IMPIANTO AGRO-FOTOVOLTAICO "MANIMUZZI" E OPERE CONNESSE

POTENZA IMPIANTO 19.8336 MWp
COMUNI DI COLLEPASSO E CASARANO (LE)

Proponente

EG ETRURIA S.R.L.
VIA DEI PELLEGRINI 22 · 20122 MILANO (MI) · P.IVA: 11769760965 · PEC: egetruria@pec.it

Progettazione

deve-loop
sviluppo sostenibile
DEVE-LOOP S.R.L. UNIPERSONALE
Via ORAZIO, 152
65128 - PESCARA (PE)
P.IVA: 02319140683

ARCH. GIANLUCA FRANCAVILLA

Farenti
FARENTI S.R.L.
Via DON GIUSEPPE CORDA
03030 - SANTOPADRE (FR)
P.IVA: 02604750600

ING. PIERO FARENTI

Farenti
Piero
06.05.2022
10:30:13
GMT+00:00

Coordinamento progettuale

ARCH. GIANLUCA FRANCAVILLA

DEVE-LOOP S.R.L. UNIPERSONALE
Via ORAZIO, 152 65128 - PESCARA (PE)
P.IVA: 02319140683· PEC: deve-loop@pec.it

deve-loop
sviluppo sostenibile

Titolo Elaborato

SCHEDE TECNICHE

LIVELLO PROGETTAZIONE	CODICE ELABORATO	FILENAME	RIFERIMENTO	DATA	SCALA
PROGETTO DEFINITIVO	**REL.11**	**---**	**---**	**04/2022**	**---**

Revisioni

REV.	DATA	DESCRIZIONE	ESEGUITO	VERIFICATO	APPROVATO
0.0	**04/2022**	**PRIMA EMISSIONE**	**FAR**	**DEV**	**ENF**

COMUNI DI COLLEPASSO
E CASARANO (LE)
REGIONE PUGLIA

enfinity

SG3400/3125/2500HV-MV-20

SUNGROW
Clean power for all

MV Turnkey Station for 1500 Vdc System - MV Separate Transformer + RMU

HIGH YIELD

- Advanced three-level technology, max. inverter efficiency 99 %

EASY O&M

- Integrated current, voltage and MV parameters monitoring function for online analysis and fast trouble shooting
- Modular design, easy for maintenance
- Convenient external touch screen

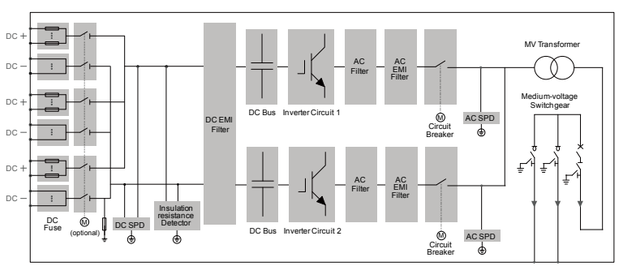
SAVED INVESTMENT

- Low transportation and installation cost due to 20-foot container design
- DC 1500 V system, low system cost Integrated MV transformer and switchgear
- Q at night function optional

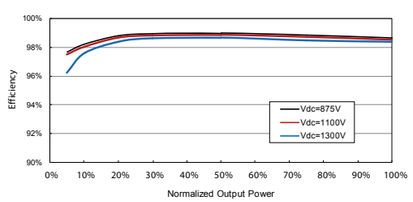
GRID SUPPORT

- Compliance with standards: IEC 61727, IEC 62116
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

CIRCUIT DIAGRAM



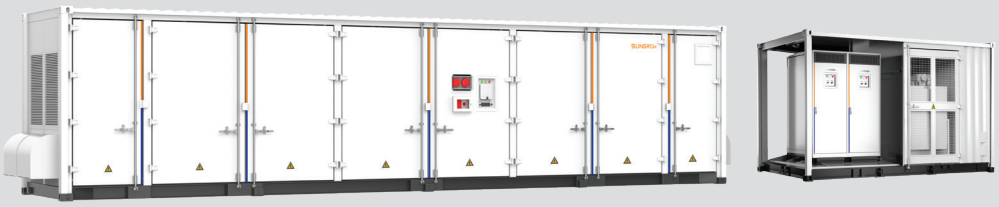
EFFICIENCY CURVE (SG3400HV-20)



Type designation	SG3400HV-MV-20	SG3125HV-MV-20	SG2500HV-MV-20
Input (DC)			
Max. PV input voltage		1500 V	
Min. PV input voltage / Startup input voltage	875 V / 915 V	875 V / 915 V	800 V / 840 V
MPP voltage range for nominal power	875 – 1300 V	875 – 1300 V	800 – 1300 V
No. of independent MPP inputs		1	
No. of DC inputs	21 (optional: 24 negative grounding or floating; 28 negative grounding)		18 – 24
Max. PV input current	4178 A	4178 A	3508 A
Output (AC)			
AC output power	3593 kVA@ 25 ℃ / 3437 kVA@ 45 ℃	3593 kVA@ 25 ℃ / 3437 kVA@ 45 ℃ / 3125 kVA@ 50 ℃	2750 kVA@ 45 ℃ / 2500 kVA@ 50 ℃
Max. AC output current	3458 A	3458 A	2886 A
AC voltage range		10 – 35 kV	
Nominal grid f requency / Grid f requency 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			
Inverter Max. efficiency		99.0 %	
Inverter Euro. efficiency		98.7 %	
Transformer			
Transformer rated power	3437 kVA	3125 kVA	2500 kVA
Transformer max. power	3593 kVA	3593 kVA	2750 kVA
LV / MV voltage	0.6 kV / 10 – 35 kV	0.6 kV / 10 – 35 kV	0.55 kV / 10 – 35 kV
Transformer vector		Dy11	
Transformer cooling type		ONAN (Oil Natural Air Natural)	
Oil type		Mineral oil (PCB free) or degradable oil on request	
Protection and Function			
DC input protection		Load break switch + fuse	
Inverter output protection		Circuit breaker	
AC MV output protection		Circuit breaker	
Overvoltage protection		DC Type I + II / A C Type II	
Grid monitoring / Ground fault monitoring		Yes / Yes	
Insulation monitoring		Yes	
Overheat protection		Yes	
Q at night function		Optional	
General Data			
Dimensions (W*H*D)		6058 * 2896 * 2438 mm	
Weight	17T	17 T	18T
Degree of protection	IP54 (Inverter: IP55)	IP54 (Inverter: IP55)	IP54
Auxiliary power supply	415 V, 15 kVA (Optional: max. 40 kVA)	415 V, 15 kVA (Optional: max. 40 kVA)	415 V, 5 kVA (Optional: max. 40 kVA)
Operating ambient temperature range	-35 to 60 ℃ (> 45 ℃ derating)	-35 to 60 ℃ (> 50 ℃ der ating)	-35 to 60 ℃ (> 50 ℃ derating)
Allowable relative humidity range (non-condensing)		0 – 95 %	
Cooling method		Temperature controlled forced air cooling	
Max. operating altitude		1000 m (standard) / > 1000 m (optional)	
Display		Touch screen	
Communication		Standard: RS485, Ethernet; Optional: optical fiber	
Compliance		CE, IEC 62109, IEC 62116, IEC 61727	
Grid support		Q at night function (optional), L / HVRT, active & reactive power control and power ramp rate control	

ST3440KWH(L)-3150UD-MV/ ST3727KWH(L)-3450UD-MV Preliminary

Energy Storage System



HIGH INTEGRATION

- Highly integrated energy storage system for easy transportation and O&M
- Advanced integration technology ensures optimal system performance and lower cost

SAFE AND RELIABLE

- DC electric circuit safety management includes fast breaking and anti-arc protection
- Multi-state monitoring and linkage actions ensure battery system safety

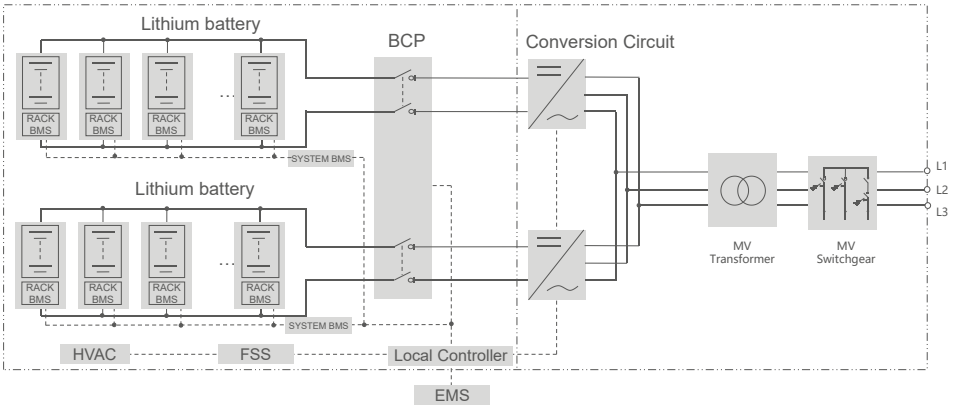
EFFICIENT AND FLEXIBLE

- Intelligent cell-level temperature control ensures higher efficiency and longer battery cycle life
- Modular design supports parallel connection and easy system expansion

SMART AND FRIENDLY

- Integrated local controller enables single point of communication interface
- Fast state monitoring and faults record enables pre-alarm and faults location

CIRCUIT DIAGRAM



System Type	ST3440KWH(L)-3150UD-MV	ST3727KWH(L)-3450UD-MV
Battery Data		
Cell type	LFP 280Ah	
Configuration of system	384S10P	416S10P
Battery capacity (BOL)	3,440 kWh	3,727 kWh
Battery voltage range	1,036.8 ~ 1,401.6 V	1123.2 ~ 1,497.6 V
BMS communication interfaces	RS485, Ethernet	
BMS communication protocols	Modbus RTU, Modbus TCP	
AC Data		
Nominal AC power	3,150 kVA	3,450 kVA
Max. THD of current	< 3 % (at nominal power)	
DC component	< 0.5 % (at nominal power)	
Grid voltage range	10 ~ 35 kV	
Power factor	> 0.99 (at nominal power)	
Adjustable power factor	1.0 leading ~ 1.0 lagging	
Nominal grid frequency	50 / 60 Hz	
Grid frequency range	45 ~ 55 Hz / 55 ~ 65 Hz	
Isolation method	Transformer	
Transformer		
Transformer rated power	3,150 kVA	3,450 kVA
LV/MV voltage	0.63 kV / 10 ~ 35 kV	0.69 kV / 10 ~ 35 kV
Transformer vector	Dy11	
Transformer cooling type	ONAN (Oil Natural Air Natural)	
Oil type	Mineral oil (PCB free) or degradable oil on request	
General Data		
Dimensions of PCS unit (W * H * D)	6,058 * 2,896 * 2,438 mm / 238.5" * 114.0" * 96.0"	
Dimensions of battery unit (W * H * D)	12,192 * 2,896 * 2,438 mm / 480.0'' * 114.0'' * 96.0''	
Weight of PCS unit (with MV transformer)	16.0 T / 35274 lbs	
Weight of battery unit (with / without battery)	43.5T 95,901.1 lbs / 15.5 T 34,171.7 lbs	45.5T 100,310.3 lbs / 15.5 T 34,171.7 lbs
Degree of protection	IP54	
Operating temperature range	-30 to 50 ℃ / -22 to 122 ℉ (> 45 ℃ / 113 ℉ derating)	
Relative humidity	0 ~ 95 % (non-condensing)	
Max. working altitude	1,000 m (standard) > 1,000 m (optional)	
Cooling concept of battery chamber	Heating, Ventilation and Air Conditioning	
Cooling concept of PCS chamber	Temperature controlled forced air cooling	
Fire suppression system of battery unit	Novec1230 extinguishment system	
Communication interfaces	RS485, Ethernet	
Communication protocols	Modbus RTU, Modbus TCP, IEC 104	
Compliance	CE, IEC 62477-1, IEC 61000-6-2, IEC61000-6-4, IEC62619	

SUNGROW
Clean power for all

LFP Li-ion Battery System New

Over 1 hour

EFFICIENT & HIGH YIELD

- 20-year service life, 8000+ times system-level cycle life
- Support 1500V system, reduce AC side loss by 60%
- Deep charge & discharge design, initial investment saves more than 5%

INTELLIGENT & FRIENDLY

- 40-foot container can hold 4.4MWh, compatible downwards
- Oneline estimation of SOC & SOH based on scenes and big data
- Support cloud platform, remote real-time monitoring and fault identification

SAFE & RELIABLE

- Two-level short-circuit protection, graded fast current limiting
- Fool-proof, anti-reverse connection design, safer installation and maintenance
- Patented air duct and intelligent air cooling design, temperature difference < 3℃
- Meet global high standard authoritative certification requirements

Item	Specification
Model	M2L-M143
Charge&discharge rate	≤ 1C
Cell type	LFP 280Ah
Configuration	1P16S
Capacity	280 Ah
Nominal energy	14.3 kWh
Charging&discharging power	≤ 14.3 kW
Nominal voltage	51.2 V
Operating voltage range	43.2 V–58.4 V
Dimensions (W*H*D)	455*230*760mm
Weight	105 kg

Item	Specification
Model	M2L-R372
Charge&discharge rate	≤ 1C
Cell type	LFP 280Ah
Configuration	1P416S
Key component	PACK*26+SG*1
Capacity	280 Ah
Nominal energy	372,7 kWh
Charging&discharging power	≤ 372.7 kW
Nominal voltage	1331.2 V
Operating voltage range	1123.2V–1497.6 V
Dimensions (W*H*D)	1500*2285*760 mm


Soltec
SF7
Bi-facial
From both
sides now
The next-generation-now horizontal single-axis solar tracker
LISTED
[PV SOLAR TRACKER]
E476688
SGS
SGS
SGS
SGS
ANATEL
07441-17-10783
IEC 62817
TÜVRheinland
CERTIFIED
FC
INTI
FINAME
BNDES

TECHNICAL DATASHEET

SF7 Bi-facial

Single-Axis Tracker

MAIN FEATURES

Tracking System	Horizontal Single-Axis with independent rows
Tracking Range	up to ± 60°
Drive System	Enclosed Slewing Drive, DC Motor
Power Supply	AC/DC Universal Input
	Optional: Self-Powered PV Series
Tracking Algorithm	Astronomical with TeamTrack Backtracking
Communication	
RS-485 cable not included in Soltec scope	
Wire	RS-485 Full Wired
Wireless optional:	Hybrid Radio + RS-485 Cable
	Full Wireless
Wind Resistance	Per Local Codes
Land Use Features	
Independent Rows	YES
Slope North-South	up to 17%
Slope East-West	Unlimited
Ground Coverage Ratio	Configurable. Typical range: 30-50%
Foundation	Driven Pile | Ground Screw | Concrete
Temperature Range	
Standard	- 4°F to +131°F | -20°C to +55°C
Extended	-40°F to +131°F | -40°C to +55°C
Availability	>99%
Modules	Bifacial

MODULE CONFIGURATIONS Approximate Dimensions

	Length	Height	Width
2x27	28.1 m (92' 3")	4.21 m (13' 10")	4.17 m (13' 8")
2x28	29.6 m (97' 1")		

	Length	Height	Width
2x40.5	42.4 m (139' 3")	4.21 m (13' 10")	4.17 m (13' 8")
2x42	44 m (144' 4")		

SERVICES

Pull Test Plan	Commissioning Plan
Factory Support Plan	Operation & Maintenance Plan
Onsite Advisory Plan	Tracker Monitoring System Plan
Construction Plan	Solmate Customer Care

MAINTENANCE ADVANTAGES

- Self-lubricating Bearings
- Face to Face Cleaning Mode
- 2x Wider Aisles

WARRANTY

Structure	10 years (extendable)
Motor	5 years (extendable)
Electronics	5 years (extendable)

SPAIN / Headquarters
Pol. Ind. La Serreta
Gabriel Campillo, s/n, 30500
Molina de Segura, Murcia, Spain
info@soltec.com
+34 968 603 153

MADRID
Núñez de Balboa 33, 1ªA
28001 Madrid
emea@soltec.com
+34 91 449 72 03

UNITED STATES
usa@soltec.com
+1 510 440 9200

BRAZIL
brasil@soltec.com
+55 071 3026 4900

MEXICO
mexico@soltec.com
+52 1 55 5557 3144

CHILE
chile@soltec.com
+56 2 25738559

PERU
peru@soltec.com
+51 1422 7279

INDIA
india@soltec.com
+91 124 4568202

AUSTRALIA
australia@soltec.com
+61 2 9275 8806

CHINA
china@soltec.com
+86 21 66285799

ARGENTINA
argentina@soltec.com
+54 9 114 889 1476

EGYPT
egypt@soltec.com

B&V Bankability report
DNV GL Technology Review available
RWDI WIND TUNNEL TESTED

2 year background industrial operation

Soltec

www.soltec.com

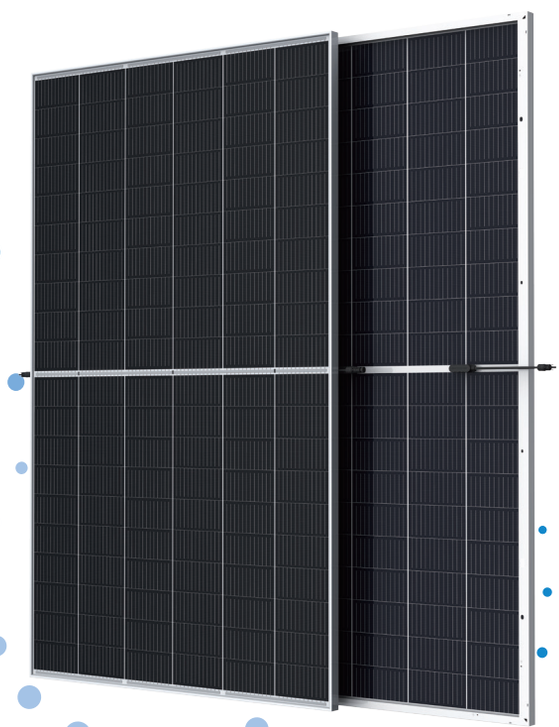
Vertex

BIFACIAL DUAL GLASS MONOCRYSTALLINE MODULE

PRODUCT: TSM-DEG20C.20

PRODUCT RANGE: 580-600W

600W	0~+5W	21.2%
MAXIMUM POWER OUTPUT	POSITIVE POWER TOLERANCE	MAXIMUM EFFICIENCY



High customer value

- Lower LCOE (Levelized Cost of Energy), reduced BOS (Balance of System) cost, shorter payback time
- Lowest guaranteed first year and annual degradation;
- Designed for compatibility with existing mainstream system components
- Higher return on Investment

High power up to 600W

- Up to 21.2% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection

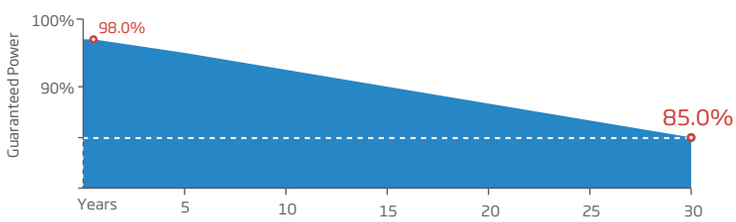
High reliability

- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load

High energy yield

- Excellent IAM (Incident Angle Modifier) and low irradiation performance, validated by 3rd party certifications
- The unique design provides optimized energy production under inter-row shading conditions
- Lower temperature coefficient (-0.34%) and operating temperature
- Up to 25% additional power gain from back side depending on albedo

Trina Solar's Vertex Bifacial Dual Glass Performance Warranty



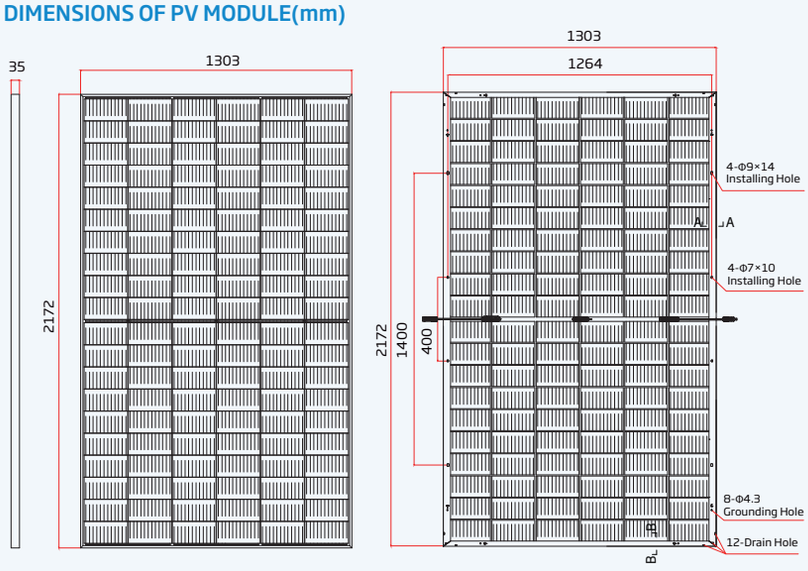
Comprehensive Products and System Certificates

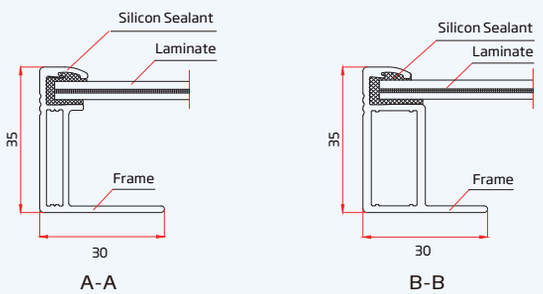
IEC61215/IEC61730/IEC61701/IEC62716/UL61730
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Verification
ISO45001: Occupational Health and Safety Management System

Trinasolar

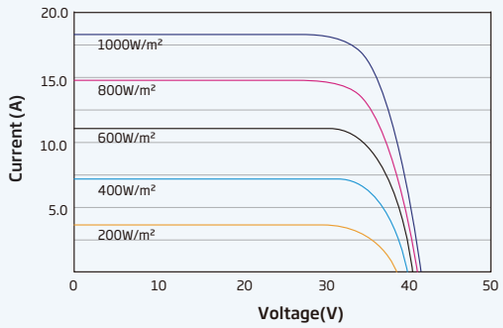
Vertex BIFACIAL DUAL GLASS MONOCRYSTALLINE MODULE

DIMENSIONS OF PV MODULE(mm)

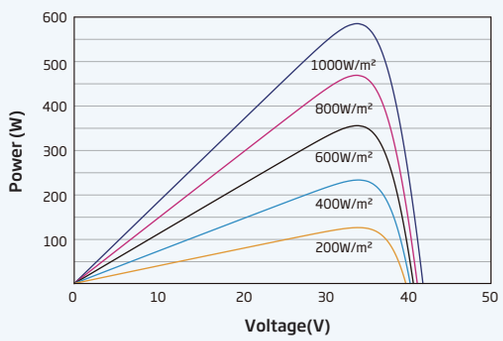




I-V CURVES OF PV MODULE(590 W)



P-V CURVES OF PV MODULE(590 W)



ELECTRICAL DATA (STC)

Peak Power Watts-PMAX (Wp)*	580	585	590	595	600
Power Tolerance-PMAX (W)			0 ~ +5		
Maximum Power Voltage-VMPP (V)	33.8	34.0	34.2	34.4	34.6
Maximum Power Current-IMPP (A)	17.16	17.21	17.25	17.30	17.34
Open Circuit Voltage-VOC (V)	40.9	41.1	41.3	41.5	41.7
Short Circuit Current-ISC (A)	18.21	18.26	18.31	18.36	18.42
Module Efficiency η m (%)	20.5	20.7	20.8	21.0	21.2

STC: Irrdiance 1000W/m2, Cell Temperature 25°C, Air Mass AM1.5. *Measuring tolerance: ±3%.

Electrical characteristics with different power bin (reference to 10% Irradiance ratio)

Total Equivalent power -PMAX (Wp)	621	626	631	637	642
Maximum Power Voltage-VMPP (V)	33.8	34.0	34.2	34.4	34.6
Maximum Power Current-IMPP (A)	18.36	18.41	18.46	18.51	18.55
Open Circuit Voltage-VOC (V)	40.9	41.1	41.3	41.5	41.7
Short Circuit Current-ISC (A)	19.48	19.54	19.59	19.65	19.71
Irradiance ratio (rear/front)			10%		

Power Bifaciality:70±5%.

ELECTRICAL DATA (NOCT)

Maximum Power-PMAX (Wp)	439	443	447	451	454
Maximum Power Voltage-VMPP (V)	31.5	31.7	31.9	32.0	32.2
Maximum Power Current-IMPP (A)	13.93	13.97	14.01	14.06	14.10
Open Circuit Voltage-VOC (V)	38.5	38.7	38.9	39.1	39.3
Short Circuit Current-ISC (A)	14.68	14.72	14.76	14.80	14.84

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

Solar Cells	Monocrystalline
No. of cells	120 cells
Module Dimensions	2172×1303×35 mm (85.51×51.30×1.38 inches)
Weight	35.3 kg (77.8 lb)
Front Glass	2.0 mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	EVA/POE
Back Glass	2.0 mm (0.08 inches), Heat Strengthened Glass (White Grid Glass)
Frame	35mm(1.38 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²), Portrait: 280/280 mm(11.02/11.02 inches) Length can be customized
Connector	MC4 EVO2 / TS4*

*Please refer to regional datasheet for specified connector.

TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of PMAX	- 0.34%/°C
Temperature Coefficient of VOC	- 0.25%/°C
Temperature Coefficient of ISC	0.04%/°C

MAXIMUMRATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
	1500V DC (UL)
Max Series Fuse Rating	35A

WARRANTY

12 year Product Workmanship Warranty

30 year Power Warranty

2% first year degradation

0.45% Annual Power Attenuation

(Please refer to product warranty for details)

PACKAGING CONFIGUREATION

Modules per box: 25/36 pieces

Modules per 40' container: 549 pieces

Trinasolar

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

Version number: TSM_EN_2021_B

www.trinasolar.com

SUN2000-215KTL-H3
Smart String Inverter

100A
Per MPPT

99.0%
Max. Efficiency

String-Smart
Switch

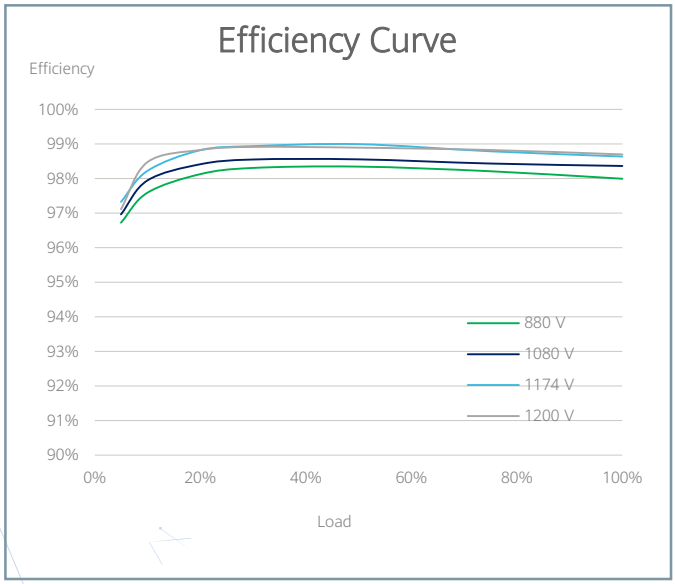
Smart I-V Curve
Diagnosis Supported

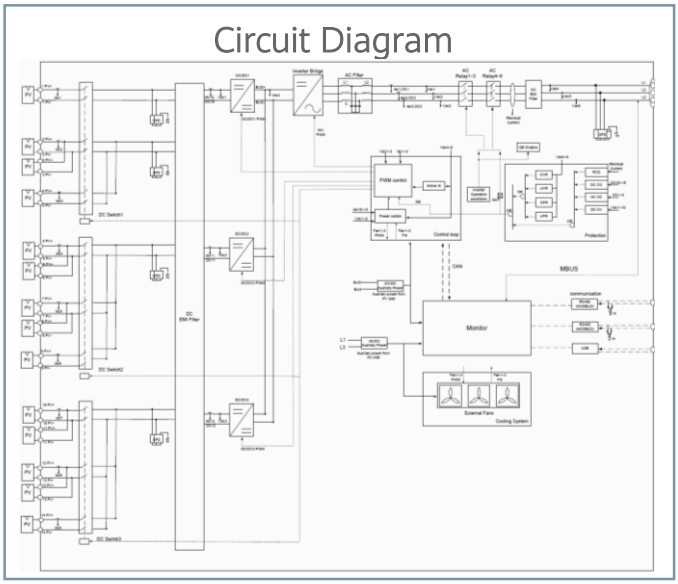
MBUS
Supported

Fuse Free
Design

Surge Arresters for
DC & AC

IP66
Protection





SUN2000-215KTL-H3

Technical Specifications

Efficiency	
Max. Efficiency	≥99.0%
European Efficiency	≥98.6%
Input	
Max. Input Voltage	1,500 V
Number of MPP Trackers	3
Max. Current per MPPT	100A/100A/100A
Max. PV Inputs per MPPT	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	200,000 W
Max. AC Apparent Power	215,000 VA
Max. AC Active Power (cosϕ=1)	215,000 W
Nominal Output Voltage	800 V, 3W + PE
Rated AC Grid Frequency	50 Hz / 60 Hz
Nominal Output Current	144.4 A
Max. Output Current	155.2 A
Adjustable Power Factor Range	0.8 LG ... 0.8 LD
Max. Total Harmonic Distortion	< 1%
Protection	
Input-side Disconnection Device	Yes
Anti-islanding Protection	Yes
AC Overcurrent Protection	Yes
DC Reverse-polarity Protection	Yes
PV-array String Fault Monitoring	Yes
DC Surge Arrester	Type II
AC Surge Arrester	Type II
DC Insulation Resistance Detection	Yes
Residual Current Monitoring Unit	Yes
Communication	
Display	LED Indicators, WLAN + APP
USB	Yes
MBUS	Yes
RS485	Yes
General	
Dimensions (W x H x D)	1,035 x 700 x 365 mm (40.7 x 27.6 x 14.4 inch)
Weight (with mounting plate)	≤86 kg (191.8 lb.)
Operating Temperature Range	-25°C ~ 60°C (-13°F ~ 140°F)
Cooling Method	Smart Air Cooling
Max. Operating Altitude without Derating	4,000 m (13,123 ft.)
Relative Humidity	0 ~ 100%
DC Connector	Staubli MC4 EVO2
AC Connector	Waterproof Connector + OT/DT Terminal
Protection Degree	IP66
Topology	Transformerless

Energia solare
Solar energy

FG21M21 P-Sun™

0,6/1 kV

Informazioni per la scelta dei cavi / *Cables selection data*

Formazione nominale *Nominal cross-section* **(n x mm²)**	Diametro conduttore indicativo *Conductor diameter (approx.)* **(mm)**	Spessore isolante minimo medio *Insulation thickness (min. medium)* **(mm)**	Spessore guaina minimo medio *Sheath thickness (min. medium)* **(mm)**	Diametro esterno massimo *Outer diameter (max.)* **(mm)**	Peso indicativo *Weight (approx.)* **(kg/km)**	Resistenza elettrica in c.c. a 20 °C massima *Electrical D.C. resistance at 20 °C (max.)* **(Ω/km)**	Portata di corrente a 60 °C in aria singolo cavo *Current carrying capacity at 60 °C in air 1 cable* **(A)**
1 x 1,5	1,5	0,7	0,8	5,1	35	13,7	30
1 x 2,5	2,0	0,7	0,8	5,7	46	8,21	41
1 x 4	2,5	0,7	0,8	6,2	60	5,09	55
1 x 6	3,0	0,7	0,9	6,9	85	3,39	70
1 x 10	3,9	0,7	1,0	8,2	130	1,95	98
1 x 16	5,0	0,7	1,0	9,3	195	1,24	132
1 x 25	6,4	0,9	1,1	11,4	290	0,795	176
1 x 35	7,7	0,9	1,1	12,8	376	0,565	218
1 x 50	9,2	1,0	1,2	14,8	535	0,393	276
1 x 70	11,0	1,1	1,2	16,9	740	0,277	347
1 x 95	12,5	1,1	1,3	18,7	940	0,210	416
1 x 120	14,2	1,2	1,3	20,7	1215	0,164	488
1 x 150 (*)	15,8	1,4	1,4	23,5	1530	0,132	566
1 x 185 (*)	17,5	1,6	1,4	25,2	1820	0,108	644
1 x 240 (*)	20,1	1,7	1,5	28,3	2340	0,0817	775

Per portate di corrente in diverse condizioni di posa vedi CEI 20-91; V2
For current carrying capacity in different installation conditions refer to CEI 20-91; V2

Note / *Notes:*
(*) Sezioni non previste dalla norma CEI 20-91, cavi senza marchio IMQ (costruzione e caratteristiche basate su norma CEI 20-91)
(*) *Cross sections not foreseen by the standard CEI 20-91, cables without IMQ mark (construction and characteristics based on CEI 20-91)*

FG16OR16 0,6/1 kV G16TOP

FG16OR16

sezione nominale	diametro indicativo conduttore	spessore medio isolante	diametro esterno massimo	peso indicativo del cavo	resistenza massima a 20 °C in c. c.	portata di corrente (A) con temperatura ambiente di 30 °C in aria	30 °C in tubo in aria	20 °C interrato in tubo		20 °C interrato		raggio minimo di curvatura
conductor cross-section	*approximate conductor diameter*	*average insulation thickness*	*maximum outer diameter*	*approx. weight*	*maximum DC resistance at 20 °C*	*permissible current rating (A) in open air at 30 °C*	*in duct in air at 30 °C*	*in buried duct at 20 °C*		*buried at 20 °C*		*minimum bending radius*
(mm²)	(mm)	(mm)	(mm)	(kg/km)	(Ω/km)			ρ=1°C m/W	ρ=1,5 °C m/W	ρ=1 °C m/W	ρ=1,5 °C m/W	(mm)
2 conduttori / *2 cores* - tab. CEI-UNEL 35318												
1,5	1,5	0,7	12,0	150	13,3	26	22	24	23	36	31	108
2,5	2,0	0,7	13,0	190	7,98	36	30	31	30	47	41	117
4,0	2,5	0,7	14,2	240	4,95	49	40	41	39	61	55	128
6,0	3,0	0,7	15,4	310	3,30	63	51	52	49	77	68	139
10,0	3,9	0,7	17,3	440	1,91	86	69	70	66	105	92	156
16,0	5,0	0,7	19,4	600	1,21	115	91	92	86	136	120	175
25,0	6,4	0,9	23,0	850	0,780	149	119	118	111	177	156	207
35,0	7,7	0,9	25,7	1130	0,554	185	145	145	136	212	185	231
50,0	9,2	1,0	29,3	1580	0,386	225	175	180	168	252	221	264
70,0	11,0	1,1	53,1	2050	0,272	300	220	230	217	335	289	298
3 conduttori / *3 cores* - tab. CEI-UNEL 35318												
1,5	1,5	0,7	12,5	170	13,3	23	19,5	20	19	30	26	112
2,5	2,0	0,7	13,6	220	7,98	32	26	26	25	40	36	122
4,0	2,5	0,7	14,9	280	4,95	42	35	33	32	51	45	134
6,0	3,0	0,7	16,2	370	3,30	54	44	43	41	65	56	146
10,0	3,9	0,7	18,2	530	1,91	75	60	59	55	88	78	164
16,0	5,0	0,7	20,6	740	1,21	100	80	76	72	114	101	185
25,0	6,4	0,9	24,5	1060	0,780	127	105	100	93	148	130	220
35,0	7,7	0,9	27,3	1420	0,554	158	128	122	114	178	157	246
50,0	9,2	1,0	31,2	1960	0,386	192	154	152	141	211	185	281
70,0	11,0	1,1	35,6	2700	0,272	246	194	189	174	259	227	320
95,0	12,5	1,1	40,0	3430	0,206	298	233	226	206	311	274	360
120,0	14,2	1,2	44,4	4390	0,161	346	268	260	238	355	311	400
150,0	15,8	1,4	49,5	5400	0,129	399	300	299	272	394	345	445
3 conduttori con giallo/verde / *3 cores with yellow/green* - tab. CEI-UNEL 35318												
1,5	1,5	0,7	12,5	170	13,3	26	22	24	23	36	31	112
2,5	2,0	0,7	13,6	220	7,98	36	30	31	30	47	41	122
4,0	2,5	0,7	14,9	280	4,95	49	40	41	39	61	55	134
6,0	3,0	0,7	16,2	370	3,30	63	51	52	49	77	68	146
10,0	3,9	0,7	18,2	530	1,91	86	69	70	66	105	92	164
16,0	5,0	0,7	20,6	740	1,21	115	91	92	86	136	120	185
25,0	6,4	0,9	24,5	1060	0,780	149	119	118	111	177	156	220
35,0	7,7	0,9	27,3	1420	0,554	185	146	145	136	212	185	246
50,0	9,2	1,0	31,2	1960	0,386	225	175	180	168	252	221	281
70,0	11,0	1,1	35,6	2700	0,272	289	221	223	207	310	272	320
95,0	12,5	1,1	40,0	3430	0,206	352	265	265	245	371	325	360
120,0	14,2	1,2	44,4	4390	0,161	410	305	310	284	423	370	400
150,0	15,8	1,4	49,5	5400	0,129	399	300	299	272	394	345	445