

BIFACIAL
640 - 650 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.

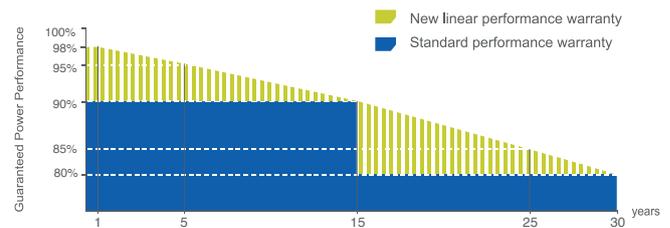


QUALITY AND SAFETY

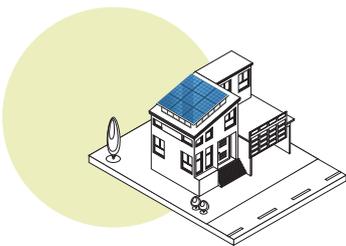
- Industry leading power output warranty
15 years/90%,
30 years/80%,
- 30-year warranty on materials & workmanship
- Fire Rating: Class 1



PREMIUM PERFORMANCE WARRANTY



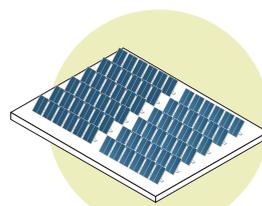
APPLICATIONS



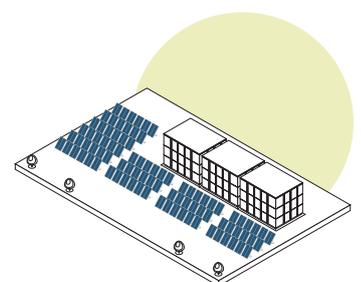
On-grid residential roof-tops



On-grid commercial - industrial roof-tops

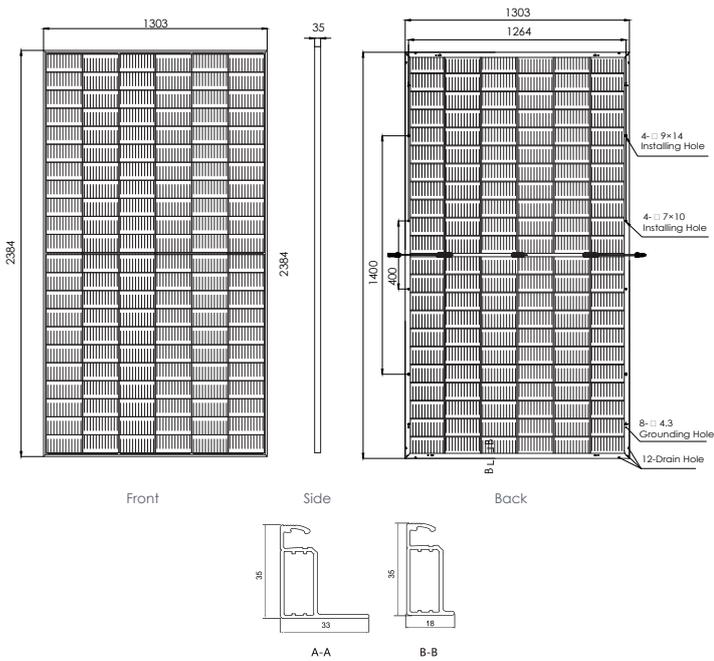


Solar power plants

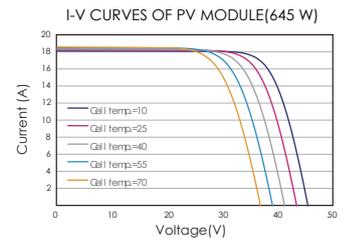
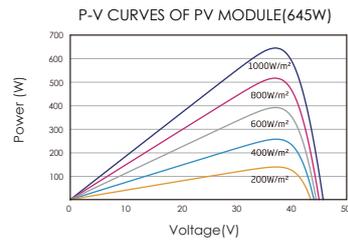


Off-grid systems

ENGINEERING DRAWINGS



ELECTRICAL PERFORMANCE & TEMPERATURE DEPENDENCE



MECHANICAL CHARACTERISTICS

Cell Type	Orion N-Type Mono-crystalline (210x105mm)
No.of cells	132 (2x66)
Dimensions	2384x1303x35mm
Weight	38.50kg
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.0mm, Anti-Reflection Coating
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TÜV 1x4.0mm ² / UL 12AWG Length:400mm/1100mm or Customized Length

PACKAGING CONFIGURATION

Standard packaging	31 pcs / pallet
Module quantity per 40'container	558pcs/40HQ

SPECIFICATIONS

Module Type ⁽¹⁾	TKA640M-132-BFD		TKA645M-132-BFD		TKA650M-132-BFD	
	STC ⁽²⁾	NMOT ⁽³⁾	STC ⁽²⁾	NMOT ⁽³⁾	STC ⁽²⁾	NMOT ⁽³⁾
Maximum Power (P _{max})	640Wp	486Wp	645Wp	490Wp	650Wp	494Wp
Maximum Power Voltage (V _{mp})	37.30V	33.71V	37.50V	33.89V	37.70V	34.07V
Maximum Power Current (I _{mp})	17.19A	14.42A	17.23A	14.46A	17.27A	14.5A
Open-circuit Voltage (V _{oc})	45.10V	40.54V	45.30V	40.82V	45.50V	41.1V
Short-circuit Current (I _{sc})	18.26A	15.42A	18.31A	15.46A	18.35A	15.5A
Module Efficiency (%)	20.60%		20.76%		20.92%	
V _{oc} and I _{sc} tolerance			±3%			
Operating Temperature(°C)			-40°C~+85°C			
Maximum system voltage			1500V			
Maximum series fuse rating			25A			
Temperature coefficients of P _{max}			-0.29%/°C			
Temperature coefficients of V _{oc}			-0.25%/°C			
Temperature coefficients of I _{sc}			0.040%/°C			
Nominal operating cell temperature (NOCT)			45±2 °C			
Refer. Bifacial Factor			70±5%			

BIFACIAL OUTPUT-REARSIDE POWER GAIN

5%	672Wp	677Wp	682Wp
15%	736Wp	741Wp	747Wp
25%	672Wp	806Wp	812Wp

STC Irradiance 1000W/m² Module Temperature 25°C AM=1.5