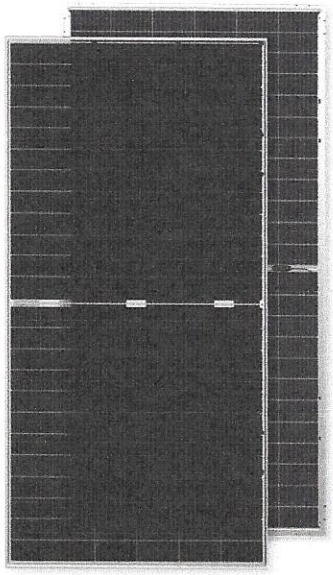
# NPV-BFC 385-400W

## Dual-glass Monocrystalline Solar Module

144 Cells / MBB / Bifacial Mono PERC / 1500V DC / 19.5% Maximum Efficiency



## KEY FEATURES

**Ultra-high power output**
MBB mono PERC cell technology, maximum power output 400W
Half-cut cell layout, lower Rs loss and thermal coefficients
Bifacial cell, additional 5%-30% more yield

**Ultra-high reliability**
Dual-glass design with POE encapsulant, no PID risk
100% EL double inspection, stringent internal quality control

**Excellent low light performance**
Excellent low light performance on cloudy days
mornings and evenings

**Certified to withstand the most challenging environment**
2400 Pa wind load • 5400 Pa snow load • 25 mm hail stones at 82 km/h
salt mist, ammonia corrosion and sand blowing testing

**High system voltage Compatible**
Maximum 1500V DC system voltage saves total system cost

**High fire class**
Fire class A certified, minimize the fire risk of the system

## QUALIFICATIONS & CERTIFICATES

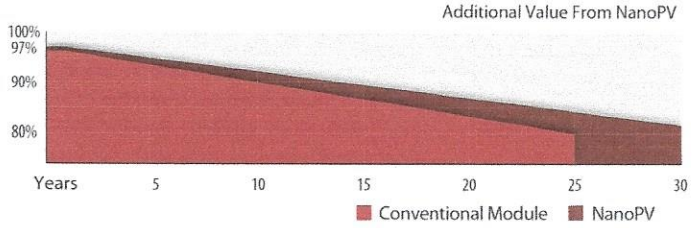
- IEC 61215, IEC 61730, UL 1703, IEC 61215, IEC 61730
- ISO 9001: 2008: ISO Quality Management System
- ISO 14001: 2004: ISO Environment Mangement System
- OHSAS 18001: 2007: Occupational Health and Safety

## WARRANTY

12 years Product Warranty

30 years Performance Warranty

*Insured by* Munich RE




## NanoPV

NanoPV Solar as the pioneering solar technology company of USA, is the leader in high energy efficiency cost effective solar module process and technology. NanoPV manufactures the most advanced solar modules in the industry through its manufacturing lines and the partnering companies.

NanoPV Solar Inc.,
181 Carnegie Center, Princeton, NJ 08540 USA
Tel: 1 (609) 419-9666, Web: www.nano-pv.com, Mail: info@nano-pv.com

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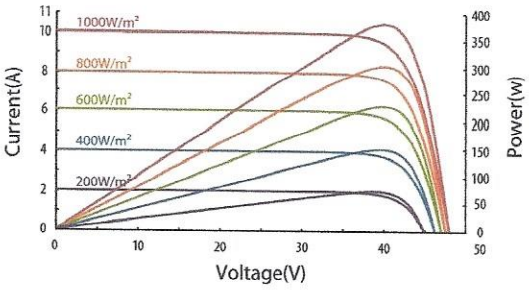
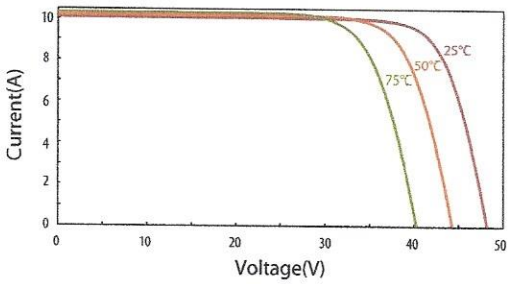
## IV CURVES

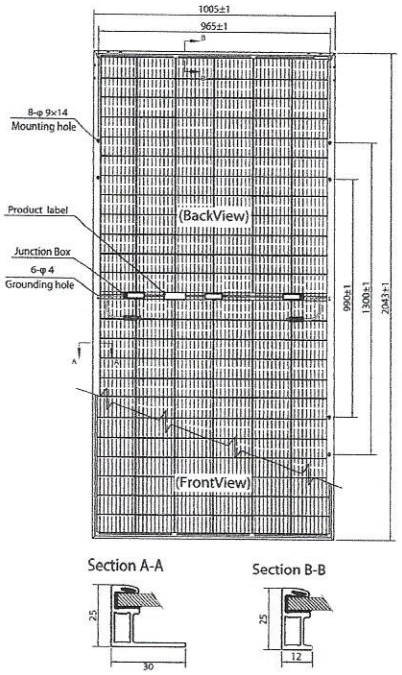
IV Curves of at different irradiances




IV Curves at different Temp




## DIMENSION




Section A-A




Section B-B




**Remarks**

## ELECTRICAL DATA

| TYPE (Tolerance: 0 - +5W) | NPV385 | | NPV390 | | NPV395 | | NPV400 | |
|---|---|---|---|---|---|---|---|---|
| Test Condition | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT |
| Maximum Power Pmax (W) | 385 | 284.90 | 390 | 289.08 | 395 | 293.28 | 400 | 297.52 |
| Maximum Power Voltage Vmp (V) | 40.2 | 37.0 | 40.5 | 37.3 | 40.7 | 37.6 | 41.0 | 37.9 |
| Maximum Power Current Imp (A) | 9.58 | 7.70 | 9.64 | 7.75 | 9.7 | 7.80 | 9.8 | 7.85 |
| Open Circuit Voltage Voc (V) | 48.2 | 45.0 | 48.4 | 45.2 | 48.6 | 45.4 | 48.8 | 45.7 |
| Short Circuit Current Isc (A) | 10.09 | 8.04 | 10.16 | 8.10 | 10.23 | 8.16 | 10.31 | 8.22 |
| Module Efficiency (%) | 18.8% | | 19.0% | | 19.2% | | 19.5% | |

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5
NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s

## REAR SIDE POWER GAIN

| Power Gain | 5% | 10% | 15% | 20% | 25% | 30% |
|---|---|---|---|---|---|---|
| Maximum Power - Pmax (W) | 422 | 440 | 460 | 380 | 500 | 520 |
| Open Circuit Voltage -Voc (V) | 48.80 | 48.80 | 48.80 | 48.90 | 48.90 | 48.90 |
| Short Circuit Current -Isc (A) | 10.94 | 11.38 | 11.87 | 12.33 | 12.82 | 13.30 |
| Maximum Power Voltage -Vmp (V) | 41.00 | 41.00 | 41.00 | 41.10 | 41.10 | 41.10 |
| Maximum Power Current -Imp (A) | 10.29 | 10.73 | 11.22 | 11.68 | 12.17 | 12.65 |

## TEMPERATURE RATINGS

| | |
|---|---|
| Temperature Coefficient of Isc (αIsc) | +0.05%/℃ |
| Temperature Coefficient of Voc (βVoc) | -0.30%/℃ |
| Temperature Coefficient of Pmax (γPmp) | -0.37%/℃ |
| Normal Module Operating Temperature (NMOT) | 41°C±2°C |

## MAXIMUM RATINGS

| | |
|---|---|
| Maximum System Voltage | 1500V/DC(IEC) |
| Operating Temperature | -40℃-+85℃ |
| Maximum Series Fuse | 20A |
| Maximum Test Load,Push/Pull | 5400Pa/2400Pa |
| Conductivity at Ground | ≤ 0.1Ω |
| Safety Class | II |
| Resistance | ≥100MΩ |

## MECHNICAL DATA

| | |
|---|---|
| Solar Cell Type | Mono 79.375×158.75 mm(3.13×6.25 inches) |
| Number of Cells | 144 [2 x (12 x 6) ] |
| Module Dimensions | 2043×1005×25 mm(80.4×39.6×1.0 inches) |
| Weight | 25.5 kg(56.2 lb) |
| Front Cover | 2.0 mm (0.08 inches), high transmission, AR coated tempered glass |
| Back Cover | 2.0 mm (0.08 inches), high transmission, AR coated tempered glass |
| Frame | Silver, anodized aluminium alloy |
| J-Box | IP68 Rated |
| Cable | 4.0 mm² solar cable, 300 mm(11.8 inches) |
| Number of diodes | 3 |
| Connector | MC4 or MC4 compatible |

## PACKAGING CONFIGRATION

| | |
|---|---|
| Module per pallet | 32 pieces |
| Module per 40'HQ container | 22 pallets, 704 pieces |

NanoPV Solar Inc.,
103 Carnegie Center, Princeton, NJ-08540 USA.
Tel: +16098513666, Web: www.nano-pv.com, Mail: info@nano-pv.com

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