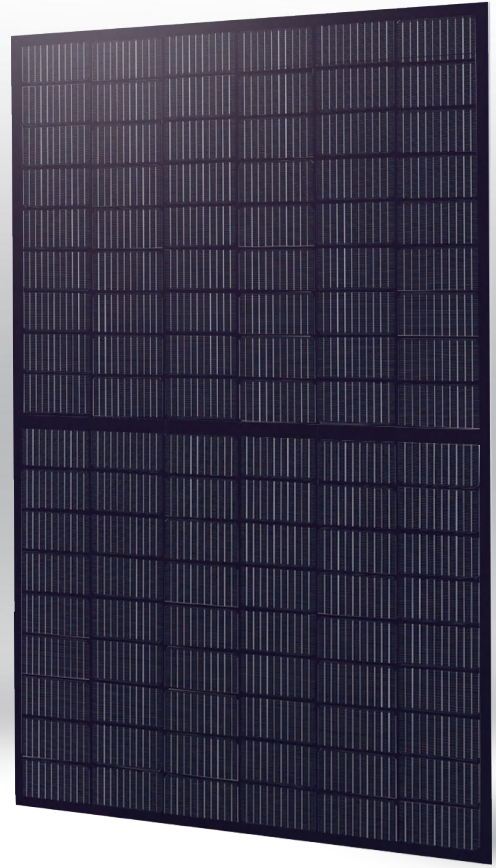


# GCL- M10/54BH



**400-420 W**

**Monocrystalline Module  
Full Black**

**420 W**

Maximum Power Output

**21.51%**

Maximum Module Efficiency

**0~+5W**

Power Output Guarantee



Special cutting and soldering technology leads to low hotspot risk



Optimized system performance due to module level current sorting



Ideal choice for residential rooftop



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

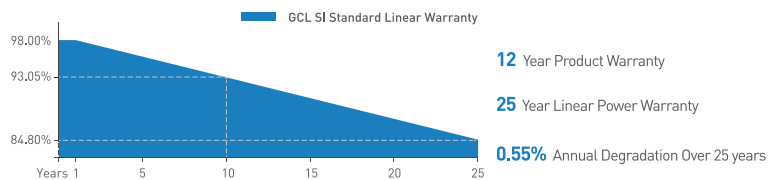
## GCL Delivers Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Long term reliability tests
- 2x100% EL inspection ensuring defect-free modules

## Comprehensive System and Product Certifications

- IEC61215, IEC61730
- ISO9001:2015 Quality management systems
- ISO14001:2015 Environmental management systems
- ISO45001:2018 Occupational health and safety management systems
- IEC62941:2019 Terrestrial photovoltaic (PV) modules—Quality system for PV module manufacturing

## Linear Performance Warranty



\* Please refer to GCL standard warranty for details

Additional Insurance Backed by Swiss RE

\* Please refer to GCL for details



Electrical Specification (STC\*)

Maximum Power	P <sub>max</sub> (W)	400	405	410	415	420
Maximum Power Voltage	V <sub>mp</sub> (V)	31.01	31.16	31.31	31.46	31.61
Maximum Power Current	I <sub>mp</sub> (A)	12.90	13.00	13.09	13.19	13.29
Open Circuit Voltage	V <sub>oc</sub> (V)	36.78	36.93	37.08	37.23	37.38
Short Circuit Current	I <sub>sc</sub> (A)	13.52	13.61	13.70	13.80	13.89
Module Efficiency	(%)	20.48	20.74	21.00	21.25	21.51

\* Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass 1.5  
P<sub>max</sub> Tolerance: ±3%

Electrical Specification (NOCT\*)

Maximum Power	P <sub>max</sub> (W)	296.7	300.5	304.2	308.0	311.9
Maximum Power Voltage	V <sub>mp</sub> (V)	28.64	28.78	28.92	29.06	29.20
Maximum Power Current	I <sub>mp</sub> (A)	10.36	10.44	10.52	10.60	10.68
Open Circuit Voltage	V <sub>oc</sub> (V)	34.24	34.38	34.52	34.66	34.80
Short Circuit Current	I <sub>sc</sub> (A)	10.94	11.02	11.10	11.18	11.26

\* Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s

Mechanical Data

Number of Cells	108 Cells (6×18)
Dimensions of Module L*W*H (mm)	1722×1134×30mm (67.80×44.65×1.18 inches)
Weight (kg)	20.9 kg
Glass	High transparency solar glass 3.2mm (0.13 inches)
Backsheet	Black
Frame	Black, anodized aluminium alloy
J-Box	IP68 Rated
Fire Rating	IEC Class C
Protection Class	Class II
Cable	4.0mm <sup>2</sup> , Portrait: +300/-200mm length can be customized
Number of diodes	3
Wind/ Snow Load	2400Pa/ 5400Pa*

\* For more details please check the installation manual of GCLSI

Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of I <sub>sc</sub>	+0.05%/°C
Temperature Coefficient of V <sub>oc</sub>	-0.28%/°C
Temperature Coefficient of P <sub>MAX</sub>	-0.35%/°C

Maximum Ratings

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	25A

Packaging Configuration

Module per box	36 pieces
Module per 40' container	936 pieces

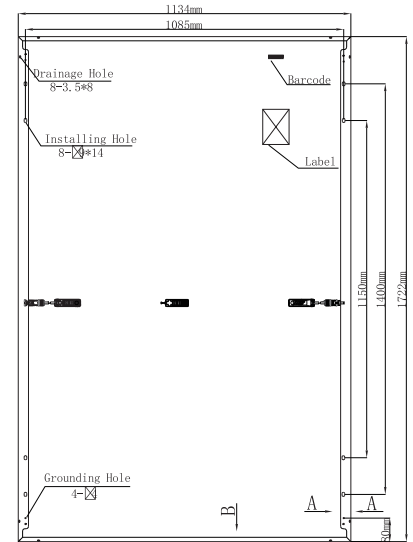
Tolerance

Sorting Tolerance	0~+5W
V <sub>oc</sub> Tolerance	±3%
I <sub>sc</sub> Tolerance	±4%

Connector

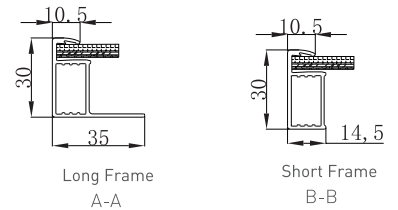
QC	QC4.10-cd	Renhe	05-8
Bright	B01 / B05x	UKT	PV-C002
Haitian	PV-HT03	Zhonghuan	PV-ZH202B
Tonglin	TL-CABLE01S	Zerun	Z4S-abcde
ChuangYuan	PV-CY20L / PV-CY03L		
Xtong	PV-XT101.1 / PV-XT101.2 / XT2		
Staubli	PV-KST4-EV02/xy-UR / PV-KST4-EV02A/xy PV-KBT4-EV02/xy-UR / PV-KBT4-EV02A/xy		

Module Dimension

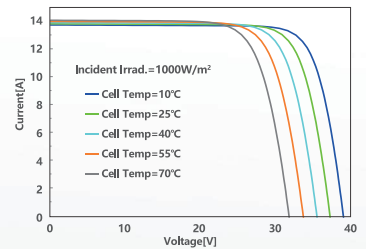


Tolerance:  
Length: ±2mm  
Width: ±2mm

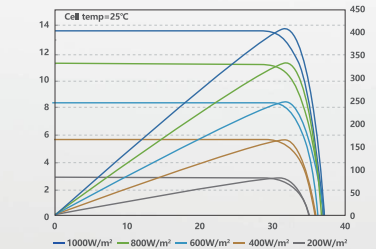
Back View



I-V Curve at Different Temperature (420W)



I-V/P-V Curve at Different Irradiation (420W)



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

Contact Us for More Information

GCL System Integration Technology Co., Ltd.

address: Jianghai Economic Zone, Nanqiao Town, Fengxian District, 201406 Shanghai P. R. China

website: [www.gclsi.com](http://www.gclsi.com)

email: [gclsisales@gclsi.com](mailto:gclsisales@gclsi.com)

