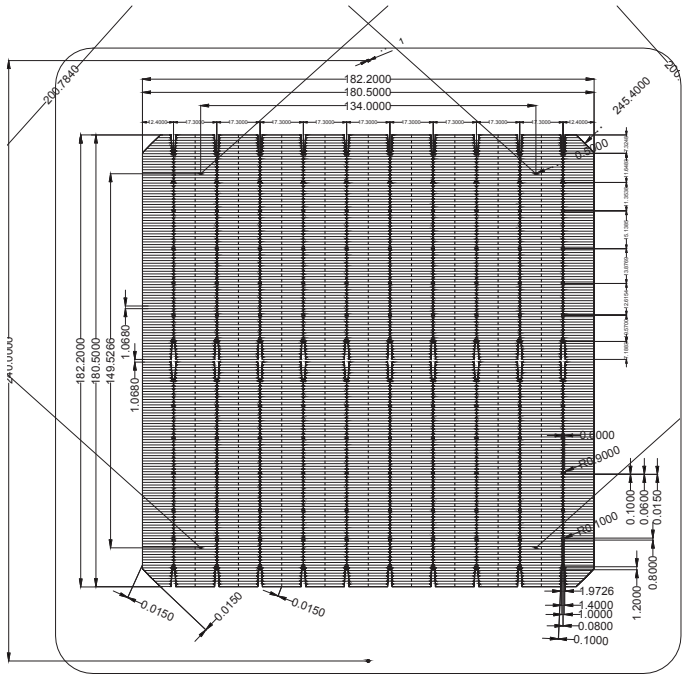
# WS182MP10

WEBSOL
POWERING TOMORROW'S ENERGY

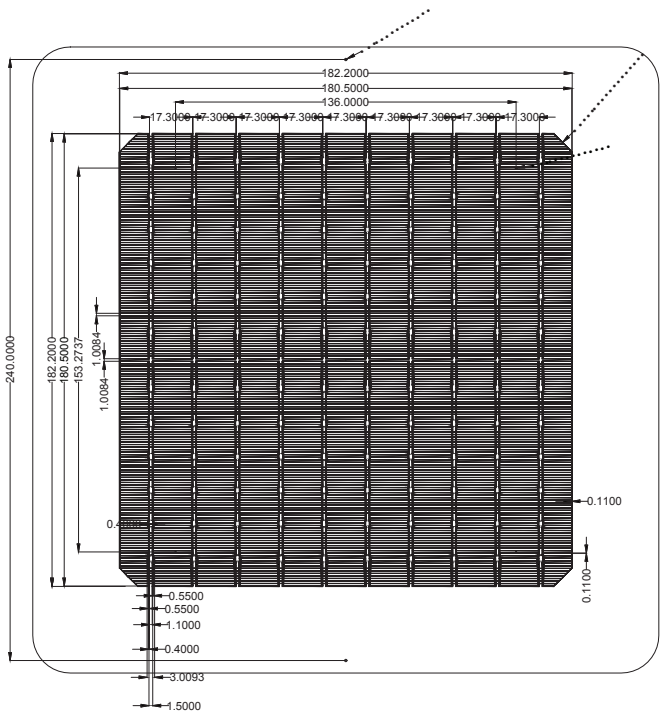
# PRODUCT DATASHEET OF MONO PERC CELL

## ENGINEERING DRAWINGS

Front




Back




## TECHNICAL DATA AND DESIGN

| | |
|---|---|
| Dimension | 182.2mm *182.2mm±0.5mm |
| Thickness | 170±15μm |
| Front (-) | 10*0.08±0.01 mm busbar (silver), 170 Fingers, Blue anti-reflecting coating (SiNx) |
| Back (+) | Width of back electrode 1.5±0.05mm, 180 Fingers grid |

## TEMPERATURE COEFFICIENTS

| | |
|---|---|
| Tc of Voc | -0.260 %/°C |
| Tc of Isc | +0.041%/°C |
| Tc of Pmax: | -0.320%/°C |
| **Rsh≥50Ω, IREV$_2$ ≤0.8A** | |

### 1. Superior Power Generation in Real-World Conditions

Engineered to deliver exceptional output even under low-irradiance or rapidly changing environmental conditions ensuring consistently higher energy yield throughout the day.

### 2. 100% In-Line Electroluminescence (EL) Inspection

Every single cell undergoes full in-line EL testing to detect micro-cracks and hidden defects early, guaranteeing only flawless, high-performance cells reach our customers.

### 3. Enhanced PID Resistance for Long-Term Reliability

Advanced process optimization and material selection significantly minimize PID (Potential Induced Degradation), ensuring long-term stability.

### 4. Lower LID & LeTID for Maximum Lifetime Efficiency

Optimized passivation and cell design drastically reduce LID (Light-Induced Degradation) and LeTID (Light and Elevated Temperature Induced Degradation), enabling higher initial power and sustained performance over the lifetime.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## SUN SIDE ELECTRICAL PERFORMANCE PARAMETERS

| Eff. Code | Efficiency (%) | Pmpp (W) | Voc (V) | Isc (A) | Vmpp (V) | Impp (A) | FF (%) |
|---|---|---|---|---|---|---|---|
| WSF-182MP10-780 | 23.60 | 7.81 | 0.690 | 13.73 | 0.59 | 13.12 | 82.33 |
| WSF-182MP10-778 | 23.50 | 7.78 | 0.690 | 13.72 | 0.59 | 13.09 | 82.18 |
| WSF-182MP10-775 | 23.40 | 7.75 | 0.689 | 13.70 | 0.59 | 13.06 | 82.10 |
| WSF-182MP10-771 | 23.30 | 7.71 | 0.687 | 13.68 | 0.59 | 13.03 | 82.03 |
| WSF-182MP10-768 | 23.20 | 7.68 | 0.685 | 13.67 | 0.59 | 13.00 | 82.01 |
| WSF-182MP10-765 | 23.10 | 7.65 | 0.684 | 13.65 | 0.59 | 12.98 | 81.92 |
| WSF-182MP10-761 | 23.00 | 7.61 | 0.683 | 13.63 | 0.59 | 12.95 | 81.77 |
| WSF-182MP10-758 | 22.90 | 7.58 | 0.682 | 13.61 | 0.59 | 12.93 | 81.65 |
| WSF-182MP10-755 | 22.80 | 7.55 | 0.681 | 13.59 | 0.59 | 12.90 | 81.62 |
| WSF-182MP10-751 | 22.70 | 7.51 | 0.680 | 13.55 | 0.58 | 12.87 | 81.50 |
| WSF-182MP10-748 | 22.60 | 7.48 | 0.679 | 13.53 | 0.58 | 12.84 | 81.34 |
| WSF-182MP10-745 | 22.50 | 7.45 | 0.678 | 13.51 | 0.58 | 12.82 | 81.29 |
| WSF-182MP10-741 | 22.40 | 7.41 | 0.678 | 13.50 | 0.58 | 12.80 | 80.97 |
| WSF-182MP10-738 | 22.30 | 7.38 | 0.677 | 13.48 | 0.58 | 12.77 | 80.88 |
| WSF-182MP10-735 | 22.20 | 7.35 | 0.677 | 13.48 | 0.58 | 12.76 | 80.50 |

## REAR SIDE ELECTRICAL PERFORMANCE PARAMETERS

| Eff. Code | Efficiency (%) | Pmpp (W) | Voc (V) | Isc (A) | Vmpp (V) | Impp (A) | FF (%) |
|---|---|---|---|---|---|---|---|
| WSR-182MP10-530 | ≥16.00 | 5.30 | 0.68 | 10.12 | 0.580 | 9.14 | 77.15 |
| WSR-182MP10-520 | 15.5-16.0 | 5.20 | 0.68 | 10.06 | 0.573 | 9.07 | 76.01 |
| WSR-182MP10-503 | 15.0-15.5 | 5.03 | 0.67 | 9.99 | 0.567 | 8.88 | 75.71 |
| WSR-182MP10-489 | ≤15.0 | 4.89 | 0.67 | 9.90 | 0.560 | 8.74 | 73.72 |

**The above mentioned data are measured under STC (Irr.-1000W/m², AM1.5, Temp:-25°C)**

The data provided is provisional and Websol Energy System Limited reserves the right to change design and technical parameter as per the requirement. Customers should confirm their exact requirements with an authorized Websol representative when placing an order.
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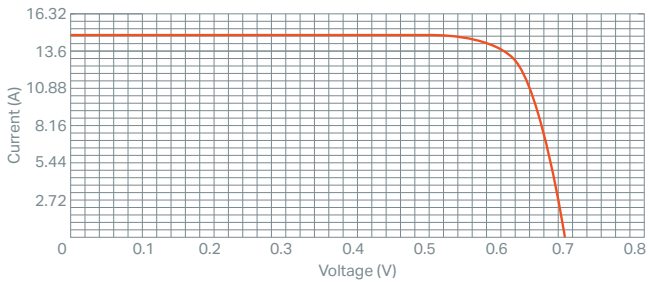
## IV CURVE




## LIGHT INTENSITY DEPENDENCE

| Intensity (W/m²) | Voc | Isc |
|---|---|---|
| 1000 | 1.000 | 1.000 |
| 900 | 0.996 | 0.903 |
| 800 | 0.991 | 0.803 |
| 600 | 0.998 | 0.602 |
| 400 | 0.962 | 0.403 |

PID FREE

PID RESISTANCE CELL DESIGN

30 YEARS OF EXPERIENCE

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