

# MV Power Station

2660-S2 / 2800-S2 / 2930-S2 / 3060-S2

Turnkey solution for PV and battery-storage power plants



## Robust

- Station and all individual components type-tested
- Galvanized base frame for extreme ambient conditions

## Easy to use

- Turn-key solution
- Fully pre-assembled for easy setup and commissioning

## Cost-effective

- Lower specific costs thanks to high power classes
- Minimal coordination required during planning and installation
- Low transport costs thanks to 20-foot platform

## Flexible

- One design for the whole world
- Numerous options

**With the power of the robust central inverters Sunny Central UP or Sunny Central Storage UP and the perfectly matched medium-voltage components, the MV Power Station offers high power density and is a turnkey solution available worldwide.**

Ideal for use in the new generation of PV and battery-storage power plants with 1500 V<sub>DC</sub>, the integrated system solution is easy to transport and quick to assemble and commission. The MVPS and all components are type-tested. The MV Power Station combines rigorous plant safety with maximum energy yield and minimized deployment and operating risk.

Now available with eco-friendly, SF6-free medium-voltage switch-gear—making a sustainable contribution to climate protection.

# MV POWER STATION

## 2660-S2 / 2800-S2 / 2930-S2 / 3060-S2

Technical data	MVPS 2660-S2	MVPS 2800-S2
<b>Input (DC)</b>		
Available inverters	1 x SC 2660 UP / 1 x SCS 2300 UP-XT	1 x SC 2800 UP / 1 x SCS 2400 UP-XT
Max. input voltage	1500 V	
Number of DC inputs	Depending on selected inverter	
Integrated zone monitoring	○	
<b>Output (AC) on the medium-voltage side</b>		
Nominal power at SC UP (from -25 °C to +35 °C / 40 °C; optional 50 °C) <sup>1)</sup>	2667 kVA / 2400 kVA	2800 kVA / 2520 kVA
Charging power at SCS UP-XT (from -25 °C to +25 °C / 40 °C; optional 50 °C) <sup>1)</sup>	2393 kVA / 2001 kVA	2513 kVA / 2101 kVA
Discharging power at SCS UP-XT (from -25 °C to +25 °C / 40 °C; optional 50 °C) <sup>1)</sup>	2667 kVA / 2267 kVA	2800 kVA / 2380 kVA
Typical nominal AC voltages with a permanent tolerance of +/-10%	10 kV to 36 kV	
AC power frequency	50 Hz / 60 Hz	
Transformer vector group Dy11 / YNd11 / YNy0	● / ○ / ○	
Transformer cooling method	KNAN <sup>2)</sup>	
Transformer standby power losses, industry standard / Eco design 1 / Eco design 2	● / ○ / ○	
Transformer short-circuit losses, industry standard / Eco design 1 / Eco design 2	● / ○ / ○	
Max. total harmonic distortion	< 3 %	
Reactive power feed-in (up to max. 60% of nominal power)	○	
<b>Inverter efficiency</b>		
Max. efficiency <sup>3)</sup> / Europ. efficiency <sup>3)</sup> / CEC efficiency <sup>4)</sup>	98.7% / 98.6% / 98.5%	98.7% / 98.6% / 98.5%
<b>Protective devices</b>		
Input-side disconnection point	DC load-break switch	
Output-side disconnection point	Medium-voltage vacuum circuit breaker	
DC overvoltage protection	Surge arrester, type I	
Galvanic isolation	●	
Arc fault resistance medium-voltage control room (according to IEC 62271-202)	IAC A 20 kA 1 s	
<b>General data</b>		
Dimensions (W / H / D)	6058 mm / 2896 mm / 2438 mm	
Weight	< 18 t	
Self-consumption (max. / partial load / average) <sup>1)</sup>	< 8.1 kW / < 1.8 kW / < 2.0 kW	
Self-consumption (stand-by) <sup>1)</sup>	< 370 W	
Ambient temperature -25 °C to +45 °C / -25 °C to +55 °C / -35 °C to +55 °C / -40 °C to +45 °C	● / ○ / ○ / ○	
Degree of protection according to IEC 60529	Control rooms IP23D, inverter electronics IP54	
Environment: standard/extreme	● / ○	
Maximum permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 months/year) / 0 % to 95 %	
Max. operating altitude above MSL 1000 m / 2000 m / 3000 m	● / ○ / ○	● / ○ / –
Inverter fresh air consumption	6500 m³/h	
<b>Equipment</b>		
DC connection	Lug	
AC connection	Outer-cone angle plug	
Monitoring package	○	
Station enclosure color	RAL 7004	
Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA	● / ○ / ○ / ○ / ○ / ○ / ○	
Fuses for external transformers: none / 120 kVA / 180 kVA	● / ○ / ○	
MV switchgear: without / 1 panel / 3 panels / 630 A / 800 A		
2 cable panels with load-break switch, 1 transformer panel with circuit breaker, arc fault resistance IAC A FL 20 kA 1 s to IEC 62271-200	● / ○ / ○ / ○ / ○	
MV switchgear short-circuit current capability (20 kA 1 s / 20 kA 3 s / 25 kA 1 s)	● / ○ / ○	
Accessory for MV switchgear: without / auxiliary contacts / motor for transformer panel / cascade control / monitoring	● / ○ / ○ / ○ / ○	
Integrated oil spill containment: without/with	● / ○	
Industry standards (other industry standards: see inverter datasheet)	IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1, CSC certificate	
<b>Model type number</b>	MVPS-2660-S2-10	MVPS-2800-S2-10

● Standard features   ○ Optional features   – Not available

1) Data based on inverter Further details can be found in the inverter datasheet.

2) KNAN = ester with natural air cooling

3) Efficiency measured at inverter without internal power supply

4) Efficiency measured at inverter with internal power supply

Technical data	MVPS 2930-S2	MVPS 3060-S2
<b>Input (DC)</b>		
Available inverters	1 x SC 2930 UP / 1 x SCS 2530 UP-XT	1 x SC 3060 UP / 1 x SCS 2630 UP-XT
Max. input voltage	1500 V	
Number of DC inputs	Depending on selected inverter	
Integrated zone monitoring	○	
<b>Output (AC) on the medium-voltage side</b>		
Nominal power at SC UP (from -25 °C to +35 °C / 40 °C; optional 50 °C) <sup>1)</sup>	2933 kVA / 2640 kVA	3067 kVA / 2760 kVA
Charging power at SCS UP-XT (from -25 °C to +25 °C / 40 °C; optional 50 °C) <sup>1)</sup>	2633 kVA / 2201 kVA	2752 kVA / 2302 kVA
Discharging power at SCS UP-XT (from -25 °C to +25 °C / 40 °C; optional 50 °C) <sup>1)</sup>	2933 kVA / 2493 kVA	3067 kVA / 2607 kVA
Typical nominal AC voltages with a permanent tolerance of +/-10%	10 kV to 36 kV	
AC power frequency	50 Hz / 60 Hz	
Transformer vector group Dy11 / YNd11 / YNy0	● / ○ / ○	
Transformer cooling method	KNAN <sup>2)</sup>	
Transformer standby power losses, industry standard / Eco design 1 / Eco design 2	● / ○ / ○	
Transformer short-circuit losses, industry standard / Eco design 1 / Eco design 2	● / ○ / ○	
Max. total harmonic distortion	< 3 %	
Reactive power feed-in (up to max. 60% of nominal power)	○	
<b>Inverter efficiency</b>		
Max. efficiency <sup>3)</sup> / Europ. efficiency <sup>3)</sup> / CEC efficiency <sup>4)</sup>	98.7% / 98.6% / 98.5%	98.7% / 98.6% / 98.5%
<b>Protective devices</b>		
Input-side disconnection point	DC load-break switch	
Output-side disconnection point	Medium-voltage vacuum circuit breaker	
DC overvoltage protection	Surge arrester, type I	
Galvanic isolation	●	
Arc fault resistance medium-voltage control room (according to IEC 62271-202)	IAC A 20 kA 1 s	
<b>General data</b>		
Dimensions (W / H / D)	6058 mm / 2896 mm / 2438 mm	
Weight	< 18 t	
Self-consumption (max. / partial load / average) <sup>1)</sup>	< 8.1 kW / < 1.8 kW / < 2.0 kW	
Self-consumption (stand-by) <sup>1)</sup>	< 370 W	
Ambient temperature -25 °C to +45 °C / -25 °C to +55 °C / -35 °C to +55 °C / -40 °C to +45 °C	● / ○ / ○ / ○	
Degree of protection according to IEC 60529	Control rooms IP23D, inverter electronics IP54	
Environment: standard/extreme	● / ○	
Maximum permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 months/year) / 0 % to 95 %	
Max. operating altitude above MSL 1000 m / 2000 m / 3000 m	● / ○ / –	
Inverter fresh air consumption	6500 m³/h	
<b>Equipment</b>		
DC connection	Lug	
AC connection	Outer-cone angle plug	
Monitoring package	○	
Station enclosure color	RAL 7004	
Transformer for external loads: without / 10 / 20 / 30 / 40 / 50 / 60 kVA	● / ○ / ○ / ○ / ○ / ○ / ○	
Fuses for external transformers: none / 120 kVA / 180 kVA	● / ○ / ○	
MV switchgear: without / 1 panel / 3 panels / 630 A / 800 A		
2 cable panels with load-break switch, 1 transformer panel with circuit breaker, arc fault resistance IAC A FL 20 kA 1 s to IEC 62271-200	● / ○ / ○ / ○ / ○	
MV switchgear short-circuit current capability (20 kA 1 s / 20 kA 3 s / 25 kA 1 s)	● / ○ / ○	
Accessory for MV switchgear: without / auxiliary contacts / motor for transformer panel / cascade control / monitoring	● / ○ / ○ / ○ / ○	
Integrated oil spill containment: without/with	● / ○	
Industry standards (other industry standards: see inverter datasheet)	IEC 60076, IEC 62271-200, IEC 62271-202, EN50588-1, CSC certificate	
Model type number	MVPS-2930-S2-10	MVPS-3060-S2-10

● Standard features   ○ Optional features   – Not available

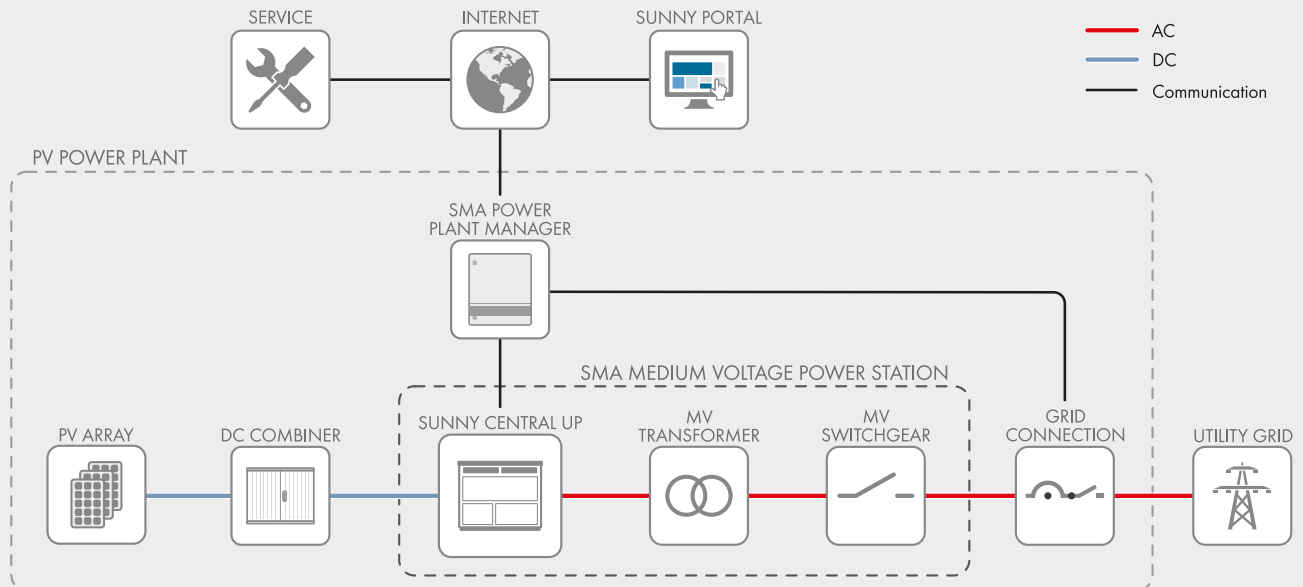
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## Plant diagram with Sunny Central UP



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