

A close run between five modules

Every module here costs the same, so the whole answer is in what they produce. TWMNF-66HD725 delivers 21,345 kWh over 30 years at 0.08 ¢/kWh, which makes its energy 14% cheaper per kilowatt-hour than the dearest module in this report.

BEST LONG-TERM CHOICE

 **TWMNF-66HD725** 725 Wp

✓

Cheapest energy in the set. 0.08 ¢/kWh, 14% below the dearest module in the set.

✓

Most energy produced. 21,345 kWh over 30 years, 216 kWh ahead of the next module.

79

OF 100

COST PER KWH

0.08 ¢/kWh

RANKING LEADER TWMNF-66HD725 Score 79 of 100	HIGHEST 30-YEAR YIELD 21,345 kWh 2,944 kWh above the lowest module	LOWEST COST PER KWH 0.08 ¢/kWh 14% cheaper than the dearest	MODULES COMPARED 5 Prices entered by the requester
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ASSUMPTIONS

Cell temperature 25 °C

Installation Pitched, equator

Baseline yield 1,050 kWh/kWp

Horizon 30 years

Currency USD

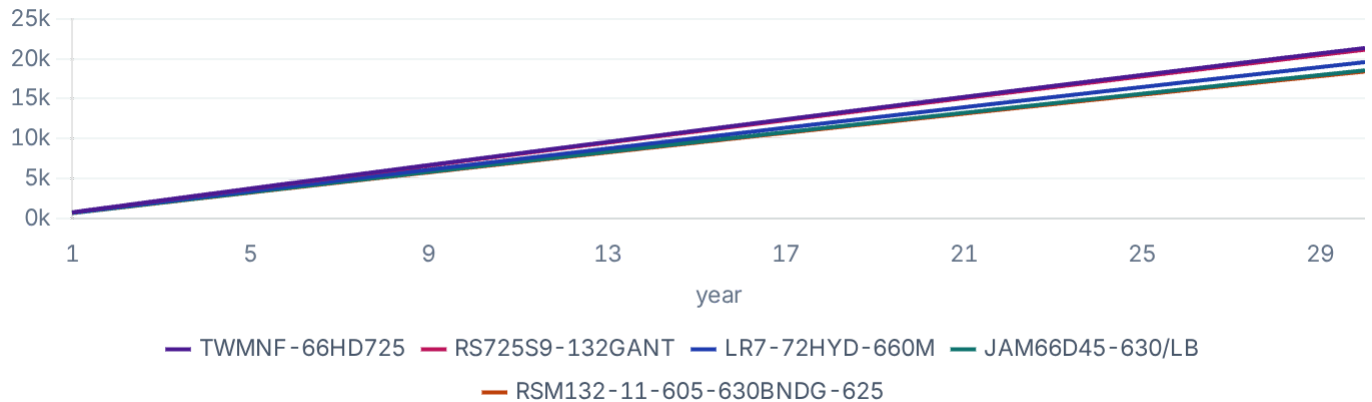
01 • SIDE BY SIDE

#	MANUFACTURER / MODEL	POWER	PRICE	YEAR 1	30-YEAR	PER KWH	SCORE (¢)
1	 TWMNF-66HD725	725 Wp	\$17.14	754	21,345	0.08	79
2	 RS725S9-132GANT	725 Wp	\$17.14	746	21,130	0.08	75
3	 LR7-72HYD-660M	660 Wp	\$17.14	686	19,571	0.09	45
4	 JAM66D45-630/LB	630 Wp	\$17.14	655	18,548	0.09	24
5	 RSM132-11-605-630BNDG-625	625 Wp	\$17.14	650	18,401	0.09	21
better worse		Colours and scores are relative to the 5 modules in this report only.					

02 • WHERE THE DIFFERENCE COMES FROM

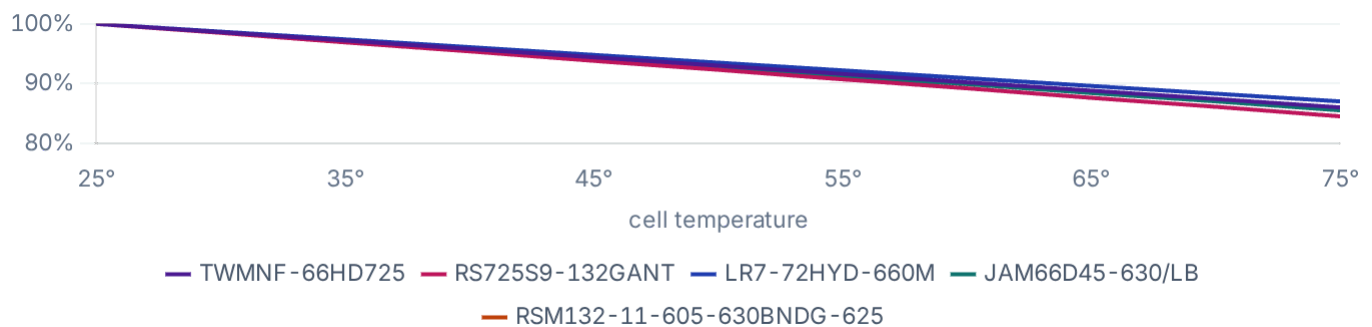
Cumulative energy over 30 years

Kilowatt-hours added up year by year. The gap widens with every year - by year 30 it is 2,944 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 25 °C the -0.26 %/°C module still delivers 100.0% of nameplate, the -0.31 %/°C module 100.0%.

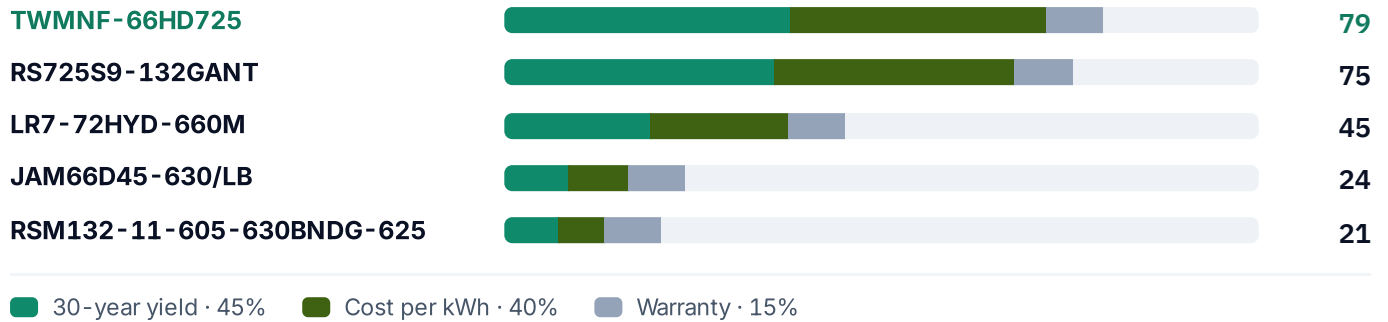


03 • MILESTONES

Cumulative kWh per module

MODULE	Y5	Y10	Y15	Y20	Y25	Y30
TWMNF-66HD725	3,738	7,402	10,993	14,514	17,964	21,345
RS725S9-132GANT	3,700	7,327	10,882	14,367	17,782	21,130
LR7-72HYD-660M	3,406	6,754	10,043	13,275	16,450	19,571
JAM66D45-630/LB	3,248	6,432	9,553	12,612	15,610	18,548
RSM132-11-605-630BNDG-625	3,223	6,381	9,477	12,512	15,486	18,401
Difference, best to worst	+516	+1,021	+1,516	+2,002	+2,478	+2,944

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 25 °C, times whatever degradation has left that year.

2 Degradation

Each module ages at its own datasheet rate - TWMNF-66HD725 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/347f9f4a-297e-4b4f-a110-3a636a177cdc

