



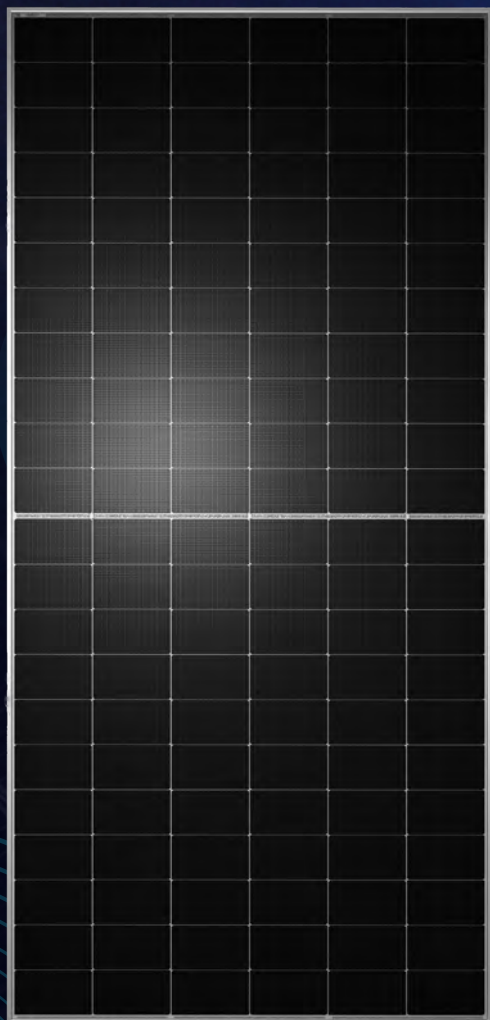
Heckert Solar

FUTURE STARTS IN GERMANY



ZEUS 2.1

N-Type bifacial glass-glass-module
635-640WP



ATTRACTIVE DESIGN



MODULE POWER UP TO 640WP



MODULE EFFICIENCY UP TO 23,7%

DE

GERMAN
WARRANTOR



DIRECT
SERVICE

12

YEARS

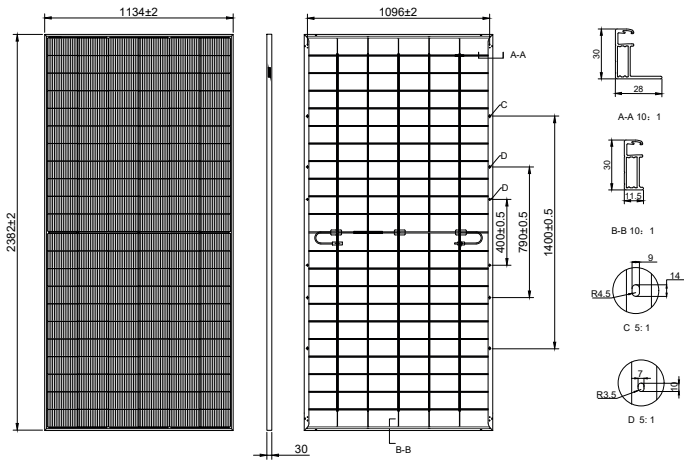
PRODUCT
WARRANTY

30

YEARS

PERFORMANCE
WARRANTY

DIMENSIONS IN MM



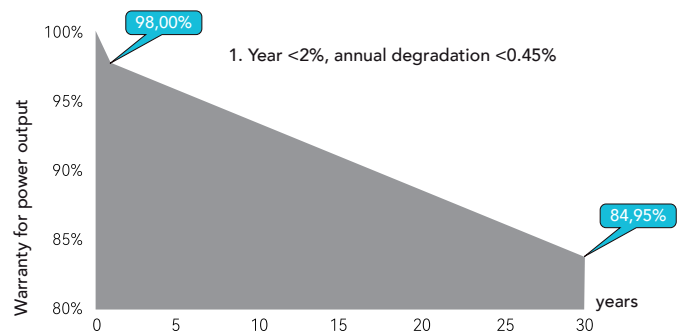
MODULE SPECIFICATIONS

Cell Technology	TNC 2.0 n-type monocrystalline
Cells	132 half cut cells
Dimensions	2382±2 x 1134±2 x 30mm
Weight	32,5kg
Front Glass	2,0mm partially heat strengthened AR-glass
Rear Glass	2,0mm partially heat strengthened glass
Frame	30mm silver anodized aluminium frame
Junction Box	3 diodes, IP68
Connecting Cable	4mm ² /MC 4 compatible (1500V)
Cable Length	+400mm, -200mm
Max. Test-Load, push/pull	5400Pa / 2400Pa

ELECTRICAL SPECIFICATIONS¹ (STC²)

Rated Power P_{MPP} (Wp)	635	640
Max. Power Current I_{MPP} (A)	15,40	15,47
Max. Power Voltage V_{MPP} (V)	41,24	41,38
Short-circuit Current I_{SC} (A)	16,26	16,33
Open-circuit Voltage V_{OC} (V)	49,60	49,75
Module Efficiency (%)	23,5	23,7

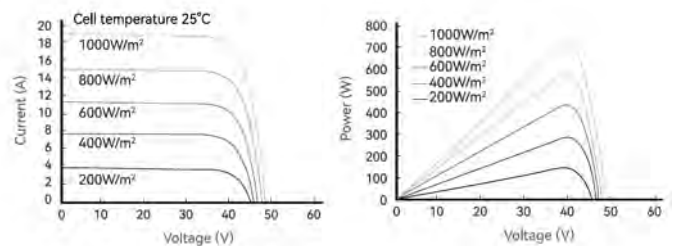
LINEAR POWER OUTPUT WARRANTY



ELECTRICAL SPECIFICATIONS¹ (BNPI³)

Rated Power P_{MPP} (Wp)	701,1	706,8
Max. Power Current I_{MPP} (A)	17,00	17,08
Max. Power Voltage V_{MPP} (V)	41,24	41,38
Short-circuit Current I_{SC} (A)	17,95	18,03
Open-circuit Voltage V_{OC} (V)	49,60	49,75

I-V CURVES



BIFACIAL OUTPUT (STC)

5%	P_{max} (Wp)	666	672
15%	P_{max} (Wp)	730	736
25%	P_{max} (Wp)	793	800

TEMPERATURE CHARACTERISTICS

Nominal Module Operating Temperature ³	45 ± 2°C
Temperature Coefficient P_{MAX} (%/°C)	- 0,28
Temperature Coefficient V_{OC} (%/°C)	- 0,24
Temperature Coefficient I_{SC} (%/°C)	+ 0,046

OPERATING CONDITIONS

Operation Temperature Range	-40 ~ 70°C
Max. System Voltage (VDC)	1500
Reverse Current Feed I_R (A)	30
Power Performance Tolerance (Wp)	0/+4,99
Max. Bifaciality (%)	80 ± 5

¹Measurements according to IEC 60904-3, measurements tolerance: I_{SC} ±5%, V_{OC} ±5%, P_{MPP} ±4%, bifaciality: 80% ± 5%, ²Standard Test Conditions STC: irradiation 1.000 W/m² with a spectrum of AM 1,5 at a cell temperature of 25°C. Maximum reduction in efficiency at 200W/m²: 2%. ³BNPI: Front side irradiance 1.000 W/m², rear side irradiance 135 W/m² with spectrum AM 1.5 at a cell temperature of 25°C. Operation temperature range between -40°C and 70°C. All dimensions ±3mm. Technical specifications subject to changes. No liability is assumed for particulars. Please follow our installations instructions.

CERTIFICATES & WARRANTIES

IEC 61215, IEC 61730
 IEC 62716: Ammonia Corrosion
 IEC 61701: Salt Mist Corrosion
 IEC 62804: PID
 IEC 60068-2-68: Dust & Sand
 Fire Protection Class: A (according to UL 790)
 Hail Resistance Class: HW4
 Product Warranty: 12 years
 Performance Warranty: 30 years
 36 Modules/Palettes, 720 Modules/40'HC

