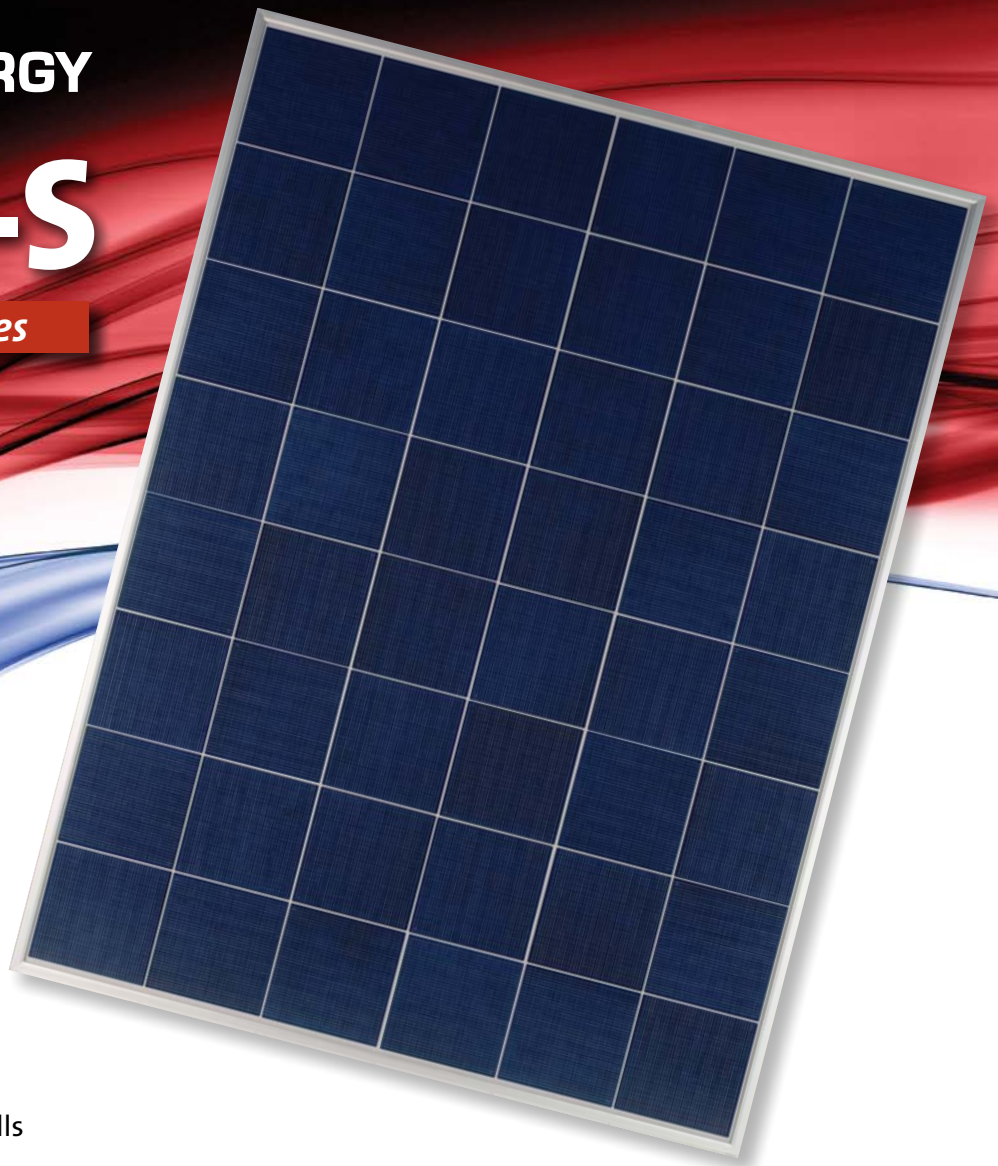




DAY4<sup>®</sup> ENERGY

# 48MC-S

Photovoltaic Modules



## Features

- Featuring a stronger, more robust 40mm frame
- World's leading quality custom designed multicrystalline PV cells
- Day4 Electrode high efficiency cell interconnection technology
- Increased electrical contact redundancy
- Premium power density
- Strong performance in low light conditions
- Module efficiency up to 14.7%
- Customer-driven product design
- Refined appearance
- Highest quality standards
- Commitment to customer satisfaction
- 25 Year Power Warranty
- 10 Year Product Warranty
- Plus sorting for easy category matching

## Benefits

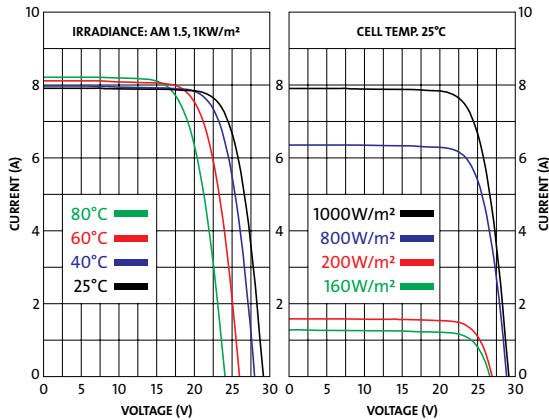
- **More power from less space:** exceptional power density offers leading performance in its class and helps to boost system performance even under space constraints.
- **Reduced systems costs:** customer-inspired product design, fewer modules required for project completion, all help to reduce installation time and effort.
- **No need to compromise:** sophisticated appearance and meticulous attention to detail, capable of satisfying some of the highest aesthetic requirements.
- **Worry-free power:** designed in Canada and manufactured to exacting standards, our product offers extreme durability and premium materials. Day4 is committed to customer satisfaction, providing worry-free use in some of the harshest climates.

[www.day4energy.com](http://www.day4energy.com)

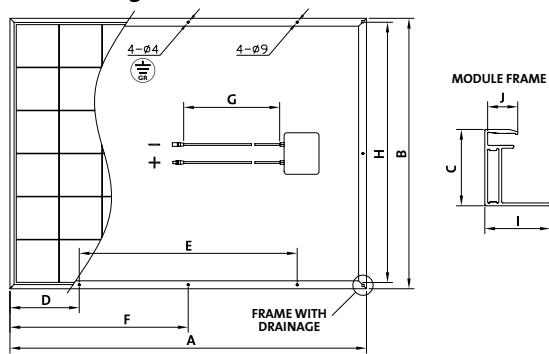




## Day4 48MC-S 175W



### Module Diagram



4- $\phi$ 4 denotes 4 holes (grounding holes) centered on each edge with a diameter of 4mm Grounding Hole (UL only)

4- $\phi$ 9 denotes 4 holes (mounting holes) with a diameter of 9mm

### Anodized Aluminum Frame



- Strong, robust 40mm frame
- Water drainage holes to reduce frame breakage due to freezing temperatures
- Multiple grounding holes for ease of installation
- Beveled top profile to reduce dirt and water trapping
- Deep glass frame slot for increased strength and durability

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  $P_{mpp}$ ) -0.44%/K

\* based on 175W

Production Tolerance  $\pm 3.5\%$  of  $P_{max}$

Positive Module Sorting in increments of +5Wp

Module Maximum Fuse Series Amps 15A

Reduction of Efficiency (from 1000W/m<sup>2</sup> to 200W/m<sup>2</sup>) <4%

Normal Operating Cell Temperature (NOCT) 42.9°C

Maximum System Voltage UL: 600V, IEC: 1000V

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Web: [www.day4energy.com](http://www.day4energy.com)

### 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/ft <sup>2</sup> ), IEC: 2400N/m <sup>2</sup>
Front Loading (eg. Snow)	UL: 1436pa (30lbs/ft <sup>2</sup> ), IEC: 5400N/m <sup>2</sup>
Fire Class (UL only)	C
Corrosive Atmosphere Test	Pass
Protection Classification	IP 65

### Physical Specifications

	Metric (mm)	Imperial (in)
A	1,307.5	51.476
B	991.5	39.035
C	40.2	1.583
D	403	15.867
E	501	19.724
F	653.5	25.728
G	925 ( $\pm 10$ )	36.417 ( $\pm 0.393$ )
H	947	37.283
I	30	1.181
J	13	0.512
Weight	16.0 kg	35.2 lbs

**NOTE:** All dimensions are accurate within  $\pm 1.5$ mm 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.

### Mechanical Specifications

Cells	48 cells, multicrystalline silicon, 156mm square (6+ inches)
Glass	Solar glass (tempered)
Module Connection	MC Type IV or Tyco, other connectors upon request (subject to certification)
Back Sheet	Multi-layer water resistant film compound

### Typical Electrical Performance at STC (1000W/m<sup>2</sup>, AM 1.5 Spectrum, cell temperature 25°C)

Power Class/ Peak Power (Wp)	Watts	160	165	170	175	180	185	190
Max. Power Voltage ( $V_{mp}$ )	Volts	22.60	22.95	23.04	23.40	23.70	23.82	24.00
Max. Power Current ( $I_{mp}$ )	Amps	7.08	7.19	7.38	7.48	7.60	7.77	7.92
Open Circuit Voltage ( $V_{oc}$ )	Volts	28.30	28.6	28.80	29.20	29.40	29.51	29.70
Short Circuit Current ( $I_{sc}$ )	Amps	7.70	7.80	7.90	8.05	8.10	8.20	8.30

### Typical Electrical Performance (800W/m<sup>2</sup>, AM 1.5 Spectrum, cell temperature 25°C)

Power Class	Watts	160	165	170	175	180	185	190
Peak Power (Wp)	Watts	131.17	132.83	138.47	141.72	145.19	149.14	153.13
Max. Power Voltage ( $V_{mp}$ )	Volts	22.46	23.47	23.39	23.58	23.84	23.71	23.89
Max. Power Current ( $I_{mp}$ )	Amps	5.84	5.92	5.92	6.01	6.09	6.29	6.41
Open Circuit Voltage ( $V_{oc}$ )	Volts	28.04	28.58	28.58	28.97	29.10	29.22	29.41
Short Circuit Current ( $I_{sc}$ )	Amps	6.23	6.36	6.36	6.48	6.52	6.59	6.67

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.

Datasheet according to EN 50380:2003  
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