

Seven modules, and it is close

DXM8-72H-610 delivers 312 kWh over 30 years at 56.03 ¢/kWh, which makes its energy 18% 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. 312 kWh over 30 years, 10 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.

86

OF 100

COST PER KWH

56.03 ¢/kWh

RANKING LEADER

DXM8-72H-610

Score 86 of 100

HIGHEST 30-YEAR YIELD

312 kWh

77 kWh above the lowest module

LOWEST COST PER KWH

54.01 ¢/kWh

18% cheaper than the dearest

MODULES COMPARED

7

Prices entered by the requester

ASSUMPTIONS

Cell temperature **55 °C**

Installation **Pitched, equator**

Baseline yield **20 kWh/kWp**

Horizon **30 years**

Currency **USD**

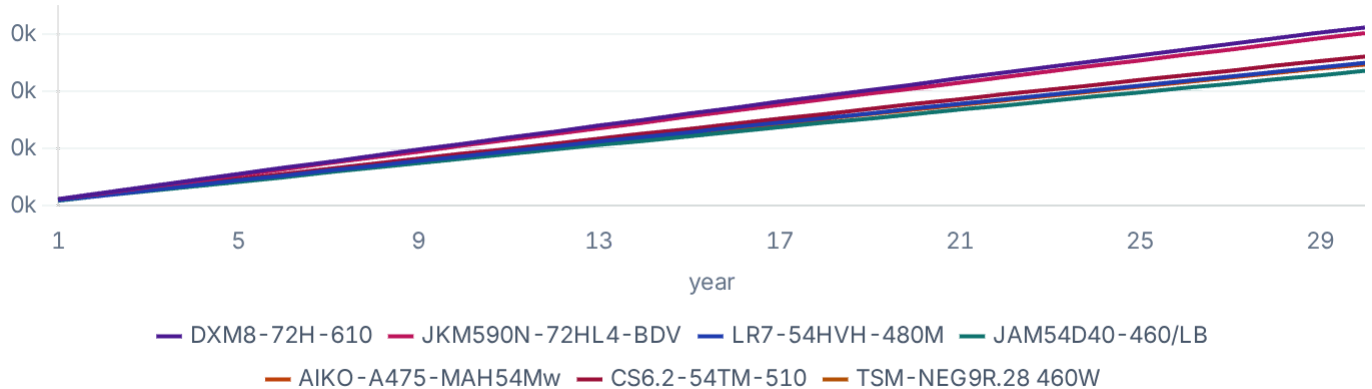
01 · SIDE BY SIDE

#	MANUFACTURER / MODEL	POWER	PRICE	YEAR 1	30-YEAR	PER KWH	SCORE (¢)
1	Sun Earth DXM8-72H-610	610 Wp	\$175	11	312	56.03	86
2	 JKM590N-72HL4-BDV	590 Wp	\$165	11	302	54.62	84
3	 LR7-54HVVH-480M	480 Wp	\$135	9	250	54.01	56
4	 JAM54D40-460/LB	460 Wp	\$130	8	236	55.20	48
5	 AIKO-A475-MAH54Mw	475 Wp	\$145	9	247	58.62	39
6	 CS6.2-54TM-510	510 Wp	\$160	9	261	61.27	38
7	 TSM-NEG9R.28 460W	460 Wp	\$155	8	236	65.81	16
better worse		Colours and scores are relative to the 7 modules in this report only.					

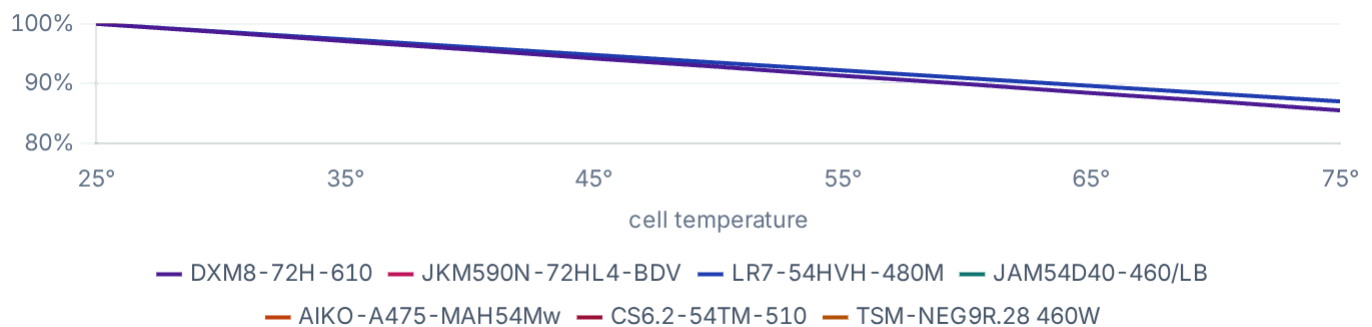
02 • WHERE THE DIFFERENCE COMES FROM

Cumulative energy over 30 years

Kilowatt-hours added up year by year. The gap widens with every year - by year 30 it is 77 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 -0.29 %/°C module 91.3%.



03 • MILESTONES

Cumulative kWh per module

MODULE	Y5	Y10	Y15	Y20	Y25	Y30
DXM8-72H-610	55	108	161	212	263	312
JKM590N-72HL4-BDV	53	105	156	205	254	302
LR7-54HVVH-480M	44	86	128	170	210	250
JAM54D40-460/LB	41	82	121	160	198	236
AIKO-A475-MAH54Mw	43	85	127	168	208	247
Difference, best to worst	+13	+27	+40	+52	+65	+77

Ranks 1 to 5 shown. The remaining 2 module(s) are in the table on page 1.

04 • WHAT DRIVES EACH SCORE

DXM8-72H-610		86
JKM590N-72HL4-BDV		84
LR7-54HVH-480M		56
JAM54D40-460/LB		48
AIKO-A475-MAH54Mw		39

Ranks 1 to 5 shown. The remaining 2 module(s) are scored in the table on page 1.

30-year yield · 45% Cost per kWh · 40% Warranty · 15%

05 • HOW EACH FIGURE IS BUILT

1 Annual yield

Panel watts times the installation baseline of 20 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/f295a310-0bf5-4948-a5f3-9e0a7df65eee

