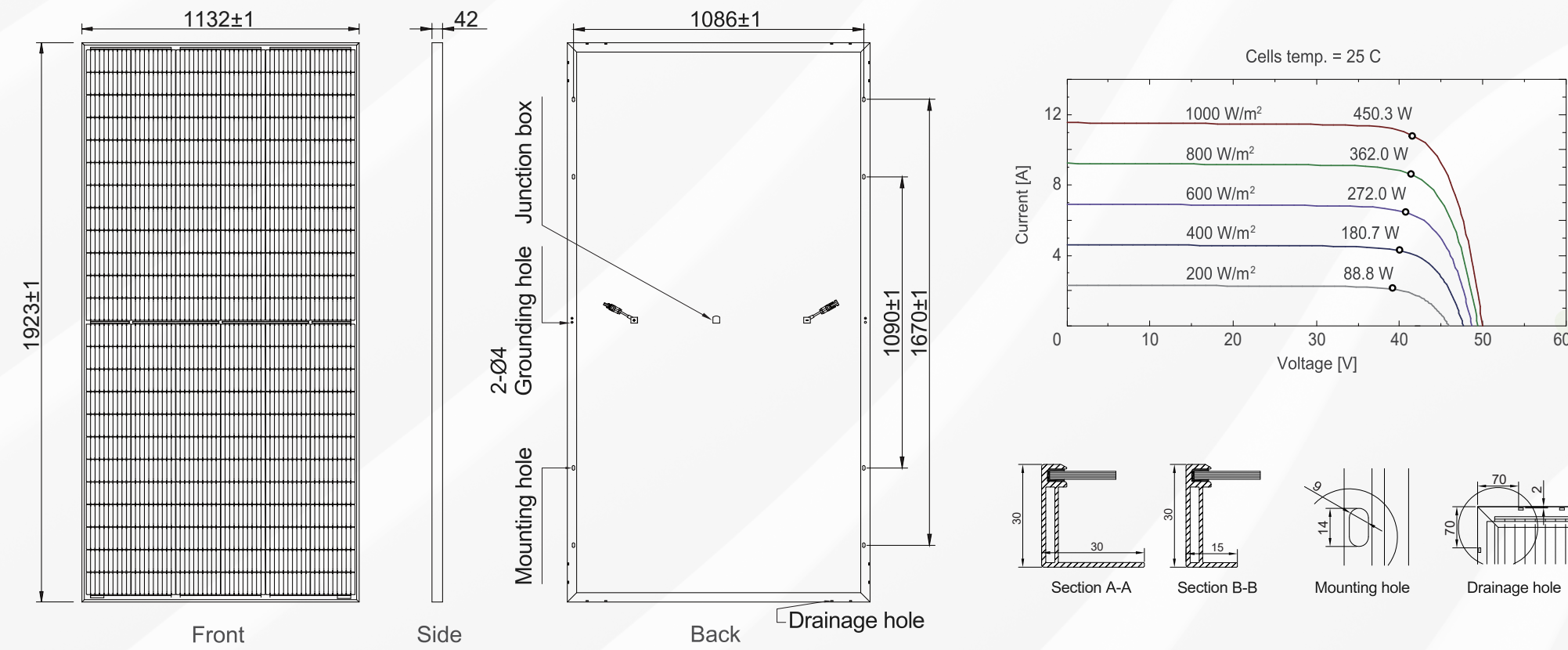


ECO-60MPD 440W-460W

P-TYPE PERC TECHNOLOGY PV MODULE



Electrical specifications (STC*):

| | P_{max} (Wp) | 440 | 445 | 450 | 455 | 460 |
|----------------------------|----------------|-------|-------|-------|-------|-------|
| Nominal max. power | P_{max} (Wp) | 440 | 445 | 450 | 455 | 460 |
| Maximum operating voltage | V_{MPP} (V) | 34.62 | 34.87 | 35.13 | 35.38 | 35.60 |
| Maximum operating current | I_{MPP} (A) | 12.71 | 12.76 | 12.81 | 12.86 | 12.92 |
| Open-circuit voltage | V_{oc} (V) | 41.35 | 41.66 | 41.98 | 42.29 | 42.60 |
| Short-circuit current | I_{sc} (A) | 13.47 | 13.52 | 13.57 | 13.62 | 13.67 |
| Module efficiency | η (%) | 20.42 | 20.65 | 20.88 | 21.11 | 21.35 |
| Power tolerance | (W) | 0~+5 | | | | |
| Maximum system voltage | (V) | 1500 | | | | |
| Maximum series fuse rating | (A) | 25 | | | | |

*STC: Standard Test Conditions (irradiance 1000 W/m², cell temperature 25 C and air mass of AM1.5), measurement tolerance P_{max} : ±3%

Electrical specifications (NMOT*):

| | P_{max} (Wp) | 331 | 335 | 338 | 342 | 345 |
|---------------------------|----------------|-------|-------|-------|-------|-------|
| Nominal max. power | P_{max} (Wp) | 331 | 335 | 338 | 342 | 345 |
| Maximum operating voltage | V_{MPP} (V) | 32.60 | 32.80 | 33.00 | 33.20 | 33.40 |
| Maximum operating current | I_{MPP} (A) | 10.17 | 10.21 | 10.25 | 10.29 | 10.34 |
| Open-circuit voltage | V_{oc} (V) | 38.80 | 39.00 | 39.20 | 39.40 | 39.60 |
| Short-circuit current | I_{sc} (A) | 10.78 | 10.82 | 10.86 | 10.90 | 10.94 |

*NMOT: Normal Module Operating Temperature (irradiance 800 W/m², ambient temperature 20 C, air mass of AM1.5 and wind speed of 1 m/s)

Mechanical and design specification

| | |
|-----------------|--|
| Cell type | Gallium-doped mono c-Si PERC, half-cut cells |
| No. of cells | 120 |
| Front cover | 2.0 mm glass, high transmission, AR coated, tempered |
| Encapsulation | POE |
| Back cover | Tempered Glass |
| Junction box | IP68 rated, 3 bypass diodes |
| Frame | 42 mm anodized aluminium alloy |
| Cable | 1 x 4 mm, 350 mm length or customized |
| Connectors | MC 4 / MC 4 compatible |
| Dimension | 1923 mm x 1132 mm x 42 mm |
| Weight | 22 kg |
| Hail resistance | Max. Ø 25 mm at 23 m/s |
| Wind load | 2400 Pa or 244 kg/m |
| Snow load | 5400 Pa or 550 kg/m |

Temperature ratings

| | |
|--------------------------------|--------------|
| Operating temperature | -40 to +85 C |
| Temp. coefficient of P_{max} | -0.35 %/ C |
| Temp. coefficient of V_{oc} | -0.286 %/ C |
| Temp. coefficient of I_{sc} | 0.057 %/ C |
| Nom. operating cell temp. NOCT | 45 ± 2 C |

Packaging information

| | |
|-------------------------|-----------------------------|
| Packaging configuration | 36 pcs / pallet |
| Loading capacity | 814 pcs / 40 HQ |
| Size / Pallet | 2125 mm x 1140 mm x 1208 mm |
| Weight | 857 kg / pallet |

