

TCL¹⁸²

TCL-MI565~585DH182-72NT

TOPCon Bifacial high efficiency PV module

PRODUCT FEATURES



Hi Power Output

N-type MBB half cut technology, improve energy density, bring higher power output.
High Bifacial Factor, up to 25% extra power generation



High Durability

Passed TUV Salt & Ammonia corrosion test, and 2400Pa wind load, 5400Pa snow load test, higher reliability



Better Low Light Performance

Higher power generation compare with standard module in cloudy, foggy and low light condition



Low Power Degradation

First year power degradation <1.0%, year 2-30 power degradation <0.40% each year



Low Temperature coefficient

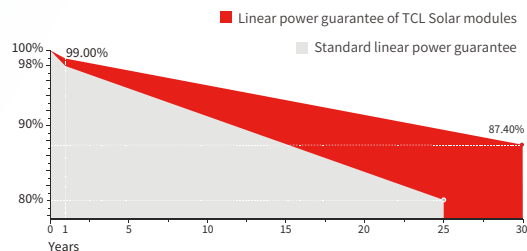
Passivated contact cell technology for higher power generation in operating



Better Anti-PID

N-type cells with boron-oxide-free composite LID to increase module power generation

LINEAR PERFORMANCE WARRANTY



product warranty



Linear attenuation of 0.40% per year within 30 years



linear power warranty

CERTIFICATES

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality Management System
- ISO 14001: 2015 Environment Management System
- ISO 45001: 2018 Occupational health and safety management systems



Electrical Data (STC)

Maximum Power (Pmax/W)	565	570	575	580	585
Open Circuit Voltage (Voc/V)	51.03	51.18	51.33	51.48	51.57
Short Circuit Current (Isc/A)	13.84	13.92	14.00	14.08	14.18
Voltage at Maximum Power (Vmp/V)	42.30	42.45	42.60	42.75	42.84
Current at Maximum Power (Imp/A)	13.36	13.43	13.50	13.57	13.66
Module Efficiency (%)	21.87	22.07	22.26	22.45	22.65
Operating Temperature	-40° C~+85° C				
Maximum System Voltage	1000/1500V				
STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25°C , AM1.5					

Electrical Data (NMOT)

Maximum Power (Pmax/W)	426	430	434	438	441
Open Circuit Voltage (Voc/V)	48.46	48.61	48.76	48.91	48.99
Short Circuit Current (Isc/A)	11.33	11.4	11.47	11.54	11.62
Voltage at Maximum Power (Vmp/V)	39.83	39.98	40.13	40.28	40.37
Current at Maximum Power (Imp/A)	10.7	10.76	10.82	10.88	10.93
NMOT (Nominal Moudule Operating Temperature): Irradiance 800W/m², Ambient Temperature 20°C , AM1.5, Wind Speed 1m/s.					

Bifacial Power Generation Parameters (Backside Gains)

5%	Maximum Power (Pmax/W)	593	599	604	609	614
	Module Efficiency (%)	22.97	23.17	23.37	23.57	23.78
15%	Maximum Power (Pmax/W)	650	656	661	667	673
	Module Efficiency (%)	25.15	25.37	25.60	25.82	26.04
25%	Maximum Power (Pmax/W)	706	713	719	725	731
	Module Efficiency (%)	27.34	27.58	27.82	28.07	28.31

Mechanical Data

Cell Type	182×91mm Mono
Cell Orientation	144(6×24)
Module Dimensions	2278×1134×30mm
Weight	32.0kg
Glass	2.0mm high transmittance, reinforced glass
Backsheet	2.0mm part of the structure is grid-like white ceramic glass
Frame Material	Anodized aluminum alloy
Junction Box	Protection class IP68
Cable	4.0 mm² positive pole: 200 mm negative pole: 250 mm wire length can be customized
Connector	MC4 EVO2

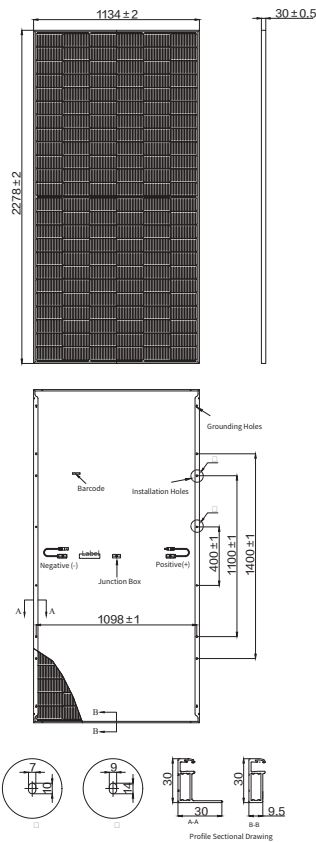
Temperature Coefficients

Temperature Coefficient (Pm)	-0.300%/°C
Temperature Coefficient (Voc)	-0.250%/°C
Temperature Coefficient (Isc)	0.045%/°C
NMOT (Nominal Moudule Operating Temperature)	41±3°C

Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	720 pcs	36 pcs +36 pcs

Module Dimensions (mm)



I-V Curve

