



**GermanSolar**  
The Partner For Your Solar Lifetime!



# Quantumline Pro Perc Mono M10 108 Cells Solar Panel

**GSM - 395W 400W 405W 410W 415W 420W-H**

GermanSolar is a specialist in customization, introducing colored solar cells, 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 modules 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



Best price-performance ratio



Positive power of up to +5.00 Wp



EL tested and micro cracks inspected



Fully automated production line with German quality engineering and design standards



Better performance in diffused sunlight and high temperature



High ammonia & salt mist resistant certified, and PID-free



Withstands wind loads up to 2400Pa / heavy snow loads up to 5400Pa



12-year limited product warranty



25-year linear performance warranty

## PRODUCT CERTIFICATES



**Class I Division II  
Groups A,B,C&D**



# Quantumline Pro

Electrical Data						
Nominal Max. Power (P <sub>max</sub> )*	395	400	405	410	415	420
Open Circuit Voltage (V <sub>oc</sub> ) (V)	36.98	37.07	37.23	37.32	37.45	37.58
Short Circuit Current (I <sub>sc</sub> ) (A)	13.70	13.79	13.87	13.95	14.02	14.10
Max. Power Voltage (V <sub>mpp</sub> ) (V)	30.84	31.01	31.21	31.45	31.61	31.80
Max. Power Current (I <sub>mpp</sub> ) (A)	12.81	12.90	12.98	13.04	13.13	13.21
Module Efficiency (%)	20.2	20.5	20.7	21.0	21.3	21.5
Power Tolerance	0 ~ +5W					
Temperature Coefficient (P <sub>max</sub> )	-0.35% / °C					
Temperature Coefficient (I <sub>sc</sub> )	+0.04% / °C					
Temperature Coefficient (V <sub>oc</sub> )	-0.27% / °C					

\* STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.

Electrical Data, NMOT *						
Nominal Max. Power (P <sub>max</sub> )*	298	302	306	310	314	318
Open Circuit Voltage (V <sub>oc</sub> ) (V)	34.75	34.88	35.12	35.23	35.37	35.50
Short Circuit Current (I <sub>sc</sub> ) (A)	10.96	11.03	11.10	11.16	11.22	11.29
Max. Power Voltage (V <sub>mpp</sub> ) (V)	29.08	29.26	29.47	29.72	29.89	30.09
Max. Power Current (I <sub>mpp</sub> ) (A)	10.25	10.32	10.38	10.43	10.50	10.57
NMOT (Nominal Module Operating Temperature)	41°C ± 3°C					

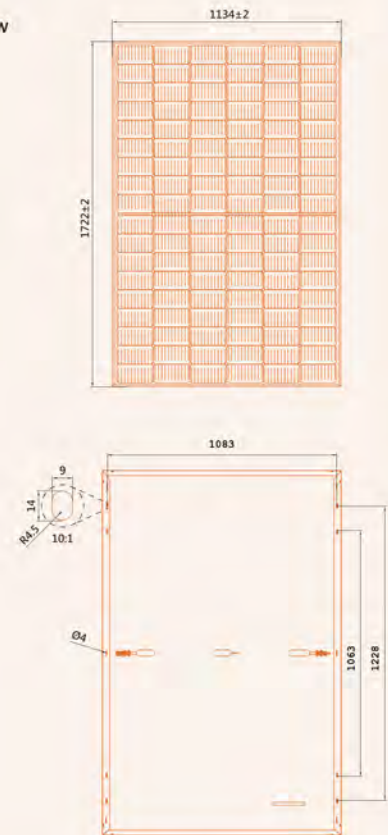
Mechanical Data	
Dimensions	1722x1134x35 mm
Weight	21kg
Solar Cell	Monocrystalline M10
Front glass	3.2mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
Frame	Anodized aluminum alloy, original or black
Junction Box	IP68, 3 diodes
Cable	4 mm <sup>2</sup> (IEC), 1200mm
Connector	MC4 or MC4 compatible
Application Classification	Class A
Module Fire Performance	Type 1(UL 1703) or Class C(IEC 61730)

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/2400pa

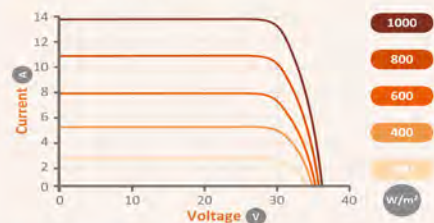
Packaging	
Standard packaging	31pcs /pallet
Module quantity per 20' container	294pcs
Module quantity per 40' container	806 pcs /40' HQ container

## Design (mm)

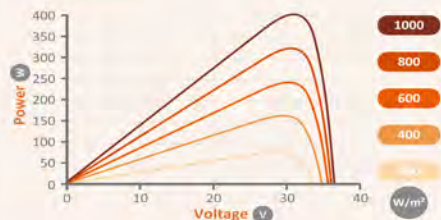
Front View



## I-V CURVES



## P-V CURVES



## LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty | 25 years Linear Power warranty

