ROVON POWER / SOLAR MODULE

# Rove N1

**RN1 66BD**

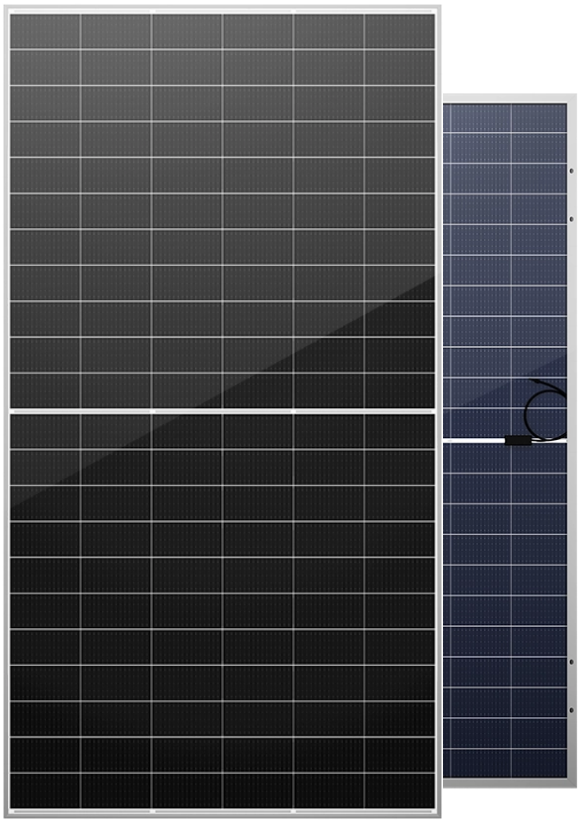
# 685-710W

N-Type TOPCon Bifacial
Dual Glass Solar Module

**22.90%**
**MAX. MODULE EFFICIENCY**

**132**
HALF-CELLS

2.0 mm front glass / 2.0 mm rear glass
**1500 V DC** maximum system voltage



FRONT REAR

## Product performance

### 10-30% additional generation

Over a 30-year lifespan, additional 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)

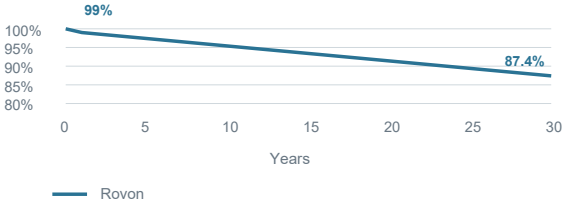
**MANAGEMENT SYSTEM STANDARDS**

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

## Warranty

**12 YEARS**
Materials

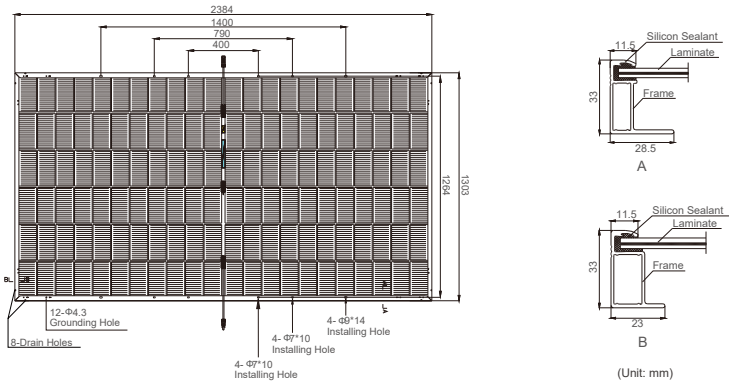
**30 YEARS**
Power output



ROVE N1 / RN1 66BD 685-710W

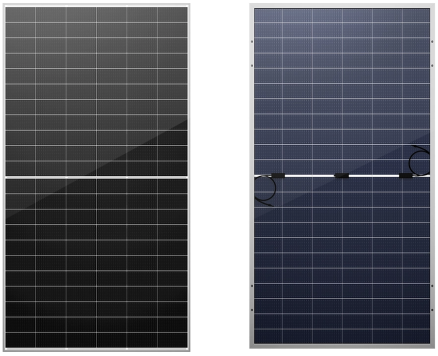
# Technical specifications

## Drawings




(Unit: mm)

## Front / Rear



## Mechanical characteristics

| PARAMETER | VALUE |
|---|---|
| Solar cells | N-type monocrystalline (TOPCon) |
| No. of cells | 132 (6 × 22) |
| Dimensions | 2384 × 1303 × 33 mm |
| Weight | 38.3 kg |
| Front glass | 2.0 mm, high transmission, AR coated, heat-strengthened glass |
| Encapsulant | POE / EVA |
| Back glass | 2.0 mm, heat-strengthened glass (white grid glass) |
| Frame | 33 mm anodized aluminium alloy |
| Junction box | IP68 rated |
| Cable | PV cable 4.0 mm² (0.006 in²); portrait 350 / 280 mm (13.78 / 11.02 in); customizable |
| Connector | MC4 |
| Packaging | 33 pcs / box; 594 pcs / 40' container |

## Operating characteristics

| PARAMETER | VALUE |
|---|---|
| Module temperature | -40°C to +85°C |
| Max. system voltage | 1500 V DC (IEC / UL) |
| Max. series fuse | 35 A |
| Pmax tolerance | 0 to +5 W |
| Power bifaciality | 80% ±5% |

## Temperature characteristics

| PARAMETER | VALUE |
|---|---|
| NOCT | 43 ±2°C |
| Pmax coefficient | -0.30%/°C |
| Voc coefficient | -0.24%/°C |
| Isc coefficient | +0.04%/°C |

## Electrical parameters / STC

| POWER CLASS | 685 | 690 | 695 | 700 | 705 | 710 |
|---|---|---|---|---|---|---|
| Pmax (W) | 685 | 690 | 695 | 700 | 705 | 710 |
| Vmpp (V) | 39.8 | 40.1 | 40.3 | 40.5 | 40.7 | 40.9 |
| Impp (A) | 17.19 | 17.23 | 17.25 | 17.29 | 17.33 | 17.36 |
| Voc (V) | 47.7 | 47.9 | 48.3 | 48.6 | 48.8 | 49.0 |
| Isc (A) | 18.21 | 18.25 | 18.28 | 18.32 | 18.36 | 18.40 |
| Efficiency (%) | 22.1 | 22.2 | 22.4 | 22.5 | 22.7 | 22.9 |

## Electrical parameters / NOCT

| POWER CLASS | 685 | 690 | 695 | 700 | 705 | 710 |
|---|---|---|---|---|---|---|
| Pmax (W) | 521 | 526 | 530 | 534 | 538 | 542 |
| Vmpp (V) | 37.3 | 37.7 | 37.8 | 38.0 | 38.2 | 38.4 |
| Impp (A) | 13.94 | 13.96 | 14.02 | 14.05 | 14.08 | 14.12 |
| Voc (V) | 45.2 | 45.4 | 45.8 | 46.0 | 46.2 | 46.4 |
| Isc (A) | 14.67 | 14.71 | 14.73 | 14.76 | 14.80 | 14.83 |

## Backside power gain

### 5% backside power gain

| POWER CLASS | 685 | 690 | 695 | 700 | 705 | 710 |
|---|---|---|---|---|---|---|
| Pmax (W) | 719 | 725 | 730 | 735 | 740 | 746 |
| Vmpp (V) | 39.8 | 40.1 | 40.3 | 40.5 | 40.7 | 40.9 |
| Impp (A) | 18.05 | 18.09 | 18.11 | 18.15 | 18.20 | 18.23 |
| Voc (V) | 47.7 | 47.9 | 48.3 | 48.6 | 48.8 | 49.0 |
| Isc (A) | 19.12 | 19.16 | 19.19 | 19.24 | 19.28 | 19.32 |

### 10% backside power gain

| POWER CLASS | 685 | 690 | 695 | 700 | 705 | 710 |
|---|---|---|---|---|---|---|
| Pmax (W) | 754 | 759 | 765 | 770 | 776 | 781 |
| Vmpp (V) | 39.8 | 40.1 | 40.3 | 40.5 | 40.7 | 40.9 |
| Impp (A) | 18.91 | 18.95 | 18.98 | 19.02 | 19.06 | 19.10 |
| Voc (V) | 47.7 | 47.9 | 48.3 | 48.6 | 48.8 | 49.0 |
| Isc (A) | 20.03 | 20.08 | 20.11 | 20.15 | 20.20 | 20.24 |

1. STC: AM 1.5, 1000 W/m², 25°C. NOCT: AM 1.5, 800 W/m², 20°C, wind speed 1 m/s.
2. Calculated backside gain values; actual gain depends on installation conditions.
3. Measuring tolerance: ±3%.