



Preliminary

# GCL-M10/72H

## Monocrystalline Module

505-540W



**540W**

Maximum Power Output

**21.1%**

Maximum Module Efficiency

**0~+5W**

Power Output Guarantee



Ideal choice for large scale ground installation



Selected encapsulating material and stringent production process control ensure the product is highly PID resistant and snail trails free



Special cutting and soldering technology leads to low hotspot risk



Sand blowing test, salt mist test and ammonia test passed to endure harsh environments



Optimized system performance due to module level current sorting

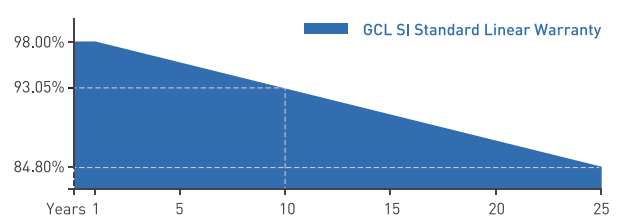


Highly transparent self-cleaning glass brings additional yield and easy maintenance

### 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
- Tested for harsh environments (salt mist, ammonia corrosion and sand blowing test: IEC 61701, IEC 62716, DIN EN 60068-2- 68)
- Long term reliability tests
- 2x100% EL inspection ensuring defect-free modules

### 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

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Monocrystalline Module

505-540W

## Electrical Specification (STC\*)

Maximum Power	P <sub>max</sub> (W)	505	510	515	520	525	530	535	540
Maximum Power Voltage	V <sub>mp</sub> (V)	40.08	40.35	40.65	40.92	41.21	41.48	41.77	42.06
Maximum Power Current	I <sub>mp</sub> (A)	12.60	12.64	12.67	12.71	12.74	12.78	12.81	12.84
Open Circuit Voltage	V <sub>oc</sub> (V)	48.11	48.34	48.58	48.81	49.05	49.28	49.51	49.75
Short Circuit Current	I <sub>sc</sub> (A)	13.40	13.44	13.47	13.50	13.53	13.57	13.60	13.63
Module Efficiency	(%)	19.8	20.0	20.1	20.3	20.5	20.7	20.9	21.1
Power Output Tolerance	(W)	0~+5							

\* Irradiance 1000W/m<sup>2</sup>, Module Temperature 25°C, Air Mass 1.5

## Electrical Specification (NOCT\*)

Maximum Power	P <sub>max</sub> (W)	371.48	375.12	378.78	382.46	386.15	389.86	393.58	397.32
Maximum Power Voltage	V <sub>mp</sub> (V)	36.82	37.06	37.30	37.54	37.78	38.02	38.26	38.50
Maximum Power Current	I <sub>mp</sub> (A)	10.09	10.12	10.16	10.19	10.22	10.25	10.29	10.32
Open Circuit Voltage	V <sub>oc</sub> (V)	44.53	44.74	44.95	45.16	45.37	45.58	45.79	46.00
Short Circuit Current	I <sub>sc</sub> (A)	10.85	10.87	10.90	10.93	10.95	10.98	11.00	11.03

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

## Mechanical Data

Number of Cells	144 Cells (6×24)
Dimensions of Module L*W*H (mm)	2252×1135×35 mm (88.66×44.69×1.38 inches)
Weight (kg)	29.2 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 <sup>2</sup> [0.006 inches <sup>2</sup> ], Portrait: 300/300mm (11.81inches)
Number of diodes	3
Wind/ Snow Load	2400Pa/ 5400Pa*
Connector	MC Compatible

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

## Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	44±2°C
Temperature Coefficient of I <sub>sc</sub>	+0.06%/°C
Temperature Coefficient of V <sub>oc</sub>	-0.30%/°C
Temperature Coefficient of P <sub>MAX</sub>	-0.39%/°C

## Maximum Ratings

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

## Optional

Connector:  Original MC4

## Packaging Configuration

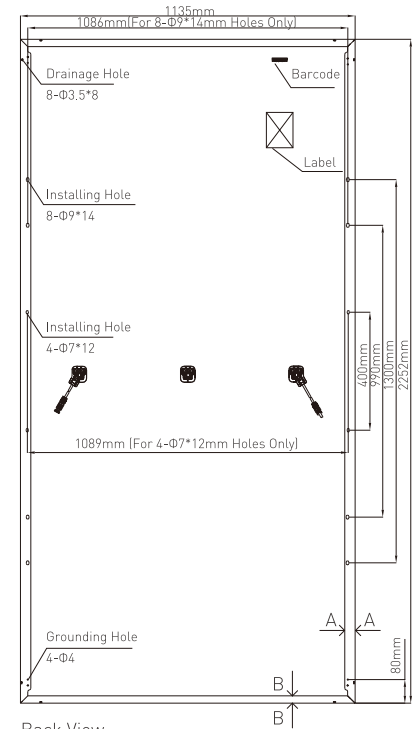
Module per box	30 pieces
Module per 40' container	600 pieces



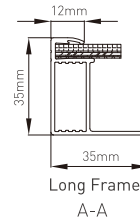
Contact Us for More Information

website: [www.gclsi.com](http://www.gclsi.com) email: [gclsales@gclsi.com](mailto:gclsales@gclsi.com)

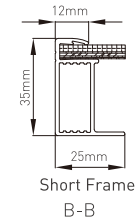
## Module Dimension



Back View

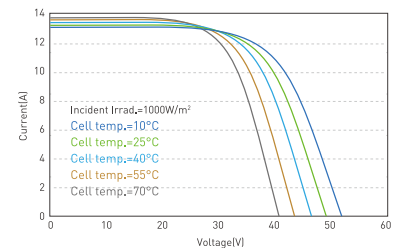


Long Frame A-A

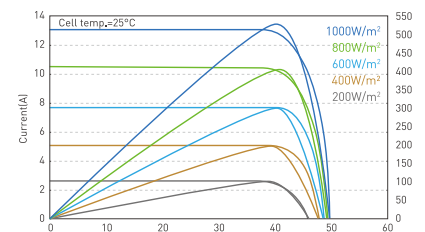


Short Frame B-B

## I-V Curve at Different Temperature (540W)



## I-V/P-V Curve at Different Irradiation (540W)



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT