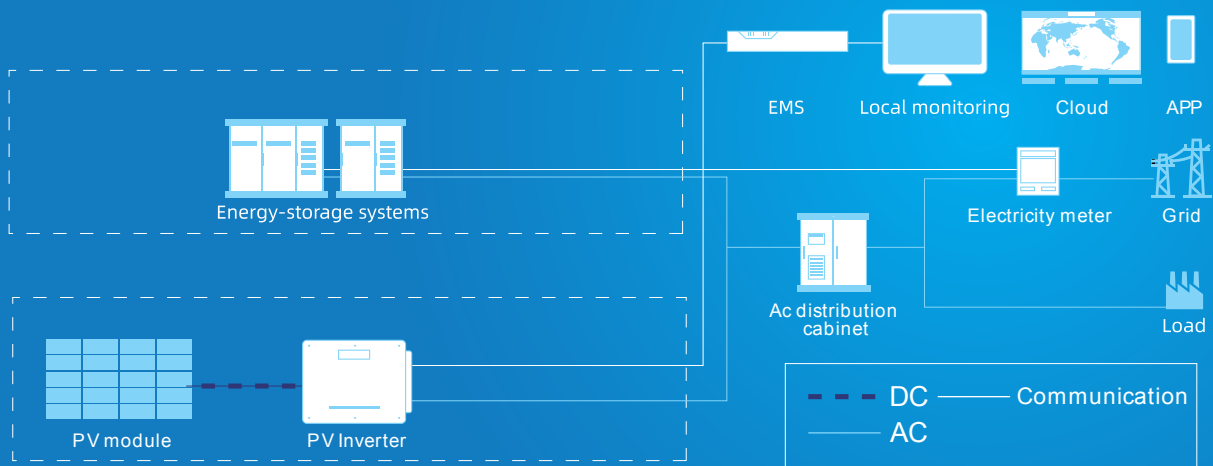


Optical storage charging station



Emergency standby power

Topology diagram of system scheme



Scheme characteristics

- Flexible layout, multiple machines in parallel, easy to expand.
- Intelligently optimize the energy storage charging and discharging plan to maximize electricity saving.
- Cloud technology blessing, supporting remote monitoring of mobile APP.
- Cloud cooperates with multiple protections, and data security is not leaked.



Distributed ESS — Product

AC/DC energy storage integrated cabinet (100kW/200kWh)

Features

- Intelligent energy management strategy, supporting multi-mode operation.
- Modular integrated design, flexible matching of different scenarios.
- Support multiple sets of parallel connection, covering a wider power range.
- Integrated design of optional photovoltaic access and photovoltaic energy storage and charging.

Specifications

	Item	CIES-800kW/1.9MWh
Battery Data	Cell spec	LFP 3.2V/280Ah
	String configuration	1P224S
	Number of strings	1
	DC rated energy capacity	200kWh
	Rated voltage/ Voltage range	716.8V/604.8V-817.6V
AC Data	Nominal AC power	100kW
	Rated AC power	110kW
	Rated grid voltage	400V,3P+N+PE
	Grid voltage range	320-460V(Optional)
	AC rate of current	150A
PV Data	AC PF	-1-1 leading or lagging (Controllable)
	Nominal DC power	100kW
	Voltage range	250V-750V
	Number of strings	2
	Maximum current	160A
General Data	Dimension (L*W*H)	1,800x1,400x2,200mm
	Weight of the whole system	2.5t
	Degree of protection	IP55
	Operating temperature range	-200~+40 °C
	Relative humidity	0-95% (non-condensing)
	Max working altitude	4,000m/13,123ft
	Cooling concept of DC hatch	HVAC
Fire protection scheme	Aerosol	



A family
owned
Australian
business



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