

SCHEDE TECNICHE COMPONENTI

IMPIANTO DI PRODUZIONE DA FONTE SOLARE “BONDENO GAVELLO” DA INSTALLARE NEL COMUNE DI BONDENO (FE)

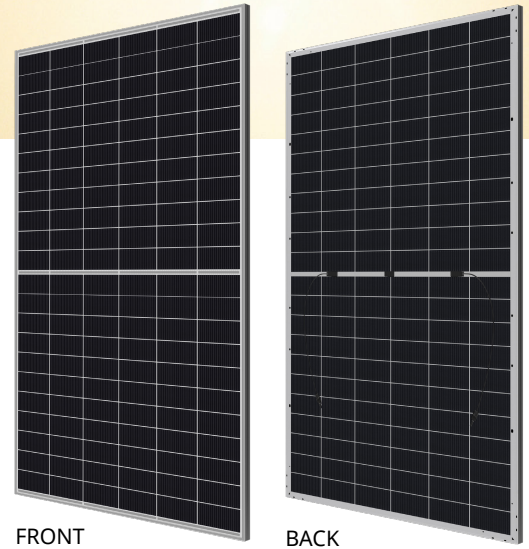
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|------------|-------------|--------------------|-----------|------------|------------|
| 00 | 11/2025 | Prima emissione | MP | RM | RC |
| REV | DATA | DESCRIZIONE | BY | CHK | APP |

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1 PANNELLO FOTOVOLTAICO



FRONT

BACK

TOPBiHiKu6

New N-type High Power Bifacial Module

630 W ~ 660 W

CS6.2-66TB-630 | 635 | 640 | 645 | 650 | 655 | 660

MORE POWER



Module power up to 660 W
Module efficiency up to 24.4 %



Up to 85% Power Bifaciality,
more power from the back side



Excellent anti-LeTID & anti-PID performance.
Low power degradation, high energy yield



Lower temperature coefficient (Pmax): $-0.29\%/^{\circ}\text{C}$,
increases energy yield in hot climate



Lower LCOE & system cost

MORE RELIABLE



Tested up to ice ball of 35 mm diameter
according to IEC 61215 standard



Minimizes micro-crack impacts



Heavy snow load up to 5400 Pa,
wind load up to 2400 Pa*



Enhanced Product Warranty on Materials
and Workmanship*



Linear Power Performance Warranty*

1st year power degradation no more than 1%
Subsequent annual power degradation no more than 0.4%

*According to the applicable Canadian Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001: 2015 / Quality management system
ISO 14001: 2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety
IEC 62941: 2019 / Photovoltaic module manufacturing quality system

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730 / CE
UL 61730 / IEC 61701 / IEC 62716
UNI 9177 Reaction to Fire: Class 1 / Take-e-way



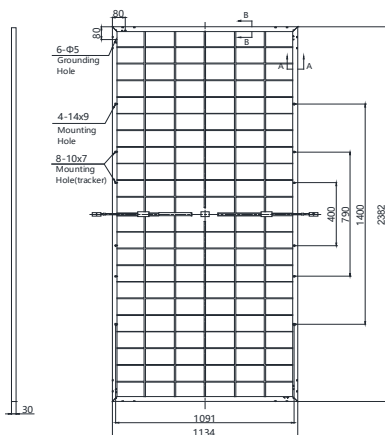
* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your Product and applicable in the regions in which the products will be used.

CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 23 years, it has successfully delivered over 150 GW of premium-quality solar modules across the world.

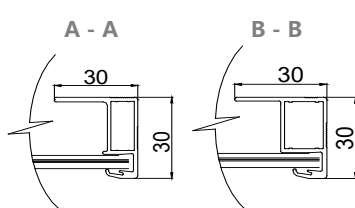
* For detailed information, please refer to the Installation Manual.

ENGINEERING DRAWING (mm)

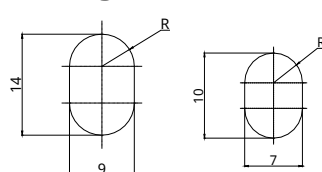
Rear View



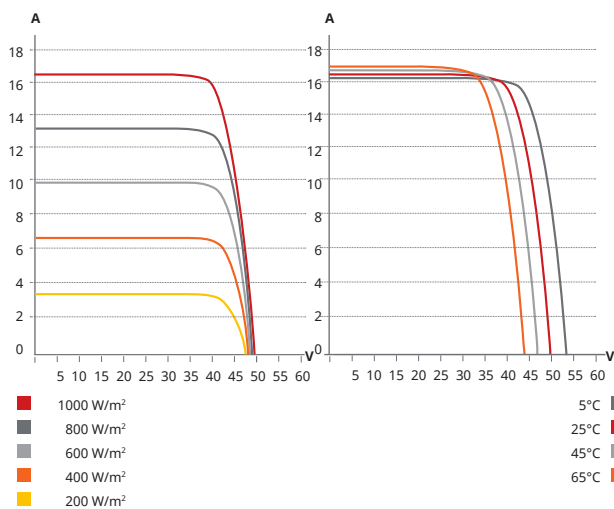
Frame Cross Section



Mounting Hole



CS6.2-66TB-650HP / I-V CURVES



ELECTRICAL DATA | STC*

| | Nominal Max. Power (Pmax) | Opt. Operating Voltage (Vmp) | Opt. Operating Current (Imp) | Open Circuit Voltage (Voc) | Short Circuit Current (Isc) | Module Efficiency |
|------------------------|---------------------------|------------------------------|------------------------------|----------------------------|-----------------------------|-------------------|
| CS6.2-66TB-630 | 630 W | 41.6 V | 15.16 A | 48.8 V | 16.20 A | 23.3% |
| Bifacial Gain** | 5% | 662 W | 41.6 V | 15.92 A | 48.8 V | 24.5% |
| | 10% | 693 W | 41.6 V | 16.68 A | 48.8 V | 25.7% |
| | 20% | 756 W | 41.6 V | 18.19 A | 48.8 V | 28.0% |
| CS6.2-66TB-635 | 635 W | 41.8 V | 15.21 A | 49.0 V | 16.26 A | 23.5% |
| Bifacial Gain** | 5% | 667 W | 41.8 V | 15.97 A | 49.0 V | 24.7% |
| | 10% | 699 W | 41.8 V | 16.73 A | 49.0 V | 25.9% |
| | 20% | 762 W | 41.8 V | 18.25 A | 49.0 V | 28.2% |
| CS6.2-66TB-640 | 640 W | 42.0 V | 15.26 A | 49.4 V | 16.32 A | 23.7% |
| Bifacial Gain** | 5% | 672 W | 42.0 V | 16.02 A | 49.4 V | 24.9% |
| | 10% | 704 W | 42.0 V | 16.79 A | 49.4 V | 26.1% |
| | 20% | 768 W | 42.0 V | 18.31 A | 49.4 V | 28.4% |
| CS6.2-66TB-645 | 645 W | 42.2 V | 15.31 A | 49.6 V | 16.38 A | 23.9% |
| Bifacial Gain** | 5% | 677 W | 42.2 V | 16.08 A | 49.6 V | 25.1% |
| | 10% | 710 W | 42.2 V | 16.84 A | 49.6 V | 26.3% |
| | 20% | 774 W | 42.2 V | 18.37 A | 49.6 V | 28.7% |
| CS6.2-66TB-650 | 650 W | 42.4 V | 15.36 A | 49.8 V | 16.43 A | 24.1% |
| Bifacial Gain** | 5% | 683 W | 42.4 V | 16.13 A | 49.8 V | 25.3% |
| | 10% | 715 W | 42.4 V | 16.90 A | 49.8 V | 26.5% |
| | 20% | 780 W | 42.4 V | 18.43 A | 49.8 V | 28.9% |
| CS6.2-66TB-655 | 655 W | 42.6 V | 15.40 A | 50.1 V | 16.49 A | 24.2% |
| Bifacial Gain** | 5% | 688 W | 42.6 V | 16.17 A | 50.1 V | 25.5% |
| | 10% | 721 W | 42.6 V | 16.94 A | 50.1 V | 26.7% |
| | 20% | 786 W | 42.6 V | 18.48 A | 50.1 V | 29.1% |
| CS6.2-66TB-660 | 660 W | 42.8 V | 15.45 A | 50.4 V | 16.55 A | 24.4% |
| Bifacial Gain** | 5% | 693 W | 42.8 V | 16.22 A | 50.4 V | 25.7% |
| | 10% | 726 W | 42.8 V | 17.00 A | 50.4 V | 26.9% |
| | 20% | 792 W | 42.8 V | 18.54 A | 50.4 V | 29.3% |

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

** Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

ELECTRICAL DATA

| | |
|-------------------------|--|
| Operating Temperature | -40°C ~ +85°C |
| Max. System Voltage | 1500 V (IEC/UL) |
| Module Fire Performance | TYPE 29 (UL 61730) or CLASS C (IEC61730) |
| Max. Series Fuse Rating | 35 A |
| Protection Class | Class II |
| Power Tolerance | 0 ~ + 10 W |
| Power Bifaciality* | 80 % |

* Power Bifaciality = $P_{max, rear} / P_{max, front}$, both $P_{max, rear}$ and $P_{max, front}$ are tested under STC, Bifaciality Tolerance: ± 5 %

* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. CSI Solar Co., Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice.

Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

CSI Solar Co., Ltd.

199 Lushan Road, SND, Suzhou, Jiangsu, China, 215129, www.csisolar.com, support@csisolar.com

ELECTRICAL DATA | NMOT*

| | Nominal Max. Power (Pmax) | Opt. Operating Voltage (Vmp) | Opt. Operating Current (Imp) | Open Circuit Voltage (Voc) | Short Circuit Current (Isc) |
|-----------------------|---------------------------|------------------------------|------------------------------|----------------------------|-----------------------------|
| CS6.2-66TB-630 | 477 W | 39.3 V | 12.12 A | 46.2 V | 13.05 A |
| CS6.2-66TB-635 | 480 W | 39.5 V | 12.16 A | 46.4 V | 13.10 A |
| CS6.2-66TB-640 | 484 W | 39.7 V | 12.19 A | 46.8 V | 13.15 A |
| CS6.2-66TB-645 | 488 W | 39.9 V | 12.23 A | 47.0 V | 13.20 A |
| CS6.2-66TB-650 | 492 W | 40.1 V | 12.27 A | 47.2 V | 13.24 A |
| CS6.2-66TB-655 | 495 W | 40.3 V | 12.30 A | 47.4 V | 13.29 A |
| CS6.2-66TB-660 | 499 W | 40.5 V | 12.34 A | 47.7 V | 13.33 A |

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m² spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

MECHANICAL DATA

| Specification | Data |
|------------------------------------|--|
| Cell Type | TOPCon cells |
| Cell Arrangement | 132 [2 x (11 x 6)] |
| Dimensions | 2382 x 1134 x 30 mm (93.8 x 44.6 x 1.18 in) |
| Weight | 32.8 kg (72.3 lbs) |
| Front Glass | 2.0 mm heat strengthened glass with anti-reflective coating |
| Back Glass | 2.0 mm heat strengthened glass |
| Frame | Anodized aluminium alloy |
| J-Box | IP68, 3 bypass diodes |
| Cable | 4.0 mm ² (IEC), 12 AWG (UL) |
| Cable Length (Including Connector) | 300 mm (11.8 in) (+) / 200 mm (7.9 in) (-) or customized length* |
| Connector | T6 or MC4-EVO2 or MC4-EVO2A |
| Per Pallet | 36 pieces |
| Per Container (40' HQ) | 720 pieces |

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

TEMPERATURE CHARACTERISTICS

| Specification | Data |
|--------------------------------------|--------------|
| Temperature Coefficient (Pmax) | -0.29 % / °C |
| Temperature Coefficient (Voc) | -0.25 % / °C |
| Temperature Coefficient (Isc) | 0.045 % / °C |
| Nominal Module Operating Temperature | 41 ± 3°C |

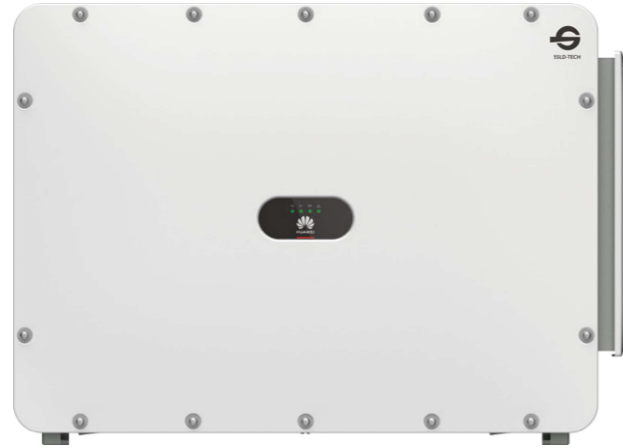
PARTNER SECTION



2 INVERTER DI STRINGA

► SUN2000-330KTL-H1 Smart String Inverter

For APAC, LATAM & EUROPE



Max. Efficiency $\geq 99.0\%$



Smart Connector-level Detection (SCLD)



Smart Self-cleaning Fan (SSCF)



IP66 Protection



MBUS Supported



Smart String-level Disconnection (SSLD)

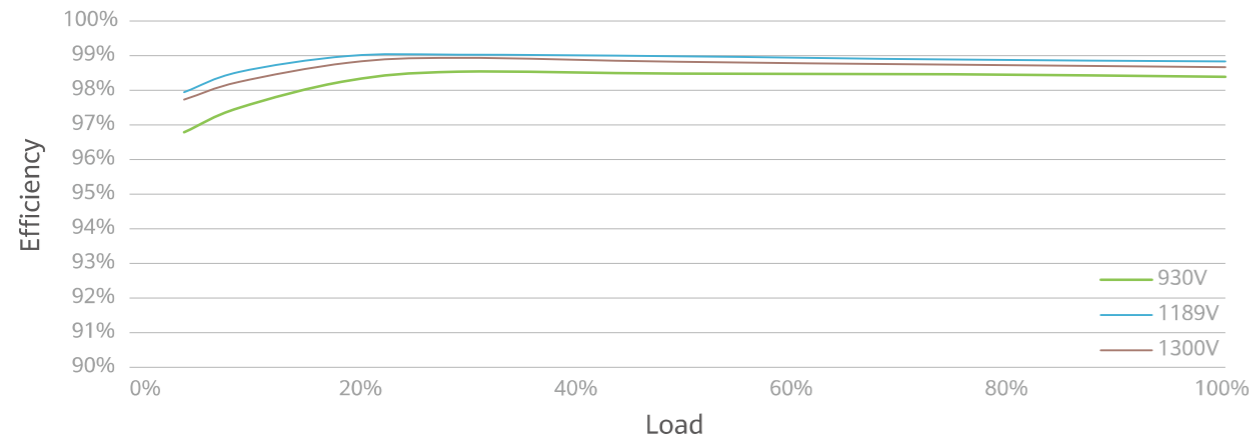


Smart IV Curve Diagnosis Supported

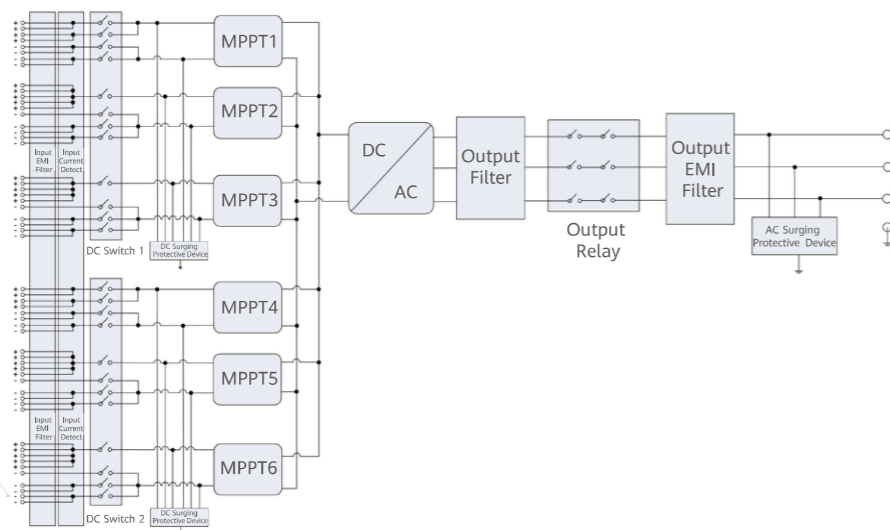


Surge Arresters for DC & AC

Efficiency Curve



Circuit Diagram

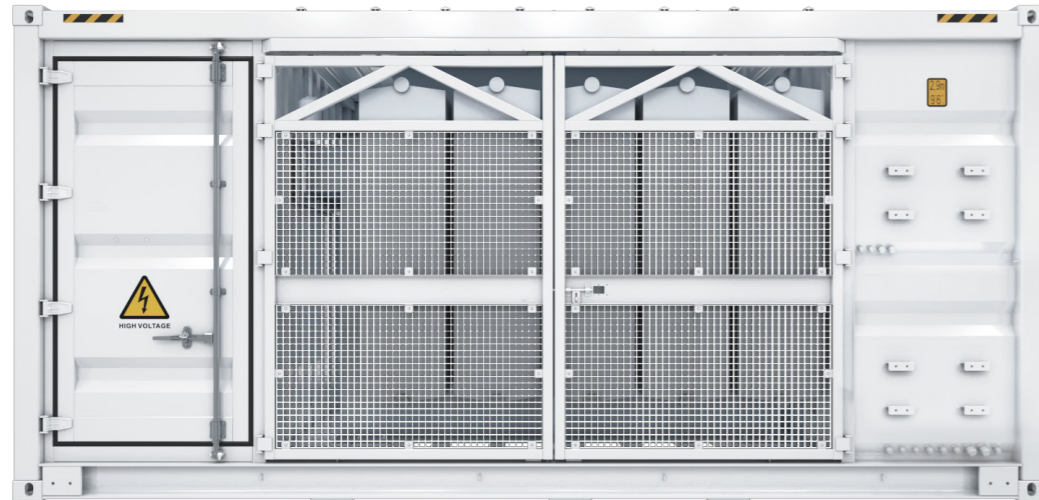


Technical Specifications

| Efficiency | |
|---|--|
| Max. Efficiency | $\geq 99.03\%$ |
| European Efficiency | $\geq 98.8\%$ |
| Input | |
| Max. Input Voltage | 1,500 V |
| Number of MPPT | 6 |
| Max. Current per MPPT | 65 A |
| Max. Short Circuit Current per MPPT | 115 A |
| Max. PV Inputs per MPPT | 4/5/5/4/5/5 |
| Start Voltage | 550 V |
| MPPT Operating Voltage Range | 500 V ~ 1,500 V |
| Nominal Input Voltage | 1,080 V |
| Output | |
| Nominal AC Active Power | 300,000 W |
| Max. AC Apparent Power | 330,000 VA |
| Max. AC Active Power ($\cos\phi=1$) | 330,000 W |
| Nominal Output Voltage | 800 V, 3W + PE |
| Rated AC Grid Frequency | 50 Hz / 60 Hz |
| Nominal Output Current | 216.6 A |
| Max. Output Current | 238.2 A |
| Adjustable Power Factor Range | 0.8 LG ... 0.8 LD |
| Total Harmonic Distortion | THD _i < 1% (Rated) |
| Protection | |
| Smart String-level Disconnection (SSLD) | Yes |
| Smart Connector-level Detection (SCLD) | Yes |
| AC Overcurrent Protection | Yes |
| DC Reverse-polarity Protection | Yes |
| PV-array String Fault Detection | Yes |
| DC Surge Arrester | Type II |
| AC Surge Arrester | Type II |
| DC Insulation Resistance Detection | Yes |
| Residual Current Detection Unit | Yes |
| Communication | |
| Display | LED Indicators, WLAN + APP |
| USB | Yes |
| MBUS | Yes |
| RS485 | Yes |
| General | |
| Dimensions (W x H x D) | 1,048 x 732 x 395 mm |
| Weight (with mounting plate) | ≤ 112 kg |
| Operating Temperature Range | -25°C ~ 60°C |
| Cooling Method | Smart Air Cooling |
| Max. Operating Altitude without Derating | 4,000 m |
| Relative Humidity | 0 ~ 100% (Non-condensing) |
| DC Connector | HH4SMM4TMSPA / HH4SFM4TMSPA |
| AC Connector | Support OT / DT Terminal (Max. 400 mm ²) |
| Protection Degree | IP 66 |
| Anti-corrosion Protection | C5-Medium |
| Topology | Transformerless |
| Standards Compliance | |
| IEC 62109-1/-2, IEC 62920, IEC 60947-2, EN 50549-2, IEC 61683, etc. | |

3 SKID DI TRASFORMAZIONE

JUPITER-9000K/6000K/3000K-H1 Smart Transformer Station



Simple

Prefabricated and pre-tested,
no internal cabling needed onsite
Compact 20' HC container design for easy transportation



Efficient

High efficiency transformer for higher yields
Lower self-consumption for higher yields



Smart

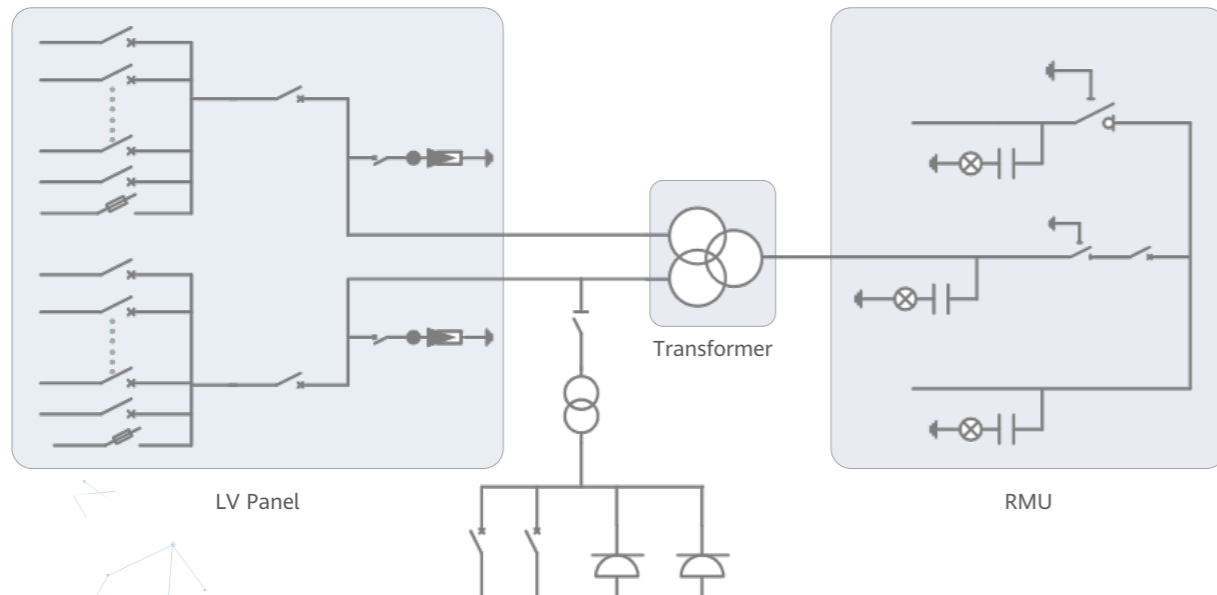
Real-time detection of transformer,
LV panel and RMU high precision sensor
of LV electricity parameters
Remote control of ACB and MV circuit breaker



Reliable

Robust design against harsh environments optimal cooling
Design for high availability and easy O&M
Comprehensive tests from components, device to solution

Schematic Diagram



Technical Specifications

| Model | JUPITER-9000K-H1 | JUPITER-6000K-H1 | JUPITER-3000K-H1 |
|--|--|------------------------------|------------------------------|
| Input | | | |
| Available Inverters / PCS | SUN2000-330KTL-H1 / SUN2000-330KTL-H2 / LUNA2000-200KTL-H1 | | |
| Max. LV AC Inputs | 30 | 22 | 11 |
| AC Power | 9,000 kVA @40°C ¹ | 6,600 kVA @40°C ¹ | 3,300 kVA @40°C ¹ |
| Rated Input Voltage | 800 V | | |
| LV Panel Segregation | Form 2b | | |
| LV Main Switches | ACB (4,000 A, 2 x 1 pcs) | ACB (2,900 A, 2 x 1 pcs) | ACB (2,900 A, 1 x 1 pcs) |
| LV Main Switches for Inverters / PCS | MCCB (400 A, 2 x 15 pcs) | MCCB (400 A, 2 x 11 pcs) | MCCB (400 A, 11 pcs) |
| Output | | | |
| Rated Output Voltage | 10~35 kV ² | | |
| Frequency | 50 Hz or 60 Hz | | |
| Transformer Type | Oil-immersed, Conservator Type | | |
| Transformer Cooling Type | ONAN | | |
| Transformer Tappings | ± 2 x 2.5% | | |
| Transformer Oil Type | Mineral Oil (PCB Free) | | |
| Transformer Vector Group | Dy11-y11 | Dy11 | |
| Transformer Min. Peak Efficiency Index | Tier 1 or Tier 2 In Accordance with EN 50588-1 | | |
| RMU Type | SF ₆ Gas Insulated | | |
| RMU Transformer Protection Unit | MV Vacuum Circuit Breaker Unit | | |
| RMU Cable Incoming / Outgoing Unit | Direct Cable Unit or Cable Load Break Switch Unit | | |
| Auxiliary Transformer | Dry Type Transformer, 5 kVA, Single-phase, li0 | | |
| Output Voltage of Auxiliary Transformer | 230 / 127 Vac | | |
| Protection | | | |
| Transformer Detection & Protection | Oil Level, Oil Temperature, Oil Pressure and Buchholz | | |
| Protection Degree of MV & LV Room | IP 54 | | |
| Internal Arcing Fault of STS | IAC A 20 kA 1s | | |
| MV Relay Protection | 50/51, 50N/51N | | |
| LV Overvoltage Protection | Type I+II | | |
| Anti-rodent Protection | C5-Medium | | |
| Features | | | |
| 2 kVA UPS | Optional ³ | | |
| MV Surge Arrester for Transformer | Optional ³ | | |
| General | | | |
| Dimensions (W x H x D) | 6,058 x 2,896 x 2,438 mm (20' HC ISO Container) | | |
| Weight | < 28 t | < 23 t | < 15 t |
| Operating Temperature Range | -25°C ~ 60°C ⁴ | | |
| Relative Humidity | 0% ~ 95% (Non-condensing) | | |
| Max. Operating Altitude | 1,000 m ⁵ | | |
| MV-LV AC Connections | Prewired and Pretested, No Internal Cabling Onsite | | |
| LV & MV Room Cooling | Smart Cooling without Air-across for Higher Availability | | |
| Communication | Modbus TCP, Preconfigured with SmartACU2000D | | |
| Standards Compliance | | | |
| IEC 62271-202, EN 50588-1, IEC 60076, IEC 62271-200, IEC 61439-1 | | | |

1: More detailed AC power of STS, please refer to the de-rating curve.
2: Rated output voltage from 10 kV to 35 kV, more available upon request
3: Extra expense needed for optional features which standard product doesn't contain, more options upon request.
4: When ambient temperature ≥55°C, awning shall be equipped for STS on site by customer.
5: For higher operating altitude, pls consult with Huawei.