



VDS-S108/M10N

415-440W

182 mm Half Cell, 108 Cells

TOPCon Monofacial Solar Module

Status: 05/2024

22.5%

Module Efficiency

440W

Highest Power Output

12 YEARS

Product Warranty

30 YEARS

Linear Power Warranty

1.00% First year power degradation

0.40% Annual degradation

PRODUCT ADVANTAGES



Half cut technology

New circuit design, lower internal current, lower Rs loss Ga doped wafer, attenuation <2% (1st year) / ≤0.55% (Linear)



Significantly lower the risk of hot spot

Special circuit design with much lower hot spot temperature



Lower LCOE

2% more power generation, lower LCOE



Excellent Anti-PID performance

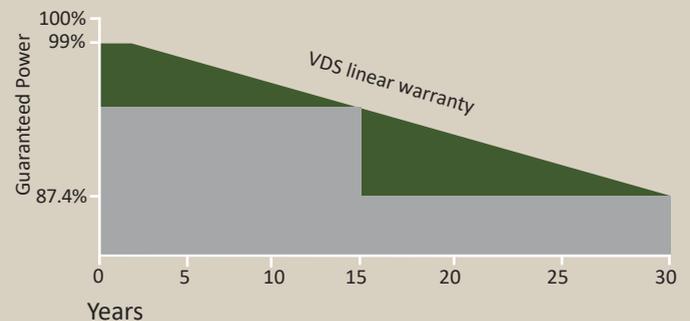
2 times of industry standard Anti-PID test by TUV SUD



IP68 junction box

High waterproof level

PERFORMANCE WARRANTY



Certifications of Product and Manufacturer



VDS Power GmbH

Rudolf-Diesel-Strasse 10, 33178 Borchten

www.vdspower.eu

ELECTRICAL PARAMETERS

| | | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax/W)* | 415 | 420 | 425 | 430 | 435 | 440 |
| Operating Voltage (Vmp/V) | 31.9 | 32.1 | 32.3 | 32.5 | 32.7 | 32.9 |
| Operating Current (Imp/A) | 13.01 | 13.09 | 13.16 | 13.24 | 13.31 | 13.38 |
| Open-Circuit Voltage (Voc/V) | 38.5 | 38.7 | 38.9 | 39.1 | 39.3 | 39.5 |
| Short-Circuit Current (Isc/A) | 13.72 | 13.81 | 13.91 | 14.01 | 14.10 | 14.19 |
| Module Efficiency ηm (%) | 21.2 | 21.5 | 21.7 | 22.0 | 22.3 | 22.5 |
| Power Tolerance (W) | 0~+5 | | | | | |

STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5; *Measuring tolerance: ±3%

PERFORMANCE AT NMOT

| | | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax/W) | 317 | 321 | 325 | 329 | 333 | 337 |
| Operating Voltage (Vmp/V) | 30.0 | 30.2 | 30.4 | 30.6 | 30.8 | 31.0 |
| Operating Current (Imp/A) | 10.57 | 10.63 | 10.70 | 10.76 | 10.82 | 10.88 |
| Open-Circuit Voltage (Voc/V) | 36.4 | 36.6 | 36.8 | 37.0 | 37.2 | 37.4 |
| Short-Circuit Current (Isc/A) | 11.10 | 11.18 | 11.25 | 11.33 | 11.41 | 11.48 |

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

MECHANICAL SPECIFICATION

| | |
|--------------------------|----------------------------------|
| Cell Type | Monocrystalline |
| Cell Dimensions | 182*182 mm |
| Cell Arrangement | 108 (6*18) |
| Weight | 21 kg |
| Module Dimensions | 1724*1134*30 mm |
| Cable Length | 350 mm or customized length |
| Cable Cross Section Size | TÜV: 4 mm ² |
| Front Glass | 3.2 mm AR Coating Tempered Glass |
| No. of Bypass Diodes | 3/6 |
| Packing Configuration | 36 pcs/Carton, 936 pcs/40HQ |
| Frame | Anodized Aluminium Alloy |
| Junction Box | IP68 |

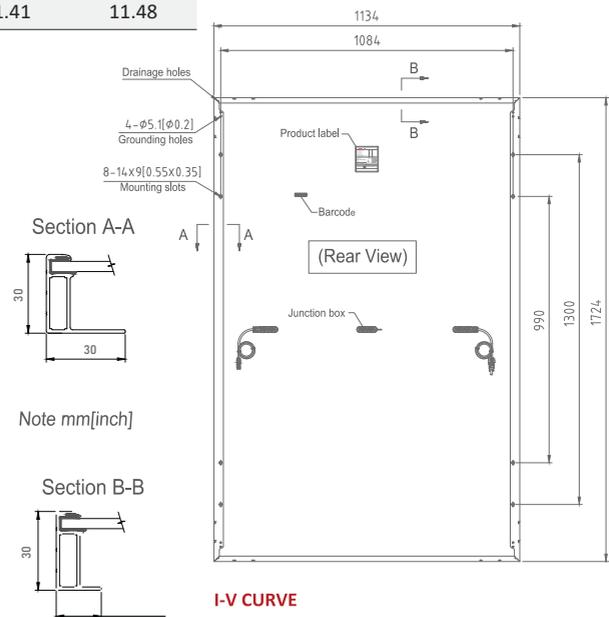
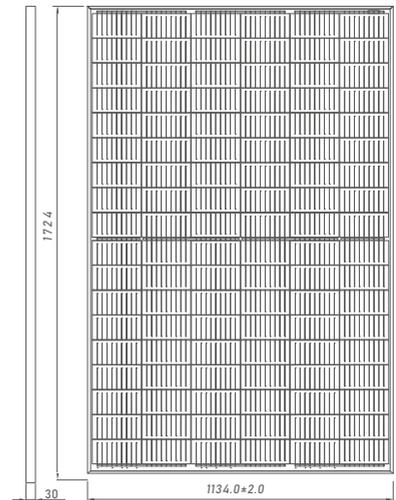
OPERATING CONDITIONS

| | |
|------------------------|---|
| Maximum System Voltage | 1500V/DC(IEC) |
| Operating Temperature | -40°C to +85°C |
| Maximum Series Fuse | 25A |
| Static Loading | Snow Loading: 5400Pa / Wind Loading: 2400Pa |
| Conductivity at Ground | ≤0.1Ω |
| Safety Class | II |
| Resistance | ≥100MΩ |
| Connector | MC4 compatible |

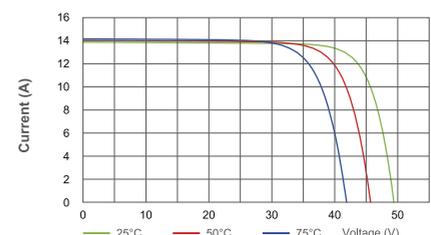
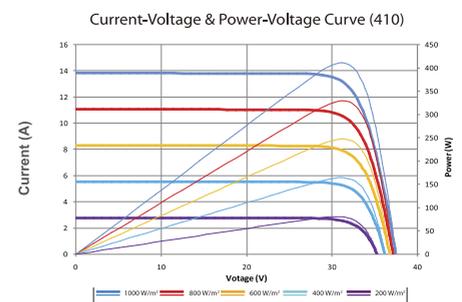
TEMPERATURE COEFFICIENT

| | |
|------------------------------|------------|
| Temperature Coefficient Pmax | -0.30%/°C |
| Temperature Coefficient Voc | -0.25%/°C |
| Temperature Coefficient Isc | +0.046%/°C |
| NMOT | 42±2°C |

TECHNICAL DRAWINGS



I-V CURVE



COMPANY PROFILE

VDS Power GmbH is a German based company with vast experience in providing photovoltaic solutions worldwide. Our management team has been focusing on the European market for more than 10 years. We have satisfied customers in Germany, Spain, Italy, Bulgaria and many other European countries. Through direct access to production, we control the quality of photovoltaic modules by monitoring and documenting the manufacturing processes from material procurement to final testing. With a warehouse in Rotterdam, we ensure fast delivery within the EU. This enables us to respond quickly to the needs of different purchase quantities. We attach great importance to a reliable partnership and cooperation with our customers. We value reliability, commitment, safety and transparency.