

Installation method Module Type		Inner four holes	Outer four holes	Clamp D=1/4L±50	Clamp 300mm ≤ D ≤ 400mm	Short side clamp	400mm pitch hole	300mm≤ S≤400mm	400mm ≤S ≤500mm
Monofacial module	Framed PV module	LR6-60-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60HV-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60BK-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60PE-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60PH-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60PB-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60MP-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60MPH-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60HPH/HH-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR4-60HPH/HH-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60HPH-***MC	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60HPB/HIB-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR4-60HPB/HIB-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60DG-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60PD-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60HPD-***M	+ 5400, -2400	±2400	+ 5400, -2400	/	±2400	/	/
		LR6-60OPH-***M	±2400	+ 5400, -2400	/	+ 5400, -2400	±2400	/	/
		LR6-72-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72HV-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72BK-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72PE-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72PH-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72PB-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72MP-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72MPH-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72HPH/HH-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR4-72HPH/HH-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72HPH-***MC	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72DG-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72PD-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72HPD-***M	±2400	+ 5400, -2400	+ 5400, -2400	/	±2400	/	/
		LR6-72OPH-***M	±2400	+ 5400, -2400	/	+ 5400, -2400	±2400	/	/
	Frameless PV module	LR6-60PD-***M	/	/	/	/	/	+ 5400, -2400	/
		LR6-60DG-***M	/	/	/	/	/	+ 5400, -2400	/
		LR6-60HPD-***M	/	/	/	/	/	+ 5400, -2400	/
		LR6-72PD-***M	/	/	/	/	/	/	±2400
		LR6-72DG-***M	/	/	/	/	/	/	±2400
		LR6-72HPD-***M	/	/	/	/	/	/	±2400

5.3 Bifacial assembly mechanical installation

Module and bracket system connection can be realized by mounting holes, clamps or embedded systems. Installation shall follow the demonstration and suggestions below. If installation mode is different, please consult LONGi and obtain approval. Otherwise, modules may be damaged and quality warranty will become invalid.

5.3.1 Install Modules by Mounting Holes

Make use of bolts to fix modules on the bracket through mounting holes on the back frame. See details in Figure 7.



Figure 7 Installation Mode



Recommended accessories as below :

Accessories	Model	Material	Note
Bolt	M8	Q235B/SUS304	Accessories material selection should base on local environment.
Washer	2*8	Q235B/SUS304	
Spring Washer	8	Q235B/SUS304	
Nut	M8	Q235B/SUS304	

Accessories	Model	Material	Note
Bolt	M6	Q235B/SUS304	Accessories material selection should base on local environment.
Washer	2*6 (6.4*18-1.6 ISO 7093)	Q235B/SUS304	
Spring Washer	6	Q235B/SUS304	
Nut	M6	Q235B/SUS304	

- Suggest : (1) M8 bolt tightening torque range: 16N•m-20N•m; M6 bolt tightening torque range: 5N•m-12N•m;
 (2) When using LONGi 30mm (30H) height frame assembly, it is recommended to select $L \leq 20\text{mm}$ length fasteners. (If you have a special model, you can consult LONGi customer service);

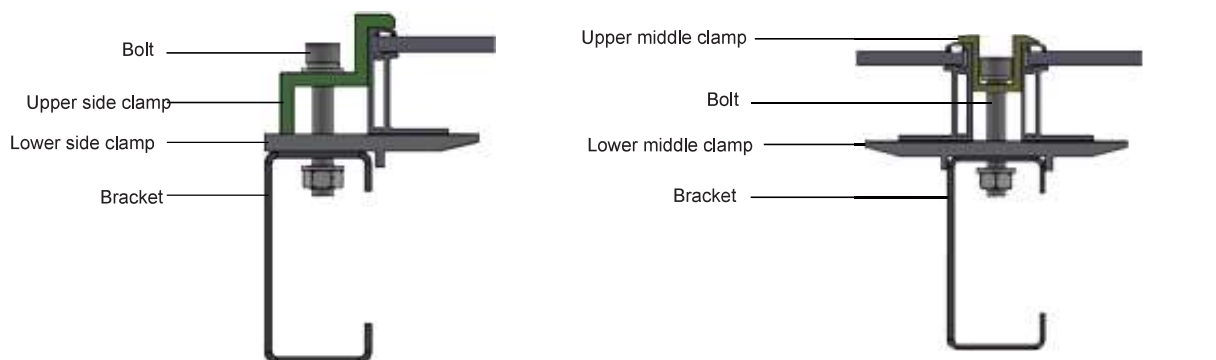


5.3.2 Use clamps to install modules

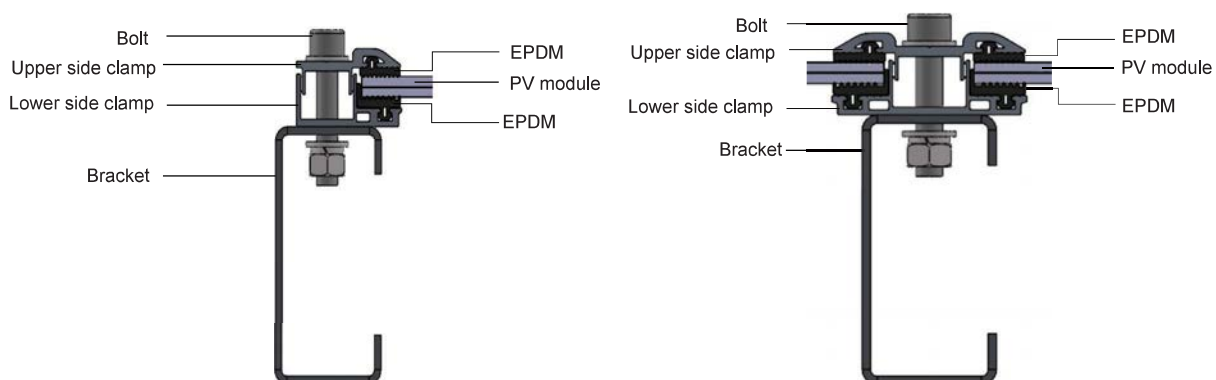
Use the special clamp to install modules. See details in Figure 8.

The clamp shall not contact glass or cause module frame deformed in any case. The contacting surface of the clamp and frame front side shall be neat and smooth. Otherwise, frame and module may be damaged.

Make sure that the clamp will not produce shading effect. Drain holes cannot be sheltered by the clamp. The clamp must overlap with module frame with no less than 8mm and no larger than 10mm.



Bifacial double-glass PV module (frame)



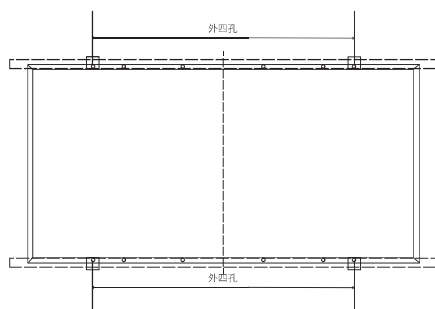
Bifacial double-glass PV module (frameless)

Figure 8 Clamp installation guideline

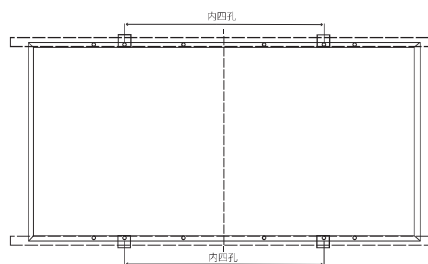


5.3.3 Position of Installation Connecting Points

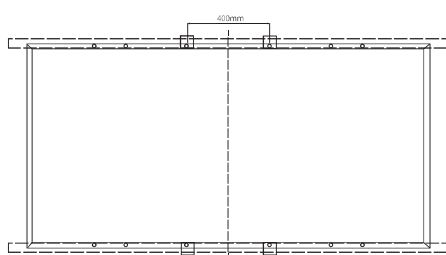
Screw mounting or clamp mounting: The static load on the largest back of the module is 2400pa (equivalent to wind pressure), and the maximum static pressure on the front is 5400pa (equivalent to wind pressure and snow pressure). Adopting 400 pitch hole installation method, the mechanical load of the component is tested according to the corresponding certification standard. The maximum value of the front is 2400pa (snow pressure) and the maximum value of the back is 2400pa (wind pressure).



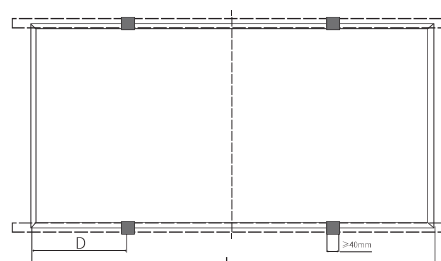
Outer four hole installation



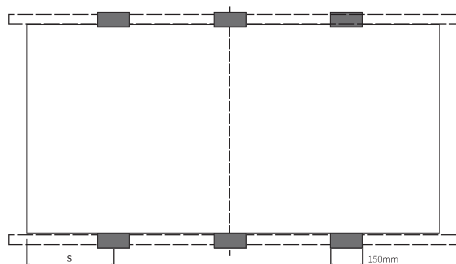
Inner four hole installation



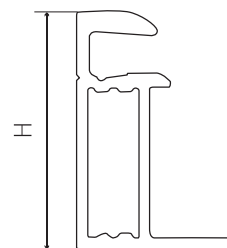
400mm pitch hole installation
(The height of side C of the frame from the beam shall not be less than 30mm)



clamp installation (clamp length≥40mm)



Short side clamp installation (clamp length≥40mm)



Aluminum frame height (H)

Figure 9 Bifacial component installation icon

Bifacial Module	Module Type	Installation method	Inner four holes	Outer four holes	Clamp D=1/4L±50	400mm pitch hole	300mm≤S	400mm≤S ≤500mm
Framed PV module	LR6-60BP-***M (40H/30H)		+ 5400, -2400	±2400	+ 5400, -2400	≤ 400mm	400mm ≤ S	/
	LR6-60BP-***M (25H)		±2400	±2400	±2400	≤ 500mm	/	/
	LR6-60HBD/HIBD-***M (40H/30H)		+ 5400, -2400	±2400	+ 5400, -2400	/	/	/
	LR4-60HBD/HIBD-***M (30H)		+ 5400, -2400	±2400	+ 5400, -2400	/	/	/
	LR6-60HBD-***MC (40H/30H)		+ 5400, -2400	±2400	+ 5400, -2400	/	/	/
	LR6-60OPD-***M		+ 5400, -2400	±2400	+ 5400, -2400	/	/	/
	LR6-72BP-***M (40H/30H)		±2400	+ 5400, -2400	+ 5400, -2400	±2400	/	/
	LR6-72BP-***M (25H)		±2400	±2400	±2400	/	/	/
	LR6-72HBD/HIBD-***M (40H/30H)		±2400	+ 5400, -2400	+ 5400, -2400	±2400	/	/
	LR4-72HBD/HIBD-***M (35H)		±2400	+ 5400, -2400	+ 5400, -2400	±2400	/	/
	LR6-72HBD-***MC (40H/30H)		±2400	+ 5400, -2400	+ 5400, -2400	±2400	/	/
	LR6-72OPD-***M		±2400	+ 5400, -2400	+ 5400, -2400	/	/	/
	LR6-78HBD-***M (40H)		±2400	+ 5400, -2400	+ 5400, -2400	±2400	/	/
Frameless PV module	LR6-60BP-***M		/	/	/	/	±2400	/
	LR6-60HBD/HIBD-***M		/	/	/	/	±2400	/
	LR6-72BP-***M		/	/	/	/	/	±2400
	LR6-72HBD/HIBD-***M		/	/	/	/	/	±2400

6 Electrical installation

6.1 Electrical Performance

Module electric performance parameters such as I_{sc} , V_{oc} and P_{max} nominal values have $\pm 3\%$ error with those under standard testing conditions of: irradiance of 1000 W/m^2 , cell temperature of 25°C and air mass of AM1.5.

When modules are in series connection, the final voltage is sum of that of the single module. When modules are in parallel connection, the final current is sum of the single module as below Figure 10 shows. Modules with different electric performance models cannot be connected in series.

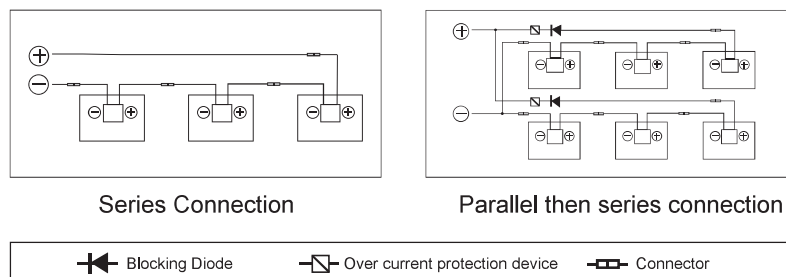


Figure 10 Series connection and parallel connection circuit diagram

The number of modules in series connection in each strand shall be calculated according to relative regulations. The open circuit voltage value under the expected lowest temperature shall not exceed the maximum system voltage value stipulated for modules and other values required by DC electric parts. (LONGi modules maximum system voltage is DC1000V/DC1500V---actually system voltage is designed based on the used modules model and inverter.)

The VOC factor can be calculated with the following formula. $C_{Voc} = 1 - \beta_{Voc} \times (25 - T)$

T: The expected lowest temperature of the installation site.

β : VOC temperature coefficient (% / °C) (Refer to modules manual for further detail)

If there is reverse current exceeding the maximum fuse current flowing through the module, use overcurrent protection device with the same specifications to protect the module; if parallel connection strands are more than 2, there shall be an overcurrent protection device on each strand of module. See Figure 5.



6.2 Cables and Connecting Lines

In module design, adopt enclosed junction boxes with the protective level of IP67 for on-site connection to provide environmental influence protection for wires and connections and contacting protection for non-insulating electric parts. The junction box has well connected cables and connectors with the protective level of IP67. These designs facilitate parallel connection of modules. Each module has two independent wires connecting the junction box, one is negative pole and the other is positive pole. Two modules can be in series connection by inserting the positive pole at one end of wire of one module into the negative pole of the adjoining module.

According to local fire protection, building and electrical regulation, apply proper cable and connector; ensure the electrical and mechanical property of the cables (the cables should be coated in a catheter with anti-UV aging properties, and if is exposed to air, the cable itself should have anti-UV aging properties).

The installer can only use one-way cable, 2.5-16mm²(5-14 AWG), 90 °C grade, with proper insulation capability to withstand the maximum open circuit voltage (such as EN50618 approval). Need to select appropriate wire specifications to reduce voltage drop.

LONGi requires that all wiring and electrical connections comply with the appropriate National Electrical Code.

When cables are fixed on the bracket, avoid mechanical damage to cables or modules. Do not press cables by force.

Adopt light resistant cable ties and clamps to fix cables on the bracket. Though cables are light resistant and water proof, it is still necessary to prevent cables from direct sun light and water immersion.

The minimum bending radius cables should be 43mm. (1.69in)

6.3 Connector

Please keep connectors clean and dry. Make sure connector nuts are fastened before connection. Do not connect connectors that are damp or dirty or under any other improper conditions. Avoid connectors from direct sun light and water immersion or falling onto ground or roof.

Wrong connection may lead to electric arc and electric shock. Please make sure that all electric connection is reliable. Make sure all connectors with lock are fully locked.

Only connectors matching those installed on module, i.e. from the same vendor and model, shall be used;(If you need to use different types of connectors, please consult the LONGi solar).

6.4 Bypass diode

LONGi solar module junction box contains bypass diode which is in parallel connection with the cell strands. If heat spot occurs locally with the module, the diode will come into operation to stop the main current from flowing through the heat spot cells in order to restrain module heating and performance loss. Notice, bypass diode is not the overcurrent protection device.

If the diode is found or doubted to be out of order, the installer or system maintenance supplier shall contact LONGi. Please do not try to open the module junction box on your own.



6.5 PID Protection and Inverter Compatibility

- ① PV modules may appear Potential Induced Degradation (PID) under high humidity, high temperature and high voltage condition. Modules may appear Potential Induced Degradation (PID) under the conditions below:
 - ◇ PV modules install under hot and humid weather condition.
 - ◇ PV modules installation site is under long term humid condition such as floating PV system.
- ② To reduce the risk of PID, on the modules DC connection site, it is recommended to connect the negative to ground. The PID protection measures on system level are recommended as follow
 - ◇ For isolated PV inverter, the negative of the PV modules DC connection side can be directly grounded.
 - ◇ For non-isolated PV inverter, isolated transformer is needed to be installed before applying virtual grounding (grounding method guidance from the inverter manufactures are usually needed)

7 Grounding

In design of modules, the anodized corrosion resistant aluminum alloy frame is used for rigidity support. For safety utilization and to protect modules from lightning and static-electricity damage, the module frame shall be grounded. The grounding device shall be in full contact with inner side of the aluminum alloy and penetrate the frame surface oxide film. Do not drill additional grounding holes on module frame.

The grounding conductor or strap may be copper, copper alloy, or any other material acceptable for use as an electrical conductor per respective National Electrical Codes. The grounding conductor must then make a connection to earth using a suitable earth ground electrode.

Holes marked with a grounding mark on the frame can only be used for grounding and not for component mounting. Frameless double glass modules have no exposed conductor, and therefore according to regulations it did not need to be grounded.



Grounding methods below are permissible

1 Grounding by grounding clamp

There is a grounding hole with the diameter of $\varnothing 4.2$ mm at the edge of the module back frame. The central line of the grounding sign also located on the edge of the module back frame overlaps with that of the grounding hole.

Grounding between modules shall be confirmed by qualified electricians and grounding devices shall be manufactured by qualified electric manufacturer. The torque is recommended to be $2.3\text{N}\cdot\text{m}$. 12 AWG copper core wire is used for the grounding clamp. And copper wires cannot be pressed damaged during installation.

2 Grounding by unoccupied mounting holes

Mounting holes on modules that are not occupied can be used for installing grounding devices.

- ◆ Align grounding clamp to the frame mounting hole. Use grounding bolt to go through the grounding clamp and frame.
- ◆ Put the tooth side of the washer on the other side and fasten the nuts.
- ◆ Put grounding wires through the grounding clamp and grounding wire material and dimension shall meet requirements in local national and regional law and regulations.
- ◆ Fasten bolts of grounding lines and installation ends.

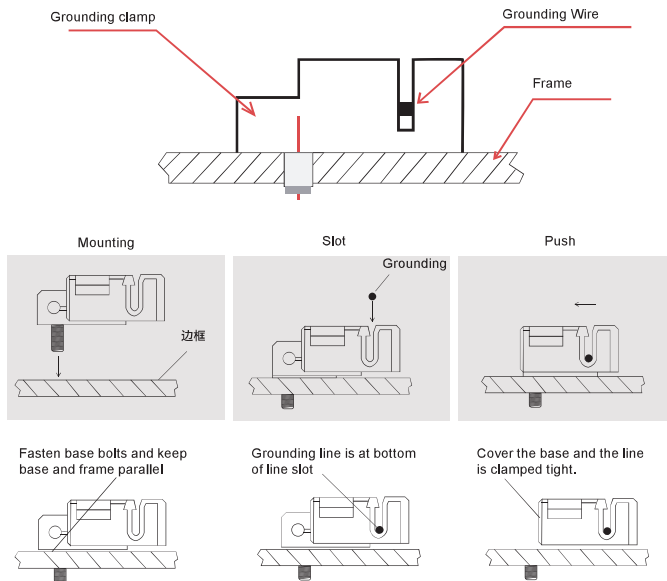


Figure 11 Grounding Clamp Installation

Note: TYCO. 1954381-1 (recommended) is used in figures above.

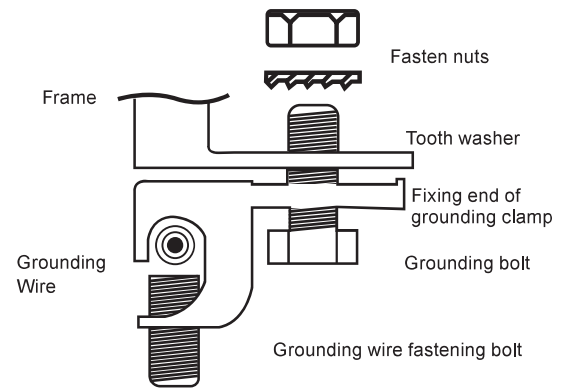


Figure 12 Install Method

3 The third party grounding devices

The third party grounding device can be used for grounding of LONGi modules but such grounding shall be proved to be reliable. Grounding device shall be operated in line with stipulations of the manufacturer.

8

Operation and maintenanc

It is the users' responsibility to carry out regular inspection and maintenance for modules in particular during the quality warranty period; and, inform the supplier within two weeks when modules are found to be damaged.

8.1 Cleaning

Accumulated contaminants on module surface glass will reduce the power output and lead to local heat spot, such as dust, industrial waste water and birds' droppings. The degree of influence is determined by transparency of wastes. Small amounts of dust will affect the intensity of solar irradiation and evenness that modules received but are not dangerous and power will not be reduced remarkably in general.



During operation of modules, there shall be no environmental factors projecting shades that shelter partial or the entire module. These environment factors including other modules, module system bracket, birds, dust, soil or plants. These will significantly reduce output power. LONGi suggests that the module surface should not be sheltered in any case. Frequency of cleaning depends on dirt accumulation speed. In normal situations, rainwater will clean the module surface and reduce the cleaning frequency. It is suggested to use damp clean water sponge or soft cloth to wipe the glass surface. Do not use acid and alkaline detergents to clean modules. Do not use tool with rough surface to clean in any case. In order to avoid potential risk of electrical shock or burn, LONGi suggests cleaning the modules during early morning and evening with less solar irradiation and lower modules temperature especially area with high average temperature. In order to avoid potential risk of electrical shock, do not try to clean the modules with glass damage or expose wires.



8.2 Module Appearance Inspection

Check module appearance defects visually, especially:

- ◆ Module glass cracks.
- ◆ Corrosion at welding parts of the cell main grid: it is caused by moisture into the module due to damage of surface packaging materials during installation or transportation.
- ◆ Check whether there are traces of burning on the module back plate.
- ◆ Check PV modules for signs of aging including rodent damage, weather damage, connection tightness, corrosion and grounding condition.
- ◆ Check for any shape objects in contact with PV modules' surface
- ◆ Check for any obstacles shielding the PV modules
- ◆ Check for any loose or damage screws between the modules and bracket. If so, adjust and fix on time.

8.3 Inspection of connectors and cables

It is suggested to carry out the following preventive inspection once every 6 month:

- ◆ Check connector sealing and cable connection.
- ◆ Look for gap on the sealant of the terminal box and confirm whether it is cracking



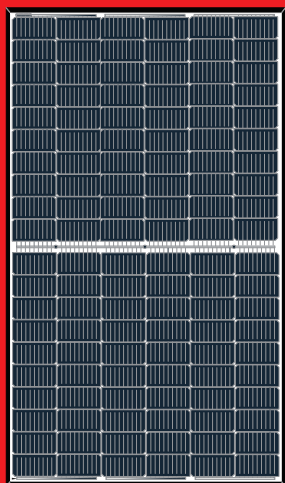


LONGi Solar

LONGi Solar Technology Co, Ltd.

Block B, No.8989 Shangji Road, Xi'an Economic And Technological
Development Zone, Xi'an, Shaanxi, China.

www.longi-solar.com



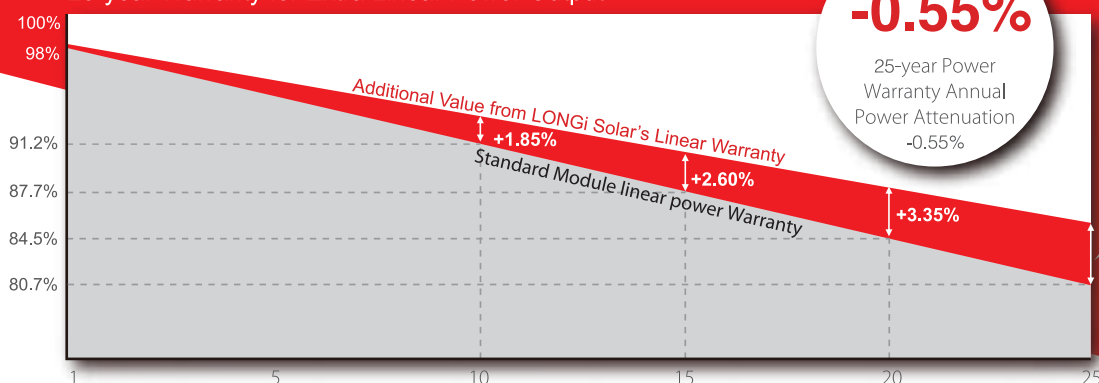
*Both 6BB & 9BB are available

LR4-60HPH 350~380M



**High Efficiency
Low LID Mono PERC with
Half-cut Technology**

10-year Warranty for Materials and Processing;
25-year Warranty for Extra Linear Power Output



-0.55%

25-year Power
Warranty Annual
Power Attenuation
-0.55%

+4.10%

Complete System and Product Certifications

IEC 61215, IEC61730, UL61730

ISO 9001:2008: ISO Quality Management System

ISO 14001: 2004: ISO Environment Management System

TS62941: Guideline for module design qualification and type approval

OHSAS 18001: 2007 Occupational Health and Safety



* Specifications subject to technical changes and tests. LONGi Solar reserves the right of interpretation.

Positive power tolerance (0 ~ +5W) guaranteed

High module conversion efficiency (up to 20.9%)

Slower power degradation enabled by Low LID Mono PERC technology: first year <2%, 0.55% year 2-25

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

Reduced hot spot risk with optimized electrical design and lower operating current

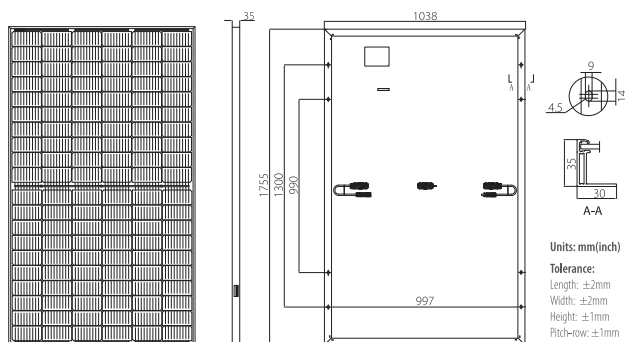
LONGi

Room 801, Tower 3, Lujiazui Financial Plaza, No.826 Century Avenue, Pudong Shanghai, 200120, China
Tel: +86-21-80162606 E-mail: module@longi-silicon.com Facebook: www.facebook.com/LONGi Solar

Note: Due to continuous technical innovation, R&D and improvement, technical data above mentioned may be of modification accordingly. LONGi have the sole right to make such modification at anytime without further notice; Demanding party shall request for the latest datasheet for such as contract need, and make it a consisting and binding part of lawful documentation duly signed by both parties.

LR4-60HPH 350~380M

Design (mm)



Mechanical Parameters

Cell Orientation: 120 (6×20)
 Junction Box: IP68, three diodes
 Output Cable: 4mm², 1200mm in length
 for EU DG
 Glass: Single glass
 3.2mm coated tempered glass
 Frame: Anodized aluminum alloy frame
 Weight: 19.5kg
 Dimension: 1755×1038×35mm
 Packaging: 30pcs per pallet
 180pcs per 20'GP
 780pcs per 40'HC

Operating Parameters

Operational Temperature: -40 °C ~ +85 °C
 Power Output Tolerance: 0 ~ +5 W
 Voc and Isc Tolerance: ±3%
 Maximum System Voltage: DC1500V (IEC/UL)
 Maximum Series Fuse Rating: 20A
 Nominal Operating Cell Temperature: 45±2 °C
 Safety Class: Class II
 Fire Rating: UL type 1 or 2

Electrical Characteristics

Test uncertainty for Pmax: ±3%

Model Number	LR4-60HPH-350M		LR4-60HPH-355M		LR4-60HPH-360M		LR4-60HPH-365M		LR4-60HPH-370M		LR4-60HPH-375M		LR4-60HPH-380M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	350	259.3	355	263.0	360	266.7	365	270.4	370	274.1	375	277.8	380	281.5
Open Circuit Voltage (Voc/V)	40.1	37.4	40.3	37.6	40.5	37.8	40.7	38.0	40.9	38.2	41.1	38.4	41.3	38.5
Short Circuit Current (Isc/A)	11.15	9.00	11.25	9.07	11.35	9.15	11.43	9.22	11.52	9.29	11.60	9.35	11.69	9.42
Voltage at Maximum Power (Vmp/V)	33.6	31.0	33.8	31.2	34.0	31.4	34.2	31.6	34.4	31.8	34.6	32.0	34.8	32.1
Current at Maximum Power (Imp/A)	10.42	8.35	10.51	8.43	10.59	8.49	10.68	8.56	10.76	8.63	10.84	8.69	10.92	8.76
Module Efficiency(%)	19.2		19.5		19.8		20.0		20.3		20.6		20.9	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 °C, Spectra at AM1.5

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

Temperature Ratings (STC)

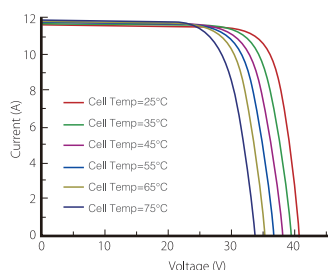
Temperature Coefficient of Isc	+0.048%/°C
Temperature Coefficient of Voc	-0.270%/°C
Temperature Coefficient of Pmax	-0.350%/°C

Mechanical Loading

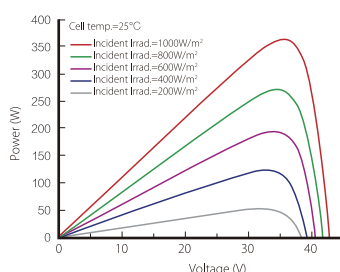
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

I-V Curve

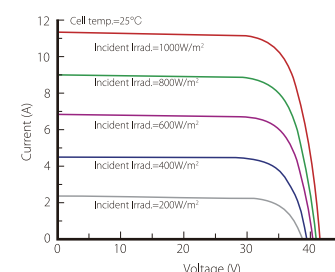
Current-Voltage Curve (LR4-60HPH-365M)



Power-Voltage Curve (LR4-60HPH-365M)



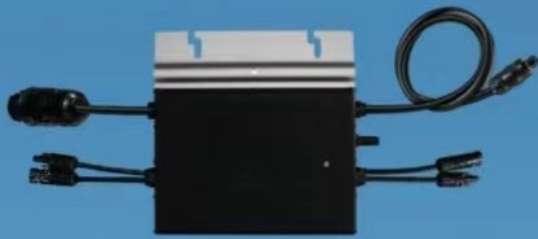
Current-Voltage Curve (LR4-60HPH-365M)



LONGi

Room 801, Tower 3, Lujiazui Financial Plaza, No.826 Century Avenue, Pudong Shanghai, 200120, China
 Tel: +86-21-80162606 E-mail: module@longi-silicon.com Facebook: www.facebook.com/LONGi Solar

Note: Due to continuous technical innovation, R&D and improvement, technical data above mentioned may be of modification accordingly. LONGi have the sole right to make such modification at anytime without further notice; Demanding party shall request for the latest datasheet for such as contract need, and make it a consisting and binding part of lawful documentation duly signed by both parties.



HM-600/700/800

The best daisy-chain microinverter with reactive power control for 2 solar panels

Highlights

- Easy installation, just plug and play
- External antenna for stronger communication with DTU
- Power factor (adjustable) 0.8 leading.....0.8 lagging
- Compliant with VDE-AR-N 4105: 2018 & EN50549-1: 2019
- High reliability; NEMA (IP67) enclosure; 6000V surge protection



Safer



Smarter



More Powerful



More Reliable

Model	HM-600	HM-700	HM-800
Input Data (DC)			
Commonly used module power (W)	240~380	280~440	320~500
Module compatibility	60-cell or 72-cell PV modules	60-cell or 72-cell PV modules	60-cell or 72-cell PV modules
Peak power MPPT voltage range (V)	29~48	33~48	34~48
Start-up voltage (V)	22	22	22
Operating voltage range (V)	16~60	16-60	16~60
Maximum input voltage (V)	60	60	60
Maximum input current (A)	2*11.5	2*11.5	2*12.5
Output Data (AC)			
Rated output power (VA)	600	700	800
Rated output current(A)	2.73 / 2.61 / 2.5	3.18 / 3.04 / 2.92	3.64 / 3.48 / 3.33
Nominal output voltage (V)	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240
Nominal output voltage range (V)	180-275 ¹	180-275 ¹	180-275 ¹
Nominal frequency/range (V)	50/45-55 ¹ or 60/55-65 ¹	50/45-55 ¹ or 60/55-65 ¹	50/45-55 ¹ or 60/55-65 ¹
Power factor (adjustable)	>0.99 default 0.8 leading...0.8 lagging	>0.99 default 0.8 leading...0.8 lagging	>0.99 default 0.8 leading...0.8 lagging
Total harmonic distortion	<3%	<3%	<3%
Maximum units per branch ²	8 / 8 / 8	7 / 7 / 7	6 / 6 / 6
Efficiency			
CEC peak efficiency	96.70%	96.70%	96.70%
CEC weighted efficiency	96.50%	96.50%	96.50%
Nominal MPPT efficiency	99.80%	99.80%	99.80%
Nighttime power consumption (mW)	<50	<50	<50
Mechanical Data			
Ambient temperature range (°C)	-40~+65		
Dimensions (W×H×D mm)	250 x 170 x 28		
Weight (kG)	3.0		
Enclosure rating	Outdoor-NEMA (IP67)		
Cooling	Natural convection – No fans		
Features			
Communication	2.4GHz Proprietary RF(Nordic)		
Monitoring	Hoymiles Monitoring System		
Compliance	VDE-R-N 4105: 2018, EN 50549-1: 2019, VFR 2019, IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3		

*1 Nominal voltage/frequency range can be changed due to the requirements of local power department.

*2 Refer to local requirements for exact number of microinverters per branch.

High Reliability Based on World's Top Supplier Partners



