



GCL System Intergration Technology Co., Ltd.
 Jianghai Economic Zone,
 Nanqiao Town, Fengxian District,
 201406 Shanghai P.R.China

GCL-M8/72Hxxx

Monocrystalline Module

420-445W



445W

Maximum Power Output

20.1%

Maximum Module Efficiency

0~+5W

Power Output Guarantee



High conversion efficiency due to top quality wafers and advanced cell technology



Special cutting and soldering technology leads to low hotspot risk



Optimized system performance due to module level current sorting

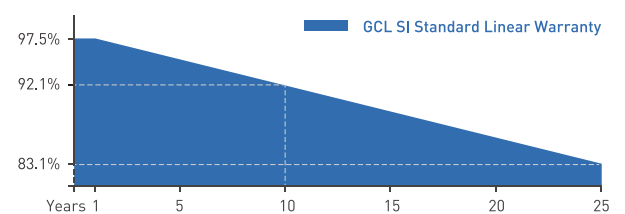


Highly transparent self-cleaning glass brings additional yield and easy maintenance

GCL Delivers Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Rigorous quality control to meet the highest standard: ISO 9001, ISO 14001 and ISO 45001
- Long term reliability tests
- 2x100% EL inspection ensuring defect-free modules
- Fire Rating Class C as per **UL790**

Linear Performance Warranty



12 Years Product Warranty 25 Years Linear Power Warranty

* Please refer to GCL standard warranty for details

Additional Insurance Backed by Swiss RE



* Please refer to GCL for details

GCL-M8/72Hxxx

Monocrystalline Module

420-445W

Electrical Specification (STC*)

Maximum Power	P _{max} (W)	420 (±3%)	425 (±3%)	430 (±3%)	435 (±3%)	440 (±3%)	445 (±3%)
Maximum Power Voltage	V _{mp} (V)	40.04	40.37	40.72	41.08	41.40	41.75
Maximum Power Current	I _{mp} (A)	10.49	10.53	10.56	10.59	10.63	10.66
Open Circuit Voltage	V _{oc} (V)	48.13 (±3%)	48.40 (±3%)	48.69 (±3%)	48.99 (±3%)	49.25 (±3%)	49.55 (±3%)
Short Circuit Current	I _{sc} (A)	11.15 (±4%)	11.19 (±4%)	11.22 (±4%)	11.25 (±4%)	11.28 (±4%)	11.31 (±4%)
Module Efficiency	(%)	19.0	19.2	19.5	19.7	19.9	20.1
Power Output Tolerance	(W)	0~+5					

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

Electrical Specification (NOCT*)

Maximum Power	P _{max} (W)	306.20	309.88	313.58	317.30	321.03	324.79
Maximum Power Voltage	V _{mp} (V)	36.68	36.97	37.26	37.55	37.84	38.13
Maximum Power Current	I _{mp} (A)	8.35	8.38	8.42	8.45	8.48	8.52
Open Circuit Voltage	V _{oc} (V)	44.52	44.78	45.04	45.30	45.56	45.82
Short Circuit Current	I _{sc} (A)	9.01	9.04	9.06	9.09	9.12	9.14

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

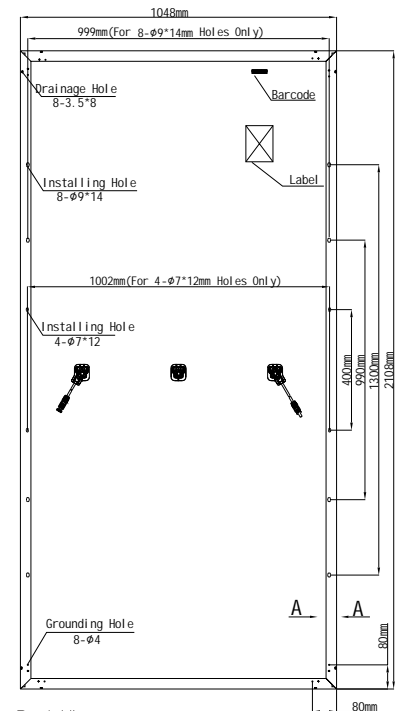
Mechanical Data

Number of Cells	144 Cells (6×24)
Dimensions of Module L*W*H (mm)	2108×1048×35mm (82.99×41.26×1.38 inches)
Weight (kg)	25.6 kg
Glass	High transparency solar glass 3.2mm (0.13 inches)
Backsheet	White
Frame	Silver, anodized aluminium alloy
J-Box	IP68 Rated
Cable	4.0mm ² [0.006 inches ²], Portrait: 300/300mm ; Landscape: 1750/1750mm
Number of diodes	3
Wind/ Snow Load	Design load: 3600Pa (downward) / 1600Pa (upward). γm=1.5

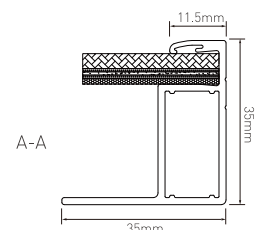
QC Solar(Suzhou) Corporation, QC4.10-cd
 Suzhou Bright Photovoltaic Electronic Technology Co., Ltd, B01
 Suzhou Xtong Phtovoltaic Technology Co.,Ltd. PV-XT101.1
 Jiangsu Haitian Microelectronics Corp. Minor Enterprise, PV-HT03
 Staubli Electrical Connectors AG , PV-KST4-EVO 2/xy-UR PV-KBT4-EVO 2/xy-UR
 Jiangsu Tonglin Electric Co., Ltd. TL-CABLE01S
 Multi-Contract Essen GmbH
 PV-KST4/6II- UR;
 PV-KBT4/6II-UR(MC4)
 Staubli Electrical Connectors
 PV-KST4/xy-UR;
 PV-KBT4/xy-UR
 Suzhou UKT New Energy Technology Co., Ltd.
 PV-CO02
 Jiangxi Jinko PV Material Co., Ltd PV-JK03M-2
 Amphenol Technology (Shenzhen) Co., Ltd.
 UTXCFabcde; UTXCMabcde

Connector

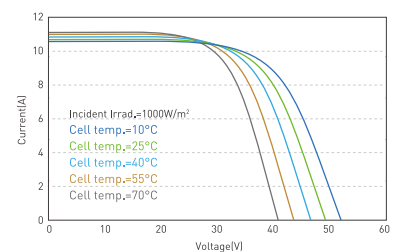
Module Dimension



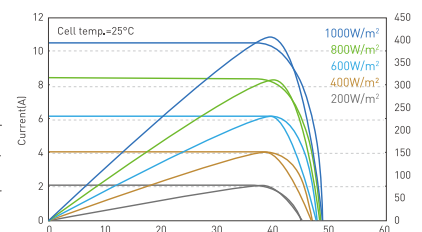
Back View



I-V Curve at Different Temperature (445W)



I-V/P-V Curve at Different Irradiation (445W)



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

* For more details please check the installation manual of GCLSI

Temperature Ratings

Nominal Operating Cell Temperature [NOCT]	44±2°C
Temperature Coefficient of I _{sc}	+0.06%/°C
Temperature Coefficient of V _{oc}	-0.30%/°C
Temperature Coefficient of P _{MAX}	-0.39%/°C

Maximum Ratings

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	20A

Packaging Configuration

Module per box	30 pieces
Module per 40' container	600 pieces

Modules are assembled in China and Vietnam.

Factory1: Zhangjiagang GCL System Integration Technology Co.,Ltd.
 Address: 288# Chenfeng Road, Yangshe Town, Zhangjiagang City, 215600 Jiangsu Province, P. R. China

Factory2: Jurong GCL System Integration Technology Co., Ltd.
 Address: No.999 Konggang New District, Guozhuang Town, JurongCity, P. R. China

Factory3: VINA SOLAR TECHNOLOGY CO., LTD
 Address: lot CN-03 Factory E12, Van Trung Industrial Park Bac Giang Province, Viet Nam

Factory4: Jinzhai GCL System Integration Technology Development Co., Ltd.
 Address: East of Baimafeng Road, Modern Industrial Park, Jinzhai county, Anhui Province, P.R.China

Factory5: Funing GCL System Integration Technology Co., Ltd.
 Address: No. 888(A) Hong Kong Road, Funing Economic Development Zone, Yangcheng City, Jiangsu Province P.R. China

Factory6: JINNENG CLEAN ENERGY TECHNOLOGY LIMITED
 Address: No.1 Economic Development Zone, Wenshui county, Lvliang City, Shanxi Province, P.R.China

Factory7: Ningbo Fuxing Electric Co., Ltd.
 Address: No.365, South Qihang RD, Binhai Investment center, Zhanqi Town, Yinzhou District, Ningbo City, Zhejiang Province, 315145, P.R.China