

Annexe 1 : Documentation technique des modules PV JKM435N-54HL4R-V de la marque JINKO

Culture Sciences
de l'Ingénieur

La Revue
3E.I

Étude de dimensionnement industriel d'une installation
photovoltaïque de 1 MWc connectée au réseau avec
stockage

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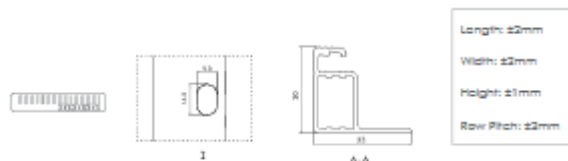
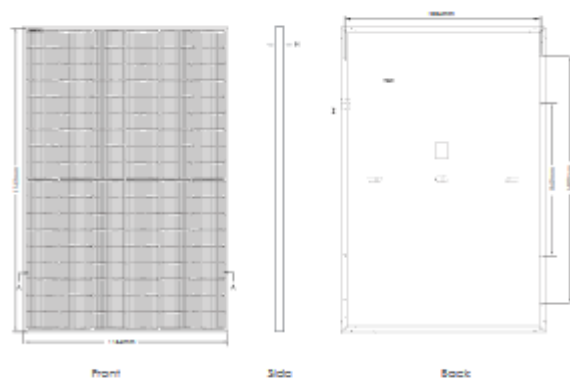
école _____
normale _____
supérieure _____
paris-saclay _____

Cette ressource est une annexe à la ressource « Étude de dimensionnement industriel d'une installation photovoltaïque de 1 MWc connectée au réseau avec stockage » [1] qui fait partie de La Revue 3EI du 2^{ème} trimestre 2026.

Références :

[1]: Étude de dimensionnement industriel d'une installation photovoltaïque de 1 MWc connectée au réseau avec stockage, O. Rami-Yahyaoui, 2026, https://sti.eduscol.education.fr/si-ens-paris-saclay/ressources_pedagogiques/exploitation-pedagogique-basee-sur-letude-dinstallation-pv-avec-stockage

Engineering Drawings

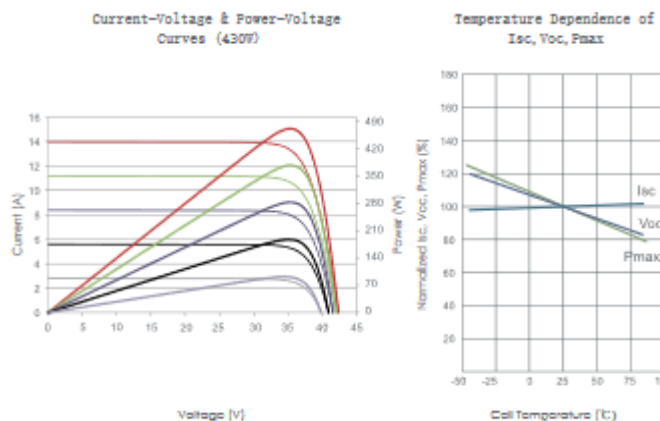


Packaging Configuration

(Two pallets = One stack)

36pcs/pallets, 72pcs/stack, 936pcs/ 40'HQ Container

Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type	N type Mono-crystalline
No. of cells	108 (2x54)
Dimensions	1762x1134x30mm (69.36x44.65x1.18 inch)
Weight	22 kg (48.50 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP65 Rated
Output Cables	TUV 1x4.0mm (+): 400mm, (-): 200mm or Customized Length

SPECIFICATIONS

Module Type	JKM425N-54HL4R JKM425N-54HL4R-V		JKM430N-54HL4R JKM430N-54HL4R-V		JKM435N-54HL4R JKM435N-54HL4R-V		JKM440N-54HL4R JKM440N-54HL4R-V		JKM445N-54HL4R JKM445N-54HL4R-V	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	425Wp	308Wp	430Wp	312Wp	435Wp	316Wp	440Wp	320Wp	445Wp	323Wp
Maximum Power Voltage (Vmp)	32.18V	29.06V	32.38V	29.21V	32.59V	29.34V	32.81V	29.50V	33.02V	29.63V
Maximum Power Current (Imp)	13.21A	10.61A	13.28A	10.68A	13.35A	10.76A	13.41A	10.83A	13.48A	10.91A
Open-circuit Voltage (Voc)	38.75V	35.84V	38.95V	36.02V	39.16V	36.20V	39.38V	36.38V	39.59V	36.56V
Short-circuit Current (Isc)	13.66A	11.23A	13.73A	11.29A	13.80A	11.36A	13.86A	11.42A	13.93A	11.49A
Module Efficiency STC (%)	21.27%		21.52%		21.77%		22.02%		22.27%	
Operating Temperature(°C)	-40°C~-85°C									
Maximum system voltage	1000/1500VDC (IEC)									
Maximum series fuse rating	25A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.29%/°C									
Temperature coefficients of Voc	-0.25%/°C									
Temperature coefficients of Isc	0.045%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									