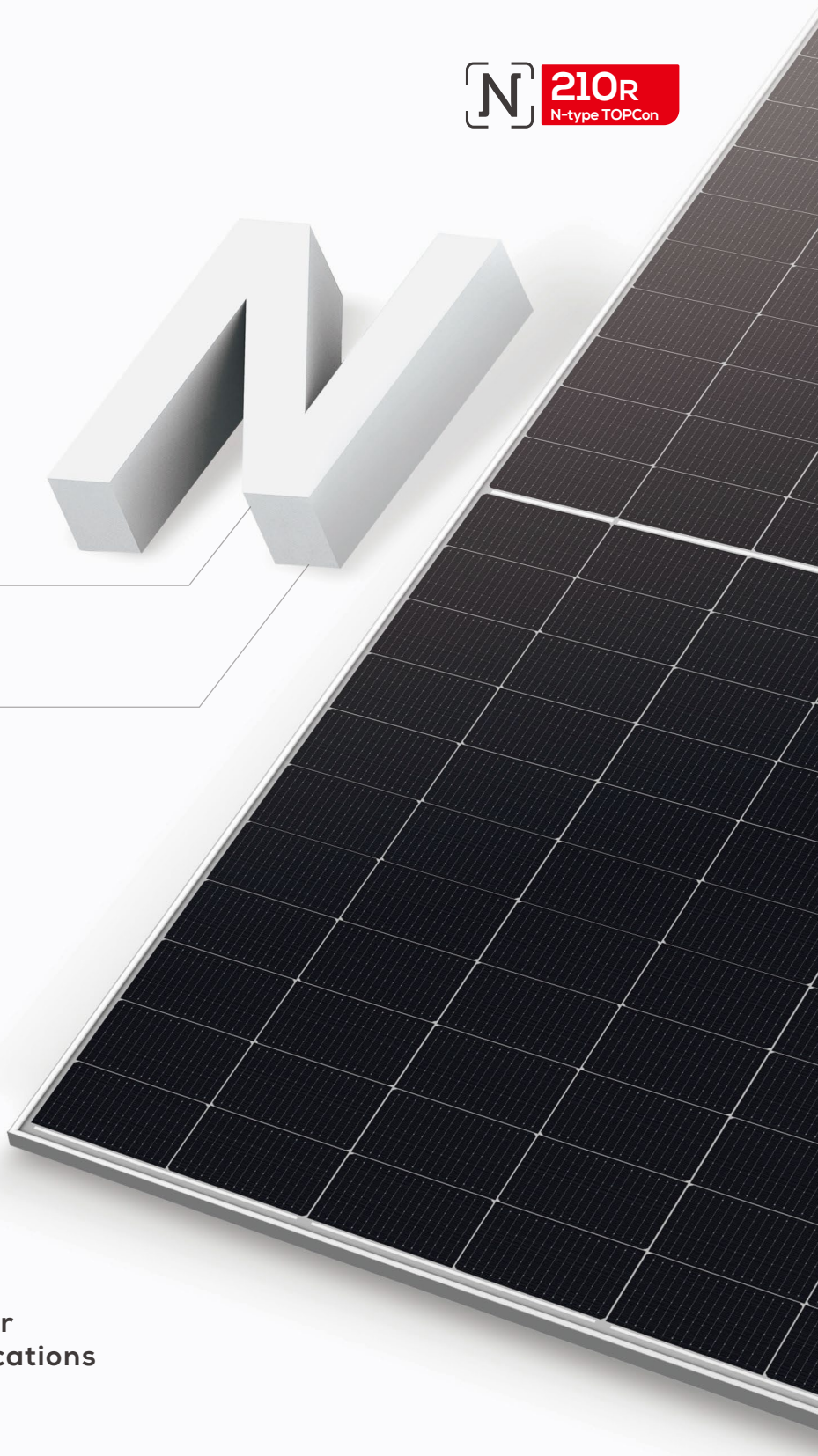
TCL SOLAR

N 210R N-type TOPCon

G12R-66P

N-type Bifacial Double Glass Module

HSM-ND66-GR600~625-Y



625W
Maximum Power Output

23.1%
Maximum Efficiency

TIER 1 BloombergNEF

Industry mainstream G12R design
Higher container utilization rate
Module power 600W+

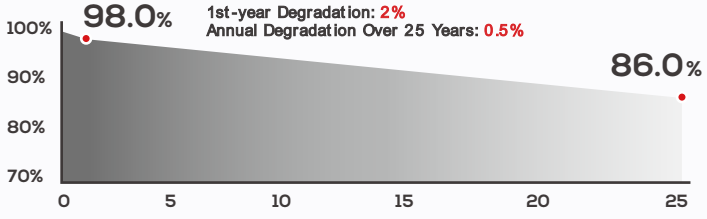
Dual-glass bifacial design , enhanced rear side power gain for higher system energy yield

Medium-format design suitable for distributed and utility-scale applications

Linear Performance Warranty

12 Years Product Warranty

25 Years Linear Performance Warranty



Comprehensive Products and System Certificates

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

Version No.:TCL-HSM-2026-A-EN

* Please refer to product warranty for details

HSM-ND66-GR600~625-Y | TOPCon

625W Maximum Power | **23.1%** Maximum Efficiency | **0~+3%** Power Tolerance

Electrical Parameters (STC* & BNPI*)

* STC: Irradiance 1000W/m², Cell Temperature 25°C, AM1.5, Measuring Tolerance: ±3%
* BNPI: Front Irradiance 1000W/m², Back Irradiance 135W/m², Ambient Temperature 25°C, AM1.5, Measuring Tolerance: ±3%

Testing Condition		STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
Maximum Power	Pmax (W)	600	663	605	668	610	674	615	679	620	685	625	690
Open Circuit Voltage	Voc (V)	48.06	48.23	48.28	48.43	48.50	48.66	48.72	48.86	48.94	49.11	49.16	49.30
Short Circuit Current	Isc (A)	15.85	17.51	15.90	17.55	15.95	17.61	16.00	17.66	16.05	17.73	16.10	17.77
Maximum Power Voltage	Vmp (V)	40.19	40.21	40.39	40.39	40.59	40.61	40.79	40.79	40.98	41.00	41.18	41.20
Maximum Power Current	Imp (A)	14.93	16.49	14.98	16.54	15.03	16.60	15.08	16.65	15.13	16.71	15.18	16.75
Module Efficiency	(%)	22.2		22.4		22.6		22.8		23.0		23.1	

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	Pmax (W)	630	660	635	666	641	671	646	677	651	682	656	688
Open Circuit Voltage	Voc (V)	48.06	48.06	48.28	48.28	48.50	48.50	48.72	48.72	48.94	48.94	49.16	49.16
Short Circuit Current	Isc (A)	16.64	17.44	16.70	17.49	16.75	17.55	16.80	17.60	16.85	17.66	16.91	17.71
Maximum Power Voltage	Vmp (V)	40.19	40.19	40.39	40.39	40.59	40.59	40.79	40.79	40.98	40.98	41.18	41.18
Maximum Power Current	Imp (A)	15.68	16.42	15.73	16.48	15.78	16.53	15.83	16.59	15.89	16.64	15.94	16.70

Temperature Coefficient

Nominal Module Operating Temperature*	43±2°C
Temperature Coefficient of Isc	+0.045%/°C
Temperature Coefficient of Voc	-0.24%/°C
Temperature Coefficient of Pmax	-0.28%/°C

Operating Parameters

Operating Temperature	-40~+70°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	30A
Power Bifaciality	80±5%
Safety Protection Rating	Class II
Fire Rating	Class C

Mechanical Data

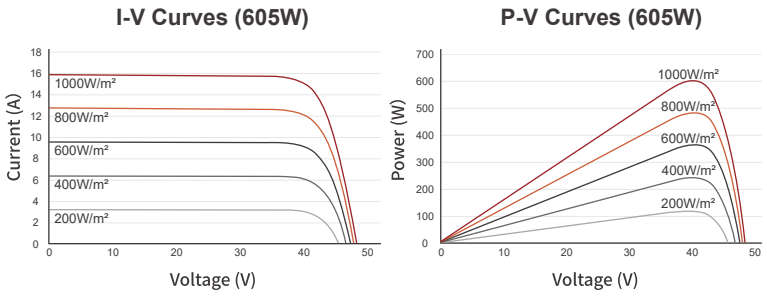
* Please refer to installation manual for details

No.of Cells	132pcs (6×22)
Dimension	2382×1134×30 mm
Weight	32.6kg±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	4.0mm² +300mm -200mm (can be customized)
Maximum Static Load	Front: 5400Pa/Back: 2400Pa*

Packaging Configuration

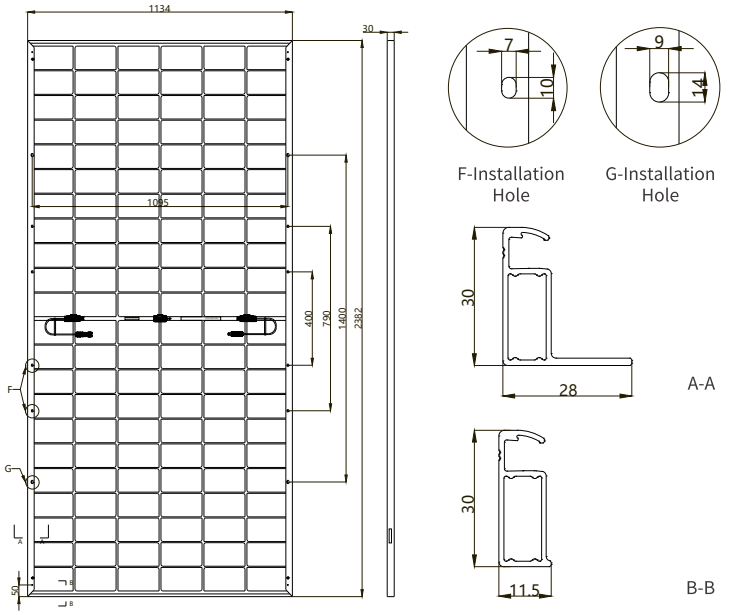
Modules per Pallet	36pcs
Modules per 40'HQ Container	720pcs
Pallets per 40'HQ Container	20pcs

Curve Graph



Engineering Drawing

[Unit: mm]



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Datasheets