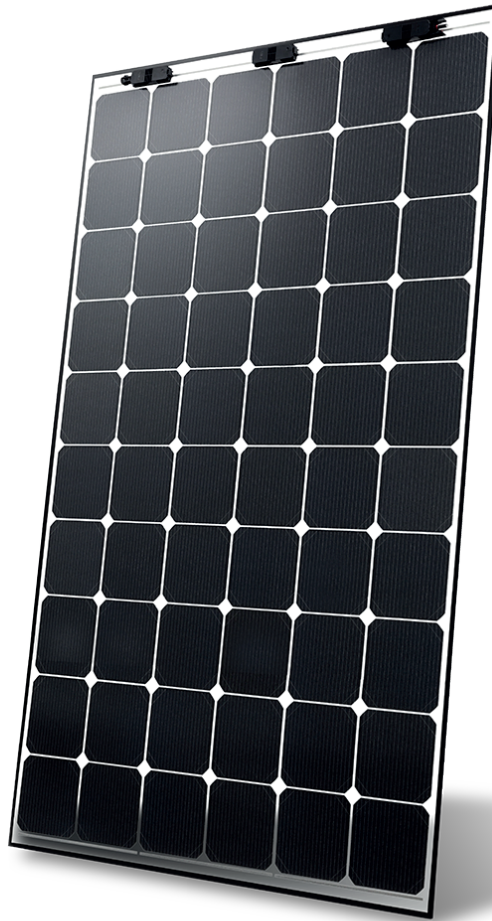


BIFACIAL /HJT /SWCT
305/310/315 W

20CG 201-41GG-05
25CG 201-41GG-05



Quality /
Environmental /
Occupational
Health and Safety
Management
ISO 9001
ISO 14001
PN-EN/ISO 45001
www.dekra-eeel.com



IEC 61215
IEC 61730
Regular Production
Surveillance

www.tuv.com
ID 1111218054



Current version of the technical card available on the producer's website. www.hanplast-solar.pl



IN PARTNERSHIP WITH
MEYER BURGER

SW PREMIUM BIFACIAL (HJT)



Extremely Low LID & PID

- HJT Heterojunction cells technology, based on N-type silicon is practically immune to this effect.



Advanced HJT Technology

- Superior efficiency HJT cells **23 - 24 %**
- Lowest levelized cost of electricity



Highest guarantee

- Only **0.3%** of annual degradation.
- **15-years** product warranty.
- **35 years** of linear performance guarantee*
At least **88.25 %** output after **35 years**
- Extremely long lifespan through the use of glass on the front and rear sides of the module.

* 98.45% first year, first year only -0.3%/y, 91.25% after 25 years .



SMARTWIRE Connection Technology (SWCT)

- Very high outdoor performance of HJT/SWCT modules
- **Increased fire protection** due to SmartWire density connection
- Innovative and patented Foil-Wire Electrode Concept (Dense matrix) proven hotspot guarantee
- **Highest energy yield** due to excellent temperature coefficient **-0.279 %/C**



Nature Friendly

- **PB and FREONS LEAD-FREE**
- Solar cells connected with SWCT can achieve a reduction up to **80% of silver consumption** in cell production



BIFACIAL Technology

- Thanks to reflections from the ground, a gain in solar irradiation from the rear side of bifacial PV module of **15-30%**
- **92,7 %** Bifaciality

SW PREMIUM BIFACIAL 305/310/315

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN(REFERENCE TO 305W FRONT)

305W			5%	10%	15%	20%	25%	30%
Maximum Power	Pmax	305 [W]	320	336	351	366	381	397
Maximum Power Point Voltage	Vmpp	36,6 [V]	36,6	36,6	36,6	36,7	36,7	36,7
Maximum Power Point Current	Impp	8,34 [A]	8,76	9,17	9,59	10,01	10,43	10,84
Open Circuit Voltage	Voc	43,8 [V]	43,8	43,8	43,8	43,9	43,9	43,9
Short Circuit Current	Isc	8,87 [A]	9,31	9,76	10,20	10,64	11,09	11,53
Module Efficiency		18,4 %	19,3	20,2	21,2	22,1	23,0	23,9
Power tolerance [%]			±3%					

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN(REFERENCE TO 310W FRONT)

310W			5%	10%	15%	20%	25%	30%
Maximum Power	Pmax	310 [W]	326	341	357	372	388	403
Maximum Power Point Voltage	Vmpp	36,8 [V]	36,8	36,8	36,8	36,9	36,9	36,9
Maximum Power Point Current	Impp	8,42 [A]	8,84	9,26	9,68	10,10	10,53	10,95
Open Circuit Voltage	Voc	44,0 [V]	44,0	44,0	44,0	44,1	44,1	44,1
Short Circuit Current	Isc	8,95 [A]	9,40	9,85	10,29	10,74	11,19	11,64
Module Efficiency		18,7 %	19,6	20,6	21,5	22,4	23,4	24,3
Power tolerance [%]			±3%					

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN(REFERENCE TO 315W FRONT)

315W (Only 6 mm panel)			5%	10%	15%	20%	25%	30%
Maximum Power	Pmax	315 [W]	331	347	362	378	394	410
Maximum Power Point Voltage	Vmpp	37,0 [V]	37,0	37,0	37,0	37,0	37,1	37,1
Maximum Power Point Current	Impp	8,52 [A]	8,95	9,37	9,80	10,22	11,65	11,08
Open Circuit Voltage	Voc	44,1 [V]	44,1	44,1	44,1	44,2	44,2	44,2
Short Circuit Current	Isc	8,98 [A]	9,43	9,88	10,33	10,78	11,23	11,67
Module Efficiency		19,0 %	20,0	20,9	21,9	22,8	23,8	24,7
Power tolerance [%]			±3%					

Performance based on Standard Test Conditions (STC): 1000 W/m², 25 °C, AM 1.5

VALUE OF ADDITIONAL ENERGY (BGE) OF ENERGY FROM THE REAR SIDE OF THE MODULE * BGE (Bifacial Gain Energy)(%) An indicator expressing additional energy generated by the rear side of the module related to energy generated from the front part of the module.

WARNING: Hanplast Solar rated power (BIFACIAL) is measured under standard test conditions (STC). STC does not take into account the power generated from the back of the modules. Therefore, HJT glass / double-sided glass modules will produce more power than their results in STC, up to 30%, depending on the system design and albedo. It is necessary to take into account additional power when choosing the installation components and read the assembly instructions.

MECHANICAL SPECIFICATION

Dimensions [mm]	1664x996x6mm	1664x996x5mm
Glass Thickness	2x 2.5 mm tempered solar matt glass with ARC surface	2x 2.0 mm tempered solar transparent glass with ARC surface
Weight approx.	23.5 kg	18,7 kg
Module structure	glass / POE/ cells / POE / glass edges sealing by butyl	
Cell type	HJT (Heterojunction) Type N 156.75 x156.75 mm, Monocrystalline	
Cell connection	SmartWire Connection Technology (SWCT)	
Cells amount	60	

ELECTRICAL SPECIFICATION

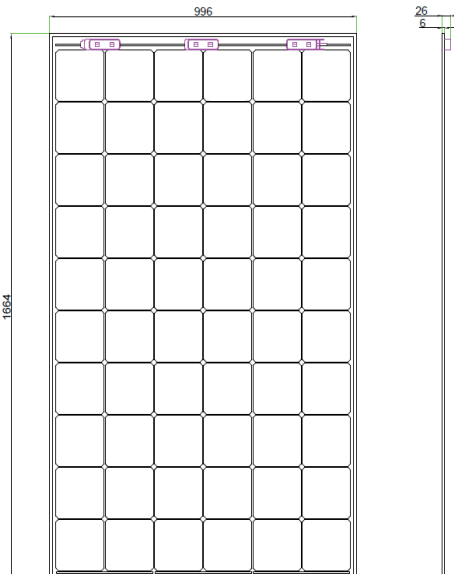
The electrical characteristics are within +/- 3% of the indicated values Pmax, Voc, and +/-5% for Isc, under Standard Test Conditions (1000 W/m², 25 °C, AM 1.5 according to EN 60904-3)

(Electrical) junction box	3x Tyco PV EDGE with 3 bypass diodes , IP 67
Electrical connectors	integrated with junction boxes, compatible with Tyco TE PV45 connector leads
Maximum System Voltage	1500 V
Maximum series configuration	30
Reverse current overload	20A

TEMPERATURE COEFFICIENT

α (Isc)	+0.029 %/C
β (Voc)	-0.224 %/C
γ (Pmpp)	-0.279 %/C
NOCT (°C)	45 °C

Each hjt glass-on-glass module has accurate information on its actual output power placed on the module label (P_{Act})



SAFETY

Application Class _____ A

Module Fire Performance acc. UL 790 _____ C

LOAD

Max. positiv Design Load (downward) : _____ 1600 Pa

Max. negativ Design Load (upward) : _____ 1600 Pa

with safety factor 1,5 _____ (Test Load: 2400 Pa)

LOGISTICS

	Land Transport	Shipping
Dimensions	1785x1145x1184	1785x1165x1184
Modules per box	50	50
Static	1+0	1+1
Dynamic	1+0	1+1
Box weight kg	70	75

***important: please read the safety instruction before opening box cratepak-0 hd with glass-on-glass modules inside.**

***Custom, dedicated packing available**