



YOUR RELIABLE  
PARTNER FOR  
SOLAR ENERGY  
SINCE 1992

# A MULTI-FACETED SOLAR SOLUTION

## COMBATS HARSH WEATHER CONDITIONS LIKE A PRO!

### EMMVEE 1500 DC PV MODULE

**Emmvee** is an intelligent solar solutions producer born from an idea to implement green energy to better use. We aim at providing universally designed products to support all kinds of contemporary and lavish living. Amidst our industrial product range, Photovoltaics and Solar Water Heating Systems have been our strongest since inception in 1992.

#### **Worried about the sustainability of your solar modules in the extreme harsh weather conditions?**

Emmvee Solar Photovoltaic Modules are the best for On-Grid solar power plants. Our modules are built to withstand extreme harsh weather conditions and sustain for more than 25 years. The rigid performance and safety measures adopted by our products are one of its kind. These modules are carved into perfection with our state-of-the-art machinery and premium materials sourced from across the world.

## FEATURES



AR COATED HIGH  
TRANSMISSION GLASS



ANODISED  
ALUMINIUM FRAME



PID FREE



MECHANICAL  
LOAD OF 5400 Pa



MC4 COMPATIBLE  
CONNECTORS

## BENEFITS



CAPABLE OF BEARING  
HIGH SNOW LOAD AND  
WIND



EXCELLENT CURRENT  
DISTRIBUTION  
PERFORMANCE



FLEXIBILITY IN  
INVERTER SELECTION



RESISTS CORROSION  
OF THE FRAME  
ENSURING LONG LIFE



NO DEGRADATION OF  
ELECTRICAL POWER,  
HENCE SAFER

# SPECIFICATION 144 HALF CUT CELL MONO PERC

Electrical data at 1000 W/m<sup>2</sup>, 25°C and A.M. 1.5 (STC in accordance with IEC 60904-3)

|                             |            |            |
|-----------------------------|------------|------------|
| MODEL NAME                  | E400HCM144 | E410HCM144 |
| RATED POWER AT STC (W)      | 400 Wp     | 410 Wp     |
| MODULE EFFICIENCY AT STC    | 19.80%     | 20.29%     |
| OPEN CIRCUIT VOLTAGE (Voc)  | 49.32      | 49.68      |
| SHORT CIRCUIT CURRENT (Isc) | 10.32      | 10.48      |
| MAX POWER VOLTAGE (Vpm)     | 40.68      | 41.04      |
| MAX POWER CURRENT (Ipm)     | 9.83       | 9.99       |

## Thermal data

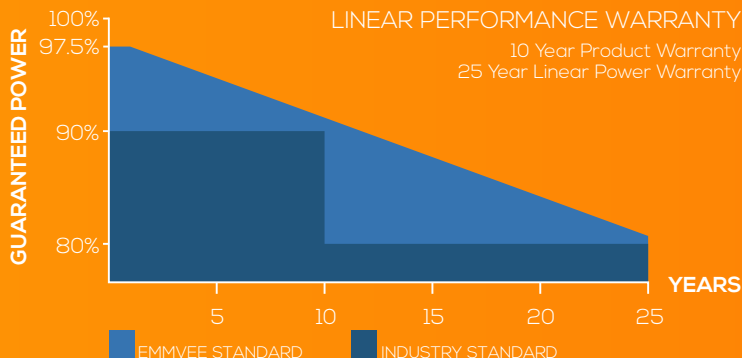
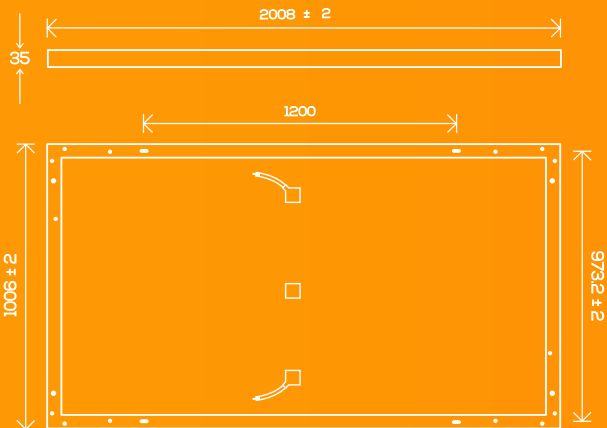
|   |             |
|---|-------------|
| TEMPERATURE COEFFICIENT OPEN CIRCUIT VOLTAGE  | -0.29% / °K |
| TEMPERATURE COEFFICIENT SHORT CIRCUIT CURRENT | +0.05% / °K |
| TEMPERATURE COEFFICIENT RATED POWER           | -0.39% / °K |
| NOCT (NORMAL OPERATING CELL TEMPERATURE)      | 44°C ± 2°C  |

## Mechanical data

|                             |   |
|-----------------------------|---|
| NUMBER OF CELLS & CELL TYPE | 144 MONO PERC SOLAR CUT CELLS 158.75 x 79.375 mm(5BB) |
| DIMENSIONS (L X W X H)      | 2008 mm x 1006 mm x 35 mm                             |
| WEIGHT                      | 23 Kg   |
| FRONT GLASS                 | 3.2 mm HIGH TRANSMISSION, TEMPERED GLASS              |
| ENCAPSULATION               | EVA   |
| BACK SHEET                  | COMPOSITE FILM, WHITE                                 |
| JUNCTION BOX                | 3 SPLIT JUNCTION BOX, IP68                            |
| NUMBER OF BYPASS DIODES     | 3   |
| CABLES                      | 4 mm <sup>2</sup> SOLAR CABLES, LENGTH 500 mm         |
| CONNECTORS                  | MC4 COMPATIBLE  |

## Permissible operating conditions

|                             |               |
|-----------------------------|---------------|
| OPERATING TEMPERATURE RANGE | -40°C TO 85°C |
| MAX. SYSTEM VOLTAGE         | 1500 V DC     |
| MAX. REVERSE CURRENT        | 20 A          |
| MAX. SURFACE LOAD CAPACITY  | 5400 Pa       |
| PROTECTION CLASS            | II            |



# SPECIFICATION 72 CELL MONO PERC

Electrical data at 1000 W/m<sup>2</sup>, 25°C and A.M. 1.5 (STC in accordance with IEC 60904-3)

|                             |         |         |         |
|-----------------------------|---------|---------|---------|
| MODEL NAME                  | E385M72 | E390M72 | E395M72 |
| RATED POWER AT STC          | 385 Wp  | 390 Wp  | 395 Wp  |
| MODULE EFFICIENCY AT STC    | 19.20%  | 19.45%  | 19.70%  |
| OPEN CIRCUIT VOLTAGE (Voc)  | 48.90   | 49.00   | 49.10   |
| SHORT CIRCUIT CURRENT (Isc) | 10.06   | 10.12   | 10.21   |
| MAX POWER VOLTAGE (Vpm)     | 40.32   | 40.37   | 40.45   |
| MAX POWER CURRENT (Ipm)     | 9.55    | 9.66    | 9.75    |

## Thermal data

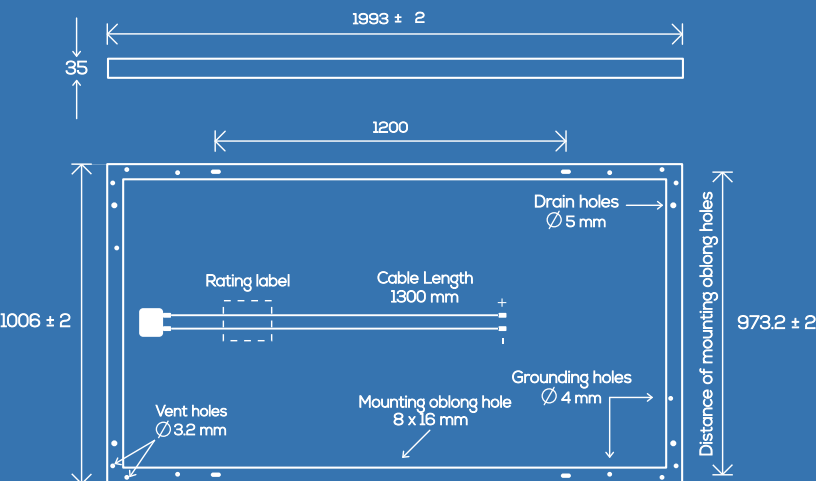
|   |             |
|---|-------------|
| TEMPERATURE COEFFICIENT OPEN CIRCUIT VOLTAGE  | -0.29% / °K |
| TEMPERATURE COEFFICIENT SHORT CIRCUIT CURRENT | +0.05% / °K |
| TEMPERATURE COEFFICIENT RATED POWER           | -0.39% / °K |
| NOCT (NORMAL OPERATING CELL TEMPERATURE)      | 44°C ± 2°C  |

## Mechanical data

|                             |  |
|-----------------------------|--|
| NUMBER OF CELLS & CELL TYPE | 72 MONOPERC SOLAR CELLS ( 158.75 mm x 158.75 mm) |
| DIMENSIONS (L X W X H)      | 1993 mm x 1006 mm x 35 mm                        |
| WEIGHT                      | 23 Kg  |
| FRONT GLASS                 | 3.2 mm HIGH TRANSMISSION, TEMPERED GLASS         |
| EMBEDDING                   | EVA  |
| BACK SHEET                  | COMPOSITE FILM, WHITE                            |
| JUNCTION BOX                | IP67   |
| NUMBER OF BYPASS DIODES     | 3  |
| CABLES                      | 4 mm <sup>2</sup> SOLAR CABLES, LENGTH 1300 mm   |
| CONNECTORS                  | MC4 COMPATIBLE                                   |

## Permissible operating conditions

|                             |               |
|-----------------------------|---------------|
| OPERATING TEMPERATURE RANGE | -40°C TO 85°C |
| MAX. SYSTEM VOLTAGE         | 1500 V DC     |
| MAX. REVERSE CURRENT        | 20 A          |
| MAX. SURFACE LOAD CAPACITY  | 5400 Pa       |
| PROTECTION CLASS            | II            |



## TECHNICAL DRAWING

All Dimensions in mm

# SPECIFICATION 72 CELL MULTICRYSTALLINE

Electrical data at 1000 W/m<sup>2</sup>, 25°C and A.M. 1.5 (STC in accordance with IEC 60904-3)

|                             |         |         |         |         |
|-----------------------------|---------|---------|---------|---------|
| MODEL NAME                  | E320P72 | E325P72 | E330P72 | E335P72 |
| RATED POWER AT STC          | 320 Wp  | 325 Wp  | 330 Wp  | 335 Wp  |
| MODULE EFFICIENCY AT STC    | 16.41%  | 16.66%  | 16.92%  | 17.18%  |
| OPEN CIRCUIT VOLTAGE (Voc)  | 45.7 V  | 45.8 V  | 45.9 V  | 46 V    |
| SHORT CIRCUIT CURRENT (Isc) | 9.06 A  | 9.11 A  | 9.2 A   | 9.31 A  |
| MAX POWER VOLTAGE (Vpm)     | 37.1 V  | 37.4 V  | 37.7 V  | 37.8 V  |
| MAX POWER CURRENT (Ipm)     | 8.63 A  | 8.68 A  | 8.76 A  | 8.86 A  |

## Thermal data

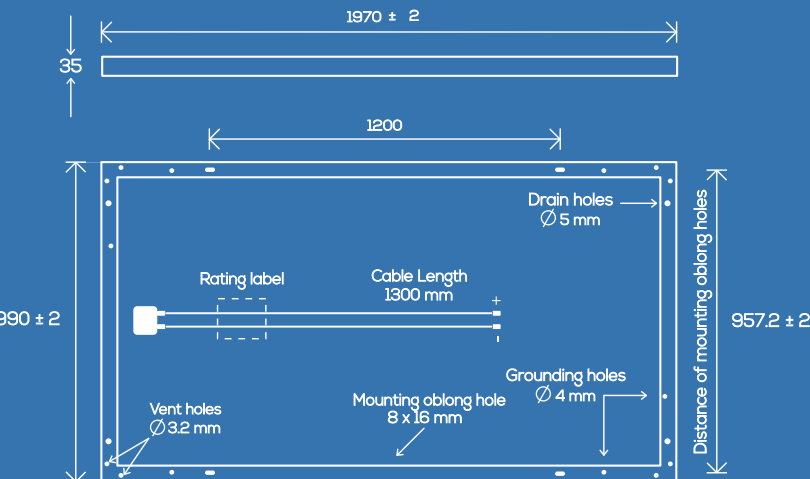
|   |             |
|---|-------------|
| TEMPERATURE COEFFICIENT OPEN CIRCUIT VOLTAGE  | -0.34% / °K |
| TEMPERATURE COEFFICIENT SHORT CIRCUIT CURRENT | +0.05% / °K |
| TEMPERATURE COEFFICIENT RATED POWER           | -0.4% / °K  |
| NOCT (NORMAL OPERATING CELL TEMPERATURE)      | 46°C ± 2°C  |

## Mechanical data

|                             |   |
|-----------------------------|---|
| NUMBER OF CELLS & CELL TYPE | 72 MULTICRYSTALLINE SOLAR CELLS (157 mm X 157 mm) |
| DIMENSIONS (L X W X H)      | 1970 mm X 990 mm X 35 mm                          |
| WEIGHT                      | 22 Kg   |
| FRONT GLASS                 | 3.2 mm HIGH TRANSMISSION, TEMPERED GLASS          |
| EMBEDDING                   | EVA   |
| BACK SHEET                  | COMPOSITE FILM, WHITE                             |
| JUNCTION BOX                | IP67  |
| NUMBER OF BYPASS DIODES     | 3   |
| CABLES                      | 4 mm <sup>2</sup> SOLAR CABLES, LENGTH 1300 mm    |
| CONNECTORS                  | MC4 COMPATIBLE                                    |

## Permissible operating conditions

|                             |               |
|-----------------------------|---------------|
| OPERATING TEMPERATURE RANGE | -40°C TO 85°C |
| MAX. SYSTEM VOLTAGE         | 1500 V DC     |
| MAX. REVERSE CURRENT        | 20 A          |
| MAX. SURFACE LOAD CAPACITY  | 5400 Pa       |
| PROTECTION CLASS            | II            |



## TECHNICAL DRAWING

All Dimensions in mm

## LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty  
25 Year Linear Power Warranty

# SPECIFICATION 60 CELL MONO PERC

Electrical data at 1000 W/m<sup>2</sup>, 25°C and A.M. 1.5 (STC in accordance with IEC 60904-3)

|  |         |         |
|--|---------|---------|
| MODEL NAME                               | E315M60 | E320M60 |
| RATED POWER AT STC                       | 315 Wp  | 320 Wp  |
| MODULE EFFICIENCY AT STC                 | 18.74%  | 19.04%  |
| OPEN CIRCUIT VOLTAGE (V <sub>oc</sub> )  | 40.70 V | 40.90 V |
| SHORT CIRCUIT CURRENT (I <sub>sc</sub> ) | 10.04 A | 10.15 A |
| MAX POWER VOLTAGE (V <sub>pm</sub> )     | 33.20 V | 33.40 V |
| MAX POWER CURRENT (I <sub>pm</sub> )     | 9.49 A  | 9.59 A  |

## Thermal data

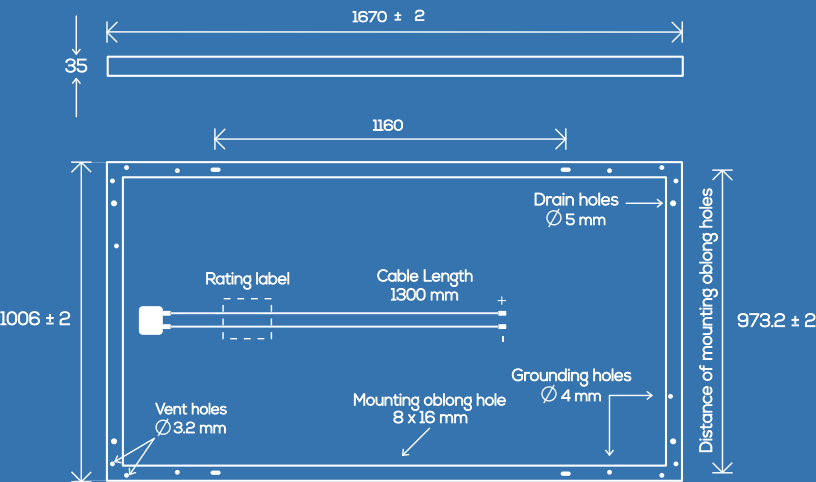
|   |             |
|---|-------------|
| TEMPERATURE COEFFICIENT OPEN CIRCUIT VOLTAGE  | -0.29% / °K |
| TEMPERATURE COEFFICIENT SHORT CIRCUIT CURRENT | +0.05% / °K |
| TEMPERATURE COEFFICIENT RATED POWER           | -0.39% / °K |
| NOCT (NORMAL OPERATING CELL TEMPERATURE)      | 44°C ± 2°C  |

## Mechanical data

|                             |   |
|-----------------------------|---|
| NUMBER OF CELLS & CELL TYPE | 60 MONO PERC SOLAR CELLS ( 158.75 mm x 158.75 mm) |
| DIMENSIONS (L X W X H)      | 1670 mm x 1006 mm x 35 mm                         |
| WEIGHT                      | 19 Kg   |
| FRONT GLASS                 | 3.2 mm HIGH TRANSMISSION, TEMPERED GLASS          |
| EMBEDDING                   | EVA   |
| BACK SHEET                  | COMPOSITE FILM, WHITE                             |
| JUNCTION BOX                | IP67  |
| NUMBER OF BYPASS DIODES     | 3   |
| CABLES                      | 4 mm <sup>2</sup> SOLAR CABLES, LENGTH 1300 mm    |
| CONNECTORS                  | MC4 COMPATIBLE                                    |

## Permissible operating conditions

|                             |               |
|-----------------------------|---------------|
| OPERATING TEMPERATURE RANGE | -40°C TO 85°C |
| MAX. SYSTEM VOLTAGE         | 1500 V DC     |
| MAX. REVERSE CURRENT        | 20 A          |
| MAX. SURFACE LOAD CAPACITY  | 5400 Pa       |
| PROTECTION CLASS            | II            |



## TECHNICAL DRAWING

All Dimensions in mm

# SPECIFICATION 60 CELL MULTICRYSTALLINE

Electrical data at 1000 W/m<sup>2</sup>, 25°C and A.M. 1.5 (STC in accordance with IEC 60904-3)

|   |         |         |         |         |
|---|---------|---------|---------|---------|
| MODEL NAME                                | E265P60 | E270P60 | E275P60 | E280P60 |
| RATED POWER AT STC                        | 265 Wp  | 270 Wp  | 275 Wp  | 280 Wp  |
| MODULE EFFICIENCY AT STC                  | 16.32%  | 16.63%  | 16.94%  | 17.15%  |
| OPEN CIRCUIT VOLTAGE (V <sub>oc</sub> )   | 38.30 V | 38.60 V | 38.90 V | 39.20 V |
| SHORT CIRCUIT CURRENT (I <sub>sc</sub> )  | 9.04 A  | 9.17 A  | 9.29 A  | 9.32 A  |
| MAX POWER VOLTAGE (V <sub>pm</sub> )      | 30.80 V | 30.90 V | 31.10 V | 31.20 V |
| MAX POWER CURRENT (I <sub>pm</sub> )– IPM | 8.61 A  | 8.74 A  | 8.85 A  | 8.97 A  |

## Thermal data

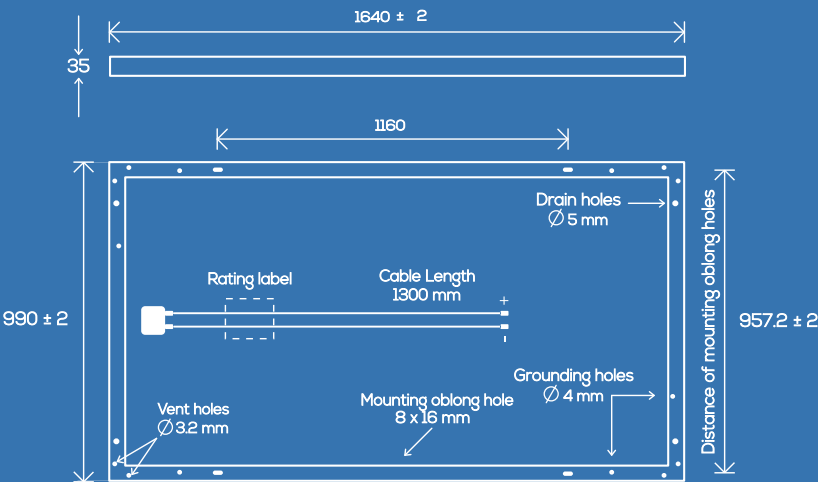
|   |             |
|---|-------------|
| TEMPERATURE COEFFICIENT OPEN CIRCUIT VOLTAGE  | -0.34% / °K |
| TEMPERATURE COEFFICIENT SHORT CIRCUIT CURRENT | +0.05% / °K |
| TEMPERATURE COEFFICIENT RATED POWER           | -0.4% / °K  |
| NOCT (NORMAL OPERATING CELL TEMPERATURE)      | 46°C ± 2°C  |

## Mechanical data

|                             |   |
|-----------------------------|---|
| NUMBER OF CELLS & CELL TYPE | 60 MULTICRYSTALLINE SOLAR CELLS (157 mm X 157 mm) |
| DIMENSIONS (L X W X H)      | 1640 mm X 990 mm X 35 mm                          |
| WEIGHT                      | 18 Kg   |
| FRONT GLASS                 | 3.2 mm HIGH TRANSMISSION, TEMPERED GLASS          |
| EMBEDDING                   | EVA   |
| BACK SHEET                  | COMPOSITE FILM, WHITE                             |
| JUNCTION BOX                | IP67  |
| NUMBER OF BYPASS DIODES     | 3   |
| CABLES                      | 4 mm <sup>2</sup> SOLAR CABLES, LENGTH 1300 mm    |
| CONNECTORS                  | MC4 COMPATIBLE                                    |

## Permissible operating conditions

|                             |               |
|-----------------------------|---------------|
| OPERATING TEMPERATURE RANGE | -40°C TO 85°C |
| MAX. SYSTEM VOLTAGE         | 1500 V DC     |
| MAX. REVERSE CURRENT        | 20 A          |
| MAX. SURFACE LOAD CAPACITY  | 5400 Pa       |
| PROTECTION CLASS            | II            |



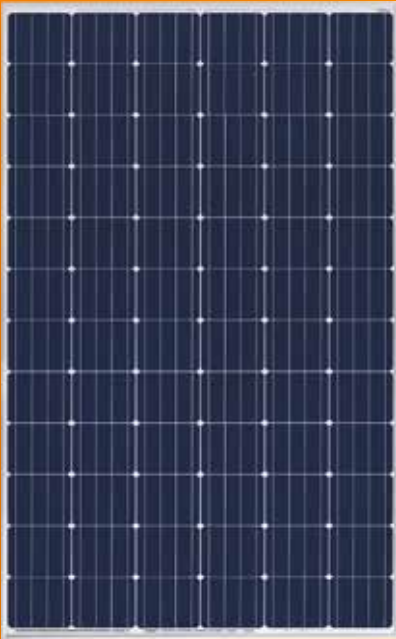
## TECHNICAL DRAWING

All Dimensions in mm

## LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty  
25 Year Linear Power Warranty





## MONO PERC

### 60 & 72 CELL

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- Positive tolerance offer
- Excellent performance under weak light conditions

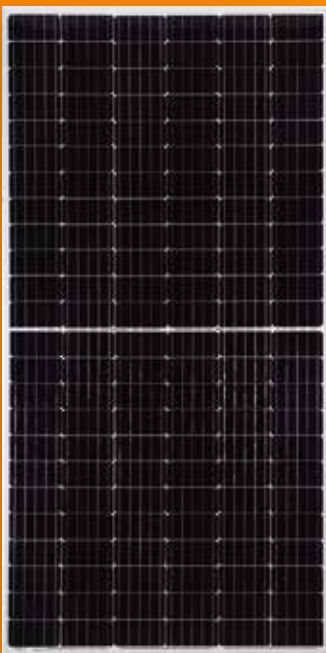


## MULTI CRYSTALLINE

### 60 & 72 CELL

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- Highly resistant to salt mist, ammonia, dust and hail
- Good temperature efficiency enables better output in high temperature regions

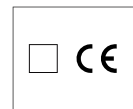


## HALF CUT CELL MONO PERC

### 144 CELL

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- Generates only half of the current with lowered heat production thereby increasing module reliability
- Excellent current distribution with reduced power loss



## EMMVEE PHOTOVOLTAIC POWER PRIVATE LIMITED

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(An ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 Certified Company)