# VDS-S72

# 380-360w

**MONOCRYSTALLINE SOLAR MODULE 72cells**

## Product Advantages

**High conversion efficiency**
High module efficiency to guarantee power output.

**Easy Installation and Handing**
For various applications

**Outstanding low irradiation performance**
Excellent module efficiency even in the weak light conditions, such as morning or cloudy.

2400 Pa
5400 Pa

**Excellent loading capability**
2400Pa wind loads, 5400Pa snow loads.

+5W

**0 ~ +5W positive tolerance**
Detailed information in Electrical Specifications

ESISTANT

**Durability against extreme environmental**
High salt mist and ammonia resistance certified by TUV NORD

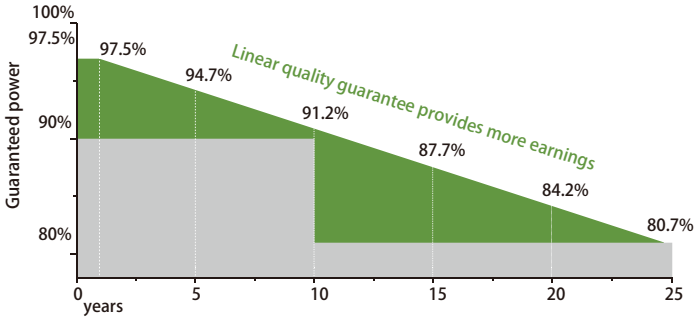
**19.5%**
Module efficiency

**380W**
Highest power output

**12 Years**
Material & Workmanship warranty

**25 Years**
Linear power output warranty

## Product Guarantee




## Product Certification

VENDATO SOLAR

Vendato Solar
Seegefelder Straße 7a
14612 Falkensee, Germany
www.vendato-solar.de

# VDS-S72

## Electrical Characteristics

| STC | S72-380 | S72-375 | S72-370 | S72-365 | S72-360 |
|---|---|---|---|---|---|
| Maximum Power at STC (Pmax) | 380 W | 375 W | 370 W | 365 W | 360 W |
| Optimum Operating Voltage (Vmp) | 40.1 V | 39.9 V | 39.7 V | 39.5 V | 39.2 V |
| Optimum Operating Current (Imp) | 9.48 A | 9.40 A | 9.32 A | 9.24 A | 9.18 A |
| Open Circuit Voltage (Voc) | 48.5 V | 48.3 V | 48.1 V | 47.9 V | 47.7 V |
| Short Circuit Current (Isc) | 9.93 A | 9.85 A | 9.78 A | 9.71 A | 9.66 A |
| Module Efficiency | 19.5% | 19.3% | 19.0% | 18.8% | 18.5% |
| Operating Module Temperature | -40 °C to +85 °C | | | | |
| Maximum System Voltage | 1000/1500 V DC (IEC) | | | | |
| Maximum Series Fuse Rating | 20 A | | | | |
| Power Tolerance | 0/+5W | | | | |

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Tolerances of Pmax, Voc and Isc are all within +/- 5%.

| NMOT | S72-380 | S72-375 | S72-370 | S72-365 | S72-360 |
|---|---|---|---|---|---|
| Maximum Power at NMOT (Pmax) | 284.1 W | 280.4 W | 276.7 W | 273.1 W | 269.50 |
| Optimum Operating Voltage (Vmp) | 37.3 V | 37.1 V | 36.9 V | 36.7 V | 36.5 V |
| Optimum Operating Current (Imp) | 7.63 A | 7.56 A | 7.50 A | 7.44 A | 7.38 A |
| Open Circuit Voltage (Voc) | 45.2 V | 45.0 V | 44.9 V | 44.7 V | 44.5 V |
| Short Circuit Current (Isc) | 8.02 A | 7.96 A | 7.90 A | 7.85 A | 7.79 A |

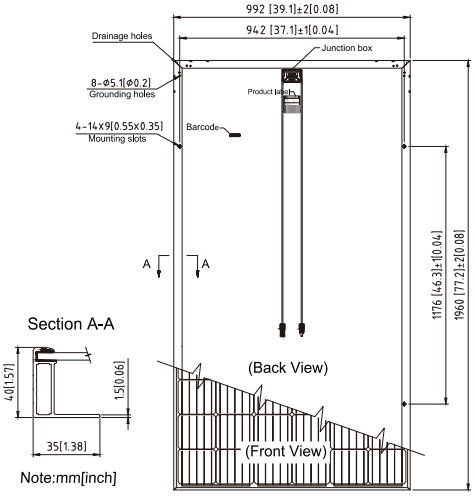
NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;

## Temperature Characteristics

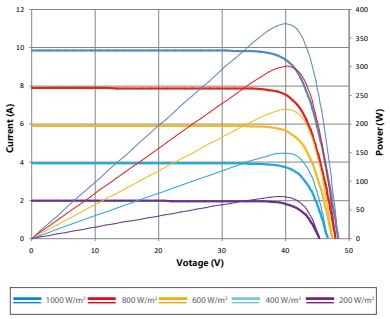
| | |
|---|---|
| Nominal Module Operating Temperature **NMOT**) | 42±2°C |
| Temperature Coefficient of Pmax | -0.37 %/°C |
| Temperature Coefficient of Voc | -0.34 %/°C |
| Temperature Coefficient of Isc | 0.060 %/°C |

## Mechanical Characteristics

| | |
|---|---|
| Solar Cell | Monocrystalline silicon |
| No. of Cells | 72 (6 × 12) |
| Dimensions | 1960 × 992 × 40mm |
| Weight | 22.1 kgs |
| Front Glass | 3.2 mm tempered glass |
| Frame | Anodized aluminium alloy |
| Junction Box | IP68 rated (3 bypass diodes) |
| Output Cables | 4.0 mm² , symmetrical lengths (-) 1100mm and (+) 1100 mm |
| Connectors | MC4 compatible |




Current-Voltage & Power-Voltage Curve (380)




## Packing Configuration

| Container | 20' GP | 40' HC |
|---|---|---|
| Pieces per pallet | 26 | 28 |
| Pallets per container | 10 | 22 |
| Pieces per container | 260 | 616 |

## Company Profile

The management of Vendato Solar has been active in the solar market in Europe for more than 10 years. We developed solar projects across Europe. Our references are in Germany, Spain, Italy, Bulgaria and other European countries. For the implementation of our projects, we are constantly improving the technology of PV modules we have made and carry out recurring tests. The quality control is especially important for us and we also have random tests for the PV modules in Germany. Our products have the currently valid test standards and certificates for the pv market.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www.vendato-solar.de

# VDS-S60

# 320-300w

**MONOCRYSTALLINE SOLAR MODULE 60cells**

## Product Advantages

**High conversion efficiency**
High module efficiency to guarantee power output.

**Easy Installation and Handing**
For various applications

**Outstanding low irradiation performance**
Excellent module efficiency even in the weak light conditions, such as morning or cloudy.

2400 Pa
5400 Pa

**Excellent loading capability**
2400Pa wind loads, 5400Pa snow loads.

+5W

**0 ~ +5W positive tolerance**
Detailed information in Electrical Specifications

ESİSTANT

**Durability against extreme environmental**
High salt mist and ammonia resistance certified by TUV NORD

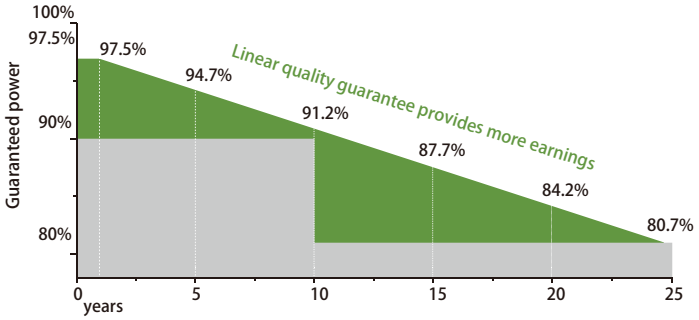
**19.5%**
Module efficiency

**320W**
Highest power output

**12 Years**
Material & Workmanship warranty

**25 Years**
Linear power output warranty

## Product Guarantee




## Product Certification


VENDATO SOLAR

Vendato Solar
Seegefelder Straße 7a
14612 Falkensee, Germany
www.vendato-solar.de

# VDS-S60

## Electrical Characteristics

| STC | S60-320 | S60-315 | S60-310 | S60-305 | S60-300 |
|---|---|---|---|---|---|
| Maximum Power at STC (Pmax) | 320 W | 315 W | 310 W | 305 W | 300 W |
| Optimum Operating Voltage (Vmp) | 33.7 V | 33.4 V | 33.1 V | 32.8 V | 32.5 V |
| Optimum Operating Current (Imp) | 9.5 A | 9.43 A | 9.37 A | 9.30 A | 9.23 A |
| Open Circuit Voltage (Voc) | 40.8 V | 40.6 V | 40.2 V | 39.8 V | 39.6 V |
| Short Circuit Current (Isc) | 10.01 A | 9.92 A | 9.87 A | 9.80 A | 9.72 A |
| Module Efficiency | 19.5% | 19.2% | 18.9% | 18.6% | 18.3% |
| Operating Module Temperature | -40 °C to +85 °C | | | | |
| Maximum System Voltage | 1000/1500 V DC (IEC) | | | | |
| Maximum Series Fuse Rating | 20 A | | | | |
| Power Tolerance | 0/+5W | | | | |

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Tolerances of Pmax, Voc and Isc are all within +/- 5%.

| NMOT | S60-320 | S60-315 | S60-310 | S60-305 | S60-300 |
|---|---|---|---|---|---|
| Maximum Power at NMOT (Pmax) | 239.3 W | 235.8 W | 232.6 W | 228.3 W | 224.8 W |
| Optimum Operating Voltage (Vmp) | 31.4 V | 31.1 V | 30.8 V | 30.5 V | 30.2 V |
| Optimum Operating Current (Imp) | 7.64 A | 7.59 A | 7.55 A | 7.49 A | 7.43 A |
| Open Circuit Voltage (Voc) | 38.3 V | 37.9 V | 37.6 V | 37.1 V | 36.6 V |
| Short Circuit Current (Isc) | 8.06 A | 8.01 A | 7.97 A | 7.92 A | 7.87 A |

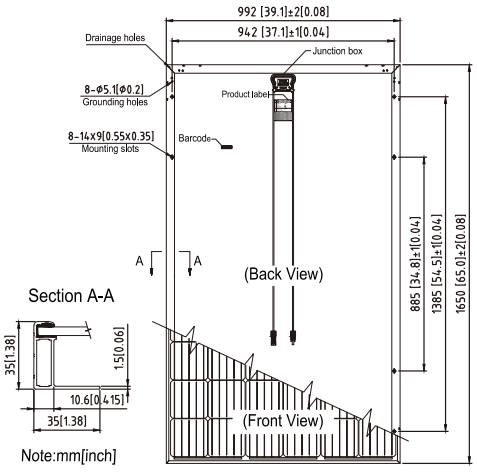
NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;

## Temperature Characteristics

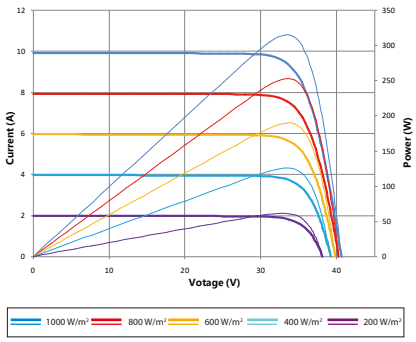
| | |
|---|---|
| Nominal Module Operating Temperature **NMOT**) | 42±2°C |
| Temperature Coefficient of Pmax | -0.37 %/°C |
| Temperature Coefficient of Voc | -0.34 %/°C |
| Temperature Coefficient of Isc | 0.060 %/°C |

## Mechanical Characteristics

| | |
|---|---|
| Solar Cell | Monocrystalline silicon |
| No. of Cells | 60 (6 × 10) |
| Dimensions | 1650 × 992 × 35mm |
| Weight | 18.3 kgs |
| Front Glass | 3.2 mm tempered glass |
| Frame | Anodized aluminium alloy |
| Junction Box | IP68 rated (3 bypass diodes) |
| Output Cables | 4.0 mm² , symmetrical lengths (-) 900mm and (+) 900 mm |
| Connectors | MC4 compatible |




Current-Voltage & Power-Voltage Curve (320)




## Packing Configuration

| Container | 20' GP | 40' HC |
|---|---|---|
| Pieces per pallet | 30 | 32 |
| Pallets per container | 12 | 28 |
| Pieces per container | 360 | 896 |

## Company Profile

The management of Vendato Solar has been active in the solar market in Europe for more than 10 years. We developed solar projects across Europe. Our references are in Germany, Spain, Italy, Bulgaria and other European countries. For the implementation of our projects, we are constantly improving the technology of PV modules we have made and carry out recurring tests. The quality control is especially important for us and we also have random tests for the PV modules in Germany. Our products have the currently valid test standards and certificates for the pv market.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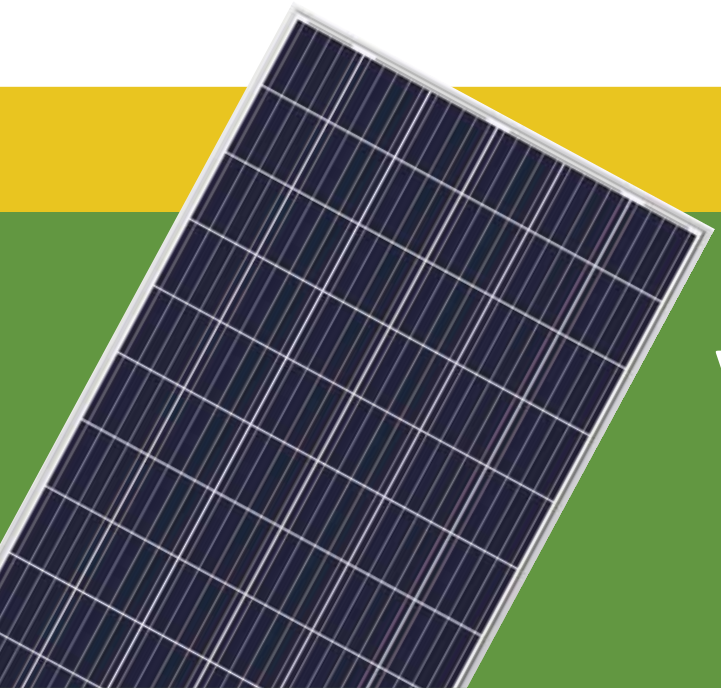
VENDATO SOLAR



# VDS-P72

# 350-330W

**POLYCRYSTALLINE SOLAR MODULE 72cells**

## Product Advantages

**High conversion efficiency**
High module efficiency to guarantee power output.

**Easy Installation and Handing**
For various applications

**Outstanding low irradiation performance**
Excellent module efficiency even in the weak light conditions, such as morning or cloudy.

2400 Pa
5400 Pa

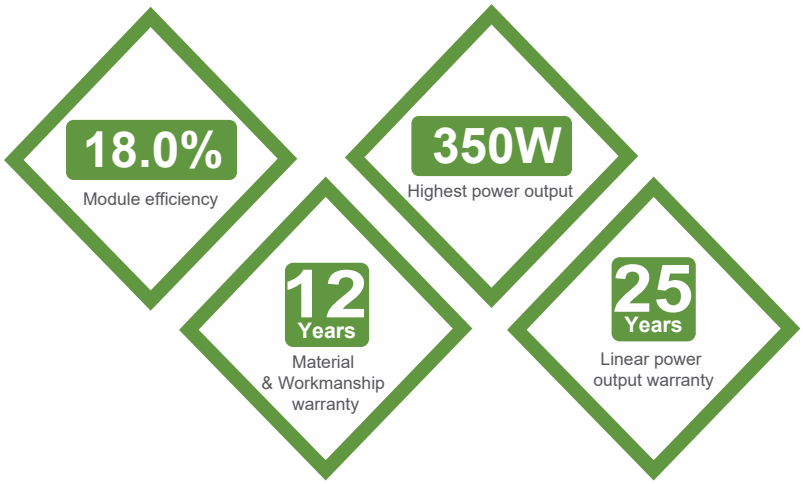
**Excellent loading capability**
2400Pa wind loads, 5400Pa snow loads.

+5W

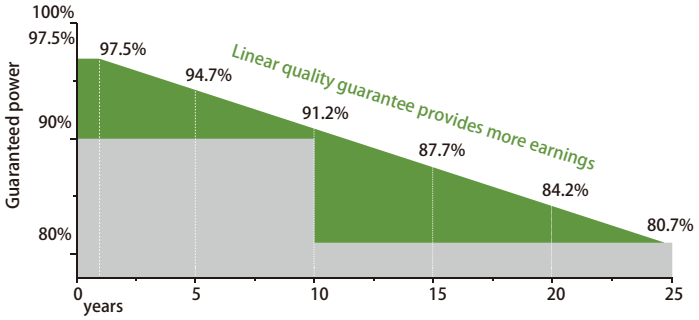
**0 ~ +5W positive tolerance**
Detailed information in Electrical Specifications

ESİSTANT

**Durability against extreme environmental**
High salt mist and ammonia resistance certified by TUV NORD




## Product Guarantee




## Product Certification

TÜV SÜD · IEC · MCS · JET · CQC · INMETRO · ISO · CE · J-PEC · CHUBB

VENDATO SOLAR

Vendato Solar
Seegefelder Straße 7a
14612 Falkensee, Germany
www.vendato-solar.de

# VDS-P72

## Electrical Characteristics

| STC | P72-350 | P72-345 | P72-340 | P72-335 | P72-330 |
|---|---|---|---|---|---|
| Maximum Power at STC (Pmax) | 350 W | 345 W | 340 W | 335 W | 330 W |
| Optimum Operating Voltage (Vmp) | 38.4 V | 38.2 V | 38.1 V | 38.0 V | 37.7 V |
| Optimum Operating Current (Imp) | 9.12 A | 9.04 A | 8.93 A | 8.82 A | 8.76 A |
| Open Circuit Voltage (Voc) | 46.9 V | 46.7 V | 46.5 V | 46.1 V | 45.8 V |
| Short Circuit Current (Isc) | 9.59 A | 9.50 A | 9.40 A | 9.30 A | 9.22 A |
| Module Efficiency | 18.0% | 17.7% | 17.5% | 17.2% | 17.0% |
| Operating Module Temperature | -40 °C to +85 °C | | | | |
| Maximum System Voltage | 1000/1500 V DC (IEC) | | | | |
| Maximum Series Fuse Rating | 20 A | | | | |
| Power Tolerance | 0/+5W | | | | |

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Tolerances of Pmax, Voc and Isc are all within +/- 5%.

| NMOT | P72-350 | P72-345 | P72-340 | P72-335 | P72-330 |
|---|---|---|---|---|---|
| Maximum Power at NMOT (Pmax) | 259.7 W | 256.1 W | 252.3 W | 251.6 W | 247.8 W |
| Optimum Operating Voltage (Vmp) | 35.4 V | 35.2 V | 35.1 V | 35.3 V | 35.1 V |
| Optimum Operating Current (Imp) | 7.34 A | 7.27 A | 7.19 A | 7.12 A | 7.06 A |
| Open Circuit Voltage (Voc) | 43.4 V | 43.2 V | 43.0 V | 43.1 V | 42.8 V |
| Short Circuit Current (Isc) | 7.78 A | 7.70 A | 7.62 A | 7.53 A | 7.46 A |

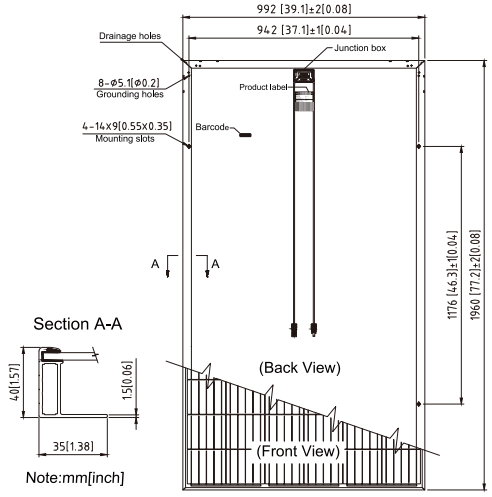
NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;

## Temperature Characteristics

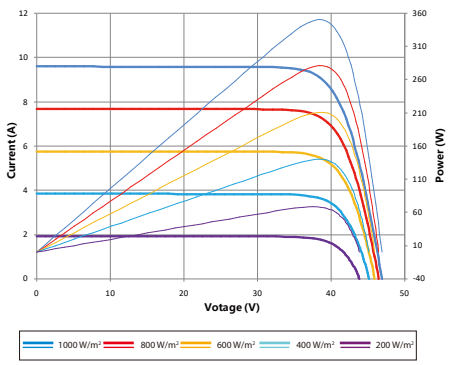
| | |
|---|---|
| Nominal Module Operating Temperature **NMOT**) | 42±2°C |
| Temperature Coefficient of Pmax | -0.38%/°C |
| Temperature Coefficient of Voc | -0.33 %/°C |
| Temperature Coefficient of Isc | 0.067%/°C |

## Mechanical Characteristics

| | |
|---|---|
| Solar Cell | Polycrystalline silicon |
| No. of Cells | 72 (6 × 12) |
| Dimensions | 1960 × 992 × 40mm |
| Weight | 22.1 kgs |
| Front Glass | 3.2 mm tempered glass |
| Frame | Anodized aluminium alloy |
| Junction Box | IP68 rated (3 bypass diodes) |
| Output Cables | 4.0 mm² , symmetrical lengths (-) 1100mm and (+) 1100 mm |
| Connectors | MC4 compatible |




Current-Voltage & Power-Voltage Curve (350)




## Packing Configuration

| Container | 20' GP | 40' HC |
|---|---|---|
| Pieces per pallet | 26 | 28 |
| Pallets per container | 10 | 22 |
| Pieces per container | 260 | 616 |

## Company Profile

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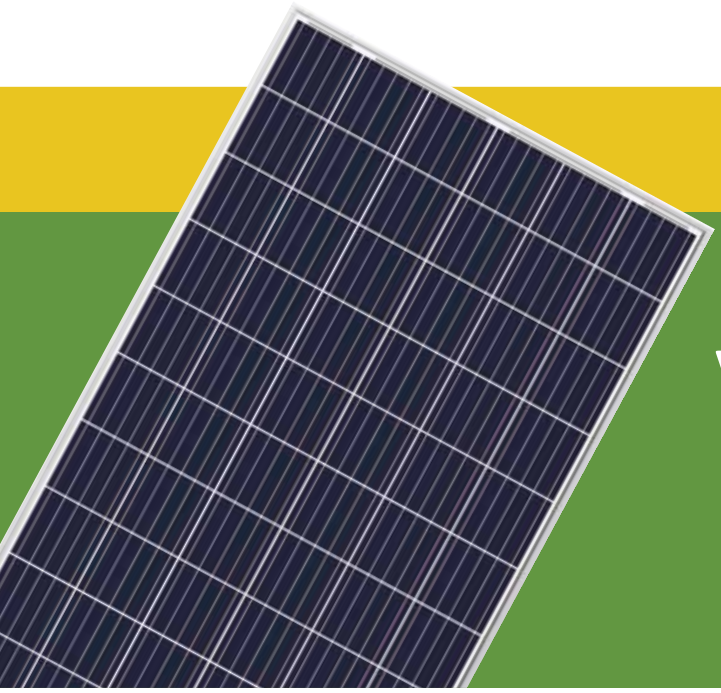
VENDATO SOLAR



# VDS-P60

# 290-270w

**POLYCRYSTALLINE SOLAR MODULE 60cells**

## Product Advantages

**High conversion efficiency**
High module efficiency to guarantee power output.

**Easy Installation and Handing**
For various applications

**Outstanding low irradiation performance**
Excellent module efficiency even in the weak light conditions, such as morning or cloudy.

2400 Pa
5400 Pa

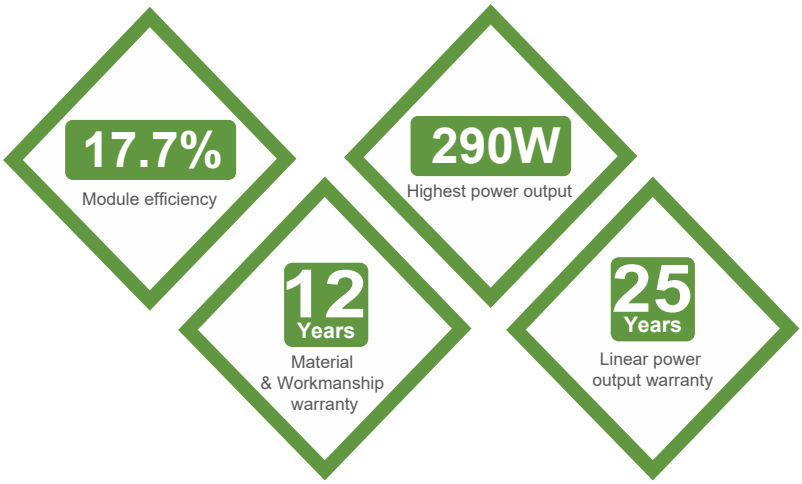
**Excellent loading capability**
2400Pa wind loads, 5400Pa snow loads.

+5W

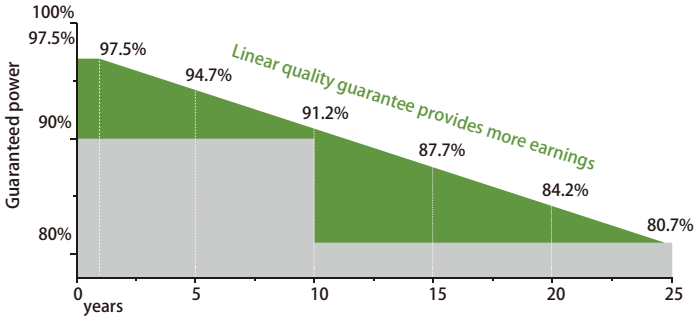
**0 ~ +5W positive tolerance**
Detailed information in Electrical Specifications

ESİSTANT

**Durability against extreme environmental**
High salt mist and ammonia resistance certified by TUV NORD




## Product Guarantee




## Product Certification

TÜV SÜD · IEC · MCS · JET · CQC · INMETRO · ISO · CE · J-PEC · CHUBB

VENDATO SOLAR

Vendato Solar
Seegefelder Straße 7a
14612 Falkensee, Germany
www.vendato-solar.de

# VDS-P60

## Electrical Characteristics

| STC | P60-290 | P60-285 | P60-280 | P60-275 | P60-270 |
|---|---|---|---|---|---|
| Maximum Power at STC (Pmax) | 290 W | 285 W | 280 W | 275 W | 270 W |
| Optimum Operating Voltage (Vmp) | 31.9 V | 31.7 V | 31.6 V | 31.4 V | 31.1 V |
| Optimum Operating Current (Imp) | 9.09 A | 9.00 A | 8.86 A | 8.76 A | 8.69 A |
| Open Circuit Voltage (Voc) | 39.1 V | 38.9 V | 38.5 V | 38.1 V | 37.9 V |
| Short Circuit Current (Isc) | 9.56 A | 9.46 A | 9.38 A | 9.27 A | 9.21 A |
| Module Efficiency | 17.7% | 17.4% | 17.1% | 16.8% | 16.5% |
| Operating Module Temperature | -40 °C to +85 °C | | | | |
| Maximum System Voltage | 1000/1500 V DC (IEC) | | | | |
| Maximum Series Fuse Rating | 20 A | | | | |
| Power Tolerance | 0/+5W | | | | |

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Tolerances of Pmax, Voc and Isc are all within +/- 5%.

| NMOT | P60-290 | P60-285 | P60-280 | P60-275 | P60-270 |
|---|---|---|---|---|---|
| Maximum Power at NMOT (Pmax) | 217.9 W | 214.4 W | 210.3 W | 206.4 W | 203.0 W |
| Optimum Operating Voltage (Vmp) | 29.9 V | 29.8 V | 29.5 V | 29.2 V | 29.0 V |
| Optimum Operating Current (Imp) | 7.28 A | 7.20 A | 7.14 A | 7.07 A | 7.01 A |
| Open Circuit Voltage (Voc) | 36.6 V | 36.4 V | 36.0 V | 35.7 V | 35.5 V |
| Short Circuit Current (Isc) | 7.73 A | 7.65 A | 7.59 A | 7.49 A | 7.45 A |

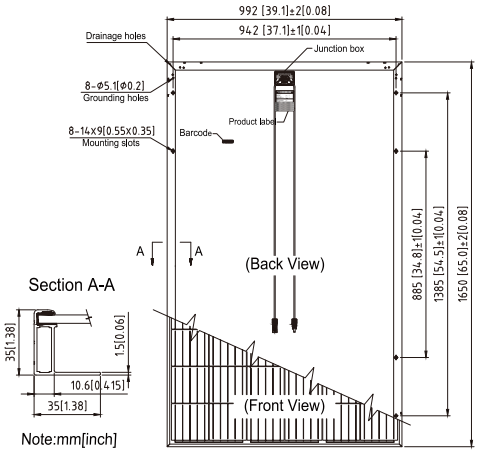
NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;

## Temperature Characteristics

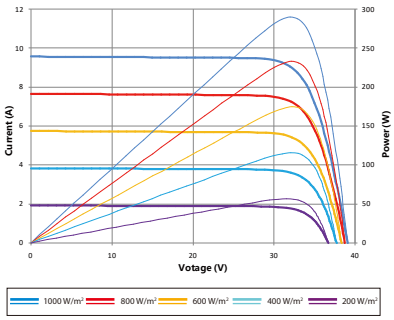
| | |
|---|---|
| Nominal Module Operating Temperature **NMOT**) | 42±2°C |
| Temperature Coefficient of Pmax | -0.38%/°C |
| Temperature Coefficient of Voc | -0.33 %/°C |
| Temperature Coefficient of Isc | 0.067%/°C |

## Mechanical Characteristics

| | |
|---|---|
| Solar Cell | Polycrystalline silicon |
| No. of Cells | 60 (6 × 10) |
| Dimensions | 1650 × 992 × 35mm |
| Weight | 18.3 kgs |
| Front Glass | 3.2 mm tempered glass |
| Frame | Anodized aluminium alloy |
| Junction Box | IP68 rated (3 bypass diodes) |
| Output Cables | 4.0 mm² , symmetrical lengths (-) 900mm and (+) 900 mm |
| Connectors | MC4 compatible |




Current-Voltage & Power-Voltage Curve (290)




## Packing Configuration

| Container | 20' GP | 40' HC |
|---|---|---|
| Pieces per pallet | 30 | 32 |
| Pallets per container | 12 | 28 |
| Pieces per container | 360 | 896 |

## Company Profile

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