KILOWAT

OFERTA CASA VERDE 2024

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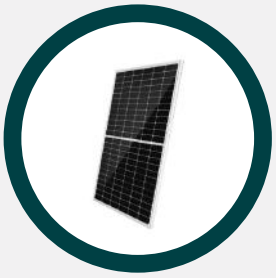
ALEGE ALTIGE IMPEX SRL CA INSTALATOR

CE CONȚINE OFERTA?



PANOURI FOTOVOLTAICE

Oferim panouri solare N-Type de producători consacraţi precum: **Canadian Solar, Jinko Solar, Longi, Trina Solar etc.** cu eficiență, durabilitate și tehnologie avansată pentru sistemul tău fotovoltaic.

INVERTOR

Un invertor transformă curentul continuu produs de panourile solare în curent alternativ, utilizabil în locuință, și optimizează producția de energie.

Oferta noastră include invertoare de la Huawei, Deye, Sungrow și Victron.

BATERIE

Oferta noastră include **baterii de la Huawei, Deye și HAILEI**. Bateriile Huawei oferă calitate superioară și protecție IP66, iar pentru o capacitate de stocare mai mare, opțiunile de la Huawei sunt ideale.
Bateriile au garanție de 10 ani.

MONITORIZARE

FusionSolar este platforma Huawei pentru monitorizarea, optimizarea în timp real și diagnoza rapidă a sistemelor fotovoltaice.

Beneficiarul achită DOAR contribuția proprie, după semnarea contractului comercial. Finanțarea AFM, 30.000 RON, este suportată integral de KILOWAT până la decontare.

KILOWAT

SISTEME HUAWEI

HUAWEI MONOFAZAT

- INVERTOR MONOFAZAT 6 KW
- PANOURI N-TYPE - 6 KW
- BATERIE LUNA 5 KW

30.000 LEI SUBVENȚIE AFM

3.000 LEI CONTRIBUȚIE PROPRIE

HUAWEI

- ASIGURARE ECOHOME PROTECT
- HUAWEI WATCH FIT 3

6KW

- INVERTOR MONOFAZAT 5 KW
- PANOURI N-TYPE - 5 KW
- BATERIE LUNA 5 KW
- BACK-UP BOX MONOFAZAT

30.000 LEI SUBVENȚIE AFM

3.000 LEI CONTRIBUȚIE PROPRIE

HUAWEI

- ASIGURARE ECOHOME PROTECT
- HUAWEI WATCH FIT 3

5KW

- INVERTOR MONOFAZAT 6 KW
- PANOURI N-TYPE - 8 KW
- BATERIE LUNA 5 KW

30.000 LEI SUBVENȚIE AFM

5.900 LEI CONTRIBUȚIE PROPRIE

HUAWEI

- ASIGURARE ECOHOME PROTECT
- HUAWEI WATCH FIT 3

8KW

ACCESORII HUAWEI

BACK-UP BOX MONOFAZAT

2.510 Lei

BACK-UP BOX TRIFAZAT

3.900 Lei

SCHARGER 7KS-S0

3.450 Lei

SCHARGER 22KS-S0

3.750 Lei

KILOWAT

HUAWEI

SISTEME HUAWEI

HUAWEI TRIFAZAT

INVERTOR TRIFAZAT 5 KW

PANOURI N-TYPE - 5 KW

BATERIE LUNA 5 KW

30.000 LEI SUBVENȚIE AFM

3.000 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

HUAWEI WATCH FIT 3

5KW

INVERTOR TRIFAZAT 6 KW

PANOURI N-TYPE - 6 KW

BATERIE LUNA 5 KW

30.000 LEI SUBVENȚIE AFM

5.900 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

HUAWEI WATCH FIT 3

6KW

INVERTOR TRIFAZAT 8 KW

PANOURI N-TYPE - 8 KW

BATERIE LUNA 5 KW

30.000 LEI SUBVENȚIE AFM

8.900 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

HUAWEI WATCH FIT 3

8KW

INVERTOR TRIFAZAT 10 KW

PANOURI N-TYPE - 10 KW

BATERIE LUNA 5 KW

30.000 LEI SUBVENȚIE AFM

11.900 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

HUAWEI WATCH FIT 3

10KW

KILOWAT

SISTEM ALL IN ONE LIVOLTEK

OFERTĂ MONOFAZAT

INVERTOR MONOFAZAT 6 KW

PANOURI N-TYPE - 6 KW

SISTEM ALL IN ONE
BATERIE 10.24 KWH

30.000 LEI SUBVENȚIE AFM

3.000 LEI CONTRIBUȚIE PROPRIE

LIVOLTEK

ASIGURARE ECOHOME PROTECT

6KW

INVERTOR MONOFAZAT 6 KW

PANOURI N-TYPE - 7 KW

SISTEM ALL IN ONE
BATERIE 10.24 KWH

30.000 LEI SUBVENȚIE AFM

4.500 LEI CONTRIBUȚIE PROPRIE

LIVOLTEK

ASIGURARE ECOHOME PROTECT

7KW

KILOWAT

SISTEM HIGHT VOLTAGE LIVOLTEK

OFERTĂ TRIFAZAT

INVERTOR TRIFAZAT 5 KW

PANOURI N-TYPE - 5 KW

BATERIE HIGHT VOLTAGE 10.24 KWH

30.000 LEI SUBVENȚIE AFM

4.000 LEI CONTRIBUȚIE PROPRIE

LIVOLTEK

ASIGURARE ECOHOME PROTECT

5KW

INVERTOR TRIFAZAT 6 KW

PANOURI N-TYPE - 6 KW

BATERIE HIGHT VOLTAGE 10.24 KWH

30.000 LEI SUBVENȚIE AFM

7.000 LEI CONTRIBUȚIE PROPRIE

LIVOLTEK

ASIGURARE ECOHOME PROTECT

6KW

INVERTOR TRIFAZAT 8 KW

PANOURI N-TYPE - 8 KW

BATERIE HIGHT VOLTAGE 10.24 KWH

30.000 LEI SUBVENȚIE AFM

11.500 LEI CONTRIBUȚIE PROPRIE

LIVOLTEK

ASIGURARE ECOHOME PROTECT

8KW

INVERTOR TRIFAZAT 10 KW

PANOURI N-TYPE - 10 KW

BATERIE HIGHT VOLTAGE 10.24 KWH

30.000 LEI SUBVENȚIE AFM

17.000 LEI CONTRIBUȚIE PROPRIE

LIVOLTEK

ASIGURARE ECOHOME PROTECT

10KW

INVERTOR TRIFAZAT 12 KW

PANOURI N-TYPE - 12 KW

BATERIE HIGHT VOLTAGE 10.24 KWH

30.000 LEI SUBVENȚIE AFM

23.000 LEI CONTRIBUȚIE PROPRIE

LIVOLTEK

ASIGURARE ECOHOME PROTECT

12KW

KILOWAT

SISTEME Deye

DEYE MONOFAZAT

INVERTOR MONOFAZAT 5 KW

PANOURI N-TYPE - 5 KW

BATERIE DEYE 10 KW

SAU

BATERIE HAILEI 15 KW

30.000 LEI SUBVENȚIE AFM

3.000 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

5KW

INVERTOR MONOFAZAT 6 KW

PANOURI N-TYPE - 6 KW

BATERIE DEYE 5 KW

SAU

BATERIE HAILEI 10 KW

30.000 LEI SUBVENȚIE AFM

3.000 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

6KW

INVERTOR MONOFAZAT 6 KW

PANOURI N-TYPE - 6 KW

BATERIE DEYE 10 KW

SAU

BATERIE HAILEI 15 KW

30.000 LEI SUBVENȚIE AFM

4.000 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

6KW

INVERTOR MONOFAZAT 8 KW

PANOURI N-TYPE - 8 KW

BATERIE DEYE 5 KW

SAU

BATERIE HAILEI 10 KW

30.000 LEI SUBVENȚIE AFM

5.900 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

8KW

KILOWAT

SISTEME Deye

DEYE TRIFAZAT

INVERTOR TRIFAZAT 5 KW

PANOURI N-TYPE - 5 KW

BATERIE DEYE 5 KW
SAU
BATERIE HAILEI 15 KW

30.000 LEI SUBVENȚIE AFM

3.500 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

5KW

INVERTOR TRIFAZAT 6 KW

PANOURI N-TYPE - 6 KW

BATERIE DEYE 5 KW
SAU
BATERIE HAILEI 10 KW

30.000 LEI SUBVENȚIE AFM

4.500 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

6KW

INVERTOR TRIFAZAT 8 KW

PANOURI N-TYPE - 8 KW

BATERIE DEYE 5 KW
SAU
BATERIE HAILEI 10 KW

30.000 LEI SUBVENȚIE AFM

8.500 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

8KW

INVERTOR TRIFAZAT 10 KW

PANOURI N-TYPE - 10 KW

BATERIE DEYE 5 KW
SAU
BATERIE HAILEI 10 KW

30.000 LEI SUBVENȚIE AFM

11.500 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

10KW

SISTEME SUNGROW

SUNGROW MONOFAZAT

INVERTOR MONOFAZAT 6 KW

PANOURI N-TYPE - 6 KW

BATERIE SUNGROW 9.6 KW

30.000 LEI SUBVENȚIE AFM

3.000 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

6KW

INVERTOR MONOFAZAT 6 KW

PANOURI N-TYPE - 8 KW

BATERIE SUNGROW 9.6 KW

30.000 LEI SUBVENȚIE AFM

6.500 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

8KW

SISTEME SUNGROW

SUNGROW TRIFAZAT

INVERTOR TRIFAZAT 6 KW

PANOURI N-TYPE - 6 KW

BATERIE SUNGROW 9.6 KW

30.000 LEI SUBVENȚIE AFM

5.900 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

6KW

INVERTOR TRIFAZAT 8 KW

PANOURI N-TYPE - 8 KW

BATERIE SUNGROW 6.4 KW

30.000 LEI SUBVENȚIE AFM

7.900 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

8KW

INVERTOR TRIFAZAT 10 KW

PANOURI N-TYPE - 10 KW

BATERIE SUNGROW 6.4 KW

30.000 LEI SUBVENȚIE AFM

10.900 LEI CONTRIBUȚIE PROPRIE

BONUS

ASIGURARE ECOHOME PROTECT

ATS

10KW

FIȘĂ TEHNICĂ PANOURI

OFERIM PANOURI SOLARE N-TYPE DE PRODUCĂTORI CONSACRAȚI PRECUM: CANADIAN SOLAR, JINKO SOLAR, LONGI, TRINA SOLAR ETC. CU EFICIENȚĂ, DURABILITATE ȘI TEHNOLOGIE AVANSATĂ PENTRU SISTEMUL TĂU FOTOVOLTAIC. PANOURILE JINKO SOLAR SUNT RECOMANDATE DATORITĂ PERFORMANȚEI LOR REMARCABILE ȘI FIABILITĂȚII DOVEDITE. FISELE TEHNICE PENTRU CELELALTE PANOURI SE POT DISCUTA SEPARAT, ÎN FUNCȚIE DE NECESITĂȚILE TALE SPECIFICE.

www.jinkosolar.com

Building Your Trust in Solar

Tiger Neo N-type 60HL4R-(V)

470-490 Watt

MONO-FACIAL MODULE

N-Type

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018
Occupational health and safety management systems
(Made in China)

Key Features

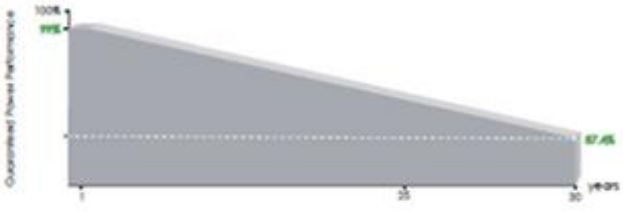
SMBB Technology

Better light trapping and current collection to improve module power output and reliability.

Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

LINEAR PERFORMANCE WARRANTY



25* Year Product Warranty

30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years

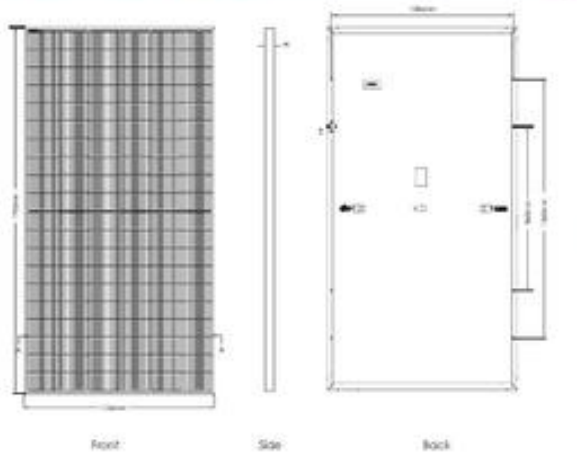
*The product warranty is only applicable in Australia

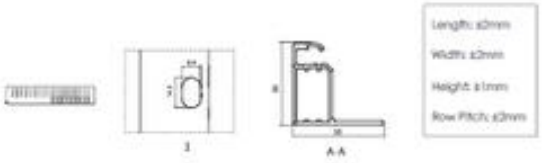
KILOWAT

Solar JinKO

FIȘĂ TEHNICĂ PANOURI

Engineering Drawings





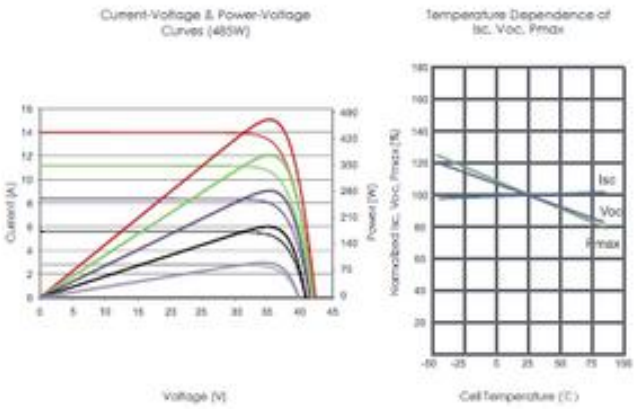
*This tolerance range applies only to the four-angle distance of the module as indicated above.

Packaging Configuration

(Two pallets = One stack)

36pcs/pallets, 72pcs/stack, 864pcs/ 40'HQ Container

Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type	N type Mono-crystaline
No. of cells	120 (2*60)
Dimensions	1955*1134*30mm (76.97*44.65*1.18 inch)
Weight	24 kg (52.91 lbs)
Front Glass	3.2mm,Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1*4.0mm², (+): 400mm , (-): 200mm or Customized Length
Connector Type	Staubli MC4, MC4-EVO2,JK03M/1B, JK03M2/1B, Jinko PV materi Staubli MC4, MC4-EVO2,JK03M/2B, JK03M2/2B, Jinko PV materi
Fire Class	Class C

SPECIFICATIONS

Module Type	JKM470N-60HL4R JKM470N-60HL4R-V		JKM475N-60HL4R JKM475N-60HL4R-V		JKM480N-60HL4R JKM480N-60HL4R-V		JKM485N-60HL4R JKM485N-60HL4R-V		JKM490N-60HL4R JKM490N-60HL4R-V	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	470Wp	353Wp	475Wp	357Wp	480Wp	361Wp	485Wp	365Wp	490Wp	368Wp
Maximum Power Voltage (Vmp)	35.69V	33.21V	35.88V	33.40V	36.06V	33.61V	36.25V	33.77V	36.43V	33.89V
Maximum Power Current (Imp)	13.17A	10.63A	13.24A	10.69A	13.31A	10.74A	13.38A	10.81A	13.45A	10.86A
Open-circuit Voltage (Voc)	43.3V	41.14V	43.45V	41.28V	43.60V	41.42V	43.76V	41.56V	43.91V	41.71V
Short-circuit Current (Isc)	13.69A	11.12A	13.77A	11.12A	13.85A	11.18A	13.93A	11.25A	14.01A	11.31A
Module Efficiency STC (%)	21.45%		21.43%		21.65%		21.88%		22.10%	
Operating Temperature(℃)	-40℃~+85℃									
Maximum system voltage	1000/1500VDC (IEC) with -V=1500V, without -V=1000V									
Maximum series fuse rating	25A									
Power measurement tolerance	-3%~+3%									
Temperature coefficients of Pmax	-0.30%/℃									
Temperature coefficients of Voc	-0.25%/℃									
Temperature coefficients of Isc	0.046%/℃									
Nominal operating cell temperature (NOCT)	45±2℃									

*STC: Irradiance 1000W/m² Cell Temperature 25℃ AM=1.5

NOCT: Irradiance 800W/m² Ambient Temperature 20℃ AM=1.5 Wind Speed 1m/s

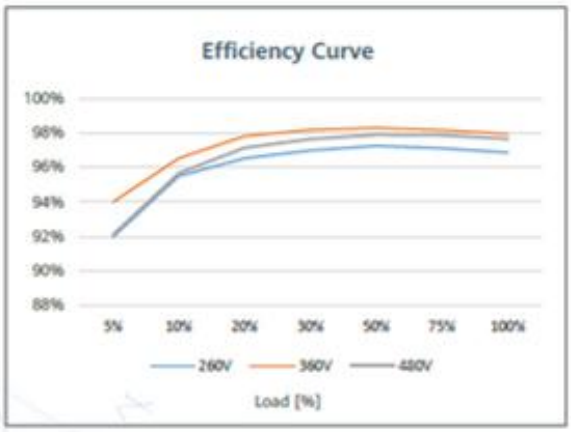
FIȘĂ TEHNICĂ INVERTOARE MONOFAZATE

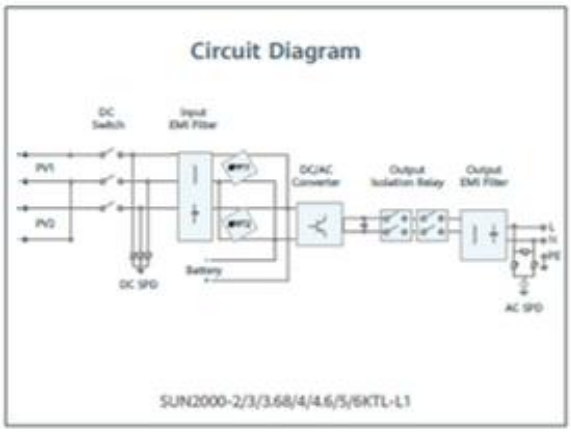
Smart Energy Center

Active Safety
AI Powered
Active Arcing Protection

Higher Yields
Up to 30% More
Energy with Optimizer

2x POWER Battery Ready
5KW AC Output plus
5KW Battery Charge





FIȘĂ TEHNICĂ INVERTOARE MONOFAZATE

SUN2000-2/3/3.68/4/4.6/5/6KTL-L1

Technical Specification

Technical Specification	SUN2000 -2KTL-L1	SUN2000 -3KTL-L1	SUN2000 -3.68KTL-L1	SUN2000 -4KTL-L1	SUN2000 -4.6KTL-L1	SUN2000 -5KTL-L1	SUN2000 -6KTL-L1[1]
Efficiency							
Max. efficiency	98.2 %	98.3 %	98.4 %	98.4 %	98.4 %	98.4 %	98.4 %
European weighted efficiency	96.7 %	97.3 %	97.3 %	97.5 %	97.7 %	97.8 %	97.8 %
Input (PV)							
Recommended max. PV power [2]	3,000 Wp	4,500 Wp	5,520 Wp	6,000 Wp	6,900 Wp	7,500 Wp	9,000 Wp
Max. input voltage	600 V [3]						
Start-up voltage	100 V						
MPPT operating voltage range	90 V ~ 560 V [3]						
Rated input voltage	360 V						
Max. input current per MPPT	12.5 A						
Max. short-circuit current	18 A						
Number of MPP trackers	2						
Max. number of inputs	2						
Input (DC Battery)							
Compatible Battery	LG Chem RESU 7H_R / 10H_R						
Operating voltage range	350 ~ 450 Vdc						
Max operating current	10 A @7H_R / 15 A @10H_R						
Max charge power	3,500 W @7H_R / 5,000 W @10H_R						
Max discharge Power @7H_R	2,200 W	3,300 W	3,500 W	3,500 W	3,500 W	3,500 W	3,500 W
Max discharge Power @10H_R	2,200 W	3,300 W	3,680 W	4,400 W	4,600 W	5,000 W	5,000 W
Compatible Battery	HUAWEI PowerMate ESS Battery 5kWh ~ 30kWh [4]						
Operating voltage range	350 ~ 560 Vdc						
Max operating current	15 A						
Max charge / discharge Power	5,000 W [4]						
Output							
Grid connection	Single phase						
Rated output power	2,000 W	3,000 W	3,680 W	4,000 W	4,600 W	5,000 W [5]	6,000 W
Max. apparent power	2,200 VA	3,300 VA	3,680 VA	4,400 VA	5,000 VA [6]	5,500 VA [7]	6,000 VA
Rated output voltage	220 V / 230 V / 240 V						
Rated AC grid frequency	50 Hz / 60 Hz						
Max. output current	10 A	15 A	16 A	20 A	23 A [6]	25 A [6]	27 A
Adjustable power factor	0.8 leading ... 0.8 lagging						
Max. total harmonic distortion	≤ 3 %						
Backup power output	Yes (via Backup Box-5000 [1])						
Protection & Feature							
Anti-Islanding protection	Yes						
DC reverse polarity protection	Yes						
Insulation monitoring	Yes						
DC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11						
AC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11						
Residual current monitoring	Yes						
AC overcurrent protection	Yes						
AC short-circuit protection	Yes						
AC overvoltage protection	Yes						
Over-heat protection	Yes						
Arc fault protection	Yes						
Battery reverse charging from grid	Yes						
General Data							
Operating temperature range	-25 ~ +60 °C (Derating above 45°C @ Rated output power)						
Relative operating humidity	0 %RH ~ 100 %RH						
Operating altitude	0 ~ 4,000 m (Derating above 2,000 m)						
Cooling	Natural convection						
Display	LED indicators; Integrated WLAN + FusionSolar APP						
Communication	RS485, WLAN via inverter built-in WLAN module Ethernet via Smart Dongle-WLAN-FE (Optional); 4G / 3G / 2G via Smart Dongle-4G (Optional)						
Weight (incl. mounting bracket)	12.3 kg (27.1 lb)						
Dimension (incl. mounting bracket)	365mm * 365mm * 140 mm (14.4 x 14.4 x 5.5 inch)						
Degree of protection	IP65						
Optimizer Compatibility							
DC MBUS compatible optimizer	SUN2000-450W-P						
Standard Compliance (more available upon request)							
Safety	EN/IEC 62109-1, EN/IEC 62109-2						
Grid connection standards	G98, G99, EN 50549-1, CEI 0-21, VDE-AR-N-4105, AS 4777, C10/11, ABNT, UTE C15-712, RD 1699, TOR D4, IEC61727, IEC62116						

[1] Available in 2020 Q3.
[2] Inverter max input PV power is 10,000 Wp when long strings are designed and fully connected with SUN2000-450W-P power optimizers.
[3] The maximum input voltage and operating voltage upper limit will be reduced to 495 V when inverter connects and works with LG battery.
[4] 2,500 W @ 5kWh HUAWEI ESS battery.
[5] AS4777: 4990W. [6] VDE-AR-N 4105: 4600VA / AS4777: 4990VA. [7] AS4777: 4990VA. [8] AS4777: 21.7A.

FIȘĂ TEHNICĂ INVERTOARE TRIFAZATE

Smart Energy Controller

Active Safety

AI Powered
Active Arcing Protection

Higher Yields

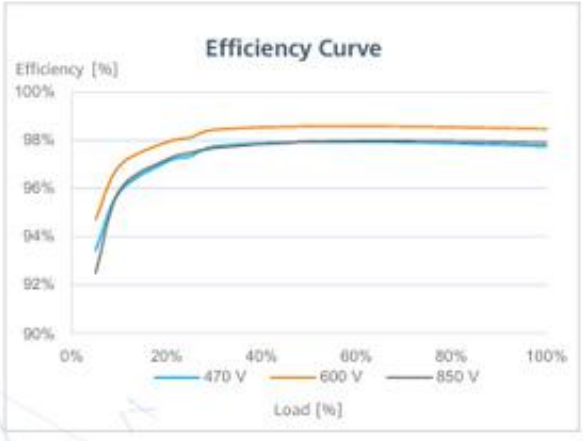
Up to 30% More Energy
with Optimizer [1]

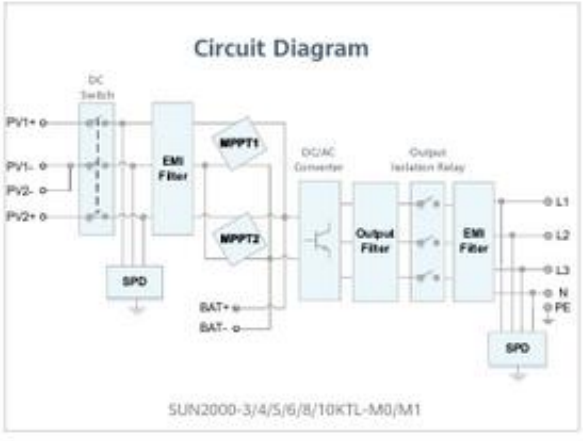
Battery Ready

Plug & Play battery interface [2]

Flexible Communication

WLAN, Fast Ethernet, 4G
Communication Supported





KILOWAT

HUAWEI

FIȘĂ TEHNICĂ INVERTOARE TRIFAZATE

SUN2000-3/4/5/6/8/10KTL-M1

Technical Specification

Technical Specification	SUN2000 -3KTL-M1	SUN2000 -4KTL-M1	SUN2000 -5KTL-M1	SUN2000 -6KTL-M1	SUN2000 -8KTL-M1	SUN2000 -10KTL-M1
Efficiency						
Max. efficiency	98.2%	98.3%	98.4%	98.6%	98.6%	98.6%
European weighted efficiency	96.7%	97.1%	97.5%	97.7%	98.0%	98.1%
Input (PV)						
Recommended max. PV power [1]	4,500 Wp	6,000 Wp	7,500 Wp	9,000 Wp	12,000 Wp	15,000 Wp
Max. input voltage [2]	1,100 V					
Operating voltage range [3]	140 V ~ 980 V					
Start-up voltage	200 V					
Rated input voltage	600 V					
Max. input current per MPPT	11 A					
Max. short-circuit current	15 A					
Number of MPP trackers	2					
Max. input number per MPP tracker	1					
Input (DC Battery)						
Compatible Battery	HUAWEI Smart String ESS 5kWh ~ 30kWh					
Operating voltage range	600 V ~ 980 V					
Max operating current	16.7 A					
Max charge Power	10,000 W					
Max discharge Power	3,300 W	4,400 W	5,500 W	6,600 W	8,800 W	10,000 W
Output (On Grid)						
Grid connection	Three-phase					
Rated output power	3,000 W	4,000 W	5,000 W	6,000 W	8,000 W	10,000 W
Max. apparent power	3,300 VA	4,400 VA	5,500 VA	6,600 VA	8,800 VA	11,000 VA [4]
Rated output voltage	220 Vac / 380 Vac, 230 Vac / 400 Vac, 3W / N+PE					
Rated AC grid frequency	50 Hz / 60 Hz					
Max. output current	5.1 A	6.8 A	8.5 A	10.1 A	13.5 A	16.9 A
Adjustable power factor	0.8 leading ... 0.8 lagging					
Max. total harmonic distortion	≤ 3 %					
Output (Off Grid)						
Backup Box	Backup Box - B1					
Maximum apparent power	3,000 VA	3,300 VA	3,300 VA	3,300 VA	3,300 VA	3,300 VA
Rated output voltage	220 V / 230 V					
Maximum output current	13.6 A	15 A	15 A	15 A	15 A	15 A
Power factor range	0.8 leading ... 0.8 lagging					
Features & Protections						
Input-side disconnection device	Yes					
Anti-Islanding protection	Yes					
DC reverse polarity protection	Yes					
Insulation monitoring	Yes					
DC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11					
AC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11					
Residual current monitoring	Yes					
AC overcurrent protection	Yes					
AC short-circuit protection	Yes					
AC overvoltage protection	Yes					
Arc fault protection	Yes					
Ripple receiver control	Yes					
Integrated PID recovery [5]	Yes					
Battery reverse charging from grid	Yes					
General Data						
Operating temperature range	-25 ~ + 60 °C (-13 °F ~ 140 °F)					
Relative operating humidity	0 %RH ~ 100 %RH					
Max. operating altitude	4,000 m (13,123 ft.) (Derating above 2000 m)					
Cooling	Natural convection					
Display	LED Indicators; Integrated WLAN + FusionSolar App					
Communication	RS485; WLAN/Ethernet via Smart Dongle-WLAN-FE; 4G / 3G / 2G via Smart Dongle-4G (Optional)					
Weight (incl. mounting bracket)	17 kg (37.5 lb)					
Dimension (incl. mounting bracket)	525 x 470 x 146.5 mm (20.7 x 18.5 x 5.8 inch)					
Degree of protection	IP65					
Nighttime Power Consumption	< 5.5 W [6]					
Optimizer Compatibility						
DC MBUS compatible optimizer	SUN2000-450W-P					
Standard Compliance (more available upon request)						
Certificate	EN/IEC 62109-1, EN/IEC 62109-2, IEC 62116					
Grid connection standards	G98, G99, EN 50438, CEI 0-21, VDE-AR-N-4105, AS 4777, C10/11, ABNT, UTE C15-712, RD 1699, TOR D4, NRS 097-2-1, IEC61727, IEC62116, DEWA					

FIȘĂ TEHNICĂ BATERIE

Smart String Energy Storage System

More Usable Energy

100% Depth of Discharge
Pack Level Energy Optimization

Flexible Investment

5kWh Modular Design,
Scalable from 5 to 30 kWh

Safe & Reliable

Lithium Iron Phosphate (LFP) Cell

Easy Installation

12 kg Power Module
50 kg Battery Module

Quick Commissioning

Automatically Detected in App

Perfect Compatibility

Compatible to Both Residential
Single & Three Phase Inverter

FIȘĂ TEHNICĂ BATERIE

LUNA2000-5/10/15-S0
Technical Specification

Technical Specification	LUNA2000-5-S0	LUNA2000-10-S0	LUNA2000-15-S0
			
Performance			
Power module	LUNA2000-5KW-C0		
Number of power modules	1		
Battery module	LUNA2000-5-E0		
Battery module energy	5 kWh		
Number of battery Modules	1	2	3
Battery usable energy [1]	5 kWh	10 kWh	15 kWh
Max. output power	2.5 kW	5 kW	5 kW
Peak output power	3.5 kW, 10 s	7 kW, 10 s	7 kW, 10 s
Nominal voltage (single phase system)	360 V		
Operating voltage range (single phase system)	350 ~ 560 V		
Nominal voltage (three phase system)	600 V		
Operating voltage range (three phase system)	600 ~ 980 V		
Communication			
Display	SOC status indicator, LED indicator		
Communication	RS485 / CAN (only for parallel operation)		
General Specification			
Dimension (W*D*H)	670 * 150 * 600 mm (26.4 * 5.9 * 23.6 inch)	670 * 150 * 960 mm (26.4 * 5.9 * 37.8 inch)	670 * 150 * 1320 mm (26.4 * 5.9 * 60.0 inch)
Weight (Floor stand toolkit included)	63.8 kg (140.7 lb)	113.8 kg (250.9 lb)	163.8 kg (361.1 lb)
Power module dimension (W*D*H)	670 * 150 * 240 mm (26.4 * 5.9 * 9.4 inch)		
Power module weight	12 kg (26.5 lb)		
Battery module dimension (W*D*H)	670 * 150 * 360 mm (26.4 * 5.9 * 14.0 inch)		
Battery module weight	50 kg (110.2 lb)		
Installation	Floor stand (standard), Wall mount (optional)		
Operating temperature	-10℃ ~ + 55℃ (14°F ~ 131°F) [2]		
Operating altitude	0 - 4,000 m (13,123 ft.) (Derating above 2,000 m)		
Relative humidity	5% ~ 95%		
Cooling	Natural convection		
Protection rating	IP 66		
Noise emission	<29 dB		
Cell technology	Lithium-iron phosphate (LiFePO4)		
Warranty	10 years [3]		
Scalability	Max. 2 systems in parallel operation		
Compatible inverters	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, SUN2000-3/4/5/6/8/10KTL-M0 [4], SUN2000-3/4/5/6/8/10KTL-M1		
Standard Compliance (more available upon request)			
Certificates	CE, RCM, CEC, VDE2510-50, IEC62619, IEC 60730, UN38.3		
Ordering and Deliverable Part			
Product ordering model [5]	LUNA2000-5KW-C0, LUNA2000-5-E0, LUNA2000 Wall Mounting Bracket		

1. Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25℃
2. Charge/discharge derating occurs when the operating temperature from -10℃ to 5 ℃ & 45 ℃ to 55 ℃
3. Refer to battery warranty letter for conditional application
4. Available in Q1, 2021
5. Storage system is ordered and delivered in the form of power module and battery module separately with corresponding quantity.

FIȘĂ TEHNICĂ BACK-UP BOX

Backup Box

Simple

Automatic detection & switchover

Reliable

Provide Reliable backup power

Technical Specification	Backup Box-B0	Backup Box-B1
AC Output (On grid)		
Grid connection	Single Phase	Three Phase
Rated voltage	220 V / 230 V	380 V / 400 V
AC frequency	50Hz / 60Hz	
AC output voltage range	198 V ~ 253 V	342 V ~ 440 V
AC Output (Backup)		
Load connection	Single Phase	Single Phase
Rated voltage	220 V / 230 V	220 V / 230 V
AC frequency	50Hz / 60Hz	
Maximum apparent power	5,000 VA	3,300 VA
Maximum output current	22.7 A	15.2 A
Switchover time	< 3 s	
AC Input (Inverter)		
Rated voltage	220 V / 230 V	380 V / 400 V
AC frequency	50Hz / 60Hz	
Compatible inverter	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1	SUN2000-3/4/5/6/8/10KTL-M1
General Specification		
Operating temperature range	-20 ℃ to +45 ℃ (-4 ℉ to 113 ℉)	
Relative humidity range	0 %RH ~ 100 %RH	
Dimensions (W * H * D)	400 x 350 x 130 mm (15.8 x 13.8 x 5.1 inch)	
Weight	11 kg	
Degree of protection	IP 65	

FIȘĂ TEHNICĂ STATII INCARCARE

KILOWAT

HUAWEI

FIȘĂ TEHNICĂ STAȚII INCĂRCARE

SCharger-7KS-S0/SCharger-22KT-S0
Technical Specifications

Technical Specification	SCharger-7KS-S0	SCharger-22KT-S0
Inputs and Outputs		
Charge power (configurable)	1.4 kW to 7.4 kW	1.4 kW [1] to 22 kW
Nominal voltage	230 V ± 20% (1-phase)	400 V ± 20% (3-phase)
Nominal current (configurable)	6–32 A (1-phase)	6–32 A (3-phase or 1-phase)
Nominal frequency	50 Hz/60 Hz ± 1 Hz	
Vehicle connection	Type 2 socket	
Cable cross-sectional area	Up to 10 mm^2	
Network types	TN, TT, IT	TN, TT
User Interface & Communications		
Protocol	Modbus TCP, OCPP 1.6 [2]	
Communication	Wi-Fi/Ethernet	
Charger status information	WRGB LED and app	
Authentication	RFID (ISO-14443-A), app, Bluetooth	
Remote control & monitoring	App	
Working mode	Normal Charge Scheduled Charge PV Power Preferred Next Trip [3]	
Protection		
Cable protection	Cable E-Lock via app	
Residual current protection (RCD)	Type A (30 mA) + DC 6 mA integrated	
Fire class	UL94	
Overcurrent protection	IEC 61851-1	
Over-temperature protection	Yes	
Surge protection	CAT II	
General Specification		
Operating temperature range	-35°C to +45°C	-35°C to +50°C @ 16A -35°C to +40°C @ 32A
Application environment	Outdoor/Indoor	
Storage temperature	-40°C to +70°C	
Relative humidity	5%–95% RH	
Altitude	≤ 2000 m (Derated between 2000–4000 m)	
Dimensions (H x W x D)	335 mm x 180 mm x 145 mm	
Weight	3 kg	3.1 kg
Installation mode	Wall-mounted	
IP rating	IP54	
Impact protection level	IK10	
Standby self-consumption	< 6 W	
Standards Compliance (More Available Upon Request)		
Safety & health	EN IEC 61851-1 2019, EN 62311 2008, EN IEC 62311 2020, EN 50665 2017, EN 50364 2018	
EMC	EN IEC 61851-21-2 2021, EN 301 489-1 V2.2.3 2019, EN 301 489-3 V2.1.1 2019, EN 301 489-17 V3.2.4 2020	
Radio	ETSI EN 300 328 V2.2.2, ETSI EN300 330 V2.1.1	
RoHS	EN IEC 63000:2018	
Others		
Accessories	RFID Card * 2	

*1 1.4 kW for 1-phase charging and 4.2 kW for 3-phase charging
*2 Only residential scenario is supported, commercial billing capability of OCPP is not supported.
*3 Next Trip mode is only available with EMMA-A02.

Disclaimer: The preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.

Version No.: 01-202411

SPECIFICAȚII HUAWEI WATCH FIT 3

H

HUAWEI WATCH FIT 3

Dimensiune	43.2 × 36.3 × 9.9 mm *9,9 mm este grosimea benzii măsurată în cea mai subțire zonă (cu excepția zonei senzorului). **Dimensiunea produsului, greutatea produsului și specificațiile aferente sunt numai valori teoretice. Măsurătorile reale între produse individuale pot varia. Toate specificațiile sunt supuse produsului real.
Greutate	Aproximativ 26 g (fără curea) *Dimensiunea produsului, greutatea produsului și specificațiile aferente sunt numai valori teoretice. Măsurătorile reale între produse individuale pot varia. Toate specificațiile sunt supuse produsului real.
Ecran	1.82 inch AMOLED 480 × 408 pixels, PPI 347
Senzori	Senzor IMU cu 9 axe (Senzor Accelerometru, senzor giroscop, senzor magnetometru) Senzor optic al ritmului cardiac Senzor de lumină ambientală
Cerințe de sistem	Android 8.0 sau ulterior iOS 13.0 sau ulterior

KILOWAT

LIVOLTEK

FIȘĂ TEHNICĂ INVERTOR MONOFAZAT

Hybrid Inverter

Single Phase: Hyper-3000/Hyper-3680/Hyper-4600/Hyper-5000/Hyper-6000

For new photovoltaic systems, the LIVOLTEK hybrid solution is a wise choice to improve your energy storage and utilization. Featuring a compact design, robust safety features, and superior performance, the LIVOLTEK hybrid bi-directional inverter can be perfectly adapted to residential and small businesses' self-consumption with battery storage. Its integrated backup power function and automatic activation in the event of power failure enable you to enjoy energy independence and maximize your solar investment through the export power control feature and time of use shifts for reducing electricity bills. Additionally, its modular scalable design offers the flexibility to start from small be size and expandable as your needs grow.

Features

- 24/7 local and remote monitoring
- High charging & discharging capacity
- Fanless design, quiet and long lifespan
- 150% oversized, 150% yield
- All-in-one & split application optional
- Power critical loads during power cuts

Flexible Setting for Charge | Export Control Function | 150%Oversized, 150%Yield | Compatible with High-current PV Modules

Compatible Products

Residential Lithium Battery | Smart EV Charger | Wi-Fi Dongle | Smart Meter | Monitoring System

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LIVOLTEK

FIȘĂ TEHNICĂ INVERTOR MONOFAZAT

Specifications

Model	Hyper-3000	Hyper-3680	Hyper-4600	Hyper-5000	Hyper-6000
PV Input					
Max. PV Input Power	4500Wp	5520Wp	6900Wp	7500Wp	7500Wp
Max. PV Input Voltage	600V				
Nominal Input Voltage	360V				
MPPT Voltage Range	125~550V				
No. of MPPTs/Strings per MPPT	1 / 1	2 / 1	2 / 1	2 / 1	2 / 1
Max. PV Current	14A	14/14A	14/14A	14/14A	14/14A
Max. Short Circuit Current	17.5A	17.5/17.5A	17.5/17.5A	17.5/17.5A	17.5/17.5A
AC Output @ Grid					
Nominal AC Power	3000W	3680W	4600W	5000W	6000W
Max. Apparent Output Power	3000VA	3680VA	4600VA	5000VA	6000VA
Nominal AC Voltage	220V/230V/240V				
Nominal AC Voltage Range	186~290V				
AC Frequency	50Hz/60Hz				
Max. AC Current	14.0A	16.0A	20.0A	23.9A	26.1A
THDi,Rated Power[%]	<3%				
Power Factor	~1 (Adjustable from 0.8 Leading to 0.8 Lagging)				
EPS Output @ Off Grid					
Nominal EPS Power	3000W	3680W	4600W	5000W	6000W
EPS Peak Power	1.1 x Pnom, 60 sec; 1.5 x Pnom, 1 sec				
Nominal Output Voltage	220V/230V				
Nominal Frequency	50Hz/60Hz				
Nominal Output Current	13.0A	16.0A	20.0A	21.7A	26.1A
THDv,Rated Power[%]	< 3%				
Battery Input					
Battery Type	Lithium				
Battery Voltage	40~60V				
Max. Charge/Discharge Current	60A	80A	100A	100A	125A
Communication with BMS	CAN				
Efficiency					
Max. Efficiency	97.6%	97.8%			
Euro Efficiency	97.1%	97.4%			
General Data					
Dimension (W*H*D)	415*625*155mm				
Weight	29kg	30kg	30kg	30kg	30kg
Mounting Method	Wall-mounting Bracket				
Protection Rating	IP65				
Cooling	Natural Convection				
Operating Temperature Range	-25℃~+60℃ (>45℃ Derating)				
Display	LED & APP				
Communication	Wi-Fi/DRM/CAN/RS485				
Standard Warranty	5 Years				

Remarks: The range of output Voltage and frequency may vary depending upon different grid codes.

KILOWAT

LIVOLTEK

FIȘĂ TEHNICĂ BATERIE LOW VOLTAGE (MONOFAZAT)

Low-Voltage Residential Battery

Lithium Battery System: BLF51-5 51.2V100Ah

The BLF51-5 LV battery system is ideal for new installation of household energy storage. With high energy density and wall- mounted solution, BLF51-5 LV battery system is space-saving for indoor and outdoor installation. To serve increasing load requirement, the flexible expansion can fit your energy demand of today and tomorrow.

Features

- Intelligent BMS with multiple protections
- Double and robust mechanical protection
- IP65 supporting indoor and outdoor installation
- Long cycle life and safest prismatic LFP batteries
- Reliable performance: high efficiency and 90% DOD
- Easy and quick installation and expansion with modular design

Safe to Use

Long Cycle Life (6000 Cycles)

Modular Expansion

Flexible Integration

Compatible Products

Hybrid Inverter

AC Coupled Inverter

Off-grid Hybrid Inverter

Monitoring System

KILOWAT

LIVOLTEK

FIȘĂ TEHNICĂ BATERIE LOW VOLTAGE (MONOFAZAT)

Specifications

Model	BLF51-5
Battery Type	LFP
Nominal Voltage	51.2V
Operating Voltage Range	43.2V~57.6V
Nominal Capacity	100Ah
Nominal Energy	5.12kWh
Depth of Discharge	90%
Usable Energy	4.6kWh
Dimension(W*H*D)	IP21: 415*662*178mm; IP65: 415*685*178mm
Weight	55kg
Max. Charge/Discharge Current	50A/100A
Operating Temperature	Charge: 0°C~50°C; Discharge: -10°C~55°C
Operating Humidity	5%~95%
Storage Temperature	-20°C~60°C
Operating Altitude	Below 4000m
Communication	RS485/CAN
Scalability	Up to 5 Modules/25kWh
Cooling Type	Natural
Ingress Protection	IP21/IP65
Cycle Life	6000 Cycles[1]
Standard Warranty	5 Years/10 Years (Optional)
Authentication Level	IEC62619/CE/UN38.3

[1]: Test conditions: 0.5C Charge/0.5C Discharge, @25℃, 90% DOD, 70% EOL.

KILOWAT

LIVOLTEK

FIȘĂ TEHNICĂ INVERTOR TRIFAZAT

Hybrid Inverter

Three Phase: HP3-5K/6K/8K/10K/12K/15K/17K/20K /25K/30K D1

As the core of the energy storage solution, LIVOLTEK three phase hybrid inverter offers flexible and scalable solutions for both residential and commercial applications. With the ability of scalable battery storage, the high-voltage inverter facilitate powerful energy backup and also present high self-consumption with optimised built-in EMS to reduce energy cost.

Features

- 150% PV oversize
- 100% Unbalanced output
- Max. 20A DC input current per string
- Free online monitoring and maintenance
- UPS level switching time for critical loads
- Multi woking modes for optimal perfomance

Flexible Setting for Charge

Voltage Range 150V-800V

Support Unblance Load

Export Limitation

Compatible Products

High Voltage Lithium Battery

Wi-Fi Dongle

Smart Meter

Monitoring System

KILOWAT

LIVOLTEK

FIȘĂ TEHNICĂ INVERTOR TRIFAZAT

Specifications

Model	HP3-5KD1	HP3-6KD1	HP3-8KD1	HP3-10KD1	HP3-12KD1	HP3-15KD1	HP3-17KD1	HP3-20KD1	HP3-25KD1	HP3-30KD1
PV Input										
Max. PV Input Power	7500Wp	9000Wp	12000Wp	15000Wp	18000Wp	22500Wp	25500Wp	30000Wp	37500Wp	45000Wp
Max. PV Input Voltage	1000V									
Nominal Input Voltage	600V									
MPPT Voltage Range	150 V ~ 850 V									
No. of MPPTs/Strings per MPPT	2/(1+1)	2/(1+1)	2/(1+1)	2/(1+1)	2/(1+1)	2/(1+2)	2/(2+2)	2/(2+2)	2/(2+2)	2/(2+2)
Max.PV Current	20/20A	20/20A	20/20A	20/20A	20/20A	20/32A	32/32A	32/32A	40/40A	40/40A
Max. Short Circuit Current	30/30A	30/30A	30/30A	30/30A	30/30A	30/48A	48/48A	48/48A	60/60A	60/60A
AC Output @ Grid										
Nominal AC Output Power	5000W	6000W	8000W	10000W	12000W	15000W	17000W	20000W	25000W	30000W
Max. AC Input Power	7500W	9000W	12000W	15000W	18000W	22500W	25500W	30000W	37500W	45000W
Nominal AC Voltage	3W+N+PE, 230/400V									
AC Frequency	50 Hz / 60 Hz									
Max. Output Current	8.5A	10.5A	13.5A	17.0A	21.5A	27.0A	30.0A	32.0A	40.0A	48.0A
THDi,Rated Power[%]	< 3%									
Power Factor	~1 (Adjustable from 0.8 Leading to 0.8 Lagging)									
EPS Output @ Off Grid										
Nominal EPS Power	5000W	6000W	8000W	10000W	12000W	15000W	17000W	20000W	25000W	30000W
EPS Peak Power	1.1 x Pnom, 60sec									
Nominal Output Voltage	3W+N+PE, 230/400V									
Nominal Frequency	50 Hz/60 Hz									
Nominal Output Current	7.3A	8.7A	11.6A	14.5A	17.4A	21.8A	24.8A	29.0A	36.3A	43.5A
THDv,Rated Power[%]	< 3%									
Battery Input										
Battery Type	Lithium									
Battery Voltage Range	150V ~ 800 V									
Max. Charge/Discharge Current	30A/30A					50A/50A			60A / 60A	
Communication with BMS	CAN									
Efficiency										
Max. Efficiency	98.1%	98.1%	98.2%	98.2%	98.3%	98.3%	98.3%	98.3%	98.5%	98.5%
Euro Efficiency	97.5%	97.5%	97.5%	97.5%	97.6%	97.6%	97.8%	97.8%	98%	98.1%
General Data										
Dimension (W*H*D)	560*430*250 mm									
Weight	20kg	20kg	23kg	23kg	23kg	29kg	29kg	29kg	29kg	29kg
Mounting Method	Wall-mounted									
Protection Rating	IP65									
Cooling	Natural Convection	Intelligent Fan								
Operating Temperature Range	-25 °C~+60 °C									
Display	LED & APP									
Communication	Wi-Fi/DRM/CAN/RS485									
Standard Warranty	5 Years									

Remarks: The range of output Voltage and frequency may vary depending upon different grid codes.

KILOWAT

LIVOLTEK

FIȘĂ TEHNICĂ BATERIE HIGHT VOLTAGE (TRIFAZAT)

High-Voltage Residential Battery

Lithium Battery System: BHF-S10/S15/S20/S25/S30

The LIVOLTEK BHF HV Battery System is ideal for new installation of residential energy storage system. With high energy density, high efficiency ,modular stacking design and IP65 rating, BHF series battery is space-saving for indoor and outdoor installation.Up to 30 kWh system can fit your high energy demand.

Features

- IP65 supporting indoor and outdoor installation
- Long cycle life and safest prismatic LFP batteries
- Remote fault diagnosis, upgrade and maintenance
- Reliable performance: high efficiency, high energy density and 90% DOD
- Modular stacking design, easy installation, supporting floor and wall mounting

Compatible Products


Hybrid Inverter


Monitoring System

KILOWAT

LIVOLTEK

FIȘĂ TEHNICĂ BATERIE HIGHT VOLTAGE (TRIFAZAT)

Specifications

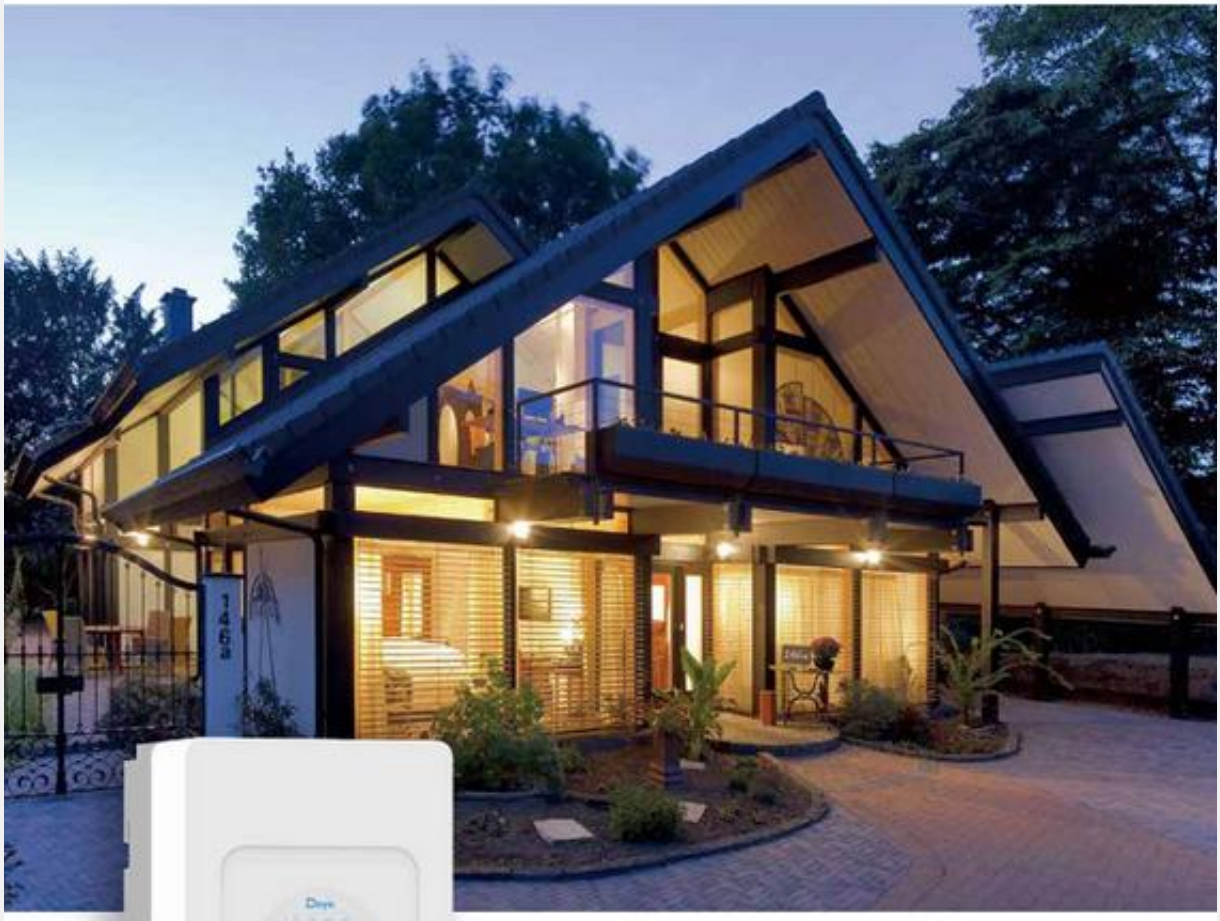
Model	BHF-S10	BHF-S15	BHF-S20	BHF-S25	BHF-S30
Nominal Voltage	204.8V	307.2V	409.6V	512V	614.4V
Operating Voltage Range	172.8V-230.4V	259.2V-345.6V	259.2V-345.6V	432V-576V	518.4V-691.2V
Battery Module	102.4V 50Ah 5.12kWh				
Number of Modules	2	3	4	5	6
Total Energy	10.2kWh	15.4kWh	20.5kWh	25.6kWh	30.7kWh
Usable Energy	9.2kWh	13.8kWh	18.4kWh	23.0kWh	27.6kWh
Rated Capacity	50Ah				
Nominal Power	5.1kW	7.7kW	10.2kW	12.8kW	15.4kW
Max. Power	9.8kW	14.7kW	19.7kW	24.6kW	29.5kW
Recommend Charge/Discharge Current	25A				
Max. Charge/Discharge Current	48A				
Cycle Life	6000 Cycles[1]				
Expected Life Time/Warranty	10 Year				
Operating Temperature Range	Charge: 0℃~55℃/Discharge: -20℃~55℃				
Storage Temperature	-20℃~55℃				
Operating Humidity	5%-95%				
Operating Altitude	Below 4000m				
Protection Degree	IP65				
Installation Location	Wall-mounted / Ground-mounted				
Battery to Inverter Communication	CAN				
Battery to Battery/BMS	CAN				
Certificate	CE,UN38.3,IEC62619,IEC61000				
Protective Level	I				
Dimensions(W×H×D mm)	870*878.5*208.7	870*1167*208.7	870*1455*208.7	870*1167*208.7 870*778*208.7	870*1167*208.7 870*1067*208.7
Net Weight	147kg	209kg	271kg	356kg	418kg

[1]: Test conditions: 0.5C Charge/0.5C Discharge, @25℃, 90% DOD, 70% EOL.

FIȘĂ TEHNICĂ INVERTOR MONOFAZAT 3.6 KW – 6KW

Single Phase Hybrid Inverter

SUN-3.6/5/6K-SG03LP1-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
- 135 — Max. charging/discharging current of 135A
- 6 — 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

Stock Code: 605117.SH

FIȘĂ TEHNICĂ INVERTOR MONOFAZAT 3.6 KW – 6KW

Technical Data

www.deyeinverter.com

Model	SUN-3.6K-SG03LP1-EU	SUN-5K-SG03LP1-EU	SUN-6K-SG03LP1-EU
Battery Input Data			
Battery Type	Lead-acid or Lithium-ion		
Battery Voltage Range (V)	40-60		
Max. Charging Current (A)	90	120	135
Max. Discharging Current (A)	90	120	135
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
Max. PV Input Power (W)	4680	6500	7800
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)	13+13		
Max. Input Short-Circuit Current (A)	17+17		
No. of MPP Trackers/ No. of Strings MPP Tracker	2/1+1		
AC Input/Output Data			
Rated AC Input/Output Active Power (W)	3600	5000	6000
Max. AC Input/Output Apparent Power (VA)	3960	5500	6600
Rated AC Input/Output Current (A)	16.4/15.7	22.7/21.7	27.3/26.1
Max. AC Input/Output Current (A)	18/17.2	25/23.9	30/28.7
Max. Continuous AC Passthrough (grid to load) (A)	35		40
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 Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level		
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 (℃)	-40 to +60℃, >45℃ Derating		
Permissible Ambient Humidity	0-100%		
Permissible Altitude	2000m		
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)	25		
Type of Cooling	Natural 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		

FIȘĂ TEHNICĂ INVERTOR MONOFAZAT 7.6 KW - 8 KW

Single Phase Hybrid Inverter

SUN-7.6/8K-SG01LP1-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
- 190 — Max. charging/discharging current of 190A
- 6 — 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

Deye

Stock Code 605117SH

FIȘĂ TEHNICĂ INVERTOR MONOFAZAT 7.6 KW - 8 KW

Technical Data

www.deyeinverter.com

Model	SUN-7.6K-SG01LP1-EU	SUN-8K-SG01LP1-EU
Battery Input Data		
Battery Type	Lead-acid or Lithium-ion	
Battery Voltage Range (V)	40-60	
Max. Charging Current (A)	190	190
Max. Discharging Current (A)	190	190
Charging Strategy for Li-ion Battery	Self-adaption to BMS	
Number of Battery Input	1	
PV String Input Data		
Max. PV Input Power (W)	9880	10400
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)	26+26	
Max. Input Short-Circuit Current (A)	34+34	
No. of MPP Trackers/ No. of Strings per MPP Tracker	2/2+2	
AC Input/Output Data		
Rated AC Input/Output Active Power (W)	7600	8000
Max. AC Input/Output Apparent Power (VA)	8360	8800
Rated AC Input/Output Current (A)	34.5/33	36.4/34.8
Max. AC Input/Output Current (A)	38/36.3	40/38.3
Max. Continuous AC Passthrough (grid to load) (A)	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 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	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	2000m	
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)	420×670×233 (Excluding Connectors and Brackets)	
Weight (kg)	30	
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, G99, VDE-AR-N 4105	
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	

FIȘĂ TEHNICĂ INVERTOR TRIFAZAT

Three Phase Hybrid Inverter

SUN-5/6/8/10/12K-SG04LP3-EU

- 100 — 100% unbalanced output, each phase; Max. output up to 50% rated power
- AC couple to retrofit existing solar system
- 10 — Max. 10 pcs parallel for on-grid and off-grid operation, Support multiple batteries parallel
- 240 — Max. charging/discharging current of 240A
- 48 — 48V low voltage battery, transformer isolation design
- 6 — 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

Stock Code: 605117.SH

FIȘĂ TEHNICĂ INVERTOR TRIFAZAT

Technical Data

www.deyeinverter.com

Model	SUN-5K -SG04LP3-EU	SUN-6K -SG04LP3-EU	SUN-8K -SG04LP3-EU	SUN-10K -SG04LP3-EU	SUN-12K -SG04LP3-EU
Battery Input Data					
Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	40-60				
Max. Charging Current (A)	120	150	190	210	240
Max. Discharging Current (A)	120	150	190	210	240
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	1				
PV String Input Data					
Max. PV Access Power (W)	10000	12000	16000	20000	24000
Max. PV Input Power (W)	7500	9000	12000	15000	18000
Max. PV Input Voltage (V)	800				
Start-up Voltage (V)	160				
MPPT Voltage Range (V)	200-650				
Rated PV Input Voltage (V)	550				
Max. Operating PV Input Current (A)	13+13			26+13	
Max. Input Short-Circuit Current (A)	17+17			34+17	
No. of MPP Trackers/ No. of Strings MPP Tracker	2/1+1			2/2+1	
AC Input/Output Data					
Rated AC Input/Output Active Power (W)	5000	6000	8000	10000	12000
Max. AC Input/Output Apparent Power (VA)	5500	6600	8800	11000	13200
Rated AC Input/Output Current (A)	7.6/7.2	9.1/8.7	12.1/11.6	15.2/14.5	18.2/17.4
Max. AC Input/Output Current (A)	8.4/8	10/9.6	13.4/12.8	16.7/15.9	20/19.1
Max Continuous AC Passthrough (grid to load) (A)	45				
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)	220/380V, 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, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level				
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	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)	422×658×254 (Excluding Connectors and Brackets)				
Weight (kg)	38				
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				

FIȘĂ TEHNICĂ BATERII DEYE

SE-G5.1 Pro-B

- **Safer**

Cobalt Free Lithium Iron Phosphate (LFP) Battery: Safety and long Lifespan, high efficiency and high power density.
Intelligent BMS, providing complete protection.

- **Reliable**

Support high discharge power. IP20, natural cooling, wide temperature range: -20℃ to 55℃.

- **Flexible**

Modular design, easy to expand, Max. 64 units in parallel, Max. capacity of 327kWh.
Suited to residential and commercial applications for increasing the self-consumption ratio.

- **Convenient**

Battery module auto networking, easy maintenance, support remotely monitoring and upgrade, support USB drive upgrade the firmware.

- **Eco-Friendly**

Use environmental protection materials, the whole module non-toxic, pollution-free.

- **Three Mounting Methods**

19inch Standard design, support rack-mounted, wall-mounted, and floor-mounted, saving installation space.

Stock Code: 605117.SH

FIȘĂ TEHNICĂ BATERII DEYE

Technical Data

www.deyeess.com

Model		SE-G5.1 Pro-B
Main Parameter		
Battery Chemistry		$LiFePO_4$
Capacity (Ah)		100
Scalability		Max. 64 pcs pack (327kWh) in parallel (Max. 32 pcs no external setup)
Nominal Voltage (V)		51.2
Operating Voltage(V)		43.2~57.6
Nominal Energy (kWh)		5.12
Usable Energy (kWh) [1]		4.6
Charge/Discharge Current (A) [2]	Recommend	50
	Max.	100
	Peak(2mins,25℃)	150
Other Parameter		
Recommend Depth of Discharge		90%
Dimension (W/H/D, mm)		440*133*540
Weight Approximate(kg)		45
Master LED Indicator		5LED(SOC:20%~SOC100%),3LED (working, alarming, protecting)
IP Rating of Enclosure		IP20
Operating Temperature		Charge: 0~55℃ (Optional heating: -20℃~55℃), Discharge: -20℃~55℃
Storage Temperature		0~35℃
Humidity		5%~95%
Altitude		≤2000m
Cycle Life		≥6000(25℃±2℃,0.5C/0.5C,90%DOD,70%EOL)
Installation		Wall-Mounted, Floor-Mounted, Rack-Mounted (19-inch standard cabinet, cabinet depth ≥600mm)
Communication Port		CAN2.0, RS485
Warranty Period [3]		10 years
Energy Throughput		16MWh@70%EOL
Certification		UN38.3, IEC62619, CE,UK, VDE2510-50, CEI 0-21, FCC, UL1973, UL9540A

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25℃. System usable energy may vary due to system configuration parameters.

[2] The current is affected by temperature and SOC.

[3] Conditions apply, refer to Deye Warranty Letter.

Introduction

This series lithium iron phosphate battery is one of new energy storage products developed and produced by Deye , it can be used to support reliable power for various types of equipment and systems.

This series is especially suitable for application scene of high power, limited installation space, restricted load-bearing and long cycle life.

This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging to extend cycle life. Multiple batteries can connect in parallel for larger capacity and longer power supporting.

KILOWAT

FIȘĂ TEHNICĂ BATERII HAILEI

IP66
Indoor and outdoor installation options

Cycle Life
Up to 6000+ cycles

C4 class
Anti-corrosion battery housing

Powered by EVE cells
Reliable quality, high safety

Heating function
Improved the low temperature performance

Fire protection function
More safety

KILOWAT

FIȘĂ TEHNICĂ BATERII HAILEI

Hailei

HAILEIENERGY.COM

Item	Parameters		
Technical Specification	WB-51100 	LV51200 	LV51300 
Performance			
Battery capacity	5kWh	10kWh	15kWh
Battery usable capacity	5kWh	10kWh	15kWh
Charging & discharging power	4kW	6kW	6kW
Max.charging and discharging power	5kW	7kW	7kW
Nominal voltage	51.2V		
Operating voltage range	44.8V-57.6V		
Cycles and SOH	>6000, 80% (10 years)		
Communication			
Display	SOC status indicator, LED indicator		
Communication	RS485/CAN		
General Specification			
Dimensions	550mmx480mmx165mm 21.65 in.x 18.9in.x6.5in.	698mmx560mmx165mm 27.36in.x22.05in.x6.3in.	690mmx580mmx240mm 27.17in.x22.83in.x9.45in.
Weight	55kg	99.5kg	122kg
Installation	Wall mount	Floor- standing	Floor-standing
Operating temperature	-20°Cto+55°C (-4°F to+131°F)		
Max operating altitude	3000m(9842ft.)		
Environment	Indoor /outdoor		
Relative humidity	5%-95%RH		
Cooling	Natural		
IPrating	IP66		
Noise emission	<29dB		
Cell technology	Lithium-ion phosphate (LiFePO4)		
Compatible inverters	DEYE , SOLIS, Victron Energy, Growatt (Spf-Sph), Voltronic, Easun, Goodwe, Megarevo, Luxpower, SMA, Afore, SRNE		
Standard Compliance (More Available Upon request)			
Certificates	CE, IEC62619, UN38.3, RoHS		

1 .Test conditions: 100% depth of discharge (DoD, 0.2c rate charge & dicharge at 25°c, at the beginning of life. if no PV modules are installed or the system has not detected sunlight for at least 24 hours, the minimum end of discharge SOC is 15%.
2 .The Max. power can maintain 15s, under the conditions: 80%SOC , work temperature between 25 °C to 40 °C.
3 .Refer to battery warranty letter for conditional application.
4 .Indoor installation is recommended. For outdoor installation, refer to the user manual for instruction.

SUNGROW FIȘĂ TEHNICĂ INVERTOR MONOFAZAT

SH3.0/3.6/4.0/5.0/6.0RS

Residential Hybrid Single Phase Inverter

FLEXIBLE APPLICATION

- 80 V - 460 V wide battery voltage range
- Ideal for both retrofitting and new installations
- Built-in smart PID Zero function

ENERGY INDEPENDENCE

- Seamless transition to backup mode, for protection against power outages
- Fast Charging or discharging, enabling higher self-consumption results
- Built-in EMS with advanced customization

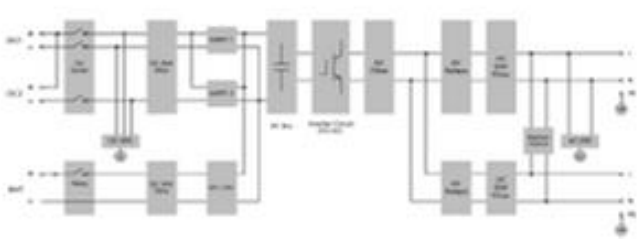
USER FRIENDLY SETUP

- Plug and play installation
- iSolarCloud monitoring available on App and Web
- Lightweight and compact, optimized for heat-dissipation

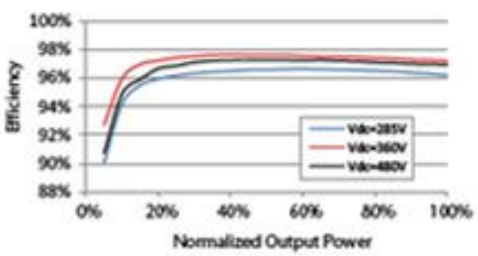
SMART MANAGEMENT

- Real time data (10 seconds refresh sample)
- 24/7 live online monitoring and with integrated display
- Online IV curve scan and diagnosis

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SH6.0RS)



KILOWAT

SUNGROW FIȘĂ TEHNICĂ INVERTOR MONOFAZAT

Type designation	SH3.0RS	SH3.6RS	SH4.0RS	SH5.0RS	SH6.0RS
Input (DC)					
Recommended max. PV input power *	4500 Wp	5400 Wp	6000 Wp	7500 Wp	9000 Wp
Max. PV input voltage **	600 V				
Min. PV input voltage / Startup input voltage	40 V / 50 V				
Rated PV input voltage	360 V				
MPPT operating voltage range ***	40 V – 560 V				
No. of independent MPP trackers	2				
No. of PV strings per MPPT	1 / 1				
Max. PV input current	32 A (16 A / 16 A)				
Max. DC short-circuit current	40 A (20 A / 20 A)				
Max. current for input connector	20 A				
Battery data					
Battery type	Li-ion battery				
Battery voltage range	80 V - 460 V				
Max. charge **** / discharge current ****	30 A / 30 A				
Max. charge / discharge power	6600 W				
Input / output (AC)					
Max. AC power from grid	10000 VA	10700 VA	11000 VA	12000 VA	13000 VA
Rated AC output power	3000 W	3680 W	4000 W	5000 W	6000 W
Max. AC output apparent power	3000 VA	3680 VA	4000 VA	5000 VA	6000 VA
Max. AC output current	13.7 A	16 A	18.2 A	22.8 A	27.3A
Rated AC voltage	220 V / 230 V / 240 V				
AC voltage range	154 V – 276 V				
Rated grid frequency	50 Hz / 60 Hz				
Grid frequency range	45 Hz – 55 Hz / 55 Hz – 65 Hz				
Harmonic (THD)	< 3 % (of rated power)				
Power factor at rated power / Adjustable power factor	>0.99 at default value at rated power				
Feed-in phases / connection phases	1 / 1				
Backup data (on grid mode)					
Max. output power for backup load *****	6000 W				
Max. output current for backup load ******	27.3 A				
Backup data (off-grid mode)					
Rated voltage	220 V / 230 V / 240 V (± 2 %)				
Rated frequency	50 Hz / 60 Hz (± 0.2 %)				
THDV(@Linear load)	< 2 %				
Backup switch time	< 10 ms				
Rated output power	3000W / 3000VA	3680W / 3680VA	4000 W / 4000 VA	5000W / 5000VA	6000W / 6000VA
Peak output power	8400 VA, 10s				
Efficiency					
Max. efficiency / European efficiency	97.4 % / 97.0 %	97.5 % / 97.1 %	97.6 % / 97.2 %	97.7% / 97.3%	97.7 % / 97.3 %
Protection & Function					
Grid monitoring	Yes				
DC reverse polarity protection	Yes				
AC short-circuit protection	Yes				
Leakage current protection	Yes				
DC switch(solar)	Yes				
Surge protection	DC Type II /AC Type II				
PID Zero	Yes				
Parallel operation on grid port / Max. No of inverters	Master-slave mode / 3				
Optimizer compatbility *******	Optional				
General data					
Topology (Solar / Battery)	Transformerless / Transformerless				
Degree of protection	IP65				
Dimensions (W * H * D)	490 mm * 340 mm * 170 mm				
Weight	18.5 kg				
Mounting method	Wall-mounting bracket				
Operating ambient temperature range	-25 ℃ - 60 ℃				
Allowable relative humidity range	0 % – 100 %				
Cooling method	Natural convection				
Max. operating altitude	4000 m				
Noise (typical)	< 45 dB (A)				
Display	LED digital display & LED indicator				
Communication	RS485 / Ethernet / WLAN / CAN				
DI / DO	DI * 4 / DO * 1 / DRM				
DC connection type	MC4 (PV, Max.6 mm²) / Evo2 Compatible (Battery, Max.6 mm²)				
AC connection type	Plug and Play (Grid Max.16mm², Backup Max.6mm²)				
Grid compliance	IEC/EN 62109-1, IEC/EN 62109-2, IEC 62116, IEC 61727, IEC/EN 61000-3-11, IEC/EN 61000-3-12, EN 62477-1, AS/NZS 4777.2:2020, EN 50549-1, CEI 0-21, G 98 / G 99, UNE 217002:2020, NTS V2 TypeA, C10/26				

SUNGROW **FIȘĂ TEHNICĂ INVERTOR TRIFAZAT**

SH5.0/6.0/8.0/10RT

Residential Hybrid Three Phase Inverter

FLEXIBLE APPLICATION

- 150 V-600 V wide battery voltage range
- Supports parallel connection with master-slave controlling
- Provides 100% power to unbalance loads in backup mode

ENERGY INDEPENDENCE

- Seamless transition to backup mode for protection against power outages
- Fast charging / discharging to meet the demand of higher consumption

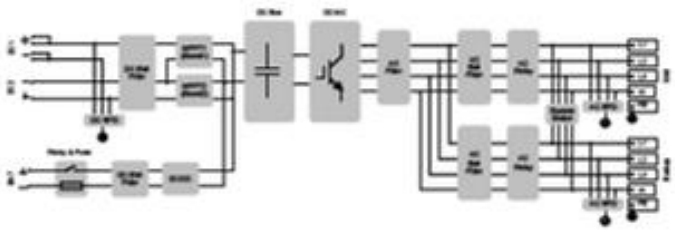
SMART MANAGEMENT

- High self-consumption with optimised built-in EMS
- Free online monitoring to enhance energy management for end user, installer and retailer
- Remote firmware update and customisable settings

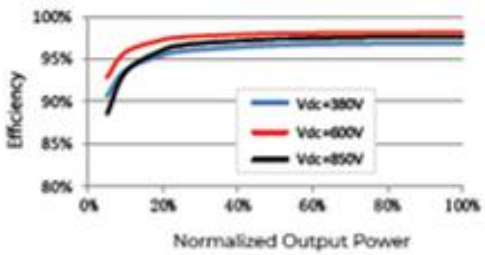
EASY INSTALLATION

- Unique push-in connectors for time-saving installation
- Touch free commissioning with smartphone
- Lightweight and compact

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SH5.0RT)



KILOWAT

SUNGROW FIȘĂ TEHNICĂ INVERTOR TRIFAZAT

Type designation	SH5.0RT	SH6.0RT	SH8.0RT	SH10RT
Input (DC)				
Recommended max. PV input power	7500 Wp	9000 Wp	12000 Wp	15000 Wp
Max. PV input voltage *	1000 V			
Min. PV input voltage / Startup input voltage	150 V / 180 V	200 V / 250 V	200 V / 250 V	200 V / 250 V
Rated PV input voltage	600 V			
MPPT operating voltage range **	150 V – 950 V	200 V – 950 V	200 V – 950 V	200 V – 950 V
No. of independent MPP trackers	2			
No. of PV strings per MPPT	1 / 1	1 / 1	1 / 1	1 / 2
Max. PV input current	25 A (12.5 A / 12.5 A)	25 A (12.5 A / 12.5 A)	25 A (12.5 A / 12.5 A)	37.5 A (12.5 A / 25 A)
Max. DC short-circuit current	32 A (16 A / 16 A)	32 A (16 A / 16 A)	32 A (16 A / 16 A)	48 A (16 A / 32 A)
Max. current for input connector	30 A			
Battery data				
Battery type	Li-ion battery			
Battery voltage range	150 V - 600 V			
Max. charge *** / discharge current ***	30 A / 30 A			
Max. charge / discharge power	7500 W / 6000 W	9000 W / 7200 W	10600 W / 10600 W	10600 W / 10600 W
Input / Output (AC)				
Max. AC power from grid	12500 W	15000 W	18600 W	20600 W
Rated AC output power	5000 W	6000 W	8000 W	10000 W
Max. AC output apparent power	5000VA	6000 VA	8000 VA	10000 VA
Max. AC output current	7.6 A	9.1 A	12.1 A	15.2 A
Rated AC voltage	3 / N / PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V			
AC voltage range	270 V - 480 V			
Rated grid frequency	50 Hz			
Grid frequency range	45 Hz - 55 Hz			
Harmonic (THD)	< 3 % (of rated power)			
DC current injection	< 0.5 % In			
Power factor at rated power / Adjustable power factor	>0.99 / 0.8 leading to 0.8 lagging			
Feed-in phases / connection phases	3 / 3			
Backup data (on grid mode)				
Max. output power for backup load ****	16500 W			
Max. output current for backup load	3 * 25 A			
Backup data (off - grid mode)				
Rated voltage	3 / N / PE, 220Vac / 230Vac / 240Vac			
Rated frequency	50 Hz			
THDV(@Linear load)	2 %			
Backup switch time	< 20 ms			
Rated output power	5000W / 5000VA	6000W / 6000VA	8000W / 8000VA	10000W / 10000VA
Peak output power *****	6000W / 6000VA, 5min 10000W / 10000VA, 10s	7200W / 7200VA, 5min 10000W / 10000VA, 10s	12000W / 12000VA, 5min	12000W / 12000VA, 5min
Peak output power on single phase ******	2000 VA (≥9.6kWh)	2200 VA (≥12.8kWh)	2700 VA (≥12.8kWh)	3400 VA (≥12.8kWh)
Rated output current for backup load	3 * 18.5 A			
Efficiency				
Max. efficiency / European efficiency	98 % / 97.2 %	98.2 % / 97.5 %	98.4% / 97.9%	98.4% / 97.9%
Protection & Function				
Grid monitoring	Yes			
DC reverse polarity protection	Yes			
AC short-circuit protection	Yes			
Leakage current protection	Yes			
DC switch (solar)	Yes			
DC overcurrent protection (Battery)	Yes			
Surge protection	DC Type II / AC Type II			
Parallel operation on grid port / Max. No of inverters	Master-slave mode / 5			
Battery input reverse polarity protection	Yes			
General data				
Topology (solar / battery)	Transformerless / Transformerless			
Degree of protection	IP65			
Dimensions (W * H * D)	460 mm * 540 mm * 170 mm			
Weight	27 kg			
Mounting method	Wall-mounting bracket			
Operating ambient temperature range	-25 ℃ - 60 ℃			
Allowable relative humidity range (non-condensing)	0 % - 100 %			
Cooling method	Natural convection			
Max. operating altitude	4000 m			
Noise (Typical)	30 dB (A)			
Display	LED			
Communication	RS485, WLAN, Ethernet, CAN, 4 × DI, 1 × DO			
DI/DO	DI*4/DO*1/DRM			
DC connection type	MC4 (PV, Max.6mm²) / Evo2 Compatible (Battery, Max.6mm²)			
AC connection type	Plug and play connector (Grid Max.10mm², Backup Max.6mm²)			
Compliance	IEC / EN 62109, IEC / EN 61000-6, EN 62477-1, IEC 61727, IEC 62116, IEC 61683, VDE-AR-N-4105, AS/NZS 4777.2:2020, EN50549-1, NRS 097-2-1, TOR Generator Type A, NA/EEA:2020 NE7, SII 2021, NC RfG PTPIREE, NC RfG, EIFS 2018:2, PPDS4, C10/11			

SUNGROW **FIȘĂ TEHNICĂ BATERII**

SBR064/096/128/160/192/224/256

High Voltage LFP Battery

HIGH-PERFORMANCE

- Up to 30 A continuous charging and discharging current with high efficiency
- Up to 100% usable energy

SAFETY

- Lithium iron phosphate Battery
- Multi-stages protection design and extensive safety certification

FLEXIBILITY

- Extendable during lifetime
- Support 2-8 modules per unit, 6.4–25.6 kWh capacity range

EASY INSTALLATION

- Compact and Light, single person installation
- Plug and Play, no cables needed between battery modules

KILOWAT

SUNGROW FIȘĂ TEHNICĂ BATERII

Type designation	SBR064 *	SBR096	SBR128	SBR160	SBR192	SBR224	SBR256
Technical properties	 2 modules	 3 modules	 4 modules	 5 modules	 6 modules	 7 modules	 8 modules
System data							
Battery type	LiFePO4 Prismatic Cell						
Battery module	3.2 kWh, 33 kg						
Energy (useable) **	6.4 kWh	9.6 kWh	12.8 kWh	16 kWh	19.2 kWh	22.4 kWh	25.6 kWh
Nominal voltage	128 V	192 V	256 V	320 V	384 V	448 V	512 V
Operating voltage	108 V – 146 V	162 V – 219 V	216 V – 292 V	270 V – 365 V	324 V – 438 V	378 V – 511 V	432 V – 584 V
Max. charging/discharging current: continuous ***	30 A						
Depth of discharge	Max. 100 % DOD (settable)						
Short circuit current	3500 A						
Display	SOC indicator, Status indicator						
Communication interface	CAN						
Protection							
Over/under voltage protection	Yes						
Over current protection	Yes						
Over/under temperature protection	Yes						
DC breaker	Yes						
General data							
Dimensions (W*H*D)	625*545*330 mm	625*545*330 mm	625*675*330 mm	625*805*330 mm	625*935*330 mm	625*1065*330 mm	625*1195*330 mm
Weight	89 kg	114 kg	147 kg	180 kg	213 kg	246 kg	279 kg
Installation location	Indoor / Outdoor						
Mounting method	Floor stand						
Operating ambient temperature range	Charge: 0 ℃ - 50 ℃ Discharge: -20 ℃ - 50 ℃						
Degree of protection	IP55						
Allowable relative humidity range	0% - 95% non - condensing						
Max. operating altitude	Max. 4000 m						
Cooling method	Natural convection						
Certificates	CE, CEC, IEC 62619, IEC 62040, UN38.3, VDE 2510-50, IEC 62477, IEC 63056, IEC 61000, UKCA						

* SBR064 consists of 2 battery modules and 1 empty module.
** Test conditions: 25 °C, 100 % depth of discharge (DOD), 0.2C charge & discharge.
*** The maximum charging/discharging current of SBR064 is 20A when used with SHRT series inverter.

DESPRE KILOWAT

ISTORIC

Kilowat este o extensie a companiei Altige Impex SRL, o entitate juridică din domeniul construcțiilor, specializată în construcția de spații comerciale și industriale. Cu o istorie ce datează din 2004, Altige Impex SRL face parte dintr-un grup de firme cu o viziune clară de diversificare a investițiilor. După o tranzacție reușită a companiei Sano Vita, atenția managementului și resursele investiționale s-au reorientat către brandul Kilowat, plasându-l în centrul unor noi și ambițioase proiecte de investiții.

OBIECTIVELE KILOWAT

Prin intermediul platformei sale, Kilowat contribuie la modul în care energia este produsă, distribuită și consumată, punând accent pe soluții durabile, inovatoare și eficiente din punct de vedere energetic. Fiecare serviciu sau produs oferit de Kilowat este conceput având ca obiective: maximizarea eficienței energetice, reducerea costului facturilor, autonomia energetică și sustenabilitatea.

- **Peste 400 de sisteme instalate și 1600 de kW în Casa Verde 2022**
- **Peste 1800 de sisteme instalate și 9.500 de kW în Casa Verde 2023**
- **Partener OFICIAL Huawei și Instalator AUTORIZAT AFM**
- **Asigurarea ECOHome Protect pentru toate pachetele noastre**

BONUSURI KILOWAT

ASIGURAREA ECOHOME PROTECT

Toate pachetele noastre includ asigurarea EcoHome Protect de la Uniqa, oferind protecție completă pentru investiția ta în energie verde, valabilă timp de 1 an. Astfel, te bucuri de siguranță și liniște, indiferent de condițiile externe!

HUAWEI WATCH 3 FIT

Huawei Watch Fit 3 este un smartwatch elegant, cu ecran AMOLED și funcții avansate de sănătate și fitness, perfect pentru un stil de viață activ.

AUTOMATED TRANSFER SWITCH

ATS-ul monitorizează constant sursa principală de alimentare. În cazul unei întreruperi, ATS-ul detectează automat această problema, după care comută rapid la sursa de rezervă, cum ar fi o baterie.

CE ESTE UN BACK-UP BOX?

Backup box-ul este un dispozitiv care asigură continuitatea alimentării la căderea rețelei, comutând automat între rețea și baterii într-un sistem hibrid.

Toate prețurile afișate includ TVA de 9%. Modificarile TVA-ului pot afecta costul final.

Costul montajului pentru acoperiș înclinat este inclus. Pentru alte tipuri de acoperișuri, montaj la sol sau configurații speciale, vă rugăm să ne contactați pentru o ofertă personalizată.

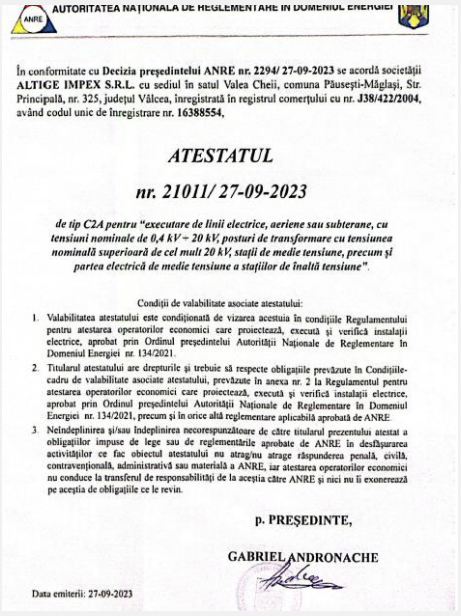
CE CONTINE KIT-UL KILOWAT?

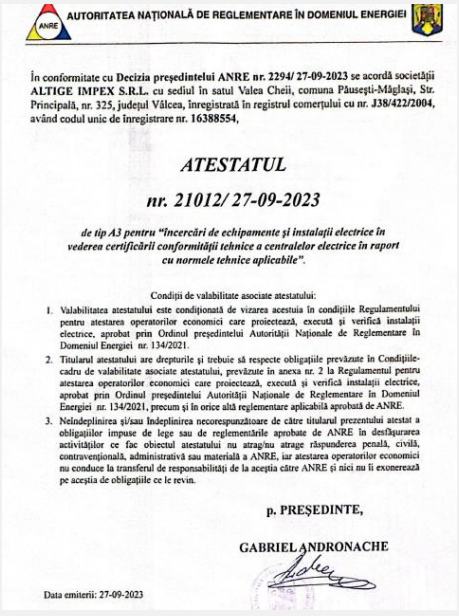
1. Panouri Solare
2. Invertor. Pentru sisteme cu invertor Victron, vă rugăm să ne contactați
3. Contor inteligent (Smart meter)
4. Sistem de prindere și fixare
5. Tablou siguranțe echipat DC/AC
6. Sistem conectică
7. Transport, montaj, punere în funcțiune.
8. Măsurare împământare, emitere PRAM – GRATUIT
9. Depunere dosar PROSUMATOR – GRATUIT
10. Monitorizare – GRATUIT

*Prețul poate suferi modificări în cazul unor probleme economice majore (precum inflația, modificări ale legislației muncii sau a taxelor și impozitelor), stare de urgență sau creșteri semnificative ale prețurilor la producător.

KILOWAT

CERTIFICARI KILOWAT





TRUSTED INSTALLER 2024 PHOTOMATE

ANRE: A3, B1, C1A, C2A
ISO: 9001, 45001, 14001