

# LONGi EcoLife

Define Roof Define Life



X10 Single Glass Premium Black  
(LR7-54HVB)

475~495M 243W/m<sup>2</sup>



**Leading**  
Black Module  
Efficiency

Efficiency  
24.3%



**70%**  
Output Maintained  
when Shaded<sup>1</sup>

Anti  
Shading



**HW4**  
Hail  
Resistance<sup>2</sup>

3.2mm  
Tempered Glass



**60°C**  
Lower Temperature  
under Shade<sup>3</sup>

Prevent  
Overheating



**24.3%**  
MAX MODULE  
EFFICIENCY

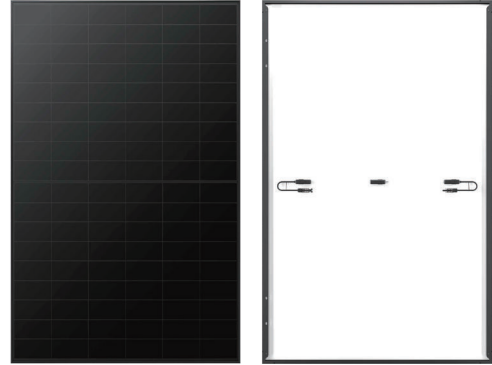
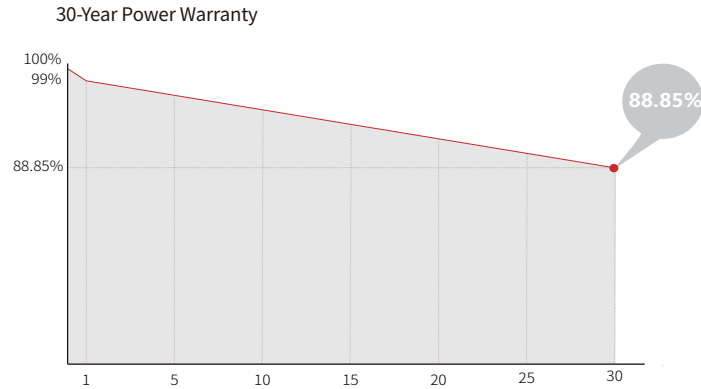
**0~3%**  
POWER  
TOLERANCE

**<1%**  
FIRST YEAR  
POWER DEGRADATION

**0.35%**  
YEAR 2-30  
POWER DEGRADATION

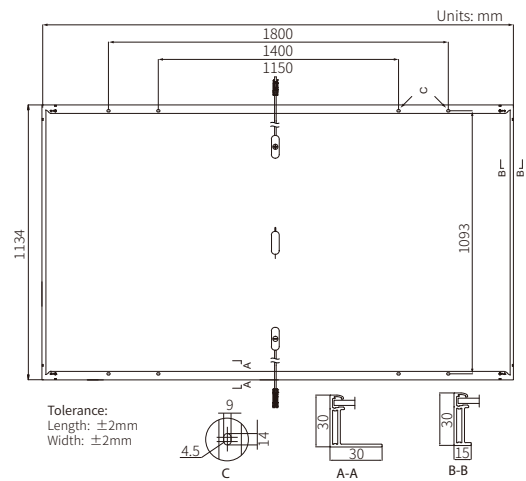
**BC-CELL**  
LOWER OPERATING  
TEMPERATURE

**Additional Value**



**Mechanical Parameters**

Cell Orientation	108 (6×18)
Junction Box	IP68
Output Cable	4mm <sup>2</sup> , +400, -200mm/±1200mm length can be customized
Glass	Single glass, 3.2mm coated tempered glass
Frame	Black anodized aluminum alloy frame
Weight	21.6kg
Dimension	1800×1134×30mm
Packaging	36pcs per pallet / 216pcs per 20' GP / 864pcs per 40' HC



**Electrical Characteristics**

STC : AM1.5 1000W/m<sup>2</sup> 25°C Test uncertainty for Pmax: ±3%

Module Type	LR7-54HVB-475M	LR7-54HVB-480M	LR7-54HVB-485M	LR7-54HVB-490M	LR7-54HVB-495M
Testing Condition	STC	STC	STC	STC	STC
Maximum Power (Pmax/W)	475	480	485	490	495
Open Circuit Voltage (Voc/V)	40.18	40.29	40.40	40.52	40.64
Short Circuit Current (Isc/A)	15.03	15.13	15.23	15.33	15.43
Voltage at Maximum Power (Vmp/V)	33.16	33.28	33.40	33.51	33.62
Current at Maximum Power (Imp/A)	14.33	14.43	14.53	14.63	14.73
Module Efficiency(%)	23.3	23.5	23.8	24.0	24.3

**Operating Parameters**

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3%
Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Fire Rating	IEC Class C

**Mechanical Loading**

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hail Class	HW4 <sup>2</sup>

**Temperature Ratings (STC)**

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.200%/°C
Temperature Coefficient of Pmax	-0.260%/°C



1. Data source: Test of single-cell shading in LONGI internal Lab. Anti-shading effect vary due to differences in test irradiation conditions, temperature, software, etc.  
 2. This product has obtained Swiss Hail VWF HW4 certification (Reference diameter of ice balls-VWF 40mm). Due to various test factors, consistent results in every test cannot be guaranteed; actual test results prevail.  
 3. Data source: Comparison of test temperatures between EcoLife modules and conventional modules based on IEC 61215 Hot-spot endurance test (WBT) - MQT 09. Test data vary due to differences in the tested modules and institution.

Specifications included in this datasheet are subject to change without notice. LONGI reserves the right of final interpretation. ( BGV02 20250820 )