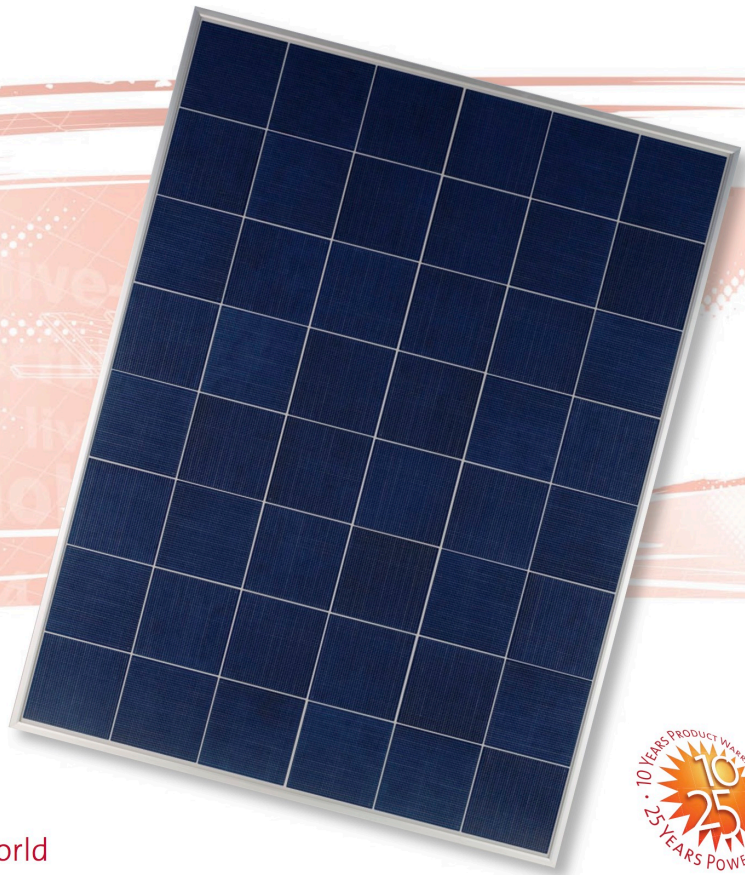




ENERGY

48MC-S

ADVANCED PHOTOVOLTAIC MODULES



1 More Energy Every Day

- Low metallization solar cell technology
- Industry leading power collection
- High efficiency in low light conditions
- Self cooling PV cell technology results in lower operating temperature

2 Under Real World Conditions

- Certified salt mist resistant technology ideal for coastal areas
- Optimal protection against harsh environment in greenhouse and farming applications
- Rated for extreme snow loads with 5400 N/m² front load
- Extra strong 40mm aluminum frame

3 Stable Over Time

- Highly resistant backsheet with aluminum layer
- Microcrack resistant cell technology
- Thermal stress relief encapsulation technology
- Reliable PV cell interconnection – over 2100 independent electrical contacts on each cell

4 Lower Installation Costs

- Less space required due to best in class power density of up to 150 W/m²
- Plus sorted – get more than you paid for

= Higher Return

Typical Electrical Performance at STC (1000W/m², AM 1.5 Spectrum, cell temperature 25°C)

| Power Class | Watts | 160 | 165 | 170 | 175 | 180 | 185 | 190 | 195 | 200 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Peak Power (Wp)** | Watts | 160 | 165 | 170 | 175 | 180 | 185 | 190 | 195 | 200 |
| Max. Power Voltage (V _{mp}) | Volts | 22.60 | 22.95 | 23.04 | 23.40 | 23.70 | 23.82 | 24.00 | 24.20 | 24.38 |
| Max. Power Current (I _{mp}) | Amps | 7.08 | 7.19 | 7.38 | 7.48 | 7.60 | 7.77 | 7.92 | 8.06 | 8.21 |
| Open Circuit Voltage (V _{oc}) | Volts | 28.30 | 28.6 | 28.80 | 29.20 | 29.40 | 29.51 | 29.70 | 29.90 | 30.14 |
| Short Circuit Current (I _{sc}) | Amps | 7.70 | 7.80 | 7.90 | 8.05 | 8.10 | 8.20 | 8.30 | 8.40 | 8.55 |

Typical Electrical Performance (800W/m², AM 1.5 Spectrum, cell temperature 25°C)

| Power Class | Watts | 160 | 165 | 170 | 175 | 180 | 185 | 190 | 195 | 200 |
|--|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Peak Power (Wp)** | Watts | 131.17 | 132.83 | 138.47 | 141.72 | 145.19 | 149.14 | 153.13 | 158.37 | 162.99 |
| Max. Power Voltage (V _{mp}) | Volts | 22.46 | 23.02 | 23.39 | 23.58 | 23.84 | 23.71 | 23.89 | 24.29 | 24.51 |
| Max. Power Current (I _{mp}) | Amps | 5.84 | 5.77 | 5.92 | 6.01 | 6.09 | 6.29 | 6.41 | 6.52 | 6.65 |
| Open Circuit Voltage (V _{oc}) | Volts | 28.04 | 28.25 | 28.58 | 28.97 | 29.10 | 29.22 | 29.41 | 29.73 | 29.96 |
| Short Circuit Current (I _{sc}) | Amps | 6.23 | 6.27 | 6.36 | 6.48 | 6.52 | 6.59 | 6.67 | 6.75 | 6.82 |

**Production tolerance before module sorting: ±3.5% of P_{max}

Mechanical Specifications

| | |
|-------------------|--|
| Cells | 48 cells, multicrystalline silicon, 156mm square (6+ inches) |
| Glass | Solar glass (tempered) |
| Module Connection | MC Type IV compatible |
| Frame | Anodized aluminum |
| Backsheet | Multi-layer film compound with aluminum layer |

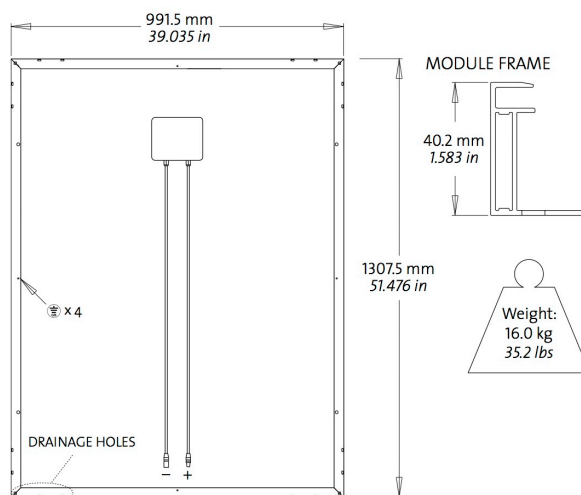
Qualification Test Parameters

| | |
|----------------------------|---|
| Temperature Cycling Range | -40°C to +90°C (-40°F to 194°F) |
| Humidity Freeze | 85% rH, -40°C to +85°C (-40°F to 185°F) |
| Static Load Front and Back | UL: 1436pa (30lbs/ft²), IEC: 2400N/m² |
| Front Loading (eg. Snow) | UL: 1436pa (30lbs/ft²), IEC: 5400N/m² |
| Fire Class (UL only) | C |
| Salt Mist Test (IEC 61701) | Pass |
| Protection Classification | IP 65 |

Additional Characteristics

| | |
|--|-----------------------|
| Short Circuit Current Temp. Coefficient* (TC I _{sc}) | 2.67mA/K |
| Open Circuit Voltage Temp. Coefficient* (TC V _{oc}) | -0.10V/K |
| Max. Power Temp. Coefficient* (TC P _{mp}) | -0.44%/K |
| Positive Module Sorting | in increments of +5Wp |
| Module Maximum Fuse Series (Amps) | 15A |
| Module Efficiency | up to 15.5% |
| Reduction of Efficiency (from 1000W/m² to 200W/m²) | <4% |
| Nominal Operating Cell Temperature (NOCT) | 42.9°C |
| Maximum System Voltage | UL: 600V, IEC: 1000V |

* based on 175W



NOTE: All dimensions are accurate within ±1.5mm tolerance unless otherwise stated. Product dimensions in imperial inches (conversion of 1mm equals 0.03937in, 1kg equals 2.2lbs) are provided for information purposes only.

For more details, see Installation Manual.

Specifications and design are subject to change without notice. The features, functions and appearance of the Day4 48MC-S module may differ from details given due to continual product development.



Day4 Europe srl
info@d4europe.com
www.d4europe.com
 Tel: +39 02 84573048