

Tiger Neo N-Typ

54HL4R-(V)

425-450 Watt

MONOFAZIALES MODUL

N-Typ

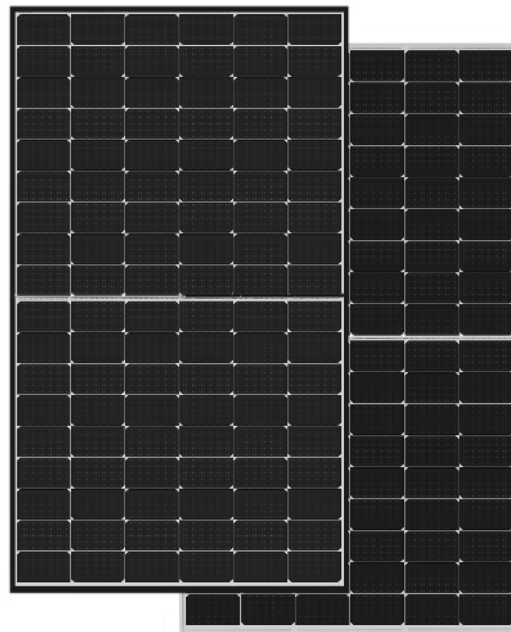
Positive Leistungstoleranz von 0~+3 %

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Qualitätsmanagementsystem

ISO14001:2015: Umweltmanagementsystem

ISO45001:2018:
Managementsysteme für Sicherheit und Gesundheit bei der Arbeit



WICHTIGE MERKMALE



SMBB-Technologie

Mehr Modulleistung und Zuverlässigkeit dank verbesserter Lichtabsorption und verbessertem Stromtransport.



PID-Widerstand

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



Maximale Lebensdauer auch unter extremen Umweltbedingungen

Hohe Salznebel- und Ammoniakbeständigkeit.



Hot 2.0-Technologie

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

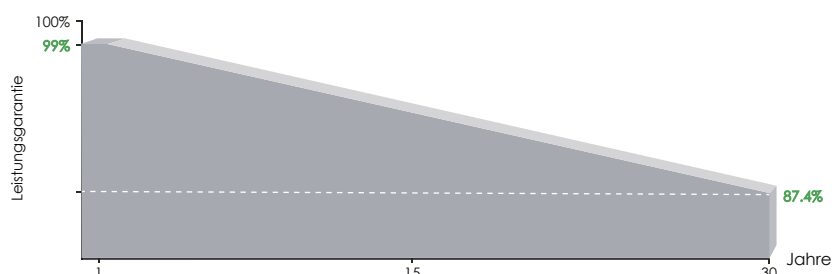


Verbesserte mechanische Widerstandskraft

Zertifiziert für Windlasten bis 4000 Pa und Schneelasten bis 6000 Pa.



LINEARE LEISTUNGSGARANTIE

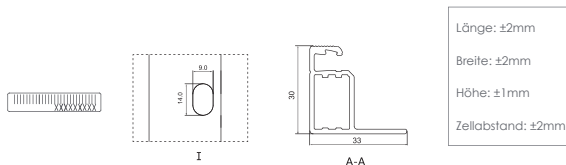
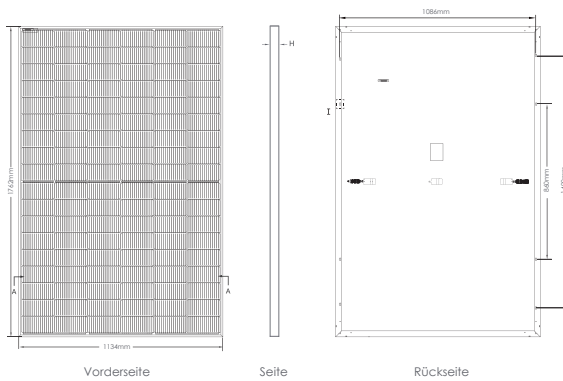


15 Jahre Produktgarantie

30 Jahre lineare Leistungsgarantie

0,40 % jährliche Degradation über 30 Jahre

Technische Zeichnungen



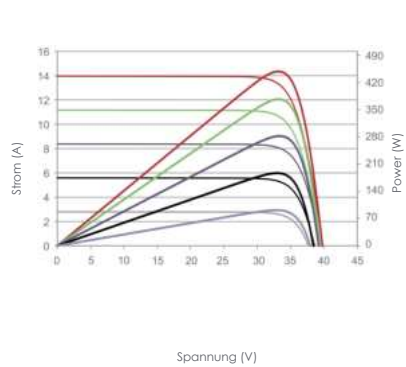
Verpackungseinheiten

(2 Paletten = 1 Stapel)

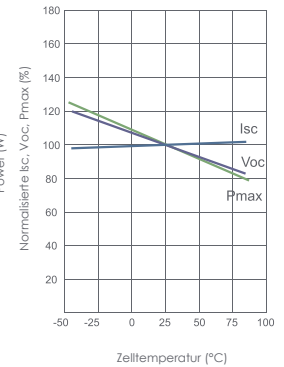
36 Stück/Palette, 72 Stück/Stapel, 936 Stück/40-Fuss-Container

Elektrische Leistung und Temperaturabhängigkeit

Strom-Spannungs- und Leistungs-Spannungs-Kennlinien (435 W)



Temperaturabhängigkeit von Isc, Voc, Pmax



Mechanische Eigenschaften

Zellentyp	Monokristallin N-Typ
Zellenanzahl	108 (2×54)
Maße	1762×1134×30mm (69,36×44,65×1,18 Zoll)
Gewicht	22 kg (48,50 lbs)
Glas	3,2 mm, Antireflexbeschichtung, Hohe Lichtdurchlässigkeit, Niedriger Eisenbehalt, getempertes Glas
Rahmen	Eloxierte Aluminiumlegierung
Anschlusskasten	Schutzklasse IP68
Anschlusskabel	TÜV 1×4,0mm ² (+): 400mm, (-): 200mm oder maßgeschneiderte Länge

Spezifikationen

Modultyp	JKM425N-54HL4R		JKM430N-54HL4R		JKM435N-54HL4R		JKM440N-54HL4R		JKM445N-54HL4R		JKM450-54HL4R	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximale Leistung (Pmax)	425 Wp	320 Wp	430 Wp	323 Wp	435 Wp	327 Wp	440 Wp	331 Wp	445 Wp	335 Wp	450 Wp	338 Wp
Max. Spannung (Vmp)	32,18 V	29,99 V	32,38 V	30,10 V	32,59 V	30,33 V	32,81 V	30,56 V	33,02 V	30,76 V	33,21 V	30,90 V
Max. Strom (Imp)	13,21 A	10,67 A	13,28 A	10,73 A	13,35 A	10,78 A	13,41 A	10,83 A	13,48 A	10,89 A	13,55 A	10,94 A
Leerlaufspannung (Voc)	38,75 V	36,81 V	38,95 V	37,00 V	39,16 V	37,20 V	39,38 V	37,41 V	39,59 V	37,61 V	39,78 V	37,79 V
Kurzschlussstrom (Isc)	13,66 A	11,03 A	13,73 A	11,09 A	13,80 A	11,14 A	13,86 A	11,19 A	13,93 A	11,25 A	14,00 A	11,30 A
Modulwirkungsgrad STC (%)	21,27 %		21,52 %		21,77 %		22,02 %		22,27 %		22,52 %	
Betriebstemperatur (°C)	-40°C~+85°C											
Maximale Systemspannung	1000/1500VDC (IEC)											
Maximale Vorschaltleistungsleistung	25A											
Leistungstoleranz	0~+3%											
Temperaturkoeffizient Pmax	-0,29%/°C											
Temperaturkoeffizient Voc	-0,25%/°C											
Temperaturkoeffizient Isc	0,045%/°C											
Nominale Betriebstemperatur der Zelle (NOCT)	45±2°C											

*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

Tiger Neo N-type 54HL4R-(V) 425-450 Watt MONO-FACIAL MODULE

N-Type

Positive power tolerance of 0~+3%

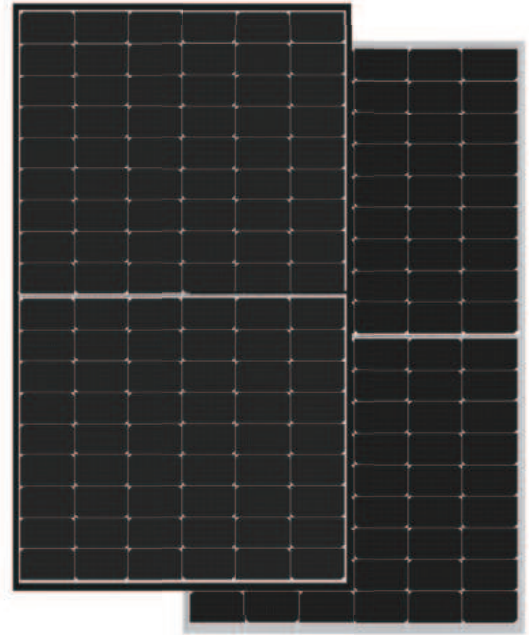
IEC61215(2016), IEC61730(2016)

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.



PID Resistance

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



Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



Hot 2.0 Technology

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



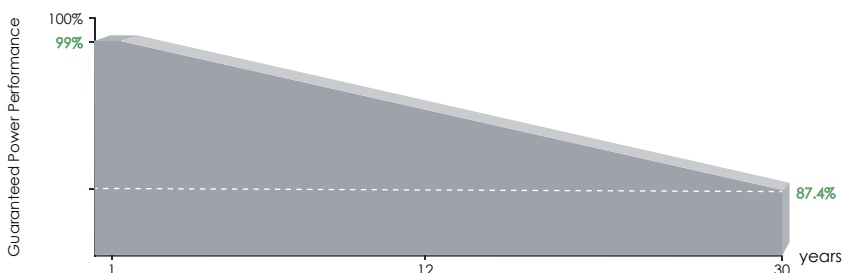
Enhanced Mechanical Load

Certified to withstand: wind load (4000 Pascal) and snow load (6000 Pascal).



POSITIVE QUALITY™
Continuous Quality Assurance

LINEAR PERFORMANCE WARRANTY

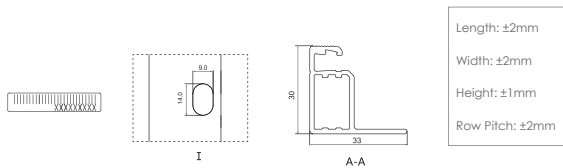
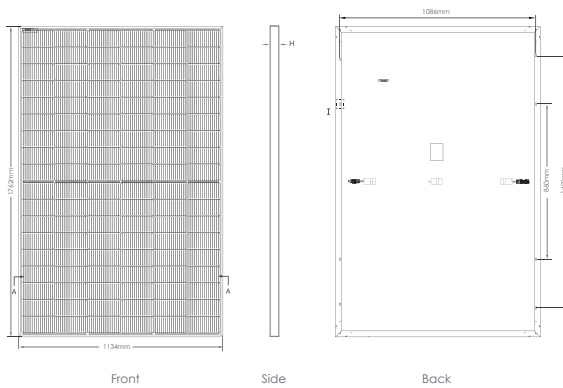


15 Year Product Warranty

30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years

Engineering Drawings

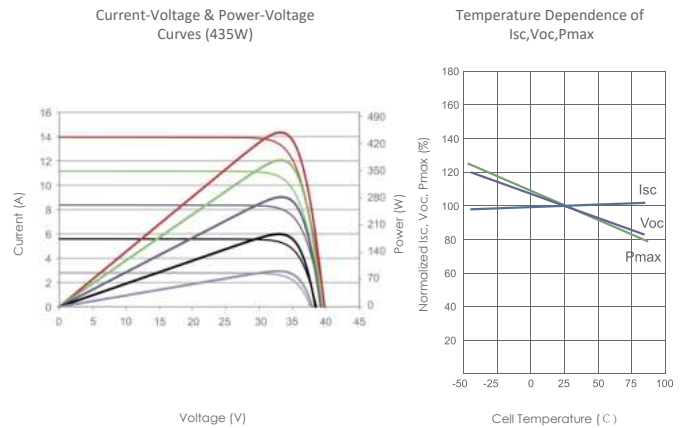


Packaging Configuration

(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 (2×54)
Dimensions	1762×1134×30mm (69.36×44.65×1.18 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	IP68 Rated
Output Cables	TUV 1×4.0mm ² (+): 400mm, (-): 200mm or Customized Length

SPECIFICATIONS

Module Type	JKM425N-54HL4R		JKM430N-54HL4R		JKM435N-54HL4R		JKM440N-54HL4R		JKM445N-54HL4R		JKM450-54HL4R	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	425Wp	320Wp	430Wp	323Wp	435Wp	327Wp	440Wp	331Wp	445Wp	335Wp	450Wp	338Wp
Maximum Power Voltage (Vmp)	32.18V	29.99V	32.38V	30.10V	32.59V	30.33V	32.81V	30.56V	33.02V	30.76V	33.21V	30.90V
Maximum Power Current (Imp)	13.21A	10.67A	13.28A	10.73A	13.35A	10.78A	13.41A	10.83A	13.48A	10.89A	13.55A	10.94A
Open-circuit Voltage (Voc)	38.75V	36.81V	38.95V	37.00V	39.16V	37.20V	39.38V	37.41V	39.59V	37.61V	39.78V	37.79V
Short-circuit Current (Isc)	13.66A	11.03A	13.73A	11.09A	13.80A	11.14A	13.86A	11.19A	13.93A	11.25A	14.00A	11.30A
Module Efficiency STC (%)	21.27%		21.52%		21.77%		22.02%		22.27%		22.52%	
Operating Temperature (°C)	-40°C~+85°C											
Maximum system voltage	1000/1500VDC (IEC)											
Maximum series fuse rating	25A											
Power tolerance	0~+3%											
Temperature coefficient of Pmax	-0.29%/°C											
Temperature coefficient of Voc	-0.25%/°C											
Temperature coefficient of Isc	0.045%/°C											
Nominal operating cell temperature (NOCT)	45±2°C											

*STC: Irradiance 1000W/m² Cell Temperature 25°C AM=1.5
 NOCT: Irradiance 800W/m² Ambient Temperature 20°C AM=1.5 Wind Speed 1m/s