

Mono PERC 210mm 80 Cells

MS(390-410)MB-40H Silver Frame

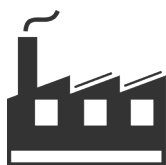
390/395/400/405/410 WP



APPLICATIONS >>



On-grid residential
roof-tops



On-grid commercial/
industrial roof-tops



High customer value

- Lower LCOE (Levelized Cost Of Energy), reduced BOS (Balance Of System) cost, shorter payback time
- Lower guaranteed first year and annual degradation
- Designed for compatibility with existing mainstream system components
- Higher return on Investment



High energy yield

- Excellent IAM (Incident Angle Modifier) and low irradiation performance, validated by 3rd party certifications
- The unique design provides optimized energy production under inter-row shading conditions



High reliability

- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load
- Class-C fire safety test passed



High power up to 410W

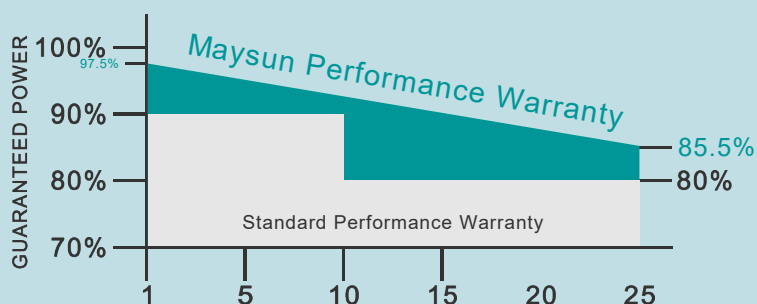
- Large area cells based on 210mm silicon wafers and 1/2-cut cell technology
- Up to 21.2% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect lower series resistance and improved current collection

MAXIMUM EFFICIENCY

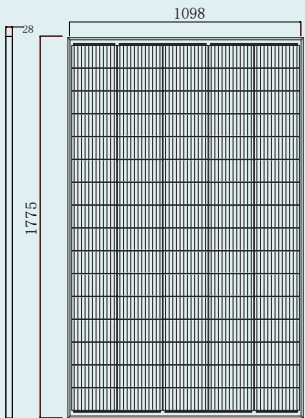
21%

POSITIVE POWER
TOLERANCE

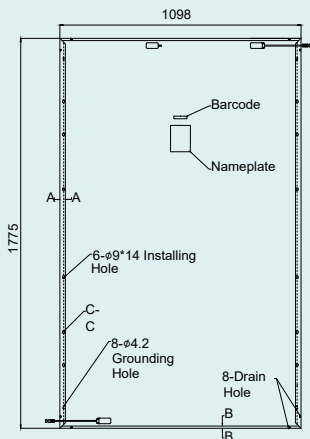
0 ~ +5W



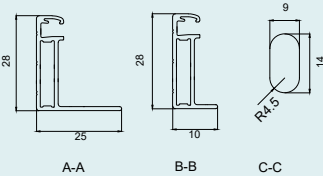
DIMENSIONS OF PV MODULE(mm)



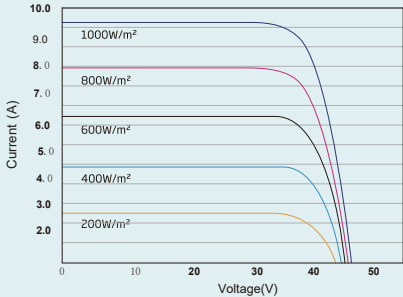
Front View



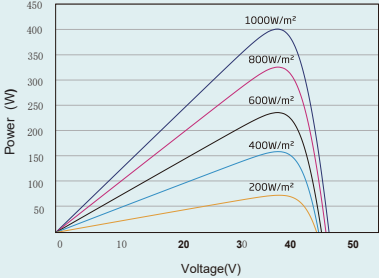
Back View



I-V CURVES OF PV MODULE(400W)



P-V CURVES OF PV MODULE(400W)



ELECTRICAL DATA (STC)

| | | | | | | |
|--------------------------------------|--------|-------|------|-------|-------|--|
| Peak Power Watts- P_{MAX} (Wp)* | 390 | 395 | 400 | 405 | 410 | |
| Power Tolerance- P_{MAX} (W) | 0 ~ +5 | | | | | |
| Maximum Power Voltage- V_{MPP} (V) | 42.63 | 42.94 | 43.3 | 43.65 | 44.0 | |
| Maximum Power Current- I_{MPP} (A) | 9.15 | 9.20 | 9.24 | 9.28 | 9.32 | |
| Open Circuit Voltage- V_{OC} (V) | 51.59 | 51.96 | 52.4 | 52.82 | 53.24 | |
| Short Circuit Current- I_{SC} (A) | 9.70 | 9.75 | 9.79 | 9.83 | 9.88 | |
| Module Efficiency η_m (%) | 20.0 | 20.2 | 20.5 | 20.7 | 21.0 | |

STC: Irradiance 1000W/m², Cell Temperature 25°C,
Air Mass AM1.5. *Measuring tolerance: ±3%.

ELECTRICAL DATA (NOCT)

| | | | | | | |
|--------------------------------------|------|------|------|------|------|--|
| Maximum Power- P_{MAX} (Wp) | 295 | 299 | 302 | 306 | 309 | |
| Maximum Power Voltage- V_{MPP} (V) | 39.6 | 39.9 | 40.2 | 40.6 | 40.9 | |
| Maximum Power Current- I_{MPP} (A) | 7.44 | 7.49 | 7.51 | 7.54 | 7.56 | |
| Open Circuit Voltage- V_{OC} (V) | 47.9 | 48.3 | 48.6 | 49.1 | 49.4 | |
| Short Circuit Current- I_{SC} (A) | 7.82 | 7.86 | 7.89 | 7.99 | 8.01 | |

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

| | |
|----------------------|--|
| Solar Cells | Monocrystalline |
| Cell Orientation | 80 cells |
| Module Dimensions | 1775 mm x 1098 mm x 28 mm |
| Weight | 21kg |
| Glass | 3.2 mm, High Transmission, AR Coated Heat Strengthened Glass |
| Encapsulant Material | EVA |
| Backsheet | White |
| Frame | 28±1mm Silver, anodized aluminium alloy |
| J-Box | IP 68 rated (3 bypass diodes) |
| Cables | Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²) Portrait: N 700mm/P 700mm(27.55/27.55 inches) Length can be customized |
| Connector | MC4 |

*Please refer to regional datasheet for specified connector.

TEMPERATURE RATINGS

| | |
|--|-------------|
| NOCT(Nominal Operating Cell Temperature) | 43°C (±2°C) |
| Temperature Coe°cient of P_{MAX} | - 0.34%/°C |
| Temperature Coe°cient of V_{OC} | - 0.25%/°C |
| Temperature Coe°cient of I_{SC} | 0.04%/°C |

WARRANTY

| |
|--------------------------------------|
| 15 year Product Workmanship Warranty |
| 25 year Power Warranty |
| 2.5% first year degradation |
| 0.5% Annual Power Attenuation |

*Please refer to product warranty for details.

MAXIMUM RATINGS

| | |
|-------------------------|----------------|
| Operational Temperature | - 40 ~ +85°C |
| Maximum System Voltage | 1500V DC (IEC) |
| | 1000V DC (IEC) |
| Max Series Fuse Rating | 20A |

PACKAGING CONFIGURATION

| |
|--|
| Modules per pallet: 39 pieces |
| Modules per 40' container: 1014 pieces |



CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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