

TCL Solar Half Cut

N-type Bifacial Double Glass Module

HSM-ND72-GF580~605
G10L-72P

605W

Maximum Power Output

23.4%

Maximum Efficiency



Superior Customer Value

- Layout design for multiple scenarios
- Extensive project references for system design
- Optimized for diverse installation needs



High Energy Yield

- Consistent high yield in varying conditions
- Enhanced thermal resistance and bifacial power generation



Long-term Reliability

- Advanced weather-resistant encapsulation
- Aluminium alloy frame and heat strengthened glass
- Resistant to harsh environmental conditions

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 ISO 9001:2015 ISO 45001:2018 ISO 14001:2015

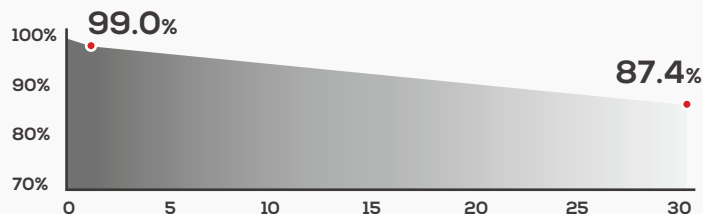
Linear Performance Warranty



15 Years
Product Warranty



30 Years Linear
Performance Warranty



Measurement Tolerance: P_{max} (W) ±3%; V_{oc} (V) ±3%; I_{sc} (A) ±4%* STC: Irradiance 1000W/m², Cell Temperature 25°C, AM1.5* BNPI: Back Irradiance 135W/m², Cell temperature 25°C, Atmospheric quality AM 1.5, Wind speed 1m/s

Electrical Parameters (STC* & BNPI*)

Testing Condition		STC		BNPI		STC		BNPI		STC		BNPI	
Maximum Power	P _{max} (W)	580	640	585	645	590	651	595	656	600	662	605	667
Open Circuit Voltage	V _{oc} (V)	52.50	52.68	52.70	52.86	52.90	53.07	53.10	53.26	53.30	53.47	53.50	53.65
Short Circuit Current	I _{sc} (A)	13.96	15.40	14.02	15.46	14.08	15.53	14.14	15.59	14.20	15.66	14.26	15.72
Maximum Power Voltage	V _{mp} (V)	44.65	44.67	44.83	44.83	45.01	45.03	45.18	45.18	45.36	45.38	45.53	45.53
Maximum Power Current	I _{mp} (A)	12.99	14.33	13.05	14.39	13.11	14.46	13.17	14.52	13.23	14.59	13.29	14.65
Module Efficiency	(%)	22.5		22.6		22.8		23.0		23.2		23.4	

Electrical Characteristics with Different Bifacial Gain*

* The additional gain from the back side depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

Bifacial Gain		5%	10%	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%
Maximum Power	P _{max} (W)	609	638	614	644	620	649	625	655	630	660	635	666
Open Circuit Voltage	V _{oc} (V)	52.50	52.50	52.70	52.70	52.90	52.90	53.10	53.10	53.30	53.30	53.50	53.50
Short Circuit Current	I _{sc} (A)	14.66	15.36	14.72	15.42	14.78	15.49	14.85	15.55	14.91	15.62	14.97	15.69
Maximum Power Voltage	V _{mp} (V)	44.65	44.65	44.83	44.83	45.01	45.01	45.18	45.18	45.36	45.36	45.53	45.53
Maximum Power Current	I _{mp} (A)	13.64	14.29	13.70	14.36	13.77	14.42	13.83	14.49	13.89	14.55	13.95	14.62

Temperature Coefficient

Nominal Module Operating Temperature*	43±2°C
Temperature Coefficient of I _{sc}	+0.045%/°C
Temperature Coefficient of V _{oc}	-0.24%/°C
Temperature Coefficient of P _{max}	-0.28%/°C

Operating Parameters

Operating Temperature (T ₉₈ max)	-40~70°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	30A

Mechanical Data

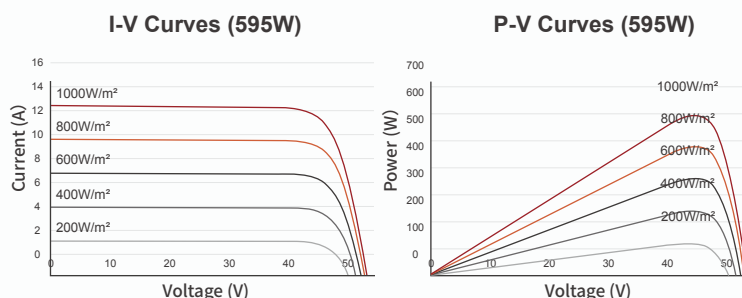
* Please refer to installation manual for details

No. of Cells	144pcs (6×24)
Dimension	2278×1134×30 mm
Weight	30.6kg±3%
Front Glass	2.0mm, Heat Strengthened, AR coating Glass
Back Glass	2.0mm, Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
J-Box	IP68, three diodes
Cables	4.0mm ² , +1200mm, -1200mm (can be customized)
Maximum Static Load	Front: 5400Pa/Back: 2400Pa*
Fire Rating	IEC Class A
Connectors:	Staubli Electrical Connectors AG, PV-KST4-EVO 2/xy_UR; PV-KBT4-EVO 2/xy_UR
Bifaciality (pP _{max} /pI _{sc})	80%±10%
Bifaciality (pV _{oc})	98%±2%

Packaging Configuration

Modules per Pallet	36pcs
Modules per 40'HQ Container	720pcs
Pallets per 40'HQ Container	20pcs

Curve Graph



Engineering Drawing

[Unit: mm]

