



# SOLAR PRODUCT RANGE 03/2022



# SHORT COMPANY PROFILE



Quad Star Limited (QSL) and its predecessor companies have been manufacturing electrical household appliances, consumer electronics, personal protective equipment, medical supplies and solar products for more than 35 years. The many years of experience and profound knowledge in this field distinguishes Quad Star not only as a procurement service provider and consultancy for sourcing processes in the Asia-Pacific region (Vietnam via China to Japan), but also as an expert for the "necessities" that make business run smoothly in this region.

QSL operates internationally and has a global network. The head office is located in Hong Kong, besides the company has several subsidiaries in and outside of the European Union. QSL's strength and unique selling proposition are its unrivalled know-how and expertise especially in China business mixed with the combination of Western management and local experience creating a unique synergy to bridge the East-West gap. Quad Star's many years of experience in this field constitute a unique benefit. Quad Star has the overall view, the knowledge and the necessary routine.

As a specialist in manufacturing in and import from the Asia-Pacific region with profound experience in China business, Quad Star Limited is able to cover all aspects of the procurement process, from product and supplier research to the arrival of the goods at the final destination. QSL assists with all aspects of sourcing and offers one-stop sourcing solutions - from supplier research and supplier evaluation throughout product selection and production management to final inspection and shipment supervision. In addition, QSL offers comprehensive consulting services on various procurement-related topics. Renowned partners and major importers already rely on this essential know-how and support.

Quad Star Limited operates in accordance with MIL Standard 105E when defining quality requirements and the quality acceptance procedure. MIL 105E is the stringent standard for United States military and tactical products, which is a set of procedures based on mathematical formulas (MIL-STD-1916, "DoD Preferred Methods for Acceptance of Product or ANSI/ASQ Z1.4). They are also widely accepted outside military procurement.

# WHY QUAD STAR LIMITED?



# What Added Value Does Quad Star Offer:

- Protection against import risks, in particular quality risks and safety risks through in-depth knowledge of EU regulations, standards and norms, product testing by the company's own qualified engineering team, and final inspections and supervision by independent international inspection companies
- Support in avoiding copyright or patent infringements.
- Assistance in ensuring that the ordered goods arrive in the correct quantity and guaranteed quality on the agreed delivery date.
- Support in reducing product liability risks by drawing up appropriate purchasing contracts.
- Partnerships with renowned shipping companies specialising in China business and agreement of a binding schedule to get the ordered goods to their destination on time.

# Why to Import Solar Modules Only with the Assistance of Quad Star Limited:

Especially for high value products, such as solar panels from China, it is highly disadvantageous for the buyer to pay everything upfront before taking delivery of the goods. QSL will present and enforce a safe payment solution for the buyer with a down payment of only 5-10%. In addition, QSL will specify the exact payment terms and conditions which are subject to certification, quality, execution, packaging and shipment conditions of the goods ordered. Although even large factories are averse to these complex payment constructions as well as during-production and final random inspections, QSL considers these as absolutely essential, and with its decades of experience in China and its network, QSL knows exactly how to achieve them.

The fundamental problem is that the legal systems of the EU (Europe) and China are not or hardly consistent, so that the enforcement of manufacturers' guarantees is extremely problematic or even impossible without specialised knowledge. With all this in mind, only products that have undergone a thorough quality check should be accepted and paid for. This of course applies even more to guarantees that are given by the manufacturers for many years in advance. In this context, QSL offers a professional solution to secure the possible claims.

# SOLAR PANELS

Solar Panel

555

DUAD<sup>®</sup> STAR

0

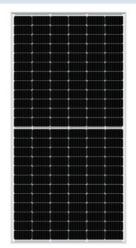
YINGLI (TIER 1) P-TYPE YLM-J GG 144CELL 530-555 W

YINGLI (TIER 1) P-TYPE YLM GG 120CELL 580-605 W

PHONO SOLAR (TIER 1) N-TYPE DRACO MODULE SERIES 550-570W

GCL (TIER 1) P-TYPE M10/72GDF 520-555 W

# YLM-J GG **144CELL**

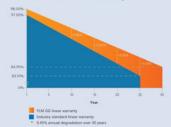


22.8% CELL EFFICIENCY

### **12 YEAR** PRODUCT WARRANTY

0 to +5W POWER SELECTION TOLERANCE

#### **30 Years Linear Warranty**



YINGLISOLAR.COM



# **DOUBLED STRENGTH** FOR MULTIPLIED RELIABILITY

Whenever the conditions are requiring a more robust solution, our modules are the right choice. Carefully chosen materials, state of the art solar cells and our experience in manufacturing to ensure high product quality.

#### **Bifacial Power**

In contrast to conventional modules, YLM GG modules can generate energy from both sides. As the backside makes use of the reflected and scattered light from the surroundings, these modules could yield significantly more power, depending upon the albedo.

#### **Higher Yield**

YLM GG modules often generate more energy due to their low LID and the temperature coefficient of p-type monocrystalline silicon solar cells.

# W Higher Bifaciality

 $\frac{1}{m^2}$  Imagine a solar module flipped upside down with its back to the sun. The amount of power that it can still produce is compared against the nameplate badge, which is the bifacialilty factor. A major advantage of choosing YLM GG modules is that the backside will perform at an industry leading of the p-type bifacial modules.

#### **Higher Durability**

The double glass construction improves the long-term mechanical performance of the module. Furthermore, YLM GG modules work well in muggy conditions, and independently tested for harsh environmental conditions, such as exposure to salt mist, ammonia, dust or known PID risk factors.

#### Mechanical Performance

Choose our specially designed aluminium framed YLM GG modules for enhanced mechanical performance and more ease of use in traditional installation methods.

#### **Yingli Solar**

Founded in 1987, Yingli Energy (China) Company Limited, known as "Yingli Solar", is one of the world's oldest leading solar panel manufacturers with the mission to provide affordable green energy for all. Yingli Solar makes solar power possible for communities everywhere by using our global manufacturing and logistics expertise to address unique local challenges.

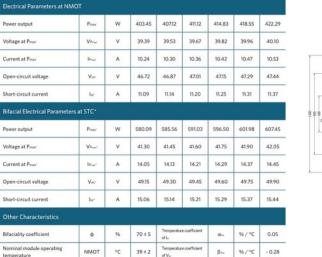


MODULE TYPE 144DF (144 cell, p-type mono-Si, framed): YLxxxDF72 e/2 (xxx=Pmax)

Power output	Pmax	w	530	535	540	545	550	555
Voltage at P <sub>max</sub>	Vr	v	41.30	41.45	41.60	41.75	41.90	42.05
Current at Pmax	Item	A	12.84	12.91	12.99	13.06	13.13	13.20
Open-circuit voltage	Voc	v	49.15	49.30	49.45	49.60	49.75	49.90
Short-circuit current	he	А	13.76	13.83	13.90	13.97	14.04	14.11
Power output tolerance	ΔPmax	w			0/	· + 5		
Module efficiency	Nroa	%	20.48	20.67	20.87	21.06	21.25	21.45

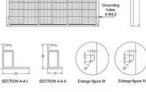
PACKAGING SPECIFICATIONS

	Packaging Specifications@144DF	
555	Dimensions (L / W / H)	2284 mm / 1133 mm / 30 mm
42.05	Weight	32.5 kg
13.20	Number of modules per pallet	36
49.90	Number of pallets per 40' container*	20
14.11	Packaging pallets dimensions (L / W / H)	2300 mm / 1110 mm / 1245 mm
	Pallet weight	1225 kg



Temperature coefficient

of Pres



holes 4-7×10

holes 8-9+14

96 STC: 1000 W m<sup>2</sup> irradiance, 25 °C cell temperature, AM 1.5 spectrum according to EN 60904-3. NMOT: temperature near maximum power point at 800 W m<sup>2</sup> irradiance, 20 °C ambient temper "Blaciality coefficient is 70%, rear irradiance is 358 W m<sup>2</sup>. mperature, 1 m-s1 wind speed

OPERATING CONDITIONS		CONSTRUCTION MATERIALS			
Max. system voltage	1500 Vpc	Cell (material / number)	p-type mono-Si / 2 x 6 x 12		
Max. series fuse rating*	30 A	Glass (material / thickness)	low-iron semi-tempered glass / 2.0 mm		
Operating temperature range	- 40 °C to 85 °C	Frame (type)	anodized aluminium alloy		
Snow load, front	5400 Pa	Cable (length / cross-sectional area)	± 300 mm, can be customized / 4 mm <sup>2</sup>		
Wind load, back	2400 Pa	Plug connector (type)	match the junction box		
Hailstone impact (diameter / velocity)	25 mm / 23 m·s <sup>-1</sup>	Junction box (type / protection degree)	3 diodes / ≥ IP67		

±3

\*DO NOT connect Fuse in Combiner Box with two or more strings in parallel of

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Pallet weight	1225 kg			
*Truck transport is prohibited to exceed its				
	11 Drainage			



#### QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, CE

ISO 9001: 2015, ISO 14001: 2015, BS OHSAS 18001: 2007



Due to continuous innovation, research and product improvement, the specifications in this product in Lare subject to change adheut prior rotice. The specification ent module types. The comp

Warning: Read the Installation and User Manual in its entirety before handling, installing and operating Yingli Solar modules.

Power output

Voltage at Pma

Current at Pmar

Power output

Voltage at Pere

Current at Pma

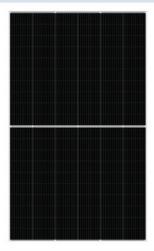
temperature

Measurement tolerance of Voc and Isc

%/°C - 0.35

Yrea

# YLM GG **120CELL**

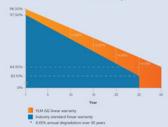


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# YLM GG 120CELL

VPma

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Pmax'

Vr-

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Voc

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NMOT

Voltage at Pma

Current at Pmar

Open-circuit voltage

Short-circuit current

Power output

Voltage at Pmar

Current at Pmax

Open-circuit voltage

Short-circuit current

**Bifaciality** coefficient

temperature

Nominal module operating

Measurement tolerance of Voc and Isc

Bifacial Electrical Parameters at STC\*

MODULE

120DF (120 cell, p-typ	e mono-Si, framed)	YLxxxDF60 f/2	(xxx=Pmax)
------------------------	--------------------	---------------	------------

ITPE								
Electrical Parameters at	sтс							
Power output	Pmas	w	580	585	590	595	600	605
Voltage at Pmax	VPros	٧	33.70	33.90	34.10	34.30	34.50	34.70
Current at Pmax	lønas.	A	17.21	17.26	17.31	17.35	17.39	17.44
Open-circuit voltage	Voc	٧	40.70	40.90	41.10	41.30	41.50	41.70
Short-circuit current	he	A	18.23	18.28	18.32	18.45	18.51	18.56
Power output tolerance	ΔPmax	w			0,	+ 5		
Module efficiency	Nema	96	20.49	20.67	20.85	21.02	21.20	21.38
Electrical Parameters at	ммот			in s				
Power output	Pmax	w	435.60	439.36	443.11	446.87	450.62	454.38

31.64

13.77

37.83

14.69

33.70

18.84

40.70

19.95

70±5

43±2

±3

v

A

v

A

w 634.81

v

Α

v

A

96

°C

31.82

13.81

38.01

14.73

640.28

33.90

18.89

40.90

20.01

32.00

13.85

38.20

14.76

645.76

3410 34 30

18.94

41.10

20.05

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emperature coefficient

of Pmax

mperature coefficient

32.20

13.88

38.38

14.87

651.23

18.99

41.30

20.19

00---

Bre

Yrea

DS\_YLM GG 120CELL\_EU\_EN\_20211109\_V04 210mm

32.39

13.91

38.57

14,91

656.70

34 50

19.03

41.50

20.26

96 / 90

%/°C

96 / °C

32.57

13.95

38.76

14.95

662.17

34 70

19.08

41.70

20.31

0.04

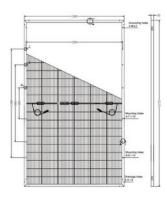
- 0.25

- 0.34

PACKAGING SPECIFICATIONS

Packaging Specifications@120DF				
Dimensions (L / W / H)	2172 mm / 1303 mm / 35 mm			
Weight	35.1 kg			
Number of modules per pallet	31			
Number of pallets per 40' container*	17			
Packaging pallets dimensions (L / W / H)	1340 mm / 1140 mm / 2290 mm			
Pallet weight	1140 kg			

\*Truck transport is prohibited to exceed its maximum load.





Figure@120DF unit: mm

96 STC: 1000 W-m<sup>-2</sup> irradiance, 25 °C cell temperature, AM 1.5 spectrum according to EN 60904-3. MOT: temperature near maximum power point at 800 W m<sup>-2</sup> irradiance, 20 °C ambient ter \*Bifaciality coefficient is 70%, rear irradiance is 135 W m<sup>-2</sup>. ature 1 mail wind speed

OPERATING CONDITIONS		CONSTRUCTION	N MATERIALS		
Max. system voltage	1500 Vpc	Cell (material / number)	p-type mono-Si / 2 x 6 x 10		
Max, series fuse rating*	35 A	Glass (material / thickness)	low-iron semi-tempered glass / 2.0 mm		
Operating temperature range	- 40 °C to 85 °C	Frame (type)	anodized aluminium alloy		
Snow load, front	5400 Pa	Cable (length / cross-sectional area)	± 300 mm, can be customized / 4 mm <sup>2</sup>		
Wind load, back	2400 Pa	Plug connector (type)	match the junction box		
Hailstone impact (diameter / velocity)	25 mm / 23 m-s <sup>-1</sup>	Junction box (type / protection degree)	3 diodes / ≥ IP67		

\*DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection

#### IEC 61215, IEC 61730, CE

ISO 9001: 2015, ISO 14001: 2015, BS OHSAS 18001: 2007



eel are subject to change without prior notice. The specifications may deviate slightly and are not guar The data does not refer to a single module and they are not part of the offer, they only serve for com eserves the final right to explain any of the data includ Proodly made in China

Warning: Read the Installation and User Manual in its entirety before handling, installing and operating Yingli Solar modules.

# Phono<sup>®</sup>Solar

# DRACO MODULE SERIES N-TOPCON HIGH EFFICIENCY MONO BM6-10B-G

550-570W

#### EXTRAORDINARY PRODUCT PERFORMANCE

- Up to 30% additional power yield benefited from bifacial technology and up over 80% cell bifaciality
- Competitive high-temperature performance with ameliorated temperature coefficient
- Better weak illumination response, higher power generation with N-type technology

#### **HIGHER QUALITY RELIABILITY**

- Zero Light Induced Degradation(LID), can increase power generation
- Encapsulation with POE and dual glass contributes to excellent anti-PID characteristic
- · First-year degradation is less than 1.0%, with linear degradation of 0.4% per year for 30 years

#### WIDER APPLICATION CONDITIONS

- BIPV , vertical installation , snowfield , high-humid area , windy and dusty area
- Safer and easier handling during transportation and installation

## MANAGEMENT SYSTEM CERTIFICATES

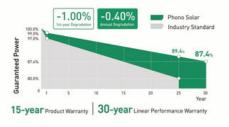
#### IEC 61215, IEC 61730

144 CELLS

- ISO 9001:2015 / Quality management system
- ISO 14001:2015 / Standards for environmental management system
- ISO 45001:2018 / International standards for occupational health & safety



	TYPE
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-+-+	
ا التكر الجر	



Bloomberg Tier



ELECTRICAL TYPICAL VALUES Model PS550M7GFH-24/TNH PS555M7GFH-24/TNH PS560M7GFH-24/TNH PS565M7GFH-24/TNH PS570M7GFH-24/TNH **Testing Condition** NOCT STC NOCT STC NOCT STC

Module Efficiency (%)	21.2	29	21	.48	21	.68	21	.87	22	.07
Open Circuit Voltage (Voc)	50.27	47.40	50.47	47.60	50.67	47.80	50.87	48.00	51.07	48.20
Short Circuit Current (Isc)	14.01	11.29	14.07	11.34	14.13	11.39	14.19	11.44	14.25	11.49
Rated Voltage (Vmpp)	41.58	39.30	41.77	39.40	41.96	39.60	42.15	39.80	42.34	40.00
Rated Current (Impp)	13.23	10.46	13.29	10.50	13.35	10.55	13.41	10.60	13.47	10.65
Rated Power (Pmpp)	550	411	555	414	560	418	565	422	570	426

STC[Standard Testing Conditions]:Irradiance 1000W/m<sup>2</sup>, AM 1.5, Cell Temperature 25°C

NOCT (Nominal Operation Cell Temperature): Irradiance 800W/m², Ambient Temperature 20'C, Spectra at AM1.5, Wind at 1m/S

## BIFACIAL ELECTRICAL VALUES

5%	Maximum Power(W)	572	577	582	588	593
	Module Efficiency(%)	22.14	22.34	22.55	22.75	22.95
15%	Maximum Power(W)	616	622	627	633	638
	Module Efficiency(%)	23.85	24.06	24.28	24.50	24.71
25%	Maximum Power(W)	660	666	672	678	684
	Module Efficiency(%)	25.55	25.78	26.01	26.25	26.48

Cell Type	Monocrystalline 182mm x 91mm
	Length: 2278mm (89.69 inch)
Dimension (L× W × H)	Width: 1134mm (44.65 inch)
	Height: 30mm (1.18 inch)
Weight	33.0kg (72.75 lbs)
Glass	2.0mm/2.0mm Toughened Glass
Frame	Anodized Aluminium Alloy
Cable	4mm² (IEC), {+}:450mm,(-):250mm or Customized Length
Junction Box	IP 68 Rated

TEMPERATURE RATINGS -0.25%/'C **Voltage Temperature Coefficient** +0.045%/°C **Current Temperature Coefficient Power Temperature Coefficient** -0.30%/"C Tolerance 0~+5w NOCT 42±2°C Bifaciality 80±5%

Operating Temperature	From -40 to +85'C
Hail Diameter @ 80km/h	Up to 25mm
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	30A
PV Module Classification	Ш
Maximum System Voltage	DC 1500V

PACKING CONFIGURATI		
Container	20' GP	40' HQ
Pieces/Container	180	720

# Phono<sup>®</sup> Solar

Incident Irrad.=600W/m Incident Irrad.=400W/m Incident Irrad.=200W/m

Incident Irrad.=1000W/m3

Incident Irrad.=800W/m

ELECTRICAL CHARACTERISTICS

- Incident Irrad.=1000W/r

Incident Irrad =600W/m ident Irrad - 400W/n

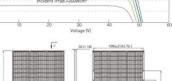
- Incident Irrad +800W/m

600 Cell temp.=25

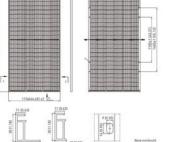
Cell temp.#25 C

500

STC NOCT



Voltage (V



PHONO SOLAR TECHNOLOGY CO., LTD reserves the right to make necessary adjustments to the information described herein at any time without further notice. The specifications and certificates contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. Please be sure to use the most recent version of data.



STC NOCT

# GL M10/72GDF

# 520-555 W

**Bifacial Dual Glass Monocrystalline Module** 

555W

21.5% 0~+5W Maximum Module

Maximum Power Output

Power Output Guarantee

#### GCL Delivers Reliable Performance Over Time

Efficiency

· World-class manufacturer of crystalline silicon photovoltaic modules

- · Fully automatic facility and world-class technology · Rigorous quality control to meet the highest standard: ISO 9001, ISO
- 14001 and ISO 45001
- · Tested for harsh environments [salt mist, ammonia corrosion and sand blowing test: IEC 61701, IEC 62716, DIN EN 60068-2- 68

· Long term reliability tests

• 2×100% EL inspection ensuring defect-free modules

#### Linear Performance Warranty





PID



Selected encapsulating

PID resistant and snail

trails free

production process control

ensure the product is highly

material and stringent



0.

Le

Sand blowing test, salt mist test and ammonia test

**GCL-GEMINI** 

High conversion efficiency

advanced cell technology

Withstand up to 1500V

educe BOS cost

system voltage effectively

due to top quality wafers and





Additional Insurance Backed by Swiss RE

<u>A</u>





Electrical characteristi	ower bin	Ireferer	nce to 10	% Irradia	ince ratio	o)					
Maximum Power	Pmax (W)	556.4	561.8	567.1	572.5	577.8	583.2	588.5	593.9		
Maximum Power Voltage	Maximum Power Voltage Vmp (V) 40.50			40.96	41.22	41.45	41.70	41.93	42.18		
Maximum Power Current	Imp (A)	13.74	13.79	13.85	13.89	13.94	13.98	14.04	14.08		
Open Circuit Voltage	Voc[V]	48.45	48.49	48.68	48.96	49.24	49.52	49.80	50.08		
Short Circuit Current	Isc [A]	14.54	14.58	14.63	14.69	14.75	14.80	14.85	14.91		
Irradiance ratio (rear/front)					0%						
Mechanical Data											
Number of Cells	Number of Cells			144 Cells [6×24]							
Dimensions of Module L*	W*H (mm)		2278×1134×30 mm (89.69×44.65×1.18 inches)								
Weight [kg]			32.7 kg								
Front Side Glass			High transparency solar glass 2.0mm (0.08 inches)								
Back Side Glass			High transparency solar glass 2.0mm (0.08 inches)								
Frame			Silver, anodized aluminium alloy								
J-Box			IP68 Rated								
Cable			4.0mm² (0.006 inches²), Portrait: 280/280mm (11.02inches)								
Number of diodes			3								

#### 2400Pa/ 5400Pa\* MC Compatible 70±5% **Temperature Ratings** Maximum Ratings **Operational Temperature** -40-+85°C 42±2°C Maximum System Voltage Temperature Coefficient of Isc +0.05%/°C Max Series Fuse Rating 30A Temperature Coefficient of Voc -0.28%/°C Temperature Coefficient of PMAX +0.35%/°C Optional

Bringing Green Power To Life

**Packaging Configuration** Module per box Module per 40' container 720 pieces

# Contact Us for More Information

Wind/ Snow Load

Nominal Module Operating

Temperature(NMOT)

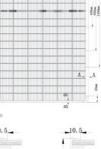
Bifaciality

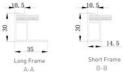
website: www.gclsi.com email: gclsisales@gclsi.com



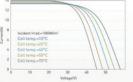


Original MC4





#### I-V Curve at Different Temperature (555W)





300 250 200 150



GCL/XXJC/2-MKT-127-F1



1135mm 1005mm

520-555 W

Module Dimension

Drainage Hole 8-3, 548

Installing Hole

Installing Hele 4-07+12

Grounding Hole 4-04

Back View

# **Bifacial Dual Glass Monocrystalline Module**

GCL-M10/72GDF

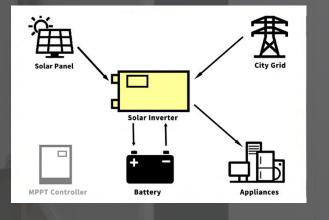
Maximum Power	Pmax(W)	520	525	530	535	540	545	550	555
Maximum Power Voltage	Vmp[V]	40.50	40.73	40.96	41.22	41.45	41.70	41.93	42.18
Maximum Power Current	(mplA)	12.84	12.89	12.94	12.98	13.03	13.07	13.12	13,16
Open Circuit Voltage	Voc[V]	48.45	48.49	48.68	48.96	49.24	49.52	49.80	50.08
Short Circuit Current	Isc[A]	13.59	13.63	13.68	13.73	13.78	13.83	13.88	13.93
Module Efficiency	[96]	20.1	20.3	20.5	20.7	20.9	21.1	21.3	21.5
Power Output Tolerance	(W):					0-+5			

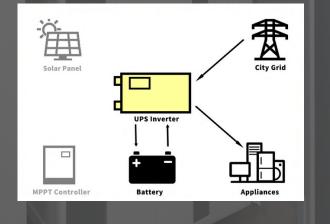
#### Electrical Specification (NMOT\*)

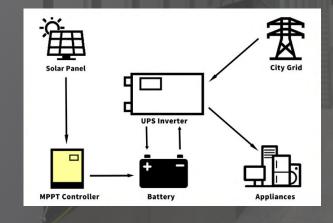
Maximum Power	Pmax (W)	393.5	397.3	401.1	404.8	408.6	412.4	416.2	420.0
Maximum Power Voltage	Vmp (V)	37.56	37.78	38.00	38.23	38.45	38.67	38.90	39.12
Maximum Power Current	Imp (A)	10.47	10.51	10.54	10.58	10.62	10.66	10.70	10.74
Open Circuit Voltage	Voc[V]	45.74	45.77	45.95	46.21	46.48	46.74	47.01	47.28
Short Circuit Current	Isc (A)	10.88	10.92	10.96	11.00	11.04	11.08	11.12	11.16
* Irradiance 800W/m², Ambient	Temperature	20°C, Wind	Speed 1m	s					



# INVERTER & CONTROLLER







SOLAR INVERTER

# UPS INVERTER

# MPPT CONTROLLER





# FSI Series Hybrid Solar Inverter 1~6KW Available

Rated power	1KW	1.5KW	2KW	зки	4KW	5KW	6KW			
Surge power	3KW	4.5KW	6KW	9KW	12KW	15KW	18KW			
		AC In	put & Outp	ut						
Voltage				220VAC						
Selectable Voltage Range			165	5-275VAC (220V	/AC)					
Frequency Range			50Hz/60	Hz automatic re	ecognition					
AC Voltage Regulation (BATT. Mode)			(DC E	Batt.mode)220va	ac±3%					
Transfer Time		≤4ms								
Wave Form		Pure Sine Wave								
Transformer type		Toroidal								
Transfer efficiency				≥85%						
			Battery							
Battery Voltage	12V/24V		12V/24V/48V		24V/48V					
Туре			Gel/SL	AAGW Lithum	battery					
DC Charge Voltage		13.6-1	4.2VDC(12V)/2	7.2-28.4VDC(24	V)/54.4-56.8VD	0C(48V)				
Overcharge Protection	Battery	voltage ≧16VD	C (12V) ≧32VD	DC (24V) ≧64V	DC (48V), stop	charging after 60	s alarm			
		Solar Cha	rge & Ac C	harger						
laximum PVArray Working Circuit Voltage				150VDC						
Maximum Pv Array Power		700W(12V)/*	1400W(24V)		140	0W(24V)/2800W	(48V)			
Maximum Ac Charge Current				35A (adjustable	)					
Maximum Solar Charge Current		30/50A MPPT	(OPTIONAL)			50A MPPT				
Maximum Charging Current		85	iΑ			85A				
		Wo	rking mode							
01 mode			,	AC mains priorit	ty					
02 mode				Energy saving						
03 mode			C	OC battery priori	ty					
			Physical							
Dimension, D*W*H(MM)		530*33	35*250			740*335*275				
G.W.(KGS)	16	18	20	22	33	35	36			
		En	vironment							
Humidity			0~95% (	NO CONDESN	SATION)					
Operating Temperature				0~60℃						
				0~60°C						

FSI-102 FSI-152 FSI-202 FSI-302 FSI-402 FSI-502 FSI-602

Model

# **Stable & Durable**

• latest toroidal transformer could handle triple surge power.

• Inbuilt AVR stablizer for stable output

# **High efficiency**

Inverter transfer efficiency up to 85%
Inbuilt MPPT efficiency more than 99%

# Charger

Inbuilt 35A AC charger
Inbuilt 30A/50A/60A MPPT solar charger



# FTS Series Hybrid Solar Inverter

1~6KW Available

# **Intelligent Control**

• Five smart control mode, auto switch for different demand • RS485 communicational portal, for app & external screen control

Offgrid Pure Sine Wave Inverter

# **High efficiency**

Inverter transfer efficiency up to 85%
Inbuilt MPPT efficiency more than 99%

# Charger

Inbuilt 35A AC charger
Inbuilt 30A/60A MPPT solar charger

Model	FTS-102	FTS-152	FTS-202	FTS-302	FTS-402	FTS-502	FTS-602		
Rated power	1KW	1.5KW	2KW	ЗКW	4KW	5KW	6KW		
Surge power	3KW	4.5KW	6KW	9KW	12KW	15KW	18KW		
			AC Input & C	Output					
Voltage				220VAC					
Selectable Voltage Range			16	5-275VAC (220VA	C)				
Frequency Range			50Hz/6	0Hz automatic rec	ognition				
AC Voltage Regulation (BATT, Mode)			(DC	Batt.mode)220va	:±3%				
Transfer Time				≤4ms					
Wave Form				Pure Sine Wave					
Transformer type				Toroidal					
Transfer efficiency				≥85%					
			Batter	v					
Battery Voltage	12V	12V/24V 12V/24V/48V 24V/48V							
Туре			Gel/SLA/AGN	//Water/Lithium(lif	epo4) Battery				
DC Charge Voltage				)/20~32VDC(24V)					
Overcharge Protection	Ba	attery voltage ≧16				rging after 60s ala	rm		
			r Charge & /						
Maximum PVArray Open		Cond	i onarge a /	150VDC					
Circuit Voltage Maximum Pv Array Power			9000//12	v)/1700W(24V)/34	0010/(48).0				
Maximum Ac Charge			00011(12	35A(adjustable)	00000(400)				
Current Maximum Solar Charge	20/6	0A MPPT (OPTIO	MAL	our (aujustable)	6041	MPPT			
Current Maximum Charging	30/0	95A	IVAL)			5A			
Current		ACG	Working	anda	9.	JA			
			Working n						
01 mode			AC	mains priority m	bde				
02 mode				ECO mode					
03 mode			DC	battery priority m	ode				
04 mode				Generator mode					
05 mode				Unattended mode					
			communicati						
Туре				for wifi box & exte	mal control screen	n			
Dimension,			Physica	al					
D*W*H(MM)		600*380*270 780*380*280							
G.W.(KGS)	17	19	21	23	30	32	36		
			Environm	nent					
Humidity			0~95%	(NO CONDESNS	SATION)				
Operating Temperature				0~60°C					
Storage Temperature				0~60°C					



# TG Series Hybrid Solar Inverter 1.5~6KW Available

Intelligent Control

• Five smart control mode, auto switch for different demand

• RS485 communicational portal, for app & external screen control

# **High efficiency**

Inverter transfer efficiency up to 85%

Inbuilt MPPT efficiency more than 99%

# Charger

•Inbuilt 35A AC charger

•Inbuilt 40A/60A/80A /MPPT solar charger

Model	TG-152	TG-202	TG-302	TG-402	TG-502	TG-602	
Rated power	1.5KW	2KW	ЗКW	4KW	5KW	6KW	
Surge power	4.5KW	6KW	9KW	12KW	15KW	18KW	
		AC	Input & Output				
Voltage			220\	/AC			
electable Voltage Range			165-275VA0	(220VAC)			
Frequency Range			50Hz/60Hz auton	natic recognition			
AC Voltage Regulation (BATT. Mode)			(DC Batt.mode	e)220vac±3%			
Transfer Time			≤4r	ns			
Wave Form			Pure Sin	e Wave			
Transformer type			Toro	idal			
Transfer efficiency			≥85	i%			
			Battery				
Battery Voltage	12V/24V	24V	24V/48V		24V/48V		
Туре			Gel/SLA/AGM/Water/Li	thium(lifepo4) Batter	у		
DC Charge Voltage		12-	-16VDC(12V)/20~32VE	DC(24V)/40~64VDC(	48V)		
Overcharge Protection	Bat	tery voltage ≧16VDC	(12V) ≧32VDC (24V)	≧64VDC (48V), sto	p charging after 60s ala	arm	
		Solar C	harge & Ac Cha	raer			
Maximum PVArray Open			150\				
Circuit Voltage				50			
Maximum Pv Array Power	600W(12V)/ 1200W(24V)	1700W(24V)	1700W(24V)/ 3400W(48V)	3	420W(24V) 4540W(48)	S	
Maximum Ac Charge Current			35A(adju	ustable)			
Maximum Solar Charge	40A MPPT	60A	MPPT		80A MPPT		
Current Maximum Charging	75A	9	5A	115A			
Current	13A		Vorking mode		1134		
01 mode			AC mains pr	iority mode			
02 mode			AC mains pr				
02 mode							
04 mode			DC battery p Generate				
04 mode			Unattende				
05 mode		Com	munication Por				
Time							
Туре		N34	85, available for wifi box	c & external controls	creen		
Dimension,			Physical				
D*W*H(MM)		560*440*190			650*440*220		
G.W.(KGS)	18	21	25	34	36	38	
			Environment				
Humidity			0~95% (NO CO	NDESNSATION)			
Operating Temperature			0~6	0°C			
Storage Temperature			0~6	90			

\*Product Specifications Are Subject To Change Without Further Notice



# Solar Inverter

# NX Series Hybrid Solar Inverter

1.5~6KW Available

# **Intelligent Control**

• Five smart control mode, auto switch for different demand • RS485 communicational portal, for app & external screen control

# **High efficiency**

Inverter transfer efficiency up to 85%
Inbuilt MPPT efficiency more than 99%

# Charger

Inbuilt 35A AC charger
Inbuilt 40A/60A MPPT solar charger

Model	NX-152	NX-202	NX-302	NX-402	NX-502	NX-602				
Rated power	1.5KW	2KW	ЗКЖ	4KW	5KW	6KW				
Surge power	4.5KW	6KW	9KW	12KW	15KW	18KW				
		AC	Input & Output							
Voltage			220	VAC						
electable Voltage Range			165-275VA	C (220VAC)						
Frequency Range			50Hz/60Hz auto	matic recognition						
AC Voltage Regulation (BATT. Mode)			(DC Batt.mod	le)220vac±3%						
Transfer Time			≤4	ms						
Wave Form			Pure Sir	ne Wave						
Transformer type			Tor	oidal						
Transfer efficiency			≥8	5%						
			Battery							
Battery Voltage	12V	/24V	12V/24V/48V		24V/48V					
Туре		(	Gel/SLA/AGM/Water/L	ithium(lifepo4) Batter	ry .					
DC Charge Voltage		12~	16VDC(12V)/20~32V	DC(24V)/40~64VDC(	48V)					
Overcharge Protection	Batt	tery voltage ≥ 16VDC	(12V) ≧32VDC (24V	≥64VDC (48V), sto	p charging after 60s al	arm				
			harge & Ac Cha							
Maximum PVArray Open Circuit Voltage		150VDC								
Maximum Pv Array Power	600W(12V)/ 1200W(24V)	900W(12V)/ 1700W(24V)	900W(12V)/ 1700W(24V)/ 3400W(48V)		1700W(24V)/ 3400W(48V)					
Maximum Ac Charge				ustable)						
Current Maximum Solar Charge	40A MPPT			60A MPPT						
Current Maximum Charging Current	75A			95A						
		w	orking mode							
01 mode			AC mains p	riority mode						
02 mode			ECO	mode						
03 mode			DC battery	priority mode						
04 mode			Generat	or mode						
05 mode			Unattend	led mode						
		Com	munication Po	rt						
Туре		RS48	5, available for wifi bo	x & external control	screen					
			Physical							
Dimension,					0.000.0000000					
D*W*H(MM)		560*350*220			640*420*260					
G.W.(KGS)	18	21	24	34	36	38				
		E	Environment							
Humidity			0~95% (No	condensation)						
Operating Temperature			0~6	0°C						
Storage Temperature			0~6	0°C						



# HSI Series Mini solar Inverter 350W~1200W Available

# **Stable & Durable**

• latest toroidal transformer could handle triple surge power.

-222 DI () 2 3 4 6

• Inbuilt AVR stablizer for stable output

# **High efficiency**

• Inverter transfer efficiency up to 85%

# Charger

Inbuilt 15A AC charger
Inbuilt 20A/30A PWM solar charger

Model	HSI-351	HSI-501	HSI-601	HSI-801	HSI-102	HSI-122				
Rated power	350W	500W	600W	800W	1000W	1200W				
Surge power	1050W	1500W	1800W	2400W	3000W	3600W				
		AC Inp	ut & Output							
Voltage			220	VAC						
Selectable Voltage Range			165-275VA	C (220VAC)						
Frequency Range			50Hz/60Hz auto	matic recognition						
AC Voltage Regulation (BATT, Mode)			(DC Batt.mod	de)220vac±3%						
Transfer Time		≤8ms								
Wave Form		Pure Sine Wave								
Transformer type			Tor	oidal						
Transfer efficiency			≥8	5%						
		E	Battery							
Battery Voltage		12V 12V/24V								
Туре		Gel/SLA/AGMWater battery								
DC Charge Voltage		13.8VDC(12V)/27.6VDC(24V)								
Overcharge Protection		Battery voltage ≧1	6VDC (12V) ≧32V	DC (24V), stop charg	ging after 60s alarm					
		Solar Char	ge & Ac Charg	ger						
Maximum PVArray Open Circuit Voltage			Max. 30V(12)	V) / 50V (24V)						
Maximum Pv Array Power			450W(12V)	/900W(24V)						
Maximum Ac Charge Current			1	5A						
Maximum Solar Charge Current		20A	PWM		30A	PWM				
Maximum Charging Current		3	5A		4	5A				
		Worl	king mode							
01 mode			AC main	ns priority						
02 mode			ECO	mode						
03 mode			DC batte	ery priority						
		P	hysical							
Dimension, D*W*H(MM)			360*3	33*215						
G.W.(KGS)	8.5	8.5	9	9	10	10				
		Env	ironment							
Humidity			0~95% (NO CC	NDESNSATION)						
Operating Temperature			0-6	50°C						
Storage Temperature			0~6	30°C						

\*Product Specifications Are Subject To Change Without Further Notice



# Solar Inverter

# HSI-plus Series Mini solar Inverter 1KW~1.2KW Available

HSI PRUS HYBRID SOLAR INVERTER

10 10

# **Intelligent Control**

• Five smart control mode, auto switch for different demand • RS485 communicational portal, for app & external screen control

# **High efficiency**

Inverter transfer efficiency up to 85%
Inbuilt MPPT efficiency more than 99%

# Charger

Inbuilt 15A AC charger
Inbuilt 30A/40A MPPT solar charger

Model	HSIplus-102	HSIplus-122						
Rated power	1000W	1200W						
Surge power	3000W	3600W						
	AC Input & Outp	ut						
Voltage	2	20VAC						
Selectable Voltage	165	-275VAC						
Frequency Range	50Hz/60Hz au	tomatic recognition						
AC Voltage Regulation (BATT. Mode)	(DC Batt.m	(DC Batt.mode)220vac±3%						
Transfer Time		≤5ms						
Wave Form	Pure	Sine Wave						
Transformer type	т	oroidal						
Transfer efficiency		≥85%						
	Battery							
Battery Voltage	1	21/24						
Туре	Gel/SLA/AGM/Wate	r/Lithium(lifepo4) Battery						
DC Charge Voltage	12~16VDC(12	V)/24~32VDC(24V)						
Overcharge Protection	Battery voltage ≧16VDC (12V) ≧32	VDC (24V), stop charging after 60s alarm						
	Solar Charge & Ac Cl	harger						
Maximum PVArray Open Circuit Voltage	Max. 100V							
Maximum Pv Array Power	450W(12V)/900W(24V) 600W(12V)/1200W(24V)							
Maximum Ac Charge Current		15A						
Maximum Solar Charge Current	30A MPPT	40A MPPT						
Maximum Charging Current	45A	55A						
	Working mode							
01 mode	AC m	ains priority						
02 mode	EC	O mode						
03 mode	DC ba	ttery priority						
04 mode	Unatte	nded mode						
	Communication P	ort						
Туре	RS485, available for wifi	box & external control screen						
	Physical							
Dimension, D*W*H(MM)	396	*294*145						
G.W.(KGS)	10	11						
	Environment							
Humidity	0~95% (NO (	CONDESNSATION)						
Operating Temperature	0	~55℃						
Storage Temperature	0	~55℃						



# Solar Inverter

# HYBRID SOLAR INVERTER STATE LAND -• ----

# **HSI-Max Series Hybrid Solar Inverter** 1.5~6KW Available

**Stable & Durable** 

• latest toroidal transformer could handle triple surge power. • Inbuilt AVR stablizer for stable output

# **High efficiency**

• Inverter transfer efficiency up to 85% • Inbuilt MPPT efficiency more than 99%

# Charger

 Inbuilt 35A AC charger •Inbuilt 30A/40A/60A MPPT solar charger

Model	HSI-2KVA	HSI-3KVA	HSI-4KVA	HSI-5KVA	HSI-6KVA	HSI-8KVA				
Rated power	1.5KW	2KW	зкш	4KW	5KW	6KW				
Surge power	4.5KW	6KW	9KW	12KW	15KW	18KW				
		AC Inpu	t & Output							
Voltage			220	/AC						
Selectable Voltage Range			165-275VAC	C (220VAC)						
Frequency Range			50Hz/60Hz autor	natic recognition						
AC Voltage Regulation (BATT, Mode)			(DC Batt.mode	e)220vac±3%						
Transfer Time			≤4r	ns						
Wave Form			Pure Sin	e Wave						
Transformer type			Toro	idal						
Transfer efficiency		≥85%								
		Ba	ttery							
Battery Voltage	12V/	24V		24V	/48V					
Туре		Gel/SLA/AGMLithum battery								
DC Charge Voltage		13.6-14.2	DC(12V)/27.2-28.4	/DC(24V)/54.4-56.8	VDC(48V)					
Overcharge Protection	Battery	voltage ≧16VDC (1	2V) ≧32VDC (24V)	≧64VDC (48V), st	op charging after 60	s alarm				
		Solar Charge	e & Ac Charge	r						
laximum PVArray Open Circuit Voltage	100VDC			150VDC						
Maximum Pv Array Power	700W(12V)/1400 W(24V)	600W(12V)/ 1200W(24V)		1700W(24V)	/3400W(48V)					
Maximum Ac Charge Current	20A(Adjustable)	120011(241)		35A(Adjustable)						
laximum Solar Charge Current	30/50A PWM (optional)	40A MPPT		60A M	MPPT					
Maximum Charging Current	70A	75A		95	5A					
		Worki	ng mode							
01 mode			AC mains pr	iority mode						
02 mode			ECO	mode						
03 mode			DC battery p	riority mode						
		Phy	ysical							
Dimension, D*W*H(MM)	410*285*150	460*335*150	490*335*170		550*395*170					
G.W.(KGS)	18	21	25	34	36	38				
		Envir	onment							
Humidity			0~95% (No c	ondensation)						
Operating Temperature			0~6	00						
Storage Temperature			0~6	-						



# TDS Series Hybrid Solar Inverter 7~10KW Available

# **Intelligent Control**

• Five smart control mode, auto switch for different demand • RS485 communicational portal, for app & external screen control

# **High efficiency**

• Inverter transfer efficiency up to 85% • Inbuilt MPPT efficiency more than 99%

# Charger

Inbuilt 20A AC chargerInbuilt 100A MPPT solar charger

Model	TDS-702	TDS-103			
Rated power	7KW	10KW			
Surge power	21KW	30KW			
	AC Input & Output				
Voltage	220VAC				
Selectable Voltage Range	140-275VAC (220/230	/240VAC)±4%			
Frequency Range	50Hz/60Hz automati	c recognition			
AC Voltage Regulation (RATT Mode)	(DC Batt.mode)22	20vac±3%			
Transfer Time	≤8ms				
Wave Form	Pure Sine W	/ave			
Transformer type	El square				
Transfer efficiency	≥85%				
	Battery				
Battery Voltage	48/96VD	0			
Туре	Gel/SLA/AGM/Water/Lithium(lifepo4) Battery				
DC Charge Voltage	40~64VDC(48V)/ 80~	128VDC(96V)			
	Solar charger &AC Charger				
Maximum PVArray Open Circuit Voltage	200VDC				
Maximum Pv Array Power	5600W(48V)/1150	00W(96V)			
Maximum Ac Charge Current	20A				
Maximum Solar Charge Current	100A MPF	PT			
Maximum Charging Current	120A				
	Communication Portal				
Туре	RS485, available for wifi box &	external control screen			
	Physical				
Dimension, D*W*H(MM)	640*400*8	20			
G.W.(KGS)	80	85			
	Environment				
Humidity	0~95% (No cond	lensation)			
Operating Temperature	0~60°C				
Storage Temperature	0~60°C				



# GI Series Pure Sine Wave Inverter 1~6KW Available

Stab	le &	Durable	
Scub		Durubic	

latest toroidal transformer could handle triple surge power.
Inbuilt AVR stablizer for stable output

# **High efficiency**

• Inverter transfer efficiency up to 85%

RESINEWA

# Charger

•Inbuilt 35A AC charger

Model	GI-102	GI-152	GI-202	GI-302	GI-402	GI-502	GI-602
Rated power	1KW	1.5KW	2KW	зкw	4KW	5KW	6KW
Surge power	ЗКW	4.5KW	6KW	9KW	12KW	15KW	18KW
		AC	Input & Ou	itput			
Voltage				220VAC			
Selectable Voltage Range			165	-275VAC (220V	AC)		
Frequency Range			50Hz/60	Hz automatic red	cognition		
AC Voltage Regulation (BATT. Mode)			(DC E	Batt.mode)220va	ic±3%		
Transfer Time				≤4ms			
Wave Form				Pure Sine Wave			
Transformer type				Toroidal			
Transfer efficiency				≥85%			
			Battery				
Battery Voltage	12V/24V		12V/24V/48V			24V/48V	
Туре			Gel/SL	AVAGW Lithum	battery		
DC Charge Voltage		13.6-1	4.2VDC(12V)/2	7.2-28.4VDC(24)	V)/54.4-56.8VD	C(48V)	
Overcharge Protection	Battery	voltage ≧16VD	C (12V) ≧32VE	DC (24V) ≧64VE	DC (48V), stop o	charging after 60	is alarm
			AC Charge	er			
Maximum Ac Charge Current				35A (adjustable)			
		v	Vorking mo	de			
01 mode				AC mains priority	/		
02 mode				ECO mode			
03 mode			[	OC battery priorit	у		
			Physical				
Packing size D*W*H(MM)		530*33	35*250			740*335*270	
G.W.(KGS)	14	16	18	20	31	33	35
		1	Environme	nt			
Humidity			0~95%	NO CONDESN	SATION)		
Operating Temperature				0~60°C			
Storage Temperature				0~60℃			



# FI Series Pure Sine Wave Inverter 1~6KW Available

Stabl	e & D	urable
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latest toroidal transformer could handle triple surge power.
Inbuilt AVR stablizer for stable output

# **High efficiency**

• Inverter transfer efficiency up to 85%

# Charger

•Inbuilt 35A AC charger

Model	FI-102	FI-152	FI-202	FI-302	FI-402	FI-502	FI-602
Rated power	1KW	1.5KW	2KW	зки	4KW	5KW	6KW
Surge power	ЗКШ	4.5KW	6KW	9KW	12KW	15KW	18KW
		AC	Input & Ou	itput			
Voltage				220VAC			
Selectable Voltage Range			165	-275VAC (220V	AC)		
Frequency Range			50Hz/60	Hz automatic re	cognition		
AC Voltage Regulation (BATT. Mode)			(DC E	att.mode)220va	ac±3%		
Transfer Time				≤4ms			
Wave Form				Pure Sine Wave			
Transformer type				Toroidal			
Transfer efficiency				≥85%			
			Battery				
Battery Voltage	12V/24V		12V/24V/48V			24V/48V	
Туре			Gel/SL	A/AGM/ Lithum	battery		
DC Charge Voltage		13.6-1	4.2VDC(12V)/2	7.2-28.4VDC(24	V)/54.4-56.8VD	C(48V)	
Overcharge Protection	Battery	voltage ≧16VD	C (12V) ≧32V	C (24V) ≧64VI	DC (48V), stop (	charging after 60	s alarm
			AC Charge	r			
Maximum Ac Charge Current				35A (adjustable)	)		
		v	Vorking mo	de			
01 mode				AC mains priority	у		
02 mode				ECO mode			
03 mode			C	C battery priorit	ly		
			Physical				
Packing size D*W*H(MM)		530*3	35*250			740*335*270	
G.W.(KGS)	14	16	18	20	31	33	35
			Environme	nt			
Humidity			0~95	% (No condens	ation)		
Operating Temperature				0~60℃			
Storage Temperature				0~60℃			



# FT Series Pure Sine Wave inverter 1~6KW Available

Intelli	gent (	Control
miem	gent	JUILIOL

• Five smart control mode, auto switch for different demand • RS485 communicational portal, for app & external screen control

# **High efficiency**

• Inverter transfer efficiency up to 85%

PURE SINE WAVE INVERTER

# Charger

Inbuilt 35A AC charger

FT-102	FT-152	FT-202	FT-302	FT-402	FT-502	FT-602
1KW	1.5KW	2KW	зкw	4KW	5KW	6KW
зкм	4.5KW	6KW	9KW	12KW	15KW	18KW
		AC Input	& Output			
			220VAC			
		10	65-275VAC (220VAC	C)		
		50Hz/6	0Hz automatic reco	gnition		
		(DC	Batt.mode)220vac:	±3%		
			≤4ms			
			Pure Sine Wave			
			Toroidal			
			≥85%			
		Bat	tery			
12V	/24V	12V/24	W/48V		24V/48V	
		Gel/SLA/AGM	//Water/Lithium(life	po4) Battery		
		12~16VDC(12V	)/20~32VDC(24V)/4	0~64VDC(48V)		
	Battery voltage ≧	16VDC (12V) ≧32\	/DC (24V) ≧64VDC	(48V), stop chargi	ng after 60s alarm	
		AC Ch	arger			
			35A (adjustable)			
		Workin	g mode			
		AC	mains priority mo	de		
			ECO mode			
		DC	battery priority mo	de		
			Generator mode			
			Unattended mode			
		Communic	ation Port			
		RS485, available	for wifi box & extern	nal control screen		
		Phys	sical			
	600*3	80*170			780*380*280	
15	17	19	21	31	33	35
		Enviro	nment			
		0~9	5% (No condensat	ion)		
			0~60°C			
			0~60°C			
	1KW 3KW 12V	1KW 1.5KW 3KW 4.5KW 12V/24V Battery voltage ≧	1KW     1.5KW     2KW       3KW     4.5KW     6KW       3KW     4.5KW     6KW       AC Input     10       501-2/6     (DC       12V/24V     12V/24       12V/24V     12V/24       12V/24V     12V/24       22-16VDC(12V)     32V       Ge//SLA/AGI     12-16VDC(12V)       12V/24V     12V/24       Battery voltage ≥ 16/DC (12V) ≥ 32V       AC Cf       Workin       AC       Communic       RS485, available       Phy:       600*380*170       15     17       15     17	1KW         1.5KW         2KW         3KW           3KW         4.5KW         6KW         9KW           3KW         4.5KW         6KW         9KW           3KW         4.5KW         6KW         9KW           3KW         4.5KW         6KW         9KW           3KW         50F2/60F2 automatic record (0C Batt mode)220 vare (0C Batt mode)220 vare (0C Batt mode)220 vare (0C Batt mode)220 vare         34m           3KW         50F2/60F2 automatic record (0C Battery voltage ≥ 16VDC (12V) ≥ 32VDC (24V) 426VDC         38%           3KM         50F2/60F2 automatic record (0C battery priority mode)         36(adjustable)           3KM         50F2/60F2 automatic record (0C battery priority mode)         20 mattery voltage automatic record record automatic record record automatic record automatic record record aut	1KW1.5KW2KW3KW4KW3KW4.5KW6KW9KW12KW3KW4.5KW6KW9KW12KWLauna Launa La	1KW1.5KW2KW3KW4KW5KW3KW4.5KW6KW9KW12KW15KW3KW4.5KW6KW9KW12KW15KW $C = 200AC$ $220VAC$ $15S 275VAC (220 VAC)$ $15S 275VAC (220 VAC)$ States 75 200 C (220 VAC)States 75 200 C (220 VAC)States 75 200 C (220 VAC)States 75 200 C (220 VAC)COLS Batt.mode)220vac.53%COLS Batt.mode)220vac.53%COLS Batt.mode)220vac.53%COLS Batt.mode)220vac.53%COLS Batt.mode)220vac.53%COLS Batt.mode)220vac.53%COLS Batt.mode)220vac.53%COLS Batt.mode)220vac.53%COLS States 7000Sates 70000 (210 Vac



# HI Series Mini UPS Inverter 350W~1200W Available

Stab	le &	Dura	ble
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latest toroidal transformer could handle triple surge power.
Inbuilt AVR stablizer for stable output

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055 0 C245

# **High efficiency**

• Inverter transfer efficiency up to 85%

# Charger

•Inbuilt 15A AC charger

Model	HI-351	HI-501	HI-601	HI-701	HI-102	HI-122		
Rated power	350W	500W	600W	700W	1000W	1200W		
Surge power	1050W	1500W	1800W	2100W	3000W	3600W		
		AC Inpu	it & Output					
Voltage			220	VAC				
Selectable Voltage Range		165-275VAC (220VAC)						
Frequency Range			50Hz/60Hz auto	matic recognition				
AC Voltage Regulation (BATT. Mode)			(DC Batt.mod	de)220vac±3%				
Transfer Time			≤8	ms				
Wave Form			Pure Si	ne Wave				
Transformer type			Tor	oidal				
Transfer efficiency			≥8	5%				
		Ba	attery					
Battery Voltage		1:	2V		121	//24V		
Туре			Gel/SLA/AGM	Water battery				
DC Charge Voltage			13.8VDC(12V)	/27.6VDC(24V)				
Overcharge Protection	В	attery voltage ≥16	VDC (12V) ≧32V0	DC (24V), stop cha	rging after 60s ala	rm		
		AC	Charger					
Maximum Ac Charge Current			1	5A				
		Work	ing mode					
01 mode			AC main	ns priority				
02 mode			ECO	mode				
03 mode			DC batte	ery priority				
		Ph	ysical					
Dimension, D*W*H(MM)			360*3	30*215				
G.W.(KGS)	8.5	8.5	9	9	10	10		
		Envi	ronment					
Humidity			0~95% (No	condensation)				
Operating Temperature			0~6	50°C				
Storage Temperature			0~6	50°C				



# **UPS Inverter**

# TD Series Low frequency Inverter 7~30KW Available

Intell	igent	Control	

• Five smart control mode, auto switch for different demand • RS485 communicational portal, for app & external screen control

# **High efficiency**

• Inverter transfer efficiency up to 85%

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SOLAR INVERTER

# Charger

Inbuilt 20A AC charger

Model	TD-702	TD-103	TD-153	TD-203	TD-303	
Rated power	7KW	10KW	15KW	20KW	30KW	
Surge power	21KW	30KW	45KW	60KW	90KW	
		AC Input &	Output			
Voltage			220VAC			
Selectable Voltage Range			165-275VAC (220VAC)			
Frequency Range		50H	z/60Hz automatic recogni	tion		
AC Voltage Regulation (BATT. Mode)		(1	DC Batt.mode)220vac±3%	6		
Transfer Time			≤8ms			
Wave Form			Pure Sine Wave			
Transformer type			El square			
Transfer efficiency			≥85%			
		Batter	У			
Battery Voltage	48/96	48/96VDC 192V				
Туре		Gel/SLA/A	AGM/Water/Lithium(lifepo4	) Battery		
DC Charge Voltage	40~64VDC(48V)/ 8	30~128VDC(96V)	160~256VD	DC(192V)	200~320VDC(240V)	
		AC Char	ger			
Maximum Ac Charge Current			20A			
		Communicatio	on Portal			
Туре		RS485, availab	ole for wifi box & external	control screen		
		Physic	al			
Dimension, D*W*H(MM)	640*400*820	640*400*820	750*450*1000	760*	*460*1050	
G.W.(KGS)	75	80	85	91	153	
		Environn	nent			
Humidity		0	~95% (No condensation	)		
Operating Temperature			0~60°C			
Storage Temperature			0~60°C			



# DB Series 3 phase Inverter 10~200KVA Available

• latest square transrformer could handle triple surge power.

# **High efficiency**

• Inverter transfer efficiency up to 80%

# Charger

•Inbuilt 10~30A AC charger

Model	DB-10	DB-15	DB-20	DB-30	DB-40	DB-50	DB-60	DB-80	DB-100	DB-120	DB-150	DB-20
Rated power	8KW	12KW	16KW	24KW	32KW	40KW	48KW	64KW	80KW	96KW	112KW	160KW
Capacity	10KVA	15KVA	20KVA	30KVA	40KVA	50KVA	60KVA	80KVA	100KVA	120KVA	150KVA	200KV
					AC I	nput & C	Dutput					
Voltage						380	VAC±20%					
Phase						Three	phase+N+0	3				
Frequency Range						50Hz	:/60Hz±10%	i.				
Soft Start						0~100%	within 5 sec	onds				
Transfer Time							≤10ms					
Wave Form						Pure	Sine Wave					
Transformer type		Square transformer										
Transfer efficiency							≥85%					
						Battery	,					
attery Voltage		19	2V						384V			
Туре						Gel/SLA/A	GM/Water B	attery				
DC Charge Voltage		192~	240V					3	60~396V			
					,	AC Charg	ger					
Maximum Ac Charge Current							10~30A					
						Physica	al					
Dimension, D*W*H(MM)	1	232*553*82	5	1340*8	85*685	15	520*1100*76	65	1635*1	200*998	1840*12	270*920
G.W.(KGS)	210	230	250	310	330	530	570	610	780	810	910	970
					E	nvironm	ent					
Humidity					0	~95% (NO	CONDESN	SATION)				
Operating Temperature						1	0~60°C					
Storage Temperature						1	0~60°C					



# AP Series MPPT Solar Controller 20~120Amp Available

Intel	ligen	it Co	ontrol

Three charging stage to protect your battery.
RS485 communicational portal, for phone app remote control.

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# **High efficiency**

• MPPT efficiency more than 99%

# **Battery Type**

Sealed Lead Acid battery (SLA)
Absorbent Glass Mat Battery (AGM)
Water battery
Lithium battery (Li-ion)

AP-20	AP-30	AP-40	AP-50	AP-60	AP-80	AP-100	AP-120		
20A	30A	40A	50A	60A	80A	100A	120A		
22A	32A	42A	52A	62A	82A	102A	122A		
N	Ippt Ra	nge Ope	erating	Voltage					
	18VDC~80VDC								
			30VDC	~100VDC					
			40VDC	C~100VDC					
			60VDC	~150VDC					
	Not Av	ailable			120VD	C~200VDC			
	Maxim	um Pv	Array P	ower					
280W	420W	570W	700W	900W	1140W	1400W	1800W		
550W	840W	1130W	1400W	1700W	2260W	2800W	3400W		
840W	1260W	1710W	2100W	2700W	3420W	4200W	5400W		
1100W	1650W	2270W	2800W	3400W	4540W	5600W	6800W		
	Not Av	ailable		7200W	9120W	11200W	14400W		
		Batt	ery						
Gel/SLA/AGM/Water/Lithium(lifepo4) battery									
Three Stages: Constand Current(mppt), equalizing Charge, Floating Charge									
≥99%									
	Com	munica	tion Por	rtal					
RS485, available for wifi box & external control screen									
		Phys	ical						
3	315*235*15	0	3	360*260*19	0	570*3	60*200		
	3.5KGS			4.5KGS 13KGS					
	22A	22A 32A Mppt Ran Not Av Maxim 280W 420W 550W 840W 100W 1650W 100W 1650W Not Av Not Av Salar Sal	22A       32A       42A         Mpt Rauge Open         Not Available         Maximum Pou         280W       420W       570W         280W       420W       570W         550W       840W       1130W         340W       1260W       1710W         1100W       1650W       2270W         1100W       1650W       2270W         Not Available         Batte         Gel/SLAW         Communication         Communication         RS485 availa         Phys         315*235*150	22A     32A     42A     52A       Mppt Rauge Operating V       INVD       30VD       30VD	22A     32A     42A     52A     62A       IPPT Range Coperating Voltage       IPPT Range Coperating Voltage       IPPT Range Coperating Voltage       IPPT Range Coperating Voltage       OUDE - 100VDE       Statuale       Statuale	22A       32A       42A       52A       62A       82A         MPpt Rarrer Operating Voltage         ISVDC-80VDC         SOVDC-100VDC         SOVDC-100VDC         SOVDC-100VDC         SOVDC-150VDC         SOVOC-150VDC         SOVOC-150VDC         SOVOC-150VDC         SOVOC-160VDC         SOVOC-1700V         SOVOC-1700VDC         SOVOC-1700VDC         SOVOC-1700VDC         SOVOC-1700VDC         SOVOC-1700VDC         SOVOC-170VDC	22A       32A       42A       52A       62A       82A       102A         Impt Rarge Ciperation Source         ISVDC-80VDC         ISVDC-100VDC         ISVDC-100VDC         ISVDC-100VDC         ISVDC-100VDC         ISVDC-100VDC         ISVDC-100VDC         ISVDC-100VDC         ISVDC-100VDC         ISVDC-200VDC         ISVDC-200VDC         ISVDC-200VDC         ISVDC-200VDC         ISVDC-200VDC         ISVDC-200VDC         ISVDC-200VDC         ISVDC-200VDC         ISVE         ISVE		



# **MPPT Controller**

# AP Series High Voltage MPPT Solar Controller

100amp 192/240/360/384v Available

MPPT SOLAR CHARGE CONTROLLER

# **Intelligent Control**

• Three charging stage to protect your battery.

# **High efficiency**

• MPPT efficiency more than 99%

# **Battery Type**

Sealed Lead Acid battery (SLA)

- Absorbent Glass Mat Battery (AGM)
- Water battery
- Lithium battery (Li-ion)

Model	AP-100
Rated Current	100A
Maximum Charging Current	102A
	Mppt Range Operating Voltage
192VDC	240VDC~600VDC
240VDC	300VDC~600VDC
360VDC	420VDC~850VDC
384VDC	448VDC~850VDC
	Maximum Pv Array Power
192VDC	17920W
240VDC	22400W
360VDC	42000W
384VDC	44800W
	Battery
upportable Battery Type	Gel/SLA/AGM/Water battery
Charging Mode	Three Stages: Constand Current(mppt),equalizing Charge, Floating Charge
Maximum Efficiency	≥99%
	Communication Portal
Communication	RS485, available for wifi box & external control screen
	Physical
Dimension, D*W*H(MM)	690*540*360

45KGS

\*Product Specifications Are Subject To Change Without Further Notice

G.W.(KGS)



**MP-120** 

120A

# MP Series MPPT Solar Controller 20~120amp Available

imum Charging Current	22A	32A	42A	52A	62A	82A	102A	122A
		Mppt R	ange Ope	erating Vo	ltage			
12VDC				18VDC	-80VDC			
24VDC				30VDC~	100VDC			
36VDC				40VDC~	100VDC			
48VDC				60VDC~	150VDC			
96VDC		Not Av	ailable			120VDC-	-200VDC	

**MP-50** 

50A

**MP-60** 

60A

MP-80A MP-100

100A

80A

### Maximum Pv Array Power

12VDC	280W	420W	570W	700W	900W	1140W	1400W	1800W
24VDC	550W	840W	1130W	1400W	1700W	2260W	2800W	3400W
36VDC	840W	1260W	1710W	2100W	2700W	3420W	4200W	5400W
48VDC	1100W	1650W	2270W	2800W	3400W	4540W	5600W	6800W
96VDC		Not Av	ailable		7200W	9120W	11200W	14400W

#### Battery

Supportable Battery Type	Gel/SLA/AGMWater/Lithium(lifepo4) battery
Charging Mode	Three Stages: Constand Current(mppt), equalizing Charge, Floating Charge
Maximum Efficiency	≥99%

#### **Communication Portal**

Communication

Model

Rated Current

Maxir

**MP-20** 

20A

**MP-30** 

30A

**MP-40** 

40A

RS485, available for wifi box & external control screen

#### Physical

Dimension, D*W*H(MM)	315*235*150	360*260*190	440*410*200
G.W.(KGS)	3.5KGS	4.5KGS	12KGS

\*Product Specifications Are Subject To Change Without Further Notice

# **Intelligent Control**

MPPT

4

Three charging stage to protect your battery.RS485 communicational portal, for phone app remote control.

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MPPT

SOLAR CHARGE

4

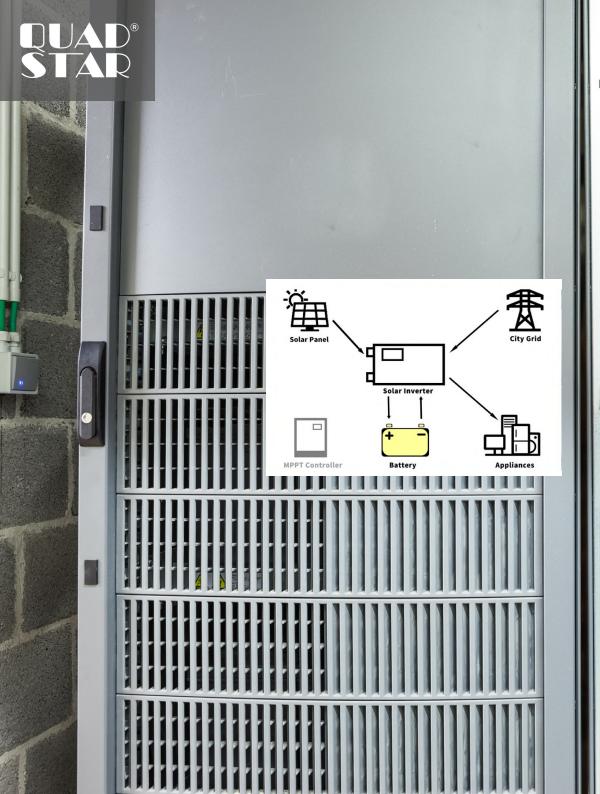
# **High efficiency**

• MPPT efficiency more than 99%

# **Battery Type**

• Sealed Lead Acid battery (SLA)

- Absorbent Glass Mat Battery (AGM)
- Water battery
- Lithium battery (Li-ion)



# ENERGY<br/>STORAGE<br/>SYSTEMS

AP-3035

AP-3048

AP-3096

AP-5048

AP-5096

AP-50144

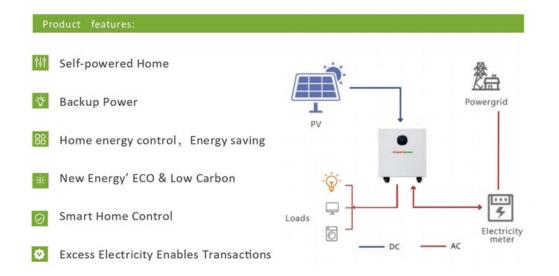
AP-80192



# 3kw/3.6kwh Product — AP-3035



Some area where there is no electricity need to solve the power demand of such as lighting, computer, mobile phone charging and etc., so we design this model 3kw and 3.6kwh energy storage system for the family basic requirement.



#### Take Green Energy To All Families

Model	AP-3035
Feed-in Type	Single & Split-Phase
Output Voltage	110 / 230 vac (charge and discharge)
Storage Ability	3.6 kwh
Max Solar input	2.4 kwp
PV Side Max. Input Voltage	145 VDC
MPPT Voltage	60-110 VDC
PV Charging Max Current (A)	60 A / 30 A
AC Charging Max Current (A)	16 A / 12 A
Charging time	1-3 Hours
Continuous Output Power	3 kw
Peak power	4 kw (discharge only)
Weight	61kg
Size (L*W*H)	560*390*660mm
Imbalance for Single-Phase Loads	100%
Power Factor out Range	+/- 1.0 adjustable
Battery DC voltage	48V
Depth of Discharge	90%
Operating Humidity(RH)	Up to 100%,condensing
Operating Temperarure	-10 C -50 C / 14°F~122°F
Storage Temperature	-20 C -60 C / 4°F~140°F
Maximum Altiture	2000m
Ingress Rating	IP 20/54/65
Niose Level@1m	<35 dBA at 30
Certificates	CE,MSDS,UN38.3,ISO:9001
Mounting Options	Floor
Warranty	10 years
Packaging	Standard Export Caeron With pallet

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# 3kw/4.8kwh Product — AP-3048



Some area where there is no electricity need to solve the power demand of such as lighting, computer, mobile phone charging and etc., so we design this model 3kw and 4.8kwh energy storage system for the family basic requirement.



Model	AP-3048
Feed-in Type	Single & Split-Phase
Output Voltage	110 / 230 vac (charge and discharge)
Storage Ability	4.8 kwh
Max Solar input	2.4 kwp
PV Side Max. Input Voltage	145 VDC
MPPT Voltage	60-110 VDC
PV Charging Max Current (A)	60 A / 30 A
AC Charging Max Current (A)	16 A / 12 A
Charging time	1-3 Hours
Continuous Output Power	3 kw
Peak power	4 kw (discharge only)
Weight	72 kg
Size (L*W*H)	560*390*660mm
Imbalance for Single-Phase Loads	100%
Power Factor out Range	+/- 1.0 adjustable
Battery DC voltage	48V
Depth of Discharge	90%
Operating Humidity(RH)	Up to 100%,condensing
Operating Temperarure	-10 C -50 C / 14°F~122°F
Storage Temperature	-20 C -60 C / 4°F~140°F
Maximum Altiture	2000m
Ingress Rating	IP 20/54/65
Niose Level@1m	<35 dBA at 30
Certificates	CE,MSDS,UN38.3,ISO:9001
Mounting Options	Floor
Warranty	10 years
Packaging	Standard Export Caeron With pallet

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Take Green Energy To All Families

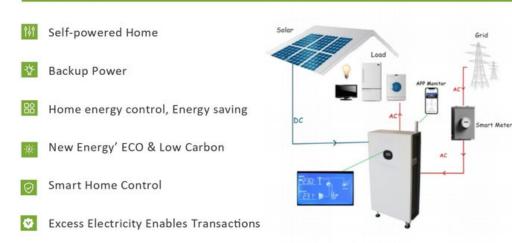


# 3kw/9.6kwh Product — AP-3096

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The first thing of someplace where no electricity is to solve the power demand of such as lighting, TV, computer, mobile phone charging and etc., then with the supply of electricity, it will has some household appliances using, so we design these 2 models 3kw and 9.6kwh energy storage system for the family equirement.

#### Product features:



Model	AP-3096
Feed-in Type	Single & Split-Phase
Output Voltage	110 / 230 vac (charge and discharge)
Storage Ability	3.6 kwh
Max Solar input	2.4 kwp
PV Side Max. Input Voltage	145 VDC
MPPT Voltage	60-110 VDC
PV Charging Max Current (A)	60 A / 30 A
AC Charging Max Current (A)	16 A / 12 A
Charging time	1-3 Hours
Continuous Output Power	3 kw
Peak power	4 kw (discharge only)
Weight	130 kg
Size (L*W*H)	550*340*1130mm
mbalance for Single-Phase Loads	100%
Power Factor out Range	+/- 1.0 adjustable
Battery DC voltage	48V
Depth of Discharge	90%
Operating Humidity(RH)	Up to 100%,condensing
Operating Temperarure	-10 C -50 C / 14°F~122°F
Storage Temperature	-20 C -60 C / 4°F~140°F
Maximum Altiture	2000m
Ingress Rating	IP 20/54/65
Niose Level@1m	<35 dBA at 30
Certificates	CE,MSDS,UN38.3,ISO:9001
Mounting Options	Floor
Narranty	10 years
ackaging	Standard Export Caeron With pallet

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Take Green Energy To All Families



# 5kw/4.8kwh Product — AP-5048



The first thing of someplace where no electricity is to solve the power demand of such as lighting, TV, computer, mobile phone charging and etc., then with the supply of electricity, it will has some household appliances using, so we design these 2 models 5kw and 4.8kwh energy storage system for the family equirement.



40		
		LONDS
	<u> </u>	
	Plug and Play	GRD

#### Take Green Energy To All Families

Model	AP-5048		
Feed-in Type	Single & Split-Phase		
Output Voltage	110 / 230 vac (charge and discharge)		
Storage Ability	4.8 kwh		
Max Solar input	4.5 kwp		
PV Side Max. Input Voltage	145 VDC		
MPPT Voltage	60-110 VDC		
PV Charging Max Current (A)	80 A / 50 A		
AC Charging Max Current (A)	50 A / 25 A		
Charging time	1-3 Hours		
Continuous Output Power	5 kw		
Peak power	7 kw (discharge only)		
Weight	75 kg		
Size (L*W*H)	560*390*660mm		
Imbalance for Single-Phase Loads	100%		
Power Factor out Range	+/- 1.0 adjustable		
Battery DC voltage	48V		
Depth of Discharge	90%		
Operating Humidity(RH)	Up to 100%,condensing		
Operating Temperarure	-10 C -50 C / 14°F~122°F		
Storage Temperature	-20 C -60 C / 4°F~140°F		
Maximum Altiture	2000m		
Ingress Rating	IP 20/54/65		
Niose Level@1m	<35 dBA at 30		
Certificates	CE,MSDS,UN38.3,ISO:9001		
Mounting Options	Floor		
Warranty	10 years		
Packaging	Standard Export Caeron With pallet		

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# 5kw/9.6kwh Product — AP-5096



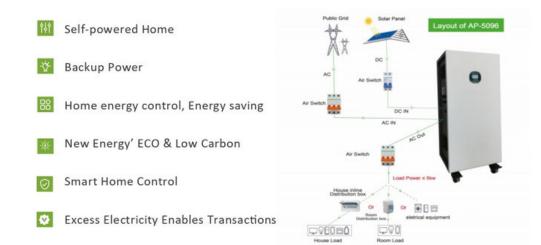
In the aera where electricity price high, they collect electricity fee with price fluctuations rule. With photo voltaic power generation and our power storage system, people can store electricity in low price, use electricity in high price, then we can reduce the cost of electricity using effectively. Cooperate with photovoltaic power generation, it can meet family daily 9.6 kWh electricity using demand, reduce familiy electricity costs as high as 50%.

Model	AP-5096		
Feed-in Type	Single & Split-Phase		
Output Voltage	110 / 230 vac (charge and discharge)		
Storage Ability	9.6 kwh		
Max Solar input	4.5 kwp		
PV Side Max. Input Voltage	145 VDC		
MPPT Voltage	60-110 VDC		
PV Charging Max Current (A)	80 A / 50 A		
AC Charging Max Current (A)	50 A / 25 A		
Charging time	1-3 Hours		
Continuous Output Power	3 kw		
Peak power	7 kw (discharge only)		
Weight	138 kg		
Size (L*W*H)	560"340"1130mm		
Imbalance for Single-Phase Loads	100%		
Power Factor out Range	+/- 1.0 adjustable		
Battery DC voltage	48V		
Depth of Discharge	90%		
Operating Humidity(RH)	Up to 100%,condensing		
Operating Temperarure	-10 C -50 C / 14°F~122°F		
Storage Temperature	-20 C -60 C / 4°F~140°F		
Maximum Altiture	2000m		
Ingress Rating	IP 20/54/65		
Niose Level@1m	<35 dBA at 30		
Certificates	CE,MSDS,UN38.3,ISO:9001		
Mounting Options	Floor		
Warranty	10 years		
Packaging	Standard Export Caeron With pallet		

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#### Product features:





# 5kw/14.4kwh Product ---- AP- 50144



**SKWP Solar panels** 

In the aera where electricity price high, they collect electricity fee with price fluctuations rule. With photo voltaic power generation and our power storage system, people can store electricity in low price, use electricity in high price, then we can reduce the cost of electricity using effectively. Cooperate with photovoltaic power generation, it can meet family daily 14.4 kWh electricity using demand, reduce familiy electricity costs as high as 50%.

# Product features: Image: Self-powered Home Image: New Energy' ECO & Low Carbon Image: Backup Power Image: Smart Home Control Image: Backup Power Image: Smart Home Control Image: Home energy control, Energy saving Image: Smart Home Control Image: Home energy control, Energy saving Image: Excess Electricity Enables Transactions Image: Home energy control, Energy saving Image: Excess Electricity Enables Transactions Image: Home energy control is the subly view and view Image: Excess Electricity Enables Transactions Image: Home energy control is the subly view and view Image: Excess Electricity Enables Transactions Image: Home energy control is the subly view and view Image: Excess Electricity Enables Transactions Image: Home energy control is the subly view and view Image: Excess Electricity Enables Transactions Image: Home energy control is the subly view and view Image: Excess Electricity Enables Transactions Image: Home energy end to the view Image: Excess Electricity Enables Transactions Image: Home energy end to the view Image: Excess Electricity Enables Image: Home energy end to the view Image: Excess Electricity Enables Image: Home energy end to the view Image: Excess Electricity end to the view Image: Home energy end to t

Intergrated solar power supply

charged by grid

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Model	AP-50144		
Feed-in Type	Single & Split-Phase		
Output Voltage	110 / 230 vac (charge and discharge)		
Storage Ability	14.4 kwh		
Max Solar input	4.5 kwp		
PV Side Max. Input Voltage	145 VDC		
MPPT Voltage	60-110 VDC		
PV Charging Max Current (A)	80 A / 50 A		
AC Charging Max Current (A)	50 A / 25 A		
Charging time	1-3 Hours		
Continuous Output Power	3 kw		
Peak power	7 kw (discharge only)		
Weight	178 kg		
Size (L*W*H)	550*410*1145mm		
Imbalance for Single-Phase Loads	100%		
Power Factor out Range	+/- 1.0 adjustable		
Battery DC voltage	48V		
Depth of Discharge	90%		
Operating Humidity(RH)	Up to 100%,condensing		
Operating Temperarure	-10 C-50 C / 14°F~122°F		
Storage Temperature	-20 C-60 C / 4°F~140°F		
Maximum Altiture	2000m		
Ingress Rating	IP 20/54/65		
Niose Level@1m	<35 dBA at 30		
Certificates	CE,MSDS,UN38.3,ISO:9001		
Mounting Options	Floor		
Warranty	10 years		

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# 8kw/19.2kwh Product — AP-80192



In the aera where electricity price high, they collect electricity fee with price fluctuations rule. With photo voltaic power generation and our power storage system, people can store electricity in low price, use electricity in high price, then we can reduce the cost of electricity using effectively. Cooperate with photovoltaic power generation, it can meet family daily 19.2 kWh electricity using demand, reduce familiy electricity costs as high as 50%.

Model	AP-80192			
Feed-in Type	Single / Split / Three Phases			
Output Voltage	120 / 208 / 240 / 230 / 400Vac			
Storage Ability	19.2 kwh			
Max Solar input	10.4 kwp			
PV Side Max. Input Voltage	370V (100V~500V)			
MPPT Voltage	125V-425V			
PV Charging Max Current (A)	22A+22A			
AC Charging Max Current (A)	36.7A / 38.5A			
Charging time	1-3 Hours			
Continuous Output Power	8 kw			
Peak power	16 kw (discharge only)			
Weight	306 kg			
Size (L*W*H)	736*420*1906mm			
Imbalance for Single-Phase Loads	100%			
Power Factor out Range	+/- 1.0 adjustable			
Battery DC voltage	48V			
Depth of Discharge	90%			
Operating Humidity(RH)	Up to 100%,condensing			
Operating Temperarure	-10 C -50 C / 14°F~122°F			
Storage Temperature	-20 C -60 C / 4°F~140°F			
Maximum Altiture	2000m			
Ingress Rating	IP 20/54/65			
Niose Level@1m	<35 dBA at 30			
Certificates	CE,MSDS,UN38.3,ISO:9001			
Mounting Options	Floor			
Warranty	10 years			
Packaging	Standard Export Caeron With pallet			

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Excess Electricity Enables Transactions



# SOLAR CABLES & CONNECTORS



# H1Z2Z2-K

# EN50618 Standard

Tinned Copper Conductor Crosslinked LSZH insulation and jacket. DC 1.5kV

Single core cables, for photovoltaic and solar system use, LSZH insulated and sheathed flame retardant, halogen free and low smoke flexible cables for fixed laying, lifetime testing 20.000 h.120  $^\circ$ 



Uo/U AC 0.6/1 kV

DOLGIN

- 1 Flexible tin plated copper class 5 EN 60228
- 2 Halogen-free cross-linked compound
- 3 Halogen-free cross-linked, flame retardant compound

#### **Rated voltage:**

	DC 1,5 kV
Conductor:	Class 5 flexible tinned copper conductor
Insulation:	Halogen-free cross-linked compound
Sheath:	Halogen-free cross-linked, flame retardant compound
Insulation colour:	Black
Sheath colour:	Black/Red
Operating temperature:	-40 ℃ - 90 ℃ on the conductor
Max. Conductor temperature:	120 °C
Expected lifetime:	>25 years
Max temperature in case of short circuit:	250 °C on the conductor (max duration 5 seconds)
Min bending radius:	4 x outer diameter of the cable
Max installation temperature:	-25 °C

## **Applications:**

Cable suitable for the interconnection of the various elements of photovoltaic systems. Suitable for fixed installation outside and inside without protection or inside pipes, ducts or similar closed systems. High resistance against Ozone U.V rays, oils, moisture and weather inclemencies. Suitable for use at an ambient temperature up to 90  $^{\circ}$  (120  $^{\circ}$  overload), thanks to the use of materials with temperature-index of 120  $^{\circ}$ , determined according to Norm IEC 60216 (20,000 h and 50% of residual elongation). Estimated lifetime of these cables is at least 25 years.

## **Product features**

Flame retardant acc. to IEC 60332-1-2 Weather/UV-resistant acc. to EN 50618, appendix E Ozone-resistant according to EN 50396 Good notch and abrasion resistance Halogen-free according to IEC 60754-1 (amount of halogen acid gas) Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)

#### **Data Sheet**

Size	Max. of copper wires	Insulation thickness	Sheath thickness	Max.Outer diameter	Max cond. Resistance at 20oC	Approx cable weight	CURRENT CARRYING CAPACITY (In air)
mm2	mm	mm	mm	mm	Ohms/km	Kg/km	Amps
1.5	0.31	0.7	0.8	5.4	13.70	37	30
2.5	0.31	0.7	0.8	5.9	8.21	49	41
4	0.31	0.7	0.8	6.6	5.09	67	55
6	0.31	0.7	0.8	7.4	3.39	90	70
10	0.41	0.7	0.8	8.8	1.95	134	98
16	0.41	0.7	0.9	10.1	1.24	199	132
25	0.41	0.9	1	12.5	0.795	316	176
35	0.41	0.9	1.1	14.0	0.565	428	218
50	0.41	1.0	1.2	16.3	0.393	594	276
70	0.51	1.1	1.2	18.7	0.277	803	347
95	0.51	1.1	1.3	20.8	0.210	1049	416
120	0.51	1.2	1.3	22.8	0.164	1304	488
150	0.51	1.4	1.4	25.5	0.132	1634	566
185	0.51	1.6	1.6	28.5	0.108	2012	644
240	0.51	1.7	1.7	32.1	0.0817	2575	775







Solar Connectors **Types Connecting** Solar Panels In Series

- Solar In-Line Fuse **Connector 1500V Rated 15A For Solar Power System**

- Insulation material PPO
- Rated Voltage TUV 1000 DC
- Rated Current 20A-30A •
- Test voltage 6KV(50Hz,1Min)
- Contact material copper, tin plated •
- Contact resistance less than 0.5 m ohm
- Degree of protection IP67
- Pin dimension 4.0 MM

Insulation material PPO

Rated Current 1A-15A

•

ohm

Rated Voltage TUV 1500 DC

PV Fuse 10x38mm(1-20A)

• Degree of protection IP68 Pin dimension 4.0 MM

Test voltage 6KV(50Hz,1Min)

• Contact material copper, tin plated

Contact resistance less than 0.5 m

 Compatible Solar cable 2.5/4.0 /6.0 mm<sup>2</sup> (14/12/10 AWG)



**Connectors Multi Contact PV IP68** Manufacturer

- Insulation material PPO
- Rated Voltage TUV 1000 DC/ UL 600V DC
- Rated Current 20A-40A
- Test voltage 6KV(50Hz,1Min)
- Contact material copper, tin plated
- Contact resistance less than 0.5 m ohm
- Degree of protection IP67
- Pin dimension 4.0 MM

Insulation material PPO

Rated Current 20A-40A

Test voltage 6KV(50Hz,1Min)

• Degree of protection IP68

Pin dimension 4.0 MM

mm<sup>2</sup> (14/12/10 AWG)

Contact material copper, tin plated

Contact resistance less than 0.5 m

Compatible Solar cable 2.5/4.0 /6.0

600V DC

ohm

Rated Voltage TUV 1000 DC/ UL

• Compatible Solar cable 2.5/4.0 /6.0 mm<sup>2</sup> (14/12/10 AWG)

- **PV Solar Plug Wiring** Solar Panels In Parallel







Solar Y Connector Solar Branch Connector Solar Panel Accessories



Solar Parallel Connector Solar Panels Connected In Series

- Insulation material PPO
- Rated Voltage TUV 1000 DC/ UL 600V DC
- Rated Current 20A-40A
- Test voltage 6KV(50Hz,1Min)
- Contact material copper, tin plated
- Contact resistance less than 0.5 m ohm
- Degree of protection IP67
- Pin dimension 4.0 MM
- Compatible Solar cable 2.5/4.0 /6.0 mm<sup>2</sup> (14/12/10 AWG)

- Insulation material PPO
- Rated Voltage TUV 1000 DC/ UL
   600V DC
- Rated Current 20A-40A
- Test voltage 6KV(50Hz,1Min)
- Contact material copper, tin plated
- Contact resistance less than 0.5 m
   ohm
- Degree of protection IP67
- Pin dimension 4.0 MM
- Compatible Solar cable 2.5/4.0 /6.0 mm<sup>2</sup> (14/12/10 AWG)



Solar Wire Connectors Wiring Solar Panels In Parallel Diagram



Solar Panel Cable Connectors For 1500V Solar System

- Insulation material PPO
- Rated Voltage TUV 1000 DC/ UL 600V DC
- Rated Current 20A-40A
- Test voltage 6KV(50Hz,1Min)
- Contact material copper, tin plated
- Contact resistance less than 0.5 m ohm
- Degree of protection IP67
- Pin dimension 4.0 MM
- Compatible Solar cable 2.5/4.0 /6.0 mm<sup>2</sup> (14/12/10 AWG)

- Insulation material PPO
- Rated Voltage TUV 1500 DC
- Rated Current 20A-30A
- Test voltage 6KV(50Hz,1Min)
- Contact material copper, tin plated
- Contact resistance less than 0.5 m
   ohm
- Degree of protection IP67
- Pin dimension 4.0 MM
- Compatible Solar cable 2.5/4.0 /6.0 mm<sup>2</sup> (14/12/10 AWG)

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