

LONGi EcoLife

LR7-54HVB(Single Glass)

475~495M (243_{W/m²})

First Choice For High-End Residential

- ▶ **Extreme Efficiency, 24.3%+**
- ▶ **High Power Generation**
Leading HPBC2.0 technology, more power generation under the same area
- ▶ **Safety Function**
Anti-Shading and Prevent Localized Overheating
- ▶ **Low Carbon and Environmentally Friendly**
Low carbon for the whole lifecycle process, more environmentally friendly
- ▶ **Pure Black Appearance**
No gridlines, low glare
- ▶ **Higher Hail Resistance**
3.2mm tempered glass on the front

Complete System and Product Certifications

IEC61215, IEC 61730

ISO9001: Quality Management System

ISO14001: Environment Management System

ISO45001: Occupational Health and Safety Management System

IEC62941: Quality System for PV Module Manufacturing

30

30-Year Warranty for Materials and Processing

30

30-Year Warranty for Extra Linear Power Output



Residential PV Modules, Choose BC

LR7-54HVB 475~495M

24.3%
MAX MODULE
EFFICIENCY

0~3%
POWER
TOLERANCE

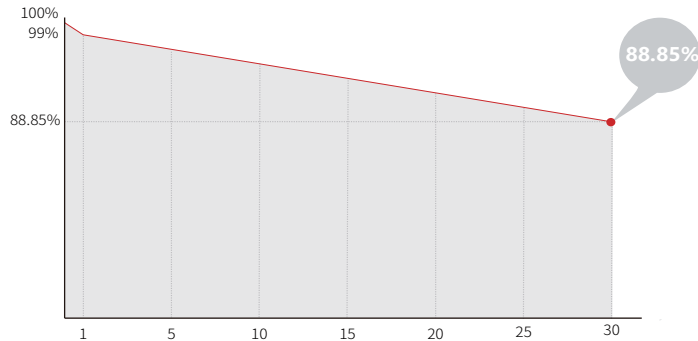
<1%
FIRST YEAR
POWER DEGRADATION

0.35%
YEAR 2-30
POWER DEGRADATION

BC-CELL
LOWER OPERATING
TEMPERATURE

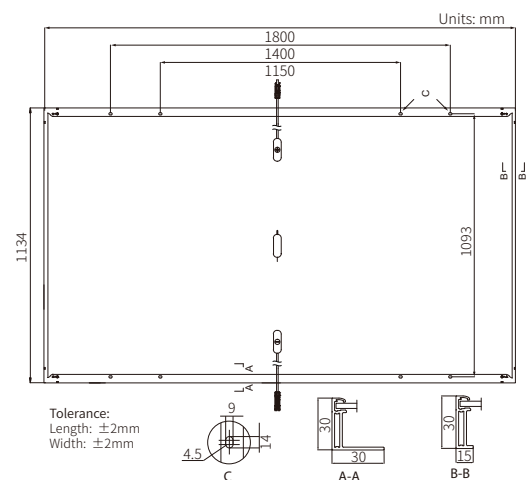
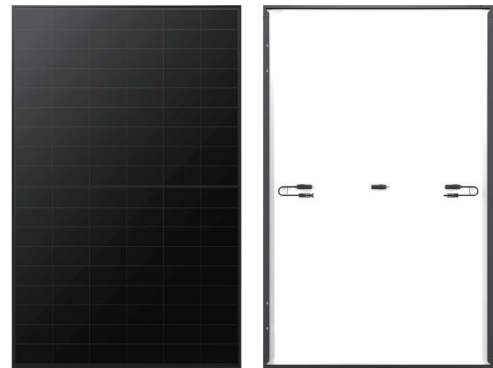
Additional Value

30-Year Power Warranty



Mechanical Parameters

Cell Orientation	108 (6×18)
Junction Box	IP68
Output Cable	4mm ² , +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/m² 25°C

NOCT : AM1.5 800W/m² 20°C 1m/s

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	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	475	362	480	365	485	369	490	373	495	377
Open Circuit Voltage (Voc/V)	40.18	38.18	40.29	38.29	40.40	38.39	40.52	38.51	40.64	38.62
Short Circuit Current (Isc/A)	15.03	12.08	15.13	12.16	15.23	12.24	15.33	12.32	15.43	12.40
Voltage at Maximum Power (Vmp/V)	33.16	31.52	33.28	31.63	33.40	31.74	33.51	31.85	33.62	31.95
Current at Maximum Power (Imp/A)	14.33	11.49	14.43	11.57	14.53	11.65	14.63	11.73	14.73	11.81
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
Hailstone Test	25mm Hailstone at the speed of 23m/s

Temperature Ratings (STC)

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

LONGI

Specifications included in this datasheet are subject to change without notice.
LONGI reserves the right of final interpretation. (BGV02 20250423)