# CCL NT12R/66H

610-635W

Topcon series Monocrystalline Monofacial Module



635W

Maximum Power Output 23.51%

Maximum Module Efficiency 0~+5W

Power Output Guarantee

### 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
- 2×100% EL inspection ensuring defect-free modules



Ideal choice for large-scale ground power stations, industrial and commercial facilities, and rooftop distributed systems



Non-destructive cutting, reduce potential micro crack risk

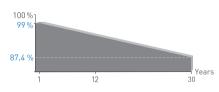


Sand blowing test, salt mist test and ammonia test passed to endure harsh environments



N type technology: The N-type module has better reliability and lower LID/LETID

# **Linear Performance Warranty**



12 Year Product Warranty

30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years



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



Large size silicon wafer module can reduce the cost of PV support bracket, combining manifolds , cable, land and so on, thus thinning the LCOE

 $\ensuremath{^{*}}$  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	Pmax(W)	610	615	620	625	630	635
Maximum Power Voltage	Vmp(V)	40.59	40.76	40.93	41.10	41.26	41.43
Maximum Power Current	Imp(A)	15.03	15.09	15.15	15.21	15.27	15.33
Open Circuit Voltage	Voc(V)	48.64	48.80	48.96	49.12	49.28	49.44
Short Circuit Current	Isc(A)	16.02	16.09	16.16	16.23	16.31	16.38
Module Efficiency	[%]	22.58	22.77	22.95	23.14	23.32	23.51

<sup>\*</sup> Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5

### Mechanical Data

Number of Cells	132 Cells (6×22)		
Dimensions of Module L*W*H (mm)	2382×1134×35mm (93.78×44.65×1.38 inches)		
Weight (kg)	 28.8 kg		
Glass	High transparency tempered glass 3.2 mm (0.13 inches)		
Backsheet	White		
Frame	Anodized aluminium alloy		
J-Box	IP68 Rated		
Cable	4.0mm² , Portrait: +300/-200mm length can be customized		
Number of diodes	3		
Connector	GCL-01/GCL-02/MC4-EV02/others		
Wind/ Snow Load	2400Pa/ 5400Pa*		

 $<sup>\</sup>ensuremath{^{*}}$  For more details please check the installation manual of GCLSI

# **Temperature Ratings**

Temperature Coefficient of Isc	+0.045%/°0
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of PMAX	-0.29%/°C

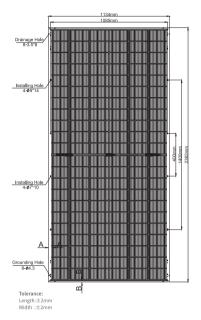
# **Maximum Ratings**

Operational Temperature	-40~+85°C		
Maximum System Voltage	1500V DC		
Max Series Fuse Rating	30 A		

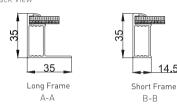
# **Packaging Configuration**

Module per box	31 pieces
Module per 40' container	620 pieces

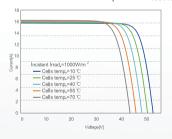
# **Module Dimension**



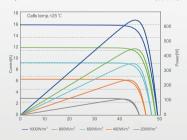
Back View



### I-V Curve at Different Temperature (630W)



### I-V/P-V Curve at Different Irradiation (630W)



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

Contact Us for More Information

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