



Your new energy partner!

Solar PV Modules

Monocrystalline PERC Solar PV Modules 160-170W



Higher Efficiency



Easy Handling & Installation



Maximum System Voltage of 1000V DC



Higher Module Power Output



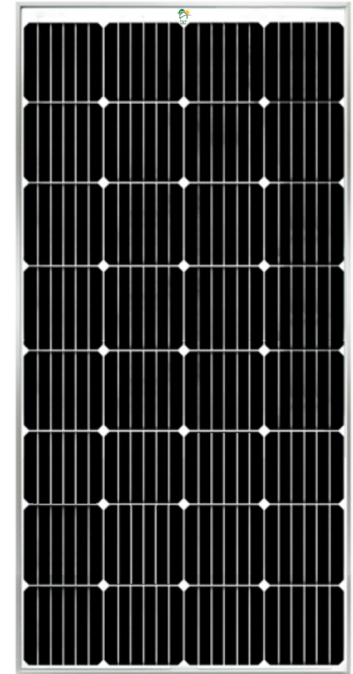
BOS Cost Reduced



15 Years Product Workmanship Warranty



27 Years Product Performance Warranty



Why HVR Solar ?

Stringent Quality Control

Intensive R&D

Highly Skilled Management

Tier-1 Raw Material Used

Highest Standards of Product

Door-to-Door Supply Chain & Logistic

Product Reliability Factor



Positive Power Tolerance



Withstand Harsh Environmental Conditions



100% EL Inspected-Micro Crack Free Module



High Low Light Performance



High Resistivity AR Coated Glass



PID Resistant 5/6 BB Cells & Encapsulants

Applications



Home lightning System



Street Light Application



Off-Grid Rooftop Systems



RoHS



Module Series	HVRM036F12V160	HVRM036F12V165	HVRM036F12V170
Dimension-LxW (MM)	1490*665	1490*665	1490*665
Cell Size (MM)	157*157	157*157	157*157
No of Cell	32	32	32.00
Max Series Fuse Rating	15A	15A	15A
Maximum System Voltage (V)	1000	1000	1000

Electrical Characteristics at STC

Maximum Power Pmax (Wp)	160	165	170
Maximum Voltage Vmpp (V)	17.55	17.65	17.75
Maximum Current Imp (A)	9.70	9.80	9.90
Open circuit Voltage Voc (V)	21.72	21.82	21.92
Short Circuit Current Isc (A)	9.11	9.42	9.60
FF	0.76	0.78	0.79
Module Efficiency(%)	16.15	16.65	17.16

STC:1000W/m² irradiance, 25°C cell temperature, AM1.5G spectrum according to EN 60904-3

2 Average relative efficiency reduction of <5% for every 200W/m reduction in Irradiance, according to EN 60904-1

Electrical Characteristics at NOCT

Maximum Power Pmax (Wp)	120.00	123.00	126.70
Maximum Voltage Vmpp (V)	15.95	16.05	16.15
Maximum Current Imp (A)	7.53	7.84	8.15
Open circuit Voltage Voc (V)	20.02	20.12	20.22
Short Circuit Current Isc (A)	7.95	8.05	8.08

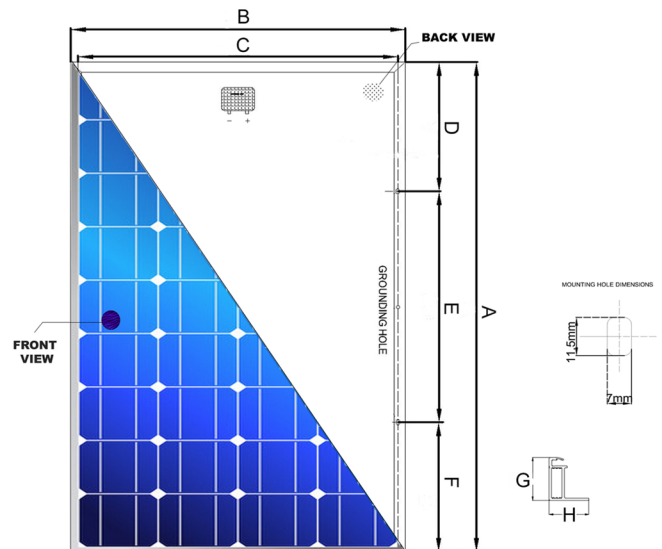
NOCT:800W/m² irradiance, 20°C ambient temperature, Wind Speed 1m/sec

Temperature Coefficients (Tc) Permissible Operating Conditions

Tc of Open Circuit Voltage (α)	-0.28%/°C ± 0.02
Tc of Short Circuit Current (β)	0.048%/°C ± 0.01
Tc of Power (γ)	-0.38%/°C ± 0.02
NOCT	46 ± 2°C
Temperature Range	-40°C to +85 °C
Limiting Reverse Current (Ir)	15A

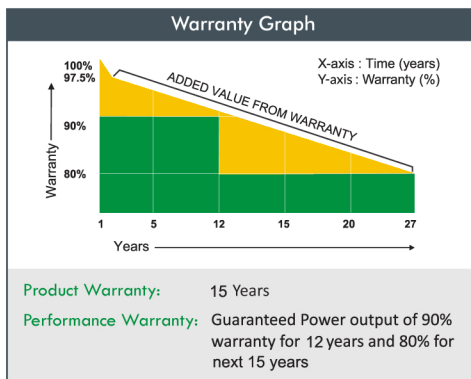
Mechanical Data

Junction Box	IP 65 rated with Bypass diodes
Application Class	Class A (Safety class II)
Substrate (Glass)	High transmission low iron tempered glass
Solar cells & Orientation	Mono PERC Solar Cells
Cells Encapsulant	EVA (Ethylene Vinyl Acetate) - FC/UFC
Back Sheet	Composite film - White
Frame	Silver Anodized aluminum frame with twin wall profile
Mechanical Load Test	Sustain Heavy wind & snow loads (2400 Pa & 5400 Pa or 550 Kg/m ² Maximum diameter of 24 mm with Hail impact of 83 Km/h)

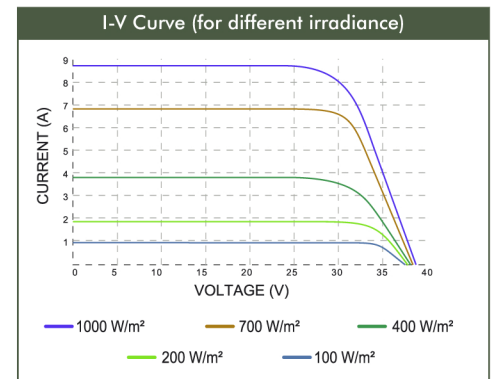


Module & Hole Mounting Dimension

DIMENSION (in mm)	HVRM036F12V160	HVRM036F12V165	HVRM036F12V170
A	1490	1490	1490
B	665	665	665
C	635	635	635
D	445	445	445
E	600	600	600
F	445	445	445
G	35	35	35
H	25	25	25



Approvals and Certification	
Products:	IEC 61215 ,ROHS IEC 61730, IEC 61701, CE, UL 1703,
Manufacturing:	ISO 9001:2015, ISO 14001: 2015 ISO 45001:2018



Corporate Office

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Works

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