

LONGi EcoLife

X10 Dual Glass Black

470~485M ($238_{\text{W/m}^2}$)

First Choice For High-End Residential

▸ **Extreme Efficiency, 23.8%+**

▸ **High Power Generation**

Leading HPBC2.0 technology, more power generation under the same area

▸ **Low Carbon and Environmentally Friendly**

Low carbon for the whole lifecycle process, more environmentally friendly

▸ **Safety Function**

Anti-Shading and Prevent Localized Overheating

▸ **Pure Black Appearance**

No gridlines, low glare

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

LR7-54HVBB 470~485M

23.8%
MAX MODULE
EFFICIENCY

0~3%
POWER
TOLERANCE

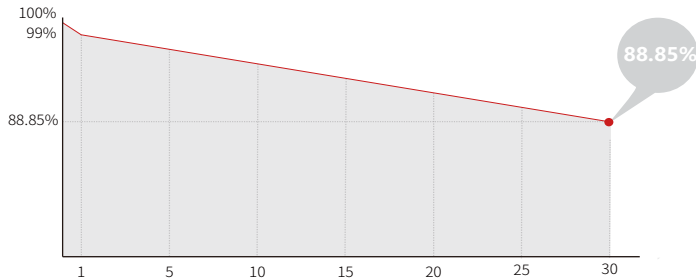
<1%
FIRST YEAR
POWER DEGRADATION

0.35%
YEAR 2-30
POWER DEGRADATION

BC-CELL
LOWER OPERATING
TEMPERATURE

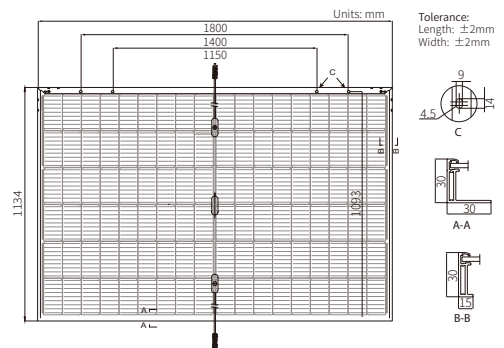
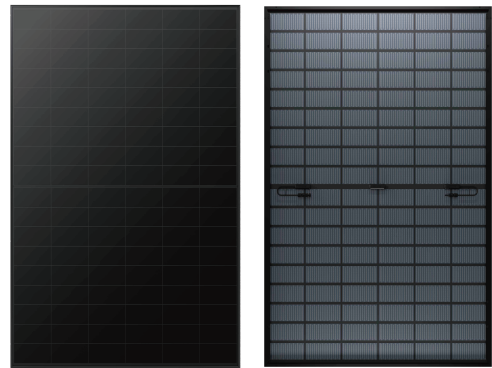
Additional Value

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	Double glass 2.0mm semi-tempered glass+1.6mm semi-tempered glass
Frame	Black anodized aluminum alloy frame
Weight	23.5kg
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	LR7-54HVBB-470M		LR7-54HVBB-475M		LR7-54HVBB-480M		LR7-54HVBB-485M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	470	357	475	361	480	365	485	369
Open Circuit Voltage (Voc/V)	40.31	38.28	40.42	38.39	40.53	38.50	40.64	38.61
Short Circuit Current (Isc/A)	14.78	11.84	14.88	11.93	14.98	12.02	15.08	12.10
Voltage at Maximum Power (Vmp/V)	33.29	31.6	33.40	31.71	33.51	31.82	33.62	31.93
Current at Maximum Power (Imp/A)	14.13	11.3	14.23	11.39	14.33	11.48	14.43	11.56
Module Efficiency(%)	23.0		23.3		23.5		23.8	

Electrical characteristics with different rear side power gain (reference to 470W front)

Pmax /W	Voc/V	Isc /A	Vmp/V	Imp /A	Pmax gain
494	40.31	15.52	33.29	14.82	5%
517	40.31	16.26	33.29	15.53	10%
541	40.41	17.00	33.39	16.19	15%
564	40.41	17.74	33.39	16.89	20%
588	40.41	18.48	33.39	17.60	25%

Operating Parameters

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3%
Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	30A
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. (BGV03 20250625)