VDS POWER

VDS-S144/M10H | 182mm Half Cell Series

530-550W

144-CELL HALF CUT MONOCRYSTALLINE SOLAR MODULE

Artikel-Nr.: 550-3.2022-R35-C350

21.3%	550W	12 YEARS	25 YEARS
Module Efficiency	Highest Power Output	Material & Workmanship Warranty	Linear Power Warranty

-2.00% First year power degradation **-0.55%** Annual degradation

PRODUCT ADVANTAGES

10BB half-cut cell technology
New circuit design, lower internal current, lower Rs loss Ga dopped wafer, attenuation<2% (1st year) / ≤0.55% (Linear)

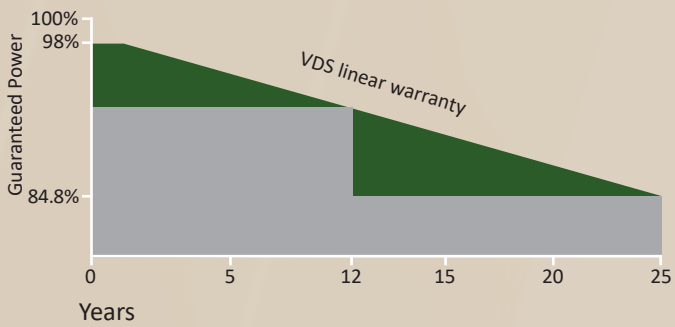
Significantly lower the risk of hot spot
Special circuit design with much lower hot spot temperature

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
KUHWASEN 3, 72355 SCHÖMBERG, GERMANY

www.vdspower.de

VDS-S144/M10H

ELECTRICAL PARAMETERS

Maximum Power (Pmax/W)*	530	535	540	545	550
Operating Voltage (Vmp/V)	40.8	41.0	41.2	41.4	41.6
Operating Current (Imp/A)	13.00	13.05	13.11	13.17	13.23
Open-Circuit Voltage (Voc/V)	49.0	49.2	49.4	49.6	49.8
Short-Circuit Current (Isc/A)	13.76	13.81	13.87	13.93	13.99
Module Efficiency ηm (%)	20.5	20.7	20.9	21.1	21.3
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)	395	398	402	406	410
Operating Voltage (Vmp/V)	38.0	38.2	38.4	38.6	38.8
Operating Current (Imp/A)	10.40	10.44	10.49	10.54	10.58
Open-Circuit Voltage (Voc/V)	45.9	46.1	46.3	46.4	46.6
Short-Circuit Current (Isc/A)	11.09	11.13	11.18	11.23	11.28

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	144 (6*24)
Weight	29 kg
Module Dimensions	2279*1134*35 mm
Cable Length	Portrait 350 mm/Customized
Cable Cross Section Size	TÜV: 4 mm²
Front Glass	3.2 mm AR Coating Tempered Glass
No. of Bypass Diodes	3/6
Packing Configuration	31 pcs/Carton, 620 pcs/40HQ
Frame	Anodized Aluminium Alloy
Junction Box	IP68

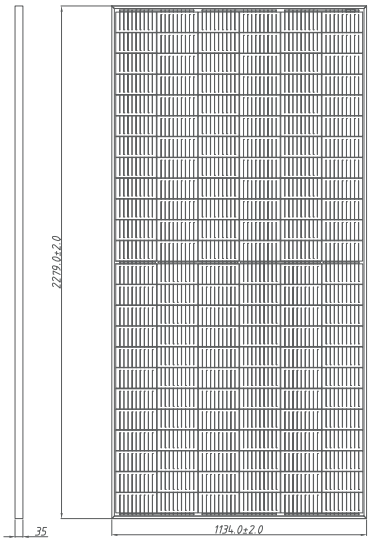
OPERATING CONDITIONS

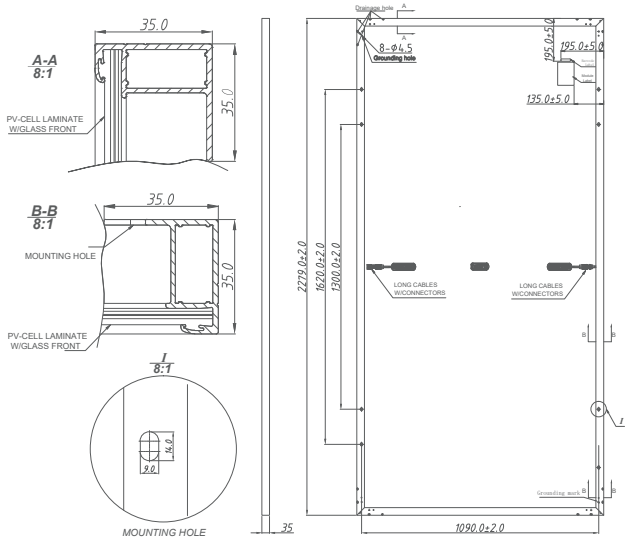
Maximun System Voltage	1000V/1500V/DC(IEC)
Operating Temperature	-40°C to +85°C
Maximun Series Fuse	25A
Static Loading	Snow Loading: 5400Pa / Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	II
Resistance	≥100MΩ
Connector	MC4 compatible

TEMPERATURE COEFFICIENT

Temperature Coefficient Pmax	-0.34%/°C
Temperature Coefficient Voc	-0.25%/°C
Temperature Coefficient Isc	+0.040%/°C
NMOT	43±2°C

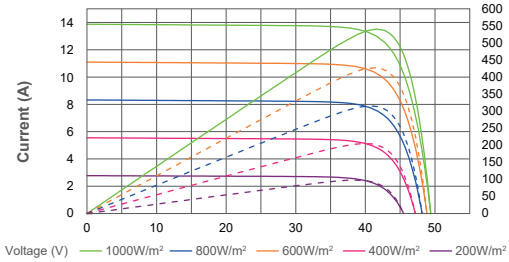
TECHNICAL DRAWINGS

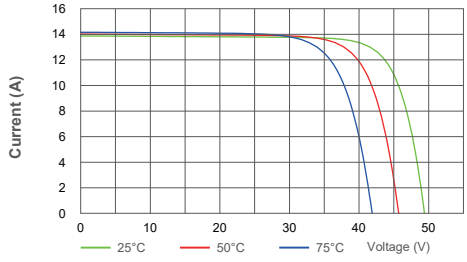




I-V CURVE

VDS-S144/M10H-540





COMPANY PROFILE

VDS-Power is a German-based company with strong expertise in providing Photovoltaic solution globally. Our management team has been focused in European market for more than 10 years. We have satisfied customers in Germany, Spain, Italy, Bulgarian and many other European countries. Through direct access to production, we control the quality of photovoltaic modules by monitoring and documents the manufacturing processes from material procurement to final testing. With a warehouse in Rotterdam we ensures fast delivery within EU. This enables us to quickly meet the needs of different purchase quantities. We attach great importance to a reliable partnership and cooperation with our customers. We value reliability, commitment, security and transparency.