

The Sunman logo is displayed in a bold, red, sans-serif font.The eArche logo is displayed in a bold, red, sans-serif font with a registered trademark symbol.

12 v Boating , Caravan  
and Camping Applications

High-efficiency  
Customization

Ultra-light  
Flexible  
Aesthetics

5  
YEAR

Warranty

#### Electrical Characteristics

| STC                                          | SMF185M-4X09U                                   | SMF100S-4X09U | SMF090S-4X08U |
|----------------------------------------------|-------------------------------------------------|---------------|---------------|
| Maximum Power ( $P_{max}$ )                  | 185                                             | 100           | 90            |
| Maximum Power Voltage ( $V_{mp}$ )           | 19.9                                            | 19.0          | 16.7          |
| Maximum Power Current ( $I_{mp}$ )           | 9.30                                            | 5.27          | 5.38          |
| Open-circuit Voltage ( $V_{oc}$ )            | 24.1                                            | 23.5          | 21.1          |
| Short-circuit Current ( $I_{sc}$ )           | 9.78                                            | 5.67          | 5.64          |
| Module Efficiency (%)                        | 17.9                                            | 15.0          | 15.1          |
| Operating Temperature ( $^{\circ}\text{C}$ ) | -40 $^{\circ}\text{C}$ to 85 $^{\circ}\text{C}$ |               |               |
| Maximum System Voltage                       | 600 V DC (IEC)                                  |               |               |
| Maximum Series Fuse Rating                   | 20 A                                            |               |               |
| Application Class                            | Class A                                         |               |               |
| Power Tolerance                              | 0/+5 W                                          |               |               |

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25 $^{\circ}\text{C}$ , AM=1.5.

#### Mechanical Characteristics

| Product           | SMF175M-4X09U                                                          | SMF100S-4X09U                   | SMF090S-4X08U                   |
|-------------------|------------------------------------------------------------------------|---------------------------------|---------------------------------|
| Solar Cell        | Mono (6 inches)                                                        | Mono (5 inches)                 | Mono (5 inches)                 |
| No. of Cells      | 36 (4 $\times$ 09)                                                     | 36 (4 $\times$ 09)              | 32 (4 $\times$ 08)              |
| Module Dimensions | 1520 $\times$ 680 $\times$ 2 mm                                        | 1219 $\times$ 546 $\times$ 2 mm | 1092 $\times$ 546 $\times$ 2 mm |
| Weight            | 3.3 kgs                                                                | 1.8 kgs                         | 1.7 kgs                         |
| Backsheet         | White                                                                  |                                 |                                 |
| J-box             | IP 68 rated (each j-box have one bypass diodes)                        |                                 |                                 |
| Output Cables     | Photovoltaic technology cable 4.0 mm <sup>2</sup> , (+)150 / (-)450 mm |                                 |                                 |
| Connector         | MC4 compatible                                                         |                                 |                                 |

[www.sunman-energy.com](http://www.sunman-energy.com)