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SOLAR PANELS

Products Overview

Panels	JAM54S31 405w Module
Optimised Option	Tigo Optimisers
Premium Optimiser	Solar Edge Optimisers
Single Phase Inverters	SoFar KTLM-G2 (Dual MPPT) SoFar G3 (Single MPPT)
Three Phase Inverters	Growatt TL3-S Growatt KTL3-X (>17kW)
Power Diverter	Solar iBoost
AC Storage Inverter	SoFar ME3000SP
DC Storage Inverter	Solis RHI
Storage	Pylontech US3000C
Optional Extras	Enviroguard Solar Panel Bird Exclusion System Zappi EV Charger with myenergi hub and harvi ION Charge EV Charger

Specifications



JAM54S31 405w Half-cell Black Module

Assembled with 11BB PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.

Efficiency:	20%
Weight:	21.5kg
Dimensions	1722mm x1134mm x30mm
Product Warranty:	12-year
Warranty on output:	25-year (linear)



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MPPT INVERTER OPTIONS

SOFAR G3 Single MPPT Inverter

The SoFar G3 range is the latest of SoFar's single phase inverters which combines the features of previous models in a smaller and sleeker design. Starting the range with the 1100TL-G3 the G3 has a low start-up voltage of 70v to ensure that systems will be producing for longer every day.

MPPT Efficiency:	97.7%
Weight:	5.5kg – 6.3kg
Dimensions	303mm x260mm x118mm +/-
Output Warranty:	10-year
Features:	Smart monitoring



SOFAR KTLM-G2 Dual MPPT Inverter

The dual MPPT KTLM-G2 inverter range from SoFar boasts an excellent 98% efficiency and harnesses a real-time, precise MPPT algorithm harvest to achieve high yields. This 2nd gen inverter is smaller and lighter than before, and the range starts with the 3.0 KTLM-G2 size.

MPPT Efficiency:	98%
Weight:	11.5kg
Dimensions	405mm x315mm x135mm
Output Warranty:	10-year
Features:	Smart monitoring



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3 PHASE INVERTER OPTIONS

Growatt TL3-S Three Phase Inverter

This line of Growatt inverters is highly praised within the Growatt range. Growatt were the first inverter manufacturer to be awarded A+ rating by Photon. Their array of inverter options also includes the world's highest ever efficiency inverter. Growatt are constantly striving to supply the best inverter for your home.

Efficiency:	99.5%
Weight:	21.2kg
Dimensions	480mm x448mm x200mm +/-
Output Warranty:	10-year
Features:	Smart monitoring



Growatt KTL3-X Three Phase Inverter (>17kw)

The new Growatt X range of 3-phase inverters is 40% lighter and more compact than the previous model, which combined with a new sleeker design makes the KTL3-X range a great choice for larger 3-phase projects.

Efficiency:	98.7%
Weight:	23kg
Dimensions	525mm x395mm x222mm +/-
Output Warranty:	10-year
Features:	Easy-to-use OLED display



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STORAGE OPTION



PYLONTECH

PYLONTECH US3000 STORAGE SYSTEM

The newest PYLON US3000 range now boasts 95% DoD and a 10-year warranty. These batteries are modular so banks can be built up in units and chained together for an easy and user-friendly experience. This range of PYLONTECH batteries are manufactured with LiFePo4 Lithium technology, which is considered far more stable than standard Lithium as used in a Tesla or LG Chem battery.

Depth of Discharge: 95% (80% w/paired)

Weight: 24kg-32kg

Dimensions 442mm x420mm x139mm +/-

Warranty: 10-year

Features: Modular design, Pre-Charge, Dual-active protection





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STORAGE INVERTER OPTIONS

AC STORAGE OPTION

SOFAR ME3000SP AC Storage Inverter

The SoFar ME3000SP is a widely used and trusted storage inverter within the solar industry. This SoFar option provides a full solution for energy consumers to maximize the use of their generated solar energy and is tested to be reliable and effective for different types of solar energy situations.

Charging Efficiency:	94.1%
Weight:	16kg
Dimensions	532mm x360mm x173mm +/-
Output Warranty:	10-year
Features:	Variable self-consumption rate



DC STORAGE OPTION

SOLIS RHI-3.6K-48ES-5G Hybrid Inverter

The 5G model is the newest model of Solis RHI. The Solis Hybrid Solar Inverter is a slim and lightweight design that allows an easy install. Solis new 5G Solis Hybrid inverter range that supports power for important loads during load shedding as well as saving power during peak demands. Making this the ideal solution you always wanted.

Charging Efficiency:	97.5%
Weight:	17kg
Dimensions	333mm x505mm x249mm +/-
Output Warranty:	10-year
Features:	Fanless design, long lifespan





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OPTIONAL EXTRAS

Enviroguard Solar Panel Bird Exclusion System

By excluding unwanted birds from beneath the solar panel arrays you significantly reduce cleaning and maintenance. Bird infestations that remain unchecked can cause significant damage to the solar panel

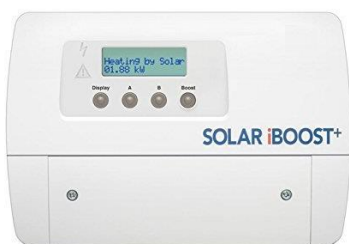


Zappi EV Charger with myenergi hub & harvi

The most popular EV charger in the UK, the Zappi has special eco charging modes which will benefit homeowners with grid-tied microgeneration systems like solar generation. With automated charging current and smart app technologies and features.

ION Charge EV Charger

Easy fix, elegant charging solution for residential and business locations. Manufactured in the UK, the Type 2 fast charging units are suitable for electric and plug-in hybrid vehicles. Made in the UK with a 3-Year warranty and 7.4kW Mode 3 fast charging.



SOLAR iBOOST+

Solar iBoost

Solar iBoost+ is the latest automatic water heating device for pv system owners. Its increased efficiency and extra functions deliver even more savings. Automatically consume the surplus PV generated energy at your home.



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OPTIMISER OPTIONS

STANDARD OPTION

Tigo Solar Panel Optimiser

The Tigo Optimisation is the advanced add-on/ retrofit optimisation solution that brings smart module functionality to standard PV modules for higher reliability. Improve energy efficiency by upgrading under-performing PV systems.

Maximum Power:	500w
Weight:	490g
Dimensions	138mm x139mm x22mm +/-
Warranty:	25-year
Features:	Smart commissioning



PREMIUM OPTION

Solar Edge Panel Inverter & Optimiser

The Solar Edge Inverter & Optimiser upgrade provides industry leading efficiency with 200% DC oversizing. With built-in module-level monitoring and seamless connection to the SolarEdge SetApp you can see exactly how your panels are producing at all times.

Maximum Power:	500w+
Weight:	655g – 895g
Dimensions	139mm x165mm x48mm +/-
Warranty:	25-year
Features:	Smart monitoring



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PANELS PRICE LIST

System Size	Total Price inc. VAT
4 Panels	£3,522
5 Panels	£4,109
6 Panels	£4,730
7 Panels	£5,351
8 Panels	£5,978
9 Panels	£6,604
10 Panels	£7,220
11 Panels	£7,830
12 Panels	£8,251
13 Panels	£8,613
14 Panels	£8,980
15 Panels	£9,408
16 Panels	£9,979
17 Panels	£10,503
18 Panels	£10,976
19 Panels	£11,345
20 Panels	£11,709
21 Panels	£12,072
22 Panels	£12,426
23 Panels	£12,754
24 Panels	£13,066
25 Panels	£13,365



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STORAGE PRICE-LIST

Description	Products	Price
Small – AC connected (retrofit option)	SoFar ME3000 w/ pylon 3.55 (3.2kWh usable)	£3,896.00
Medium – AC connected (retrofit option)	SoFar ME3000 w/ pylon 3.55 x2 (6.4kWh usable)	£4,991.00
Large – AC connected (retrofit option)	SoFar ME3000 w/ pylon 3.55 x3 (9.6kWh usable)	£6,205.00
X Large – AC connected (retrofit option)	SoFar ME3000 w/ pylon 3.55 x4 (12.8kWh usable)	£7,420.00

Description	Products	Price
DC connected (range 10-20 panels)	SoFar HYD or Solis RHI w/ pylon 3.55 (3.2kWh usable)	£2,597.00
DC connected (range 10-20 panels)	SoFar HYD or Solis RHI w/ pylon 3.55 x2 (6.4kWh usable)	£3,659.00
DC connected (range 10-20 panels)	SoFar HYD or Solis RHI w/ pylon 3.55 x3 (9.6kWh usable)	£4,571.00



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**END OF
SPEC SHEET**

**ONLY PRODUCT DATA
SHEETS BELOW THIS PAGE**

DEEP BLUE 3.0 Light

Mono

405W MBB
Half-cell Black Module
JAM54S31 380-405/MR Series

Introduction

Assembled with 11BB PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.



Higher output power



Lower LCOE



Less shading and lower resistive loss

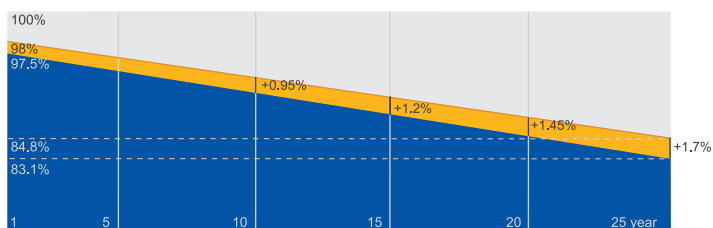


Better mechanical loading tolerance

Superior Warranty

- 12-year product warranty
- 25-year linear power output warranty

0.55% Annual Degradation Over 25 years



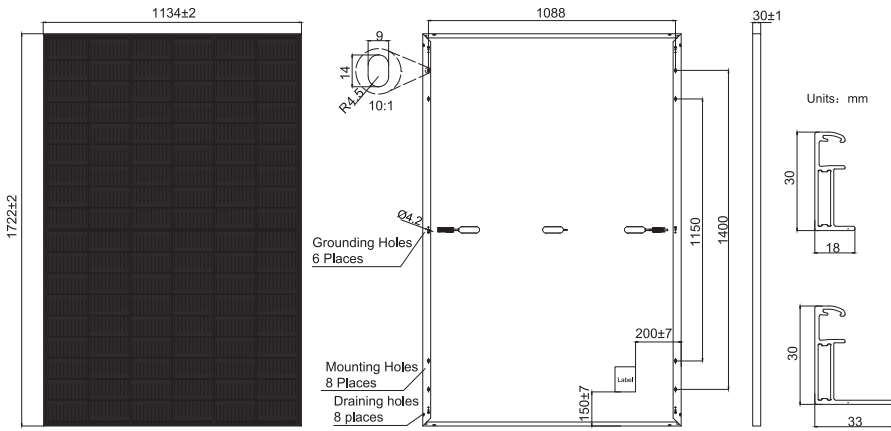
■ New linear power warranty ■ Standard module linear power warranty

Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules – Guidelines for increased confidence in PV module design qualification and type approval



MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono
Weight	21.5kg±3%
Dimensions	1722±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm ² (IEC) , 12 AWG(UL)
No. of cells	108(6x18)
Junction Box	IP68, 3 diodes
Connector	MC4(1000V) MC4-EVO2(1500V)
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); Landscape: 1200mm(+)/1200mm(-)
Packaging Configuration	36pcs/Pallet, 936pcs/40ft Container

ELECTRICAL PARAMETERS AT STC

TYPE	JAM54S31 -380/MR	JAM54S31 -385/MR	JAM54S31 -390/MR	JAM54S31 -395/MR	JAM54S31 -400/MR	JAM54S31 -405/MR
Rated Maximum Power(Pmax) [W]	380	385	390	395	400	405
Open Circuit Voltage(Voc) [V]	36.58	36.71	36.85	36.98	37.07	37.23
Maximum Power Voltage(Vmp) [V]	30.28	30.46	30.64	30.84	31.01	31.21
Short Circuit Current(Isc) [A]	13.44	13.52	13.61	13.70	13.79	13.87
Maximum Power Current(Imp) [A]	12.55	12.64	12.73	12.81	12.90	12.98
Module Efficiency [%]	19.5	19.7	20.0	20.2	20.5	20.7
Power Tolerance	0~+5W					
Temperature Coefficient of Isc(α _{Isc})	+0.045%/°C					
Temperature Coefficient of Voc(β _{Voc})	-0.275%/°C					
Temperature Coefficient of Pmax(γ _{Pmp})	-0.350%/°C					
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G					

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

ELECTRICAL PARAMETERS AT NOCT

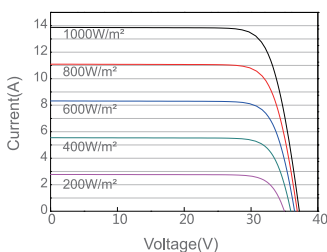
TYPE	JAM54S31 -380/MR	JAM54S31 -385/MR	JAM54S31 -390/MR	JAM54S31 -395/MR	JAM54S31 -400/MR	JAM54S31 -405/MR
Rated Max Power(Pmax) [W]	286	290	294	298	302	306
Open Circuit Voltage(Voc) [V]	34.36	34.49	34.62	34.75	34.88	35.12
Max Power Voltage(Vmp) [V]	28.51	28.68	28.87	29.08	29.26	29.47
Short Circuit Current(Isc) [A]	10.75	10.82	10.89	10.96	11.03	11.10
Max Power Current(Imp) [A]	10.03	10.11	10.18	10.25	10.32	10.38
NOCT	Irradiance 800W/m ² , ambient temperature 20°C, wind speed 1m/s, AM1.5G					

OPERATING CONDITIONS

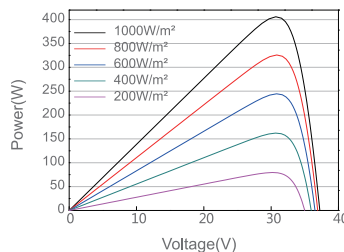
Maximum System Voltage	1000V/1500V DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse Rating	25A
Maximum Static Load, Front*	5400Pa(112lb/ft ²)
Maximum Static Load, Back*	2400Pa(50lb/ft ²)
NOCT	45±2°C
Safety Class	Class II
Fire Performance	UL Type 1

CHARACTERISTICS

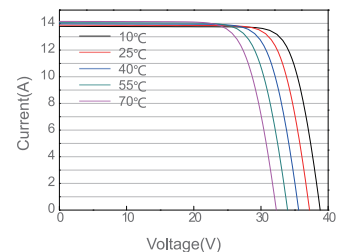
Current-Voltage Curve JAM54S31-405/MR



Power-Voltage Curve JAM54S31-405/MR



Current-Voltage Curve JAM54S31-405/MR












SOFAR 3K~7.5KTL-G2

3000/3600/4000/4600/5000/6000/7500

Single-Phase Dual-MPPT

-  Built-in zero export function
-  IP65 ingress protection
-  Max. efficiency up to 98.2%
-  Smart monitoring, RS485, Wifi/Ethernet/GPRS (optional)
-  2 MPPT high precision string detection
-  I-V curve scanning function
-  Built-in sound and light alarm function

Datasheet

	SOFAR 3KTLM-G2	SOFAR 3.6KTLM-G2	SOFAR 4KTLM-G2	SOFAR 4.6KTLM-G2	SOFAR 5KTLM-G2	SOFAR 6KTLM-G2	SOFAR 7.5KTLM
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Input (DC)

Recommended Max. PV input power	3990Wp	4790Wp	5320Wp	6120Wp	6650Wp	7980Wp	9980Wp
Max DC power for single MPPT	3500W	3500W	3500W	3500W	3500W	3500W	2*2750W/ 2750W
Number of MPP trackers				2			
Number of DC inputs				1/1			
Max. Input voltage				600V			
Start-up voltage				120V			
Rated input voltage				360V			
MPPT operating voltage range				90-580V			
Full power MPPT voltage range	160V-520V	180V-520V	200V-520V	230V-520V	250V-520V	300V-520V	250V-520V
Max. Input current per MPPT				11A/11A			
Maximum DC input short circuit current per MPPT				13.2A			

Output (AC)

Rated power	3000W	3680W	4000W	4600W	5000W	6000W	7500W
Max. AC power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA	7500VA
Max. Output current	13.7A	16.8A ^{*1}	18.2A	21A	22.8A	27.3A	32.6A
Nominal grid voltage	L/N/PE, 220Vac, 230Vac, 240Vac						
Grid voltage range	180Vac-276Vac (According to local standard)						
Nominal frequency	50Hz/60Hz						
Grid frequency range	45Hz-55Hz/54Hz-66Hz (According to local standard)						
Active power adjustable range	0-100%						
THDi	<3%						
Power factor	1 default (adjustable +/-0.8)						
Power limit export	Zero export or adjustable power limit export						

Performance

Max efficiency				98.0%				98.2%
European weighted efficiency				97.5%				97.6%
Self-consumption at night				<1W				
MPPT efficiency				>99.9%				

Protection

DC reverse polarity protection				Yes				
DC switch				Optional				
Protection class/overvoltage category				I/III				
Safety protection				Anti islanding, RCMU, Ground fault monitoring				
SPD				MOV: Type III standard				

Communication

Power management unit	According to certification and request						
Standard communication mode	Rs485, Wifi/Ethernet/GPRS(optional), SD card(optional)						
Operation data storage	25 years						

General Data

Ambient temperature range				-25°C~+60°C				-30°C~+60°C
Topology				Transformerless				
Degree of protection				IP65				
Allowable relative humidity range				0-100%				
Max. Operating altitude				2000m				
Noise				<25dB				
Weight				11.5kg				18kg
Cooling				Natural				
Dimension				405*315*135mm				467*352*157mm
Display				LCD display				
Warranty				5 years/ 7 years/ 10 years				

Standard

EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12						
Safety standards	IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)						
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50549, G83/G59/G98/G99, NB/T32004; ABNT NBR 16149/16150 (for SOFAR3KTLM-G2, SOFAR5KTLM-G2& 7.5KTLM)						

*1: For G98 UK standard, SOFAR 3.6KTLM-G2, Max. Output current is 16A.



SOFAR 1.1k~3.3kTL-G3

1100/1600/2200/2700/3000/3300

Single-Phase

Single-MPPT

- 1.4** I.4 DC overload
- IP65** ingress protection
- 97.7%** Max. efficiency up to 97.7%

- Hand icon** Light weight, quick and easy to install
- 0** Built-in zero export function
- Wi-Fi icon** Smart monitoring, RS485, Wifi/Ethernet/GPRS(optional)

Datasheet

SOFAR
1100TL-G3

SOFAR
1600TL-G3

SOFAR
2200TL-G3

SOFAR
2700TL-G3

SOFAR
3000TL-G3

SOFAR
3300TL-G3

Input (DC)

Recommended Max. PV input power	1500Wp	2200Wp	3000Wp	3700Wp	4100Wp	4500Wp
Max. Input voltage	500V	500V	500V	550V	550V	550V
Start-up voltage	70V					
Rated input voltage	360V					
MPPT operating voltage range	50-500V	50-500V	50-500V	50-550V	50-550V	50-550V
Full power MPPT voltage range	110-450V	150-450V	200-450V	250-500V	275-500V	300-500V
Max. Input current MPPT	12A					
Maximum DC input short circuit current per MPPT	15A					
Number of MPPT/ String per MPPT	1/1					
Input terminal type	MC4/H4					

Output (AC)

Rated power	1100W	1600W	2200W	2700W	3000W	3300W
Max. AC power	1100VA	1600VA	2200VA	2700VA	3000VA	3300VA
Rated Output current	4.8A	7A	9.6A	11.8A	13A	14.3A
Max. Output current	5.3A	7.7A	10.6A	13A	14.5A	16A
Nominal grid voltage	L/N/PE, 220Vac, 230Vac, 240Vac					
Grid voltage range	180Vac-276Vac (According to local standard)					
Nominal frequency	50Hz/60Hz					
Grid frequency range	45~55Hz/54~66Hz (According to local standard)					
THDi	<3%					
Power factor	1 default (adjustable +/-0.8)					

Efficiency

Max. Efficiency	97.5%	97.5%	97.5%	97.7%	97.7%	97.7%
European weighted efficiency	96.9%	96.9%	96.9%	97.2%	97.2%	97.2%

Protection

Anti-Islanding protection	Yes
DC reverse polarity protection	Yes
Over temp protection	Yes
Leakage current protection	Yes
Over voltage protection	Yes
Over current protection	Yes
Earth fault protection	Yes
SPD	MOV: Type III standard

Communication

Standard communication mode	RS485, WiFi/GPRS/Ethernet(optional), USB
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General Data

Topology	Transformerless					
Ambient temperature range	-30°C~+60°C					
Allowable relative humidity range	0~100%					
Noise	<25dB					
DC switch	optional					
Cooling	Natural convection					
Max. Operating altitude	2000m					
Dimension[mm]	303*260.5*118	303*260.5*118	303*260.5*118	321*260.5*131.5	321*260.5*131.5	321*260.5*131.5
Support bracket	Wall-mounted					
Weight	5.5kg	5.5kg	5.5kg	6.3kg	6.3kg	6.3kg
Display	LCD+LED					
Degree of protection	IP65					
Warranty	5 years/ 7 years/ 10 years					

Standard

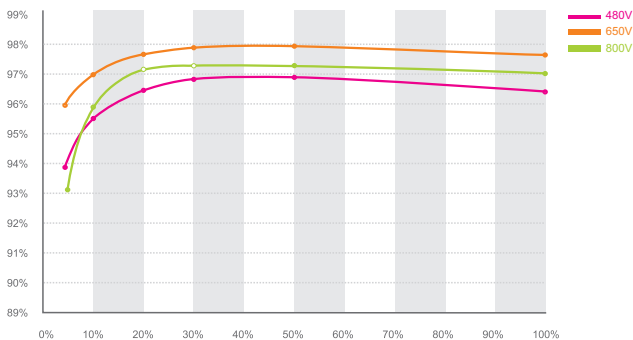
EMC	EN 61000-6-1, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3					
Safety standards	IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 62109-1/2					
Grid standards	AS 4777, VDE V 0124-100, VDE V 0126-1-1, VDE-AR-N 4105, G83/2, C10/11, RD 1699					

Leading - edge Technology

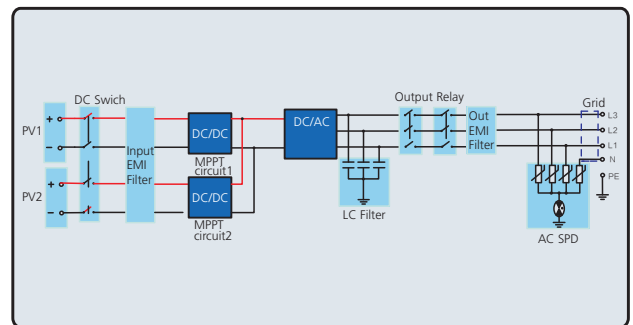
- ▶ Max. DC voltage up to 1000V
- ▶ Max. efficiency 98%
- ▶ Compact design
- ▶ Multi MPP controller
- ▶ Natural cooling
- ▶ High power density, offer lighter and easy installation
- ▶ Comprehensive Growatt warranty program



Growatt 6000TL3-S efficiency



Growatt 3-6kTL3-S topology



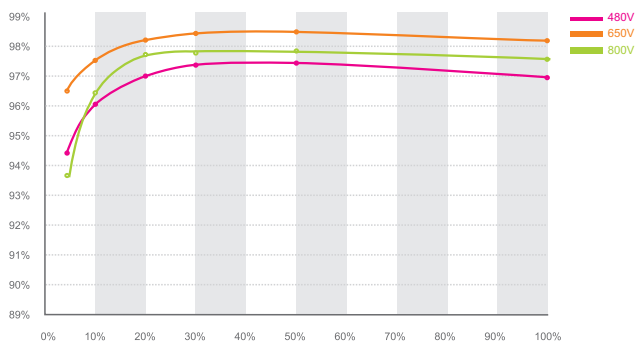
Datasheet	Growatt 3000TL3-S	Growatt 4000TL3-S	Growatt 5000TL3-S	Growatt 6000TL3-S
Input data				
Max. recommended PV power (for module STC)	3600W	4800W	6000W	7200W
Max. DC voltage	1000V	1000V	1000V	1000V
Start Voltage	140V	140V	140V	140V
PV voltage range	140V-1000V	140V-1000V	140V-1000V	140V-1000V
Nominal voltage	620V	620V	620V	620V
MPP voltage range at Full Power	160V-800V	200V-800V	250V-800V	290V-800V
Max. input current	11A/11A	11A/11A	11A/11A	11A/11A
Number of independent MPP trackers/ strings per MPP tracker	2/1	2/1	2/1	2/1
Output (AC)				
Rated AC output power	3000W	4000W	5000W	6000W
Max AC apparent power	3000VA	4000VA	5000VA	6000VA
Max. output current	5.1A	6.8A	8.5A	10.2A
AC nominal voltage;range	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V
AC grid frequency	50Hz/60Hz ±5Hz	50Hz/60Hz ±5Hz	50Hz/60Hz ±5Hz	50Hz/60Hz ±5Hz
Power factor	0.8leading - 0.8laging	0.8leading - 0.8laging	0.8leading - 0.8laging	0.8leading - 0.8laging
THDi	<3%	<3%	<3%	<3%
AC grid connection type	3W+N+PE	3W+N+PE	3W+N+PE	3W+N+PE
Efficiency				
Max. efficiency	97.5%	97.8%	98.0%	98.0%
Euro - eta	96.5%	96.7%	96.9%	97.1%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%
Protection Devices				
DC reverse polarity protection	yes	yes	yes	yes
DC switch	yes	yes	yes	yes
Output over current protection	yes	yes	yes	yes
Output AC overvoltage Protection - Varistor	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes
Integrated all-pole sensitive leakage current monitoring unit	yes	yes	yes	yes
General Data				
Dimensions(W/H/D)	480/448/200 mm	480/448/200 mm	480/448/200 mm	480/448/200 mm
Weight	21.2kg	21.2kg	21.2kg	21.2kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)
Altitude	3000m	3000m	3000m	3000m
Self-consumption night	< 0.5W	< 0.5W	< 0.5W	< 0.5W
Topology	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Natural	Natural	Natural	Natural
Environmental Protection Rating	IP65	IP65	IP65	IP65
Relative humidity	0~100%	0~100%	0~100%	0~100%
Features				
DC connection	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)
AC connection	Screw terminal	Screw terminal	Screw terminal	Screw terminal
Display	LCD	LCD	LCD	LCD
Interfaces:RS232/RS485/RF/Ethernet/Wi-Fi	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt
Warranty:5 years/10 years	yes/opt	yes/opt	yes/opt	yes/opt
Certificates and Approvals				

Leading - edge Technology

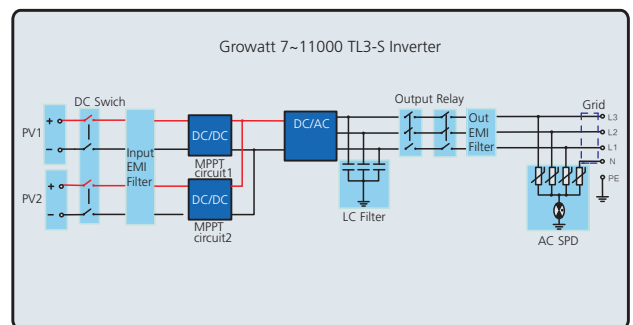
- ▶ Max. DC Voltage up to 1000V
- ▶ Max efficiency 98.4%
- ▶ Compact design
- ▶ Multi MPP controller
- ▶ Natural cooling, fanless design
- ▶ High power density, offer lighter and easy installation
- ▶ Flexible communication connection, support RF, WiFi, Ethernet
- ▶ Comprehensive Growatt warranty program



Growatt 11000TL3-S efficiency



Growatt 7-11kTL3-S topology



Datasheet	Growatt 7000TL3-S	Growatt 8000TL3-S	Growatt 9000TL3-S	Growatt 10000TL3-S	Growatt 11000TL3-S
Input data					
Max. recommended PV power (for module STC)	8400W	9600W	10800W	12000W	13200W
Max. DC voltage	1000V	1000V	1000V	1000V	1000V
Start Voltage	160V	160V	160V	160V	160V
PV voltage range	160V-1000V	160V-1000V	160V-1000V	160V-1000V	160V-1000V
Nominal voltage	600V	600V	600V	600V	600V
MPP voltage range at Full Power	320V-850V	360V-850V	400V-850V	450V-850V	450V-850V
Max. input current	11.5A/11.5A	11.5A/11.5A	11.5A/11.5A	13A/13A	13A/13A
Number of independent MPP trackers/strings per MPP tracker	2/1	2/1	2/1	2/1	2/1
Output (AC)					
Rated AC output power	7kW	8kW	9kW	10kW	11kW
Max AC apparent power	7.7kVA	8.8kVA	9.9kVA	11kVA	12.1kVA
Max. output current	11.7A	13.3A	15A	16.7A	18.3A
AC nominal voltage;range	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V
AC grid frequency	50Hz/60Hz ±5Hz	50Hz/60Hz ±5Hz	50Hz/60Hz ±5Hz	50Hz/60Hz ±5Hz	50Hz/60Hz ±5Hz
Adjustable power factor	0.8leading - 0.8laging	0.8leading - 0.8laging	0.8leading - 0.8laging	0.8leading - 0.8laging	0.8leading - 0.8laging
THDi	<3%	<3%	<3%	<3%	<3%
AC grid connection type	3W+N+PE	3W+N+PE	3W+N+PE	3W+N+PE	3W+N+PE
Efficiency					
Max. efficiency	98.3%	98.3%	98.4%	98.4%	98.4%
Euro - eta	97.5%	97.8%	98%	98%	98%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%	99.5%
Protection Devices					
DC reverse polarity protection	yes	yes	yes	yes	yes
DC switch	yes	yes	yes	yes	yes
Output over current protection	yes	yes	yes	yes	yes
Output AC overvoltage Protection - Varistor	yes	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes	yes
Integrated all-pole sensitive leakage current monitoring unit	yes	yes	yes	yes	yes
General Data					
Dimensions(W/H/D)	480/448/200 mm	480/448/200 mm	480/448/200 mm	480/448/200 mm	480/448/200 mm
Weight	21.6kg	21.6kg	21.6kg	21.6kg	21.6kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)
Altitude	3000m	3000m	3000m	3000m	3000m
Self-consumption night	< 0.5W	< 0.5W	< 0.5W	< 0.5W	< 0.5W
Topology	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Natural	Natural	Natural	Natural	Natural
Environmental Protection Rating	IP65	IP65	IP65	IP65	IP65
Relative humidity	0~100%	0~100%	0~100%	0~100%	0~100%
Features					
DC connection	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)
AC connection	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal
Display	LCD	LCD	LCD	LCD	LCD
Interfaces:RS232/RS485/RF/Ethernet/Wi-Fi	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt
Warranty:5 years/10 years	yes/opt	yes/opt	yes/opt	yes/opt	yes/opt
Certificates and Approvals					



**LOW VOLTAGE ENERGY STORAGE SYSTEM
-FOR RESIDENTIAL AND SME**

Specification



Basic Parameters	US2000C	US3000C	Phantom-S
Nominal Voltage (V)	48	48	48
Nominal Capacity (Wh)	2400	3552	2400
Usable Capacity (Wh)	2280	3374.4	2200
Dimension (mm)	442*410*89	442*420*132	440*440*88.5
Weight (Kg)	24	32	24
Discharge Voltage (V)	44.5 ~ 53.5	44.5 ~ 53.5	44.5 ~ 53.5
Charge Voltage (V)	52.5 ~ 53.5	52.5~53.5	52.5~53.5
Charge / Discharge Current (A)	25(Recommend)	37 (Recommend)	25(Recommend)
	50 (Max)	74 (Max)	50 (Max)
	90 (Peak@15s)	90 (Peak@15s)	100 (Peak@15s)
Communication Port	RS485, CAN	RS485, CAN	RS485, CAN
Single string quantity(pcs)	16	16	8
Working Temperature/°C	0~50	0~50	0~50
Shelf Temperature/°C	-20~60	-20~60	-20~60
Humidity	5%~95%	5%~95%	5%~95%
Altitude (m)	<2000	<2000	<2000
Design life	15 ⁺ Years (25°C/77°F)	15 ⁺ Years (25°C/77°F)	15 ⁺ Years (25°C/77°F)
Cycle Life	>6000, 25 C	>6000, 25 C	>6000, 25 C
Authentication Level	IEC62619/CE /UN38.3	VDE2510-50/IEC62619/UL1973 UL9540A/CE/UN38.3	IEC62619/CE /UN38.3
Feature	Pre-Charge Dual-active protection Flexible current steps Dry contact wake up	Pre-Charge Dual-active protection Flexible current steps Dry contact wake up	

ME 3000SP

Designed For Storage System
Uninterrupted Power Supply For Your Home



Easy installation

- Compatible with existing grid-tied PV inverters.
- No need to upgrade distribution system.
- Uses a split-core CT, no need to disconnect the electrical grid at all .

Simple and Reliable

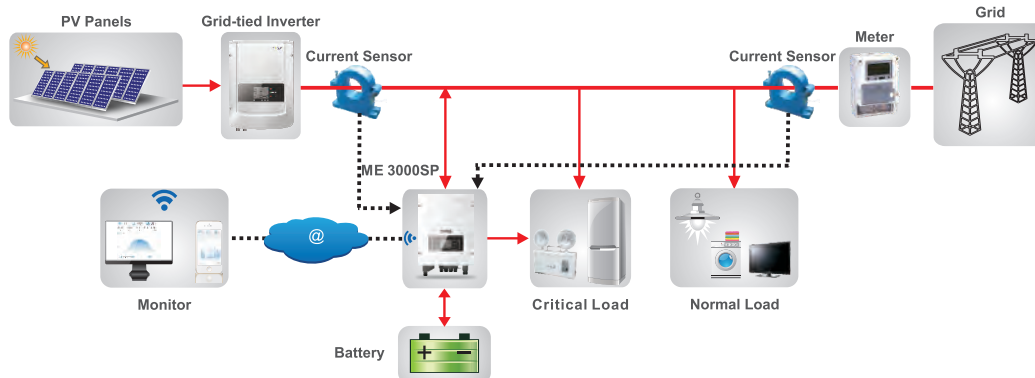
- Exchanges energy via the electrical grid, no coupling with PV inverter, mature technology, simple and reliable.
- Can integrate with all grid-tied renewable systems, including solar, wind, fuel cell etc.

Flexible solution

- Provides a full solution for energy consumers to maximize the use of their generated solar energy.
- Increases self-consumption rate (from 20% to 70%).
- User-adjustable battery charging current suits different types of batteries.

Multiple modes

- Supports stand alone mode (like UPS), Ensure the safe operation of critical load.
- Programmable multiple operations modes: Grid tie, Off grid, and grid-tie with backup.



MASS ENERGY INVERTER



ME 3000SP

Datasheet

ME 3000SP

Battery Parameters

Battery Type	Lead-acid,Lithium-ion
Nominal battery voltage	48V
Battery voltage range	42-58V
Recommended battery capacity	200Ah (100~500Ah optional)
Recommended Storage capacity	9.6kWh
Max.Charging Current	60A
Charging Current Range	0-60A(Programmable)
Charging curve	3-stage adaptive with maintenance
Max.Discharging Current	60A
Electronic protection	OCP OTP OVP
Short circuit protection	Fuse (100A)
Discharge times (Hour)	Po=1kVA9.6h
	Po=3kVA3.2h
Depth of discharge	Lithium : 0~80%DOD adjustable
	Lead-acid:0~50%DOD adjustable

AC Parameters

Max.Output Power	3kVA
Rated Input/Output Voltage	230V
Max.Input/Output Current	13A
AC Input/Voltage Range	180V-270V
Grid Frequency Range	44~55Hz / 54~66Hz
THD	<3%
Power Factor	1(Adjustable +/-0.8)
Connection phase	single
Current(inrush)	0.8A/1us
Maximum output fault current	100A/1us
Maximum output overcurrent protection	13A

System Parameters

Max.Charging Efficiency	94.1%
Max.Discharging Efficiency	94.3%
Standby Losses	<5W
Topology	High Frequency Isolated Transformer
Degree Of Protection	IP65
Safety Protection	Anti islanding, RCMU, Ground Fault Monitoring
Certification	IEC 62116,IEC 61727,IEC 61683,IEC 60068(1,2,14,30),IEC62109-1/2 AS4777,VDE0126-1-1,G83/2,C10/11,RD1699,UTEC15-712-1,EN50438,VDE-AR-N4105
Communication	WiFi,RS485,CAN2.0

Environmental

Ambient temperature range	-25°C...+60°C (Above 45°Derating)
Allowable Relative Humidity Range	0... 100%, No Condensing
Protective Class	Class I
Max.Operating Altitude	2000m
Current Sensor Connection	external

General Data

Noise	<25dB
Weight	16kg
Cooling	Natural
Dimension(W*H*D)	532*360*173mm
Display	LCD display
Warranty	10 Years

Emergency Power Supply

EPS rated power	3000VA
EPS rated voltage, Frequency	230V,50/60Hz
EPS rated current	13A
Total harmonic distortion	< 3%
Switch time	< 3s



AS4777 G83/2 G59/3

CQC, IEC, VDE-AR-N4105 / VDE-0126, EMC, C10/11, EN50438, RD1669, CEI 0-21

RHI-(3-6)K-48ES-5G

Solis Energy Storage Inverters



360 degree

Features:

- ▶ Uninterrupted power supply, 20ms reaction
- ▶ 5kW backup power to support more important loads
- ▶ With shifting and peak shaving capabilities friendly to grid
- ▶ Multiple working modes to make maximize self-consumption, increase benefit
- ▶ Higher charge-discharge efficiency, improving the economic benefits
- ▶ Compatible with lithium & lead-acid batteries, increased more choice in different markets
- ▶ Fanless design, long lifespan
- ▶ Intelligent BMS function, improving battery's reliability
- ▶ With high-frequency isolation technology, making system safer and long lifespan
- ▶ 24-hour fully intelligent energy management, Real-time grasp of PV plant status
- ▶ Remotely control & upgrade function, making digital power plant maintenance at your fingertips



Model:

RHI-3K-48ES-5G

RHI-3.6K-48ES-5G

RHI-4.6K-48ES-5G

RHI-5K-48ES-5G

RHI-6K-48ES-5G

Datasheet

Model Name	RHI-3K-48ES-5G	RHI-3.6K-48ES-5G	RHI-4.6K-48ES-5G	RHI-5K-48ES-5G	RHI-6K-48ES-5G
Input DC (PV side)					
Max. input power	7kW	7kW	8kW	8kW	8kW
Max. input voltage			600V		
Rated voltage			330V		
Start-up voltage			120V		
MPPT voltage range			90-520V		
Max. input current			11A/11A		
Max. short circuit current			17.2A/17.2A		
MPPT number/Max. input strings number			2/2		
Battery					
Battery type			Li-ion/Lead-acid		
Battery voltage range			42 - 58V		
Battery capacity			50 - 2000Ah		
Max. charging power	3kW		5kW		
Max. charge/discharge current	62.5A/62.5A		100A/100A		
Communication			CAN/RS485		
Output AC (Back-up)					
Rated output power	3kW		5kW		
Max. apparent output power	4kVA		6kVA		
Back-up switch time			<20ms		
Rated output voltage			1/N/PE, 220/230V		
Rated frequency			50/60Hz		
Rated output current	13A		22A		
THDv			2% (linear load)		
Output AC (Grid side)					
Rated output power	3kW	3.6kW	4.6kW	5kW	6kW
Max. apparent output power	3.3kVA	4kVA	4.6kVA	5.5kVA	6kVA
Rated grid voltage			1/N/PE, 220/230V		
Rated grid frequency			50/60Hz		
Rated grid output current	13A	15.7A	20.9A	21.7A	26.1A
Max. output current	15.7A	17.3A	23A	23.9A	26.1A
Power Factor			>0.99 (0.8 leading - 0.8 lagging)		
THDi			<2%		
Efficiency					
Max. efficiency			>97.5%		
EU efficiency			>96.8%		
Protection					
Ground fault monitoring			Yes		
Integrated AFCI (DC arc-fault circuit protection)			Optional		
DC reverse-polarity protection			Yes		
Protection class/Over voltage category			I/II		
General Data					
Dimensions (W*H*D)			333*505*249 mm		
Weight			17kg		
Topology			High frequency isolation (for battery)		
Operating ambient temperature range			-25 ~ +60°C		
Ingress protecton/ Pollution degree			IP65/PD3		
Cooling concept			Natural convection		
Max. operation altitude			2000m		
Grid connection standard			EN50438, G98, G99, AS4777.2:2015, VDE0126-1-1, IEC 61727, VDE N4105, CEI 0-21,CE		
Safety/EMC standard			IEC62040-1, IEC62109-1/-2, AS3100, NB/T 32004, EN61000-6-2, EN61000-6-3		
Features					
DC connection			MC4 connector		
AC connection			Quick connection plug		
Display			7.0"LCD color screen display		
Communication			RS485, Optional: Wi-Fi, GPRS		

zappi

eco-smart charging station for electric vehicles

zappi has special eco charging modes which will benefit homeowners with grid-tied microgeneration systems, like wind or solar generation. Charging current is automatically and continually adjusted in response to on-site generation and household power consumption. In FAST charge mode, **zappi** operates like an ordinary EV charging station.



- 3 charging modes: ECO, ECO+ & FAST
- Optimises microgeneration self-consumption
- Works with solar PV or wind turbine systems
- Economy tariff sense input
- Programmable timer function
- Charge and event logging

- Pin-code lock function
- Tap operated display backlight
- Built-in RCD protection
- Integral cable holster
- Remote control and monitoring add-on option
- Supplied with clip-on grid current sensor



Performance

Mounting Location	Indoor or Outdoor (permanent mounting)
Charging Mode	Mode 3 (IEC 61851-1 compliant communication protocol)
Display	Graphical backlit LCD
Front LED	Multicolour, according to charge status and current
Charging Current	6A to 32A (variable)
Dynamic Load Balancing	Optional setting to limit current drawn from the unit supply or the grid
Connector Type	Type 2 tethered cable (6.5m) or Type 2 socket with locking system
Charging Profile	3 charging modes: ECO, ECO+ and FAST
Compliance	LVD 2014/35/EU, EMC 2014/30/EU, EN 61851-1 :2017, EN 62196, EN 62955:2018 CE Certified

Charging Modes

ECO	Charge power is continuously adjusted in response to changes in generation or power consumption elsewhere in the home. Charging will continue until the vehicle is fully charged, even if power is drawn from the grid.
ECO+	Charge power is continuously adjusted in response to changes in generation or power consumption elsewhere in the home. Charging will pause if there is too much imported power, continuing only when there is surplus free power available.
FAST	In this mode, the vehicle will be charged at maximum power. This is just like an ordinary Mode 3 charging point.

Electrical Specifications

Rated Power	7kW (1-ph) or 22kW (3-ph)
Rated Supply Voltage	230V AC Single Phase or 400V AC 3-phase (+/- 10%)
Supply Frequency	50 Hz
Rated Current	32A max
Standby Power Consumption	3W
Earth Leakage Protection	Integral 30mA Type A RCD (EN 61008) + 6mA DC protection (EN 62955)
Economy Tariff Sense Input	230V AC sensing (4.0kV isolated)
Wireless Interface	868 MHz (proprietary protocol) for wireless sensor and remote monitoring options
Grid Current Sensor	100A max. primary current, 16mm max. cable diameter
Supply Cable Entry	Rear, bottom or side

Mechanical Specifications

Enclosure Dimensions	439 x 282 x 122mm
Protection Degree	IP65 (weatherproof)
Enclosure Material	ABS 6 & 3mm (UL 94 flame retardant) colours: white RAL 9016 and grey RAL 9006
Operating Temperature	-25°C to +40°C

Installation requirements

Circuit Breaker	40A curve B (2-pole 1-ph or 4-pole 3-ph)
Earthing Arrangement	TN : can be connected to the PME supply. Complies with BS 7671:2018, 722.411.4.1 (iii) TT : earth resistance < 200 Ω according to BS 7671:2018, or < 100 Ω for some vehicles

Model Variations

Model No.	Rating	Connector	Colour
ZAPPI-207UW	7kW	Untethered	White
ZAPPI-207TW	7kW	Tethered	White
ZAPPI-207UB	7kW	Untethered	Black
ZAPPI-207TB	7kW	Tethered	Black
ZAPPI-222UW	22kW (3-phase)	Untethered	White
ZAPPI-222TW	22kW (3-phase)	Tethered	White
ZAPPI-222UB	22kW (3-phase)	Untethered	Black
ZAPPI-222TB	22kW (3-phase)	Tethered	Black



GET I-ON CHARGED

ION CHARGE

Easy fix, elegant charging solution for residential and business locations. Manufactured in the UK by Craig & Derricott, our Type 2 fast charging units are suitable for electric and plug-in hybrid vehicles.

3Year
WARRANTY

- Tethered or socketed (untethered) options
- 7.4kW Mode 3 fast charging
- UK type 2 charger connection
- Integrated RFID reader
- Supplied with RFID master card and operating fob
- Built-in PEN fault protection- no earth rod required
- 6mA DC Integrated protection for DC leakage
- 4 x Configurable ratings 6A, 16A, 20A, 32A
- Single phase- 230V 50/60 Hz charging only
- Maximum incoming cable 6mm²
- IP54 ingress protection
- Easy fit mains and tethered cables using Degson toggle clamp terminals (screwless)
- LED EV charger status indication

CDPD240 Issue 1 © 2021

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info@craigandderricott.com | +44(0)1543 375 541 | www.craigandderricott.com

OUR KEY TO EV CHARGING



Convenient EV charging for residential locations



EV business solution for employees and visitors



32A single phase fast charging



Faster charging than Mode 2 with advanced communication with the vehicle



Tethered lead option for convenience - just park and plug in



Ingress protection against particles (1st digit) and liquids (2nd digit)

ION CHARGE RANGE

This range of 32A (7.4 kW) single phase EV chargers are an easy to fit solution for residential and business locations, complete with built in overload, ground fault and surge protection. Each charger is supplied with a RFID master card and fob, allowing vehicle charging authorisation when swiped against the unit. Spare RFID activation fobs are available on request: Cat. No. EVC0015.

Compliant to: EN61851- 1 & 22 | EN62196 | EN62955 | LV directive 2014/35/EU | EMC Directive 2014/30/EU | RoHS Directive 2011/65/EU

Socketed EV Charger:- Cat. No. EV03220000



- 32A (7.4 kW) single phase charging
- LED status indication
- Independent wall mounting bracket
- 1x M20 plastic cable glands plus blanking plug
- Type 2 socket connection

Tethered EV Charger:- Cat. No. EV03220010



- 32A (7.4 kW) single phase charging
- LED status indication
- Independent wall mounting bracket
- 2x M20 plastic cable glands
- Type 2 holster, car plug and 5 metre cable

The UK's favourite PV accessory!

Solar iBoost+ is our latest automatic water heating device for pv system owners. Its increased efficiency and extra functions deliver even more savings and when coupled with iBoost Buddy you can conveniently monitor and control **Solar iBoost+** within the home.

With over 45,000 **Solar iBoost** products successfully working in UK homes installers recommend it!

Solar iBoost+ is brought to you by Marlec, manufacturers in wind and solar renewables since 1979.

Visit www.solariboost.co.uk for latest customer feedback and detailed specifications

Contact your local electrical installer for fitting at:



Marlec Eng Co Ltd
Rutland House, Trevithick Road, Corby, NN17 5XY
Tel: +44 (0)1536 201588 sales@marlec.co.uk
www.solariboost.co.uk

SOLAR iBOOST+

Gives you free hot water from your PV array!



Automatically consume
the surplus PV generated
energy at your home

Install a **Solar iBoost+**
and watch your heating bills fall!



TS4-A-O

PV Module Advanced Add-On/Retrofit

The TS4-A-O (Optimization) is the advanced add-on/retrofit optimization solution that brings smart module functionality to standard PV modules for higher reliability. Improve energy efficiency by upgrading underperforming PV systems or adding smart features to new installations.

The TS4-A-O with UHD-Core technology and expanded specifications supports PV modules up to 500W.

Included Features



Optimization

Module-level **optimization** for increased energy yield and greater design flexibility



Safety

Enhanced **safety** for NEC 690.12 rapid shutdown compliance



Monitoring

Module-level **monitoring** for energy production tracking and system management

Easy Installation

Snap to standard module frame or remove brackets for rack mounting

Smart Commissioning

Configure and commission with your Android or iOS mobile device



TS4-A-O SPECIFICATIONS

Environmental

Operating Temperature Range -40°C to +85°C (-40°F to +158°F)

Outdoor Rating IP68, NEMA 3R

Mechanical

Dimensions 138.4mm x 139.7mm x 22.9mm

Weight 490g

Electrical

Voltage Range 16 - 90V

Maximum Continuous Input Current (I_{MAX}) 12A

Maximum Power 500W

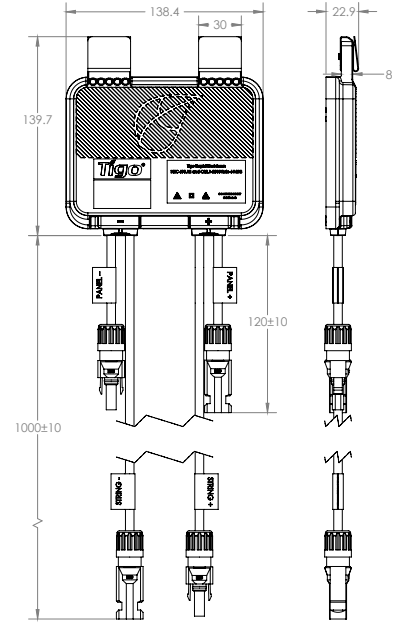
Output Cable Length 1m (standard)

Connectors MC4 compatible (standard)

Communication Type Wireless

Rapid Shutdown UL Listed (NEC 2014 & 2017 690.12) Yes

Cloud Connect Advanced (CCA) and TAP (Gateway) required for rapid shutdown with TS4-A-O.



ORDERING INFORMATION

Standard

451-00257-00 1000V UL / TÜV, 1m cable, MC4 compatible

Options

451-00252-12 1000V UL / TÜV, 1m cable, MC4

451-00257-12 1000V UL / TÜV, 1.2m cable, MC4 compatible

451-00252-32 1000V UL / TÜV, 1.2m cable, MC4

451-00261-12 1500V UL / TÜV, 1m cable, EVO2

451-00261-32 1500V UL / TÜV, 1.2m cable, EVO2

For sales info:

sales@tigoenergy.com or 1.408.402.0802

For product info:

Visit tigoenergy.com/products

For technical info:

Visit support.tigoenergy.com

For additional info and product selection assistance, use Tigo's online design tool at tigoenergy.com/design



Single Phase Inverter with HD-Wave Technology

SE2200H, SE3000H, SE3500H, SE3680H,
SE4000H, SE5000H, SE6000H

INVERTERS



Optimized installation with HD-Wave technology

- Specifically designed to work with SolarEdge Power Optimizers
- Industry leading efficiency with 200% DC oversizing
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Seamless wireless connectivity with system devices such as the SolarEdge Energy Bank battery, via optional SolarEdge Energy Net platform
- Extremely compact, lightweight and easy to install
- Built-in module-level monitoring
- Suitable for outdoor and indoor installation
- Fixed voltage inverter for longer strings
- Advanced safety feature - integrated arc fault protection

/ Single Phase Inverter with HD-Wave Technology

SE2200H, SE3000H, SE3500H, SE3680H, SE4000H, SE5000H, SE6000H

	SE2200H	SE3000H	SE3500H	SE3680H	SE4000H	SE5000H	SE6000H	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXXBXX4							
OUTPUT								
Rated AC Power Output	2200	3000	3500	3680	4000	5000 ⁽¹⁾	6000	VA
Maximum AC Power Output	2200	3000	3500	3680	4000	5000 ⁽¹⁾	6000	VA
AC Output Voltage (Nominal)	220/230							Vac
AC Output Voltage Range	184 - 264.5							Vac
AC Frequency (Nominal)	50/60 ± 5							Hz
Maximum Continuous Output Current	10	14	16	16	18.5	23	27.5	A
Total Harmonic Distortion (THD)	<3							%
Power Factor	1, adjustable -0.9 to 0.9							
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes							
INPUT								
Maximum DC Power	4400	6000	7000	7360	8000	10000 ⁽²⁾	12000	W
Transformer-less, Ungrounded	Yes							
Maximum Input Voltage	480							Vdc
Nominal DC Input Voltage	380							Vdc
Maximum Input Current	6.5	9	10	10.5	11.5	13.5	16.5	Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600kΩ Sensitivity per Unit							
Maximum Inverter Efficiency	99.2							%
European Weighted Efficiency	98.3	98.8				99		%
Nighttime Power Consumption	< 2.5							W
ADDITIONAL FEATURES								
Supported Communication Interfaces	RS485, Ethernet, Wi-Fi (optional), wireless SolarEdge Energy Net (optional) ⁽³⁾ , Cellular (optional), ZigBee (optional)							
Smart Energy Management	Export Limitation							
Inverter Commissioning	With the SetApp mobile application using built in Wi-Fi station for local connection							
Arc Fault Protection	Integrated, User Configurable (According to UL1699B)							
STANDARD COMPLIANCE								
Safety	IEC-62109-1/2							
Grid Connection Standards	IEC61727, IEC62116, EN 50438, VDE-AR-N-4105, VDE 0126-1-1, UTE_C_15-712, G98, G99, CEI-021, ÖNORM, TF3.2.1, C10-11, NRS 097-2-1							
Emissions	IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12, FCC Part 15 Class B							
INSTALLATION SPECIFICATIONS								
AC Output - Supported Cable Diameter	9-16							mm
AC - Supported Wire Cross Section	1-13							mm ²
DC Input	1 x MC4			2 x MC4 pair				
Dimensions (H x W x D)	280 x 370 x 142							mm
Noise	< 25							dBA
Weight	7.8			9		10.6		kg
Cooling	Natural Convection							
Operating Temperature Range	-40 to +60 ⁽⁴⁾							°C
Protection Rating	IP65 — Outdoor and Indoor							

(1) 4600VA in Germany

(2) 7130VA in Germany

(3) For more information, refer to: <https://www.solaredge.com/sites/default/files/se-energy-net-plug-in-datasheet.pdf>

(4) Full power up to at least 50°C / 122°F. For power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf>