

## MECHANICAL DATA AND DESIGN

|           |   |
|-----------|---|
| Format    | 156mm × 156mm ± 0.5mm   |
| Thickness | 200 μm ± 20 μm  |
| Front(-)  | 1.6mm bus bars(silver), blue anti-reflecting coating(silicon nitride) |
| Back(+)   | 2.0mm wide soldering pads(silver) back surface field(aluminium)       |

| No. | Efficiency(%) | Pmpp(W) | Umpp(V) | Impp(A) | Uoc(V) | Isc(A) | FF(%) |
|-----|---------------|---------|---------|---------|--------|--------|-------|
|-----|---------------|---------|---------|---------|--------|--------|-------|

|    |             |      |       |       |       |       |       |
|----|-------------|------|-------|-------|-------|-------|-------|
| 10 | 17.40-17.60 | 4.24 | 0.531 | 7.985 | 0.631 | 8.485 | 79.29 |
| 09 | 17.20-17.40 | 4.19 | 0.528 | 7.931 | 0.627 | 8.427 | 79.21 |
| 08 | 17.00-17.20 | 4.14 | 0.525 | 7.885 | 0.624 | 8.379 | 79.15 |
| 07 | 16.80-17.00 | 4.09 | 0.522 | 7.873 | 0.622 | 8.336 | 78.95 |
| 06 | 16.60-16.80 | 4.04 | 0.519 | 7.785 | 0.620 | 8.286 | 78.75 |
| 05 | 16.40-16.60 | 3.99 | 0.518 | 7.707 | 0.619 | 8.218 | 78.42 |
| 04 | 16.20-16.40 | 3.94 | 0.516 | 7.638 | 0.619 | 8.161 | 78.03 |
| 03 | 16.00-16.20 | 3.90 | 0.514 | 7.581 | 0.619 | 8.094 | 77.79 |
| 02 | 15.80-16.00 | 3.85 | 0.512 | 7.511 | 0.618 | 8.062 | 77.30 |
| 01 | 15.60-15.80 | 3.80 | 0.511 | 7.437 | 0.617 | 8.050 | 76.50 |

## TEMPERATURE COEFFICIENTS

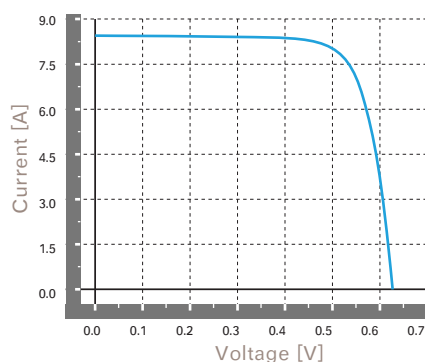
|           |           |
|-----------|-----------|
| TkVoltage | -0.363%/K |
| TkCurrent | +0.071%/K |
| TkPower   | -0.369%/K |

## INTENSITY DEPENDENCE

| Intensity[W/m <sup>2</sup> ] | Isc | Voc*  | Pmpp  |
|------------------------------|-----|-------|-------|
| 1000                         | 1.0 | 1.000 | 1.000 |
| 900                          | 0.9 | 0.995 | 0.897 |
| 500                          | 0.5 | 0.966 | 0.491 |
| 300                          | 0.3 | 0.939 | 0.288 |
| 200                          | 0.2 | 0.915 | 0.187 |

\*Ratio of Voc(Isc) at reduced intensity to Voc(Isc) at 1000 W/m<sup>2</sup>

## IV CURVE



\*calibrated against fraunhofer ISE freiburg

## SPECTRAL RESPONSE

