

# Value Line Series (VLS) - 20W 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-20W 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 CERTIFICATIONS

Maximum power  $(P_{max})^{(1)}$  20W Tolerance  $(P_{max})$  ±5% Open circuit voltage  $(V_{oc})$  21.4V Maximum power voltage  $(V_{mp})$  17.1V Short circuit current  $(I_{sc})$  1.30A Maximum power current at  $(I_{mp})$  1.17A Maximum system (DC) voltage 80V

Operation temperature range  $-40^{\circ}\text{C} - 85^{\circ}\text{C}$ NOCT  $^{(2)}$   $48\pm3^{\circ}\text{C}$ Temperature coefficient of  $I_{sc}$   $0.084\%^{\circ}\text{C}$ Temperature coefficient of  $V_{cc}$   $-0.390\%^{\circ}\text{C}$ 

- 1. Values at Standard Test Conditions (STC): 1000W/m² irradiance, AM 1.5 solar spectrum and 25°C module temperature
- 2. Nominal Operation Cell Temperature: Module operation temperature at 800W/m² irradiance, 20°C air temperature, 1m/s wind speed

## **MECHANICAL CHARACTERISTICS**

Output Cables AWG#18(0.75mm<sup>2</sup>) 2core

Length: 4572mm / 15ft ("+" red, "-" black)

Dimensions 520 × 350 × 35mm / 20.47 × 13.78 × 1.38 in

Weight 2.5kg / 5.5lbs

#### **DIMENSIONS IV CURVES** 90 (3.54) 6-Mounting holes 5x12.7 (0.37x0.5) AM1.5, Cell Temp: 25°C Irradiance: AM1.5, 1KW/m - 1000W/m 520 (20.47) 520 (20.47) Current (A) ■ 25°C Current (A) 8.0 8.0 **−** 50°C 35 (1.38) 300W/m<sup>2</sup> 310 (12.20) 10 O 10 Voltage (V) Voltage (V) 350 (13.78) 350 (13.78) 35 (1.38)