



## M 36S - 90 Watt MONO-CRYSTALLINE SOLAR PANEL

*Our M36S-90 Watt Mono-crystalline solar modules with a maximum power of 90Wp are produced with state-of-the-art robotic production line.*

*These modules are suitable for use in most electrical power application and have excellent durability to prevailing weather conditions.*

- *High efficiency 6" solar cells with high performance solar module create more power under the same conditions.*
- *Bypass diodes minimize power drop caused by shade.*
- *High transparency low- iron tempered glass, EVA laminate and waterproof back sheet, plus heavy duty anodized/PVDF coated aluminum frame.*
- *Output terminal have water proof connectors.*
- *TüV Certificate (PV197173-008-TA).*
- *Constant quality control.*



Unique design on drainage slots for vertical and horizontal constructions to avoid deforming due to freezing weather



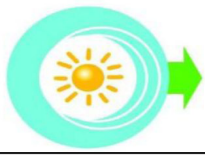
Our Photovoltaic Modules are successfully qualified according to their Design, Performance and Safety.



High output performance  
Long term reliability  
Sufficient reverse current  
Good resistance to mechanical loads



CEI EN 61215 (2006)  
CEI EN 61730-1 (2007)  
CEI EN 61730-2 (2007)



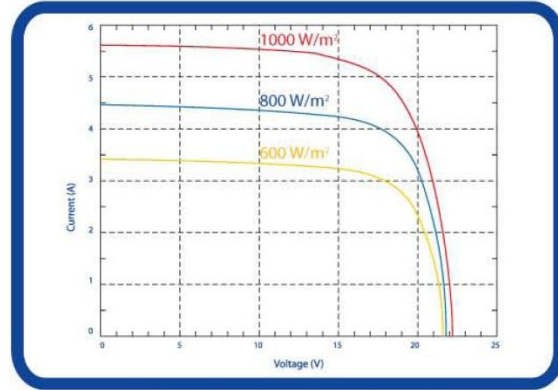
# BERLIN ALTERNATIVE ENERGY INDUSTRY

## Renewable Energy Solutions

El Kilo Circle, Mecca Str. 136, 3<sup>rd</sup>. Floor, Amman-Jordan [www.baeindustry.com](http://www.baeindustry.com)

### Product M 36S - 90

ELECTRICAL DATA	UNIT	VALUES
Nominal Power $\pm 5\%$ [ $W_p$ ]	$P_{nom}$	90
Voltage at Nominal Power [V]	$V_{mpp}$	18.10
Current at Nominal Power [A]	$I_{mpp}$	4.98
Open-circuit Voltage [V]	$V_{oc}$	22.28
Short-circuit Current [A]	$I_{sc}$	5.67
Voltage Temperature Coefficient	$mV/cell/C^\circ$	-2.12
Current Temperature Coefficient	$mA/cell/C^\circ$	2.50
Power Temperature Coefficient	$\% / C^\circ$	-0.43
Module Efficient [%]	$\eta'$	13.6



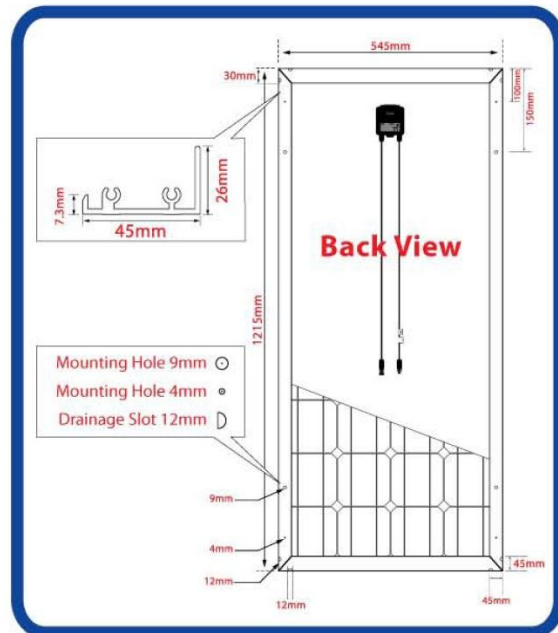
Current - Voltage Curve

MODULE COMPONENTS	VALUES
Solar Cells per Module	36 (4 x 9) in series
Cell Type	Mono-crystalline silicon, 125 x 125 mm <sup>2</sup> - Pseudo Square
Connection	Junction Box IP65 with 2 Bypass diods, Solar Cable (length 0.8m - cross section 4mm <sup>2</sup> ) with MC4 interconnection
Front Surface	Low Iron 3.2mm Thick Pattern Solar Glass
Frame Material	Anodized / PVDF Coated Aluminum

DIMENSIONS and WEIGHT	VALUES
Dimenions [mm]	1215 x 545 x 45
Weight [kg]	~ 9

LIMITS	VALUES
System Voltage [ $V_{oc}$ ]	1000
Maximum Reverse Current $I_{RC}$ [A]	15
Operating Module Temperature [ $C^\circ$ ]	-40 to +85
Fire Classification	C

WARRANTY	VALUES
Power Output	10 Years 90% of Minimum Power Output 25 Years 80% of Minimum Power Output
Materials	5 Years Under Normal Conditions



[www.baeindustry.com](http://www.baeindustry.com) | [LdH@baeindustry.com](mailto:LdH@baeindustry.com) | [dk@baeindustry.com](mailto:dk@baeindustry.com)

+962-6-548 10 90, +962-6-548 10 93, 962-7973 93 999, +962-797176176