

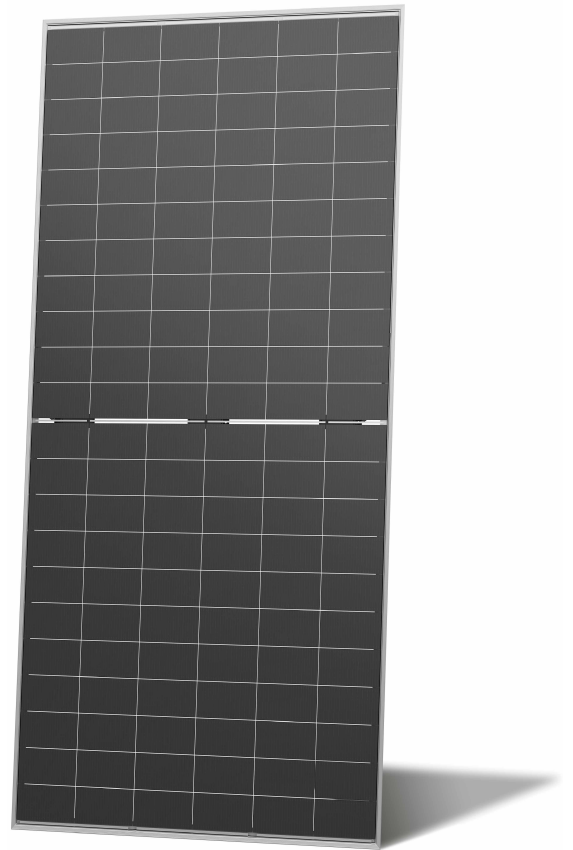
TIGER Neo

66HL4M-BDV

620-645 Watt

BIFACIAL MODULE WITH DUAL GLASS

N-type



N-Type Technology

N-Type modules with Tunnel Oxide Passivating Contacts (TOPcon) technology offer lower LID/LeTID degradation and better low light performance.



HOT 3.0 Technology

N-type modules with JinkoSolar's HOT 3.0 technology offer better reliability and efficiency.



Dual-Sided Power Generation

Dual-sided power generation gain increases with backside exposure to light, significantly reducing LCOE.



Mechanical Load Enhanced

Certified to withstand:
5400 Pa front side max static test load
2400 Pa rear side max static test load



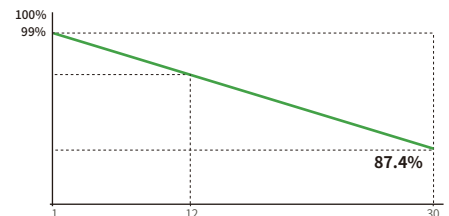
SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



Anti-PID Guarantee

Minimizes the chance of degradation caused by PID phenomena through optimization of cell production technology and material control.



12 Year
Product Warranty

30 Year
Linear Power
Warranty

1%
First-year
Degradation

0.40%
Annual Degradation
Over 30 Years

- IEC61215:2021 / IEC61730:2023
- IEC61701 / IEC62716 / IEC60068 / IEC62804
- ISO9001:2015: Quality Management System
- ISO14001:2015: Environment Management System
- ISO45001:2018: Occupational health and safety management systems



POSITIVE QUALITY™
Continuous Quality Assurance

JKM620-645N-66HL4M-BDV-F3C6-EN

66HL4M-BDV 620-645 Watt

Mechanical Characteristics

Cell Type	N- type Mono-crystalline
No. of cells	132 (66×2)
Dimensions	2382×1134×30 mm
Weight	32.4 kg
Front Glass	2.0 mm, Anti-reflection Coating
Back Glass	2.0 mm, Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Protection Class	Class II
IEC Fire Type	Class C
Connector Type	JK03M/MC4/Others
Output Cables	4.0 mm ² (+): 400 mm , (-): 200 mm or Customized Length

Packaging Configuration

Pallet Dimintions	2396×1110×1251 mm
Packing Detail (Two pallets = One stack)	36 pcs/pallets, 72 pcs/stack, 720 pcs/ 40'HQ Container

Specifications (STC)

Maximum Power - Pmax [Wp]	620	625	630	635	640	645
Maximum Power Voltage - Vmp [V]	40.74	40.88	41.02	41.16	41.30	41.44
Maximum Power Current - Imp [A]	15.22	15.29	15.36	15.43	15.50	15.57
Open-circuit Voltage - Voc [V]	49.08	49.28	49.48	49.68	49.88	50.08
Short-circuit Current - Isc [A]	16.08	16.14	16.20	16.26	16.32	16.38
Module Efficiency STC [%]	22.95	23.14	23.32	23.51	23.69	23.88
Power Tolerance	0 ~ + 3 %					
Temperature Coefficients of Pmax	-0.29 %/°C					
Temperature Coefficients of Voc	-0.25 %/°C					
Temperature Coefficients of Isc	0.045 %/°C					

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

Specifications (BNPI)

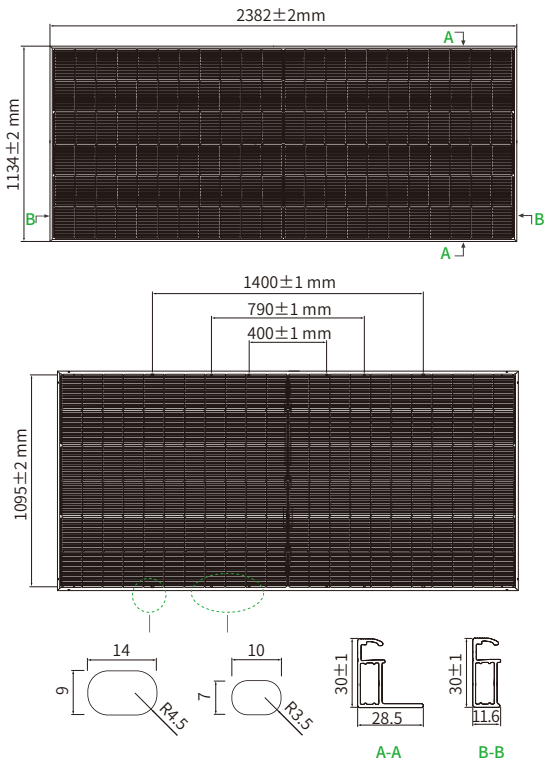
Maximum Power - Pmax [Wp]	685	690	696	701	707	712
Maximum Power Voltage - Vmp [V]	40.75	40.88	41.04	41.17	41.33	41.46
Maximum Power Current - Imp [A]	16.81	16.88	16.95	17.03	17.10	17.17
Open-circuit Voltage - Voc [V]	49.06	49.26	49.46	49.66	49.86	50.06
Short-circuit Current - Isc [A]	17.77	17.83	17.90	17.96	18.03	18.09

BNPI: Irradiance: front 1000W/m², rear 135W/m², Cell Temperature 25°C, AM=1.5

Application Conditions

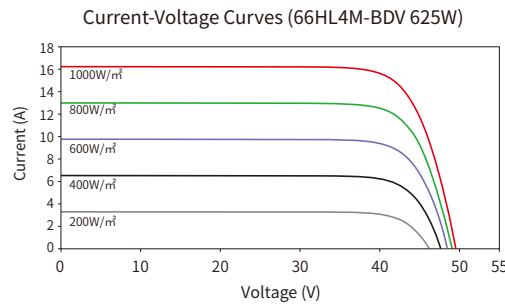
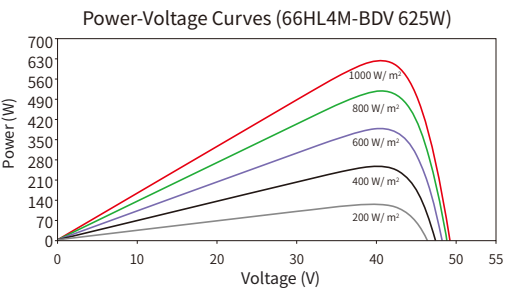
Operating Temperature	-40 °C ~ +70 °C
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	35 A
Bifaciality Coefficient	φVoc: 98±5 %, φIsc: 80±5 %, φPmax: 80±5 %

Engineering Drawings



Note: For specific dimensions and tolerance ranges, please refer to the corresponding detailed module drawings.

Electrical Performance



© 2024 Jinko Solar Co., Ltd. All rights reserved.

Note: Please read the safety and installation manual before using the product. We reserve the right of final interpretation. The specifications in this datasheet are subject to change without notice.

JKM620-645N-66HL4M-BDV-F3C6-EN

www.jinkosolar.com

Ing Esquiaga Juan
REGISTRO N°673/23



TRACKER Vanguard™ -1P Single-Row



About TrinaTracker

Excellent Bankability

100% bankability from Bloomberg in 5 consecutive years and multiple endorsement from DNV.GL

Multiple Product Line For All Applications

Multiple product line developed by experienced International R&D team for meeting market demands in all application scenarios in all application scenarios in

Superb Reliability and High Quality Total Solution

Leading quality management system and over 20 years product quality control experience in the industry

Efficient Engineering Design Expert

Systematic and high efficient workflow for presales service to guarantee prompt engineering design

Unified Product Delivery Service

Global supply chain layout for core equipments in solar farm (modules and tracker) and unified delivery channel for unique experience in customer service



Compatible with Larger Modules

Vanguard™-1P is designed to reduce LCOE with larger modules.
Compatible with modules up to **670W+**



Innovative SuperTrack Technology

According to real-time weather and actual terrain conditions, smart algorithm dynamically optimizes tracking angle, increases receiving radiation and reduces shading loss.

UP to **8%** yield gain



String Power

Vanguard™-1P is able to string powered from 1500V DC, reducing the cost of cable, cable construction and ultimately the total BOS. Equipped with lithium battery as backup power for redundancy protection of tracker operation.



Less Installation Time & Costs

One-in-portrait configuration and Trina Clamp reduce the installation time and costs.

65% less installation time



Higher flexibility and adaptability

Can adapt to large slopes and varied terrain.

Up to **20%** N-S slope.

TRINA CLAMP

Trina Clamp is a proprietary product that is quick and easy to use with the 1P configuration, reducing the installation time and costs.



SPHERICAL BEALING

Global patented spherical bearings, up to 30% angle adjustability. Alleviate the damage caused by uneven foundation settlement during operation

Release the extra stress caused by the deformation of the tracker system, reduce the load and failure rate of each component.



TECHNICAL SPECIFICATIONS

GENERAL FEATURES

Solar tracker type	Single row Single-Axis
Tracking range	±60° (120°)
Driver	Slew driver
Configuration	One module in portrait (1P) up to 90 modules per tracker (1500V string)
Solar module supported	Framed
Foundation options	Direct ramming / Pre-drilling + ramming / Micropile / PHC piles
Pile section	W
Modules attachment	Bolts, Rivets and Clamps
Piles per MW (550Wp module)	~295 piles/MW ⁽¹⁾ (80 modules per row)
(670Wp module)	~285 piles/MW ⁽¹⁾ (68 modules per row)
Terrain adaptability	20% N-S ⁽²⁾
Wind and snow loads tolerance	Tailored to site requirement

STRUCTURE

Material	Steel S275 & S355 (EN 10025) or equivalent
Coating	HDG, Z275 (G90) and ZM310 ⁽³⁾

CONTROLLER

Controller	Electronic board with microprocessor
Ingress protection marking	IP65
Tracking method	Astronomical algorithms + SuperTrack technology ⁽⁴⁾
Advanced wind control	Customizable
Anemometer	Cup/Ultrasonic
Night-time stow	Configurable
Communication with the tracker	Wired option: RS485 Wireless option: LoRa/Zigbee
Operating conditions	Altitude < 4000m ⁽⁵⁾ Temperature: -30°C to 60°C ⁽⁵⁾
Sensors	Digital inclinometer
Power (motor drive)	DC motor: 0.15kW
Power supply	Grid connection / String powered / Self-powered with battery

WARRANTY

Structure	10 years
Driver and control components	5 years

(1) Depending on layout

(2) For scenarios beyond the scope of use, please consult TrinaTracker

(3) Standard configuration. Other coating under request, please consult TrinaTracker

(4) Includes smart tracking algorithm and smart backtracking algorithm

(5) Standard configuration. Different conditions under request, please consult TrinaTracker



Ing Esquiaga Juan
REGISTRO N°673/23

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

© 2021 Trina Solar Co., Ltd. All rights reserved. Specifications included in this datasheet are subject to change without notice.

Doc.number: DT-T-0004 Rev: A

► SUN2000-330KTL-H1

Smart String Inverter

For APAC, LATAM & EUROPE



Max. Efficiency
≥ 99.0%



Smart Connector-level Detection (SCLD)



Smart Self-cleaning Fan (SSCF)



IP66 Protection



MBUS Supported



Smart String-level Disconnection (SSLD)

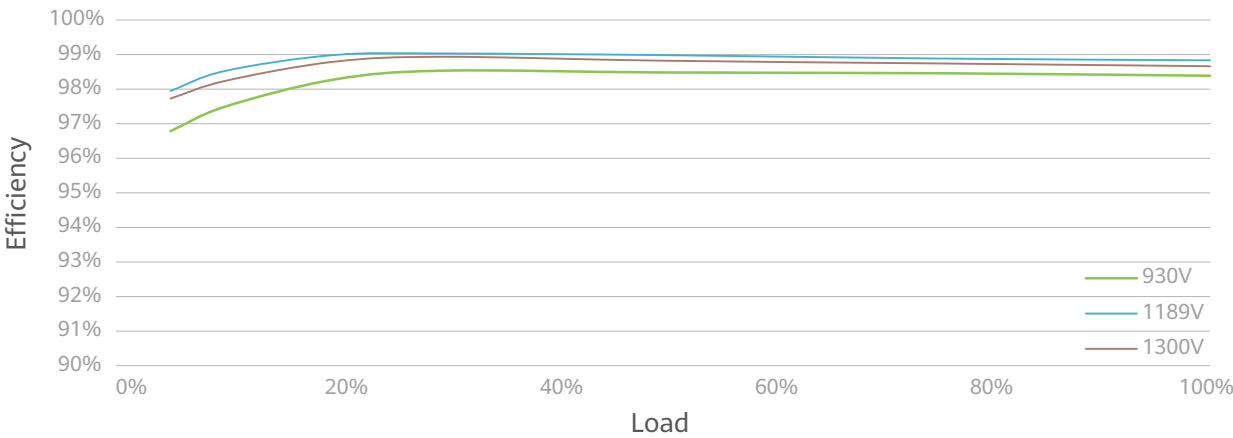


Smart IV Curve Diagnosis Supported

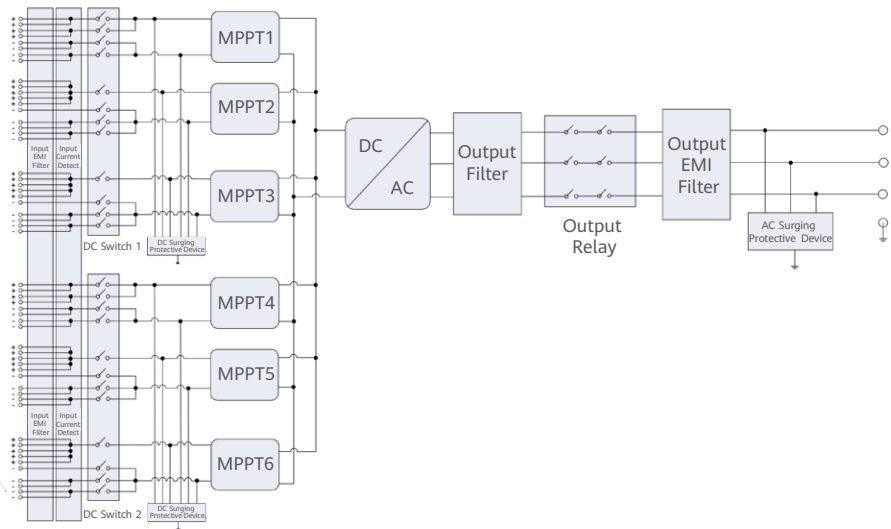


Surge Arresters for DC & AC

Efficiency Curve



Circuit Diagram



Ing Esquiaga Juan
REGISTRO N°673/23

Technical Specifications

Efficiency	
Max. Efficiency	≥ 99.03%
European Efficiency	≥ 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 (cosφ=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	THDi < 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 mm²)
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

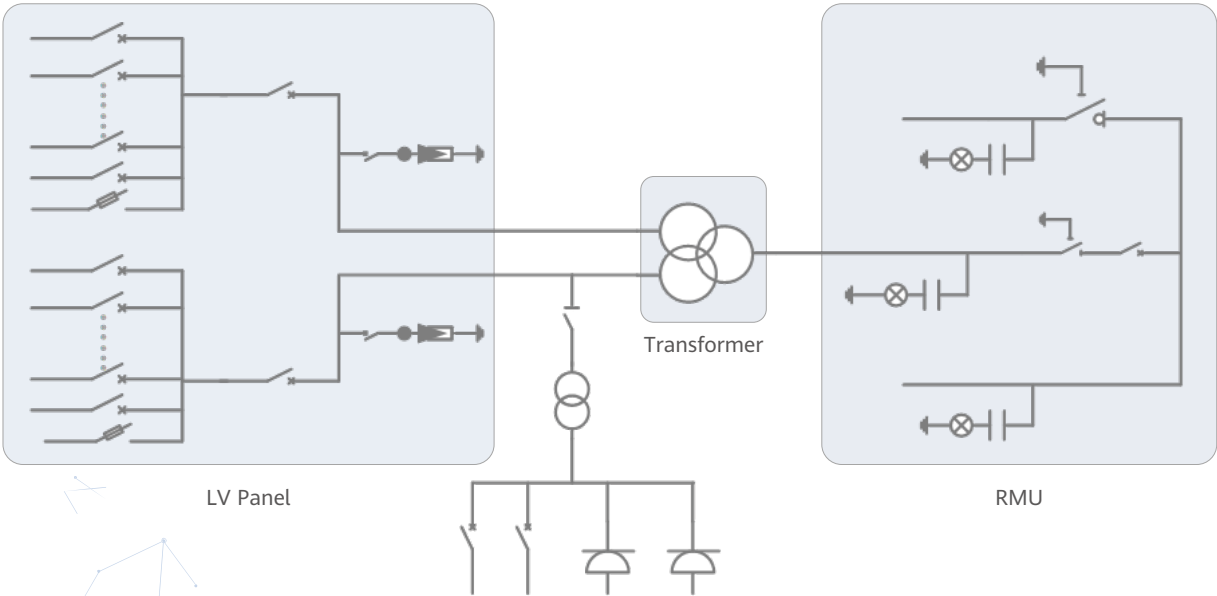
Real-time detection of transformer,
LV panel and RMU high precision sensor
of LV electricity parameters
Remote control of ACB and MV circuit breaker



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.

Ing Esquiaga Juan
REGISTRO N°673/23



Smart Transformer Station

JUPITER-6000K-H1

Transformer De-rating Curve



Huawei Technologies Co., Ltd.

Version	Created by	Date	Remarks
V1.0	Wangwei; Leiying	2023.01.15	First Official
V2.0	Wangwei; Leiying	2023.03.01	Data updated



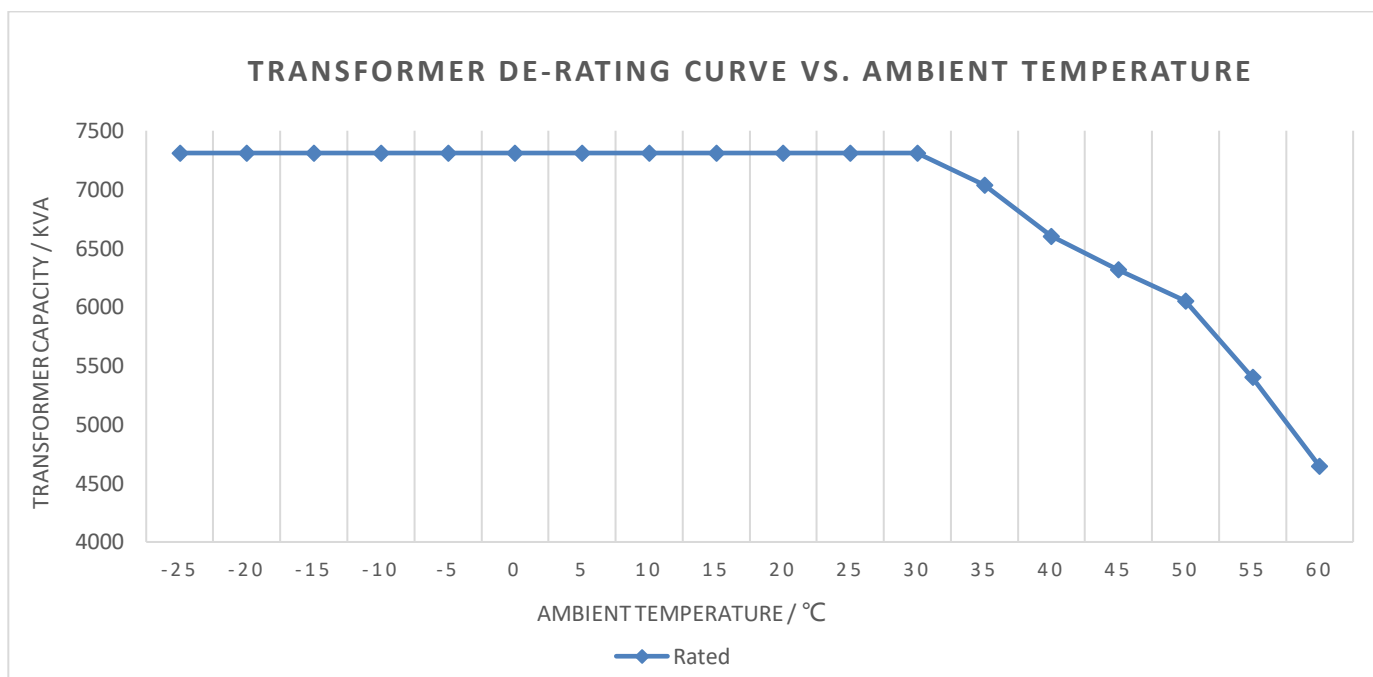
Ing Esquiaga Juan
REGISTRO N°673/23



De-rating Curve VS. Ambient Temperature

Transformer De-rating Curve VS. Ambient Temperature of JUPITER-6000K-H1

The characteristic of transformer inside JUPITER-6000K-H1 shall perfectly match the output characteristic of SUN2000-330KTL-H1/H2



Model	Type	-25 °C	30 °C	35 °C	40 °C ^[1]	45 °C	50 °C	55 °C	60 °C
JUPITER-6000K-H1	Rated ^[2]	7,310 kVA	7,310 kVA	7,038 kVA	6,600 kVA	6,314 kVA	6,050 kVA	5,400 kVA	4,644 kVA

Note:

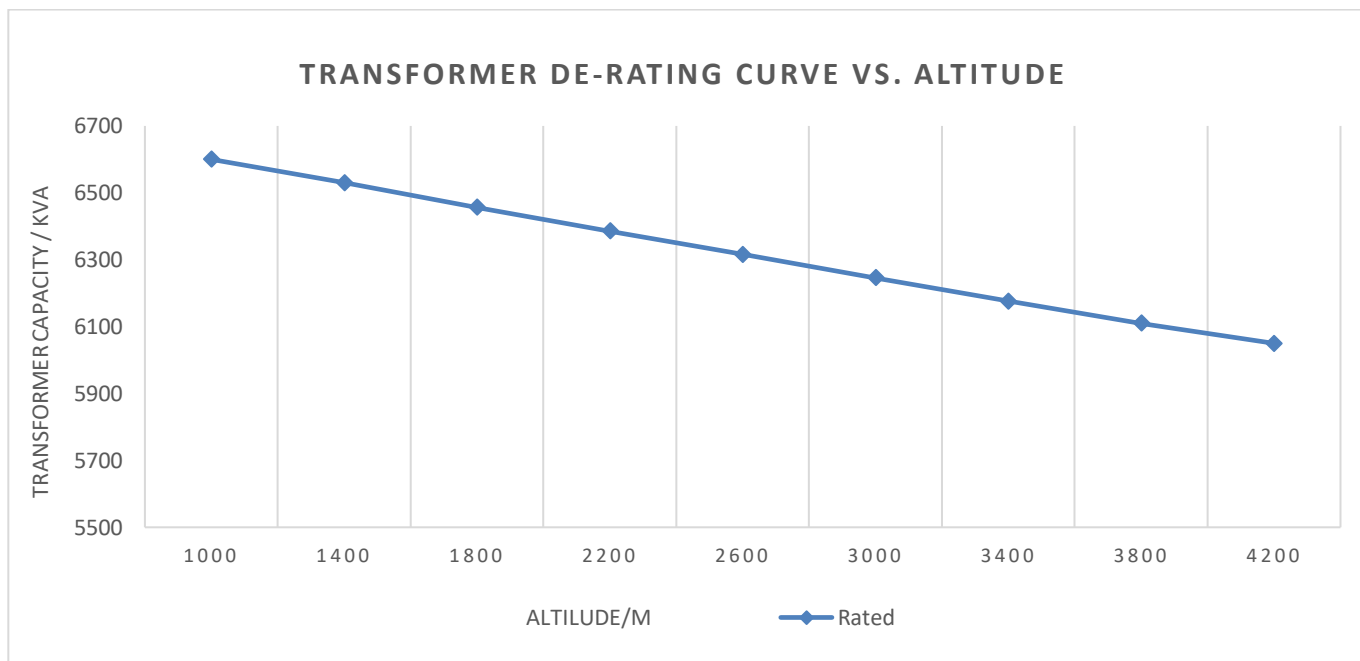
- [1] at ambient temperature max./monthly(hottest month)/annual average (°C) 40 / 30 / 20
- [2] at altitude (M) 1000


Ing Esquiaga Juan
REGISTRO N°673/23



De-rating Curve VS. Altitude

Transformer De-rating Curve VS. Altitude



Model	Type	1000 M	1400 M	1800 M	2200 M	2600 M	3000 M	3400 M	3800 M	4200 M
JUPITER-6000K-H1	Rated ^[3]	6,600 kVA	6,530 kVA	6,456 kVA	6,386 kVA	6,316 kVA	6,246 kVA	6,176 kVA	6,110 kVA	6,050 kVA

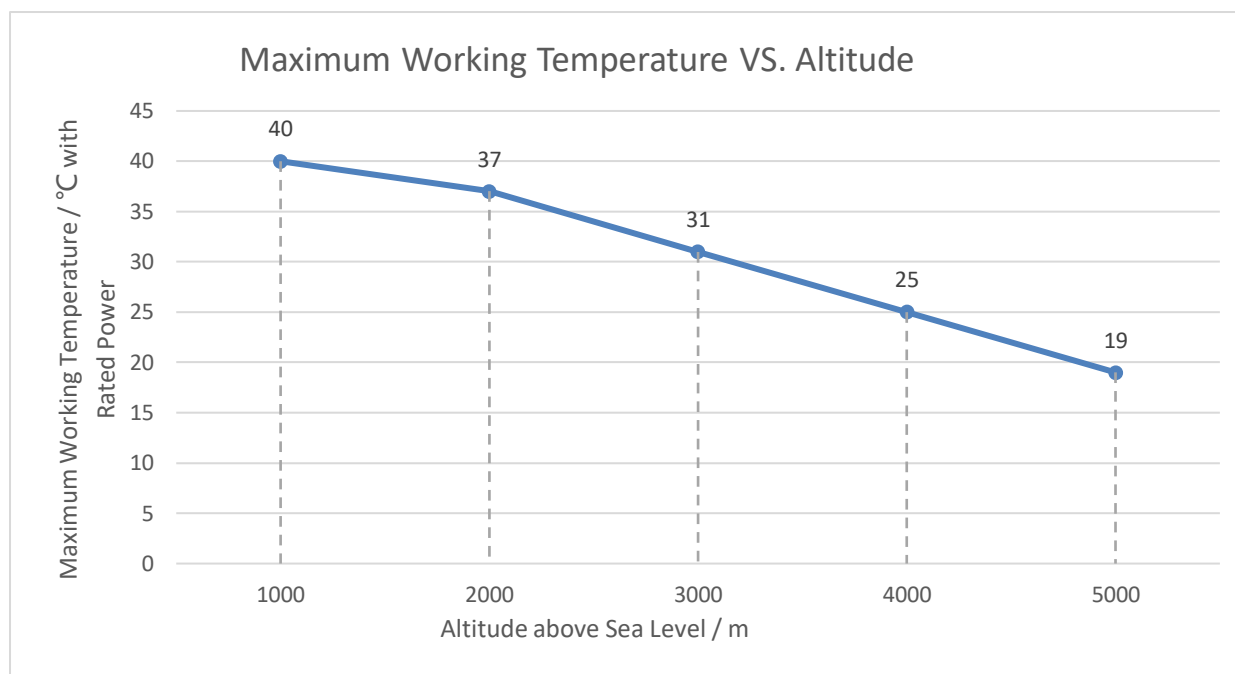
Note:

[3] at ambient temperature max./monthly(hottest month)/annual average (°C) 40 / 30 / 20


Ing Esquiaga Juan
REGISTRO N°673/23

Maximum Working Temperature Vs Altitude

Maximum Working Temperature Vs Altitude for Smart Transformer Station



Note:

The maximum working temperature is the ambient temperature below which smart transformer station can output rated power without de-rating.

When the altitude rises, the cooling capacity of the smart transformer station de-rates. So the internal temperature of smart transformer station in the high altitude area will be higher and severer than that in the low altitude area.

When altitude > 2000m, the maximum working temperature of smart transformer station should de-rate by altitude, and it de-rates in accordance with 6°C /1000m.



Ing Esquiaga Juan
REGISTRO N°673/23



Provincia del Neuquén
2025

Nota

Hoja Adicional de Firmas

Número:

Referencia: 2-Documentacion anexa a NO-2025-01010049-NEU-SAMB#MERN - EX-2025-01013404- -
NEU-SAMB#MERN - EIA PSQN 008-24 - ANEXO 02 - Especificaciones técnicas de los equipos

A: Melina Giuliana Bessone (AMBDESOS#SAMB),

Con Copia A:

De mi mayor consideración:

El documento fue importado por el sistema GEDO con un total de 10 pagina/s.

Sin otro particular saluda atte.