



VDS-S132/M10N

510-535W

182 mm Half Cell, 132 Cells

TOPCon Monofacial Solar Module, Full Black

Status: 09/2024

22.5%

Module Efficiency

535W

Highest Power Output

12 YEARS

Product Warranty

30 YEARS

Linear Power Warranty

1.00% First year power degradation

0.40% Annual degradation

PRODUCT ADVANTAGES



High module conversion efficiency

Module efficiency up to 22.5% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increase the power output



Excellent weak light performance

More power output in weak light condition, such as cloudy, morning and sunset



Extended wind and snow load tests

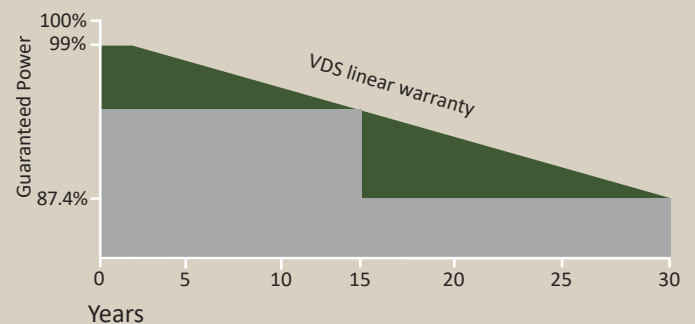
Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)



IP68 junction box

High waterproof & dustproof level

PERFORMANCE WARRANTY



Certifications of Product and Manufacturer



VDS Power GmbH

Rudolf-Diesel-Strasse 10, 33178 Borchten

www.vdspower.eu

ELECTRICAL DATA (STC)

Maximum Power (Pmax/W)*	510	515	520	525	530	535
Operating Voltage (Vmp/V)	39.1	39.3	39.5	39.7	39.9	40.1
Operating Current (Imp/A)	13.05	13.11	13.17	13.23	13.29	13.35
Open-Circuit Voltage (Voc/V)	47.0	47.2	47.4	47.6	47.8	48.0
Short-Circuit Current (Isc/A)	13.82	13.90	13.98	14.05	14.12	14.20
Module Efficiency ηm (%)	21.5	21.7	21.9	22.1	22.3	22.5
Power Tolerance (W)	0~+5					

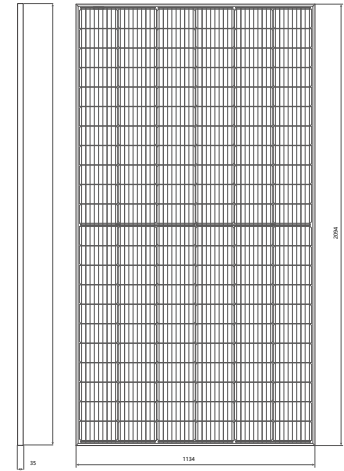
STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5; *Measuring tolerance: ±3%

ELECTRICAL DATA (NMOT)

Maximum Power (Pmax/W)	388	392	396	400	404	408
Operating Voltage (Vmp/V)	36.8	37.0	37.2	37.4	37.6	37.8
Operating Current (Imp/A)	10.55	10.60	10.65	10.71	10.75	10.80
Open-Circuit Voltage (Voc/V)	44.6	44.8	45.0	45.2	45.4	45.6
Short-Circuit Current (Isc/A)	11.08	11.15	11.21	11.27	11.34	11.40

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

TECHNICAL DRAWINGS



MECHANICAL SPECIFICATION

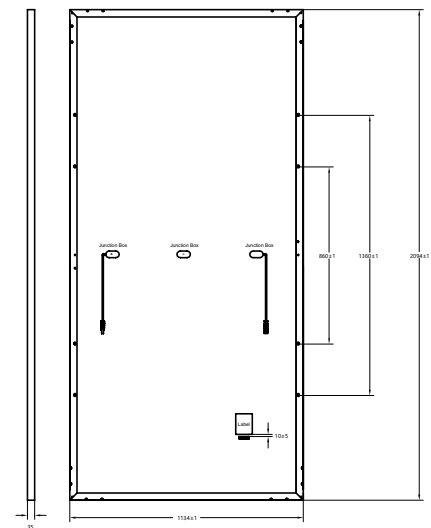
Cell Type	N-Type TOPCon Monocrystalline Silicon
No. of Cells	132 (6*22)
Module Dimensions	2094*1134*35 mm
Weight	27.0 kg
Encapsulant Material	POE/EVA
Cable Length	350 mm or customized length
Cable Cross Section Size	TÜV: 4 mm ²
Front Glass	3.2 mm AR Coating Tempered Glass
No. of Bypass Diodes	3
Packing Configuration	31 pcs/Carton, 682 pcs/40HQ
Frame	Anodized Aluminium Alloy
Junction Box	IP68

OPERATING CONDITIONS

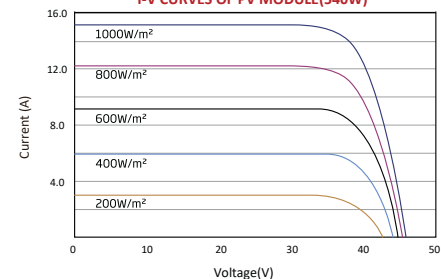
Maximum System Voltage	1500V/DC(IEC)
Operating Temperature	-40°C to +85°C
Maximum Series Fuse	25A
Static Loading	Snow Loading: 5400Pa / Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	II
Resistance	≥100MΩ
Connector	MC4 compatible

TEMPERATURE COEFFICIENT

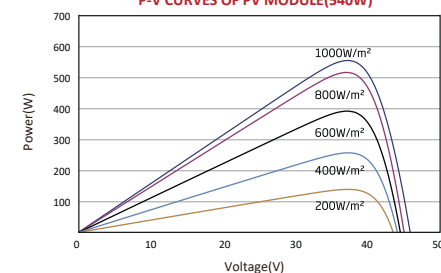
Temperature Coefficient Pmax	-0.29%/°C
Temperature Coefficient Voc	-0.25%/°C
Temperature Coefficient Isc	+0.046%/°C
NMOT	42±2°C



I-V CURVES OF PV MODULE(540W)



P-V CURVES OF PV MODULE(540W)



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.