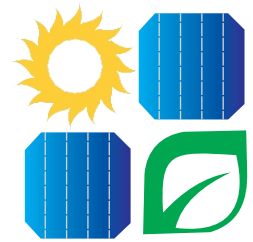


# 36 CELLS SERIES

MS - 20 | 40 | 50 | 60 | 75 | 100 | 125 | 150 | 160



mehar solar



## FEATURES



4 BB - Higher Output Per Cell & Lower Residual Stress



Positive Power Tolerance 0 / + 3%



Specially Designed For Off-grid And Rooftop Applications



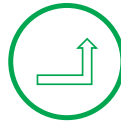
Extremely Narrow Power Binning Tolerance To Reduce Current Mismatch Loss In Single String



Engineered To Provide excellent Low Light Response



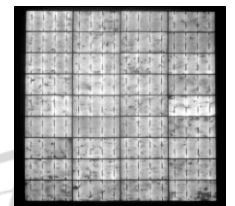
IP 65 Rated Junction Box



PID Resistant With 100% EI Testing For Long Term Reliability

## MORE THAN 20 IN HOUSE TESTS

- HV Testing
- Wet Leakage Testing
- Peel & Gel Content Testing
- Hot Spot Testing
- Hi Pot Testing
- IV Testing



100% EL Testing

## INTERNATIONAL & NATIONAL CERTIFICATE

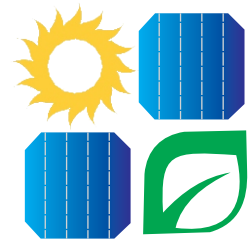


TÜVRheinland®

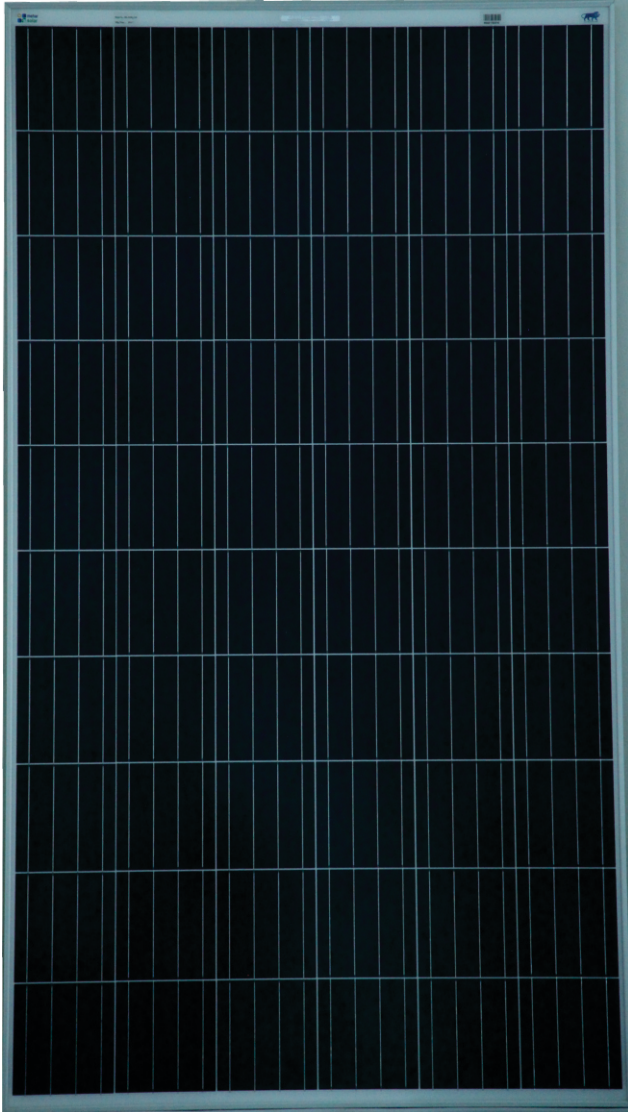


# 60 CELLS SERIES

MS - 220 | 230 | 240 | 250 | 260



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## FEATURES



4 BB - Higher Output Per Cell & Lower Residual Stress



Positive Power Tolerance 0 / + 5W



Designed For Very High Area Efficiency Ideally Suited For Roof-top And Ground-mounted Applications



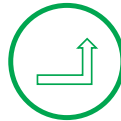
Extremely narrow Power Binning Tolerance To Reduce Current Mismatch Loss In Single String



Engineered To Provide excellent Low Light Response



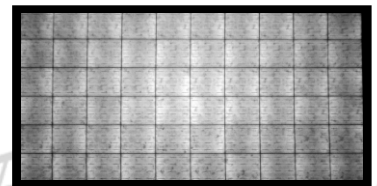
IP 67 rated MC4 compatible connectors



PID Resistant with 100% EL Testing for long term reliability

## MORE THAN 20 IN HOUSE TESTS

- HV Testing
- Wet Leakage Testing
- Peel & Gel Content Testing
- Hot Spot Testing
- Hi Pot Testing
- IV Testing



100% EL Testing

## INTERNATIONAL & NATIONAL CERTIFICATE

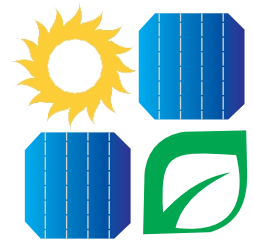


TÜVRheinland®

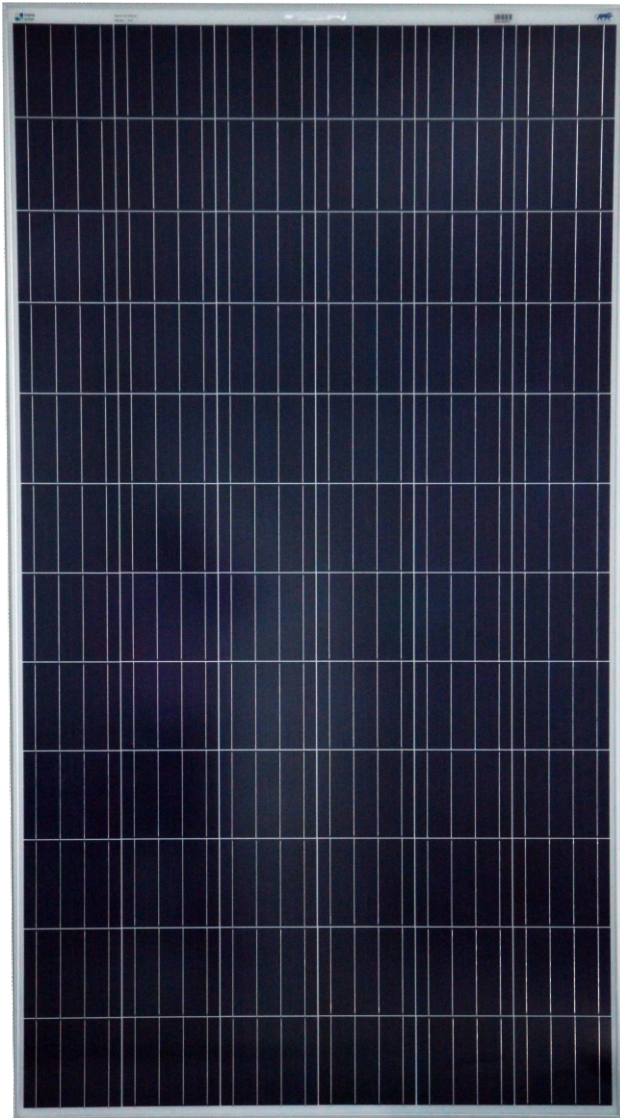


# 72 CELLS SERIES

MS - 300 | 315 | 320 | 330



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## FEATURES



4 BB - Higher Output Per Cell & Lower Residual Stress



Positive Power Tolerance 0 / + 5W



Designed For Very High Area Efficiency Ideally Suited For Roof-top And Ground-mounted Applications



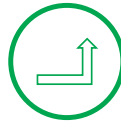
Extremely narrow Power Binning Tolerance To Reduce Current Mismatch Loss In Single String



Engineered To Provide excellent Low Light Response



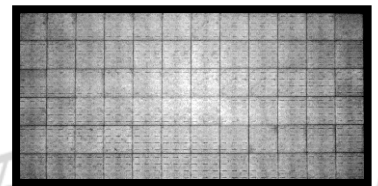
IP 67 rated MC4 compatible connectors



PID Resistant with 100% EL Testing for long term reliability

## MORE THAN 20 IN HOUSE TESTS

- HV Testing
- Wet Leakage Testing
- Peel & Gel Content Testing
- Hot Spot Testing
- Hi Pot Testing
- IV Testing



100% EL Testing

## INTERNATIONAL & NATIONAL CERTIFICATE



TÜVRheinland®



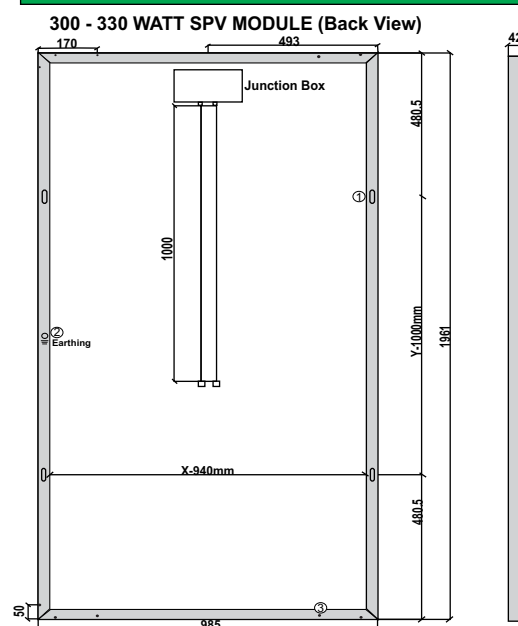
# ELECTRICAL DATA

	MS-300/24	MS-310/24	MS-315/24	MS-320/24	MS-330/24
Peak Power (Pmax)	300	310	315	320	330
Voltage at Maximum Power Point (Vmp)	36.50	36.60	36.70	36.80	36.85
Current at Maximum Power Point (Imp)	8.22	8.47	8.59	8.70	8.95
Open Circuit Voltage (Voc)	44.50	44.80	45.10	45.30	45.45
Short Circuit Current (Isc)	8.75	8.75	8.78	8.75	8.90
Model Efficiency (%)	15.54	16.06	16.32	16.58	17.08
Maximum Series Fuse Rating (A)	20	20	20	20	20
Limiting Reverse Current (A)	20	20	20	20	20
Electrical Pmax. Tolerance %	Positive Tolerance of 0/2.3%				

## MECHANICAL PARAMETERS

Module Dimension (mm)	1961*985*42
Mounting Hole centre to center Pitch (Yaxes)	1000
Mounting Hole center to center Pitch (X axes)	945 ± 1 mm
Module Weight kgs (APPROX)	23
Module Matrix	72 / 12x6
Front Cover	High Transmittance Tempered & Low Iron Glass with 3.2mm thickness
Backsheet	KPE Backsheet / Tedlar Backsheet
Encapsulate	Sunny Side UVT & Backside PID Free (Ethylene Acetate)
Frame Material	15-18 Microns Anodised Aluminium
Junction Box (Protection Rating / Material)	Ip67 RATED
Junction Box Connector	Weather proof PPO materia IP67 MC4I
Junction Box Cable	4 Sq. mm cross section, 1000mm long.

## DIAGRAM



## TEMPERATURE COEFFICIENTS (TC)

Tc of Open Circuit Voltage (Voc), β (%/°C)	- 0.2941
Tc of Open Circuit Current (Isc), α (%/°C)	0.0681
Tc of Power (Pmax.) γ ((%/°C))	-0.3845
Maximum System Voltage (V)	1000
NOCT	45°C±2°C
Operating Temperature Range	40°C to 85°C

## IV CURVE



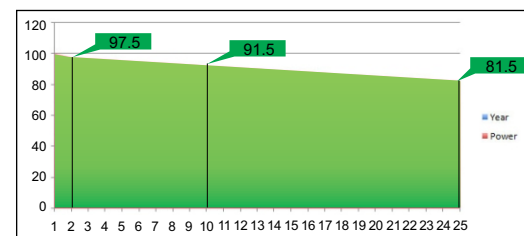
## PACKAGING INFORMATION

Container	20'GP	40'GP	40'HC
Pallets/Container	10	24	24
Pieces/Container	250	600	660

## WARRANTY AND CERTIFICATIONS

Product Warranty**	10 years
Performance Warranty**	Linear power warranty for 25 years with 2.5% for 1st year degradation and 0.67% from year 2 to year 25
Approvals and Certificates	IEC - 61215 IEC - 617301, IEC -617302, MNRE

## PERFORMANCE WARRANTY



**CAUTION:** READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.

Specifications included in this datasheet are subject to change without notice. Electrical data without guarantee. Please confirm your exact requirement with the company representative while placing your order.



# ELECTRICAL DATA

	MS-40/12	MS-50/12	MS-60/12	MS-75/12	MS-100/12	MS-125/12	MS-150/12
Peak Power (Pmax)	40	50	60	75	101.92	125	150
Voltage at Maximum Power Point (Vmp)	17.74	17.74	17.74	17.74	18.20	18.20	18.20
Current at Maximum Power Point (Imp)	2.30	2.85	4.23	4.23	5.60	6.87	8.25
Open Circuit Voltage (Voc)	21.70	21.70	21.70	21.70	22.15	22.15	22.15
Short Circuit Current (Isc)	2.65	2.95	3.35	4.40	6.30	6.75	8.70
Model Efficiency (%)	12.69	13.55	13.79	14.56	14.97	14.68	15.18
Maximum Series Fuse Rating (A)	6	6	6	6	10	10	12
Limiting Reverse Current (A)	6	6	6	6	10	10	12
Electrical Pmax. Tolerance %	Positive Tolerance of 0/2.3%						

## MECHANICAL PARAMETERS

Module Dimension (mm)	475*665*22	555*665*35	655*665*35	780*665*35	1005*665*35	1255*665*35	1485*665*35
Mounting Hole centre to center Pitch (Yaxes)	250	300	330	400	500	650	750
Mounting Hole center to center Pitch (X axes)	625 ±1mm						
Module Weight kgs (APPROX)	3.15	3.7	3.96	6	7.5	8.5	11.3
Module Matrix	36/9x4	6 / 9x4	6 / 9x4	6 / 9x4	6 / 9x4	6 / 9x4	6 / 9x4
Front Cover	High Transmittance Tempered & Low Iron Glass with 3.2mm thickness						
Backsheet	KPE Backsheet						
Encapsulate	Sunny Side UVT & Backside PID Free (Ethylene Vinyl Acetate)						
Frame Material	15-18 Microns Anodised Aluminium						
Junction Box (Protection Rating / Material)	IP 65 / Weatherproof						

## TEMPERATURE COEFFICIENTS (TC)

Tc of Open Circuit Voltage (Voc), β (%/°C)	-0.31% / °C
Tc of Open Circuit Current (Isc), α (%/°C)	0.058% / °C
Tc of Power (Pmax.) γ ((%/°C))	0.41% / °C
Maximum System Voltage (V)	600 V
NOCT	45°C ± 2°C
Operating Temperature Range	-40°C to ± 85°C

## PACKAGING INFORMATION

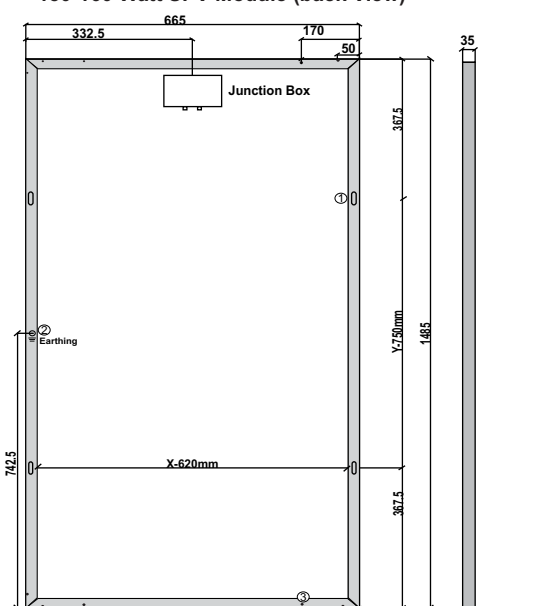
Container	20'GP	40'GP	40'HC
KW (Approx)	70 KW	170 KW	185 KW

## WARRANTY AND CERTIFICATIONS

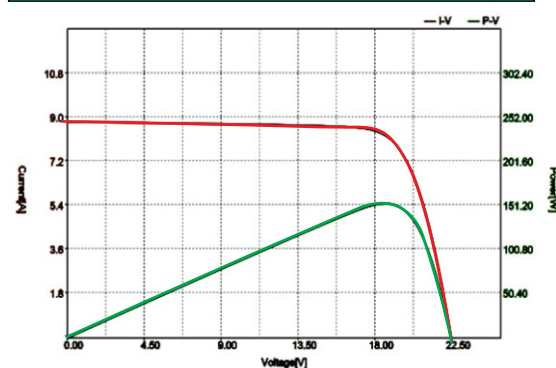
Product Warranty**	10 years
Performance Warranty**	Linear power warranty for 25 years with 2.5% for 1st year degradation and 0.67% from year 2 to year 25
Approvals and Certificates	IEC - 61215 IEC - 617301, IEC -617302, MNRE

## DIAGRAM

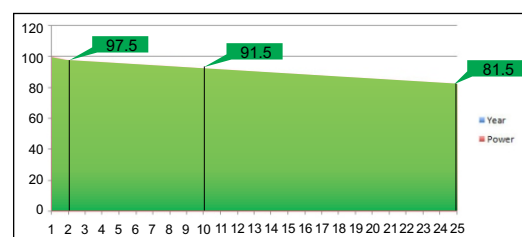
150-160 Watt SPV Module (back View)



## IV CURVE



## PERFORMANCE WARRANTY



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