

SUPPLIERS OF Solar & Storage Electrical & Application Facilities

All Scenario Products



ABOUT LONGMAX

Founded in 2002, Longmax is an innovative high-tech company integrating intelligent man-ufacturing, power station investment and carbon asset management.

Main business: photovoltaic convergence and grid-connected products, optical storage system products and solutions, "photovoltaic +" application system solutions, optical storage station asset investment and operation management.

More than 140 patents and 6 high-tech products. Longmax passed IS09001、IS014001、IS045001 system certification.

Products through UL\TUV\CE and other domestic and foreign certification. Serving more than 1000 global customers.

Exported to Europe\America\Japan\Australia\Vietnam\Philippines\Egypt\South Africa and other more than 60 countries and regions around the world.

At present, Longmax is one of the world's largest photovoltaic Combiner box production and shipping companies. Accumulated shipments exceeded 130GW.More than 100 photovoltaic power stations have been invested and served, with a total installed capacity of more than 80MW.

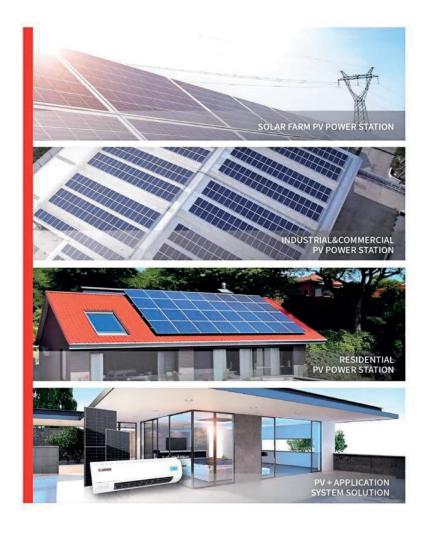
22 yrs Industry Experience 60+ Exporting Countries 140+

130 GW+ Cumulative Shipments 80 MW+
Power Stations Invest.
Construct, Service

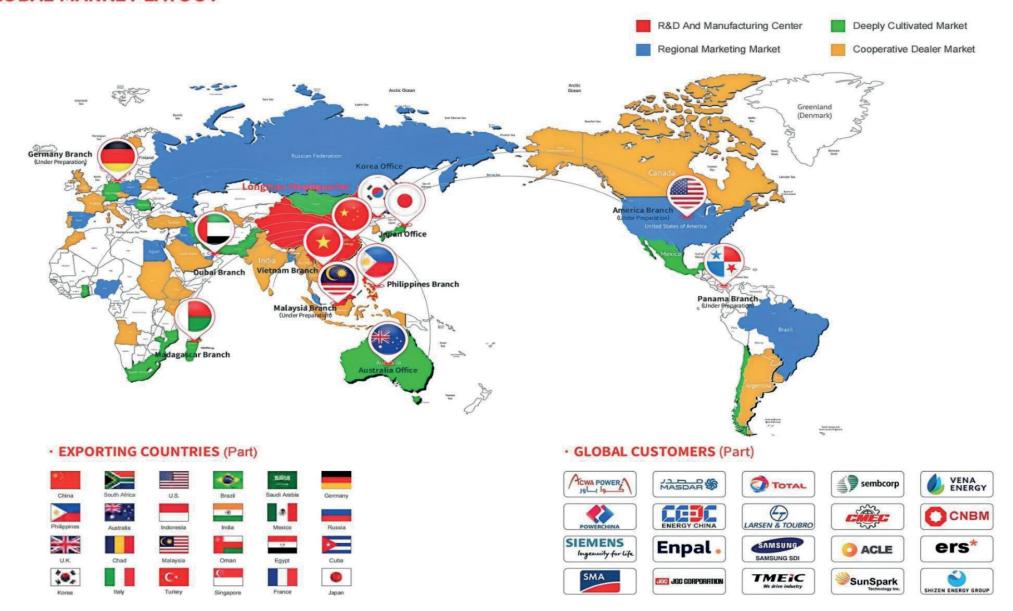
1000 + Global Customers

Group Position

Longmax Technology is positioned as a professional solar and storage electrical technology integrator, committed to providing overall solutions for solar photovoltaic applications and one-stop services for the entire life cycle.



GLOBAL MARKET LAYOUT



Contexts

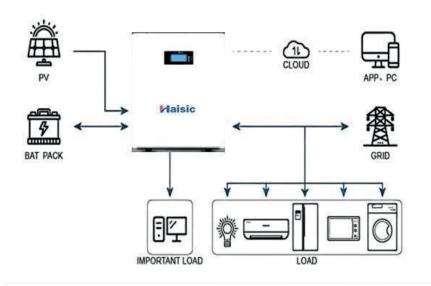
01 LONGMAX HES (Longmax home energy storage)	01
02 Bifacial Dual Glass Monocrystalline Module GCL-NT12R/66GDF 959-620W	02-03
03 Rechargeable LITHIUM IRON PHOSPHATE(LiFePO4)Battery HS-BG51150	04
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01 LONGMAX HES (Longmax home energy storage)

Product features

- · All-in-one: Solar, battery, and inverter integrated plug and play
- · NA & EU ready: Compatible with major batteries and UL/IEC/NEC standards
- · Seamless backup: Automatic switch during outages no power interruption
- · Silent & tough: Fanless, IP65-rated indoor/outdoor use
- · Safe & compliant: Full protection with arc fault and rapid shutdown support

Smarter energy. Total peace of mind. Built for modern homes.





02 Bifacial Dual Glass Monocrystalline Module GCL-NT12R/66GDF 959-620W

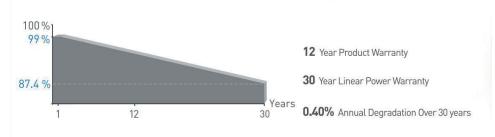
GCL Delivers Reliable Performance Over Time

- •World-class manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Rigorous quality control to meet the highest standard:ISO 9001,1S0 14001 and IS045001
- Tested for harsh environments

(salt mist, ammonia corrosion and sand blowing test: IEC 61701, IEC 62716, DIN EN60068-2-68)

- Long term reliability tests
- •2×100%ELinspection ensuring defect-free modules

Linear Performance Warranty



* Please refer to GCL standard warranty for details



Ideal choice for large scale ground installation



N type technology:The N-type module has better reliability and lower LID/LETID



Non-destructive cutting, reduce potential micro crack risk



Selected encapsulating material and stringent production process control ensure the product is highly PID resistant and snail



Sand blowing test, salt mist test and ammonia test passed to endure harsh environments



620W
Maximum Power

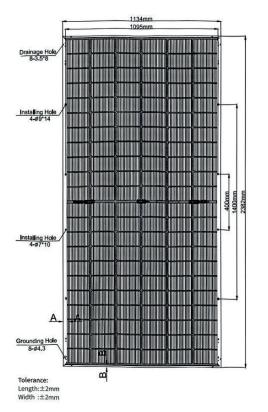
Output

Maximum Module Efficiency 0~+5W

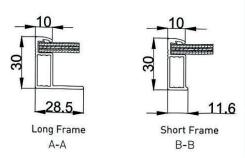
Power Output Guarantee



Module Dimension



Back View



Electrical Specification (STC*)

Maximum Power	Pmax(W)	595	600	605	610	615	620
Maximum Power Vollage	Vmp[V]	39.94	40.14	40.34	40.53	40.73	40,93
Maximum Power Current	ImpiAl	14.90	14.95	15.00	15.05	15.10	15.15
Open Circuit Voltage	Voc[V]	47.65	47.80	47.95	48.10	48.25	48.40
Short Circuit Current	Isc(A)	15.70	15.75	15.80	15.85	15.90	15.95
Module Efficiency	(%)	22.03	22.21	22.40	22.58	22.77	22.95

^{*} Irradiance 1000W/m2, Cell Temperature 25°C, Air Mass 1.5

Electrical Specification (NOCT*)

Maximum Power	Pmax (W)	447.5	451.0	454.4	457.8	461.3	464.8
Maximum Power Voltage	Vmp IVI	37.42	37.58	37.74	37.90	38.06	38.22
Maximum Power Current	Imp (Al	11.96	12.00	12.04	12.08	12.12	12.16
Open Circuit Voltage	VocfVI	44.88	45.02	45.16	45.30	45.44	45.58
Short Circuit Current	Isc [A]	12.68	12.72	12.76	12.80	12.84	12.88

^{*} Irradiance 800W/m2* Ambient Temperature 20°C* Wind Speed 1m/s

Electrical characteristics with different power bin (reference to 10% Irradiance ratio)

Maximum Power	Pmax (W)	642.6	648.3	653.5	658.6	664.3	669.6
Maximum Power Voltage	Vmp (V)	39.94	40.14	40.34	40.53	40.73	40.93
Maximum Power Current	Imp (A)	16.09	16.15	16.20	16.25	16.31	16.36
Open Circuit Voltage	Voc(V)	47.65	47.80	47.95	48.10	48.25	48.40
Short Circuit Current	Isc (A)	16.96	17.01	17.06	17.12	17.17	17.23

Mechanical Data

Number of Cells	132 Cells (6×22)
Dimensions of Module L*W*H (mm)	2382×1134×30mm (93.78×44.65×1.18 inches)
Weight (kg)	32,6 kg
Front Side Glass	2.0mm (0.08 inches). Heat strengthened glass
Back Side Glass	2.0mm (0.08 inches). Heat strengthened glass
Frame	Anodized aluminium alloy
Cable	4.0mm², Portrait: +300/-200mm length can be customized
Number of diodes	3
Wind/ Snow Load	2400Pa/ 5400Pa+
Connector	MC Compatible
Bifaciality	80±5%

For more details please check the installation manual of GCLSI

Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of Isc	+0.045%/°C
Temperature Coefficient of Voc	-0,25%/°C
Temperature Coefficient of PMAX	-0.29%/°C

Packaging Configuration

Module per box	36 pieces	
Module per 40' container	720 pieces	

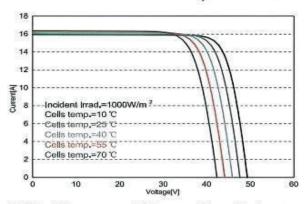
Maximum Ratings

Operational Temperature	-40~+85°C	
Maximum System Voltage	1500V DC	
Max Series Fuse Rating	35A	

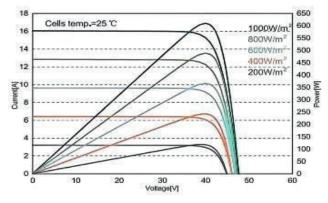
Optional

(5)	
Connector:	Original MC4

I-V Curve at Different Temperature (620W)



I-V/P-V Curve at Different Irradiation (620W)



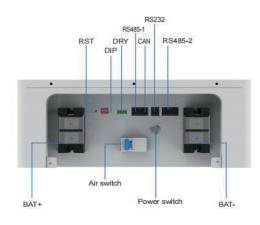
CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

03

Rechargeable LITHIUM IRON PHOSPHATE(LiFePO4)Battery HS-BG51150

Pic of Input & Output Port







High cycle life

6000 cycles @80% DoD for effectively lower total of ownership cost.



Longer service life

Low maintenance batteries with stable chemistry.



Built in circuit protection

Battery Management System (BMS) is incorporated against abuse.



Better storage

Up to 6 months thanks to its extremely low self discharge (LSD) rate and no risk of sulphation.



Quickly recharge

Save time and increase productivity with less down time thanks to superior charge/discharge efficiency



Extreme heat tolerance

Suitable for use in a wider range of applications where ambient temperature is unusually high: up to +60°C.



Lightweight

Lithium batteries provide more Wh/Kg while also being up to 1/3 the weight of its SLA equivalent.



Function

Support parallel operation

Maisic

Rechargeable LITHIUM IRON PHOSPHATE(LiFePO4)Battery

Specifications

Model	HS-BS51150			
Basi	c Parameter			
Rated Voltage (V)	51.2			
Rated Capacity (Ah)	150			
Rated Energy (Wh)	7680			
Operation Parameter	- 15 			
Voltage Range (V)	44.8–56			
Charge Voltage Range (V)	56-57.6			
Cut-off Voltage (V)	44.8			
Recommend Charge Current (A)	50			
Max Charge Current (A)	100			
Max Discharge Current (A)	100			
Opera	tion Parameter			
Dimension: L*W*H (mm)	400*228*672(Without base)			
Weight (kg)	72			
Communication Port	RS485、CAN LED+LCD Plug-in			
Display				
Terminal				
Compatible inverter	Growatt, Goodwe, Sol-Ark, SRNE, DEYE			
Environ	ment Parameter			
Enclosure Protection	IP20			
Humidity (%)	5-95% RH			
Charge Temperature Range (°C)	0–45			
Discharge Temperature Range (°C)	-20-60			
Storage Temperature Range (°C)	-20-45			
Se	ervice Life			
Cycle Life	>6000 (0.5C@ 25°C, 80% DOD)			
Design Life (Year)	15			
Ce	ertification			
Safety & Certification	CE, EMC, UKCA			
Transportation	UN38.3			

)4 Single Phase Hybrid Storage Inverter 4-6 kW Plus Series

AF5K-SLP



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 4kW to 6kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS **Electricity Pricing** & Automation



MAX. 120A Max. Charge/ Discharge Current 120A



PV OVERSIZE 1.5 Times PV Oversize



MPPT CHANNELS Up to 2 MPPT Channels



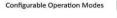
UPS FUNCTION Switch Time < 10ms



PARALLEL Max.6 Parallel Stacking

Support for Time-of-use Optimization





AFCI (Optional) & Rapid Shutdown Ready The charging and discharging power of the battery is greater

Build in Anti-feed-in Function

Compact Size and Easy Installation

Smart Monitoring & Remote Firmware Upgrade

Off-grid mode, with a larger load capacity, the maximum load can be 6KVA

Technical Data	AF4K-SLP	AF4.6K-SLP	AF5K-SLP	AF5.5K-SLP	AF6K-SLP
PV Input					
Max. Input Power (kW)	6	6.9	7.5	8.3	9
Max. PV Voltage (V)			550		
MPPT Range (V) Full MPPT Range (V)	120 - 500	130 - 500	80 - 500 150 - 500	160 - 500	170 - 500
Normal Voltage (V)	120-500	130 - 500	360	160-500	170-500
Startup Voltage (V)			100		
Max. Input Current (A)			18.5 x 2		
Max. Short Current (A)			26 x 2		
No. of MPP Tracker / No. of PV String			2/2		
Battery Port			-/-		
Max. Charge/Discharge Power (kW)	4.0	4.6	5.0	5.5	6.0
Max. Charge/Discharge Current (A)			120	7.7.	
Battery Normal Voltage (V)			51.2		
Battery Voltage Range (V)			40 - 60		
Battery Type			Li-ion / Lead-acid etc.		
AC Grid			LI-1011 / Lead-acid etc.		
Max Continuous Current (A)	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	4.0	4.6	5.0	5.5	6.0
Nominal Grid Current (A)	18.2 / 17.4	21.0 / 20.0	22.8 / 21.8	25.0 / 24.0	27.3 / 26.1
Nominal Grid Voltage (V)			42 @ 220 / 207 to 25	The state of the s	
Nominal Grid Frequency (Hz)		230 10 2	50 / 60		
Power Factor		1 default (adius	table from 0.8 leading	to 0.8 lagging)	
Current THD (%)			< 3		
AC Load Output			215720		
Max Continuous Current (A)	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	4.0	4.6	5.0	5.5	6.0
Max Peak Current (A) (10min)	27.3 / 26.1	31.4/30	34.1 / 32.7	37.8 / 36.1	41.0 / 39.2
Max Peak Power (kVA) (10min)	6.0	6.9	7.5	8.3	9.0
Nominal AC Voltage L-N (V)			220 / 230		
Nominal AC Frequency (Hz)			50 / 60		
Switching Time (ms)			Seamless		
Voltage THD (%)			< 3		
Efficiency					
CEC Efficiency (%)			97.0		
Max. Efficiency (%)			97.6		
PV to Bat. Efficiency (%)			98.1		=
Bat. between AC Efficiency (%)			96.8		
Protection					
PV Reverse Polarity Protection			Yes		
Over Current/Voltage Protection			Yes		
Anti-Islanding Protection			Yes		
AC Short Circuit Protection			Yes		
Residual Current Detection			Yes		
Ground Fault Monitoring			Yes		
Insulation Resister Detection			Yes		
PV Arc Detection			Yes		
Enclosure Protect Level			IP65 / NEMA4X		
AC/DC surge protection			Type II		
General Data					
Dimensions (W x H x D, mm)			370 x 535 x 192		
Weight (kg)			20.5		
Topology			Transformerless		
Cooling			Intelligent Fan		
Relative Humidity			0 - 100 %		
Operating Temperature Range (*C)			- 25 to 60		
Operating Altitude (m)			< 4000		
Standby Consumption (W)			< 10		
Mounting			Wall Bracket		
Communication with RSD			SUNSPEC		
Display & Communication Interfaces Certification & Approvals			185, CAN, WI-FI, GPRS,		
cerunication & Approvais	NRS097, G99, ENS	0549-1, C10/C11, AS4777	.2. VDF-AR-N4105, VDF	0126. IEC62109-1. IEC621	09-2 IFC62477-1

05 Chargers

- T2 Portable EV Charger 16A



This product has exquisite appearance, small size, multi-function housing, ingenious anti-theft design and high integration, can be widely used in residential garage.

CHARGING OPERATION STEPS

Cable Length:	Plug Type
5m	
Adjustable Current:	
8A/10A/13A/16A Charging Cable Type:	
Controller Type:	
LCD+Current Adjustable	Red CEE

PRODUCT SPECS

Rated Current	8A/10A/13A/16A	
Rated Power	11kw	
Input Voltage	350-480V AC	
Output Voltage	350-480V AC	
Service Life	>10000 Times	
Insulation Resistance	≥500MQ(DC500V)	
Operating Temperature	-40°C to +55°C	
Storage Temperature	-40°C to +80°C	
Contact Pin	Copper alloy, silver plating	
Plastic Fire Rating	UL94 VO	
WithStand Voltage	1500V	
Contact Resistance	0.5mΩ MAX	
Charging Cable Length	5m	
Cable Material	TPU	
Waterproof Level	IP67 (Function Box)/IP55 (Vechile Plug)	

■ T2 Portable EV Charger 32A



This product has exquisite appearance, small size, multi-function housing, ingenious anti-theft design and high integration, can be widely used in residential garage.

CHARGING OPERATION STEPS

Cable Length:		Plug Type		
	5	m		
Adjustable (Current:			
10/13/16/26/32	10/16/24/32	13/16/26/32	16/26/32	
Charging Ca	ble Type:	50 %		• •
	IEC 62	2196-2		
Controller T	ype:			
	LCD+Curren	t Adjustable		Blue CEE

PRODUCT SPECS

Rated Current	10/13/16/26/32	10/16/24/32	13/16/26/32	16/26/32
Rated Power	7kw			
Input Voltage	95-270V AC			
Output Voltage	95-270V AC			
Service Life	>10000 Times			
Insulation Resistance	≥500MQ(DC500V)			
Operating Temperature	-40°C to +55°C			
Storage Temperature	-40°C to +80°C			
Contact Pin	Copper alloy, silver plating			
Plastic Fire Rating	UL94 VO			
WithStand Voltage	1500V			
Contact Resistance	0.5mΩ MAX			
Charging Cable Length	5m			
Cable Material	TUV			
Waterproof Level	IP67 (Function Box)/IP55 (Vechile Plug)			

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CHARGING OPERATION STEPS

Cable Length:		Plug Type	
5	m		
Adjustable Current:			
10A/16A/26A/32A	10A/16A/24A/32A		
Charging Cable Type:			
TF	PU		
Controller Type:			
LCD+Curren	t Adjustable	Red CEE	

PRODUCT SPECS

Rated Current	10A/16A/26A/32A	10A/16A/24A/32A
Rated Power	11kw/22kw	
Input Voltage	350-480V AC	
Output Voltage	350-480V AC	
Service Life	>10000 Times	
Insulation Resistance	≥500MQ(DC500V)	
Operating Temperature	-40°C to +55°C	
Storage Temperature	-40°C to +80°C	
Contact Pin	Copper alloy, silver plating	
Plastic Fire Rating	UL94 VO	
WithStand Voltage	1500V	
Contact Resistance	0.5mΩ MAX	
Charging Cable Length	5m	
Cable Material	TPU	
Waterproof Level	IP67 (Function Box)/IP55 (Vechile Plug)	

EV Charging Station (AC Power)



This product has exquisite appearance, small size, multi-function housing, ingenious anti-theft design and high integration, can be widely used in residential garage .

PRODUCT SPECS

Use case	Home/Personal use
Product attributes	ldentification (swipe card/APP/plug and charge
Prduct dimension	320*195*130mm
Installation	column type
Gross Weight	Weigh according to actual weight
Cabling mode	Down in and out
Cable Length	5m
Functional design	LED light bar/display screen
Rated Voltage	AC110V-220V±10V
Rated Voltage	350-480V AC
Frequency	50/60Hz
Rated Power	7KW
Maximum Curent	32A
Applied environment	indoor/outdoor
Ingress Protection	IP65
Impact Protection	IK10
Work Temperature	-40°C~+65°C
Work Humidity	5% ~ 95% without any condensation
Work Altitude	≤2000M
Electrical Protection	Over current protection, Residual current protection, Ground protection, Under voltage protection, Over/High temperature protection

EV Charging Station (AC Power)



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PRODUCT SPECS

Use case	Home/Personal use	
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Prduct dimension	320*195*130mm	
Installation	column type	
Gross Weight	Weigh according to actual weight	
Cabling mode	Down in and out	
Cable Length	5m	
Functional design	LED light bar/display screen	
Rated Voltage	AC110V-220V±10V	
Rated Voltage	350-480V AC	
Frequency	50/60Hz	
Rated Power	22KW	
Maximum Curent	32A3P	
Applied environment	indoor/outdoor	
Ingress Protection	IP65	
Impact Protection	IK10	
Work Temperature	-40°C~+65°C	
Work Humidity	5% ~ 95% without any condensation	
Work Altitude	≤2000M	
Electrical Protection	Over current protection, Residual current protection, Ground protection, C Under voltage protection, Over/High temperature protection	

Look into the future **Embrace Green Energy**





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