

Qudra renewable energy solutions

قُدْرَة  
Qudra



# TOPCON

More power, Less degradation

**680W-700W**

Qudra CME-132 Series

N-TYPE TOPCON TECHNOLOGY PV MODULES  
HALF-CUT CELLS MONO-FACIAL



**30**

years

Performance  
Guarantee

**15**

years

Product  
Guarantee

**132**

HALF  
CELLS

**210**  
mm

CELL  
SIZE



LID  
RESISTANT



PID  
RESISTANT



SALT CORROSION  
RESISTANT



AMMONIA  
RESISTANT



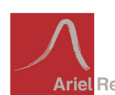
SAND  
RESISTANT



HIGHLY STABLE  
AND TOUGH



IEC 61215  
IEC 61730  
Regular Production Surveillance  
Type Tested and Monitored



IEC 62716 (Ammonia corrosion)  
IEC 61701 (Salt mist corrosion)  
IEC 60068 (Sand and dust)  
IEC 62804 (PID resistance)

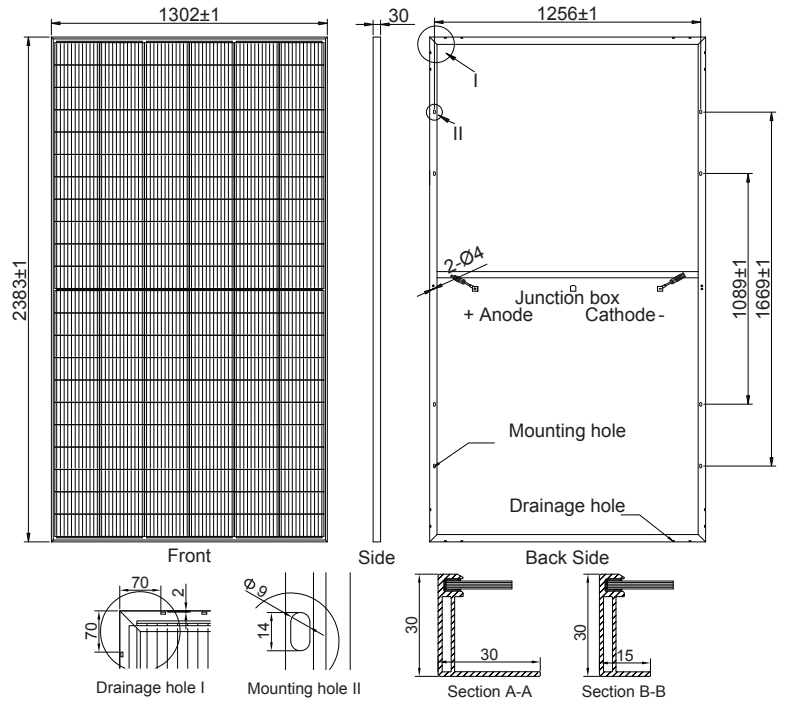


Qudra Renewable Energy Solutions, Ramallah, Palestine

The company reserves the right for explanation on any information presented on this datasheet, and making any necessary adjustments to the information. The specification, features, and certifications given on the datasheet are for indicative purpose, and may slightly deviate in actual products, including due to on-going improvements. The Modules should be carefully handled and installed according to professional instructions.

**Mechanical and design specification**

|                 |   |
|-----------------|---|
| Cell type       | N-type TOPCon Technology, Half-cut cells, 210mm     |
| No. of cells    | 132   |
| Front cover     | 3.2mm glass, high transmission, AR coated, tempered |
| Encapsulation   | EVA   |
| Back cover      | White Backsheet                                     |
| Junction box    | IP68 rated, 3 Bypass Diodes                         |
| Frame           | 30 mm anodized Aluminium alloy                      |
| Cable           | 1 x 4 mm <sup>2</sup> , 350 mm length or customized |
| Connectors      | MC 4 / MC 4 compatible                              |
| Dimension       | 2383 mm x 1302 mm x 30 mm                           |
| Weight          | 31.5 kg   |
| Hail resistance | Max. Ø 25 mm at 23 m/s                              |
| Wind load       | 2400Pa / 244kg/m <sup>2</sup>                       |
| Snow load       | 5400Pa / 550kg/m <sup>2</sup>                       |

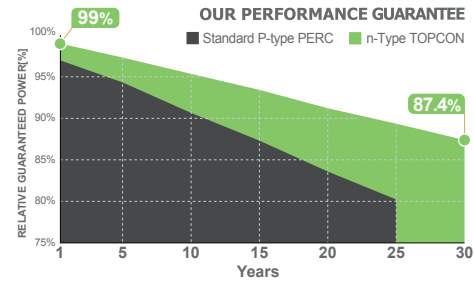
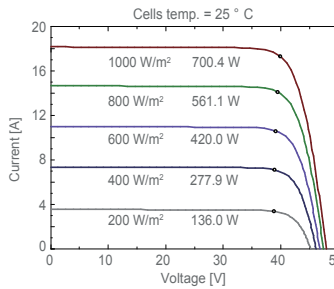


**Packaging information**

|                         |                                       |
|-------------------------|---------------------------------------|
| Packaging configuration | 36 pcs / pallet                       |
| Loading capacity        | 612 pcs / 40 HQ                       |
| Size / Pallet           | 1350 mm x 1140 mm x 2500 mm (Upright) |
| Weight                  | 1167 kg / pallet                      |

**Temperature ratings**

|  |            |
|--|------------|
| Operating temperature (°C)                   | -40 to +85 |
| Temp. coefficient of P <sub>max</sub> (%/°C) | -0.30      |
| Temp. coefficient of V <sub>oc</sub> (%/°C)  | -0.24      |
| Temp. coefficient of I <sub>sc</sub> (%/°C)  | 0.04       |
| Nom. operating temp. NOCT (°C)               | 43 ± 2     |



| Electrical specifications (STC*): | Qudra680CME-132       | Qudra685CME-132 | Qudra690CME-132 | Qudra695CME-132 | Qudra700CME-132 |       |
|-----------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-------|
| Nominal Max. Power                | P <sub>max</sub> (Wp) | 680             | 685             | 690             | 695             | 700   |
| Maximum operating voltage         | V <sub>MPP</sub> (V)  | 39.65           | 39.85           | 40.10           | 40.30           | 40.52 |
| Maximum operating current         | I <sub>MPP</sub> (A)  | 17.16           | 17.19           | 17.23           | 17.25           | 17.28 |
| Open-circuit voltage              | V <sub>oc</sub> (V)   | 47.40           | 47.70           | 47.90           | 48.10           | 48.30 |
| Short-circuit current             | I <sub>sc</sub> (A)   | 18.18           | 18.21           | 18.25           | 18.28           | 18.31 |
| Module efficiency                 | η (%)                 | 21.92           | 22.08           | 22.24           | 22.41           | 22.57 |
| Power tolerance                   | (W)                   |                 |                 | 0~+5            |                 |       |
| Maximum system Voltage            | (V)                   |                 |                 | 1500            |                 |       |
| Maximum series fuse rating        | (A)                   |                 |                 | 30              |                 |       |

\*STC: Standard test conditions (Irradiance 1000 W/m<sup>2</sup>, Cell temperature 25°C and air mass of AM1.5)

| Electrical specifications (NMOT*): | Qudra680CME-132       | Qudra685CME-132 | Qudra690CME-132 | Qudra695CME-132 | Qudra700CME-132 |       |
|------------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-------|
| Nominal Max. Power                 | P <sub>max</sub> (Wp) | 517             | 521             | 525             | 529             | 533   |
| Maximum operating voltage          | V <sub>MPP</sub> (V)  | 37.20           | 37.30           | 37.60           | 37.85           | 38.10 |
| Maximum operating current          | I <sub>MPP</sub> (A)  | 13.91           | 13.94           | 13.97           | 13.98           | 14.00 |
| Open-circuit voltage               | V <sub>oc</sub> (V)   | 44.90           | 45.20           | 45.40           | 45.60           | 45.80 |
| Short-circuit current              | I <sub>sc</sub> (A)   | 14.65           | 14.67           | 14.71           | 14.75           | 14.79 |

\*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m<sup>2</sup>, Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

The specifications and characteristics contained in this datasheet may deviate slightly from our actual products due to the product developments and uncertainty of measurement devices. The specifications included in the datasheet are subject to change without prior notice.