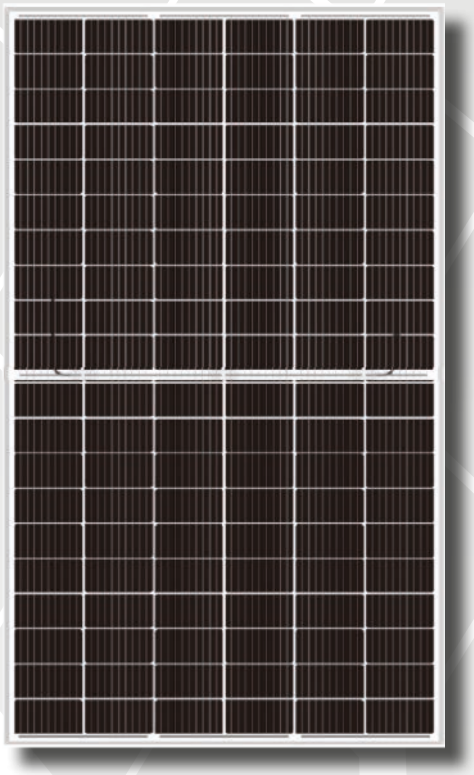
EN

X-HALF CUT

Monocrystalline

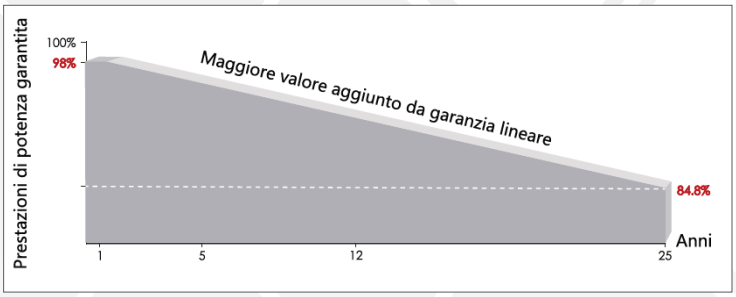
440 - 445 - 450 - 455 - 460 Wp



- 120 Half-cut cells Multi Busbar
- High Voltage 1500 Vdc
- Fire reaction class 1
- 0/+5W — Power tollerance
- Max efficiency 21,3%
- Extremely low Temp. Coefficient-0.35%/ °C
- 15 YEARS — Product Warranty
- 25 YEARS — Linear Warranty

X-HALF CUT is one of a wide range of SUNERG's product. It is manufactured according to IEC 61215, IEC 61730 and CE standards. The innovative multi busbar half-cells guarantee high power per unit, reduce the risk of micro-crack, mismatch and shadow loss, so increasing the reliability of the module.

LINEAR WARRANTY



- look warranty terms -

CORRESPOND TO

IEC 61215 | IEC 61730 | PV CYCLE | CE |

UNI EN ISO 9001:2008 | Quality management system
UNI EN ISO 14001:2004 | Standards for environmental management system
UNI EN ISO 45001:2018 | International standards for occupational health and safety

ELECTRICAL DATA (STC)

		XMHC120440K+H		XMHC120445K+H		XMHC120450K+H		XMHC120455K+H		XMHC120460K+H	
		STC	NOCT	**STC**	NOCT	**STC**	NOCT	**STC**	NOCT	**STC**	NOCT
Open circuit Voltage	(Voc)	41.18 V	38.71 V	41.27 V	38.79 V	41.46 V	38.97 V	41.65 V	39.15 V	41.85 V	39.34 V
Voltage a Pmax.	(Vmp)	34.39 V	31.98 V	34.46 V	32.05 V	34.62 V	32.19 V	34.78 V	32.35 V	34.95 V	32.52 V
Short-circuit current	(Isc)	13.37 A	10.83 A	13.42 A	10.88 A	13.47 A	10.91 A	13.54 A	10.97 A	13.59 A	11.01 A
Current at Pmax.	(Imp)	12.80 A	10.26 A	12.92 A	10.36 A	13.01 A	10.41 A	13.09 A	10.48 A	13.17 A	10.55 A
Peak Power (Pmax) Tollerance 0/+5%		440 Wp	328 Wp	445 Wp	332 Wp	450 Wp	335 Wp	455 Wp	339 Wp	460 Wp	343 Wp
Module Efficiency		20.40 %		20.60 %		20.90 %		21.10 %		21.30 %	
Maximum voltage		1500 V DC									
Maximum series fuse rating		25 A									
Operating Temperature		-40°C - +85°C									

Tolerance electric measurement ±3%

* STC (Standard test conditions)

Irradiance 1000 w/m^2, Temperature 25°C, AM = 1.5

* NOCT (Nominal Operating Cell Temperature)

Irradiance 800 W/m^2, temperature 20°C, wind speed 1m/s

TEMPERATURE COEFFICIENT

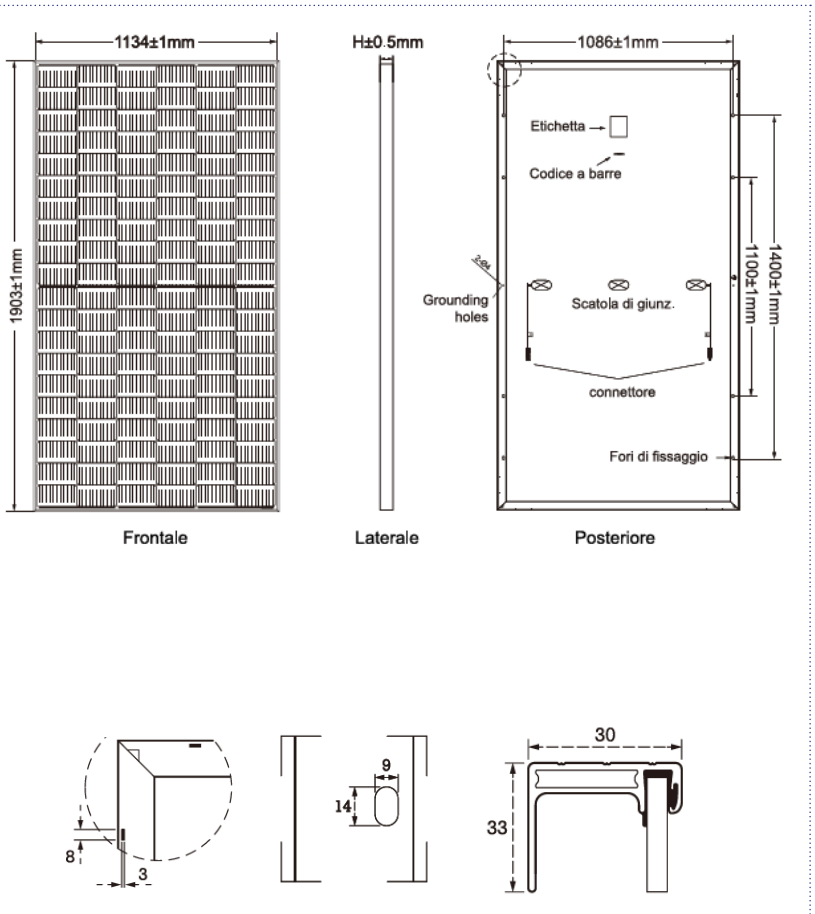
NOCT	45 ± 2 °C
Pmax Temperature Coefficient	-0.35%/ °C
Voc Temperature Coefficient	-0.28%/ °C
Isc Temperature Coefficient	0.045% / °C

MECHANICAL CHARACTERISTIC

Dimensions (mm)	1903 x 1134 x 30
Weight (Kg)	24
Solar cells type	Mono 182x 91 mm
No. solar cells	120

PACKING CONFIGURATION

Module per Pallet	36 pcs.
Modules per container 40'HQ	864 pcs.



GENERAL INFORMATION

Glass	antireflex-coated, high transmission, tempered glass 3.2 mm
Frame	Anodized aluminum
Juntion Box	IP68, 3 bypass diodes
Output Cable - Connectors	1000mm/4.0mm²

PYLONTECH

US5000

Batteria al litio in bassa tensione

US5000 - Moduli da 4,8 kWh

La batteria al litio US5000 di Pylontech può essere utilizzata per supportare un'elevata potenza per vari tipi di apparecchiature e sistemi.
La batteria US5000 dispone di un BMS integrato che ha funzioni di protezione tra cui sottoscarica, sovraccarica, sovracorrente e controllo della temperatura delle celle.

Specifiche tecniche:

- Funzione **Soft-Start** in grado di ridurre la corrente di picco quando l'inverter si accende con la sola batteria;
- La **struttura molecolare** interna delle batterie LiFePO4 è **più stabile** e **più sicura**;
- **Profondità di scarica** (DOD) del 95%, disponibile per gli inverter allineati all'ultimo protocollo Pylontech;
- **Doppia protezione attiva a livello BMS;**
- Possibilità di collegare in parallelo più moduli batteria per espandere la capacità e la potenza;
- Possibilità di operare in diverse condizioni di temperatura;
- **Garanzia 10 anni.**

Dimensioni:

Larghezza: 442 mm
Altezza: 161 mm
Profondità: 420 mm
Peso: 39,7 kg

Dati tecnici
Batteria al Litio

Modello	US5000
DATI ELETTRICI	
Tecnologia cella	Li-ion (LFP)
Tensione nominale [V]	48
Capacità nominale [kWh/Ah]	4,8 / 100
Profondità di scarica DoD [%]	95
Capacità utilizzabile [kWh/Ah]	4,56 / 95
Corrente nominale raccomandata [A]	80*
Configurazione [max. moduli in un gruppo batteria]	16 pz
Tensione di carica [V]	52,5 ~ 53,5
Tensione di scarica [V]	43,5 ~ 53,5
BUS	
Bus di comunicazione	RS485, CAN
DIMENSIONI E PESI	
Larghezza [mm]	442
Altezza [mm]	161
Profondità [mm]	420
Peso [kg]	39,7
VARIE	
Temperatura di esercizio in carica [°C]	0 ~ 50
Temperatura di esercizio in scarica [°C]	-10 ~ 50
Temperatura di stoccaggio [°C]	-20 ~ 45
Classe di protezione	IP20
Vita operativa a 25 °C	15+ anni
Cicli di funzionamento	>6000 25°C
Certificati trasporto merce pericolosa	TÜV / CE / UN38.3 / UL / UN 3480
Normativa EMC	IEC62619, IEC63056, UL1973, UL9540A, IEC61000-6-2, IEC61000-6-3, UN38.3, GR-1089, UN 3480, GB/T 2423

*: La corrente massima di lavoro raccomandata è riferita alla temperatura della cella della batteria compresa tra 10 ~ 40°C. Se al di fuori di questa temperatura può causare una diminuzione della corrente di funzionamento.

Hybrid Inverter

SUN-3/3.6/5/6K-SG04LP1-EU

- Colorful touch LCD, IP65 protection degree
- AC couple to retrofit existing solar system
- 16 — Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 140 — Max. charging/discharging current of 140A
- 6 — 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

Technical Data

Model	SUN-3K -SG04LP1-24-EU	SUN-3K -SG04LP1-EU	SUN-3.6K -SG04LP1-EU	SUN-5K -SG04LP1-EU	SUN-6K -SG04LP1-EU
Battery Input Data					
Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	20-30	40-60	40-60	40-60	40-60
Max. Charging Current (A)	140	70	90	120	135
Max. Discharging Current (A)	140	70	90	120	135
External Temperature Sensor	Yes				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data					
Max. DC Input Power (W)	3900	3900	4680	6500	7800
Rated PV Input Voltage (V)	370 (125-500)				
Start-up Voltage (V)	125				
MPPT Voltage Range (V)	150-425				
Full Load DC Voltage Range (V)	300-425				
PV Input Current (A)	13		13+13		
Max. PV I_{SC}(A)	17		17+17		
No.of MPP Trackers	1		2		
No.of Strings per MPP Tracker	1		1+1		
AC Output Data					
Rated AC Output Active Power (W)	3000		3600	5000	6000
Max. AC OutputActive Power (W)	3300		3960	5500	6600
AC Output Rated Current (A)	13.6/13		16.4/15.7	22.7/21.7	27.3/26.1
Max. AC Output Current (A)	15/14.3		18/17.2	25/23.9	30/28.7
Max. Continuous AC Passthrough (A)	35				40
Peak Power (off grid)	2 time of rated power, 10 S				
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	50Hz/45Hz-55Hz 60Hz/55Hz-65Hz				
Grid Connection Form	L+N+PE				
Total Harmonics Current Distortion (THDi)	<3% (of nominal power)				
DC Current Injection	<0.5% In				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	96.50%				
MPPT Efficiency	99.90%				
Protection					
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection				
Over Voltage Category	DC Type II/AC Type III				
Certifications and Standards					
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				
General Data					
Operating Temperature Range (℃)	-40 to +60°C, >45°C Derating				
Cooling	Free Cooling				Smart Cooling
Noise (dB)	≤30 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	14			15.1	
Cabinet Size (WxHxD mm)	330×433×238 (Excluding Connectors and Brackets)				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy				

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