



INFINITY ENERGY EUROPE

GEMINI SERIES 520-550



Half-cut cell technology
New circuit design,
lower internal current,
lower Rs loss



Special circuit design
with much lower hot spot
temperature



Fire safety
(Class C, certified to TÜV
Rheinland and Rheinland
test standards)



Resistance to power
attenuation passed TÜV
Rheinland system voltage
endurance test

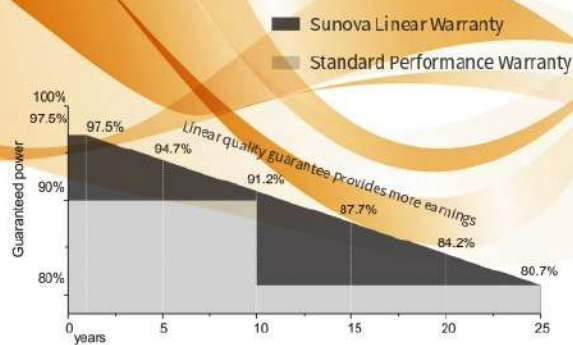


Resistance to salt-spray
corrosion
(IEC61701, certified to TÜV
Rheinland test standard)



100% double EL test
enabling remarkable
reduction of hidden crack
rate of modules

LINEAR PERFORMANCE WARRANTY



15
YEARS

Product quality
& process guarantee

25
YEARS

Linear power
guarantee

COMPREHENSIVE CERTIFICATES



ISO 9001: Quality Management System
ISO 14001: Environmental Management System Standard
OHSAS 18001: International Occupational Health and
Safety Assessment System Standard

PRODUCT INSURANCE



GEMINI SERIES 520-550

ELECTRIC CHARACTERISTICS

Model of modules	IEE520M		IEE530M		IEE540M		IEE550M	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power – P_{mp} (W)	520	387	530	394	540	402	550	410
Open-circuit voltage – V_{oc} (V)	49.10	46.34	49.26	46.50	49.42	46.65	49.60	46.82
Short-circuit current – I_{sc} (A)	13.57	10.96	13.71	11.07	13.85	11.19	14.04	11.35
Maximum power voltage – V_{mp} (V)	40.44	37.54	40.54	37.86	40.71	38.11	40.83	38.25
Maximum power current – I_{mp} (A)	12.86	10.32	13.08	10.41	13.27	10.56	13.48	10.73
Module efficiency – η_m (%)	20.12%		20.51%		20.89%		21.28%	
Power tolerance (W)	(0,+5)							
Maximum system voltage (V)	1500V							
Maximum rated fuse current (A)	25							
Current operating temperature (°C)	-40~+85 °C							

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 °C, Spectra at AM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/S

STRUCTURAL CHARACTERISTICS

Module dimensions (L*W*H)	2279 × 1134 × 35mm
Weight	28.9 kg
Number of cells	144 cells
Cell	PERC Monocrystalline 182x91mm
Glass	Tempered, 3.2mm AR, High transmittance, Low iron
Frame	Anodized aluminum alloy
Junction box	IP68
Output wire	4.0 mm ² , wire length: 1400mm
Connector	MC4 Compatible
Mechanical load	5400 Pa

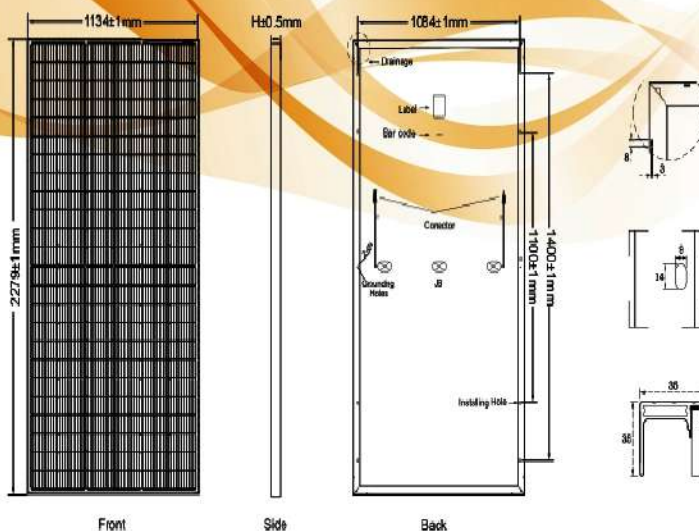
TEMPERFORMANCE RATINGS

Temperature coefficient (P_{max})	-0.35 %/°C
Temperature coefficient (V_{oc})	-0.28 %/°C
Temperature coefficient (I_{sc})	+0.048 %/°C
Nominal operating cell temperature	45 ± 2 °C

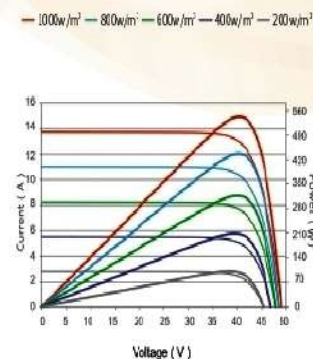
PACKAGING CONFIGURATION

Container	40HQ
Quantity/pallet	31
Pallets/container	20
Quantity/container	620

MODULE DIMENSIONS (mm)



Current-Voltage & Power-Voltage Curves (540W)



Temperature Dependence of I_{sc} , V_{oc} , P_{max}

