



# TENKA<sup>®</sup> solar

PHOTOVOLTAIC SYSTEMS

## Mono CRYSTALLINE MODULE 280-310 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 +5% (optional)

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

Passed IEC 5400 Pa mechanical loading test

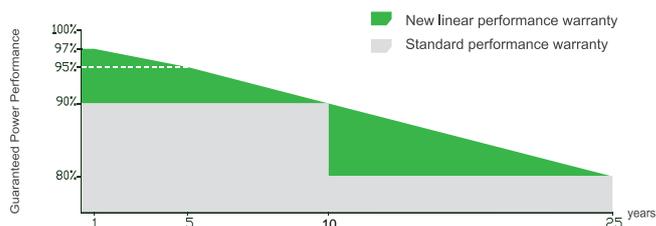
### QUALITY & SAFETY

Industry leading power output warranty

(10 years/90%, 25 years/80%)

10-year warranty on materials & workmanship (optional)

#### Premium Performance Warranty



\* Based on customer requirements and contract terms

ISO9001:2008-ISO14001:2004-OHSAS18001 certified factory  
IEC61215-IEC61730 certified products



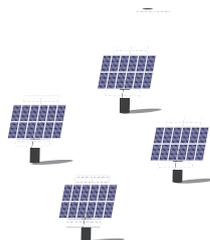
### APPLICATIONS



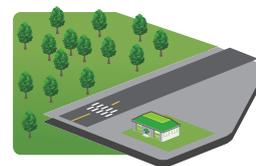
On-grid residential roof-tops



On-grid commercial/  
industrial roof-tops

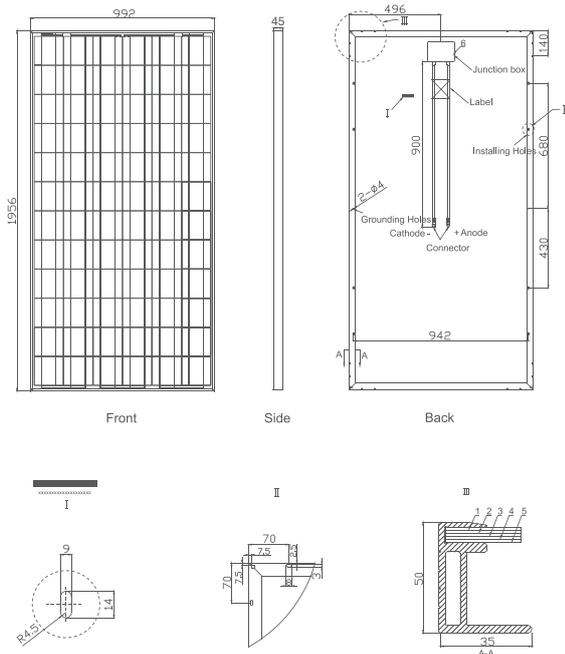


Solar power plants



Off-grid systems

## Engineering Drawings



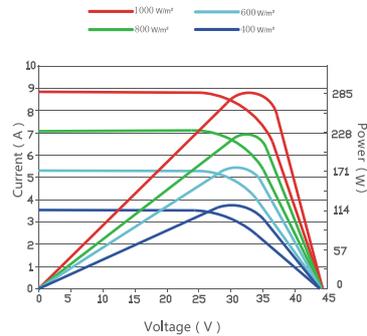
## Packaging Configuration

(Two boxes = One pallet)

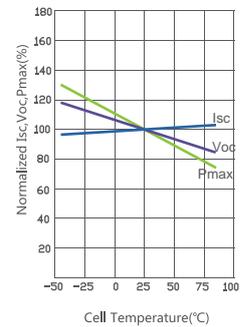
23pcs/box, 46pcs/pallet, 506pcs/40'HQ Container

## Electrical Performance & Temperature Dependence

Current-Voltage & Power-Voltage Curves (285W)



Temperature Dependence of Isc, Voc, Pmax



## Mechanical Characteristics

|               |  |
|---------------|--|
| Cell Type     | Mono-crystalline 156×156mm (6 inch)                |
| No. of cells  | 72 (6×12)  |
| Dimensions    | 1956×992×45mm (77.01×39.06×1.77 inch)              |
| Weight        | 27.0 kg (59.5 lbs.)                                |
| Front Glass   | 3.2mm, High Transmission, Low Iron, Tempered Glass |
| Frame         | Anodized Aluminium Alloy                           |
| Junction Box  | IP65 Rated   |
| Output Cables | TÜV 1×4.0mm² / UL 12AWG, Length:900mm              |

## SPECIFICATIONS

| Module Type                               | TKA280W-72M    | TKA290W-72M | TKA295W-72M | TKA300W-72M | TKA305W-72M | TKA310W-72M |
|---|----------------|-------------|-------------|-------------|-------------|-------------|
| Maximum Power at STC(Pmax)                | 280Wp          | 290Wp       | 295Wp       | 300Wp       | 305Wp       | 310Wp       |
| Maximum Power Voltage (Vmp)               | 36.2V          | 36.2V       | 36.5V       | 36.5V       | 36.7V       | 37.2V       |
| Maximum Power Current (Imp)               | 7.73A          | 8.01A       | 8.04A       | 8.22A       | 8.31A       | 8.33A       |
| Open-circuit Voltage (Voc)                | 43.4V          | 43.4V       | 43.8V       | 43.8V       | 45.5V       | 46.1V       |
| Short-circuit Current (Isc)               | 8.34A          | 8.65A       | 8.84A       | 9.04A       | 8.98A       | 9.00A       |
| Module Efficiency(%)                      | 14.43%         | 14.95%      | 15.20%      | 15.46%      | 15.72%      | 15.98%      |
| Operating Temperature(°C)                 | -40°C ~ +85°C  |             |             |             |             |             |
| Maximum system voltage                    | 1000V (IEC) DC |             |             |             |             |             |
| Maximum series fuse rating                | 15A            |             |             |             |             |             |
| Power tolerance                           | +5% (optional) |             |             |             |             |             |
| Temperature coefficients of Pmax          | -0.45%/°C      |             |             |             |             |             |
| Temperature coefficients of Voc           | -0.27%/°C      |             |             |             |             |             |
| Temperature coefficients of Isc           | 0.05%/°C       |             |             |             |             |             |
| Nominal operating cell temperature (NOCT) | 45±2°C         |             |             |             |             |             |

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

\* Power measurement tolerance: + 5%