



Container Type Prefabricated Substations

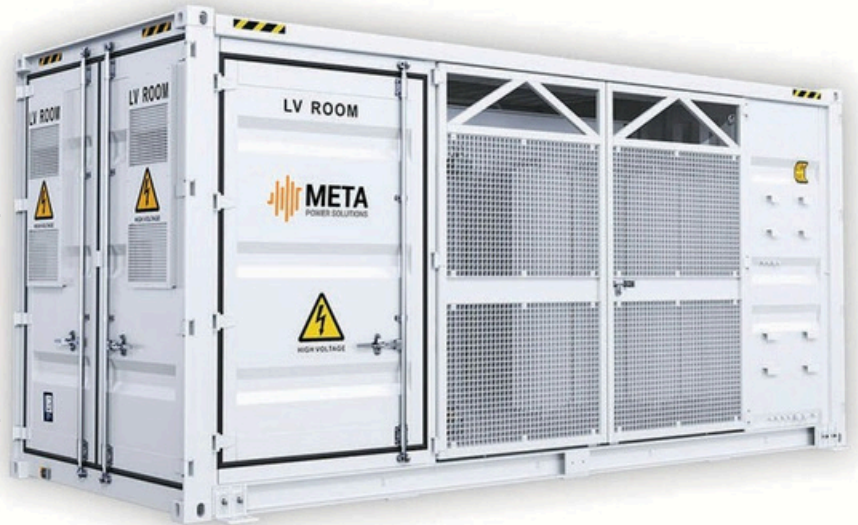
PV Generation System - MV Transformer Integrated

Intelligent management

- We employ Schweitzer Relays for remote monitoring, enabling real-time detection of the operational status of low voltage cabinets, transformers, and ring network cabinets. Additionally, our system supports remote control of the entire circuit breaker within low voltage cabinets and ring network cabinets, as well as the ability to access operational information from substations.

High reliability

- The structure design is firm and reliable.
- The MV compartment is enclosed in a 3R room.



Easy to transport

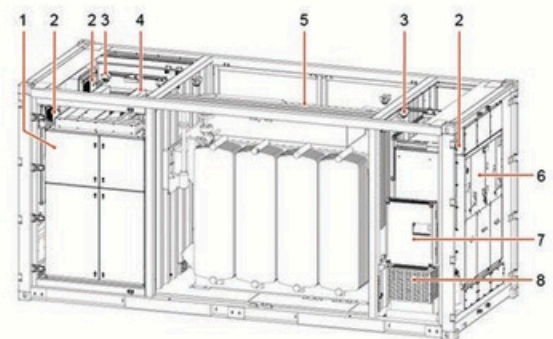
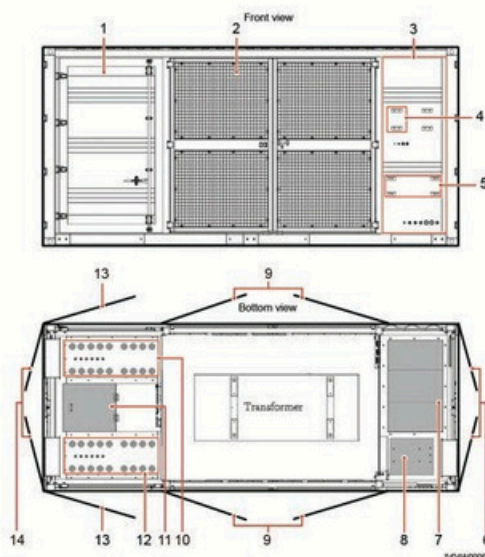
- Compact 20ft/40ft
- The container loads on most flatbeds.

Rapid deployment

- Internal Equipment has been prefabricated and installed.
- Only LV incoming line and MV outgoing line operation is needed at the project site.

Appearance of the General Layout

1. Low-voltage room (LV)
2. Transformer room (TR)
3. Medium-voltage room (MV)
4. Position for the uninterruptible power supply (UPS)
5. Solar Controller (Optional)
6. Double-swing door of the MV room
7. Ring main unit (RMU)
8. Auxiliary transformer
9. Double-swing screen door for the transformer room
10. AC input cable hole (LV PANEL B)
11. Manhole entrance
12. AC input cable hole (LV PANEL A)
13. Single-swing door for the LV room
14. Double-swing door for the LV room



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|-------------------|---------------------------------|
| 1. LV PANEL A | 5. Transformer |
| 2. Heat exchanger | 6. Ring main unit |
| 3. Smoke sensor | 7. Power distribution box (PDB) |
| 4. LV PANEL B | 8. Auxiliary transformer |

Applicable Condition

Altitude	≤1000m
Relative humidity	Daily relative humidity shall not exceed 95% Monthly average shall not more than 90%
Environment temperature	The lowest temperature: - 25°C The highest temperature: + 45°C The highest annual mean temperature: + 25°C The highest monthly mean temperature: + 35°C
Shockproof level	Horizontal acceleration ≤ 0.3 m/s ² Vertical acceleration ≤ 0.15 m/s ²
Outdoor wind pressure	≤700Pa (or 35m/s)
Site condition	No fire hazard, serious pollution, chemical corrosion and violent vibration.

General Data

Dimension (L*W*H)	20ft container: 20ft x 8ft x 13ft 40ft container: 40ft x 8ft x 10ft
Standard	UL891 IEC62271-202 High -voltage/low-voltage prefabricated substation. IEEE C57.12.00, IEEEC57.12.28,
Service life	25 Years

Ring Main Unit

Rated voltage	15/24/38kV
Rated current	630/1250A
Power frequency withstand voltage	50kV
Rated impulse withstand voltage	125kV
Rated short circuit breaking current	40kA
Protection	Over-current protection and grounding protection

Medium-Voltage Transformer

Rated capacity	2000-3600kVA @ 55°C
Standard	UL1561
Operating frequency	50/60Hz
Phase	3
Vector group	Y-Y, Δ-Y, Y-Δ, Δ-Δ
Voltage	4.16-34.5kV 480V-800V
Cooling method	ONAN /KNAN/ONAF/KNAF
Power frequency withstand voltage	50kV
Rated impulse withstand voltage	125kV
Transformer cooling oil	Mineral oil (PCB free) or degradable oil on request

Low-Voltage Switching Cabinet

Circuit breaker	Up to 4000A
Surge protective device	Type II