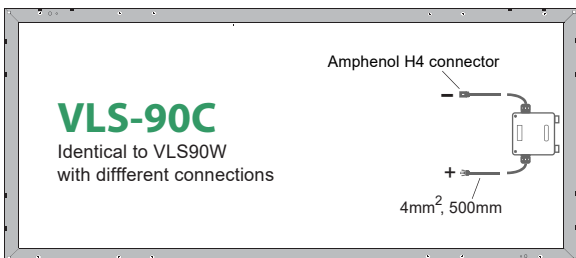
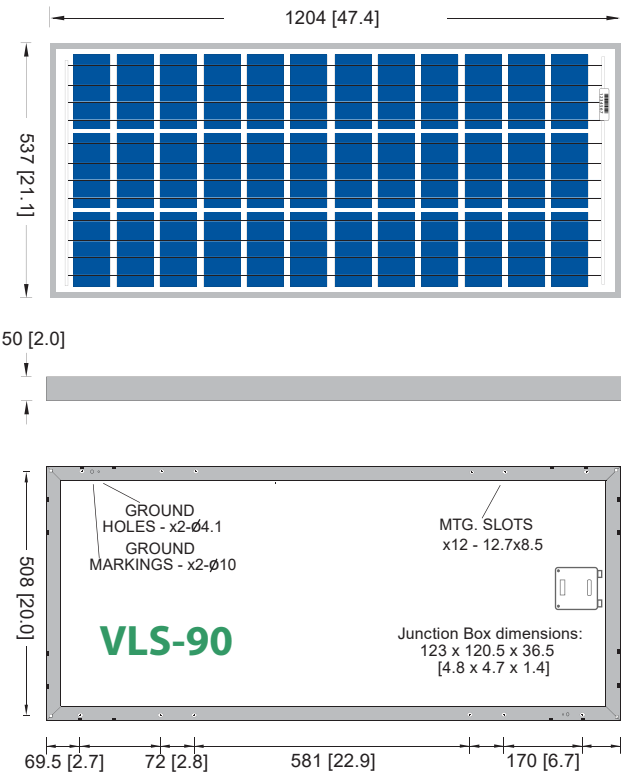


### DIMENSIONS



Dimensions in mm [in].

### Electrical characteristics

	<sup>(1)</sup> STC 1000W/m <sup>2</sup>	<sup>(2)</sup> NOCT 800W/m <sup>2</sup>
Maximum power ( $P_{max}$ )	90W / 100W	65W / 72W
Voltage at $P_{max}$ ( $V_{mpp}$ )	18.9V / 19.2V	16.9V / 17.1V
Current at $P_{max}$ ( $I_{mpp}$ )	4.8A / 5.2A	3.8A / 4.2A
Short circuit current ( $I_{sc}$ )	5.0A / 5.6A	4.1A / 4.6
Open circuit voltage ( $V_{oc}$ )	22.3V / 22.8	20.2V / 20.6V
Module efficiency	13.1% / 13.9%	
Tolerance ( $P_{max}$ )	-0/+3%	
Nominal voltage	12V	
Efficiency reduction at 200W/m <sup>2</sup>	<5% reduction (efficiency 13.2%)	
Limiting reverse current	5.04A / 5.58A	
Temperature coefficient of $I_{sc}$	0.105%/°C	
Temperature coefficient of $V_{oc}$	-0.360%/°C	
Temperature coefficient of ( $P_{max}$ )	-0.45%/°C	
<sup>(3)</sup> NOCT	47±2°C	
Maximum series fuse rating	20A	
Maximum system voltage	80V (U.S. NEC)	

1: Values at Standard Test Conditions (STC): 1000W/m<sup>2</sup> irradiance, AM1.5 solar spectrum and 25°C module temperature  
2: Values at 800W/m<sup>2</sup> irradiance, Nominal Operation Cell Temperature (NOCT) and AM1.5 solar spectrum  
3: Nominal Operation Cell Temperature: Module operation temperature at 800W/m<sup>2</sup> irradiance, 20°C air temperature, 1m/s wind speed

### Mechanical characteristics

Solar cells	36 crystalline silicon cells in series
Front cover	High transmission 3.2mm (1/8th in) glass
Encapsulant	EVA
Back cover	White polyester
Frame	Silver anodized aluminum
Diodes	Two Schottky bypass diode included
Junction box	IP65 with 4 terminal screw connection block; accepts PG 13.5, M20 13mm (1/2") conduit, or cable fittings
Cable (-C)	500mm, PV1-F/PV Wire, 4mm <sup>2</sup> /12AWG, DO:6±0.2mm
Connector (-C)	Amphenol H4
Dimensions	1204 x 537 x 50mm / 47.4 x 21.1 x 2in
Weight	7.7kg / 17lbs

All dimensional tolerances within ±1% unless otherwise stated.

### Warranty\*

- ▶ Free from defects in materials and workmanship for 2 years
- ▶ 90% minimum power output over 10 years

\* Refer to warranty document for terms and conditions.

### Certification

**ISO 9001** ISO 9001 factory certification ensures that our manufacturing facilities use proven manufacturing and quality control processes.