

## Solar Roof Tile

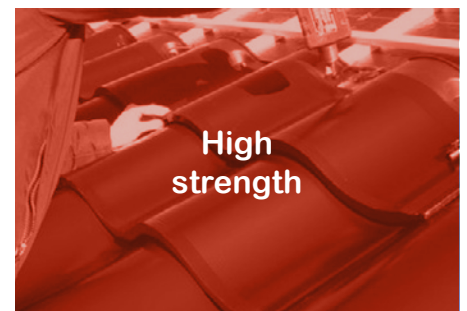
20W

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Solar Roof Tile is the most powerful solution for area or weight constrained flat rooftops. The photovoltaic roof product combine solar panel, frame, and mounting system into a single pre-engineered unit. The nonpenetrating tiles position highest efficiency solar panels at a 5-degree tilt, for greatest energy production.

Tiles interlock for secure, rapid installation and maximum power output. Smooth-edged, durable and lightweight material designed for a 30-year life protects the roof and eliminates the need for electrical grounding. The patented design resists high winds and corrosion and is flexible to adapt to virtually any flat or low-slope roof.

## Main Functions



## Benefits

- **The Most Energy per Rooftop.**  
Produces more energy in an area or weight-constrained space than any other roof system available today.
- **Easy to Install with All-In-One Design.**  
Solar panel, frame, and mounting system are integrated into one unit. No grounding or roof penetration needed.
- **Roof-Preserving**  
Compatible with all roof membranes. Smooth, lightweight design, combined with a non-penetrating installation, protects the roof and preserves roof warranties.
- **Long Lasting Durability**  
Aerodynamic design is resistant to high winds. Strong glass-filled polymer material offers long-term durability. Soiling is minimized with easy water runoff.

## Wave Solar Tile

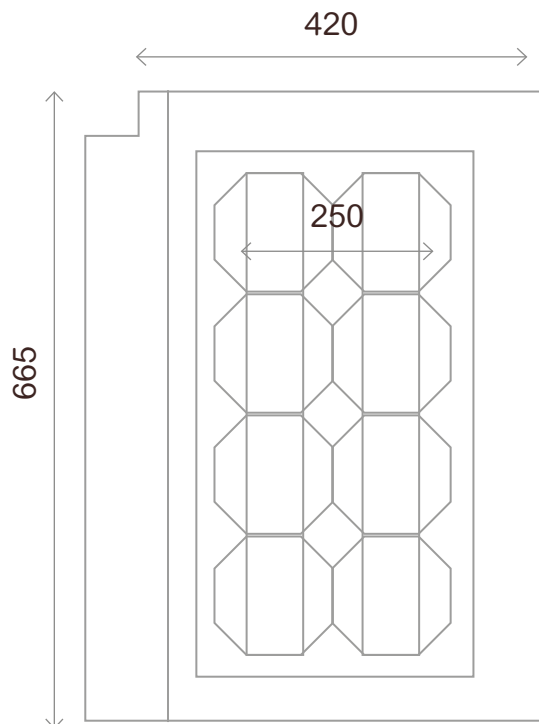
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### Electrical Characteristics

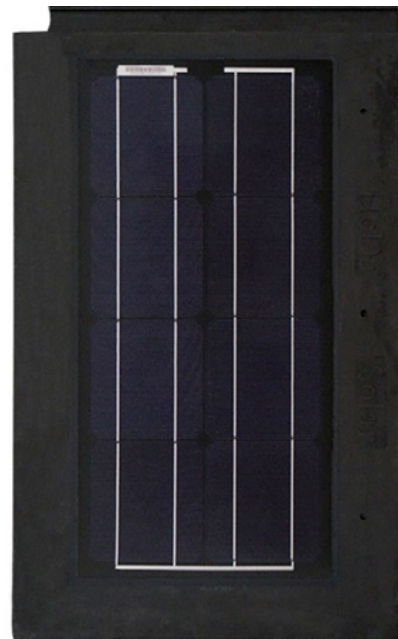
|                                 |   |
|---------------------------------|---|
| All specified Parameters at STC | 25°C                                      |
| Ambient                         | 1000W/m <sup>2</sup> irradiance<br>AM 1.5 |
| Max-Power Pm (W)                | 20  |
| Power Tolerance (W)             | ±3%                                       |
| Open-Circuit Voltage Voc (V)    | 5.04                                      |
| Short-Circuit Current Isc (A)   | 5.68                                      |
| Max-Power Voltage Vm (v)        | 3.92                                      |
| Max-Power Current Im (A)        | 5.10                                      |
| Cell Efficiency (%)             | 17  |

### Mechanical Characteristics

|                             |   |
|-----------------------------|---|
| Cable type, area and lenght | 2.5 mm <sup>2</sup> , 600mm                           |
| Number of cells             | 8   |
| Cell size (mm)              | 125 x 125   |
| Dimension (mm)              | 665 x 420 x 30  |
| Weight (kgs)                | 4.90  |
| Frame material              | Ceramic Compound                                      |
| Glass, type and thickness   | High Transmission<br>Low Irin<br>Tempered Glass 3.2mm |
| Compression Strength        | > 2400 Pa   |
| Water Permeability          | > 0.5%  |



HDSF20MS - 8



### Packaging

|           | carton        | 1 pallet          | 2 pallet          | 20' container |
|-----------|---------------|-------------------|-------------------|---------------|
| size (mm) | 680 x 130 440 | 1400 x 700 x 2000 | 1400 x 700 x 2000 | 24 pallets    |
| QTY       | 4 pcs         | 80 pcs            | 160 pcs           | 1920 pcs      |

### Warranty

|                                       |                                    |
|---------------------------------------|------------------------------------|
| 10 Years product workmanship warranty | 25 Years warranty 80% power output |
| 12 Years warranty 90% power output    | Tile Life span 50 years            |

## On-Grid Solar Roof System

### 20W Solar Tile

#### Briefs

| SYSTEM NO                         | HDS1600<br>F20.80 | HDS2000<br>F20.96 | HDS2500<br>F20.128 | HDS3200<br>F20.160 | HDS3800<br>F20.192 | HDS4800<br>F20.240 | HDS6400<br>F20.320 |
|-----------------------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Maxim Output Power (W)            | 1600              | 2000              | 2500               | 3200               | 3800               | 4800               | 6400               |
| Quantity of 8W Solar Tiles (pcs)  | 80                | 96                | 128                | 160                | 192                | 240                | 320                |
| Working Voltage (V)               | 320               | 384               | 256                | 320                | 384                | 320                | 320                |
| Quantity of Each Array (pcs)      | 80                | 96                | 64                 | 80                 | 96                 | 80                 | 80                 |
| Inverter                          | 1.5KW / 220V      | 2KW / 220V        | 2.5KW / 220V       | 3KW / 220V         | 4KW / 220V         | 5KW / 220V         | 6.5KW / 220V       |
| Solar Roof Area (m <sup>2</sup> ) | 18.1              | 22.6              | 29.8               | 37                 | 44.2               | 54.9               | 70.9               |
| Reference Voltage on Grid         | 220V / 50HZ       | 220V / 50HZ       | 220V / 50HZ        | 220V / 50HZ        | 220V / 50HZ        | 220V / 50HZ        | 220V / 50HZ        |

#### Operating Temperature

High heat insulation and antflaming function -40 ±85°C

#### IV - Curve

