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JinKO Solar
Building Your Trust in Solar

Tiger Neo N-Typ 60HL4-(V)

460-480 Watt

MONOFAZIALES MODUL

N-Typ

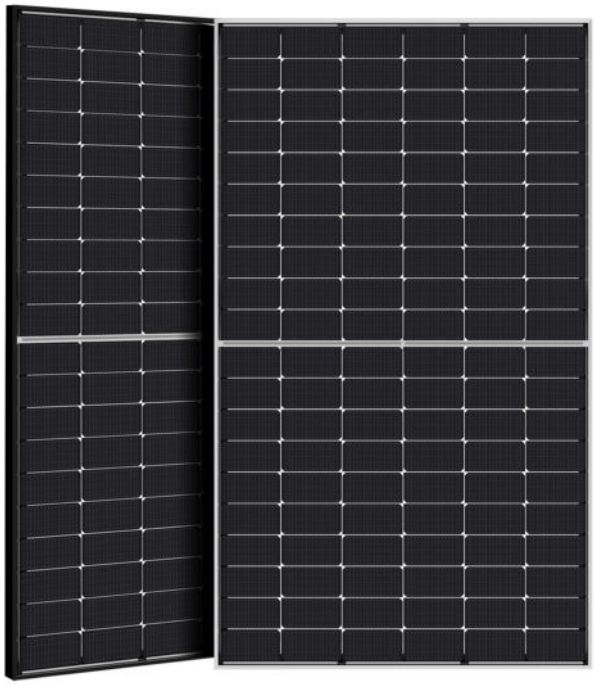
Positive Leistungstoleranz von 0~+3 %

IEC 61215 (2016), IEC 61730 (2016)

ISO9001:2015: Qualitätsmanagementsystem

ISO14001:2015: Umweltmanagementsystem

ISO 45001:2018
Managementsysteme für Sicherheit und Gesundheit bei der Arbeit



WICHTIGE MERKMALE

SMBB-Technologie

Mehr Modulleistung und Zuverlässigkeit dank verbesserter Lichtabsorption und verbesserten Stromtransport

Hot 2.0-Technologie

Das N-Typ-Modul mit Hot 2.0-Technologie ist zuverlässiger und reduziert LID/LETID-Effekte.

PID-Widerstand

Exzellente Anti-PID-Leistungsgarantie dank optimiertem Massenproduktionsprozess und Materialkontrolle.

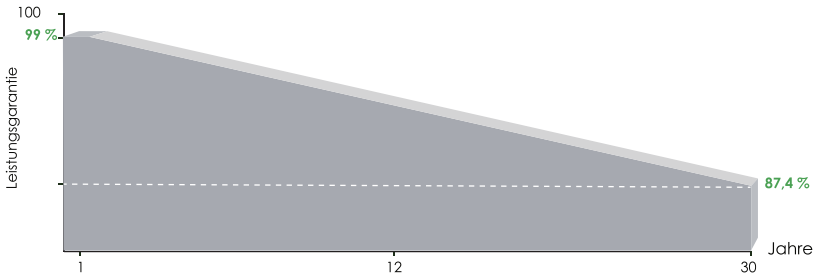
Verbesserte mechanische Widerstandskraft

Zertifiziert für Windlasten bis 2400 Pa und Schneelasten bis 5400 Pa.

Maximale Lebensdauer auch unter extremen Umweltbedingungen

Hohe Salznebel- und Ammoniakbeständigkeit.

LINEARE LEISTUNGSGARANTIE

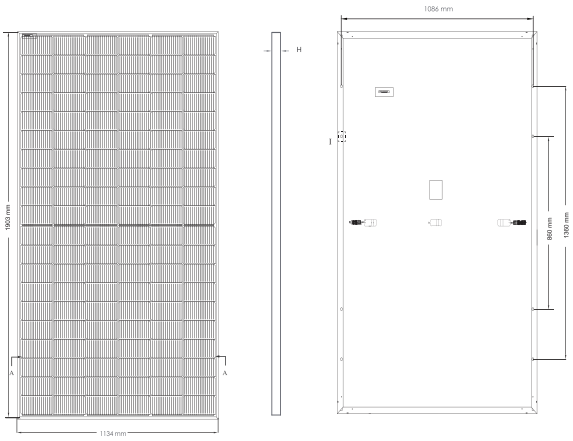


12 Jahre Produktgarantie

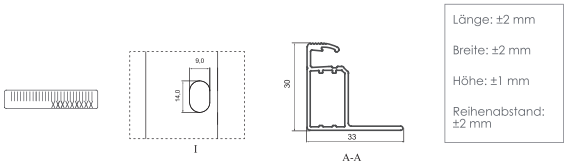
30 Jahre lineare Leistungsgarantie

0,40 % jährliche Degradation über 3 Jahre

Technische Zeichnungen



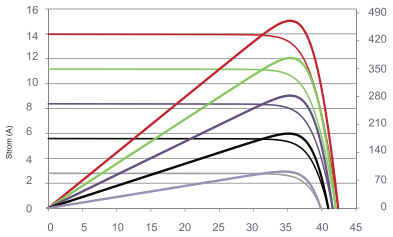
Vorderseite Seite Rückseite



Länge: ±2 mm
Breite: ±2 mm
Höhe: ±1 mm
Reihenabstand: ±2 mm

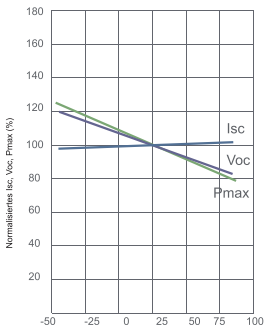
Elektrische Leistung und Temperaturabhängigkeit

Strom-Spannungs- und Leistungs--Spannungs-Kennlinien (470 W)



Spannung (V)

Temperaturabhängigkeit von Isc, Voc, Pmax



Zelltemperatur (°C)

Versandeinheiten

(Zwei Paletten = ein Stapel)

36 Stück/Palette, 72 Stück/Stapel, 864 Stück/40-Fuss-Container

Mechanische Eigenschaften

Zellentyp	N-Typ monokristallin
Anz. der Zellen	120 (6×20)
Maße	1903×1134×30mm (74,92×44,65×1,18 inch)
Gewicht	24,2 kg ((53,35 lbs)
Glas	3,2 mm, getempertes Glas mit hoher Lichtdurchlässigkeit und niedrigem Eisengehalt, Antireflex-Beschichtung
Rahmen	Eloxierte Aluminiumlegierung
Anschlusskasten	Schutzklasse IP68
Anschlusskabel	TÜV 1×4,0 mm² (+): 400 mm, (-): 200 mm oder maßgeschneiderte Länge

Spezifikationen

Modultyp	JKM460N-60HL4 JKM460N-60HL4-V		JKM465N-60HL4 JKM465N-60HL4-V		JKM470N-60HL4 JKM470N-60HL4-V		JKM475N-60HL4 JKM475N-60HL4-V		JKM480N-60HL4 JKM480N-60HL4-V	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximale Leistung (Pmax)	460Wp	346Wp	465Wp	350Wp	470Wp	353Wp	475Wp	357Wp	480Wp	361Wp
Max. Spannung (Vmp)	34,72 V	32,60 V	34,89 V	32,77 V	35,05 V	32,94 V	35,21 V	33,10 V	35,38 V	33,27 V
Max. Strom (Imp)	13,25 A	10,61 A	13,33 A	10,67 A	13,41 A	10,73 A	13,49 A	10,79 A	13,57 A	10,85 A
Leerlaufspannung (Voc)	42,05 V	39,94 V	42,22 V	40,10 V	42,38 V	40,25 V	42,54 V	40,41 V	42,71 V	40,57 V
Kurzschlussstrom (Isc)	13,99 A	11,29 A	14,07 A	11,36 A	14,15 A	11,42 A	14,23 A	11,49 A	14,31 A	11,55 A
Modulwirkungsgrad STC (%)	21,32 %		21,55 %		21,78 %		22,01 %		22,24 %	
Betriebstemperatur (℃)	-40 ℃~+85 ℃									
Maximale Systemspannung	1000/1500 VDC (IEC)									
Maximale Vorschaltsicherungsleistung	25 A									
Leistungstoleranz	0~+3 %									
Temperaturkoeffizienten Pmax	-0,30 %/℃									
Temperaturkoeffizienten Voc	-0,25 %/℃									
Temperaturkoeffizienten Isc	0,046 %/℃									
Nennbetriebstemperatur der Zelle (NOCT)	45±2 ℃									

*STC: Einstrahlung 1000 W/m² Zelltemperatur 25 °C AM = 1,5

NOCT: Einstrahlung 800 W/m² Umgebungstemperatur 20 °C AM = 1,5 Windgeschwindigkeit 1 m/s

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Tiger Neo N-type 60HL4-(V)

460-480 Watt

MONO-FACIAL MODULE

N-Type

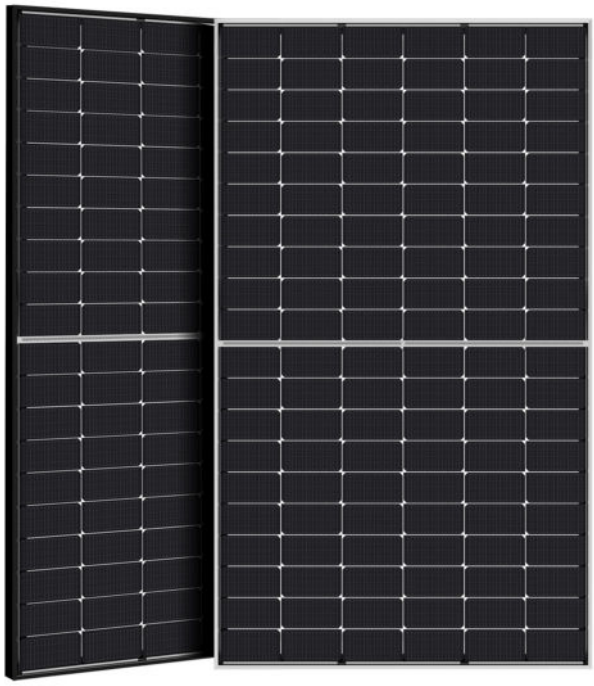
Positive power tolerance of 0~+3%

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018
Occupational health and safety management systems



Key Features

SMBB Technology

Better light trapping and current collection to improve module power output and reliability.

Hot 2.0 Technology

The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.

PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.

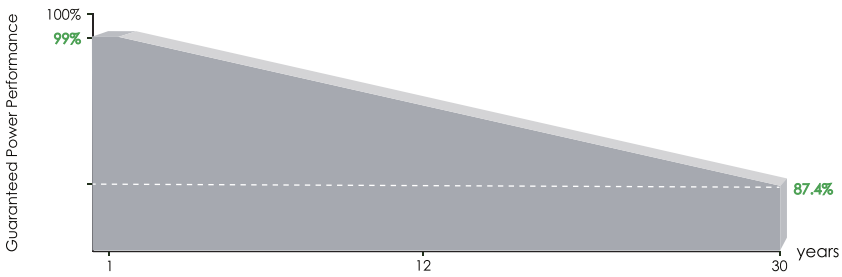
Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.

LINEAR PERFORMANCE WARRANTY

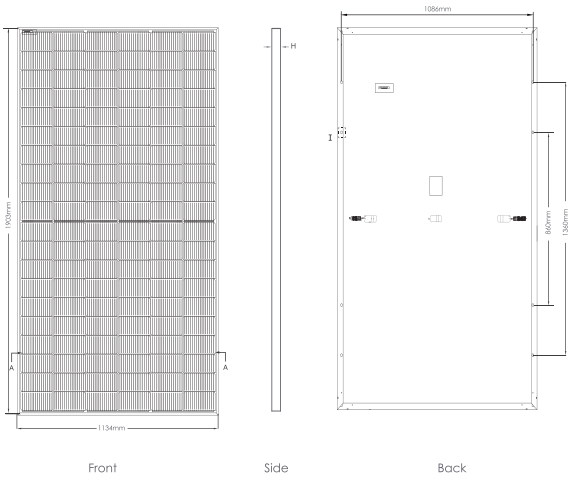


12 Year Product Warranty

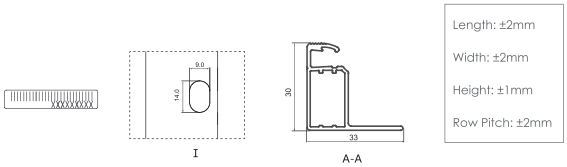
30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years

Engineering Drawings



Front Side Back



Length: ±2mm
Width: ±2mm
Height: ±1mm
Row Pitch: ±2mm

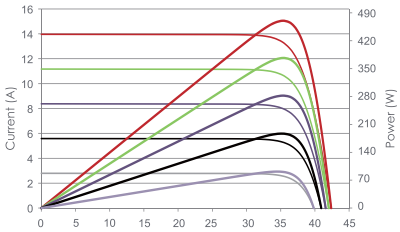
Packaging Configuration

(Two pallets = One stack)

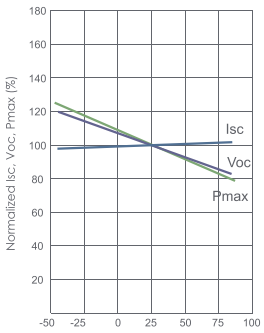
36pcs/pallets, 72pcs/stack, 864pcs/ 40'HQ Container

Electrical Performance & Temperature Dependence

Current-Voltage & Power-Voltage Curves (470W)



Temperature Dependence of Isc,Voc,Pmax



Mechanical Characteristics

Cell Type	N type Mono-crystalline
No. of cells	120 (6×20)
Dimensions	1903×1134×30mm (74.92×44.65×1.18 inch)
Weight	24.2 kg (53.35 lbs)
Front Glass	3.2mm,Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1×4.0mm² (+): 400mm , (-): 200mm or Customized Length

SPECIFICATIONS

Module Type	JKM460N-60HL4 JKM460N-60HL4-V		JKM465N-60HL4 JKM465N-60HL4-V		JKM470N-60HL4 JKM470N-60HL4-V		JKM475N-60HL4 JKM475N-60HL4-V		JKM480N-60HL4 JKM480N-60HL4-V	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	460Wp	346Wp	465Wp	350Wp	470Wp	353Wp	475Wp	357Wp	480Wp	361Wp
Maximum Power Voltage (Vmp)	34.72V	32.60V	34.89V	32.77V	35.05V	32.94V	35.21V	33.10V	35.38V	33.27V
Maximum Power Current (Imp)	13.25A	10.61A	13.33A	10.67A	13.41A	10.73A	13.49A	10.79A	13.57A	10.85A
Open-circuit Voltage (Voc)	42.05V	39.94V	42.22V	40.10V	42.38V	40.25V	42.54V	40.41V	42.71V	40.57V
Short-circuit Current (Isc)	13.99A	11.29A	14.07A	11.36A	14.15A	11.42A	14.23A	11.49A	14.31A	11.55A
Module Efficiency STC (%)	21.32%		21.55%		21.78%		22.01%		22.24%	
Operating Temperature(℃)	-40℃~+85℃									
Maximum system voltage	1000/1500VDC (IEC)									
Maximum series fuse rating	25A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.30%/℃									
Temperature coefficients of Voc	-0.25%/℃									
Temperature coefficients of Isc	0.046%/℃									
Nominal operating cell temperature (NOCT)	45±2℃									

*STC: Irradiance 1000W/m² Cell Temperature 25℃ AM=1.5

NOCT: Irradiance 800W/m² Ambient Temperature 20℃ AM=1.5 Wind Speed 1m/s