



# GCL-M10/60GT

Monocrystalline Module

430-465 W

**465W**

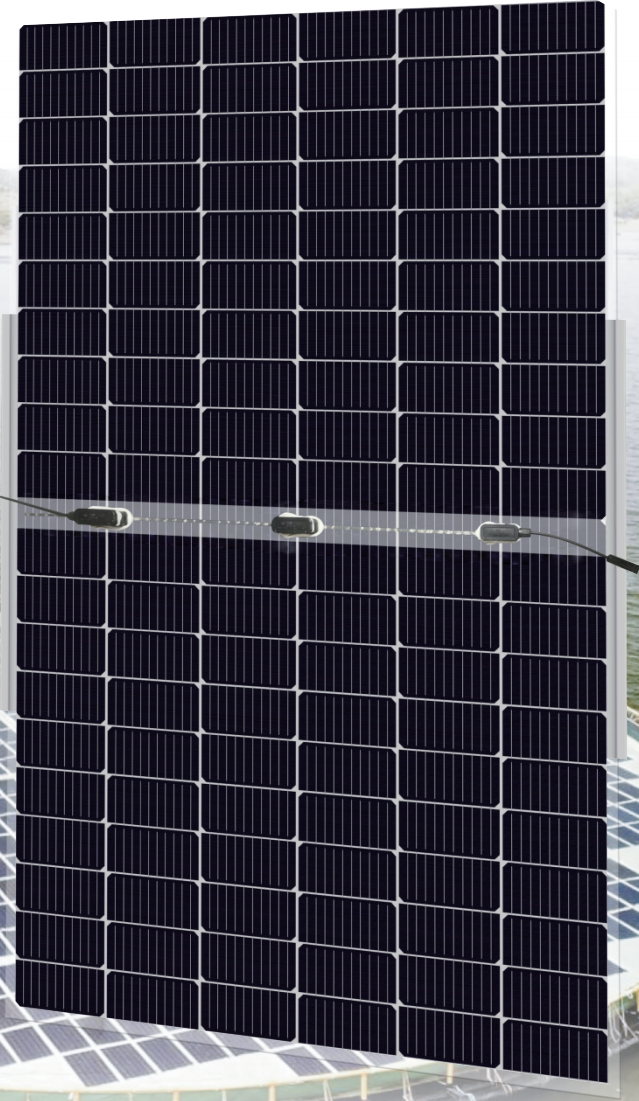
Maximum Power Output

**20.7%**

Maximum Module Efficiency

**0~+5W**

Power Output Guarantee



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



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



Withstand up to 1500V system voltage effectively reduce BOS cost

# GCL-M10/60GT

GCL Delivers Reliable Performance Over Time

## Monocrystalline Module 430-465 W

### Electrical Specification (STC\*)

Parameter	Unit	430	435	440	445	450	455	460	465
Maximum Power	P <sub>max</sub> (W)	430	435	440	445	450	455	460	465
Maximum Power Voltage	V <sub>mp</sub> (V)	33.87	34.07	34.27	34.47	34.67	34.87	35.07	35.27
Maximum Power Current	I <sub>mp</sub> (A)	12.71	12.78	12.85	12.92	12.99	13.06	13.13	13.20
Open Circuit Voltage	V <sub>oc</sub> (V)	40.59	40.79	40.99	41.19	41.39	41.59	41.79	41.99
Short Circuit Current	I <sub>sc</sub> (A)	13.34	13.41	13.48	13.55	13.62	13.69	13.76	13.83
Module Efficiency	(%)	19.1	19.3	19.6	19.8	20.0	20.2	20.5	20.7
Power Output Tolerance	(W)	0~+5							

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

### Electrical Specification (NOCT\*)

Parameter	Unit	325.3	329.1	332.9	336.6	340.4	344.2	348.0	351.8
Maximum Power	P <sub>max</sub> (W)	325.3	329.1	332.9	336.6	340.4	344.2	348.0	351.8
Maximum Power Voltage	V <sub>mp</sub> (V)	31.74	31.92	32.11	32.30	32.49	32.67	32.86	33.05
Maximum Power Current	I <sub>mp</sub> (A)	10.25	10.31	10.37	10.42	10.48	10.53	10.59	10.64
Open Circuit Voltage	V <sub>oc</sub> (V)	38.80	39.00	39.19	39.38	39.57	39.76	39.95	40.14
Short Circuit Current	I <sub>sc</sub> (A)	10.75	10.81	10.86	10.92	10.98	11.03	11.09	11.15

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

### Mechanical Data

Number of Cells	120 Cells (6×20)
Dimensions of Module L*W*H (mm)	1980×1136×5mm (1980×1166×35mm with frame)
Weight (kg)	26.8 kg
Front Side Glass	High transparency solar glass 2.0mm
Back Side Glass	High transparency solar glass 2.0mm
Frame	Black/Silver, anodized aluminium alloy
J-Box	IP68 Rated
Cable	4.0mm <sup>2</sup> [0.006 inches <sup>2</sup> ], length of "+":180mm,length of "-":180mm
Number of diodes	3
Wind/ Snow Load	2400Pa/ 5400Pa*
Connector	MC Compatible

### Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	42±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

### Optional

Connector:  Original MC4

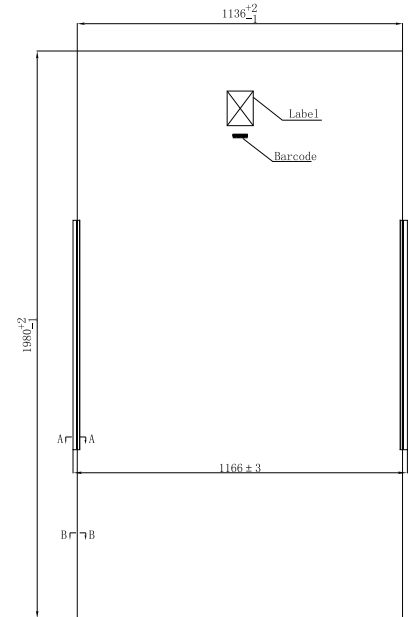
### Packaging Configuration

Module per box	25 pieces
Module per 40' container	550 pieces

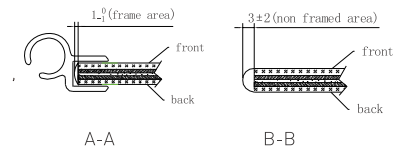
### Contact Us for More Information

Contact GCL For More Module Information: [www.gclsi.com](http://www.gclsi.com)  
Contact Ocean Sun For More Project Information: [www.oceansun.no](http://www.oceansun.no)

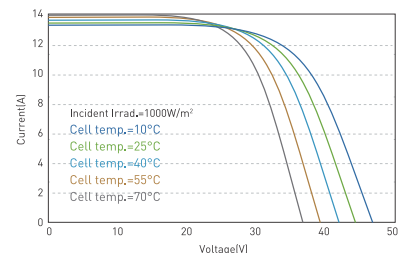
### Module Dimension



Back View



### I-V Curve at Different Temperature (465W)



### I-V/P-V Curve at Different Irradiation (465W)

