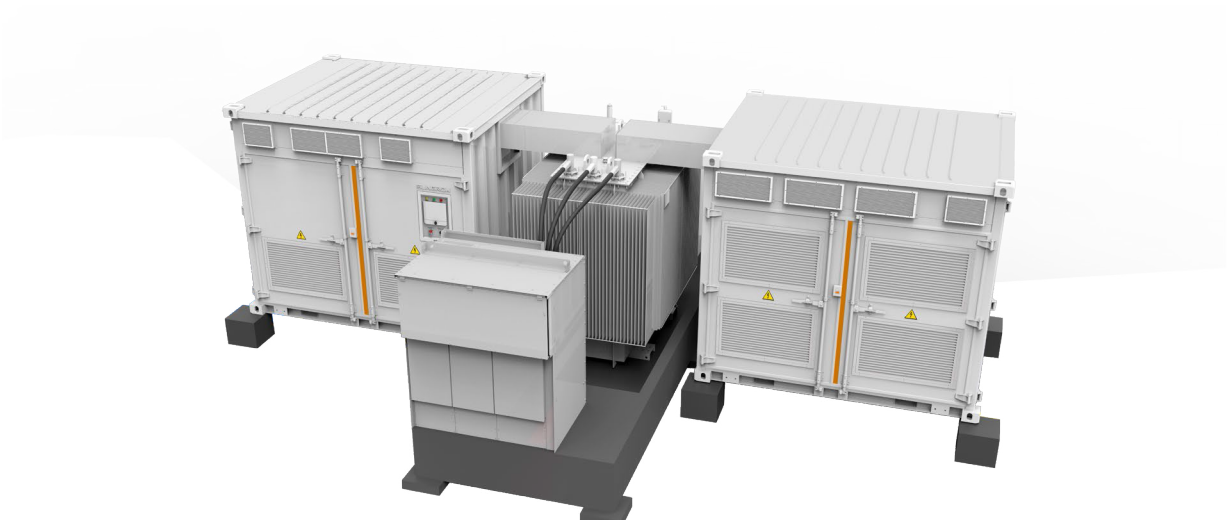
SUNGROW
Clean power for all

SG7200HV Medium Voltage Skid

SG7200HV is Sungrow's plug&Play MV station for large utility scale PV Plants.
The MV Station is available with the central inverter SG3125HV with one or two inverters per block



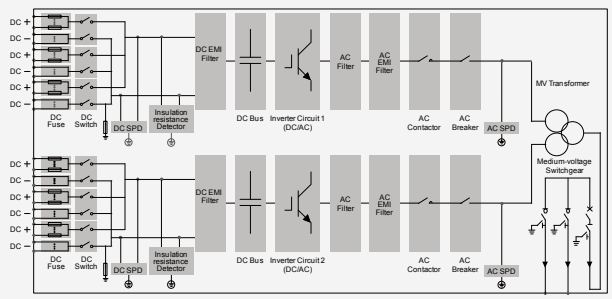
Compact and roboust

- The design has been optimized as a compact MV Station to minimize the foot print and the required space in the Pv Plant. Indoor containerized inverters and concrete MV Skid with oil containment and enclosure for the RMU makes this Station highly reliable and suitable for the most extreme environmental conditions.
- Sungrow's Medium Voltage Skid provides high power density as it's able to deliver up to 7200kVA in a reduced space, minimizing costs without impact in maintenance or system cooling.

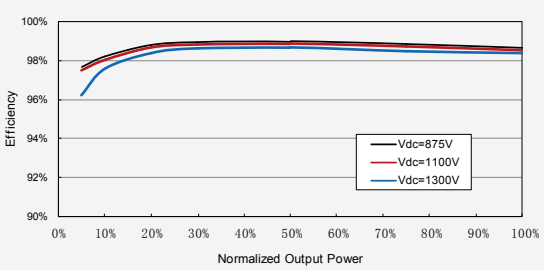
Easy installation and maintenance

- Simple foundation required, based on small concrete footings on surface, without need to perform expensive foundation works, as the oil containment is included in the MV Skid. Maintenance tasks and installation is very simple as all the equipment is easily accessible from all required sides.

Circuit Diagram



Inverter Efficiency Curve



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SG7200HV Medium Voltage Skid

Inverter compartments	SG3600HV-Skid	SG7200HV-Skid
Installation	Indoor, inside 10ft container	
Number of inverters	1	2
Cooling system	Air forced	
Protection degree	IP54	
Rated power	3593 kVA	7186 kVA
At 25˚C	3437.5 kVA	6875 kVA
From 30 to 45˚C	3125 kVA	6250 kVA
MPP Range	875-1300 V	

LV-MV Transformer	
Cooling system	Outdoor installed, air natural
IP degree	IP65 except LV terminals IP55
Temperature range	-20 to 50 ˚C
Power losses	UE 548 / 2014

MV Switchgear	
Installation	Indoor, inside concrete enclosure
Rated Voltage	24 kV or 36 kV
Rated Current	630 A, with derating above 40˚C
Making capacity	20 kA

LV Panel	
Installation	Indoor inside SG3125HV container
Standard power	15 kVA

Weight and size		
Length	8632 mm	
Width	5400 mm	
Height	2591 mm (exluding foundation)	
Weight (exluding inverters)	18.5 Ton	24 Ton

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Description of the equipment

Inverters: 1 or 2 SG3125HV inverter turnkey stations:

Standard equipment

- 10ft container enclosure
- 1500Vdc
- AC output power SG3125HV: 3594kVA@25ºC/ 3437kVA@45ºC/ 3125kVA@50ºC
- Night SVG function (Q@night)
- Overvoltage protection: DC Type I+II/ AC Type II
- Integrated current and voltage monitoring function
- Integrated LV auxiliary power supply 15kVA
- DC Fuses 315A

Optional equipment

- Negative grounded DC inputs
- Auxiliary power supply 25kVA or 40kVA
- DC fuses 400A

Transformer:

Standard equipment

- Eco Design UE548/2014 Transformer losses
- Dy11or Dy11y11 vector group
- Mineral Oil Transformer with oil collection pit included
- Aluminium windings
- Offload taps +/-2x2.5%
- DGPT2 relay
- Monitoring alarms: oil pressure, oil level and oil temperature
- Metallic cover for LV terminals

Optional equipment

- Protective fence for transformer cubicle with key interlock
- Metal cover for HV terminals, with key interlock
- Drainage key and syphon, with oil filter

RMU:

Standard equipment:

- 2 Feeder Switch Panel (SF6) / 1 Protection VCB Panel. Circuit Breaker driven by self-powered relay 50-51-50N
- Rated Current: 630 A

- RMU Status Monitoring (load switches, earth switches, circuit breaker status, SF6 alarm)
- IAC classification for MV Switchgear
- Security kit included: Signboards, Insulation stoll, dielectric gloves, rescue pole

Optional equipment:

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- Different RMU arrangements (1feeder-1 protection/3 feeders-1 protection/ cable feeders,…)
- Making capacity 25kA
- Circuit breaker motorization
- Cascade control
- Type P1 Interlock
- Cable gland for two cables per phase in feeder panels
- Surge arresters
- Terminals for feeder panels

Monitoring

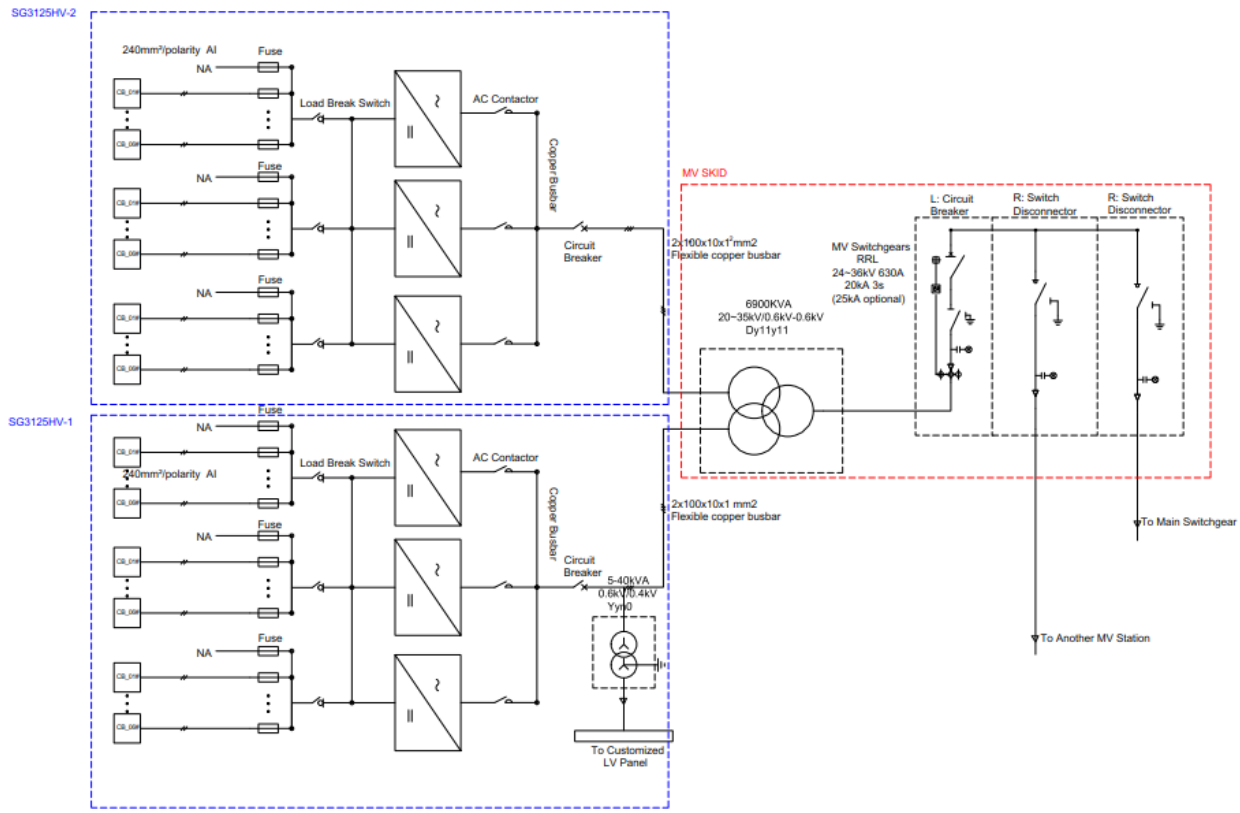
Standard equipment

- Ethernet communication including:
- 1x Managed Optical Fiber Switch 2x Multimode SC Port+ 6xRJ45Ports+ Patch Panel 16/32 ST-ST
- Monitoring of inverters through SCU, monitoring of MV skid through local IO remote , internal wiring included in the scope

Optional equipment

- Single mode Fiber optic switch
- ST fiber optic ports

Single line Diagram



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