

BIFACIAL
640 - 650 Watt



KEY FEATURES




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

Our high performing modules have an industry low tolerance of 0 ~ +5W

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

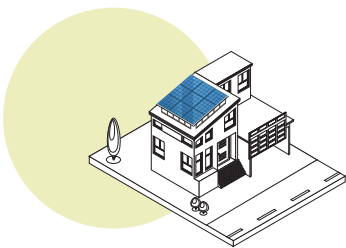
Passed IEC 5400 Pa mechanical loading test
PID Resistance Available

QUALITY AND SAFETY

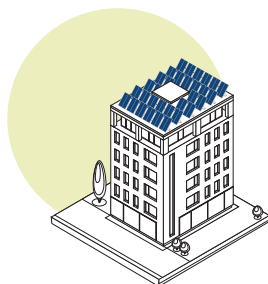
-  Industry leading power output warranty
 15 years/90%,
 30 years/80%,
-  25-year warranty on materials & workmanship
-  Fire Rating: Class 1



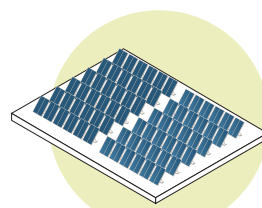
APPLICATIONS



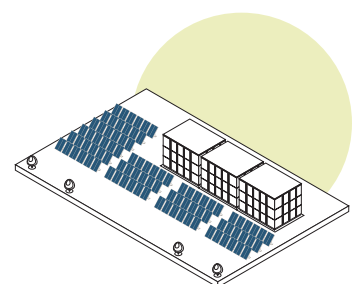
On-grid residential roof-tops



On-grid commercial - industrial roof-tops



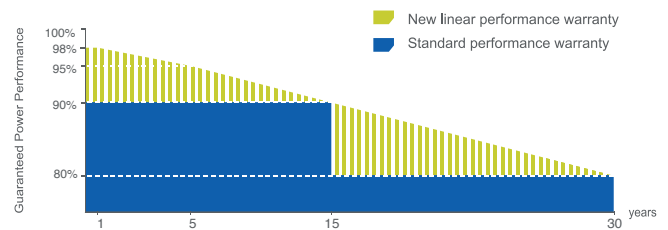
Solar power plants



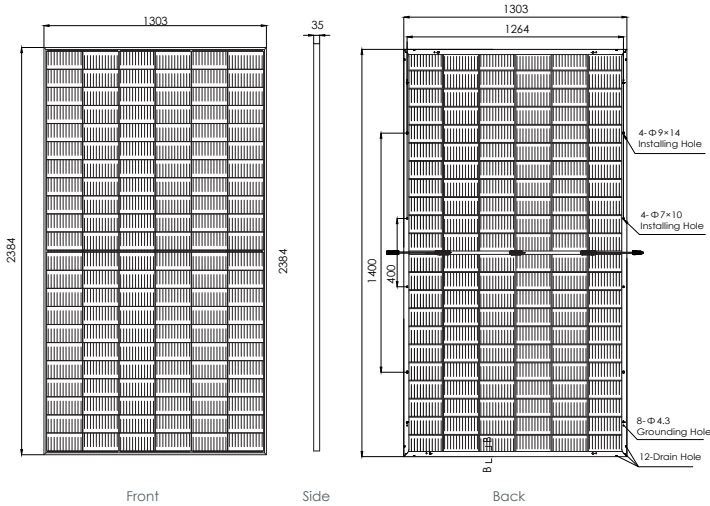
Off-grid systems



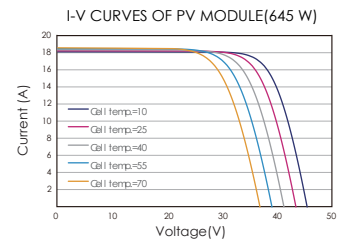
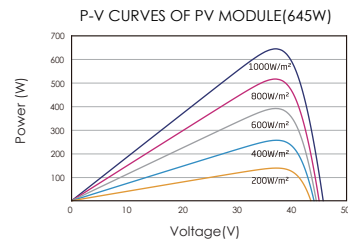
PREMIUM PERFORMANCE WARRANTY



ENGINEERING DRAWINGS



ELECTRICAL PERFORMANCE & TEMPERATURE DEPENDENCE



MECHANICAL CHARACTERISTICS

Cell Type	Orion Perc Mono-crystalline (210x210mm)
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	TKA640M-132-BFD	TKA645M-132-BFD	TKA650M-132-BFD
Maximum Power at STC(P _{max})	640Wp	645Wp	650Wp
Maximum Power Voltage (V _{mp})	37.30V	37.50V	37.70V
Maximum Power Current (I _{mp})	17.19A	17.23A	17.27A
Open-circuit Voltage (V _{oc})	45.10V	45.30V	45.50V
Short-circuit Current (I _{sc})	18.26A	18.31A	18.35A
Module Efficiency (%)	20.60%	20.76%	20.92%
Operating Temperature(°C)		-40°C~+85°C	
Maximum system voltage		1500V DC	
Maximum series fuse rating		35A	
Power tolerance		0 ~ +5W	
Temperature coefficients of P _{max}		-0.35%/°C	
Temperature coefficients of V _{oc}		-0.28%/°C	
Temperature coefficients of I _{sc}		0.048%/°C	
Nominal operating cell temperature (NOCT)		45±2 °C	
Refer. Bifacial Factor		70±5%	

BIFACIAL OUTPUT-REAR SIDE 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