

SIRO ^B Efficient



GCL-NR12R/66GDF

635-670W

N-Type Bifacial Dual-Glass

High-Efficiency Module

GPC ^{3.0} Tech

Higher Power

Efficient back contact, zero-gap design

Fearless Shading

No downtime, lower hotspots risk

Enhanced Reliability

Front grid-free design, lower micro-crack risks

Architectural Elegance

Concealed tech, elevated beauty

Sound quality management and product certification system

The product has obtained:

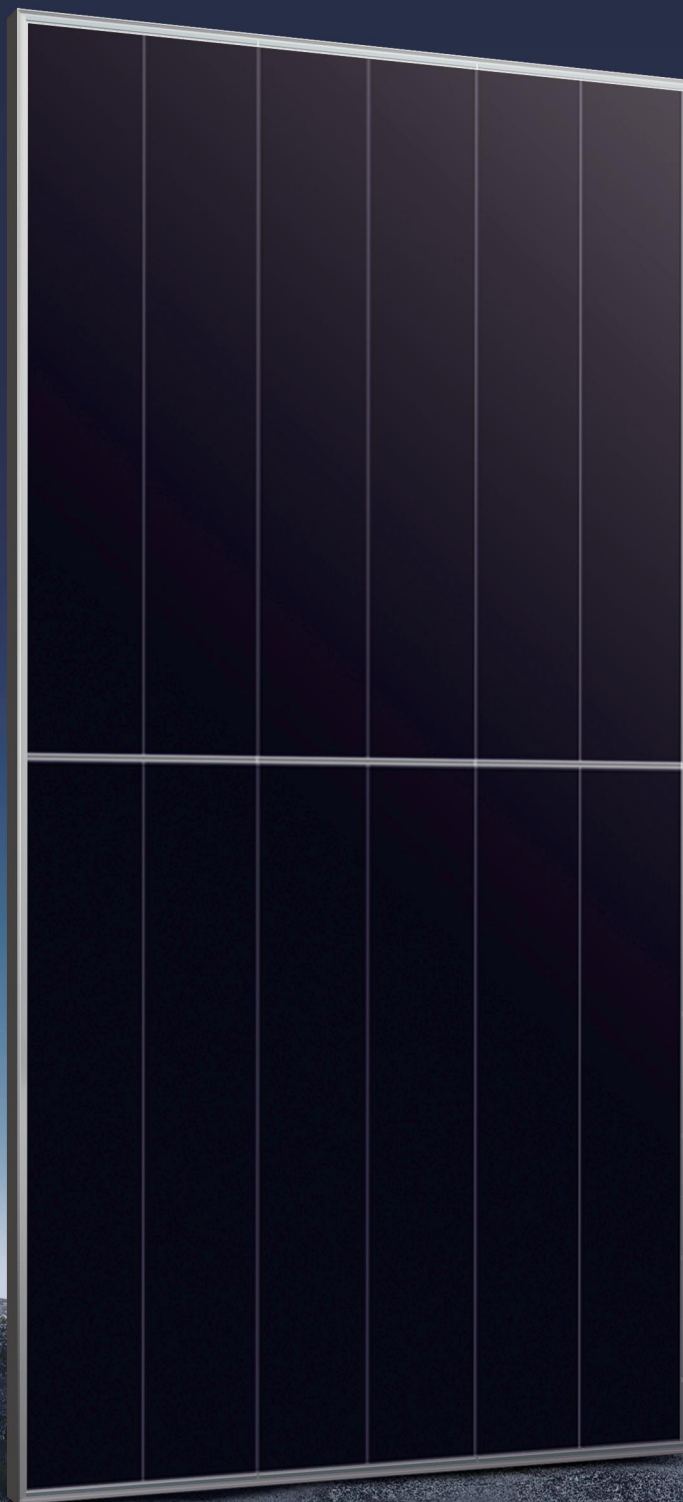
IEC61215 / IEC61730

Manufacturer has been certified :

ISO 9001:2015:Quality management systems

ISO 14001:2015: Environmental management systems

ISO 45001:2018:Occupational health and safety management systems

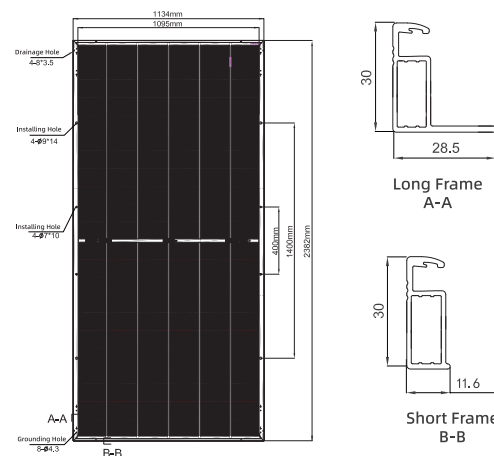


Product Specifications

Cell type	GPC (Graphical Precise-doping Contact)
Number of cells	132 Cells (6×22)
Dimensions	2382×1134×30mm (93.78×44.65×1.18 inches)
Weight	32.5kg
Front side glass	2.0mm (0.08 inches), Anti-Reflection Coating
Back side glass	2.0mm (0.08 inches), Heat strengthened glass
Frame	anodized aluminum alloy
J-box	IP68, three diodes
Cable	4.0mm ² , +300/-200mm (length can be customized)
Connector	GCL-01/GCL-02/MC4-EVO2A/others
Packaging Configuration	Module per box: 36 pieces Module per 40' HQ: 720 pieces

Back View

Tolerance: Length:±2mm Width:±2mm



Electrical Specification (STC*)

* Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5

Maximum power	Pmax (W)	635	640	645	650	655	660	665	670
Maximum power voltage	Vmp(V)	41.70	41.83	42.05	42.22	42.39	42.56	42.73	42.89
Maximum power current	Imp (A)	15.23	15.30	15.34	15.40	15.45	15.51	15.56	15.62
Open circuit voltage	Voc (V)	49.27	49.37	49.47	49.57	49.67	49.77	49.87	49.97
Short circuit current	Isc (A)	16.29	16.35	16.41	16.47	16.53	16.59	16.65	16.71
Module efficiency	(%)	23.5	23.7	23.9	24.1	24.3	24.4	24.6	24.8
Power tolerance	(%)	0~+3							
Temperature coefficient	(Isc)	+0.05%/°C							
Temperature coefficient	(Voc)	-0.22%/°C							
Temperature coefficient	(Pmax)	-0.26%/°C							

Electrical characteristics with different power bin (reference to 10% Irradiance ratio)

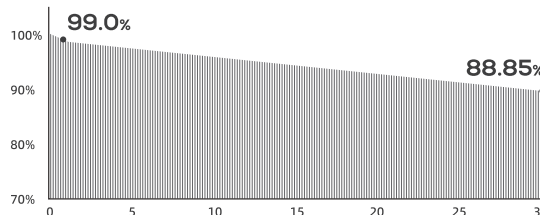
Maximum power	Pmax (W)	682.6	688.1	693.4	699.2	704.1	709.5	714.9	720.1
Maximum power voltage	Vmp(V)	41.70	41.83	42.05	42.22	42.39	42.56	42.73	42.89
Maximum power current	Imp (A)	16.37	16.45	16.49	16.56	16.61	16.67	16.73	16.79
Open circuit voltage	Voc (V)	49.27	49.37	49.47	49.57	49.67	49.77	49.87	49.97
Short circuit current	Isc (A)	17.51	17.58	17.64	17.71	17.77	17.83	17.90	17.96

Application Conditions

Operational temperature	-40~+85°C
Maximum system voltage	1500V DC
Max series fuse rating	30A
Wind/ snow load	2400Pa/5400Pa*
Bifaciality	75±5%

*For detailed information, please refer to the GCL SI Installation Manual.

Power Warranty

15 Year
Product Warranty30 Year
Linear Power Warranty1%
First-Year Power Degradation0.35%
Linear Power Degradation