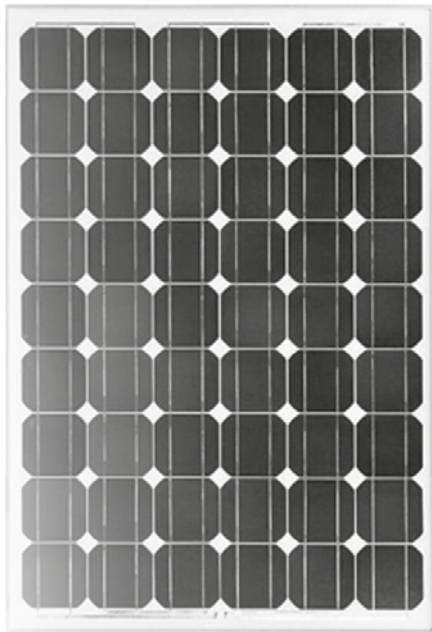


## Monocrystalline Solar Module

VS-M54 (156)



Modules designed for residential and utility applications, rooftop or ground mount.



The latest module manufacturing technology, high power output and highest conversion efficiency.



Anti-reflective and anti soiling surface reduces power loss from dirt and dust.



Original photovoltaic Connector MC4 whigh reliability.



The module can withstand snow loads up to 5400Pa and wind loads up to 2400Pa.



High performance in low light conditions Cloudy days, sunrises and sunsets.



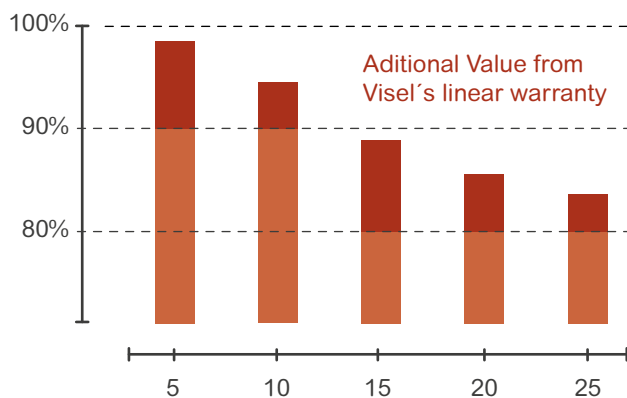
IP67 junction box for long-term weather endurance.

3Wp+

Positive power tolerance up to 3W.

## Linear Performance Warranty

10 year product warranty | 25 year line power warranty



Visel

Industry Standar

\* Warning : read the manual for installation and use before handing or installing VISEL modules.

\* The values, characteristics and parameters listed in this document are subject to change without notice.

## Product Certificates



# Monocrystalline Solar Module

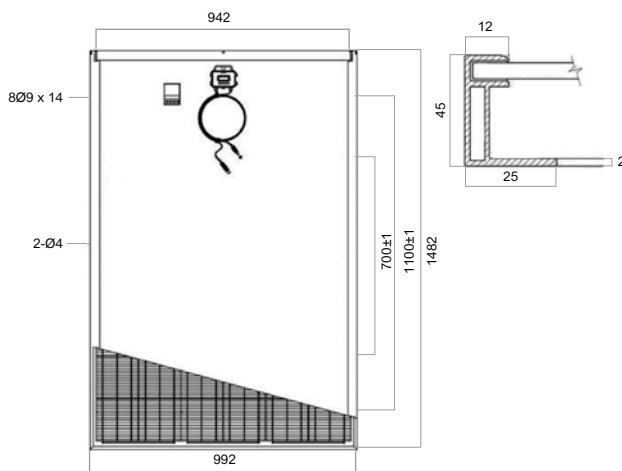
## VS-M54 (156)

### Electrical Characteristics

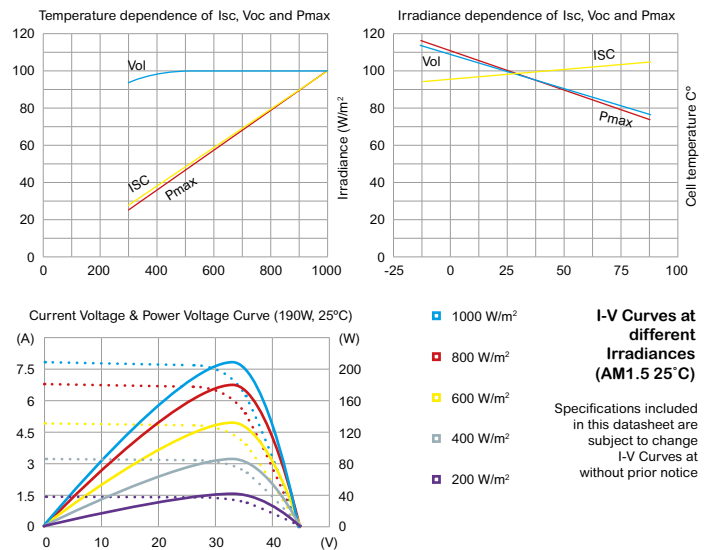
Type	VS230-M54	VS235-M54	VS240-M54	VS-245M54	VS-250M54
Max-Power Pm (W)	230	235	240	245	250
Power Tolerance (W)	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%
Max-Power Voltage Vm (V)	28.14	28.59	29.11	29.41	29.99
Max-Power Current Im (A)	8.36	8.54	8.66	8.73	8.85
Short - Circuit Current Isc (A)	8.74	8.80	8.82	9.07	9.16
Open Circuit Voltage Voc (V)	33.97	34.02	34.45	34.69	37.02
Max-System Voltage (VDC)	1000	1000	1000	1000	1000
Cell Efficiency (%)	16.18	16.67	17.22	17.78	18.11
Module Efficiency (%)	15.59	15.93	16.26	16.94	17.20
Max. Series Fuse (A)	15	15	15	15	15
PM Temperature Coefficients (%/°C)	-0.430	-0.430	-0.430	-0.430	-0.430
Isc Temperature Coefficients (%/°C)	+0.049	+0.049	+0.049	+0.049	+0.049
Voc Temperature Coefficients (%/°C)	-0.340	-0.340	-0.340	-0.340	-0.340
NOCT Nominal Operating Cell Temperature	45±2°C	45±2°C	45±2°C	45±2°C	45±2°C

All specified parameters at STC 25 °C ambient, 1000 W/m<sup>2</sup> irradiance and AM 1.5

### Mechanical Specifications



### I-V Curve



### Mechanical Characteristics

Cable Type	4mm <sup>2</sup> , TUV certified, 0.9m lenght, MC4
Junction Box	IP67, 1000VDC, TUV certify 6 by-pass diodes
Frame	Clear anodized aluminum alloy silver color
Solar Cell	54 units (6x9) in series, 156x156mm mono crystalline
Dimension (mm)	1482x990x40
Weight (Kg)	17.2
Glass	Low-iron tempered glass, thickness 3.2mm

### Absolute Ratings

Dielectric Insulation Voltage	3000V
Operating Temperature (°C)	-40~+85
Storage Temperature (°C)	-40~+85

### Load Rating

Maximum snow load	5400Pa
Maximum wind load	2400Pa
Hail impact test	Iceball diameter 25mm at 23m/s