ROVON POWER / SOLAR MODULE

Rove N1

RN1 78M

625-645W

N-Type TOPCon Monofacial
Solar Module

23.07%
MAX. MODULE EFFICIENCY

156
HALF-CELLS

3.2 mm coated tempered front glass
1500 V DC maximum system voltage



FRONT REAR

Product performance

10-30% additional generation

Over a 30-year lifespan, energy generation can be 10-30% higher than conventional P-type modules.

Zero light-induced degradation

N-type cells have no LID naturally, helping retain power generation.

Higher reliability

TOPCon contacts; no polysilicon wrap-around; full electrical isolation.

Low-light response

Designed for improved output under low-irradiance conditions.

Temperature performance

Pmax temperature coefficient: -0.30%/°C.

Quality & Certification

PRODUCT TEST STANDARDS

IEC 61215 / 61730 · IEC 62804 (PID)
IEC 61701 (salt) · IEC 62716 (ammonia)
IEC 60068-2-68 (sand)

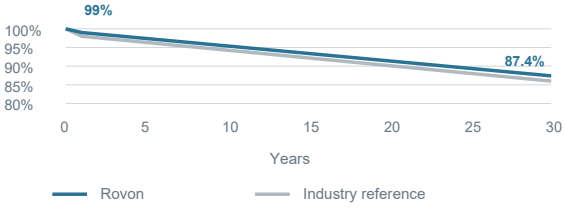
MANAGEMENT SYSTEM STANDARDS

ISO 9001:2015 · ISO 14001:2015
ISO 45001:2018 · ISO 50001:2011
IEC TS 62941-2016

Warranty

15 YEARS
Materials

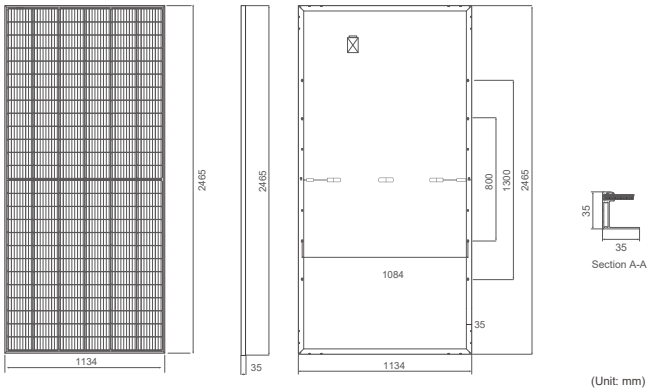
30 YEARS
Power output



ROVE N1 / RN1 78M 625-645W

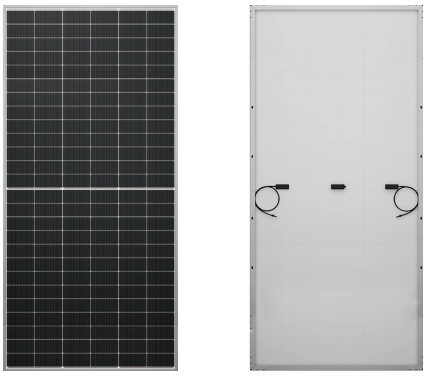
Technical specifications

Drawings



(Unit: mm)

Front / Rear



Mechanical characteristics

PARAMETER	VALUE
Solar cells	N-type monocrystalline cell
No. of cells	156 (6 × 26)
Dimensions	2465 × 1134 × 35 mm
Weight	30.0 kg
Front glass	3.2 mm coated tempered glass
Frame	Anodized aluminum alloy frame
Junction box	IP68; 3 bypass diodes
Output cables	4 mm²; +300 mm / -300 mm; customizable
Connectors	MC4 compatible
Wind / snow load	2400 Pa / 5400 Pa
Packaging	31 pcs / box; 124 pcs / 20'GP; 496 pcs / 40'HQ

Operating characteristics

PARAMETER	VALUE
Module temperature	-40°C to +85°C
Max. system voltage	1500 V DC (IEC)
Max. series fuse	25 A
Power tolerance	0 to +5 W

Temperature characteristics

PARAMETER	VALUE
NMOT	45 ±2°C
Pmax coefficient	-0.30%/°C
Voc coefficient	-0.25%/°C
Isc coefficient	+0.046%/°C

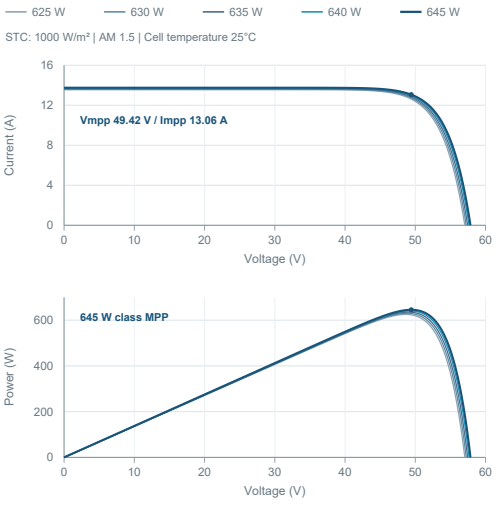
Electrical parameters / STC

POWER CLASS	625	630	635	640	645
Pmax (W)	625	630	635	640	645
Vmpp (V)	48.62	48.82	49.02	49.22	49.42
Impp (A)	12.86	12.91	12.96	13.01	13.06
Voc (V)	57.05	57.25	57.45	57.65	57.85
Isc (A)	13.55	13.60	13.65	13.70	13.75
Efficiency (%)	22.36	22.54	22.72	22.90	23.07

Electrical parameters / NMOT

POWER CLASS	625	630	635	640	645
Pmax (W)	473	477	481	484	487
Vmpp (V)	46.80	46.99	47.18	47.38	47.58
Impp (A)	10.11	10.15	10.18	10.22	10.24
Voc (V)	54.26	54.45	54.64	54.83	55.02
Isc (A)	10.67	10.71	10.74	10.78	10.82

I–V / P–V curves



Typical curves fitted to tabulated STC ratings.

1. STC: 1000 W/m²; AM 1.5; 25°C; EN 60904-3.
2. NMOT: 800 W/m²; wind speed 1 m/s; ambient temperature 20°C.
3. Pmax tolerance: 0 to +5 W; power uncertainty: ±3%; Voc, Isc, Vmpp, Impp deviation: ±3%.