

# VLS

Value  
Line  
Series

## Value Line Series (VLS) - 5W Panel

The Value Line Series (VLS) family of solar modules, offered by Ameresco Solar, is a reliable, rugged, and economic panel engineered for off-grid solar applications. The VLS line offers the rugged and reliable construction, materials, and performance.



### The VLS-5W Panel features:

Rugged construction, precision engineering, and quality components

Tempered glass, EVA lamination and weatherproof backskin that fosters long-life and enhanced cell performance

Manufactured according to International Quality and Environment Management System (ISO9001, ISO14001)

#### ELECTRICAL CHARACTERISTICS

|  |              |
|--|--------------|
| Maximum power ( $P_{max}$ ) <sup>(1)</sup> | 5W           |
| Tolerance ( $P_{max}$ )                    | ±10%         |
| Open circuit voltage ( $V_{oc}$ )          | 21.4V        |
| Maximum power voltage ( $V_{mp}$ )         | 17.1V        |
| Short circuit current ( $I_{sc}$ )         | 0.32A        |
| Maximum power current at ( $I_{mp}$ )      | 0.29A        |
| Maximum system (DC) voltage                | 80V          |
| Operation temperature range                | -40°C - 85°C |
| NOCT <sup>(2)</sup>                        | 48±3°C       |
| Temperature coefficient of $I_{sc}$        | 0.084%/°C    |
| Temperature coefficient of $V_{oc}$        | -0.390%/°C   |

#### CERTIFICATIONS

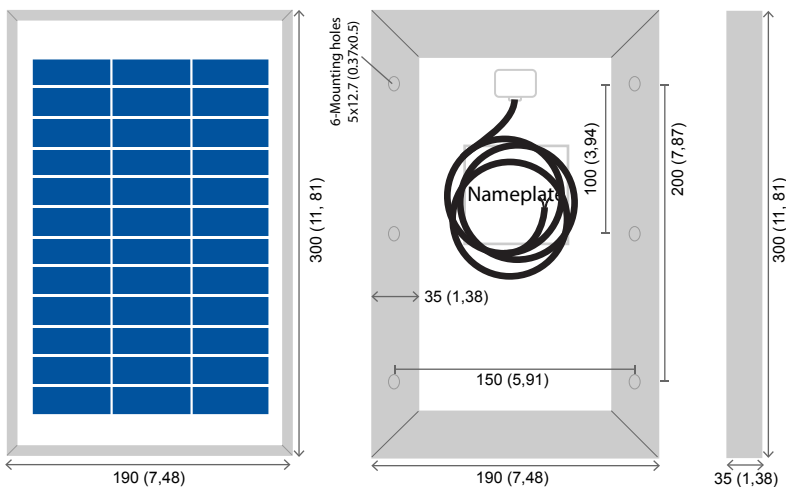


- Values at Standard Test Conditions (STC): 1000W/m<sup>2</sup> irradiance, AM 1.5 solar spectrum and 25°C module temperature
- Nominal Operation Cell Temperature: Module operation temperature at 800W/m<sup>2</sup> irradiance, 20°C air temperature, 1m/s wind speed

#### MECHANICAL CHARACTERISTICS

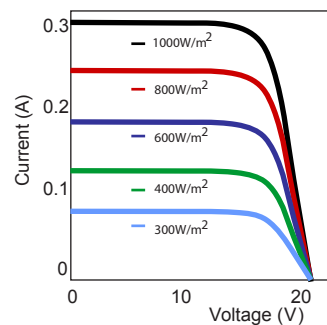
|               |  |
|---------------|--|
| Output Cables | AWG#18(0.75mm <sup>2</sup> ) 2core<br>Length: 4572mm / 15ft ("+" red, "-" black) |
| Dimensions    | 300 × 190 × 35mm / 11.81 × 7.48 × 1.38 in  |
| Weight        | 0.7kg / 1.5lbs   |

### DIMENSIONS

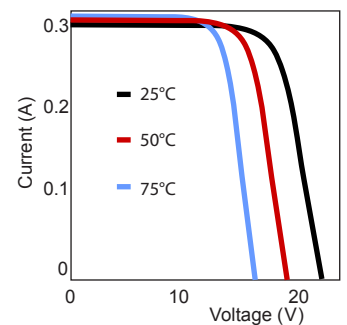


### IV CURVES

AM1.5, Cell Temp: 25°C



Irradiance: AM1.5, 1KW/m



Photographs are intended to portray typical module appearance, actual module appearance may vary. Diagrams may not be proportionate and are intended for illustrative purposes only. 05/07/13