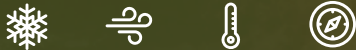


**DUAL GLASS BIFACIAL  
430 - 455 Watt**



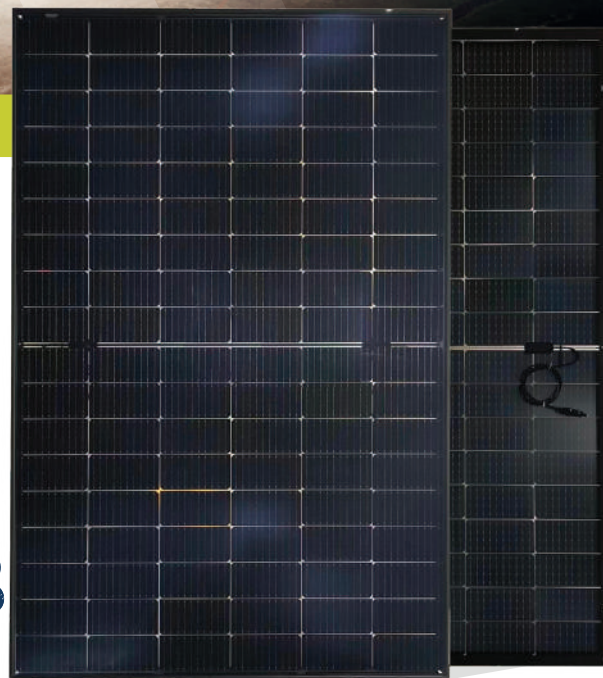
**KEY FEATURES**

Our solar cells offer high conversion efficiency to ensure the highest quality.

Our high performing modules enable cost savings in mounting, cabling and labour of up to 15%.

The modules can withstand high wind-pressure, snow loads and extreme temperatures.

Passed IEC 5400 Pa mechanical loading test  
PID Resistance Available.

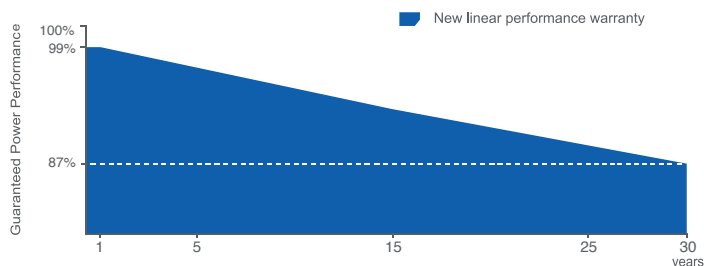


**QUALITY AND SAFETY**

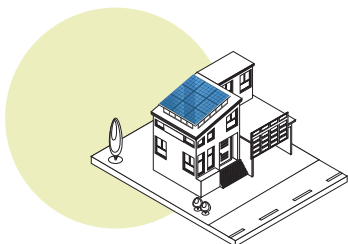


- 🕒 Industry leading power output warranty  
30 years/87,4%
- 🕒 30-year warranty on materials & workmanship
- 🔥 Fire Rating: Class 1

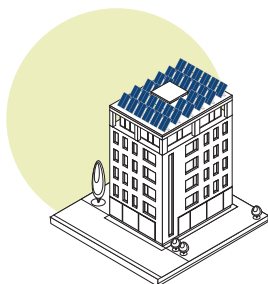
**PREMIUM PERFORMANCE WARRANTY**



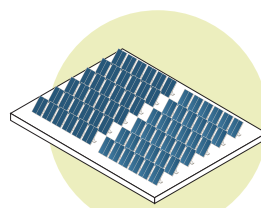
**APPLICATIONS**



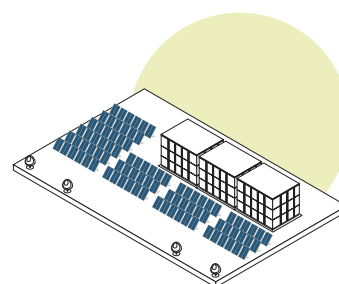
On-grid residential roof-tops



On-grid commercial - industrial roof-tops

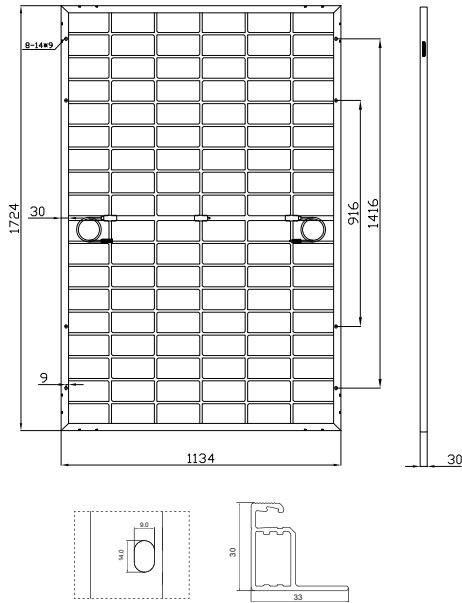


Solar power plants



Off-grid systems

## ENGINEERING DRAWINGS



## PACKAGING CONFIGURATION

Standard packaging	36 pcs / pallet
Module quantity per 40' container	936 pcs
Pallet per container	26

## SPECIFICATIONS

Module Type <sup>(1)</sup>	TKA430M-108BFD		TKA435M-108BFD		TKA440M-108BFD		TKA445M-108BFD		TKA450M-108BFD		TKA455M-108BFD	
	STC <sup>(2)</sup>	NMOT <sup>(3)</sup>	STC <sup>(2)</sup>	NMOT <sup>(3)</sup>	STC <sup>(2)</sup>	NMOT <sup>(3)</sup>	STC <sup>(2)</sup>	NMOT <sup>(3)</sup>	STC <sup>(2)</sup>	NMOT <sup>(3)</sup>	STC <sup>(2)</sup>	NMOT <sup>(3)</sup>
Maximum Power at STC (Pmax)	430Wp	<b>323Wp</b>	435Wp	<b>327Wp</b>	440Wp	<b>331Wp</b>	445Wp	<b>335Wp</b>	450Wp	<b>339Wp</b>	455Wp	<b>343Wp</b>
Maximum Power Voltage (Vmp)	32.72V	<b>30.10V</b>	32.96V	<b>30.34V</b>	33.20V	<b>30.57V</b>	33.44V	<b>30.79V</b>	33.66V	<b>31.02V</b>	33.90V	<b>32.24V</b>
Maximum Power Current (Imp)	13.15A	<b>10.73A</b>	13.21A	<b>10.78A</b>	13.27A	<b>10.83A</b>	13.33A	<b>10.88A</b>	13.39A	<b>10.93A</b>	13.45A	<b>10.98A</b>
Open-circuit Voltage (Voc)	38.62V	<b>37.00V</b>	38.86V	<b>37.20V</b>	39.00V	<b>37.40V</b>	39.14V	<b>37.60V</b>	39.28V	<b>37.80V</b>	39.42V	<b>38.00V</b>
Short-circuit Current (Isc)	13.90A	<b>11.09A</b>	13.96A	<b>11.14A</b>	14.02A	<b>11.19A</b>	14.08A	<b>11.24A</b>	14.14A	<b>11.29A</b>	14.20A	<b>11.34A</b>
Module Efficiency (%)	21.99%		22.25%		22.51%		22.76%		23.02%		23.27%	
Operating Temperature (°C)	-40°C ~ +85°C											
Maximum system voltage	1500V DC											
Maximum series fuse rating	25A											
Power tolerance	±3%											
Temperature coefficients of Pmax	-0.43%/°C											
Temperature coefficients of Voc	-0.30%/°C											
Temperature coefficients of Isc	0.04%/°C											
Nominal operating cell temperature (NOCT)	45±2 °C											
Refer. Bifacial Factor	70±5%											

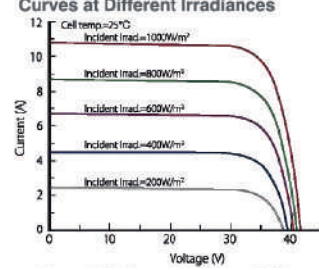
## BIFACIAL OUTPUT-REAR SIDE POWER GAIN

5%	452Wp	457Wp	462Wp	468Wp	473Wp	478Wp
15%	495Wp	500Wp	506Wp	512Wp	518Wp	523Wp
25%	538Wp	544Wp	550Wp	556Wp	563Wp	569Wp

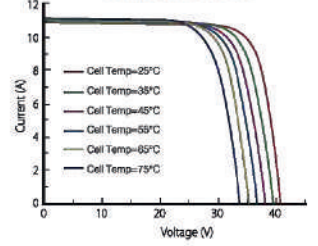
STC Irradiance 1000W/m<sup>2</sup> Module Temperature 25°C AM=1.5

## ELECTRICAL PERFORMANCE & TEMPERATURE DEPENDENCE

Current-Voltage & Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures



## MECHANICAL CHARACTERISTICS

Cell Type	Orion N-Type TOPCon Mono-crystalline (182 x 91 mm)
No. of cells	108
Dimensions	1724x1134x30mm (±2mm)
Weight	24 kg
Front Glass	2.0mm, Anti-Reflecting Coating
Back Glass	2.0mm, Heat Strengthened Glass
Junction Box	Anodized Aluminium Alloy / IP68 Rated
Output Cables	TÜV 1x4.0mm <sup>2</sup> /UL 12AWG, Length:400mm/1100mm or Customized Length