TWMPD-54HS400-420W
P-type Half-cell Monofacial Black Frame Module (54)

PRODUCT FEATURES

- High Power Output
- Low LCOE
- Maximum Power 420W+
- High Reliability
- Low LID

POWER WARRANTY

1st year <2%, 0.55% power degradation per year from 2 to 25 years

12-year Warranty for Materials
25-year Warranty for Linear Power Output

MANAGEMENT SYSTEM AND PRODUCT CERTIFICATION

ISO9001: 2015/Quality Management System
ISO14001: 2015/Environment Management System

Front

Rear
Electrical Characteristics (STC)

Module Type: TWMP5-540 IS0XX

Maximum Power: Pmax [W] | 400 | 405 | 410 | 415 | 420
Open Circuit Voltage: Voc [V] | 37.08 | 37.23 | 37.38 | 37.53 | 37.68
Voltage at Maximum Power: Vmp [V] | 30.58 | 30.73 | 30.86 | 31.03 | 31.18
Module Efficiency: η [%] | 20.5 | 20.7 | 21.0 | 21.3 | 21.5

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5, Measuring Tolerance: ±3%

Electrical Characteristics (NMOT)

Maximum Power: Pmax [W] | 302.8 | 306.6 | 310.3 | 314.1 | 317.9
Open Circuit Voltage: Voc [V] | 34.72 | 34.86 | 35.00 | 35.15 | 35.29
Voltage at Maximum Power: Vmp [V] | 28.76 | 28.90 | 29.04 | 29.18 | 29.32
Current at Maximum Power: Imp [A] | 10.52 | 10.60 | 10.68 | 10.76 | 10.84

NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass 1.5, Wind Speed 1m/s

Mechanical Parameters

- Cells: TPC
- Cell Orientation: 108° (L×18°)
- Dimension: 1722±2 x 1134±2 x 30±2mm
- Weight: 20.5kg
- Front Glass: 3.2mm high transmittance, AR coated tempered glass
- Backsheet: White
- Frame: Anodized aluminum alloy black frame
- Junction Box: IP68, 3 diodes
- Output Cable: 4.0mm²
- Cable Length: +400mm, -200mm or ±1200mm, length can be customized
- Wind/Snow Load: 2400Pa/6400Pa
- Packaging: 36pcs per pallet, 936pcs per 40HC

Operating Parameters

- Operational Temperature: -40°C~+85°C
- Maximum System Voltage: 1500V DC
- Maximum Series Fuse Rating: 25A
- Power Output Tolerance: 0~+5W

Temperature Ratings

- Temperature Coefficient (Pmax): -0.34%/°C
- Temperature Coefficient (Voc): -0.27%/°C
- Temperature Coefficient (Isc): +0.045%/°C
- NMOT: 45±7°C

Drawings (Unit: mm)