



LIGHTWAY SOLAR MODULE

P 1960 × 990 Series

KEY FEATURES

15.98%
Max Efficiency

310W
Max Peak Power

10YEAR
Product Warranty

25YEAR
Linear Power Warranty



Positive Tolerance 0-5W
Provides our customers with maximum power output



Electric Current Classification
System output maximized by reducing mismatch losses up to 2% with modules sorted and package by amperage



Excellent weak light performance
Relative change of module efficiency at 200W/m² is less than 4%



Upto 5400Pa Mechanical load
Module certified to withstand extreme wind and snow loads

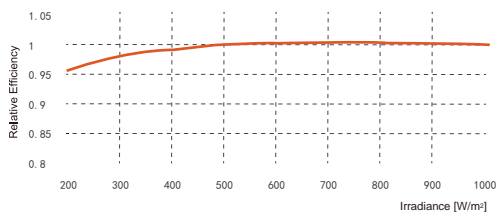


Passed Ammonia Gas and Salt Mist Corrosion Resistance Test
Tested and approved by TUV Rheinland according IEC 62716 Draft C and FprEN 61701 Ed.2

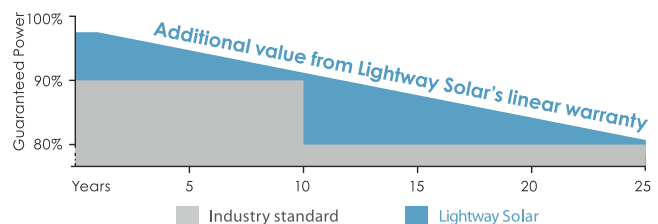


ISO 9001:2008 - ISO 14001:2004 - OHSAS 18001:2007

PERFORMANCE AT LOW IRRADIANCE



The typical relative change in module efficiency at an irradiance of 200W/m² in relation to 1000W/m² (both at 25°C and AM 1.5 spectrum) is less than 4%.



LINEAR WARRANTY

- 10-year warranty on materials and workmanship
- 25-year warranty > 80% power output
- 3% degradation rate the first year
- 0.68% yearly linear degradation

ELECTRICAL DATA @ STC

Module Type		LW310(35) P1960×990	LW305(35) P1960×990	LW300(35) P1960×990	LW295(35) P1960×990	LW290(35) P1960×990	LW285(35) P1960×990
Peak Power_Pmax	W	310	305	300	295	290	285
Power tolerance_ΔPmax	W	0,+5					
Voltage at Pmax_Vmpp	V	36.54	36.34	36.15	35.99	35.81	35.69
Current at Pmax_Imp	A	8.51	8.42	8.31	8.21	8.11	8.01
Open Circuit Voltage_Voc	V	45.56	45.31	45.08	44.91	44.81	44.53
Short Circuit Current_Isc	A	8.85	8.76	8.68	8.59	8.49	8.46
Module Efficiency_η		15.98%	15.72%	15.46%	15.20%	14.95%	14.69%

Values at standard test condition STC: air mass AM 1.5, irradiance 1000W/m², cells temperature 25 °C

ELECTRICAL DATA @ NOCT

Module Type		LW310(35) P1960×990	LW305(35) P1960×990	LW300(35) P1960×990	LW295(35) P1960×990	LW290(35) P1960×990	LW285(35) P1960×990
Peak Power_Pmax	W	230	226	221	217	213	209
Voltage at Pmax_Vmpp	V	34.71	34.48	34.13	33.94	33.78	33.33
Current at Pmax_Imp	A	6.63	6.56	6.48	6.40	6.32	6.27
Open Circuit Voltage_Voc	V	42.16	41.90	41.63	41.45	41.33	41.02
Short Circuit Current_Isc	A	7.17	7.10	7.04	6.96	6.88	6.86

Nominal operating cell temperature NOCT: irradiance 800W/m², ambient temperature 20 °C, wind speed 1m/s

TEMPERATURE RATING

Nominal operating cell temperature(NOCT)	°C	45±2
Temperature Coefficient of Pmax	%/°C	-0.4204
Temperature Coefficient of Isc	%/°C	0.0654
Temperature Coefficient of Voc	%/°C	-0.3215

MAXIMUM RATING

Max. System Voltage	1000Vdc
Operating Temperature	-40 ~ +85 °C
Max. Series Fuse Rating	15A
Max. Reverse Current	15A
Max. Mechanical load	5400Pa

CONSTRUCTION MATERIALS

Solar cells	72-multicrystalline silicon cells, 156mm*156mm
Glass	3.2mm low-iron tempered glass
Encapsulant	ethylene vinyl acetate(EVA)
Frame	anodized aluminium alloy(Silver)
Junction Box	≥IP65 rated, 3/6 diodes
Cable	4mm ² PV cable, 1200mm
Connector	MC4 compatible

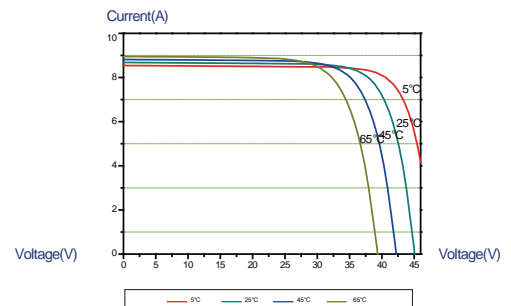
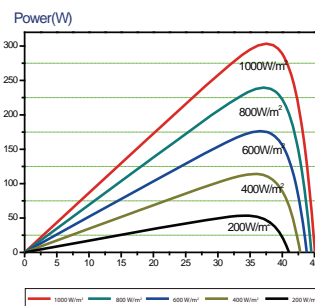
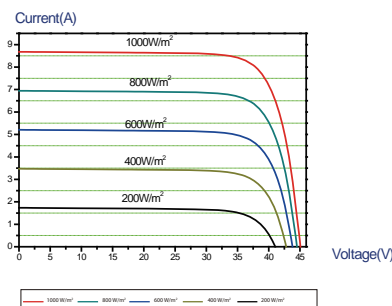
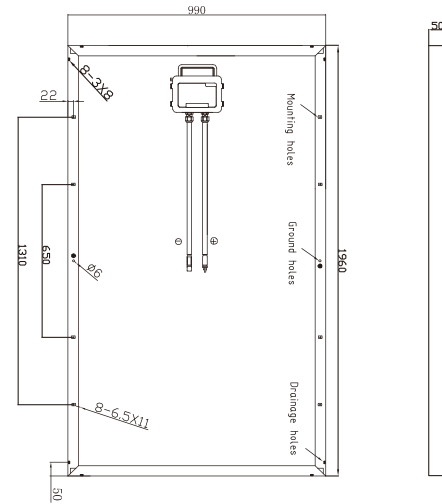
GENERAL DATA

Module Dimension(L×W×H)	1960×990×50mm
Weight	22.5kg

PACKING

Modules per pallet	20
Pallets per 40' container	22
Packing box dimension(L×W×H)	2000×1100×1165mm

Unit:mm



MKT-20130826