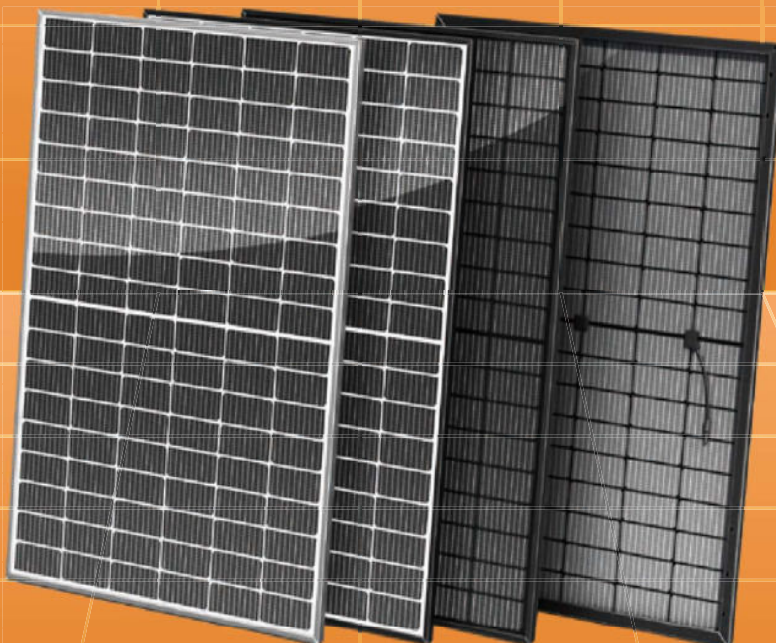


STANDARD SOLAR PANEL

GermanSolar's Standard Solar Panel is High efficiency, convenient and easy to use



GermanSolar
The Partner For Your Solar Lifetime!



BIFACIAL TITANLINE MONO M10 108 CELL SOLAR PANEL

GSA-N16/108HG410W 415W 420W 425W 430W 435W 440W

GermanSolar is a specialist in customization, introducing colored glass, frames, and back-sheet material and shapes to aesthetically match your ideas with the prospective application. With innovative technology and design, GermanSolar offers high quality solar panels with enhanced aesthetic appearance for building structures and facades. By providing outstanding customization options, GermanSolar supports your required project needs with colored and shaped panels of your choice, and consults you in choosing the right size, thickness, shape, and color to compliment the design of your application and your building.

FEATURES

 <p>Best price-performance ratio</p>	 <p>Positive power of up to +5.00 Wp</p>	 <p>EL tested and micro cracks inspected</p>	 <p>Hail Test : IEC 61215-2:2021 ϕ45mm,30.7m/s</p>			
 <p>Better performance in diffused sunlight and high temperature</p>	 <p>High ammonia & salt mist resistant certified, and PID-free</p>	 <p>Withstands wind loads up to 2400 Pa/ heavy snow loads up to 5400 Pa</p>	 <p>15-year limited product warranty</p>			
 <p>30-year linear performance warranty</p>					 <p>IEC 61215-1:2021/EN IEC 61215-1:2021; IEC 61215-1-1:2021/EN IEC 61215-1-1:2021; IEC 61215-2:2021/EN IEC 61215-2:2021; IEC 61730-1:2023 IEC 61730-2:2023</p>	 <p>EN IEC 61730: PHOTOVOLTAIC (PV) MODULE SAFETY QUALIFICATION 2014/35/EU; THE LOW VOLTAGE DIRECTIVE</p>

STANDARD SOLAR PANEL

ELECTRICAL DATA

Nominal Max. Power(P _{max})*(W)	415	420	425	430	435	440
Open Circuit Voltage (V _{oc}) (V)	37.91	37.96	38.01	38.07	38.12	38.18
Short Circuit Current (I _{sc}) (A)	13.28	13.39	13.47	13.58	13.67	13.77
Max. Power Voltage (V _{mpp}) (V)	32.56	32.61	32.66	32.72	32.77	32.82
Max. Power Current (I _{mp}) (A)	12.75	12.88	13.01	13.14	13.27	13.41
Module Efficiency (%)	21.25	21.51	21.76	22.02	22.28	22.53
Power Tolerance	0 ~ +5W					
Temperature Coefficient(P _{max})	-0.35% / °C					
Temperature Coefficient (I _{sc})	+0.04% / °C					
Temperature Coefficient (V _{oc})	-0.27% / °C					

Front side irradiation 1000W/m², back side reflection irradiation 135W/m², AM=1.5, ambient temperature 25°C.

ELECTRICAL DATE, NMOT *

Nominal Max. Power(P _{max})*(W)	310	315	320	325	330	335
Open Circuit Voltage (V _{oc}) (V)	35.76	35.81	35.86	35.92	35.96	36.02
Short Circuit Current (I _{sc}) (A)	12.53	12.63	12.71	12.81	12.90	12.99
Max. Power Voltage(V _{mpp}) (V)	34.51	34.56	34.61	34.66	34.71	34.76
Max. Power Current (I _{mp}) (A)	8.98	9.11	9.25	9.38	9.51	9.63
NMOT (Nominal Module Operating Temperature)	41 °C ± 3 °C					

* NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

Dimensions	1722x 1134x35 mm
Weight	24.5kg
Solar Cell	Monocrystalline M10
Front Glass	2.0mm,Semi-tempered anti-reflection coating glass
Back Glass	2.0mm,Semi-tempered glass
Frame	Black anodized aluminium
Junction Box	IP68, 3 diodes
Cable	4 mm ² (IEC),1200mm
Connector	MC4 compatible or MC compatible

PACKAGING

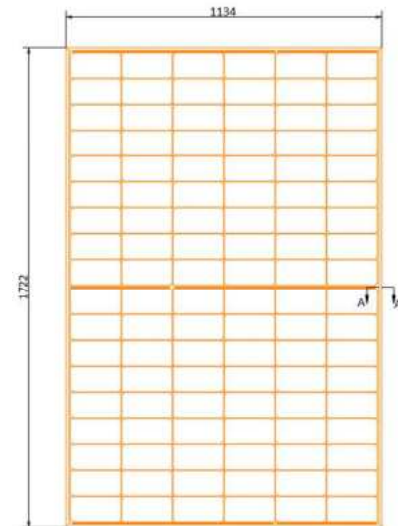
Standard packaging	31pcs /pallet
Pallets Per Container	26
Module quantity per 40' container	806pcs /40' HQ container

OPERATING CONDITIONS

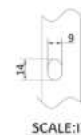
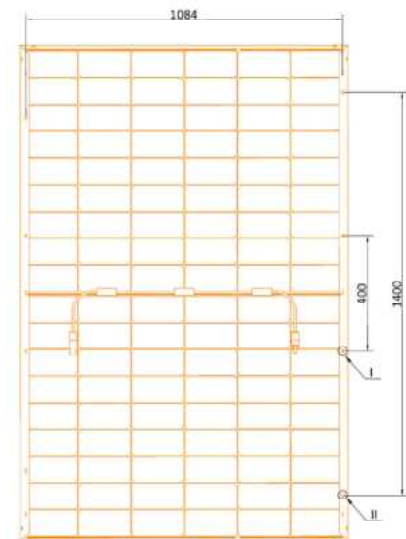
Max. System Voltage	1500V(IEC/UL) or 1000V(IEC/UL)
Operating Temperature	-40°C ~ +85°C
Max. Series Fuse Rating	25A
Front Side Maximum Static Loading Rear Side Maximum Static Loading	5400 Pa /2400 Pa

Design (mm)

Front View



Back View



LINEAR PERFORMANCE WARRANTY

15 Year Product Warranty | 30 years Linear Power warranty

