

A close run between eight modules

DXM8-72H-610 delivers 16,397 kWh over 30 years at 1.07 ¢/kWh, which makes its energy 15% cheaper per kilowatt-hour than the dearest module in this report. It is not the cheapest sticker price in the set - \$130 is - and it still wins.

BEST LONG-TERM CHOICE

Sun Earth **DXM8-72H-610** 610 Wp

- ✓ **Most energy produced.** 16,397 kWh over 30 years, 538 kWh ahead of the next module.
- ✓ **Best composite in the set.** It scores highest across lifetime energy, cost per kWh and warranty length taken together, even though it is not the cheapest energy in the set.

84

OF 100

COST PER KWH

1.07 ¢/kWh

RANKING LEADER DXM8-72H-610 Score 84 of 100	HIGHEST 30-YEAR YIELD 16,397 kWh 4,032 kWh above the lowest module	LOWEST COST PER KWH 1.03 ¢/kWh 18% cheaper than the dearest	MODULES COMPARED 8 Prices entered by the requester
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ASSUMPTIONS

Cell temperature 55 °C

Installation Pitched, equator

Baseline yield 1,050 kWh/kWp

Horizon 30 years

Currency USD

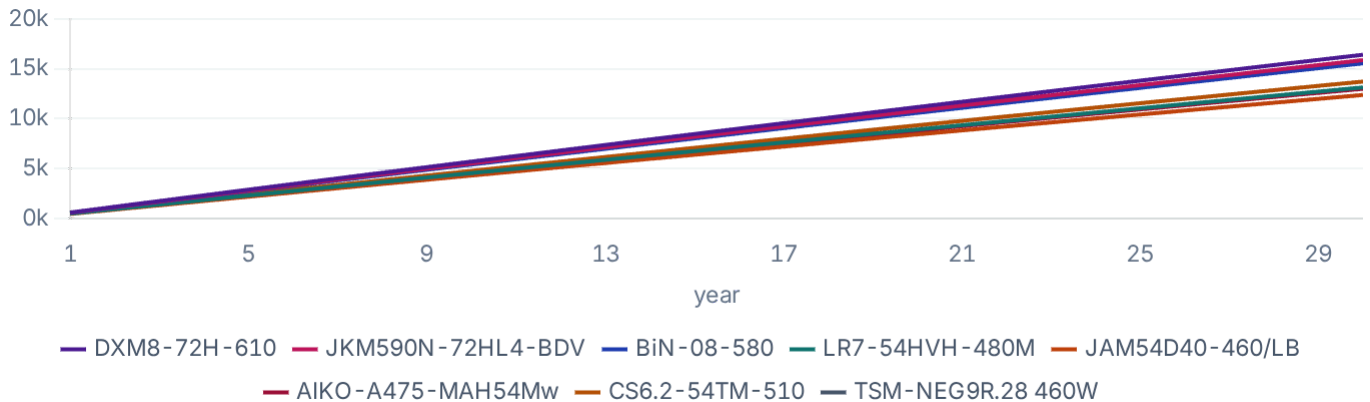
01 • SIDE BY SIDE

#	MANUFACTURER / MODEL	POWER	PRICE	YEAR 1	30-YEAR	PER KWH	SCORE
						(¢)	
1	Sun Earth DXM8-72H-610	610 Wp	\$175	579	16,397	1.07	84
2	Jinko JKM590N-72HL4-BDV	590 Wp	\$165	560	15,860	1.04	83
3	WAAREE BiN-08-580	580 Wp	\$180	549	15,539	1.16	60
4	LONGi LR7-54HVH-480M	480 Wp	\$135	460	13,123	1.03	54
5	JA SOLAR JAM54D40-460/LB	460 Wp	\$130	437	12,365	1.05	46
6	AIKO AIKO-A475-MAH54Mw	475 Wp	\$145	455	12,986	1.12	38
7	CanadianSolar CS6.2-54TM-510	510 Wp	\$160	484	13,709	1.17	38
8	TrinaSolar TSM-NEG9R.28 460W	460 Wp	\$155	437	12,365	1.25	16
better worse		Colours and scores are relative to the 8 modules in this report only.					

02 • WHERE THE DIFFERENCE COMES FROM

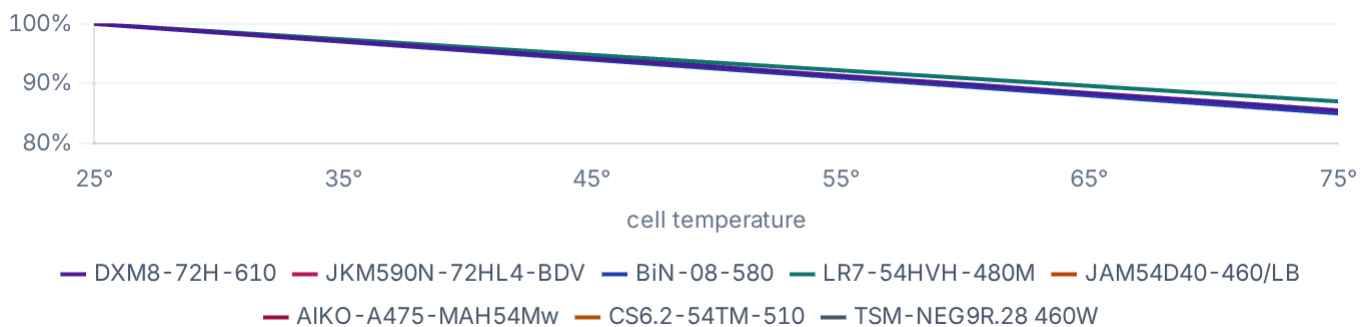
Cumulative energy over 30 years

Kilowatt-hours added up year by year. The gap widens with every year - by year 30 it is 4,032 kWh between the highest and lowest module.



Output retained as the cell heats up

A module is rated at 25 °C; a working roof sits well above it. At 55 °C the -0.26 %/°C module still delivers 92.2% of nameplate, the -0.30 %/°C module 91.0%.



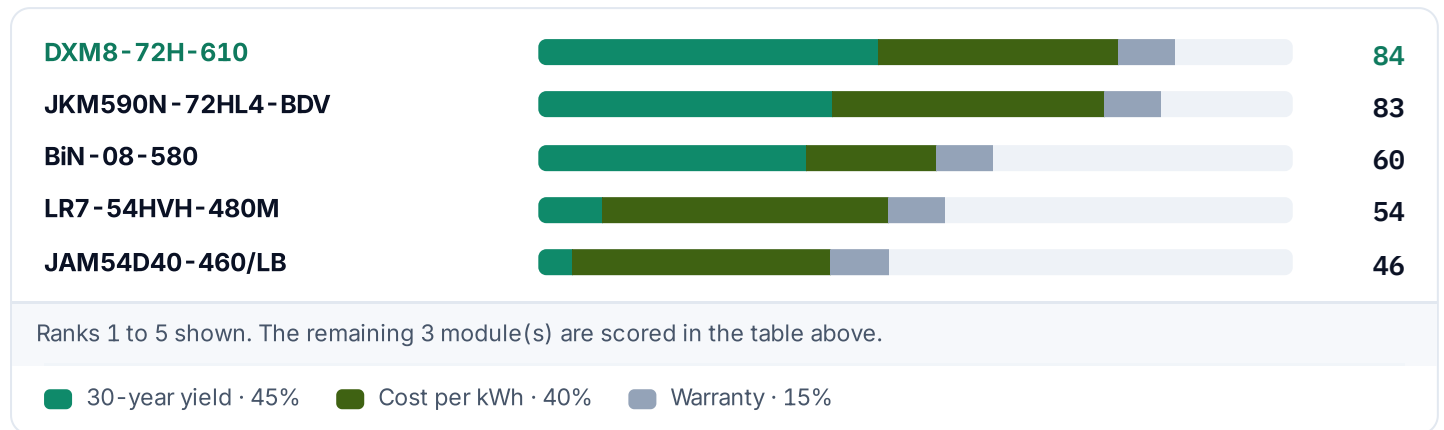
03 • MILESTONES

Cumulative kWh per module

MODULE	Y5	Y10	Y15	Y20	Y25	Y30
DXM8-72H-610	2,872	5,686	8,445	11,149	13,799	16,397
JKM590N-72HL4-BDV	2,777	5,500	8,168	10,783	13,347	15,860
BiN-08-580	2,721	5,389	8,003	10,566	13,078	15,539
LR7-54HVVH-480M	2,284	4,529	6,734	8,901	11,031	13,123
JAM54D40-460/LB	2,165	4,288	6,368	8,407	10,406	12,365
Difference, best to worst	+706	+1,398	+2,077	+2,742	+3,393	+4,032

Ranks 1 to 5 shown. The remaining 3 module(s) are in the table on page 1.

04 • WHAT DRIVES EACH SCORE



05 • HOW EACH FIGURE IS BUILT

1 Annual yield

Panel watts times the installation baseline of 1,050 kWh/kWp, times a temperature factor from the module's own coefficient at 55 °C, times whatever degradation has left that year.

2 Degradation

Each module ages at its own datasheet rate - DXM8-72H-610 loses 1% in year one, then 0.4% a year. Where a manufacturer publishes no curve, the 2% / 0.55% convention is used.

3 Cost per kWh

Offer price divided by the thirty annual yields added together. The only figure that lets a dearer module win, and often it does.

4 Score

A 0-100 composite: lifetime energy 45%, cost per kWh 40%, warranty 15%, each normalised across this report's modules. A dimension they all tie on splits evenly.

⚠ What this report does not model

Energy price inflation, inverter and installation cost, local irradiance, weather, shading, or a degradation curve worse than the datasheet promises. Prices were entered by whoever requested this report, not quoted or verified by ComparePV. This compares modules against each other, not a full system business case.

06 • TERMS USED IN THIS REPORT

Cost per kWh (LCOE)

Offer price divided by lifetime yield. What one kilowatt-hour from this module actually costs. Lower is better.

Baseline yield

Energy one kWp produces per year. Set by installation type: ground mount around 1,100, pitched equator-facing 1,050, east-west 950.

Tc Pmax

Temperature coefficient of maximum power, %/°C. How much output drops per degree above 25 °C. Smaller is better in heat.

Score

Relative ranking of this offer within this set only. The same module at the same price scores differently against different competition.

The live version stays online

Change the temperature, the installation type or the prices and the comparison recomputes. Anonymous and shareable.

comparepv.com/panel-report/19c7cb90-3c04-49df-a413-c4b28429f22e

