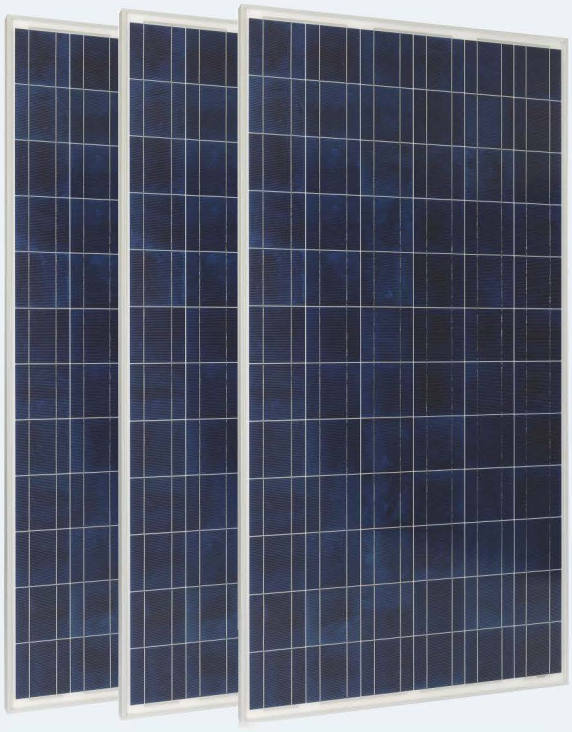


PLM-310P-NELUMBO

Polycrystalline Silicon Solar Module

NELUMBO SOLAR

17.0% -18.0%
CELL EFFICIENCY

12 YEARS
PRODUCT WARRANTY

0 -3%
POWER TOLERANCE

POWER WARRANTY

- 25 YEAR — 80% Power Output Warranty
- 12 YEAR — 90% Power Output Warranty
- 12 YEAR — Material & Workmanship Warranty

Performance
High output and efficiency even under low light conditions

Versatility
Salt mist corrosion tested, perfect for harsh climatic conditions

Reliability
Durable and reliable solar panels due to stringent quality control measures, testing and strict selection of raw materials and components. PID free (TUV certified)

Design and Innovation
Nelumbo is committed to innovation and constantly working to provide the next breakthrough in solar technology: the new All Black panel is an example of this commitment.

POLYCRYSTALLINE, 72-CELL SERIES

ELECTRICAL PERFORMANCE

Module type			PLM-310P-72				
Power output	P_{max}	W	290	295	300	305	310
Power output tolerances	ΔP_{max}	%			0 - 3		
Voltage at Pmax	V_{mpp}	V	37.14	37.58	38.08	38.32	38.47
Current at Pmax	I_{mpp}	A	7.81	7.85	7.88	7.96	8.06
Open-circuit voltage	V_{oc}	V	44.84	44.92	45.10	45.30	45.47
Short-circuit current	I_{sc}	A	8.38	8.47	8.49	8.52	8.60

STC: 1000W/m² irradiance, 25°C cell temperature, AM 1.5g spectrum according to EN 60904-3.

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45±2
Temperature coefficient of Pmax	γ	%/°C	-0.45
Temperature coefficient of Voc	β_{Voc}	%/°C	-0.34
Temperature coefficient of Isc	α_{Isc}	%/°C	0.06
Temperature coefficient of Vmpp	β_{Vmpp}	%/°C	-0.40

OPERATING CONDITIONS

Max. system voltage	1000V_{DC}
Limiting reverse current	15A
Operating temperature range	-40°C to 85°C
Max. static load front (e.g., snow)	5400Pa
Max. static load back (e.g., wind)	2400Pa
Max. hailstone impact (diameter / velocity)	25mm / 23m/s

MECHANICAL CHARACTERISTICS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Backsheet (color)	white
Cell (quantity / material / dimensions)	72 / polycrystalline silicon / 156 x 156mm
Frame (material / color)	anodized aluminum alloy / silver
Junction box (protection degree)	≥IP65
Cables & Plug connectors	900mm / 4mm² & MC4 compatible / IP67
Module Dimensions (L / W / H)	1956mm x 992mm x 40mm
Module Weight	21.6kg

PACKING DETAILS

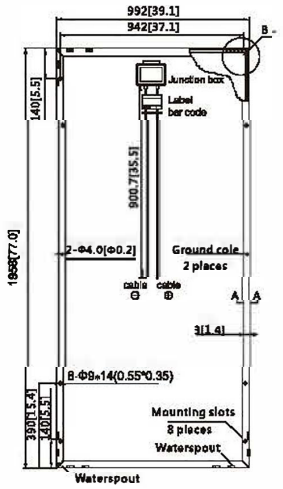
Container	20'GP	40'HQ
Pieces per pallet	52	56
Pallets per container	5	11
Pieces per container	260	616

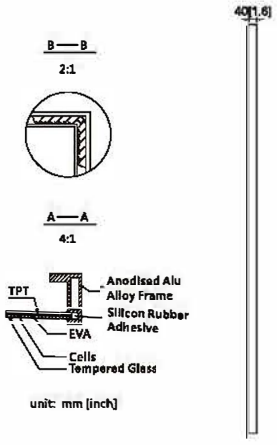
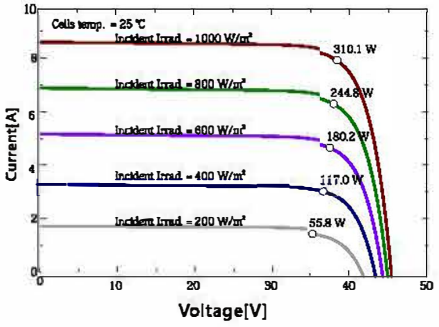
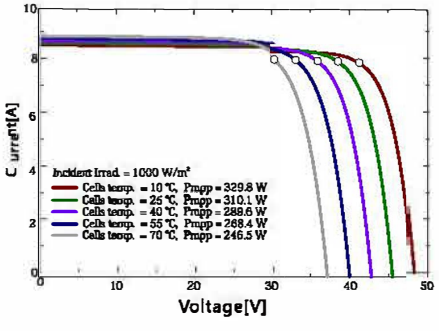
NELUMBO

QUALIFICATIONS & CERTIFICATIONS

IEC 61215, IEC 61730, CE, IEC 62804 (PID Free), UL 1703, J-PEC, PV CYCLE, IEC/EN 61701, IEC 62716

Module Diagram:





Electrical Curves: