

A close run between five modules

TWMNF-66HD725 delivers 21,345 kWh over 30 years at 0.37 ¢/kWh, which makes its energy 4% cheaper per kilowatt-hour than the dearest module in this report. It is not the cheapest sticker price in the set - \$66.78 is - and it still wins.

BEST LONG-TERM CHOICE

 **TWMNF-66HD725** 725 Wp

✓

Most energy produced. 21,345 kWh over 30 years.

✓

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.

67

OF 100

COST PER KWH

0.37 ¢/kWh

RANKING LEADER	HIGHEST 30-YEAR YIELD	LOWEST COST PER KWH	MODULES COMPARED
TWMNF-66HD725 Score 67 of 100	21,345 kWh 2,797 kWh above the lowest module	0.36 ¢/kWh 6% cheaper than the dearest	5 Prices entered by the requester

ASSUMPTIONS

Cell temperature 25 °C

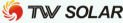
Installation Pitched, equator

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	\$78.30	754	21,345	0.37	67
2	Runda Solar RS725S9-132GANT	725 Wp	\$78.30	754	21,345	0.37	67
3	 JAM66D45-650/LB	650 Wp	\$70.20	676	19,137	0.37	43
4	 RSM132-11-605-630BNDG-630	630 Wp	\$66.78	655	18,548	0.36	41
5	 LR7-72HYD-660M	660 Wp	\$74.58	686	19,571	0.38	41
better worse		Colours and scores are relative to the 5 modules in this report only.					

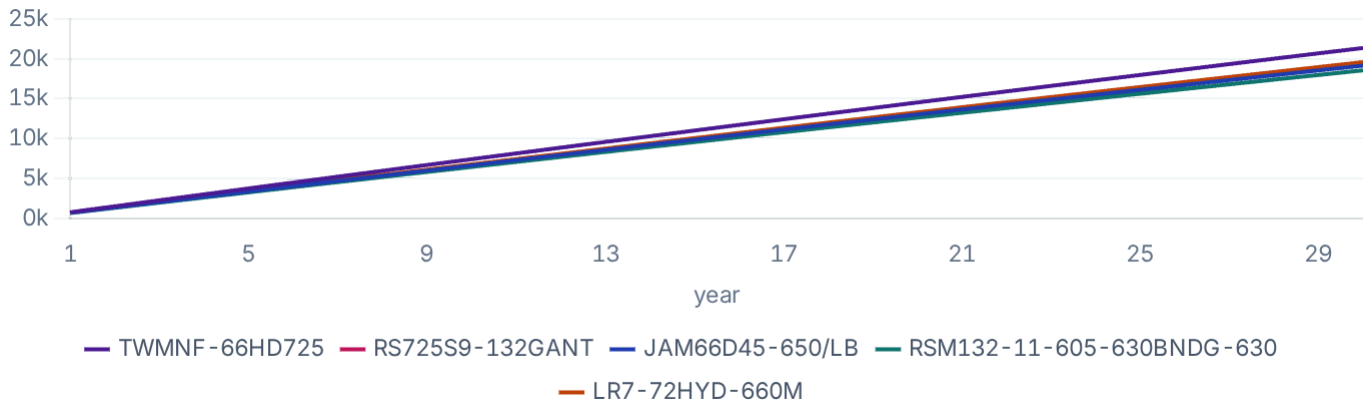
Report 76882937-aba9

1 / 3

02 • WHERE THE DIFFERENCE COMES FROM

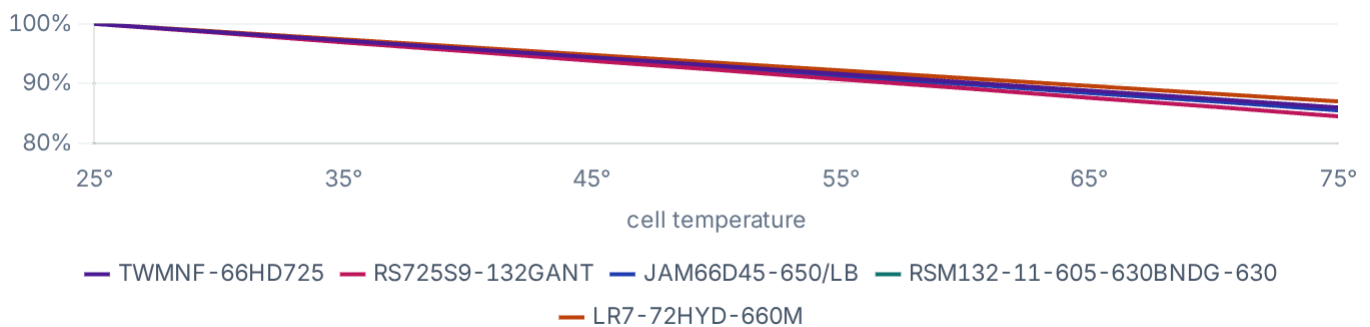
Cumulative energy over 30 years

Kilowatt-hours added up year by year. The gap widens with every year - by year 30 it is 2,797 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%.

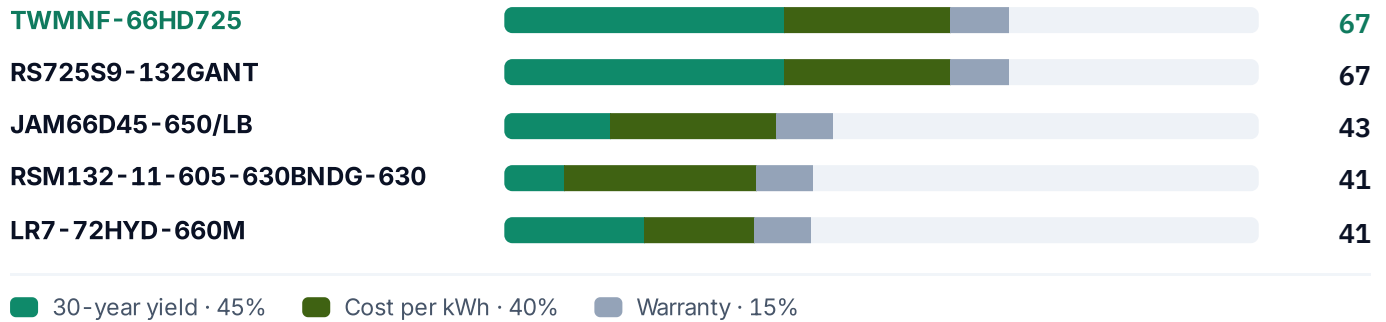


03 • MILESTONES

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	3,738	7,402	10,993	14,514	17,964	21,345
JAM66D45-650/LB	3,351	6,636	9,856	13,012	16,105	19,137
RSM132-11-605-630BNDG-630	3,248	6,432	9,553	12,612	15,610	18,548
LR7-72HYD-660M	3,406	6,754	10,043	13,275	16,450	19,571
Difference, best to worst	+490	+970	+1,441	+1,902	+2,354	+2,797

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/76882937-aba9-44ed-8b35-f3b7bf2459cb

