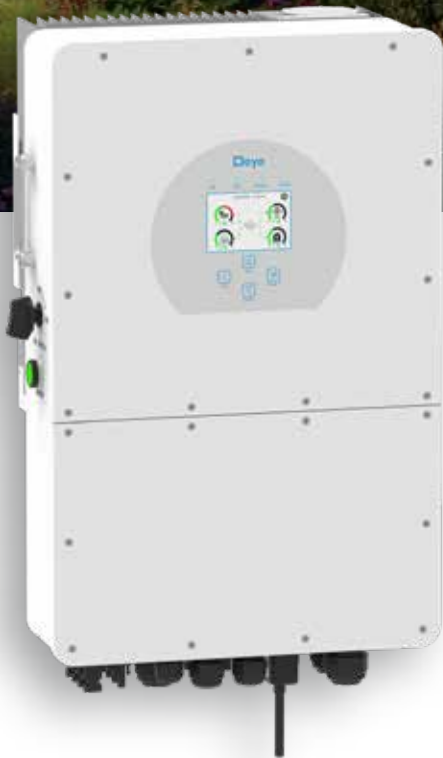




Three Phase Hybrid Inverter

SUN-5/6/8/10/12/15/20/25K-SG01HP3-EU-AM2



- 100** 100% unbalanced output, each phase
-  AC couple to retrofit existing solar system
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 50** Max. charging/discharging current of 50A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

Model	SUN-5K-SG01 HP3-EU-AM2	SUN-6K-SG01 HP3-EU-AM2	SUN-8K-SG01 HP3-EU-AM2	SUN-10K-SG01 HP3-EU-AM2	SUN-12K-SG01 HP3-EU-AM2	SUN-15K-SG01 HP3-EU-AM2	SUN-20K-SG01 HP3-EU-AM2	SUN-25K-SG01 HP3-EU-AM2
Battery Input Data								
Battery Type	Lithium-ion							
Battery Voltage Range (V)	160-700							
Max. Charging Current (A)	30	30	37			50		
Max. Discharging Current (A)	30	30	37			50		
Charging Strategy for Li-ion Battery	Self-adaption to BMS							
Number of Battery Input	1							
PV String Input Data								
Max. DC Input Power (W)	6500	7800	10400	13000	15600	19500	26000	32500
Max. DC Input Voltage (V)	1000							
Start-up Voltage (V)	180							
MPPT Voltage Range (V)	150-850							
Rated DC Input Voltage (V)	600						700	
Max. Operating PV Input Current (A)	20+20				26+20		26+26	
Max. Input Short-Circuit Current (A)	30+30				39+30		39+39	
No. of MPP Trackers/ No. of Strings per MPP Tracker	2/1+1				2/2+1		2/2+2	
AC Input/Output Data								
Rated AC Input/Output Active Power (W)	5000	6000	8000	10000	12000	15000	20000	25000
Max. AC Input/Output Apparent Power (VA)	5500	6600	8800	11000	13200	16500	22000	27500
Rated AC Input/Output Current (A)	7.6/7.3	9.1/8.7	12.2/11.6	15.2/14.5	18.2/17.4	22.8/21.8	30.4/29	37.9/36.3
Max. AC Input/Output Current (A)	8.4/8	10/9.6	13.4/12.8	16.7/16	20/19.2	25/24	33.4/31.9	41.7/39.9
Max. Three-phase Unbalanced Output Current (A)	13	13	18	22	25	30	35	41.7
Max. Continuous AC Passthrough (grid to load) (A)	40				80			
Peak Power (off-grid) (W)	1.5 times of rated power, 10s							
Power Factor Adjustment Range	0.8 leading to 0.8 lagging							
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un							
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65							
Grid Connection Form	3L+N+PE							
Total Current Harmonic Distortion THDi	<3% (of nominal power)							
DC Injection Current	<0.5% In							
Efficiency								
Max. Efficiency	97.6%							
Euro Efficiency	97.0%							
MPPT Efficiency	>99%							
Equipment Protection								
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level							
Surge Protection Level	TYPE II(DC), TYPE II(AC)							
Interface								
Communication Interface	WIFI, RS485, CAN							
General Data								
Operating Temperature Range ()	-40 to +60°C, >45°C Derating							
Permissible Ambient Humidity	0-100%							
Permissible Altitude	2000m							
Noise (dB)	≤55							
Ingress Protection(IP) Rating	IP 65							
Inverter Topology	Non-Isolated							
Over Voltage Category	OVC II(DC), OVC III(AC)							
Cabinet Size (WxHxD mm)	408×638×237 (Excluding Connectors and Brackets)							
Weight (kg)	30.5							
Type of Cooling	Natural 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, 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

25kWh

Features

-  Scalable expansion up to 375kWh in parallel.
-  Flexible Installation: floor-mounted.
-  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.



FLA48500

Model	FLA48500
Battery Type	LiFePO4
Nominal Energy	25kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current[1]	≤200A
Recommend Charge/Discharge Power[1]	≤10000W
Maximum Charge/Discharge Current(15s)	300A
Maximum Charge/Discharge Power(15s)	15000W
Depth of Discharge(DOD)	≥95%
Scalability	Max.15 pcs in Parallel(375kWh)
Communication	RS485/CAN
Protection Degree	IP21
Cycle Life[2]	≥6,000 Cycles
Charging Temperature Range	0°C-55 °C
Discharging Temperature Range	-20°C-60 °C
Display	LCD+LED
Installation Style	Floor-Mounted
Protection	Built-in Smart BMS, Breaker, Fuse
Warranty	7 Years
Certification	UN38.3、CE-EMC、IEC 62619
Product Weight	218KG
Package Weight	248KG
Product Dimension	718X380X990MM
Package Dimension	825X498X1162MM

[1] Recommend Charge/Discharge Current/Power is Affected by Temperature and SOC.

[2] Test Conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

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

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

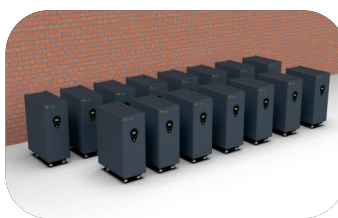
Product Display



Longer Lasting
LiFePO4 Battery



Real-time Status via
LCD Display



Support 15 Pcs
in Parallel



Wide Inverter
Compatibility



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*

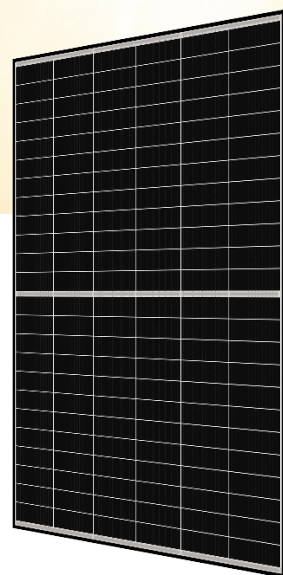


Performance Warranty



Warranty partner

Munich RE 



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



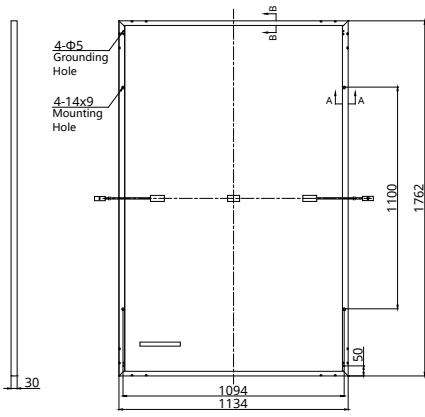
* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates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

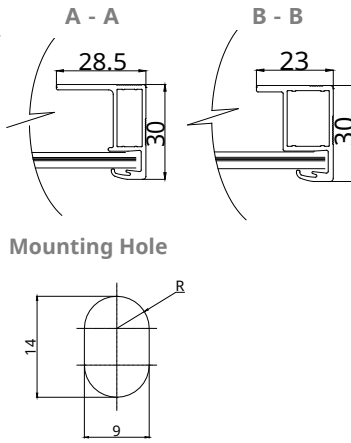
* For detailed information, please refer to the Installation Manual.

ENGINEERING DRAWING (mm)

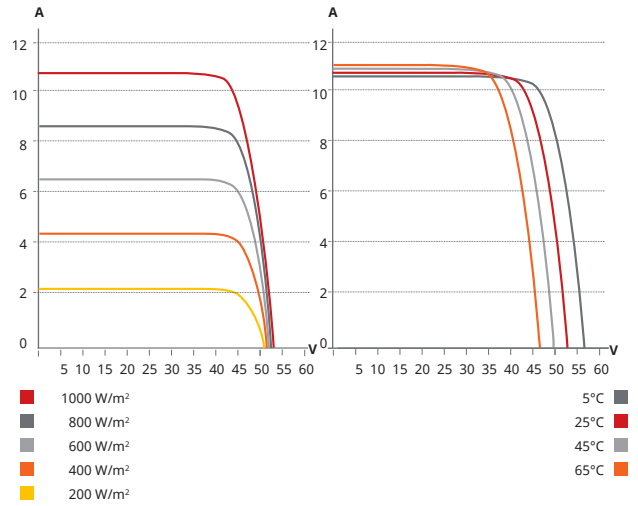
Rear View



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.