

JDENERGY

eStation **MV-6880**

LIQUID-COOLED STRING PCS MV STATION



eStation-MV-6880
6.88MW String PCS MV Station

⊕ High-Efficiency & User-Friendly ⊕ Environmental Adaptability ⊕ Reliable & Safe ⊕ Typical Application Scenarios

High-Efficiency & User-Friendly

- Three-level topology string PCS module achieving a maximum conversion efficiency of 99%.
- Battery system supports deeper Depth of Discharge (100%DOD) for improved performance. Modular and scalable design: New battery packs can be seamlessly integrated into existing systems, and are compatible with different cell capacities within the voltage range.

Reliable & Safe

- Flexible scalability, supporting 430 kVA fold expansion up to 6.88 MVA.
- Optimized State of Charge (SOC) management to balance different battery clusters.
- Short-circuit breaking capability on both AC and DC sides for enhanced safety.

Environmental Adaptability

- Efficient liquid cooling with no derating at ambient temperatures up to 40 °C.
- Max. operating altitude: 2000m; suitable for high-altitude applications.
- IP66-rated power modules (with IP54-rated overall enclosure) protect against dust, water and salt spray. The welded steel enclosure is corrosion-resistant for harsh industrial/coastal environments, and all components are built for a 20 year lifespan.

Typical Application Scenarios

- Smooths power from large-scale solar PV and wind farms, storing excess energy and reducing output variability.
- Enables off-grid and backup operation with black-start capability, ideal for remote sites, telecom towers or island grids.
- Fast voltage/frequency regulation, peak shaving and emergency power for utilities and C&I customers.

PCS DC PARAMETERS

Max.DC Voltage	1500V
Number of DC Input	16
Max.DC Current	430A*16
Battery Voltage Range	1000~1500V
DC Voltage Ripple	<2%
DC Current Ripple	<3%

PCS AC PARAMETERS

AC Output Power	430kVA*16
PCS AC Output Current	360A*16
PCS AC Voltage Range	621~759V(Adjustable)
Nominal Grid Frequency	50/60Hz
Harmonic(THDi)	<3%(100% load)
Power Factor	0.8lagging~0.8leading
Connection Phases	3P3W+PE

ENVIRONMENT

Max. altitude	2000m
Operating Temperature	-30°C~ 60°C
Relative Humidity	0~ 95%(no condensing)

TRANSFORMER

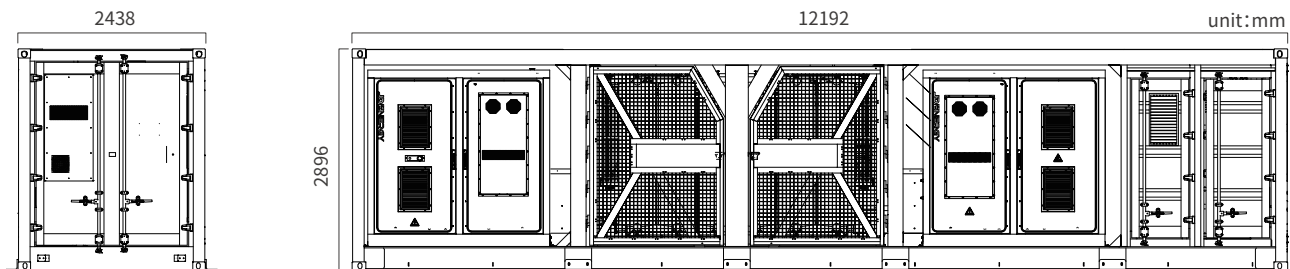
Rated Capacity	7100kVA
Isolation Mode	Oil-Immersed Transformer
Transformer Vector	Dy11y11
Transformer Oil	Mineral oil/FR3
Protection Level	IP54
Cooling Method	ONAN
Transformer Turns Ratio	10~35/0.69/0.69kV
Transformer Efficiency	Tier1/Tier2/>99%@Pn
Anti-corrosion Grade	C5/C4/C3

SWITCHGEAR

Switchgear Type	CCV/DCV/others
Insulating Medium	SF6
Rated Operating Current	630A
Switchgear Short Circuit Rating	20kA/3s or 25kA/1s

MECHANICAL PARAMETERS

Dimensions (L*W*H)	12,192mm*2,438mm*2,896mm
Total Weight	≈ 39000kg



*JDEnergy reserves the right of final interpretation for all data contained in this specification.(202605 V3.0)

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