TCL SOLAR

T Class Solar Panel



Product: HSM-ND66-GR

610–630 W | Up to 23.3% efficient

Ideal for commercial applications

Framed glass-glass

Bifacial energy generation

High energy yield

- Consistent energy production across all weather conditions
- Bifacial energy generation

Elegant design

- Sleek panel aesthetic
- High-durability frame and heat-strengthened glass

Reliable operation

- Rigorous supply chain qualification procedures
- Easy to install
- Backed by a bankable company

Comprehensive warranty coverage

Product and power coverage	25-30 Years
Year 1 minimum warranted output	99.0%
Maximum annual degradation	0.40%

Learn more about TCL Solar panels
www.tclsolar.com/resources

T CLASS POWER: 610-630 W | EFFICIENCY: Up to 23.3%

Electrical Data, Front STC Characteristics[1]					
	HSM-ND66-GR630	HSM-ND66-GR625	HSM-ND66-GR620	HSM-ND6-GR615	HSM-ND66-GR610
Nominal Power (Pnom)[2]	630 W	625 W	620 W	615 W	610 W
Power Binning	3/0%	3/0%	3/0%	3/0%	3/0%
Panel Efficiency	23.3%	23.1%	23.0%	22.8%	22.6%
Rated Voltage (Vmpp)	41.37V	41.18 V	40.98 V	40.79 V	40.59 V
Rated Current (Impp)	15.23 A	15.18 A	15.13 A	15.08 A	15.03 A
Open-Circuit Voltage (Voc)[2]	49.38 V	49.16 V	48.94 V	48.72 V	48.50 V
Short-Circuit Current (Isc)[2]	16.15 A	16.10 A	16.05 A	16.00 A	15.95 A

BNPI Data[3]					
Nominal Power (Pmax)[2]	696 W	690 W	685 W	679 W	674 W
Open-Circuit Voltage (Voc)[2]	49.53 V	49.30 V	49.11 V	48.86 V	48.66 V
Short-Circuit Current (Isc)[2]	17.81 A	17.77 A	17.73 A	17.66 A	17.61 A

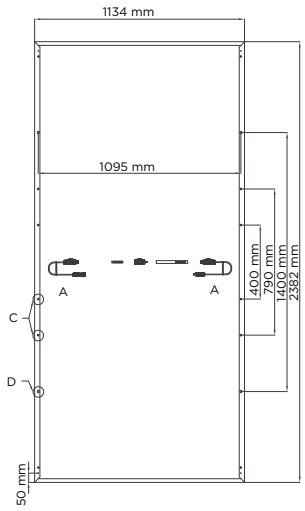
Bifacial Gain[4]					
Pmax with 5% Bifacial Gain	661 W	656 W	651 W	646 W	641 W
Isc with 5% Bifacial Gain	16.95 A	16.91 A	16.85 A	16.80 A	16.75 A
Pmax with 10% Bifacial Gain	693 W	688 W	682 W	677 W	671 W
Isc with 10% Bifacial Gain	17.76 A	17.71 A	17.66 A	17.60 A	17.55 A

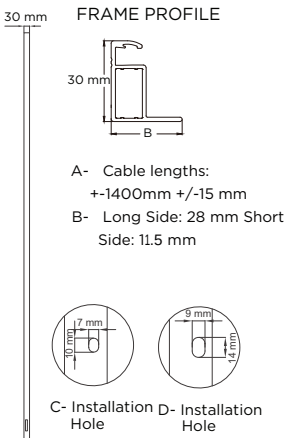
Electrical Data	
Bifaciality (ϕPmax/ϕIsc)	80% +/-5%
Bifaciality (ϕVoc)	98% +/-2%
Maximum System Voltage	1500 V IEC
Testing Temperature	-40°C to +85°C
Operation Temperature	-40°C to +70°C (IEC TS 63126)
Maximum Series Fuse	30 A
Power Temp. Coef.	-0.28% / °C
Voltage Temp. Coef.	-0.24% / °C
Current Temp. Coef.	0.045% / °C

Mechanical Data	
Solar Cells	N-Type TOPCon
Glass	2.0 mm + 2.0 mm, high transmission heat strengthened glass, AR coating on front glass
Junction Box	IP-68, 3 bypass diodes
Connector	H4 connectors
Weight	32.6 kg
Max. Load[5]	Wind: 2400 Pa, 245 kg/m² front & back Snow: 5400 Pa, 550 kg/m² front
Impact Resistance	25 mm diameter hail at 23 m/s
Frame	Anodized Aluminum Alloy

Packaging Configuration	
Number of modules per pallet	36
Number of pallets per 40ft HQ container	20
Number of modules per container	720

Tests And Certifications	
Standard Tests	IEC 61215, IEC 61730
Fire Rating	Class C (IEC 61730-2 / UL 790)
Protection Class	Class II (IEC 61140)
Quality Certs	ISO 9001:2015, ISO 14001:2015
EHS Compliance	ISO 45001-2018, Recycling Scheme





Please read the safety and installation instructions.
Visit www.tclsolar.com/resources.
Paper version can be requested through techsupport.EN@sunpowerglobal.com

1 Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25° C). NREL calibration Standard: SOMS current, LACCS FF and Voltage.
2 Measurements tolerance +/-3%.
3 BNPI Test Condition (front 1000 W/m², rear 135W/m² irradiance, AM 1.5, 25° C).
4 The additional gain from the back side of the panel compared to the power of the front side of the panel at the standard test conditions. It depends on mounting (structure, height, tilt angle etc.) and albedo of the underlying surface.
5 Test load as per IEC 61215-2 is equal to design load with safety factor = 1.5. See "Safety and Installation Instructions" for details.

TCL SOLAR

Specifications included in this datasheet are subject to change without notice.
©2025 TCL SunPower Global. All Rights Reserved.

554358 REV A / A4_EN
Publication Date: Jun 2026