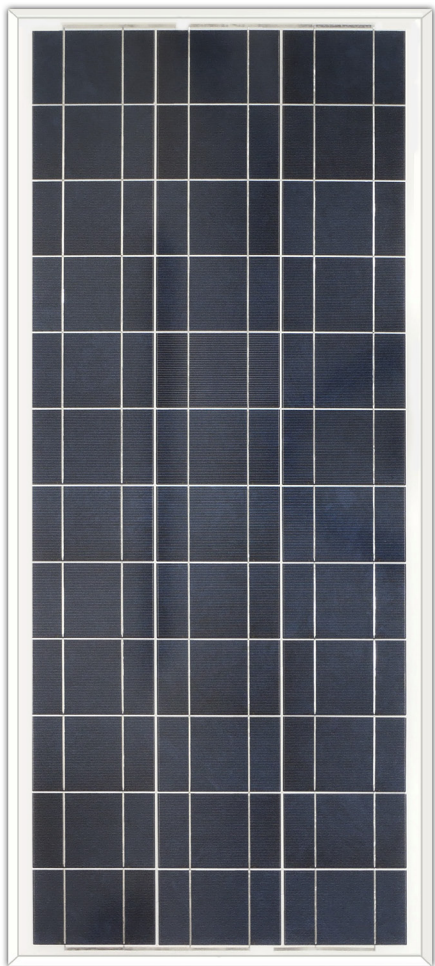


VLS

Value  
Line  
Series

## Value Line Series (VLS) - 50W 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-50W 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>	50W
Tolerance ( $P_{max}$ )	±5%
Open circuit voltage ( $V_{oc}$ )	22.3V
Maximum power voltage ( $V_{mp}$ )	18.0V
Short circuit current ( $I_{sc}$ )	3.03A
Maximum power current at ( $I_{mp}$ )	2.78A
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

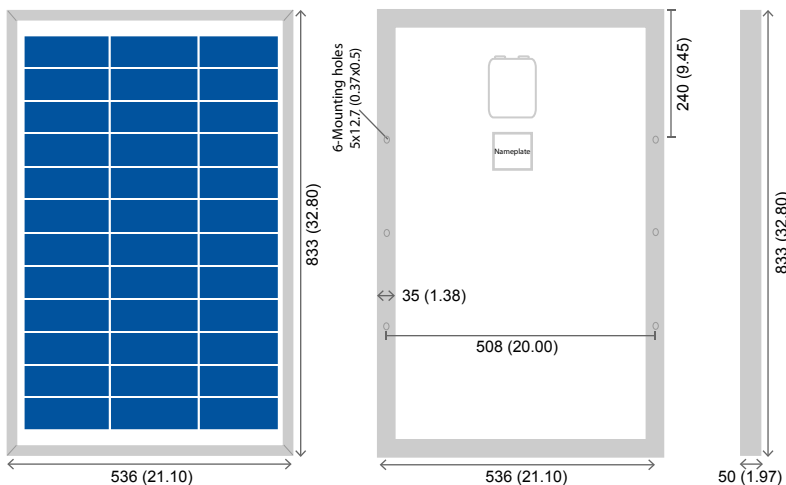


1. Values at Standard Test Conditions (STC): 1000W/m<sup>2</sup> irradiance, AM 1.5 solar spectrum and 25°C module temperature
2. Nominal Operation Cell Temperature: Module operation temperature at 800W/m<sup>2</sup> irradiance, 20°C air temperature, 1m/s wind speed

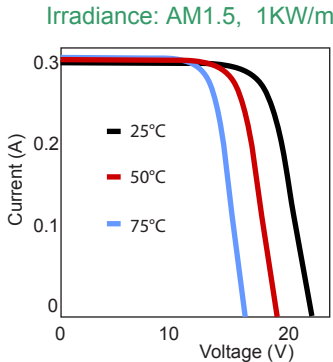
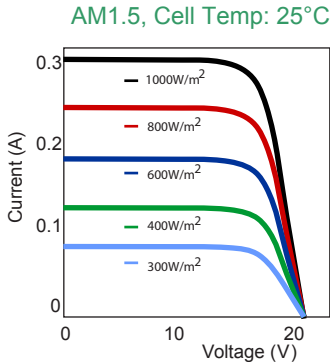
### MECHANICAL CHARACTERISTICS

Dimensions	833 × 536 × 50mm / 32.80 × 21.10 × 1.97in
Weight	5.2kg / 11.5lbs

### DIMENSIONS



### IV CURVES



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. 02/02/14