

Single Phase Hybrid Inverter

SUN-3.6/5/6/7/7.6/8/10K-SG05LP1-EU-AM2-P



Colorful touch LCD, IP65 protection degree



AC couple to retrofit existing solar system



Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel



Max. charging/discharging current of 190A



6 time periods for battery charging/discharging



Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

Model	SUN-3.6K-SG05 LP1-EU-AM2-P	SUN-5K-SG05 LP1-EU-AM2-P	SUN-6K-SG05 LP1-EU-AM2-P	SUN-7K-SG05 LP1-EU-AM2-P	SUN-7.6K-SG05 LP1-EU-AM2-P	SUN-8K-SG05 LP1-EU-AM2-P	SUN-10K-SG05 LP1-EU-AM2-P
Battery Input Data							
Battery Type	Lead-acid or Lithium-ion						
Battery Voltage Range (V)	40-60						
Max. Charging Current (A)	90	120	135	175	190	190	210
Max. Discharging Current (A)	90	120	135	175	190	190	210
Charging Strategy for Li-ion Battery	Self-adaption to BMS						
Number of Battery Input	1						
PV String Input Data							
Max. PV Access Power (W)	7200	10000	12000	14000	15200	16000	20000
Max. PV Input Power (W)	5760	8000	9600	11200	12160	12800	16000
Max. PV Input Voltage (V)	500						
Start-up Voltage (V)	125						
MPPT Voltage Range (V)	150-425						
Rated PV Input Voltage (V)	370						
Max. Operating PV Input Current (A)	18+18			32+32			
Max. Input Short-Circuit Current (A)	27+27			48+48			
No. of MPP Trackers/ No. of Strings MPP Tracker	2/1+1			2/2+2			
AC Input/Output Data							
Rated AC Input/Output Active Power (W)	3600	5000	6000	7000	7600	8000	10000
Max. AC Input/Output Apparent Power (VA)	3960	5500	6600	7700	8360	8800	11000
Rated AC Input/Output Current (A)	16.4/15.7	22.7/21.7	27.3/26.1	31.9/30.5	34.5/33	36.4/34.8	45.5/43.5
Max. AC Input/Output Current (A)	18/17.2	25/23.9	30/28.7	35/33.5	38/36.3	40/38.3	50/47.9
Max. Continuous AC Passthrough (grid to load) (A)	35		40	50			
Peak Power (off-grid) (W)	2 times of rated power, 10s						
Power Factor Adjustment Range	0.8 leading to 0.8 lagging						
Rated Input/Output Voltage/Range (V)	220/230 0.85Un-1.1Un						
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65						
Grid Connection Form	L+N+PE						
Total Current Harmonic Distortion THDi	<3% (of nominal power)						
DC Injection Current	<0.5% In						
Efficiency							
Max. Efficiency	97.6%						
Euro Efficiency	96.5%						
MPPT Efficiency	>99%						
Equipment Protection							
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection						
Surge Protection Level	TYPE II(DC), TYPE II(AC)						
Interface							
Communication Interface	RS485/RS232/CAN						
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)						
General Data							
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating						
Permissible Ambient Humidity	0-100%						
Permissible Altitude	2500m						
Noise (dB)	<30						
Ingress Protection(IP) Rating	IP 65						
Inverter Topology	Non-Isolated						
Over Voltage Category	OVC II(DC), OVC III(AC)						
Cabinet Size (WxHxD mm)	330×580×232 (Excluding Connectors and Brackets)						
Weight (kg)	24.9						
Type of Cooling	Intelligent Air Cooling						
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy						
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G98, G99, VDE-AR-N 4105						
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2						








51.2V

LiFePO4 Battery Pack

Low-voltage

10.5kWh

Features

-  Built-in fire protection system.
-  Scalable expansion up to 15 pcs in parallel.
-  Built-in WiFi for remote monitor the battery pack data.
-  LiFePO4: Higher safe performance and longer cycle life.
-  Multiple Protection with built-in smart BMS, breaker and fuse.
-  Compatible with leading inverter brands.
-  Up to 7-year long warranty.



FLA48200-P



Model	FLA48200-P
Battery Type	LiFePO4
Nominal Energy	10.5kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current[1]	≤150A
Recommend Charge/Discharge Power[1]	≤7,500W
Maximum Charge/Discharge Current(15s)	200A
Maximum Charge/Discharge Power(15s)	10,000W
Scalability	Max. 15 pcs in Parallel(157.4kWh)
Depth of Discharge(DOD)	≥95%
Communication	RS485/CAN
Protection Degree	IP21
Cycle Life	≥ 6,000 Cycles (25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)
Charging Temperature Range	0°C~+55 °C
Discharging Temperature Range	-20°C~+55 °C
Display Type	LCD+LED
Installation	Wall-Mounted / Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty Period	7 Years
Certification	UN38.3、CE-EMC、 IEC 62619
Product Weight	92KG
Package Weight	115.6KG
Product Dimension	783X450X274MM
Package Dimension	900X570X450MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

*Product specifications may vary during continuous improvements. Please contact us for latest details.

*Refer to Felicitysolar's Warranty Policy for applicable conditions.

Product Display



Built-in WiFi/Bluetooth for Remote Monitoring



Aerosol Fire Extinguishing System



Supports wall-mounted Installation



Wide Inverter Compatibility

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Official Website



Facebook

NEOSTAR

2P Mono-Glass Module
450W-485W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



red dot winner 2023



Product Warranty
Extendable to 25years*



Performance Warranty



Warranty partner

Munich RE 

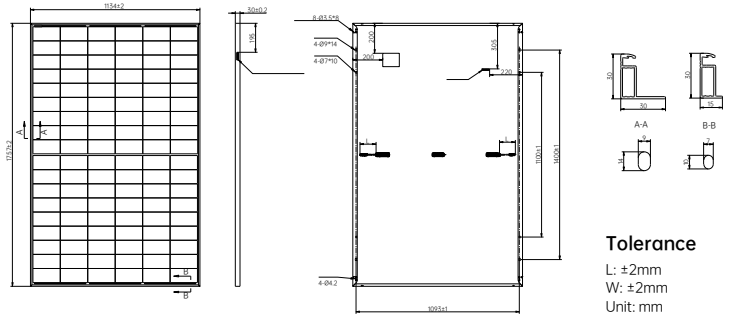
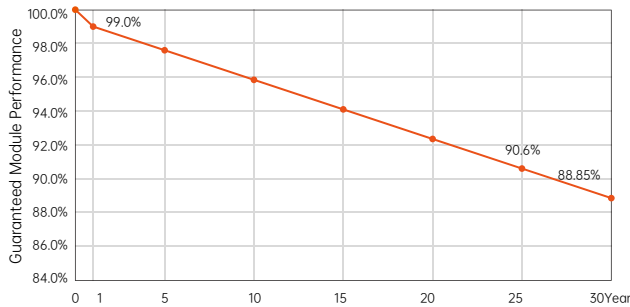
485W
Output

24.3%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0~ + 3%

Module Type	AIKO-A450-MAH54Mw	AIKO-A455-MAH54Mw	AIKO-A460-MAH54Mw	AIKO-A465-MAH54Mw	AIKO-A470-MAH54Mw	AIKO-A475-MAH54Mw	AIKO-A480-MAH54Mw	AIKO-A485-MAH54Mw
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	450	339	455	343	460	346	465	350
V _{oc} [V]	40.94	38.66	41.00	38.72	41.06	38.77	41.12	38.83
V _{mp} [V]	34.50	32.58	34.56	32.64	34.62	32.69	34.68	32.75
I _{sc} [A]	14.12	11.42	14.22	11.50	14.25	11.52	14.29	11.55
I _{mp} [A]	13.05	10.41	13.17	10.51	13.29	10.61	13.41	10.71
Module Efficiency	22.6%	22.8%	23.1%	23.3%	23.6%	23.8%	24.1%	24.3%

Product Specification

Cell Type	N-Type ABC
Glass	3.2 mm tempered glass
Frame	Black Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3 bypass diodes
Connector	Original MC4
Weight	20.6kg±3%
Dimension	1757*1134*30mm
Package Detail	37pcs per pallet / 222pcs per 20'GP / 962pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

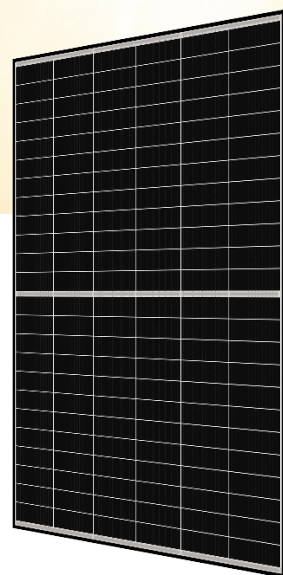
Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	ClassII
V _{oc} and I _{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	40 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



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*AIKO reserves right to update the specification without notice
V3.2_202501_DsDr_EN



TOPHiKu6

N-type TOPCon Technology

440 W ~ 470 W

CS6.2-48TD-440 | 445 | 450 | 455 | 460 | 465 | 470

MORE POWER



Module power up to 470 W
Module efficiency up to 23.5 %



Excellent anti-LeTID & anti-PID performance.
Low power degradation, high energy yield



Lower temperature coefficient (Pmax): $-0.29\%/^{\circ}\text{C}$,
increases energy yield in hot climate



Lower LCOE & system cost

MORE RELIABLE



Tested up to ice ball of 35 mm diameter
according to IEC 61215 standard



Minimizes micro-crack impacts



Heavy snow load up to 6000 Pa,
wind load up to 4000 Pa*



Industry Leading Product Warranty on Materials and Workmanship*



Linear Power Performance Warranty*

**1st year power degradation no more than 1%
Subsequent annual power degradation no more than 0.4%**

*Subject to the terms and conditions contained in the applicable Canadian Solar Limited Warranty Statement. Also this 25-year limited product warranty is available only for products installed and operating on rooftops in certain regions.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001: 2015 / Quality management system
ISO 14001: 2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety
IEC 62941: 2019 / Photovoltaic module manufacturing quality system

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730 / CE
UL 61730 / IEC 61701 / IEC 62716 / IEC 60068-2-68
UNI 9177 Reaction to Fire: Class 1 / Take-e-way



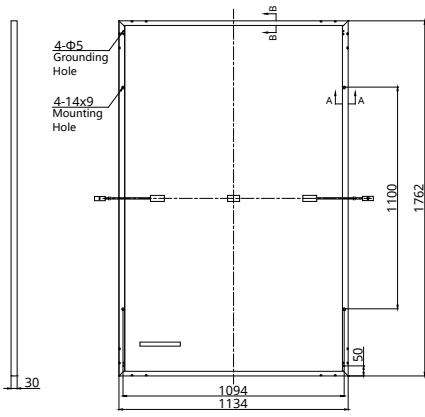
* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates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

CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 23 years, it has successfully delivered over 133 GW of premium-quality solar modules across the world.

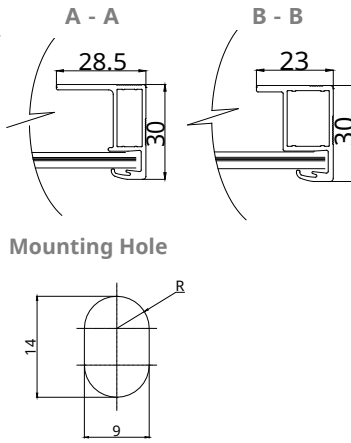
* For detailed information, please refer to the Installation Manual.

ENGINEERING DRAWING (mm)

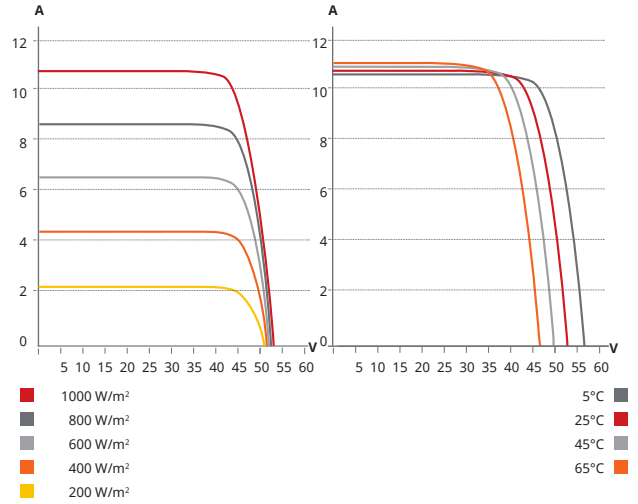
Rear View



Frame Cross Section



CS6.2-48TD-455 / I-V CURVES



ELECTRICAL DATA | STC*

CS6.2-48TD	440	445	450	455	460	465	470
Nominal Max. Power (Pmax)	440 W	445 W	450 W	455 W	460 W	465 W	470 W
Opt. Operating Voltage (Vmp)	44.4 V	44.6 V	44.8 V	45.0 V	45.2 V	45.4 V	45.6 V
Opt. Operating Current (Imp)	9.91 A	9.98 A	10.05 A	10.12 A	10.18 A	10.25 A	10.32 A
Open Circuit Voltage (Voc)	52.5 V	52.7 V	52.9 V	53.1 V	53.3 V	53.5 V	53.7 V
Short Circuit Current (Isc)	10.54 A	10.61 A	10.68 A	10.75 A	10.82 A	10.89 A	10.96 A
Module Efficiency	22.0%	22.3%	22.5%	22.8%	23.0%	23.3%	23.5%
Operating Temperature	-40°C ~ +85°C						
Max. System Voltage	1500V (IEC/UL)						
Module Fire Performance	TYPE 29 (UL 61730) or CLASS C (IEC 61730)						
Max. Series Fuse Rating	20 A						
Protection Class	Class II						
Power Tolerance	0 ~ + 10 W						

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

ELECTRICAL DATA | NMOT*

CS6.2-48TD	440	445	450	455	460	465	470
Nominal Max. Power (Pmax)	333 W	337 W	340 W	344 W	348 W	352 W	356 W
Opt. Operating Voltage (Vmp)	42.0 V	42.2 V	42.4 V	42.5 V	42.7 V	42.9 V	43.1 V
Opt. Operating Current (Imp)	7.93 A	7.98 A	8.04 A	8.09 A	8.14 A	8.20 A	8.25 A
Open Circuit Voltage (Voc)	49.7 V	49.9 V	50.1 V	50.3 V	50.5 V	50.7 V	50.8 V
Short Circuit Current (Isc)	8.49 A	8.55 A	8.60 A	8.66 A	8.72 A	8.77 A	8.83 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

MECHANICAL DATA

Specification	Data
Cell Type	TOPCon cells
Cell Arrangement	144 [2 x (12 x 6)]
Dimensions	1762 x 1134 x 30 mm (69.4 x 44.6 x 1.18 in)
Weight	24.6 kg (54.2 lbs)
Front Glass	2.0 mm heat strengthened glass with anti-reflective coating
Back Glass	2.0 mm heat strengthened glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4 mm ² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	Portrait: 300 mm (11.8 in) (+) / 200 mm (7.9 in) (-); landscape: 1100 mm (43.3 in)*
Connector	T6 or MC4-EVO2 or MC4-EVO2A
Per Pallet	36 pieces
Per Container (40' HQ)	936 pieces

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.29 % / °C
Temperature Coefficient (Voc)	-0.25 % / °C
Temperature Coefficient (Isc)	0.045 % / °C
Nominal Module Operating Temperature	41 ± 3°C

PARTNER SECTION



* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. CSI Solar Co., Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice. Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.