

SCHEDE TECNICHE COMPONENTI

IMPIANTO DI PRODUZIONE DA FONTE SOLARE "VIGARANO MAINARDA" DA INSTALLARE NEL COMUNE DI VIGARANO MAINARDA (FE)

00	08/2025	Prima emissione	MP	RM	RC
REV	DATA	DESCRIZIONE	BY	CHK	APP

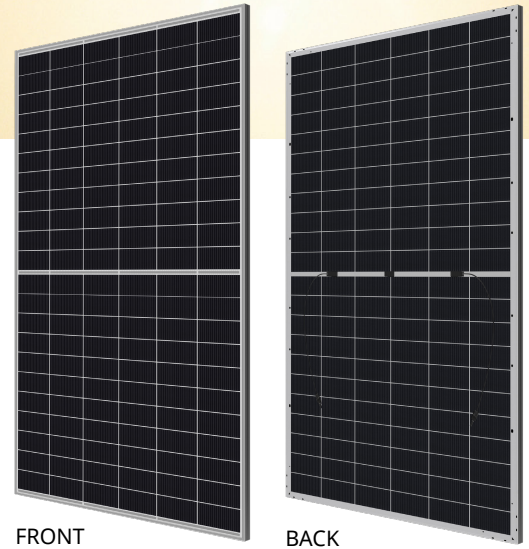
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Sommario

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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



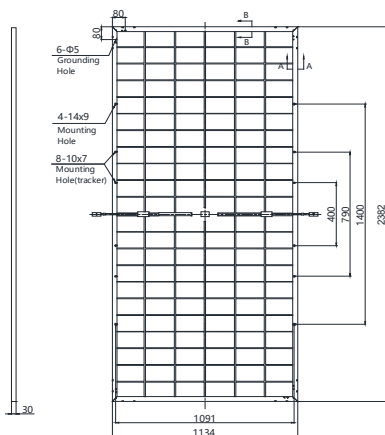
* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates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

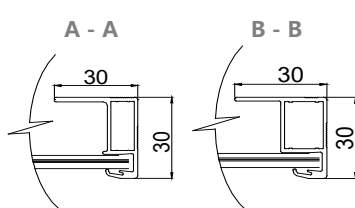
* For detailed information, please refer to the Installation Manual.

ENGINEERING DRAWING (mm)

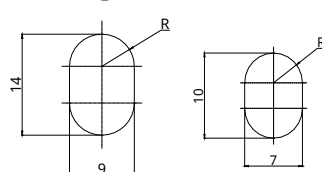
Rear View



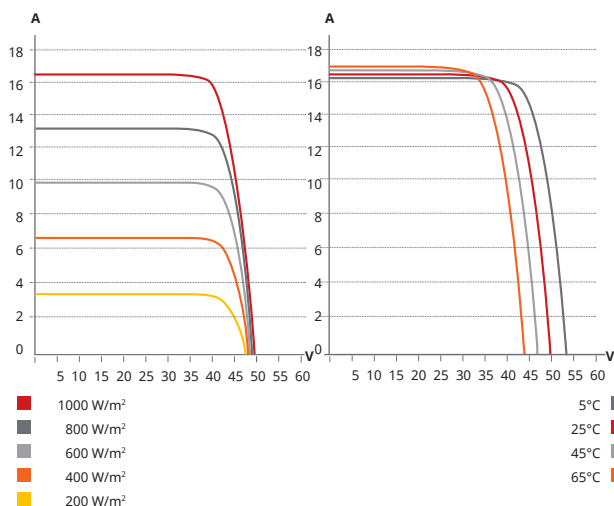
Frame Cross Section



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.

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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



► 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)

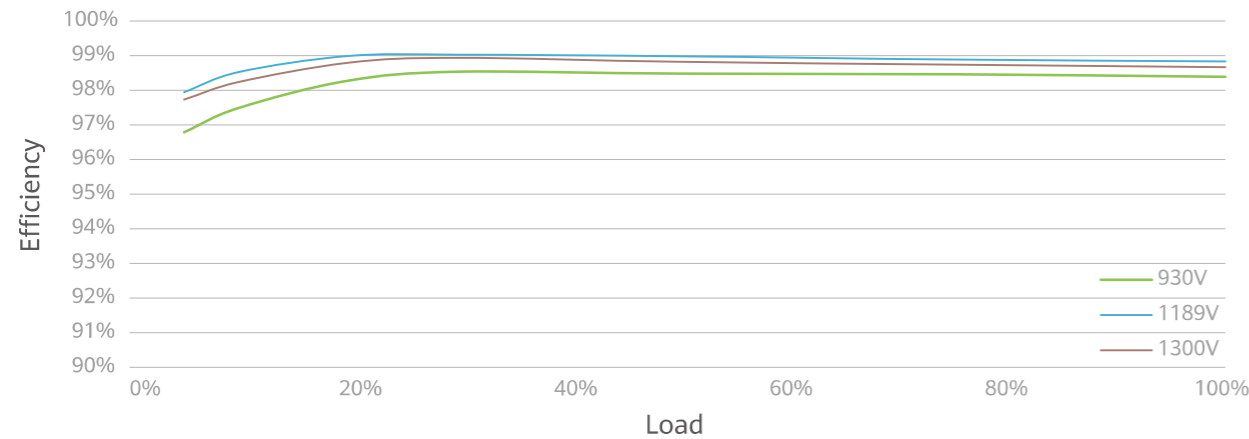


Smart IV Curve Diagnosis Supported

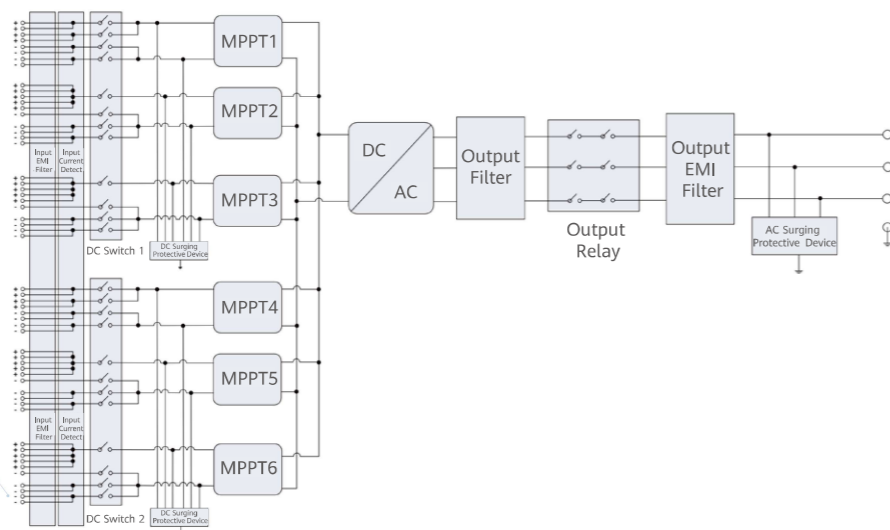


Surge Arresters for DC & AC

Efficiency Curve



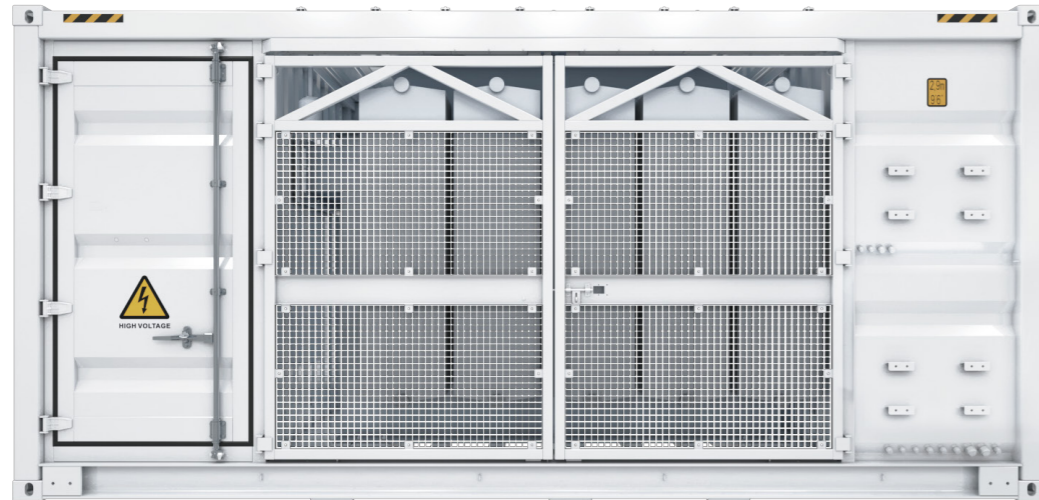
Circuit Diagram



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.	

► 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

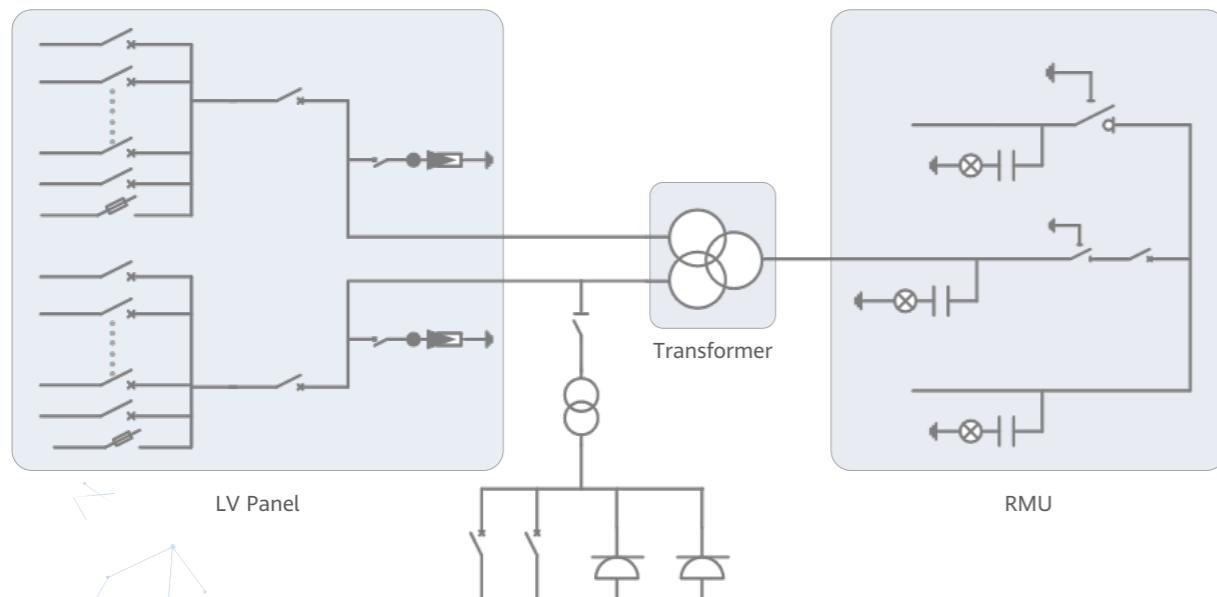
Real-time detection of transformer,
LV panel and RMU high precision sensor
of LV electricity parameters
Remote control of ACB and MV circuit breaker



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.