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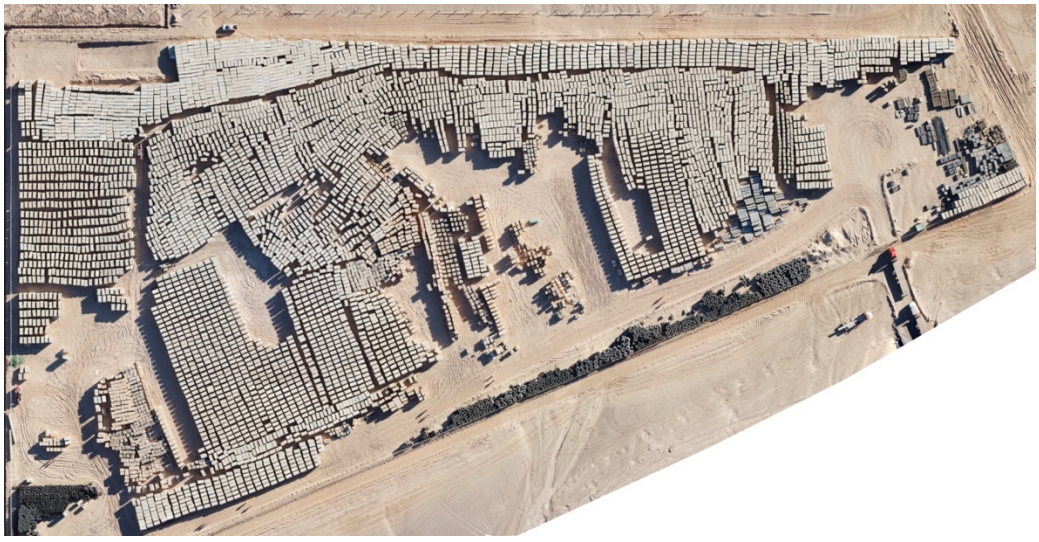
H		
G		
F	**2024-08-05**	Update available quantities
E	**2024-01-24**	Tracker quantity and configuration available
D	**2024-01-18**	Added additional information of tracker and row
C	**2024-01-11**	Minor adjustement
B	**2024-01-09**	Minor adjustement
A	**2023-12-20**	First issue

Abstract

This document describes the various characteristics of a Solar Plant available for transfer and the current status of its components. Equipment available for sale: 158'241 LR4-72HBD solar panels including NX Horizon tracker, 452 string inverter SG250HXV116_S and 19 LV MV Transformer Cabin SFL-6300/33. All units come from a solar system project purchased in 2021 but never installed. All units are stored in their original packaging.

To note:

⇒ OEM warranty still in force.
⇒ material is available today. No production time lag.
⇒ material is packaged and ready to be shipped.
⇒ the technology is up to date.
⇒ top quality of component.
⇒ quantity available is relevant.



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1. Introduction

This document describes the various characteristics of a Solar Plant equipment available for transfer and its current status. The subject of the opportunity is as follows:

Panels	
Manufacturer	Longi
Model	LR4-72HBD
Number of unit	158’241

String Inverter	
Manufacturer	Sungrow
Model	SG250HXV116_S
Number of unit	452

LV MV Tranformer Cabin	
Manufacturer	Sungrow
Model	SFL-6300/33
Number of unit	19

Tracker	
Manufacturer	Nextracker
Model	NX Horizon
N° max of row	142

General info	
Condition	New
Year of construction	2021
Country	Chile

The Original Equipment Manufacturer warranty is still in force. The material is already available, packed and ready to be shipped to a new destination.
This material was delivered in 2021, the technology is up to date. The products available are of high quality and the quantity available is relevant.

2. Description of Supply

2.1 Panels Longi LR4-72HBD

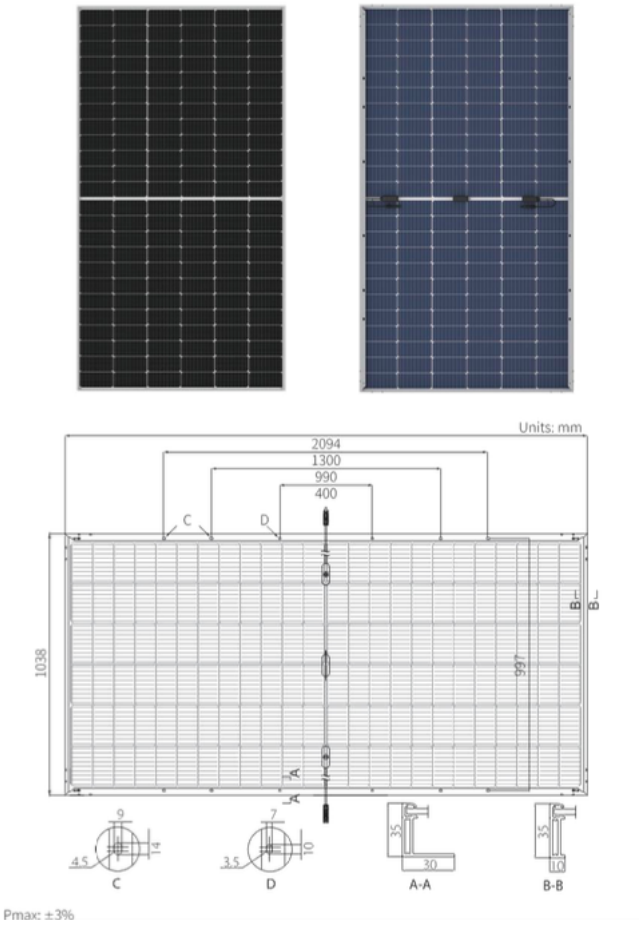


Figura 1: Panels Longi LR4-72HBD

Half-Cell
The power output of a bifacial half-cell module increases, and energy yield is higher under high irradiance conditions because of low working current.

Mechanical Load
Framed module, front/back side maximum static loading 5400/2400 Pa, makes it suitable for tracker mounts.

High Rating
Glass and junction box, with high voltage grade, supports 1500V systems.

Bifacial Energy Yield
Additional power generation from the backside of bifacial modules increases the overall energy yield, which has been verified by customers and third-party testing organizations.

Low Degradation
Anti-LID, anti-PID, 1st year degradation ≤2%, linear degradation ≤0.45%/year.

Standard Module
Fully compatible with mainstream inverters and trackers, with no system matching issues.

Gallium-doped Technology
Gallium-doped technology overcomes LID degradation and guarantees the long-term power generation of the module.

2.2 String Inverter Sungrow SG250 HX

Figura 2: SG250 HX

HIGH YIELD

- 12 MPPTs with max. efficiency 99%
- 30A MPPT compatible with 500Wp+ module Built-in Anti-PID and PID recovery function

LOW COST

- Compatible with Al and Cu AC cables DC 2 in 1 connection enabled
- Power line communication (PLC)
- Q at night function

SMART O&M

- Touch free commissioning and remote firmware upgrade
- Smart IV Curve diagnosis
- Fuse free design with smart string current monitoring

PROVEN SAFETY

- IP66 and C5 anti-corrosion
- Type II SPD for both DC and AC
- Compliant with global safety and grid code

EFFICIENCY CURVE

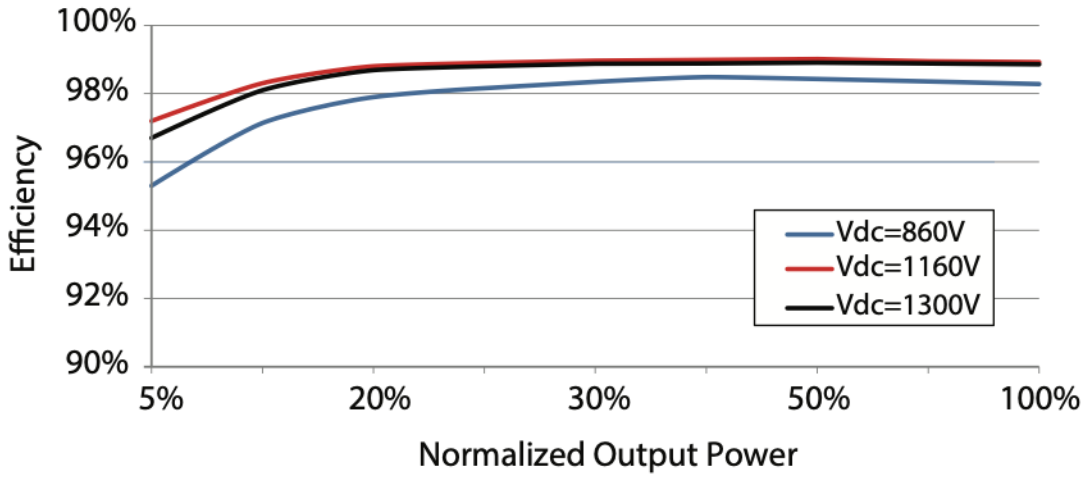


Table 1: inverted efficiency curve

2.3 Sungrow LV MV Transformer Cabin SFL-6300/33

Figura 3: SFL-6300/33

SAVED INVESTMENT

- Up to 7 MW block design
- Easy transportation due to standard container design

EASY O&M

- Online analysis for fast trouble shooting Modular design, easy replacement of main devices

SAFETY

- MV and LV isolated, with independent control room All key components front accessible, no need for walk-in operation
- All pre-assembled for easy set-up and commissioning

RELIABLE

- All components have been type tested and are in compliance with standards: IEC 60076, IEC 62271, IEC 61439

2.4 Tracker NXHorixon

Figura 4: Tracker NXHorixon

NX Horizon is an independent row, single axis horizontal tracker. This advanced horizontal tracker is designed to operate with 80% less power than other trackers and it has the widest rotational range available with the lowest O&M costs. By offering more powerful systems at a greater value, NEXTracker enables greater deployment of renewable energy worldwide.
Independent balanced rows with 120-degree rotational range: Each NX Horizon row has its own controlled motor with rotational range that delivers up to 2% more energy than typically linked row trackers. These agile, independent rows stow in less than 90 seconds to reduce wind forces on the array, carefully protecting the PV modules in rapidly changing environments. NX Horizon solar trackers also have a mechanically balanced row design that aligns PV panels with the tracker's axis of rotation - which greatly reduces torsional load, using less energy from the motor to track throughout the day.
A Network Control Unit (NCU) aggregates communication and control for up to 100 controllers via the same ZigBee network.
Each NCU monitors real-time controller parameters and issues global commands to its associated SPCs. During wind or snow events, stowing commands are generated and issued automatically, based on real-time data from Weather Stations located onsite. Manual operator-generated commands are available via local switches on the NCU. Each CU is accessible via a Modus interface for SCADA integration.
CUs are typically located at inverter pads with other electrical equipment to connect easily to the required AC power. A battery backup is built into each NCU unit.
A Weather Station measures real-time wind speed and snow depth and reports this data to the NCUs over the ZigBee network. When conditions warrant, the CUs propagate a stowing command out to their associated controllers within seconds. Each Weather Station is powered by a small, dedicated PV panel and includes a backup battery, eliminating the need for power wiring.

2.5 Tracker composition row

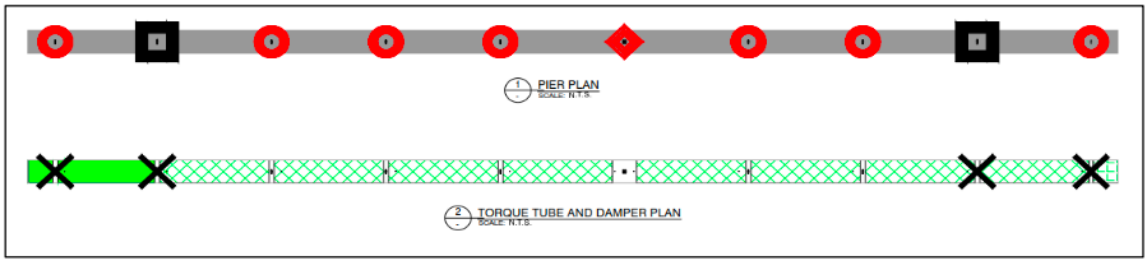
Using the currently available materials, it is feasible to assemble a single series of trackers following the configurations outlined in the following table, utilizing the detailed components specified within the same chapter.

Type	Quantity	N° of installable Solar Panels	Total Wp installable
Exterior Row	64	5’376	2'446’080
Edge Row	77	6’468	2'942’940
Interior Row	142	11’928	5’427’240
Hybrid Exposed Long Wing Row	77	6’468	2’942’940
Hybrid Exposed Short Wing Row	142	11’928	5’427’240

Table 2: tracker row

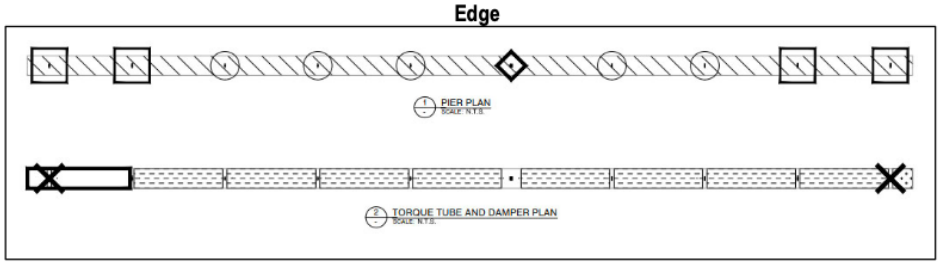
To note: all these configurations are not possible together. Only one of each type can be implemented or a mixed configuration is possible by checking the number of each row type.

Exterior



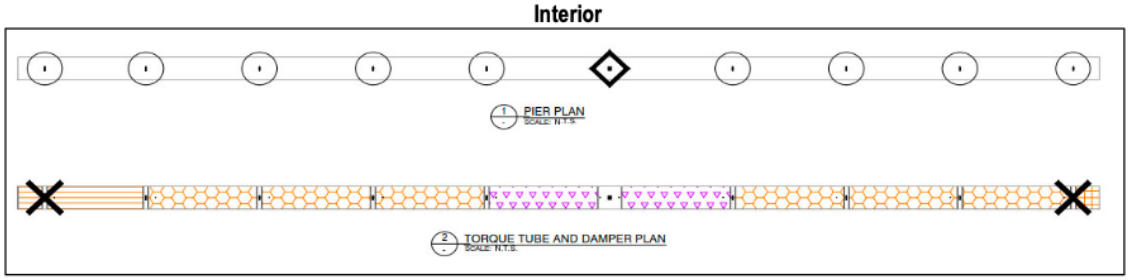
Código	Descripción	Cantidad
5066	Bolt, Cap, Socket Head, M12x1.75x30, Class 8.8 Steel, HDG	2
5070	Blind OM Rivet, 1/2" Diameter, Grip 4	42
5275	Blind OM Rivet, 1/2" Diameter, Grip 06, BL	24
61415	Smart Module, 40W	1
20961	Gen 2 Slew Gear, Integrated Collar, V4, TTA Assembly, Full	1
21016	SPC150-B	1
21039	Bearing Housing Assembly, 2.4, SR, Heavy	9
21047	First Rail	2
21078	Module Mounting Rail Assembly, 400mm, 14 ga, 63.5mm OS, CH Strap	75
21149	Slew Gear Mount Assembly, Heavy	1
21185	Double Upper Damper Mount Assembly, SRE	4
21186	Lower Damper Mount	8
21193	Damper, Double Tube, Load Limiting, Spherical Rod End	8
21214	Controller Mount Assembly, Integrated, Flat, 2.4	1
30516	SPC Antenna Mount v2 Subassembly	1
41279	End Cap, Plastic	2
41680	Washer	18
51760	Bobtail Pin, 1/4", Grip 2, Twist-On	336
51680	Bobtail Collar, 1/4", Twist On	336
43376	Torque Tube, 1060mm Spacing, 8 + 2 Module, 11.19m, 4mm THK, 60KSI, PRE-GALV, HTC	1
43878	Torque Tube, 1060mm Hole Spacing, 9 Module Bay, 10.210m, 4mm thk, 60ksi, Pre-Galv, HTC	8
48736	Torque Tube, 1060mm Spacing, 2 Module, 2.79m, 4mm thk, 60ksi, Pre-Galv, HTC	1
50735	Nut, Hex, Jam, M10x1.5x8.9 Thk, Class 8.8 Steel, HDG	36
50857	Twistlock Bobtail Pin, M12 , Grip 20, D1	82
50858	Twistlock Bobtail Collar, M12, BLX	82
51742	Planetary Gear Brushless Motor, Sensor-less, 150W	1
LR4-72HBD	Panel sola LR4-72HBD	84
60954	Smart Module, 30W	1
71961	**Gen 2.2 v2 Motor Pier, W6x15-129**	**1**
73189	**Gen 2.2 Damper Slots Array Pier, W6x8.5-129**	**7**
73239	**Gen 2.2 Damper Slots Array Pier, W6x9-129**	**2**

Edge



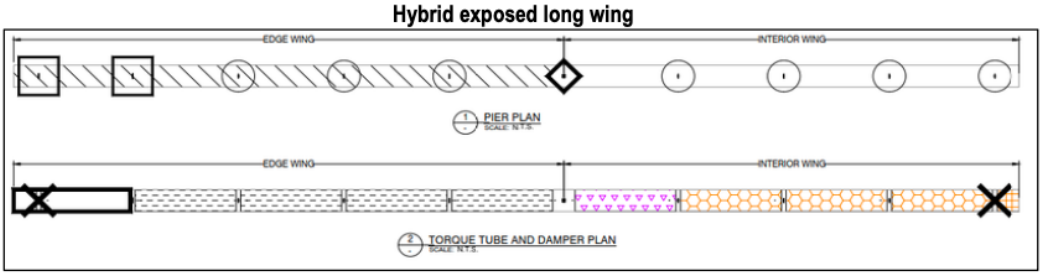
Código	Descripción	Cantidad
2054	Slew Gear Mount	1
5066	Bolt, Cap, Socket Head, M12x1.75x30, Class 8.8 Steel, HDG	2
5070	Blind OM Rivet, 1/2" Diameter, Grip 4	62
5275	Blind OM Rivet, 1/2" Diameter, Grip 06, BL	4
61415	Smart Module, 40W	1
21016	SPC150-B	1
21030	Gen 2 Slew Gear, Integrated Collar, V5, TTA Assembly, Full	1
21039	Bearing Housing Assembly, 2.4, SR, Heavy	9
21047	First Rail	2
21078	Module Mounting Rail Assembly, 400mm, 14 ga, 63.5mm OS, CH Strap	75
21185	Double Upper Damper Mount Assembly, SRE	2
21186	Lower Damper Mount	4
21193	Damper, Double Tube, Load Limiting, Spherical Rod End	4
21214	Controller Mount Assembly, Integrated, Flat, 2.4	1
30516	SPC Antenna Mount v2 Subassembly	1
41279	End Cap, Plastic	2
51760	Bobtail Pin, 1/4", Grip 2, Twist-On	336
51680	Bobtail Collar, 1/4", Twist On	336
43371	Torque Tube, 1060mm Spacing, 8 + 2 Module, 11.19m, 3mm THK, 67KSI, PRE-GALV, HTC	1
43884	Torque Tube, 1060mm Hole Spacing, 9 Module Bay, 10.210m, 3mm thk, 67ksi, Pre-Galv, HTC	8
48737	Torque Tube, 1060mm Spacing, 2 Module, 2.79m, 3mm thk, 67ksi, Pre-Galv, HTC	1
50735	Nut, Hex, Jam, M10x1.5x8.9 Thk, Class 8.8 Steel, HDG	36
50857	Twistlock Bobtail Pin, M12 , Grip 20, D1	74
50858	Twistlock Bobtail Collar, M12, BLX	74
51742	Planetary Gear Brushless Motor, Sensor-less, 150W	1
LR4-72HBD	Panel sola LR4-72HBD	84
60954	Smart Module, 30W	1
71958	**Gen 2.2 v2 Motor Pier, W6x15-120**	**1**
73136	**Gen 2.2 Damper Slots Array Pier, W6x7-120**	**5**
73189	**Gen 2.2 Damper Slots Array Pier, W6x8.5-129**	**4**

Interior



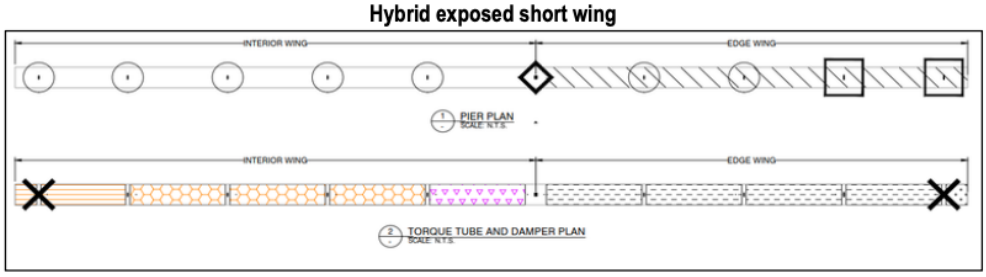
Código	Descripción	Cantidad
2054	Slew Gear Mount	1
5066	Bolt, Cap, Socket Head, M12x1.75x30, Class 8.8 Steel, HDG	2
5070	Blind OM Rivet, 1/2" Diameter, Grip 4	18
5275	Blind OM Rivet, 1/2" Diameter, Grip 06, BL	2
51935	Blind OM Rivet, 1/2" Diameter, Grip 3	46
61415	Smart Module, 40W	1
21016	SPC150-B	1
21030	Gen 2 Slew Gear, Integrated Collar, V5, TTA Assembly, Full	1
21047	First Rail	2
21048	Bearing Housing Assembly, 2.4, SR, Light	9
21078	Module Mounting Rail Assembly, 400mm, 14 ga, 63.5mm OS, CH Strap	75
21185	Double Upper Damper Mount Assembly, SRE	2
21186	Lower Damper Mount	4
21193	Damper, Double Tube, Load Limiting, Spherical Rod End	4
21214	Controller Mount Assembly, Integrated, Flat, 2.4	1
30516	SPC Antenna Mount v2 Subassembly	1
41279	End Cap, Plastic	2
51760	Bobtail Pin, 1/4", Grip 2, Twist-On	336
51680	Bobtail Collar, 1/4", Twist On	336
48259	Torque Tube, 1060mm Spacing, 9 Module, 10.21m, 2.2mm thk, Swage OD 119mm, 60ksi, Pre-Galv, HTC	2
49106	Torque Tube, 1060mm Spacing, 8+2 Module, 11.19m, 2.2mm thk, Swage OD 120.6mm, 60ksi, Pre-Galv, HTC	1
49099	Torque Tube, 1060mm Spacing, 9 Module, 10.21m, 2.2mm thk, Swage OD 120.6mm, 60ksi, Pre-Galv, HTC	6
49100	Torque Tube, 1060mm Spacing, 2 Module, 2.79m, 2.2mm thk, Swage OD 120.6mm, 60ksi, Pre-Galv, HTC	1
50735	Nut, Hex, Jam, M10x1.5x8.9 Thk, Class 8.8 Steel, HDG	36
50857	Twistlock Bobtail Pin, M12 , Grip 20, D1	74
50858	Twistlock Bobtail Collar, M12, BLX	74
51742	Planetary Gear Brushless Motor, Sensor-less, 150W	1
LR4-72HBD	Panel sola LR4-72HBD	84
60954	Smart Module, 30W	1
71958	**Gen 2.2 v2 Motor Pier, W6x15-120**	**1**
73136	**Gen 2.2 Damper Slots Array Pier, W6x7-120**	**9**

Hybrid exposed long wing



Código	Descripción	Cantidad
2054	Slew Gear Mount	1
5066	Bolt, Cap, Socket Head, M12x1.75x30, Class 8.8 Steel, HDG	2
5070	Blind OM Rivet, 1/2" Diameter, Grip 4	40
5275	Blind OM Rivet, 1/2" Diameter, Grip 06, BL	4
51935	Blind OM Rivet, 1/2" Diameter, Grip 3	22
61415	Smart Module, 40W	1
21016	SPC150-B	1
21030	Gen 2 Slew Gear, Integrated Collar, V5, TTA Assembly, Full	1
21039	Bearing Housing Assembly, 2.4, SR, Heavy	5
21047	First Rail	2
21048	Bearing Housing Assembly, 2.4, SR, Light	4
21078	Module Mounting Rail Assembly, 400mm, 14 ga, 63.5mm OS, CH Strap	75
21185	Double Upper Damper Mount Assembly, SRE	2
21186	Lower Damper Mount	4
21193	Damper, Double Tube, Load Limiting, Spherical Rod End	4
21214	Controller Mount Assembly, Integrated, Flat, 2.4	1
30516	SPC Antenna Mount v2 Subassembly	1
41279	End Cap, Plastic	2
51760	Bobtail Pin, 1/4", Grip 2, Twist-On	336
51680	Bobtail Collar, 1/4", Twist On	336
43371	Torque Tube, 1060mm Spacing, 8 + 2 Module, 11.19m, 3mm THK, 67KSI, PRE-GALV, HTC	1
43884	Torque Tube, 1060mm Hole Spacing, 9 Module Bay, 10.210m, 3mm thk, 67ksi, Pre-Galv, HTC	4
48259	Torque Tube, 1060mm Spacing, 9 Module, 10.21m, 2.2mm thk, Swage OD 119mm, 60ksi, Pre-Galv, HTC	1
49106	Torque Tube, 1060mm Spacing, 8+2 Module, 11.19m, 2.2mm thk, Swage OD 120.6mm, 60ksi, Pre-Galv, HTC	1
49099	Torque Tube, 1060mm Spacing, 9 Module, 10.21m, 2.2mm thk, Swage OD 120.6mm, 60ksi, Pre-Galv, HTC	3
49100	Torque Tube, 1060mm Spacing, 2 Module, 2.79m, 2.2mm thk, Swage OD 120.6mm, 60ksi, Pre-Galv, HTC	1
50735	Nut, Hex, Jam, M10x1.5x8.9 Thk, Class 8.8 Steel, HDG	36
50857	Twistlock Bobtail Pin, M12 , Grip 20, D1	74
50858	Twistlock Bobtail Collar, M12, BLX	74
51742	Planetary Gear Brushless Motor, Sensor-less, 150W	1
LR4-72HBD	Panel sola LR4-72HBD	84
60954	Smart Module, 30W	1
71958	**Gen 2.2 v2 Motor Pier, W6x15-120**	**1**
73136	**Gen 2.2 Damper Slots Array Pier, W6x7-120**	**7**
73189	**Gen 2.2 Damper Slots Array Pier, W6x8.5-129**	**2**

Hybrid exposed short wing



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5066	Bolt, Cap, Socket Head, M12x1.75x30, Class 8.8 Steel, HDG	2
5070	Blind OM Rivet, 1/2" Diameter, Grip 4	40
5275	Blind OM Rivet, 1/2" Diameter, Grip 06, BL	2
51935	Blind OM Rivet, 1/2" Diameter, Grip 3	24
61415	Smart Module, 40W	1
21016	SPC150-B	1
21030	Gen 2 Slew Gear, Integrated Collar, V5, TTA Assembly, Full	1
21039	Bearing Housing Assembly, 2.4, SR, Heavy	4
21047	First Rail	2
21048	Bearing Housing Assembly, 2.4, SR, Light	5
21078	Module Mounting Rail Assembly, 400mm, 14 ga, 63.5mm OS, CH Strap	75
21185	Double Upper Damper Mount Assembly, SRE	2
21186	Lower Damper Mount	4
21193	Damper, Double Tube, Load Limiting, Spherical Rod End	4
21214	Controller Mount Assembly, Integrated, Flat, 2.4	1
30516	SPC Antenna Mount v2 Subassembly	1
41279	End Cap, Plastic	2
51760	Bobtail Pin, 1/4", Grip 2, Twist-On	336
51680	Bobtail Collar, 1/4", Twist On	336
43884	Torque Tube, 1060mm Hole Spacing, 9 Module Bay, 10.210m, 3mm thk, 67ksi, Pre-Galv, HTC	4
48737	Torque Tube, 1060mm Spacing, 2 Module, 2.79m, 3mm thk, 67ksi, Pre-Galv, HTC	1
48259	Torque Tube, 1060mm Spacing, 9 Module, 10.21m, 2.2mm thk, Swage OD 119mm, 60ksi, Pre-Galv, HTC	1
49099	Torque Tube, 1060mm Spacing, 9 Module, 10.21m, 2.2mm thk, Swage OD 120.6mm, 60ksi, Pre-Galv, HTC	3
50735	Nut, Hex, Jam, M10x1.5x8.9 Thk, Class 8.8 Steel, HDG	36
50857	Twistlock Bobtail Pin, M12 , Grip 20, D1	74
50858	Twistlock Bobtail Collar, M12, BLX	74
51742	Planetary Gear Brushless Motor, Sensor-less, 150W	1
LR4-72HBD	Panel sola LR4-72HBD	84
60954	Smart Module, 30W	1
71958	**Gen 2.2 v2 Motor Pier, W6x15-120**	**1**
73136	**Gen 2.2 Damper Slots Array Pier, W6x7-120**	**7**
73189	**Gen 2.2 Damper Slots Array Pier, W6x8.5-129**	**2**

2.6 Technical data

2.6.1 Panels

Mechanical Parameters

Cell Orientation:	144(6x24)
Junction Box:	IP68, three diodes
Output Cable:	4mm2, positive 400 / negative 200mm length can be customized
Glass:	Dual glass, 2.0mm coated tempered glass
Frame:	Anodized aluminum alloy frame
Weight:	27.5kg
Dimension:	2094×1038×35mm
Packaging:	30pcs per pallet / 150pcs per 20' GP / 660pcs per 40' HC

Electrical Characteristics STC: AM1.5 1000W/m2 25°C

Power Class:	455
Maximum Power (Pmax/W):	455
Open Circuit Voltage (Voc/V):	49.8
Short Circuit Current (Isc/A):	11.65
Voltage at Maximum Power (Vmp/V):	41.6
Current at Maximum Power (Imp/A):	10.93
Module Efficiency(%):	20.9

Operating Parameters

Operational Temperature	-40°C - +85°C
Power Output Tolerance	0 - +5W
Voc and Is Tolerance	±3%
Maximum System Voltage	DC1500V (IEC/UL)
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Fire Rating	UL type 29
Bifaciality	70±5%

Mechanichal Loading

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

Temperature Ratings (STC)

Temperature Coefficient of Is	+0.050%/°C
Temperature Coefficient of Voc	-0.284%/°C
Temperature Coefficient of max	-0.350%/°C

2.6.2 String Inverter

Input DC

Max. PV input voltage	1500V
Min. PV input voltage	500V
Startup input voltage	500V
Nominal PV input voltage	1160V
MPP voltage range	500V – 1500V
MPP voltage range for nominal power	860V – 1300V
No. of independent MPP inputs	12
Max. number of input connector per MPPT Max.	2
PV input current	30A*12
Max. DC short-circuit current	50A*12

Output DC

AC output power	250 kVA @ 30 °C / 225 kVA @40 °C / 200KVA @ 50 °C 180.5 A
Max. AC output current	180.5 A
Nominal AC voltage	3 / PE, 800 V
AC voltage range	680 – 880V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % In
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / connection phases	3 / 3

Efficiency

Max. efficiency	99%
European efficiency	98.8%

Protection

DC reverse connection protection	Yes
AC short circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
Ground fault monitoring	Yes
DC switch	Yes
AC switch	No
PV String current monitoring	Yes
Q at night function	Yes
Anti-PID and PID recovery function	Yes
Overvoltage protection	DC type II / AC Type II

General Data

Dimensions (W*H*D)	1051 * 660 * 363 mm
Weight	99kg
Isolation method	Transformerless
Ingress protection rating	IP66
Night power consumption	< 2 W
Operating ambient temperature range	-30 to 60 °C
Allowable relative humidity range (non-condensing)	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	5000 m (> 4000 m derating)
Display	LED, Bluetooth+App
Communication	RS485 / PLC
DC connection type	MC4-Evo2 (Max. 6 mm2, optional 10mm2)
AC connection type	OT/DT terminal (Max. 300 mm2)
Compliance	OT/DT terminal (Max. 300 mm2) IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4120:2018, EN 50549-1/2, UNE 206007-. 1:2013, P.O.12.3, UTE C15-712-1:2013
Grid Support	Q at night function, LVRT, HVRT,active & reactive power control and power ramp rate control

2.6.3 LV MV Tranformer Cabin

Site Conditions

Temperature min/max	-20°C ~ +40°C
Max. relative humidity	95%
Altitude	2000m above sea level
Design air temperature	40°C
Earthquake (Seismic coefficient)	Seismic level 2
Aux supply	230Vac/50Hz

Design Data

Manufacturer	JSHP
Type	Oil immersed, Conservator Type, Radiator

Purpose

ONAN rated power at full load secondary voltage & at maximum air temperature	6300kVA
Maximum power	7240kVA@25°C
Insulation class	A
Rated power factor	1
Rated frequency	50 HZ
Number of phases	3
N° windings MV	1 Delta connection
N° winding LV	2 stars without neutral connection
Vector group	Dy11y11
Voltage ratio at on-load(MV/LV)	33kV /0.8-0.8kV
Voltage ratio at off-load (MV/LV)	33kV /0.8-0.8kV
LV winding current	2273/2273A
MV winding current	110A
Inrush current	1210A

Inrush current half peak time recovery	0.15s
Off-load current at voltage ratio	0.35%
Off-load losses at voltage ratio	5.4kW
On load losses at 75°C	44kW
Reactance	6.96%
Resistance	0.7%
Short-circuit impendence HV to LV1&LV2	Max. 7%
Short-circuit impendence HV to LV1 (LV2)	11.5%
Short-Circuit impendence LV1 to LV2	18%
Winding material	Aluminum
Zero sequence Reactance(Xo)	N/A
Zero sequence Reactance(Ro)	N/A
Cooling method	ONAN
Service	discontinuous
Neutral earthing	Ungrounded
Sound pressure level at 1m (on load)	60dB (A) according to I.E.C.
Protection degree	IP68 for transformer body, IP54 for other part . of transformer.
Installation	outdoor
Final color	RAL7035
Installation method and oil type	Mineral oil (PCB free) Full Insulationv
Type of insulation M.V. side	36kV
Highest system voltage M.V. side	2 sec
Duration of the symmetrical short-circuit current	70kV
Withstand voltage at power frequency M.V. side	170kV
Impulsive withstand voltage M.V. side	Full Insulation
Type of insulation L.V. side	3.6kV
Highest system voltage L.V. side	10kV
Withstand voltage at power frequency L.V. side	N/A
Impulsive withstand voltage L.V. side	A
Winding insulation class	65K
Average temperature rise winding and alarm/trip settings	alarm and trip optional 60K
Oil temperature rise and alarm/trip settings	95°C/1 0°C
Hot spot max. temperature (100% load) MV	78°C
bushing rated current	630 A
MV bushing rated voltage	35kV
MV bushing insulation level	36 kV According to IEC 60076-3 Indoor
MV bushing type	4000 A
LV bushing rated current	10 kV
LV power frequency withstand voltage LV bushing	3.6 kV
insulation level	Indoor
LV bushing type	

Instrumentation & Accessories

Oil filling device	Filling plug*1
Tank oil draining device	Drain valve*1
Exchanger draining & venting device	N/A
Filter press connections	N/A
Vacuum pump connection	Drain valve*1
Oil sampling device	Drain valve with sampler*1
Thermowell	Thermal pocket*1
Dial thermometer for oil	Oil temperature indicator*1
Temperature detector	Oil RTD - PT100 – 1Un Winding temperature monitoring devices – 1 Un.
Pressure valve	Over pressure valve relay with 2 SPDT aux contact
Fault Pressure relay	N/A
Radiator isolating devices Skids	N/A

Swivel wheels	N/A
Jacking points	Yes
Hooks for horizontal traction	N/A
Lugs for lifting removable	Lifting lug
Lugs for lifting whole machine	Lifting lug
Lugs for lifting cooler	Yes
Earthing terminal	Yes
Control panel of auxiliary devices	N/A
Oil liquid level indicator	Liquid level indicator
Nameplates	2
Openings & Hatches	N/A
H.V. cable supports and clamps	Yes
M.V. cable supports and clamps	Yes
Transformer temperature monitoring device	Yes

Dimensions & weights

Oil Overall length	2880mm
Overall width	2100mm
Overall height	2510mm
Total weight	15000kg
Oil weight	3500kg
Active part length	2388mm
Active part width	1018mm
Active part height	2560mm
Active part weight	6200kg

2.6.4 Tracker

BRUSHLESS DC MOTOR SPECIFICATIONS

Protection Class	IP65
Isolation Class	EN62114
Certification	120C) UL 1004-1
Operating Temperature	-40°C – 85°C
Motor Type	Brushless
Wight	1.7kg
Relative Humidity	0-95%
Nominal Voltage	24 VDC
Motor Continuous Current (85C)	<6.25A
No load Current at 24VDC(85C)	<1A
Max Power at Rated Torque	150W
Rated gear output torque	150 Nm

SLEW GEAR SPECIFICATIONS

Protection Class	IP55 per IEC60529
Ambient Temp. Range	-40Cto 60C
Housing Material	Ductile Iron
Rotation Range	±65°
Weight	77.5kg
Normal Output Torque, min	± 2000 N-m
High Output Torque, min	± 5000 N-m

3. Actual conditions

All material is stored outdoors in two adjacent areas. All material is still in their original packaging. The Original Equipment Manufacturer warranty is still in force. This material was delivered in 2021, the technology is up to date. The products available are of high quality and the quantity available is relevant.

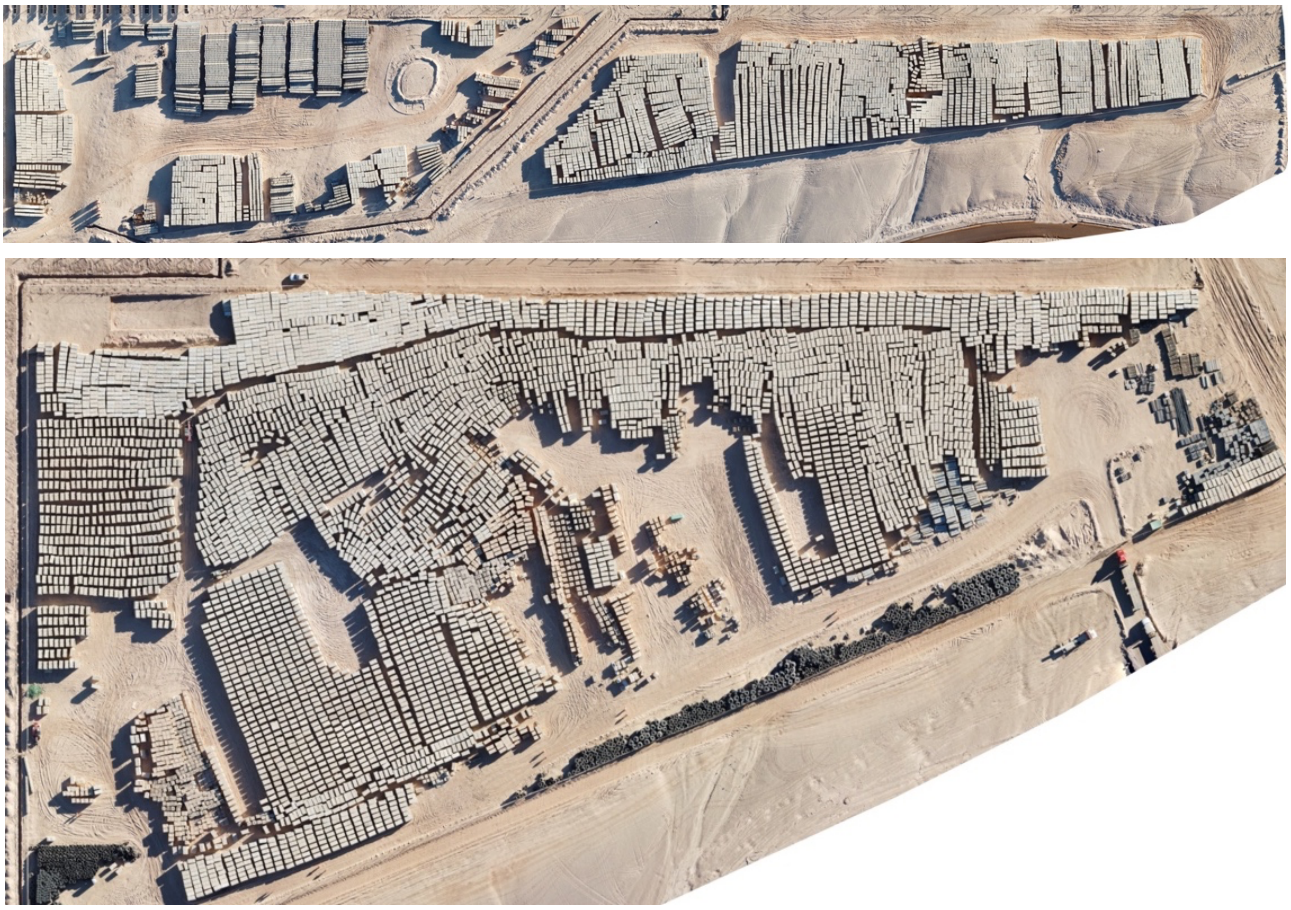

Figura 5: Storage status 1

Figura 6: Storage status 2


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说明

Figura 8: Panels storage condition

Figura 7: Panels storage condition 2

3.1 Part number and Serial numbers

3.1.1 String Inverter

Inverter unit	OEM	Model	Serial
1	Sungrow	SG250HX-V116_S	A2172300485
2	Sungrow	SG250HX-V116_S	A2172300495
3	Sungrow	SG250HX-V116_S	A2172300497
4	Sungrow	SG250HX-V116_S	A2172300498
5	Sungrow	SG250HX-V116_S	A2172300501
6	Sungrow	SG250HX-V116_S	A2172300505
7	Sungrow	SG250HX-V116_S	A2172300506
8	Sungrow	SG250HX-V116_S	A2172300507
9	Sungrow	SG250HX-V116_S	A2172300508
10	Sungrow	SG250HX-V116_S	A2172300509
11	Sungrow	SG250HX-V116_S	A2172300511
12	Sungrow	SG250HX-V116_S	A2172300515
13	Sungrow	SG250HX-V116_S	A2172300516
14	Sungrow	SG250HX-V116_S	A2172300517
15	Sungrow	SG250HX-V116_S	A2172300522
16	Sungrow	SG250HX-V116_S	A2172300524
17	Sungrow	SG250HX-V116_S	A2172300525
18	Sungrow	SG250HX-V116_S	A2172300527
19	Sungrow	SG250HX-V116_S	A2172300529
20	Sungrow	SG250HX-V116_S	A2172300531
21	Sungrow	SG250HX-V116_S	A2172300532
22	Sungrow	SG250HX-V116_S	A2172300536
23	Sungrow	SG250HX-V116_S	A2172300540
24	Sungrow	SG250HX-V116_S	A2172300543
25	Sungrow	SG250HX-V116_S	A2172300544
26	Sungrow	SG250HX-V116_S	A2172300545
27	Sungrow	SG250HX-V116_S	A2172300546
28	Sungrow	SG250HX-V116_S	A2172300547
29	Sungrow	SG250HX-V116_S	A2172300548
30	Sungrow	SG250HX-V116_S	A2172300549
31	Sungrow	SG250HX-V116_S	A2172300550
32	Sungrow	SG250HX-V116_S	A2172300551
33	Sungrow	SG250HX-V116_S	A2172300552
34	Sungrow	SG250HX-V116_S	A2172300553
35	Sungrow	SG250HX-V116_S	A2172300554
36	Sungrow	SG250HX-V116_S	A2172300555
37	Sungrow	SG250HX-V116_S	A2172300556
38	Sungrow	SG250HX-V116_S	A2172300557
39	Sungrow	SG250HX-V116_S	A2172300558
40	Sungrow	SG250HX-V116_S	A2172300559

41	Sungrow	SG250HX-V116_S	A2172300560
42	Sungrow	SG250HX-V116_S	A2172300561
43	Sungrow	SG250HX-V116_S	A2172300562
44	Sungrow	SG250HX-V116_S	A2172300563
45	Sungrow	SG250HX-V116_S	A2172300564
46	Sungrow	SG250HX-V116_S	A2172300565
47	Sungrow	SG250HX-V116_S	A2172300566
48	Sungrow	SG250HX-V116_S	A2172300567
49	Sungrow	SG250HX-V116_S	A2172300568
50	Sungrow	SG250HX-V116_S	A2172300570
51	Sungrow	SG250HX-V116_S	A2172300571
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220	Sungrow	SG250HX-V116_S	A2172400131

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268	Sungrow	SG250HX-V116_S	A2172400195
269	Sungrow	SG250HX-V116_S	A2172400196
270	Sungrow	SG250HX-V116_S	A2172400197
271	Sungrow	SG250HX-V116_S	A2172400198
272	Sungrow	SG250HX-V116_S	A2172400201
273	Sungrow	SG250HX-V116_S	A2172400202
274	Sungrow	SG250HX-V116_S	A2172400203
275	Sungrow	SG250HX-V116_S	A2172400204
276	Sungrow	SG250HX-V116_S	A2172400205
277	Sungrow	SG250HX-V116_S	A2172400207
278	Sungrow	SG250HX-V116_S	A2172400209
279	Sungrow	SG250HX-V116_S	A2172400211
280	Sungrow	SG250HX-V116_S	A2172400212
281	Sungrow	SG250HX-V116_S	A2172400213
282	Sungrow	SG250HX-V116_S	A2172400215
283	Sungrow	SG250HX-V116_S	A2172400218
284	Sungrow	SG250HX-V116_S	A2172400219
285	Sungrow	SG250HX-V116_S	A2173103659
286	Sungrow	SG250HX-V116_S	A2173103660
287	Sungrow	SG250HX-V116_S	A2173103661
288	Sungrow	SG250HX-V116_S	A2173103663
289	Sungrow	SG250HX-V116_S	A2173103664
290	Sungrow	SG250HX-V116_S	A2173103665
291	Sungrow	SG250HX-V116_S	A2173103666
292	Sungrow	SG250HX-V116_S	A2173103667
293	Sungrow	SG250HX-V116_S	A2173103668
294	Sungrow	SG250HX-V116_S	A2173103669
295	Sungrow	SG250HX-V116_S	A2173103671
296	Sungrow	SG250HX-V116_S	A2173103672
297	Sungrow	SG250HX-V116_S	A2173103674
298	Sungrow	SG250HX-V116_S	A2173103676
299	Sungrow	SG250HX-V116_S	A2173103677
300	Sungrow	SG250HX-V116_S	A2173103678
301	Sungrow	SG250HX-V116_S	A2173103680
302	Sungrow	SG250HX-V116_S	A2173103688
303	Sungrow	SG250HX-V116_S	A2173103689
304	Sungrow	SG250HX-V116_S	A2173103691
305	Sungrow	SG250HX-V116_S	A2173103692
306	Sungrow	SG250HX-V116_S	A2173103693
307	Sungrow	SG250HX-V116_S	A2173103695
308	Sungrow	SG250HX-V116_S	A2173103696
309	Sungrow	SG250HX-V116_S	A2173103697
310	Sungrow	SG250HX-V116_S	A2173103698

311	Sungrow	SG250HX-V116_S	A2173103700
312	Sungrow	SG250HX-V116_S	A2173103701
313	Sungrow	SG250HX-V116_S	A2173103702
314	Sungrow	SG250HX-V116_S	A2173103703
315	Sungrow	SG250HX-V116_S	A2173103705
316	Sungrow	SG250HX-V116_S	A2173103707
317	Sungrow	SG250HX-V116_S	A2173103708
318	Sungrow	SG250HX-V116_S	A2173103710
319	Sungrow	SG250HX-V116_S	A2173103711
320	Sungrow	SG250HX-V116_S	A2173103713
321	Sungrow	SG250HX-V116_S	A2173103721
322	Sungrow	SG250HX-V116_S	A2173103736
323	Sungrow	SG250HX-V116_S	A2173103739
324	Sungrow	SG250HX-V116_S	A2173103746
325	Sungrow	SG250HX-V116_S	A2173103747
326	Sungrow	SG250HX-V116_S	A2173103751
327	Sungrow	SG250HX-V116_S	A2173103759
328	Sungrow	SG250HX-V116_S	A2173103763
329	Sungrow	SG250HX-V116_S	A2173103764
330	Sungrow	SG250HX-V116_S	A2173103773
331	Sungrow	SG250HX-V116_S	A2173103776
332	Sungrow	SG250HX-V116_S	A2173103780
333	Sungrow	SG250HX-V116_S	A2173103782
334	Sungrow	SG250HX-V116_S	A2173103795
335	Sungrow	SG250HX-V116_S	A2173103797
336	Sungrow	SG250HX-V116_S	A2173103816
337	Sungrow	SG250HX-V116_S	A2173103818
338	Sungrow	SG250HX-V116_S	A2173103831
339	Sungrow	SG250HX-V116_S	A2180302775
340	Sungrow	SG250HX-V116_S	A2180302778
341	Sungrow	SG250HX-V116_S	A2180302805
342	Sungrow	SG250HX-V116_S	A2180302810
343	Sungrow	SG250HX-V116_S	A2180302819
344	Sungrow	SG250HX-V116_S	A2180302822
345	Sungrow	SG250HX-V116_S	A2180302824
346	Sungrow	SG250HX-V116_S	A2180302827
347	Sungrow	SG250HX-V116_S	A2180302828
348	Sungrow	SG250HX-V116_S	A2180302833
349	Sungrow	SG250HX-V116_S	A2180302846
350	Sungrow	SG250HX-V116_S	A2180302847
351	Sungrow	SG250HX-V116_S	A2180302853
352	Sungrow	SG250HX-V116_S	A2180302891
353	Sungrow	SG250HX-V116_S	A2180302893
354	Sungrow	SG250HX-V116_S	A2180302895
355	Sungrow	SG250HX-V116_S	A2172300479

356	Sungrow	SG250HX-V116_S	A2172300480
357	Sungrow	SG250HX-V116_S	A2172300481
358	Sungrow	SG250HX-V116_S	A2172300482
359	Sungrow	SG250HX-V116_S	A2172300483
360	Sungrow	SG250HX-V116_S	A2172300484
361	Sungrow	SG250HX-V116_S	A2172300486
362	Sungrow	SG250HX-V116_S	A2172300487
363	Sungrow	SG250HX-V116_S	A2172300488
364	Sungrow	SG250HX-V116_S	A2172300489
365	Sungrow	SG250HX-V116_S	A2172300490
366	Sungrow	SG250HX-V116_S	A2172300491
367	Sungrow	SG250HX-V116_S	A2172300492
368	Sungrow	SG250HX-V116_S	A2172300493
369	Sungrow	SG250HX-V116_S	A2172300494
370	Sungrow	SG250HX-V116_S	A2172300496
371	Sungrow	SG250HX-V116_S	A2172300499
372	Sungrow	SG250HX-V116_S	A2172300500
373	Sungrow	SG250HX-V116_S	A2172300502
374	Sungrow	SG250HX-V116_S	A2172300503
375	Sungrow	SG250HX-V116_S	A2172300504
376	Sungrow	SG250HX-V116_S	A2172300510
377	Sungrow	SG250HX-V116_S	A2172300512
378	Sungrow	SG250HX-V116_S	A2172300513
379	Sungrow	SG250HX-V116_S	A2172300514
380	Sungrow	SG250HX-V116_S	A2172300518
381	Sungrow	SG250HX-V116_S	A2172300519
382	Sungrow	SG250HX-V116_S	A2172300520
383	Sungrow	SG250HX-V116_S	A2172300521
384	Sungrow	SG250HX-V116_S	A2172300523
385	Sungrow	SG250HX-V116_S	A2172300526
386	Sungrow	SG250HX-V116_S	A2172300528
387	Sungrow	SG250HX-V116_S	A2172300530
388	Sungrow	SG250HX-V116_S	A2172300533
389	Sungrow	SG250HX-V116_S	A2172300534
390	Sungrow	SG250HX-V116_S	A2172300535
391	Sungrow	SG250HX-V116_S	A2172300537
392	Sungrow	SG250HX-V116_S	A2172300538
393	Sungrow	SG250HX-V116_S	A2172300539
394	Sungrow	SG250HX-V116_S	A2172300541
395	Sungrow	SG250HX-V116_S	A2172300542
396	Sungrow	SG250HX-V116_S	A2172300569
397	Sungrow	SG250HX-V116_S	A2172300581
398	Sungrow	SG250HX-V116_S	A2172300582
399	Sungrow	SG250HX-V116_S	A2172300594
400	Sungrow	SG250HX-V116_S	A2172300622

401	Sungrow	SG250HX-V116_S	A2172300629
402	Sungrow	SG250HX-V116_S	A2172300630
403	Sungrow	SG250HX-V116_S	A2172300635
404	Sungrow	SG250HX-V116_S	A2172300636
405	Sungrow	SG250HX-V116_S	A2172300637
406	Sungrow	SG250HX-V116_S	A2172300643
407	Sungrow	SG250HX-V116_S	A2172300667
408	Sungrow	SG250HX-V116_S	A2172300671
409	Sungrow	SG250HX-V116_S	A2172300677
410	Sungrow	SG250HX-V116_S	A2172300678
411	Sungrow	SG250HX-V116_S	A2172400020
412	Sungrow	SG250HX-V116_S	A2172400021
413	Sungrow	SG250HX-V116_S	A2172400026
414	Sungrow	SG250HX-V116_S	A2172400027
415	Sungrow	SG250HX-V116_S	A2172400028
416	Sungrow	SG250HX-V116_S	A2172400029
417	Sungrow	SG250HX-V116_S	A2172400031
418	Sungrow	SG250HX-V116_S	A2172400040
419	Sungrow	SG250HX-V116_S	A2172400044
420	Sungrow	SG250HX-V116_S	A2172400046
421	Sungrow	SG250HX-V116_S	A2172400050
422	Sungrow	SG250HX-V116_S	A2172400051
423	Sungrow	SG250HX-V116_S	A2172400052
424	Sungrow	SG250HX-V116_S	A2172400053
425	Sungrow	SG250HX-V116_S	A2172400054
426	Sungrow	SG250HX-V116_S	A2172400057
427	Sungrow	SG250HX-V116_S	A2172400059
428	Sungrow	SG250HX-V116_S	A2172400063
429	Sungrow	SG250HX-V116_S	A2172400064
430	Sungrow	SG250HX-V116_S	A2172400066
431	Sungrow	SG250HX-V116_S	A2172400067
432	Sungrow	SG250HX-V116_S	A2172400068
433	Sungrow	SG250HX-V116_S	A2172400069
434	Sungrow	SG250HX-V116_S	A2172400072
435	Sungrow	SG250HX-V116_S	A2172400079
436	Sungrow	SG250HX-V116_S	A2172400081
437	Sungrow	SG250HX-V116_S	A2172400095
438	Sungrow	SG250HX-V116_S	A2172400097
439	Sungrow	SG250HX-V116_S	A2172400098
440	Sungrow	SG250HX-V116_S	A2172400104
441	Sungrow	SG250HX-V116_S	A2172400105
442	Sungrow	SG250HX-V116_S	A2172400106
443	Sungrow	SG250HX-V116_S	A2172400107
444	Sungrow	SG250HX-V116_S	A2172400157
445	Sungrow	SG250HX-V116_S	A2172400158

446	Sungrow	SG250HX-V116_S	A2172400163
447	Sungrow	SG250HX-V116_S	A2172400170
448	Sungrow	SG250HX-V116_S	A2172400174
449	Sungrow	SG250HX-V116_S	A2172400175
450	Sungrow	SG250HX-V116_S	A2172400176
451	Sungrow	SG250HX-V116_S	A2172400177
452	Sungrow	SG250HX-V116_S	A2172400178

Table 3: inverter data

3.1.2 PMD

Unit	OEM	Model	Serial
1	Sungrow	PMD-A6-UPS	A2221407874
2	Sungrow	PMD-A6-UPS	A2221910330
3	Sungrow	PMD-A6-UPS	A2221910313
4	Sungrow	PMD-A6-UPS	A2221910321
5	Sungrow	PMD-A6-UPS	A2221910324
6	Sungrow	PMD-A6-UPS	A2222243180
7	Sungrow	PMD-A6-UPS	A2222243187
8	Sungrow	PMD-A6-UPS	A2221910315
9	Sungrow	PMD-A6-UPS	A2222243186
10	Sungrow	PMD-A6-UPS	A2222243176
11	Sungrow	PMD-A6-UPS	A2221910318
12	Sungrow	PMD-A6-UPS	A2221910328
13	Sungrow	PMD-A6-UPS	A2221910331
14	Sungrow	PMD-A6-UPS	A2221910326
15	Sungrow	PMD-A6-UPS	A2222811186
16	Sungrow	PMD-A6-UPS	A2221910325
17	Sungrow	PMD-A6-UPS	A2222243169
18	Sungrow	PMD-A6-UPS	A2222811189
19	Sungrow	PMD-A6-UPS	A2221910314
20	Sungrow	PMD-A6-UPS	A2222243185
21	Sungrow	PMD-A6-UPS	A2222243188
22	Sungrow	PMD-A6-UPS	A2222243183
23	Sungrow	PMD-A6-UPS	A2221910327
24	Sungrow	PMD-A6-UPS	A2222243184
25	Sungrow	PMD-A6-UPS	A2221910329
26	Sungrow	PMD-A6-UPS	A2222243179
27	Sungrow	PMD-A6-UPS	A2222243182
28	Sungrow	PMD-A6-UPS	A2221910319

Table 4: PMD data

3.1.3 LV MV Tranformer Cabinet

Unit	OEM	Model	Serial
1	Sungrow	SFL-6300/33	A21C2231868
2	Sungrow	SFL-6300/33	A2210407675
3	Sungrow	SFL-6300/33	A2211700423
4	Sungrow	SFL-6300/33	A2211700410
5	Sungrow	SFL-6300/33	A21C2331864
6	Sungrow	SFL-6300/33	A2210900658
7	Sungrow	SFL-6300/33	A2210407677
8	Sungrow	SFL-6300/33	A21C2331867
9	Sungrow	SFL-6300/33	A2210407674
10	Sungrow	SFL-6300/33	A2210407676
11	Sungrow	SFL-6300/33	A2210900654
12	Sungrow	SFL-6300/33	A21C2331865
13	Sungrow	SFL-6300/33	A2210407673
14	Sungrow	SFL-6300/33	A2210407671
15	Sungrow	SFL-6300/33	A2211700412
16	Sungrow	SFL-6300/33	A2211700418
17	Sungrow	SFL-6300/33	A2211700420
18	Sungrow	SFL-6300/33	A2211700413
19	Sungrow	SFL-6300/33	A2211700353

Table 5: LV MV Transformer Cabinet

3.2 Scope of Supply

Position	Quantity	Description
1000		**Photovoltaic solar power plant equipment**
1001	158'241	**Panels** • *Longi* • *LR4-72HBD*
1002	452	**String Inverter** • *Sungrow* • *SG250HX-V116_S*
1003	28	**PMD** • *Sungrow* • *PMD-A6-UPS*
1004	19	**LV MV Tranformer Cabin** • *Sungrow* • *SFL-6300/33*
1005	142 Row max	**Tracker and structure** • *Nextracker* • *NX Horixon*

Table 6: scope of supply.

3.3 Exclusions

Scope not explicitly listed in the Scope of Supply (Table 6) is excluded.
The following items are explicitly excluded:

Mechanical
Modification of any existing systems not explicitly cited.
Missing parts and components.
Electrical
Modification of existing systems not explicitly cited.
Cables, missing parts and components.
Civil
Land preparation
Temporary accesses and final accessing roads

Security plan and hardware.
Temporary accommodation
Finishing and fencing
First aid station and ambulances
Waste disposal facility

Table 7: exclusions from the Scope of Supply.

Project Management
Attainability of installation, commissioning and operation permits, or any other permit.
Assessment and acceptance of safety relevant issues.
Any study, engineering, documentation, or other service.
Additional works resulting from changes in laws or any other reasons, for which EECC is not responsible.
Building of Site Facilities of any kind (lights, water supply and treatment, heating, power supply, etc.).
Custom duties and taxes.
Engineering
Design and detailed engineering of existing equipment.

Table 8: exclusions from scope of Services.

3.4 Technical documentation

Following documents are part of the technical documentation (list is preliminary):

Pos.	Document	Available
1	General	
1.1	Document & drawing list	yes
1.2	Technical data sheet	yes
1.3	Component manuals	yes
1.4	Quality documentation	yes

Table 9: technical documentation.

Other considerations: Global Solar Market Developments 2024 to 2027

The mid-term global economic outlook is uncertain and heavily dependent on the extent of the financial sector turmoil, the level of inflation, and the unfolding of the conflict in Ukraine. The International Monetary Fund (IMF), in its April released World Economic Outlook, not only predicts a slowdown in global growth for this year - which is supposed to drop from 3.4% in 2022 to 2.8% in 2023, and in advanced economies from 2.7% to 1.3%, and potentially even below 1% in the same period - it also outlines a “rocky recovery” after 3 years of COVID-19, projecting very little growth for 2024 – up to a 3% worldwide average, and 0.1% points in advanced economies. While global headline inflation is believed to fall from 8.7% to 7.0% as a result of lower commodity prices, the IMF sees the underlying core inflation declining slower, and mostly unlikely to return to target before 2025.

Despite these economic challenges, and as we can already experience in 2023, there will be significant demand for solar PV power in the coming years thanks to strong product price decreases and the multiple benefits the technology offers. As the climate emergency remains on the radar of governments - again and again reminded through climate disaster events - energy security is a fairly new argument to support the solar case. However, both priorities were reflected in the commitment of the G7 during their summit in April 2023 in Japan, when the group of 7 leading industrial nations agreed to add combined solar capacity of more than 1 TW by 2030, along with 150 GW offshore wind.

Compared to the previous GMO, solar PV forecasts for the years from 2024 onwards have been notably increased. The market in these years is expected to continue expanding in the low two-digit range after the extraordinary boost that took place in 2022 and 2023. Demand will be supported by the ongoing gigantic expansion of solar production capacities along the whole value chain, with established manufacturers investing heavily in additional capacities and many new players entering the market. As the emphasis on local production hubs has grown in light of global trade frictions and the increasing recognition of solar as a crucial technology for energy independence, the majority of the leading Chinese companies have already announced their intention to expand abroad.

SOURCE: solarpowereurope.org