

JKM495-520N-51QL6-BDV-F2-EU (520W) wins this comparison

JKM495-520N-51QL6-BDV-F2-EU (520W) delivers 14,217 kWh over 30 years at 0.60 ¢/kWh. It is not the cheapest sticker price in the set - \$80 is - and it still wins.

BEST LONG-TERM CHOICE



JKM495-520N-51QL6-BDV-F2-EU (520W)

520 Wp

✓ **Most energy produced.** 14,217 kWh over 30 years, 776 kWh ahead of the next module.

✓ **Runs cooler under load.** -0.26 %/°C against -0.29 %/°C, worth 0.9 points of output at 55 °C.

56

OF 100

COST PER KWH

0.60 ¢/kWh

RANKING LEADER	HIGHEST 30-YEAR YIELD	LOWEST COST PER KWH	MODULES COMPARED
JKM495-520N-51QL6...	14,217 kWh	0.60 ¢/kWh	2
Score 56 of 100	776 kWh above the lowest module	the only priced module in this report	Prices entered by the requester

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	 JKM495-520N-51QL6-BDV-F2-EU (520W)	520 Wp	\$85	498	14,217	0.60	56
2	 TSM-NEG18RC.27-500	500 Wp	\$80	475	13,440	0.60	44

better

worse

Colours and scores are relative to the 2 modules in this report only.

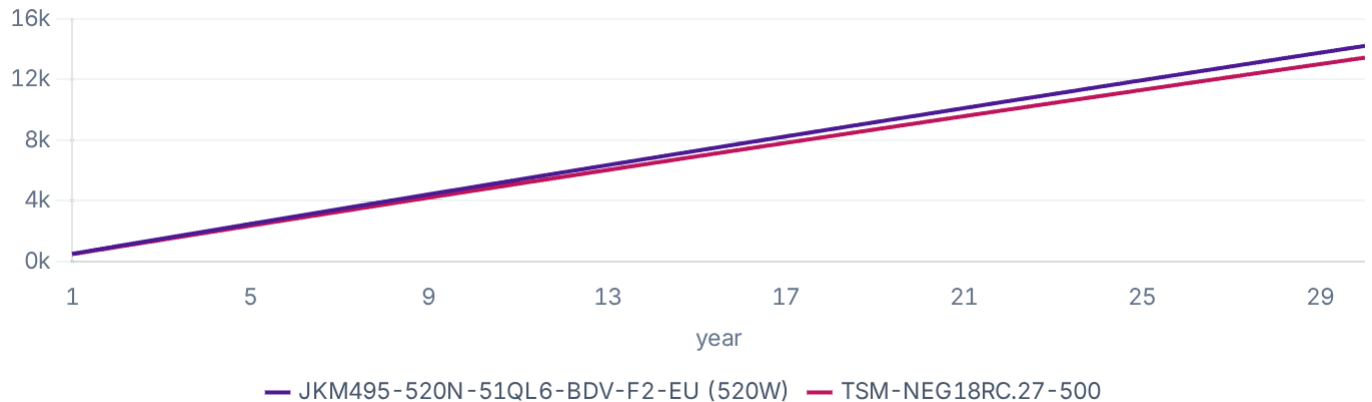
⚠ What this report does not model

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.

02 • WHERE THE DIFFERENCE COMES FROM

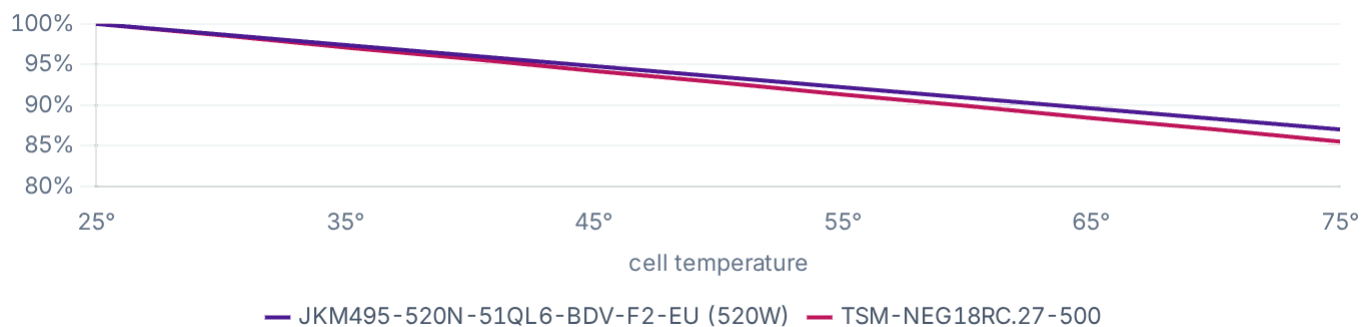
Cumulative energy over 30 years

Kilowatt-hours added up year by year. The gap widens with every year - by year 30 it is 776 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
JKM495-520N-51QL6-BDV-F2-EU (520W)	2,475	4,906	7,295	9,643	11,950	14,217
TSM-NEG18RC.27-500	2,354	4,661	6,922	9,139	11,311	13,440
Difference, best to worst	+121	+245	+373	+504	+639	+776

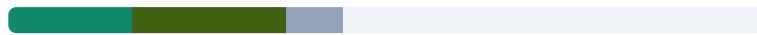
04 • WHAT DRIVES EACH SCORE

JKM495-520N-51QL6-BDV-F2-EU (520W)



56

TSM-NEG18RC.27-500



44

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 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 - JKM495-520N-51QL6-BDV-F2-EU (520W) loses 1% in year one, then 0.35% 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.

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/e28d9b77-7a5e-4856-affb-e410b14d66f3

