

**REGIONE PUGLIA**  
**PROVINCIA DI LECCE**  
**COMUNE DI SQUINZANO - CAMPI**  
**SALENTINA**



**SQUINZANO\_19**

**PROGETTO DI UN IMPIANTO AGRIVOLTAICO PN<sub>AC</sub> 40 MVA**



**GENERATORE FOTOVOLTAICO PN<sub>DC</sub> 31,56 MW (PN<sub>AC</sub> 26 MVA) + ACCUMULO PN<sub>AC</sub> 14 MVA**


**UBICAZIONE IMPIANTO:**

Squinzano (LE)  
 Foglio 9, particelle 4-92-93-94-95-96-97-98-99-100-104-105-106-110-111-129  
 Campi Salentina (LE)  
 Foglio 2, particelle 40-63-65-78-79-94-244-283-80-81-82-61-62-67-68-69-72-73-75-76-86-87-88-279-385-387-389-391-56-124-307

**ITER AUTORIZZATIVO:**

V.I.A. – Valutazione di impatto ambientale  
 D.Lgs n. 152/06 – art. 23

<b>COMMESSA:</b> <b>2020_19_FV</b>	<b>DOCUMENTO:</b> <b>2020_19_FV_R_12</b>	<b>TITOLO:</b> <b>DATASHEET COMPONENTI PRINCIPALI</b>			
REV. 2		08/06/23	I.PELLEGRINO	S.CIOTTA	A.COSTANTINI
REV. 1		24/04/23	I.PELLEGRINO	S.CIOTTA	A.COSTANTINI
<b>REV. 0</b>	<b>EMISSIONE</b>	<b>04/08/22</b>	<b>M.SESTILI</b>	<b>A. COSTANTINI</b>	<b>G. GROSSI</b>
REV.	DESCRIZIONE	DATA	REDATTO	CONTROLLATO	APPROVATO
<b>COMMITTENTE:</b> <b>SQUINZANO SOLARE S.R.L.</b> Piazza Albania,10 - 00153, Roma, Italia Tel: +39 06 94838931 www.ermesgroup.it, info@ermesgroup.it, squinzanosolare@pec.it C.F.:16298291002 P. IVA: 16298291002		<b>PROGETTISTA:</b>  			

 <b>ERMES</b> <sup>M</sup> INNOVAZIONE ENERGETICA	<b>SQUINZANO_19</b> <b>PROGETTO DI UN IMPIANTO AGRIVOLTAICO PN<sub>AC</sub> 40 MVA</b> GENERATORE FOTOVOLTAICO PN <sub>DC</sub> 31,56 MW (PN <sub>AC</sub> 26 MVA) + ACCUMULO PN <sub>AC</sub> 14 MVA SQUINZANO (LE) - CAMPI SALENTINA (LE)	DOCUMENTO: <b>2020_19_FV_R_12</b>	
		DATA: <b>08/06/2023</b>	
		REV.: <b>02</b>	PAG.: <b>1/25</b>

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### ERMES S.p.a.

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Certificazioni:  
 ISO 9001:2015 CERT. N. S. 2014512  
 UNI EN ISO 14001:2015 CERT. N. 711294



# TR Bifacial 72M 515-535 Watt

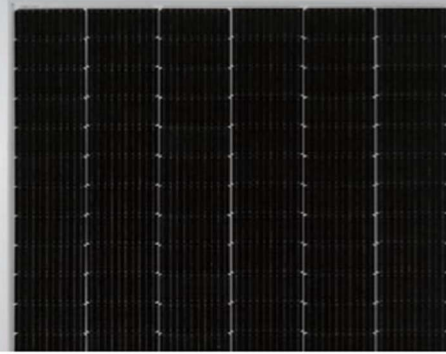
Tiling Ribbon (TR) Technology

Positive power tolerance of 0~+3%

ISO9001:2015, ISO14001:2015, ISO45001:2018  
certified factory

IEC61215, IEC61730 certified product

## TIGER Pro



### KEY FEATURES



#### TR technology + Half Cell

TR technology with Half cell aims to eliminate the cell gap to increase module efficiency (bi-facial up to 21.16%)



#### MBB instead of 5BB

MBB technology decreases the distance between bus bars and finger grid line which is benefit to power increase.



#### Higher lifetime Power Yield

2% first year degradation,  
0.45% linear degradation



#### Best Warranty

12 year product warranty,  
30 year linear power warranty



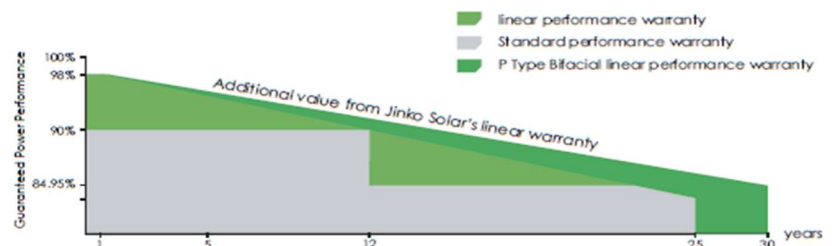
#### Strengthened Mechanical Support

5400 Pa snow load, 2400 Pa wind load



### LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty • 30 Year Linear Power Warranty  
0.45% Annual Degradation Over 30 years



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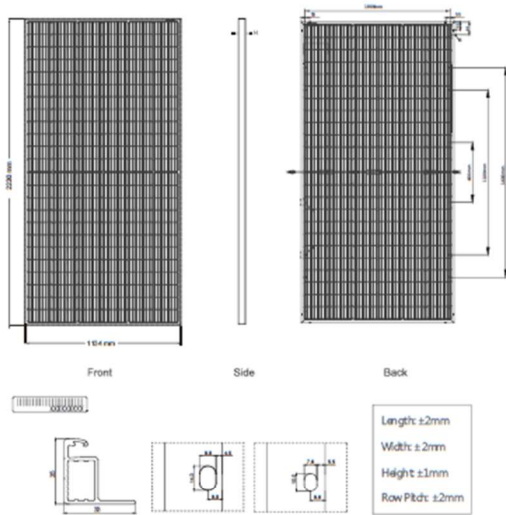
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Certificazioni:

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## Engineering Drawings

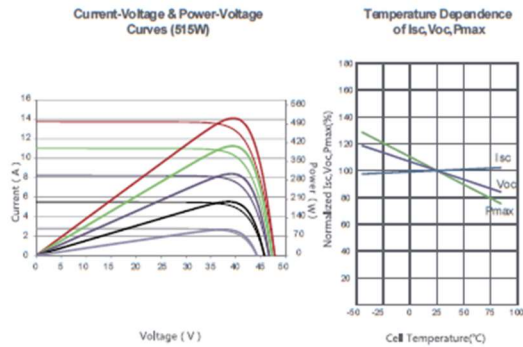


## Packaging Configuration

(Two pallets = One stack)

31pcs/pallets, 62pcs/stack, 620pcs/ 40'HQ Container

## Electrical Performance & Temperature Dependence



## Mechanical Characteristics

Cell Type	P type Mono-crystalline
No. of cells	144 (2×72)
Dimensions	2230×1134×35mm (87.80×44.65×1.38 inch)
Weight	28.9 kg (63.71 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1×4.0mm <sup>2</sup> (+): 290mm, (-): 145mm or Customized Length

## SPECIFICATIONS

Module Type	JKM515M-7TL4-TV		JKM520M-7TL4-TV		JKM525M-7TL4-TV		JKM530M-7TL4-TV		JKM535M-7TL4-TV	
	SCT	NOCT	SCT	NOCT	SCT	NOCT	SCT	NOCT	SCT	NOCT
Maximum Power (Pmax)	515Wp	383Wp	520Wp	387Wp	525Wp	391Wp	530Wp	394Wp	535Wp	398Wp
Maximum Power Voltage (Vmp)	40.08V	37.27V	40.22V	37.42V	40.36V	37.56V	40.49V	37.70V	40.63V	37.84V
Maximum Power Current (Imp)	12.85A	10.28A	12.93A	10.34A	13.01A	10.40A	13.09A	10.46A	13.17A	10.52A
Open-circuit Voltage (Voc)	48.58V	45.85V	48.72V	45.99V	48.86V	46.12V	48.99V	46.24V	49.13V	46.37V
Short-circuit Current (Isc)	13.53A	10.93A	13.61A	10.99A	13.69A	11.06A	13.77A	11.12A	13.85A	11.19A
Module Efficiency STC (%)	20.37%		20.56%		20.76%		20.96%		21.16%	
Operating Temperature(°C)	-40°C~+85°C									
Maximum system voltage	1500VDC (IEC)									
Maximum series fuse rating	25A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.35%/°C									
Temperature coefficients of Voc	-0.28%/°C									
Temperature coefficients of Isc	0.048%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									
Refer. Bifacial Factor	70±5%									

## BIFACIAL OUTPUT-REAR SIDE POWER GAIN

		541Wp	546Wp	551Wp	557Wp	562Wp
5%	Maximum Power (Pmax)	541Wp	546Wp	551Wp	557Wp	562Wp
	Module Efficiency STC (%)	21.38%	21.59%	21.80%	22.01%	22.21%
15%	Maximum Power (Pmax)	592Wp	598Wp	604Wp	610Wp	615Wp
	Module Efficiency STC (%)	23.42%	23.65%	23.87%	24.10%	24.33%
25%	Maximum Power (Pmax)	644Wp	650Wp	656Wp	663Wp	669Wp
	Module Efficiency STC (%)	25.46%	25.70%	25.95%	26.20%	26.45%

\*STC: Irradiance 1000W/m<sup>2</sup> Cell Temperature 25°C AM=1.5  
 NOCT: Irradiance 800W/m<sup>2</sup> Ambient Temperature 20°C AM=1.5 Wind Speed 1m/s

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 Specifications included in this datasheet are subject to change without notice.

TR JKM515-535M-7TL4-TV-A1-EN

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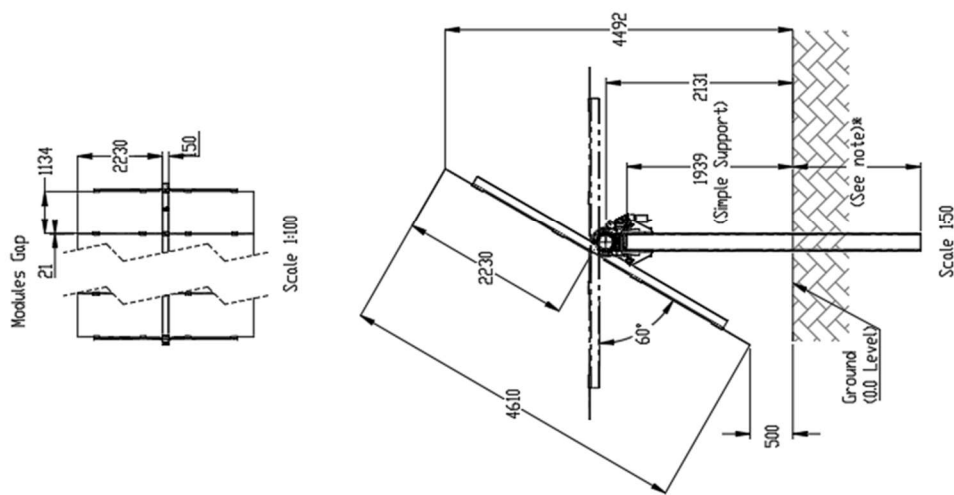
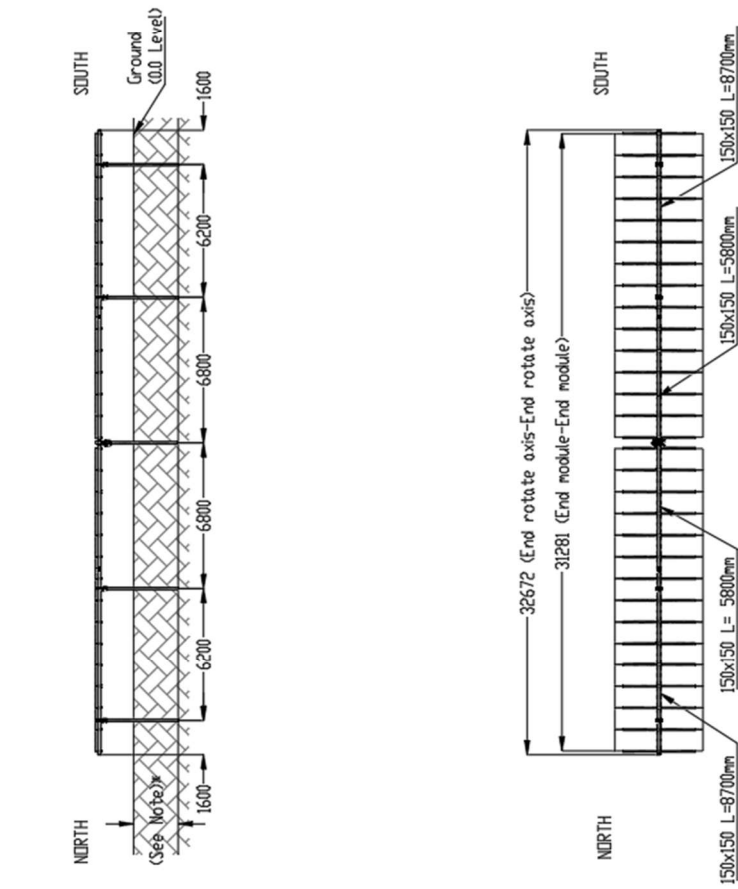
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Tracker at 0° tilt angle (Horizontal position)



Note\*  
Simple Support – Standard Embedment Length

60 degrees
1.3m (4330mm)
1.5m (4570mm)
1.7m (4760mm)
2.0m (5000mm)
2.5m (5600mm)
2.8m (5830mm)
3m (6080mm)

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Certificazioni:  
 ISO 9001:2015 CERT. N. SF 01/451  
 UNI EN ISO 14001:2015 CERT. N. 711254



SUNWAY TG STANDARD series

# SUNWAY TG1800 1500V TE - 640 STD

Indoor Application



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Pec: santerno.group@legalmail.it | info@santerno.com | www.santerno.com  
Cap. Soc. € 4.412.000 | C.F - P.IVA: 03686440284 | R.E.A. BO 457978 | Cod. Ident IVA Intracom. IT03686440284

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Certificazioni:  
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UNI EN ISO 14001:2015 CERT. N. 711254



Designed for utility scale applications, the **SUNWAY TG** inverters feature best-in-class technology and deliver the highest power density and reliability.

Thanks to its intrinsic flexibility, the **SUNWAY TG** product range allows optimal configuration of medium and large PV plants, at the lowest system costs and with maximum yield.

The **SUNWAY TG** inverters are designed and manufactured in Italy by the technicians and engineers of Elettronica Santerno S.p.A.

## BENEFITS

- Very high conversion efficiency with a single power conversion stage, optimized for minimum losses
- Modular construction and cabinet industrialization for maximum reliability and easy access to all components for maintainability and ease of on-site servicing
- Grid Code integrated features (LVRT, Reactive Power Control, Frequency and Voltage control) in compliance with the most advanced European and worldwide standards
- Remote monitoring via Sunway Portal website and REMOTE SUNWAY™ software, both for single- and multi-inverter installations
- Integrated DC-side protection provided by disconnect switch with release coil
- Integrated miswiring protection on DC side
- Integrated AC-side protection with automatic-disconnection on load breaker
- Integrated active monitoring of DC isolation
- Integrated Modbus on RS485 and TCP-IP on Ethernet data connection
- Integrated inputs for environmental sensors
- Compatible with photovoltaic modules requiring one earthed pole (positive or negative pole)
- Made in Italy with first class materials

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Certificazioni:  
ISO 9001:2015 CERT. N. 5501451  
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Main features	
Model	SUNWAY TG1800 1500V TE - 640 STD
MPPT voltage range <sup>(1)</sup>	940 - 1200 V
Extended MPPT voltage range <sup>(1)(2)</sup>	910 - 1500 V
Number of independent MPPTs	1 (Master-Slave) or 2 (Independent)
Static / Dynamic MPPT efficiency	99.8 % / 99.7 %
Maximum open-circuit voltage	1500 V
Rated AC voltage	640 V ± 10 %
Rated output frequency	50 / 60 Hz (up to -3 / +2 Hz)
Power Factor range <sup>(3)</sup>	Circular Capability
Operating temperature range	-25 ÷ 62 °C
Application / Degree of protection	Indoor / IP54
Maximum operating altitude <sup>(4)</sup>	4000 m

Input ratings (DC)			
Maximum short circuit PV input current	1500 A each MPPT (double MPPT configuration) or 3000 A (single MPPT configuration)		
PV voltage Ripple	< 1%		
Output ratings (AC)			
	25 °C	45 °C	50 °C
Rated output power	1995 kVA	1774 kVA	1663 kVA
Rated output current	1800 A	1600 A	1500 A
Power threshold	1% of Rated output power		
Total AC current distortion	□ 3%		
Inverter efficiency			
Maximum / EU / CEC efficiency <sup>(1) (5)</sup>	98.7 % / 98.4 % / - %		
Inverter dimensions and weight			
Dimensions (W x H x D)	3000 x 2100 x 800 mm		
Weight	2700 kg		
Auxiliary consumptions			
Stop mode losses / Night losses	90 W / 90 W		
Auxiliary consumptions	1800 W		

#### NOTES

<sup>(1)</sup> @ rated  $V_{AC}$  and  $\cos \phi = 1$ .

<sup>(2)</sup> With power derating

<sup>(3)</sup> Default range: 1 - 0.85 lead/lag. Settings may be modified upon request.

<sup>(4)</sup> Up to 1000 m without derating.

<sup>(5)</sup> Certified according to standard IEC 61683:1999

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Additional information	
Protection against overvoltage (SPD)	DC Side: Yes - AC Side: Optional
Maximum value for relative humidity	95% non-condensing
Cooling system / Fresh air consumption	Forced air / 5650 m <sup>3</sup> /h
Thermal protection	Integrated, 5 sensors, both on cabinet and power stack
Environmental sensors	4 embedded inputs
Digital communications channels	2 x RS485 with Modbus + Ethernet with TCP/IP
Noise emission @ 1m / 10m <sup>(1)</sup>	78 / 58 dBA
Connection phases	3Ø3W
Max DC inputs per pole/ fuse protected <sup>(2)</sup>	14 / 14
DC inputs current monitoring	Optional
DC side disconnection device	DC disconnect switch
AC side disconnection device	AC circuit breaker
Ground fault monitoring, DC side	Yes
Ground fault monitoring, AC side	Optional
Grid fault monitoring	Yes
Display	Alphanumeric display/keypad
Power modulation	Digital, via RS485 or Ethernet
RAL	RAL 7035
PV plant monitoring	Optional, via Sunway Portal

#### NOTES

(1) Noise level measured in central and front position.

(2) Fuses to be ordered separately.

## Description of Operation

The **SUNWAY TG** are grid connected solar inverters, suitable for connection to LV or MV distribution lines, as well as HV grids.

Advanced grid interface, certified in compliance with the most advanced requirements, ensures reliability and maximum uptime, providing grid support features such as FRT, active power modulation, voltage control. Utility Interactive Features are embedded, software-controlled, completely configurable based on the applicable grid code.

Moreover, the Sunway TG inverters can be integrated in smart grid plants, installed together with off-grid inverters.

Best reliability is ensured by design. All electronics PCBs are coated for best protection against harsh environments. Redundant protection systems and auto-diagnostic functions are also implemented.

Auxiliary power and LVRT are self-supplied. Neither external power nor UPS is needed; however, an external source may be connected, if desired.

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Certificazioni:

ISO 9001:2015 CERT. N. 55 21 451  
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## PV earthing

Optionally, the **SUNWAY TG** inverters can be provided with positive or negative earth connection of the PV field. PV earthing is recommended whenever modules sensitive to PID (potentially induced degradation) are used. Earthing configuration shall be defined upon ordering the equipment.

## Standard Supply

All inverters are supplied with user manuals, technical documents complying with the regulations in force, keys and lifting hooks, special pallets for easy and safe transport.

## Main Normative References

The **SUNWAY TG** inverters have been developed, designed and manufactured in accordance with up-to-date requirements of the Low Voltage directives, Electromagnetic Compatibility directives and Grid Connection standards (as per applicable parts).

Standards <sup>(1)</sup>	
Certification	CE, BDEW , CQC
Immunity	IEC 61000-6-4, IEC 61000-6-2
Harmonics	IEC 61000-3-12
Emissions	IEC 61000-6-3, IEC 61000-6-1
Safety	IEC 62109-1, IEC 62109-2
Grid connection	CEI 0-16, A.70, BDEW, Arrêté du 23 Avril 2008, RD 1699/2011, RD 661/2007, CQC, IEEE 1547
Efficiency certification	IEC 61683:1999

### NOTES

(1) Some standards apply to specific models only.

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Certificazioni:

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Designed for large utility scale applications, **SUNWAY STATIONS** feature best-in-class technology without compromises providing the highest power density and reliability.

**With all the technical advantages and flexibility of SUNWAY TG inverters, SUNWAY STATIONS** allow optimum configuration of medium and large PV plants providing the lowest system cost and the maximum efficiency.

## **BENEFITS**

- Based on SUNWAY TG solar inverters
- Pre-assembled substations, fully fitted out and tested to reduce the plant costs to a minimum, ensuring easy laying and wiring
- Built with sandwich sheet panels and integrated vibrated reinforced concrete foundations for easy transport (structure fully made of concrete optionally available, LC version)
- High efficiency MV distribution transformer
- Extended configurability of the MV section to adapt to any specific plant requirement
- Full access to inverters and accessories for optimum reliability and serviceability
- Grid Code integrated features (LVRT, Reactive Power Control, Frequency and Voltage control) in compliance with the most advanced European, North American and WW standards
- Integrated DC-side protection provided by DC fuses and disconnect switch with release coil
- Integrated Ground Fault Detection system and miswiring protection on DC side
- Integrated Modbus on RS485 and TCP/IP on Ethernet data connection, integrated fiber optic ports
- Remote monitoring optionally available via Santerno Web Portal ([www.sunwayportal.it](http://www.sunwayportal.it))
- Integrated inputs for environmental sensors
- Possibility to install photovoltaic modules requiring one grounded pole, both positive and negative pole
- Thorough manufacture with first class materials

Main features			
Model	SUNWAY STATION 4000 1500V 640 LS		
Inverter	2 x SUNWAY TG 1800 1500V TE 640 STD		
Number of independent MPPT	4		
Rated output frequency	50 Hz / 60 Hz		
Power Factor @ rated power	1 - 0.9 lead/lag		
Maximum operating altitude <sup>(2)</sup>	4000 m a.s.l.		
Maximum value for relative humidity	100% condensing		
Input (DC)			
Max. Open-circuit voltage	1500 V		
PV Voltage Ripple	< 1%		
Maximum DC inputs fuse-protected	4 x 7 (with DC fuses on both poles)		
Maximum short circuit PV input current	2 x 1500A		
Output (AC)			
Ambient Temperature	25 °C	45 °C	50 °C
Rated output current, LV side	1800 A	1600 A	1500 A
Rated output power, LV side	3990 kVA	3548 kVA	3326 kVA
Power threshold	< 1% of Rated AC inverter output power		
Total AC current distortion	□ 3 %		
Rated AC voltage, MV side	6 to 24 kV (up to 30 kV on request)		
Connection phases, MV side	3Ø3W		
Inverter efficiency - LV side <sup>(3)</sup>			
Maximum / EU/ CEC efficiency	98.5% / 98.2 % / 98.0%		
MV transformer			
Type	Cast resin (standard) / Oil (available as option)		
Number of Transformers	2		
Transformer rated power	2000 kVA		
Fuse protection	Yes		
Temperature control	Yes		
Oil pressure control <sup>(4)</sup>	Yes		
MV Cabinet			
Type	Compact SF6 for secondary distribution		
Standard Configuration <sup>(6)</sup>	R+CB+CB (Input Line + Transformer Protection by Circuit Breaker)		
Insulation Class	17.5 / 24 / 36 kV (Others available)		
Dimensions and weight <sup>(5)</sup>			
The SUNWAY STATION 4000 is a system composed by 2 cabins			
Cabin 1 - Dimensions (WxHxD)	875 x 3230 x 2400 mm (for reference)		
Cabin 2 - Dimensions (WxHxD)	641 x 3230 x 2400 mm (for reference)		
Cabin 1 - Weight	23000 kg (for reference)		
Cabin 2 - Weight	19000 kg (for reference)		

#### NOTES

<sup>(1)</sup> At rated Vac and Cos □ =1

<sup>(2)</sup> Up to 1000 m without derating

<sup>(3)</sup> Auxiliary consumptions are not considered when calculating the conversion efficiency

<sup>(4)</sup> Only for oil type transformers

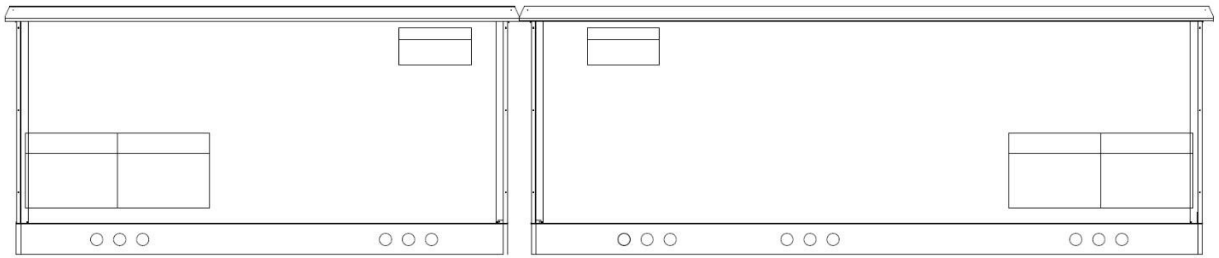
<sup>(5)</sup> Dimensions and weight not applicable to Sunway Station LC version with structure fully made of concrete

<sup>(6)</sup> The MV cabinet composition can be customized

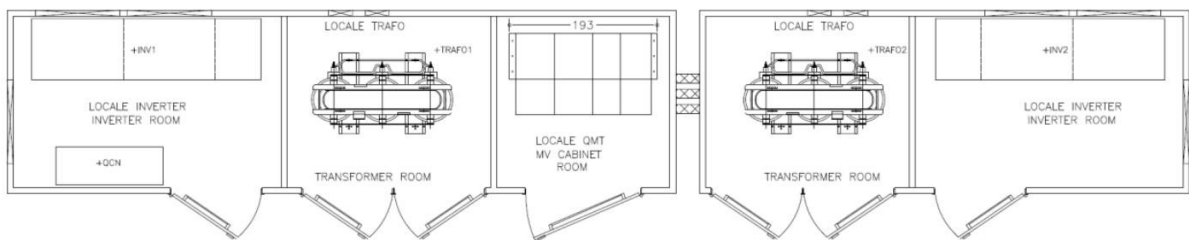
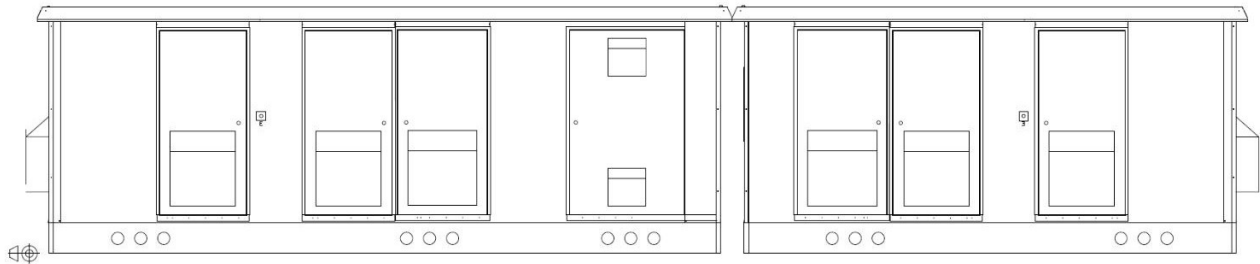
Protective devices	
Protection against overvoltage (SPD), DC side	Yes
DC input current monitoring	Optional (Zone Monitoring)
DC side disconnection device	DC disconnect switch
Ground fault monitoring	Yes
AC disconnection device, LV side	AC circuit breaker
AC disconnection device, MV side	AC disconnect switch
AC ground fault monitoring, LV side	Optional
Grid fault monitoring	Yes
Compartment temperature control	Yes
Emergency stop switch	Yes
Safety key distribution system	Yes
Communication Interfaces	
Power modulation	Via Remote Control (RS485, Ethernet)/analog inputs
PV plant monitoring	Optional (via Santerno Web Portal)
Protocols	Modbus RTU/Modbus TCP/IP
Ethernet/RS485/Optical fiber	Yes/Yes/Optional
Premium Remote Monitoring	Optional
Additional features	
Ethernet switch	Yes
Anticondensation heater	Optional
Environmental sensors	Up to 6 per Inverter
Cooling system	Forced air ventilation
UPS, LV side	Optional 4/6/10 kVA
Fiscal meter	Optional
Grid interface device protection	Optional
Self-consumption meter	Optional
Kit for earthed negative/positive pole	Optional
Fire sensors	Optional
Personal protective kit: fire extinguisher, dielectric gloves and insulating rubber mat	Yes

## Layout

PROSPETTO POSTERIORE / BACK VIEW

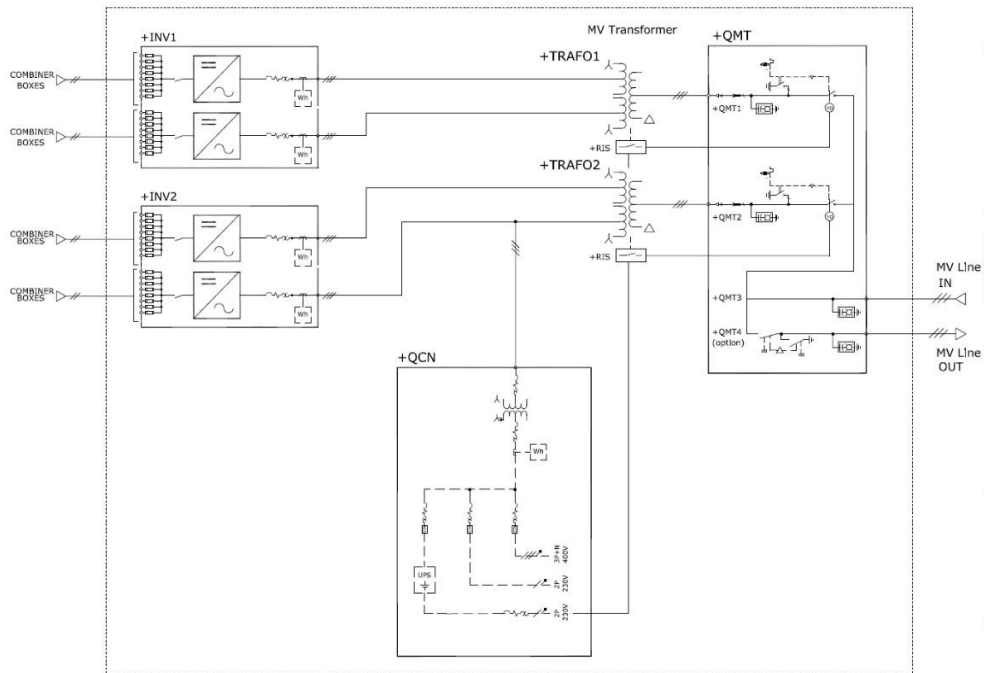


PROSPETTO FRONTALE / FRONT VIEW



## Block Diagram

The Sunway Station is supplied complete with internal wiring (power wiring and auxiliary wiring). Standard supply does NOT include outgoing cables and wiring. Medium Voltage cabinet composition can be customized.



## Main Normative References

**SANTERNO SUNWAY STATIONS** have been developed, designed and manufactured in accordance with the latest requirements of the Low Voltage directives, Electromagnetic Compatibility directives and Grid Connection standards.

Standards <sup>(7)</sup>	
Compliance	IEC 61000-6-4, IEC 61000-6-2 IEC 61000-6-3, IEC 61000-6-1
MV Cabinet	IEC 62271-200, CEI EN 62271-102
LV/MV Transformer	IEC 62271-200, CEI EN 62271-102
Cabinet structure/internal wiring	CEI 64-8, CEI 11-35, CEI EN 61330
Grid connection	CEI 0-16, A.70, BDEW, Arrêté du 23 Avril 2008, RD 1699/2011, RD 661/2007, CQC, IEEE 1547 RD 1633/2000, RD 661/2007

### NOTES

<sup>(7)</sup> Additional certificates available on request

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# SUNWAY STATION 1500 1500V 640 LS

Fully Integrated Solar Power Station



Designed for large utility scale applications, **SUNWAY STATIONS** feature best-in-class technology without compromises providing the highest power density and reliability.

**With all the technical advantages and flexibility of SUNWAY TG inverters, SUNWAY STATIONS** allow optimum configuration of medium and large PV plants providing the lowest system cost and the maximum efficiency.

## **BENEFITS**

- Based on SUNWAY TG solar inverters
- Pre-assembled substations, fully fitted out and tested to reduce the plant costs to a minimum, ensuring easy laying and wiring
- Built with sandwich sheet panels and integrated vibrated reinforced concrete foundations for easy transport (structure fully made of concrete optionally available, LC version)
- High efficiency MV distribution transformer
- Extended configurability of the MV section to adapt to any specific plant requirement
- Full access to inverters and accessories for optimum reliability and serviceability
- Grid Code integrated features (LVRT, Reactive Power Control, Frequency and Voltage control) in compliance with the most advanced European, North American and WW standards
- Integrated DC-side protection provided by DC fuses and disconnect switch with release coil
- Integrated Ground Fault Detection system and miswiring protection on DC side
- Integrated Modbus on RS485 and TCP/IP on Ethernet data connection, integrated fiber optic ports
- Remote monitoring optionally available via Santerno Web Portal ([www.sunwayportal.it](http://www.sunwayportal.it))
- Integrated inputs for environmental sensors
- Possibility to install photovoltaic modules requiring one grounded pole, both positive and negative pole
- Thorough manufacture with first class materials

Main features	
Model	SUNWAY STATION 1500 1500V 640 LS
Inverter	1 x SUNWAY TG 1800 1500V TE 640 STD
Number of independent MPPT	2
Rated output frequency	50 Hz / 60 Hz
Power Factor @ rated power	1 - 0.9 lead/lag
Maximum operating altitude <sup>(2)</sup>	4000 m a.s.l.
Maximum value for relative humidity	100% condensing
Input (DC)	
Max. Open-circuit voltage	1500 V
PV Voltage Ripple	< 1%
Maximum DC inputs fuse-protected	7 (with DC fuses on both poles)
Maximum short circuit PV input current	1500 A
Output (AC)	
Rated output current, LV side	1353 A
Rated output power, LV side	1500 kVA
Power threshold	< 1% of Rated AC inverter output power
Total AC current distortion	□ 3 %
Rated AC voltage, MV side	6 to 24 kV (up to 30 kV on request)
Connection phases, MV side	3Ø3W
Inverter efficiency - LV side <sup>(3)</sup>	
Maximum / EU/ CEC efficiency	98.5% / 98.2 % / 98.0%
MV transformer	
Type	Cast resin (standard) / Oil (available as option)
Transformer rated power	1500 kVA
Fuse protection	Yes
Temperature control	Yes
Oil pressure control <sup>(4)</sup>	Yes
MV Cabinet	
Type	Compact SF6 for secondary distribution
Standard Configuration <sup>(6)</sup>	R+CB (Input Line + Transformer Protection by Circuit Breaker)
Insulation Class	17.5 / 24 / 36 kV (Others available)
Dimensions and weight <sup>(5)</sup>	
Cabinet Dimensions (WxHxD)	8250 x 3230 x 2400 mm (for reference)
Overall Weight	23000 kg (for reference)

#### NOTES

<sup>(1)</sup> At rated Vac and Cos □ =1

<sup>(2)</sup> Up to 1000 m without derating

<sup>(3)</sup> Auxiliary consumptions are not considered when calculating the conversion efficiency

<sup>(4)</sup> Only for oil type transformers

<sup>(5)</sup> Dimensions and weight not applicable to Sunway Station LC version with structure fully made of concrete

<sup>(6)</sup> The MV cabinet composition can be customized

Protective devices	
Protection against overvoltage (SPD), DC side	Yes
DC input current monitoring	Optional (Zone Monitoring)
DC side disconnection device	DC disconnect switch
Ground fault monitoring	Yes
AC disconnection device, LV side	AC circuit breaker
AC disconnection device, MV side	AC disconnect switch
AC ground fault monitoring, LV side	Optional
Grid fault monitoring	Yes
Compartment temperature control	Yes
Emergency stop switch	Yes
Safety key distribution system	Yes
Communication Interfaces	
Power modulation	Via Remote Control (RS485, Ethernet)/analog inputs
PV plant monitoring	Optional (via Santerno Web Portal)
Protocols	Modbus RTU/Modbus TCP/IP
Ethernet/RS485/Optical fiber	Yes/Yes/Optional
Premium Remote Monitoring	Optional
Additional features	
Ethernet switch	Yes
Anticondensation heater	Optional
Environmental sensors	Up to 6 per Inverter
Cooling system	Forced air ventilation
UPS, LV side	Optional 4/6/10 kVA
Fiscal meter	Optional
Grid interface device protection	Optional
Self-consumption meter	Optional
Kit for earthed negative/positive pole	Optional
Fire sensors	Optional
Personal protective kit: fire extinguisher, dielectric gloves and insulating rubber mat	Yes

## ERMES S.p.a.

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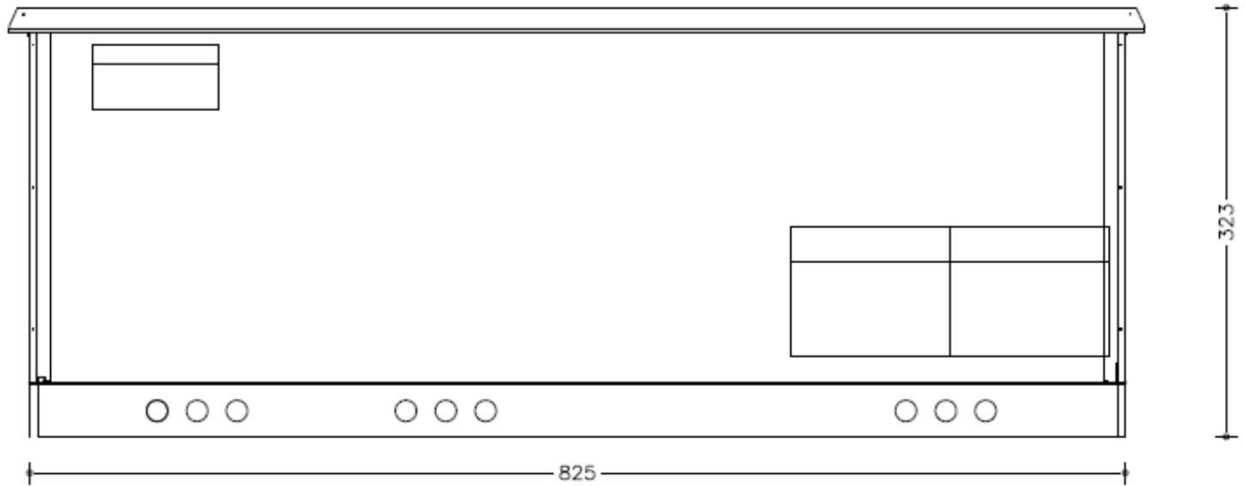
Certificazioni:

ISO 9001:2015 CERT. N. ST 01-451

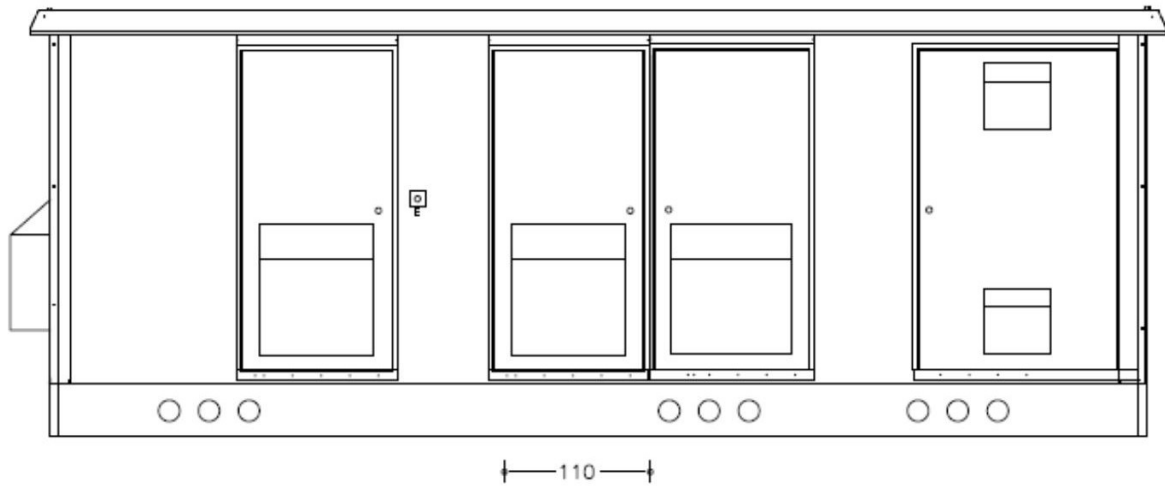


**Layout**

PROSPETTO POSTERIORE / BACK VIEW

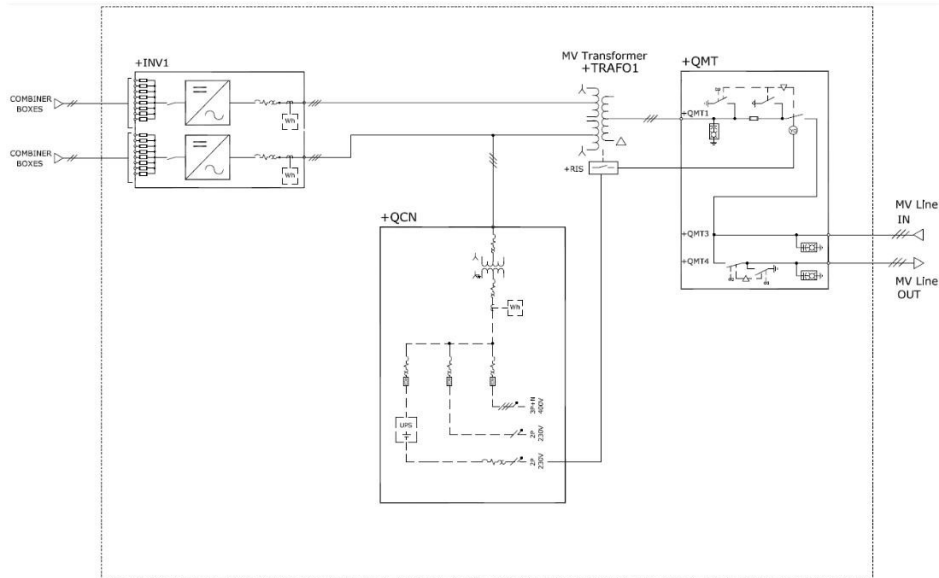


PROSPETTO FRONTALE / FRONT VIEW



## Block Diagram

The Sunway Station is supplied complete with internal wiring (power wiring and auxiliary wiring). Standard supply does NOT include outgoing cables and wiring. Medium Voltage cabinet composition can be customized.



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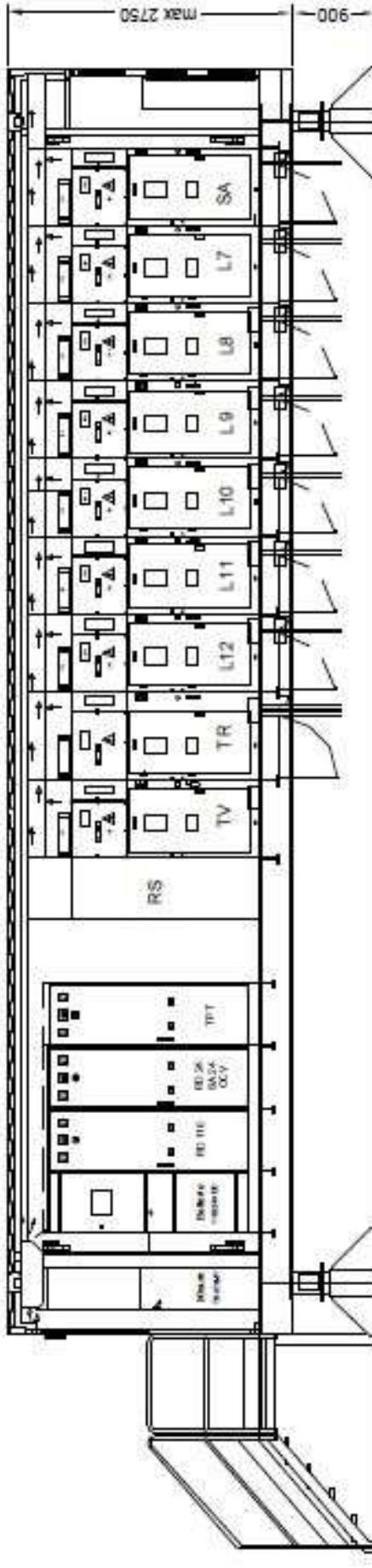
### NOTES

<sup>(7)</sup> Additional certificates available on request

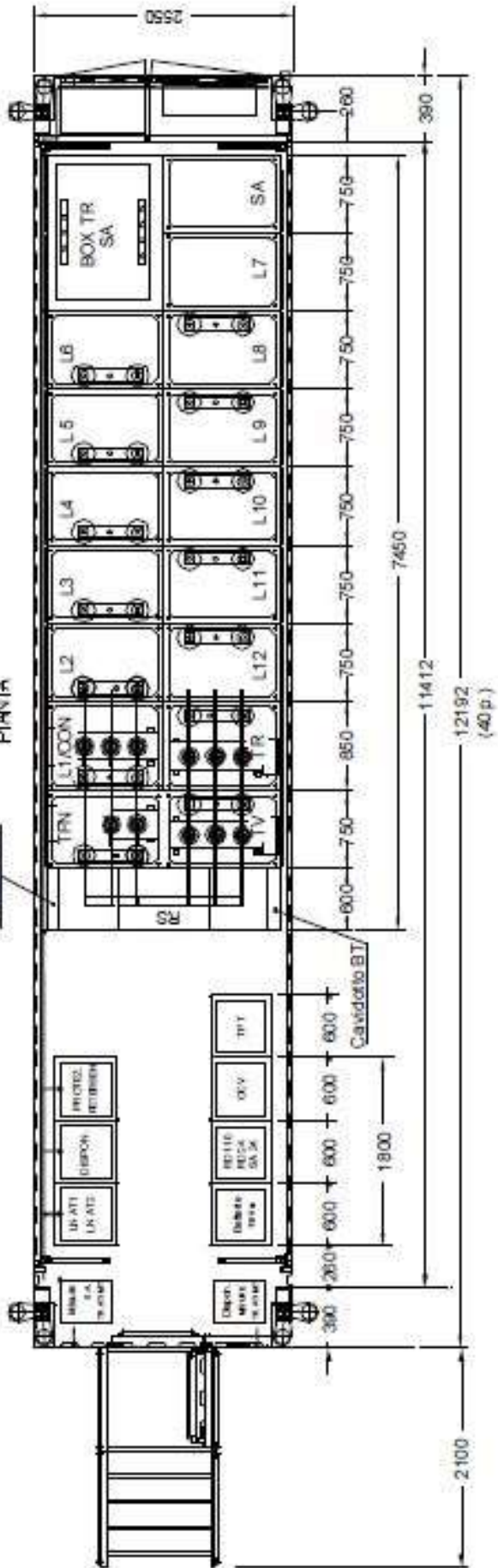
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# DY 770/1

VISTA LATERALE



PIANTA

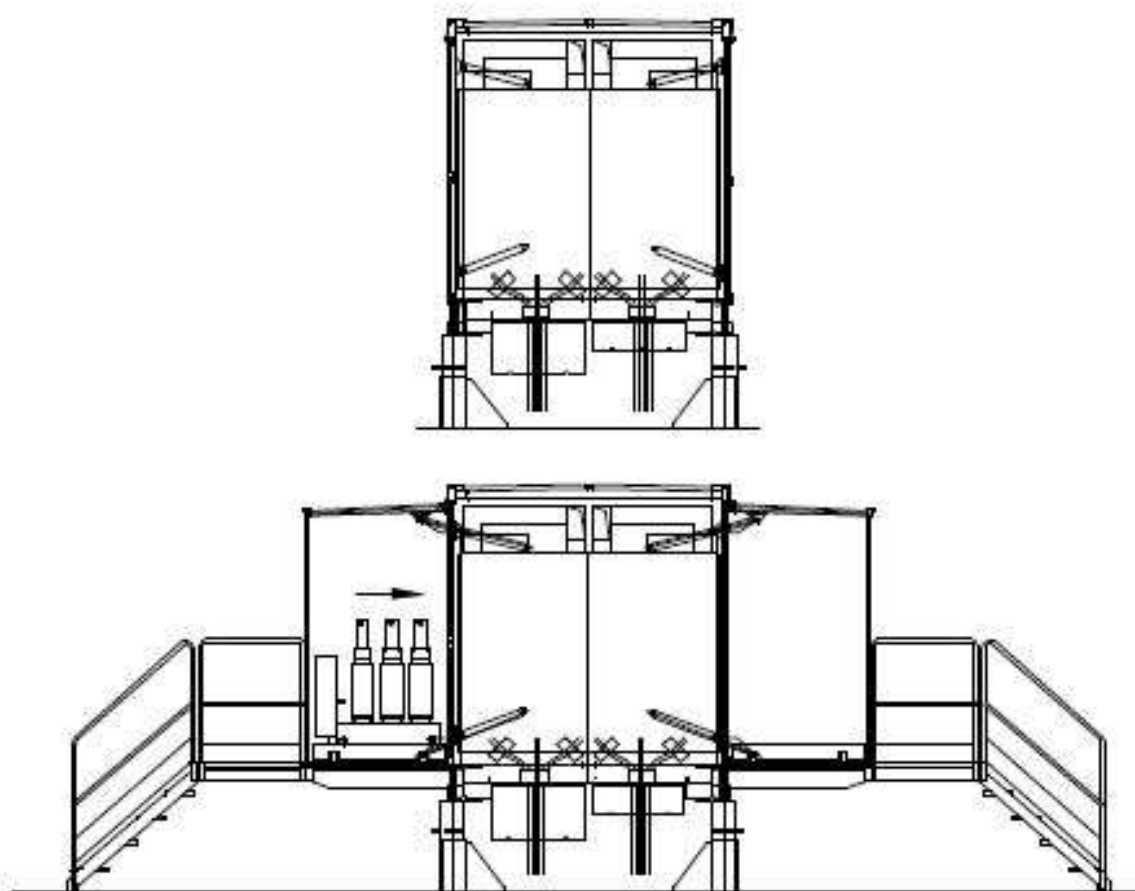


Pianta e vista laterale

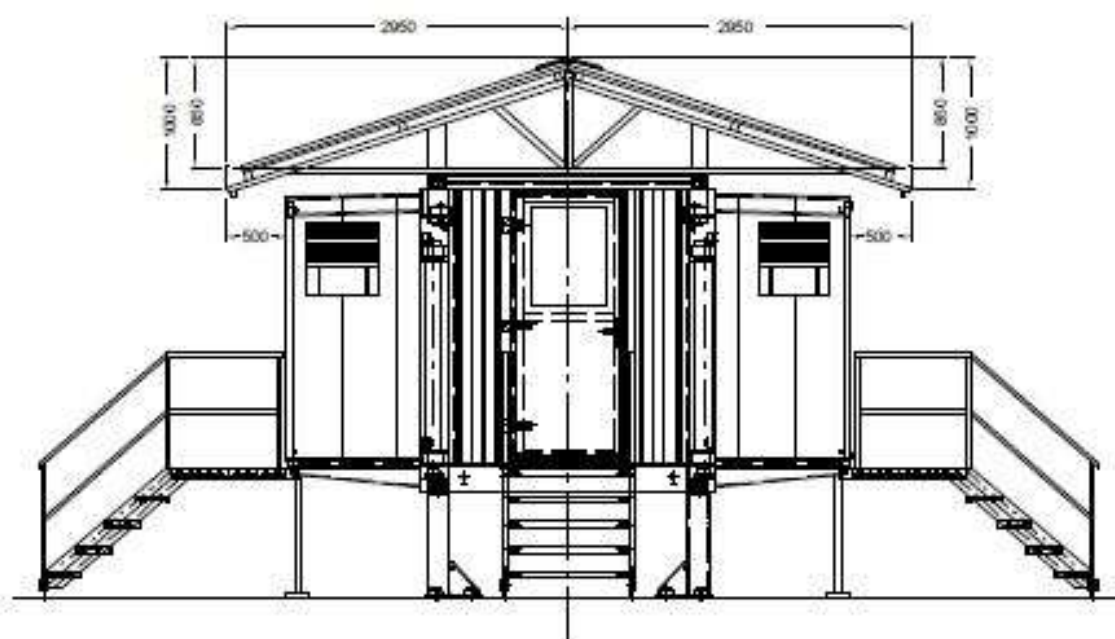


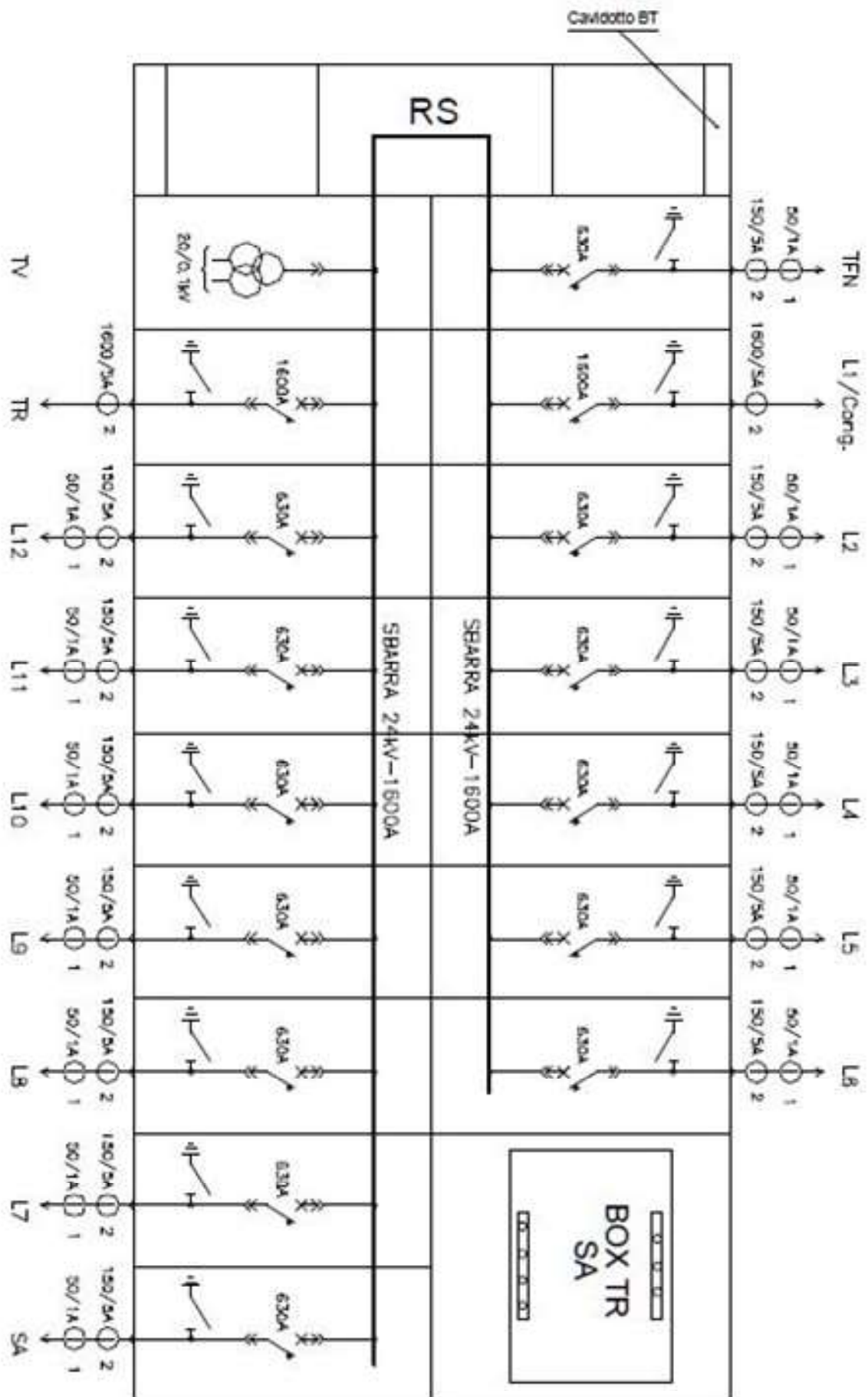


## Sezioni con quadro chiuso e aperto



## Vista frontale aperto con copertura





Schema elettrico DY770/1