

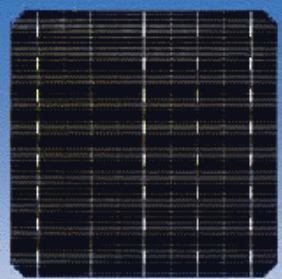


GCL-M3/72DH

Bifacial Monocrystalline Module

370-405W

Cell Type



5BB



405W

Maximum Power Output

20.1%

Maximum Module Efficiency

0~+5W

Power Output Guarantee



Use the Tedlar® PVF film produced by DUPONT



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



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



Higher lifetime power yield: 0.6% annual power degradation 30 years power warranty



Special cell process ensures great performance under low irradiance conditions



Transparent backsheet, double-sided sun capturing, power generation increase in returns

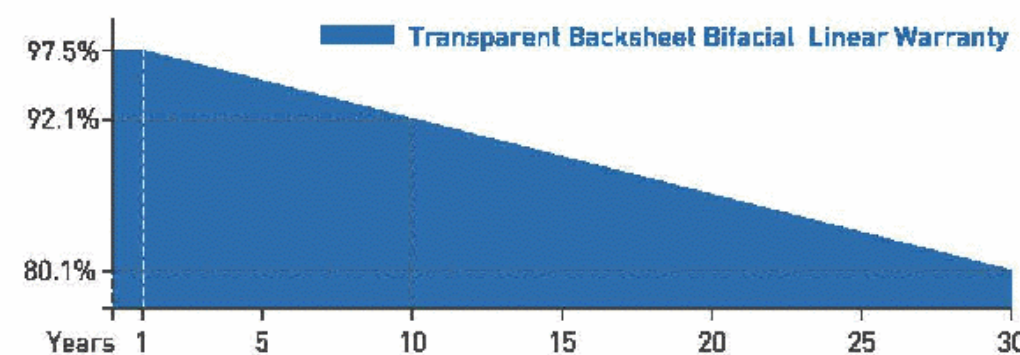
GCL Delivers Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Rigorous quality control to meet the highest standard: ISO9001:2015, ISO14001: 2015 and OHSAS: 18001 2007
- 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
- 2x100% EL inspection ensuring defect-free modules

Additional Insurance Backed by Swiss RE



Linear Performance Warranty



12 Years Product Warranty 30 Years Linear Power Warranty

* Please refer to GCL standard warranty for details

* Please refer to GCL for details

GCL-M3/72DH

Bifacial Monocrystalline Module 370-405W

Electrical Specification (STC*)

Test Condition		Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear
Maximum Power	Pmax(W)	370	262	375	265	380	269	385	272	390	276	395	279	400	283
Maximum Power Voltage	Vmp(V)	39.79	40.19	39.98	40.38	40.17	40.57	40.36	40.76	40.55	40.95	40.73	41.13	40.90	41.30
Maximum Power Current	Imp(A)	9.30	6.51	9.38	6.57	9.46	6.62	9.54	6.68	9.62	6.73	9.70	6.79	9.78	6.86
Open Circuit Voltage	Voc(V)	48.09	47.39	48.28	47.58	48.47	47.77	48.66	47.96	48.85	48.15	49.03	48.33	49.20	48.50
Short Circuit Current	Isc(A)	9.80	6.88	9.88	6.94	9.96	6.99	10.04	7.05	10.12	7.10	10.20	7.16	10.28	7.22
Module Efficiency	[%]	18.4	13.0	18.7	13.2	18.9	13.4	19.2	13.5	19.4	13.7	19.7	13.9	19.9	14.1
Power Output Tolerance	(W)	0~+5													

* Irradiance 1000W/m², Module Temperature 25°C, Air Mass 1.5

Electrical Specification (NOCT*)

Test Condition		Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear
Maximum Power	Pmax (W)	276.32	194.40	279.74	196.94	283.49	199.50	287.26	202.07	291.06	204.66	294.86	207.26	298.72	209.88
Maximum Power Voltage	Vmp (V)	37.03	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	38.00	38.10	38.20	38.30
Maximum Power Current	Imp (A)	7.46	5.24	7.52	5.28	7.58	5.32	7.64	5.36	7.70	5.40	7.76	5.44	7.82	5.48
Open Circuit Voltage	Voc(V)	44.83	44.20	45.00	44.40	45.20	44.60	45.40	44.80	45.50	45.00	45.80	45.20	46.00	45.40
Short Circuit Current	Isc (A)	7.92	5.56	7.98	5.60	8.04	5.64	8.10	5.68	8.16	5.72	8.22	5.76	8.28	5.80

* Irradiance 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s

Mechanical Data

Number of Cells	144 Cells (6x24)
Dimensions of Module L*W*H (mm)	2010x1000x35mm (79.13x39.37x1.38 inches)
Weight (kg)	23.1 kg
Glass	High transparency solar glass 3.2mm (0.13 inches)
Backsheet	Use Tedlar® PVF film produced by DUPONT
Frame	Silver, anodized aluminium alloy
J-Box	IP68 Rated
Cable	4.0mm² [0.006 inches²], Portrait: 200/200mm (7.87 inches)
Number of diodes	3
Wind/Snow Load	2400Pa/ 5400Pa*
Connector	MC Compatible

* For more details please check the installation manual of GCLSI

Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	43±2°C
Temperature Coefficient of Isc	+0.06%/°C
Temperature Coefficient of Voc	-0.30%/°C
Temperature Coefficient of Pmax	-0.38%/°C

Maximum Ratings

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	20A

Packaging Configuration

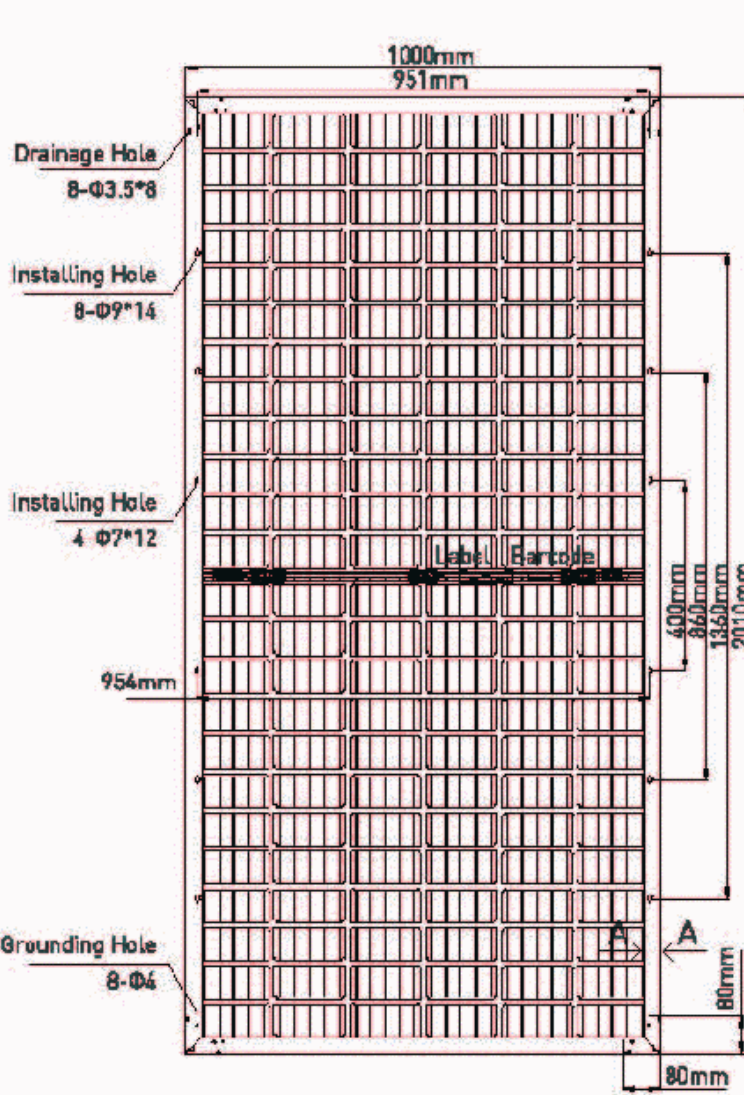
Module per box	30 pieces
Module per 40' container	660 pieces



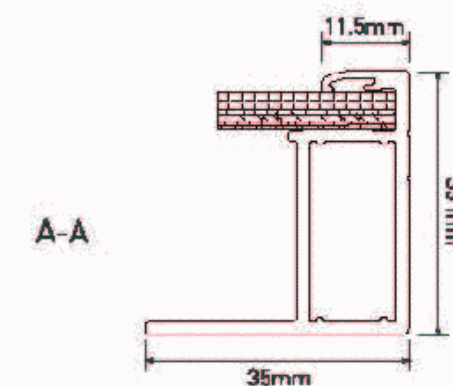
Contact Us for More Information

website: www.gclsi.com email: gclsisales@gclsi.com

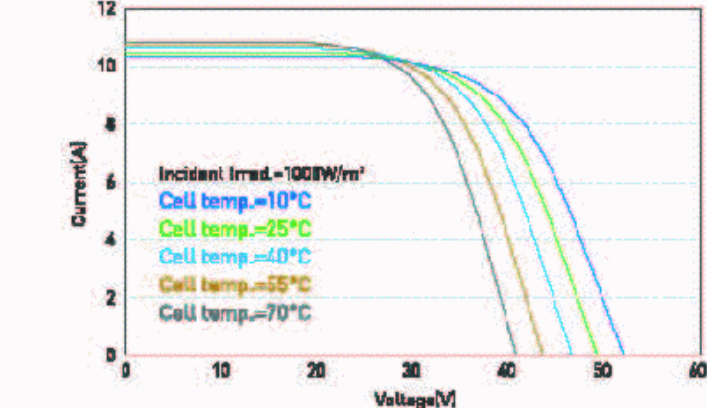
Module Dimension



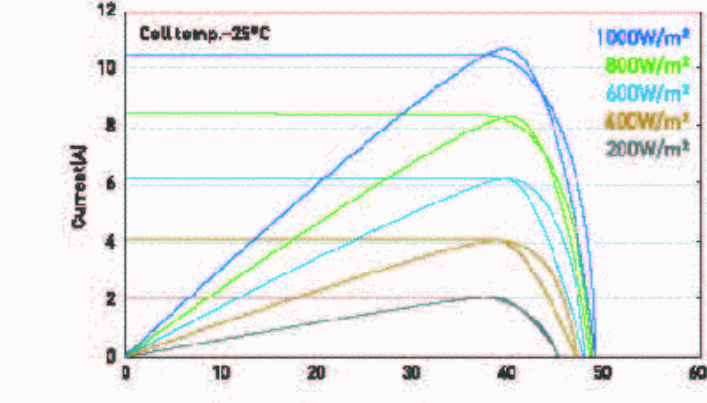
Back View



I-V Curve at Different Temperature (405W)



I-V/P-V Curve at Different Irradiation (405W)



CAUTION: READ INSTALLATION MANUAL BEFORE USING THE PRODUCT

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PROJECT:

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SCS IL 1, LLC**
3401 SOUTH FIRST STREET
CHAMPAIGN, ILLINOIS 61822

OWNER:

**SOL CUSTOMER
SOLUTIONS**

MAJOR EQUIPMENT:

MODULES

TRINA 400W (16,848)
TRINA 395W (8,424)
GCL 385W (5,850)
TOTAL: 12.32 MW

INVERTERS

SUNGROW SG3150 (4)
TOTAL DERATED OUTPUT: 10 MW

RACKING

NEXTRACKER SINGLE AXIS TRACKER
60° MAX TILT

DRAWING ISSUE

MARK	DATE	DESCRIPTION
P1	05-12-2020	50% DRAWINGS
P2	05-22-2020	90% DRAWINGS
P3	06-26-2020	99% DRAWINGS
C1	08-14-2020	100% DRAWINGS
R1	03-01-2021	RECORD DRAWINGS

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CAD DWG FILE: INOVATEUS TEMPLATE.DWG
DRAWN BY: JV
CHECKED BY: AP

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SHEET TITLE
**MODULE
DATASHEET**

E-5.05

Bringing Green Power To Life

www.gclsi.com

Bringing Green Power To Life

Mono Multi Solutions

THE DUOMAX^{tw}

BIFACIAL DUAL GLASS 144 HALF-CELL MODULE

144-Cell
MONOCRYSTALLINE MODULE

380-405W
POWER OUTPUT RANGE

20.0%
MAXIMUM EFFICIENCY

0~+5W
POSITIVE POWER TOLERANCE

Founded in 1997, Trina Solar is the world's leading total solution provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, bankable brand. Trina Solar now distributes its PV products to over 100 countries all over the world. We are committed to building strategic, mutually beneficial collaborations with installers, developers, distributors and other partners in driving smart energy together.

Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IEC62716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Verification
OHSAS 18001: Occupation Health and Safety Management System



Trinasolar

PRODUCTS TSM-DEG15HC.20(II)

POWER RANGE 380-405W



High power output

- Up to 405W front power and 20.0% module efficiency with half-cut technology enabling higher BOS savings
- Lower resistance of half-cut cells ensures higher power



Certified to perform in highly challenging environments

- High PID resistance through cell process and module material control
- Resistant to salt, acid, sand, and ammonia
- Proven to be reliable in high temperature and humidity areas
- Certified to the best fire class A
- Minimizes micro-crack and snail trails
- Certified to 5400 Pa positive load and 2400 Pa negative load



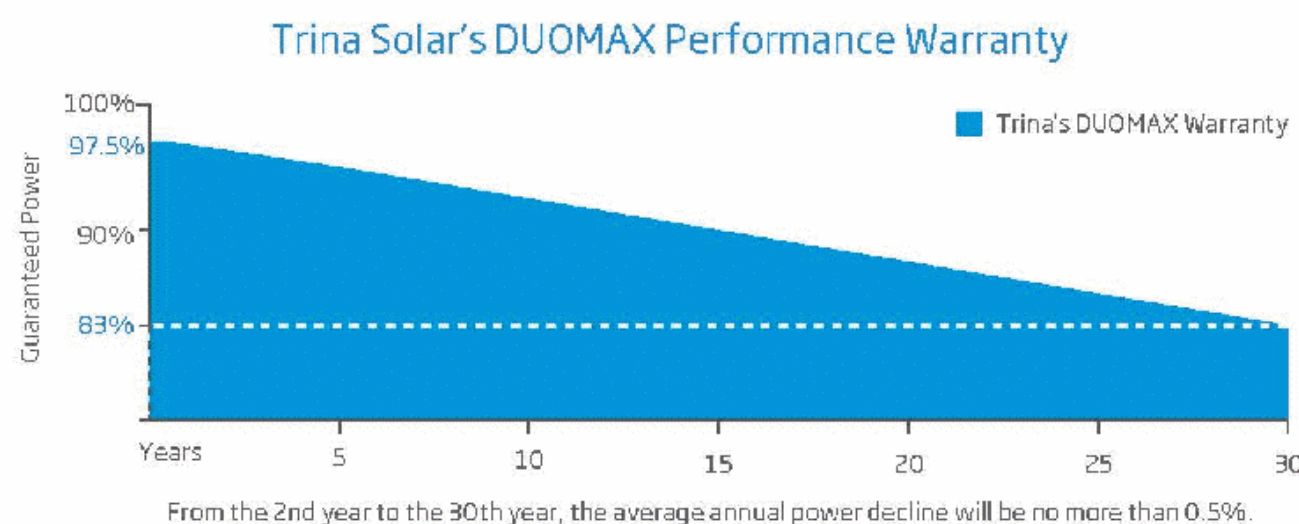
High energy generation, low LCOE

- Up to 25% additional power gain from back side, depending on the albedo
- Excellent 3rd party validated IAM and low light performance with cell process and module material optimization
- Low temp coefficient (-0.35%) and NMOT increases energy production
- Better anti-shading performance and lower operating temperature
- Higher power from same installation footprint as standard modules



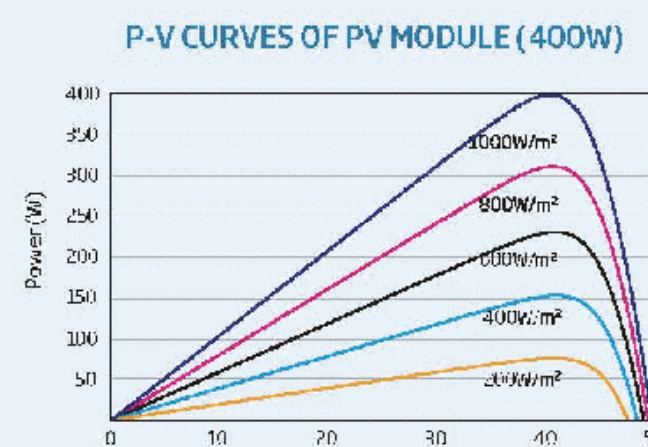
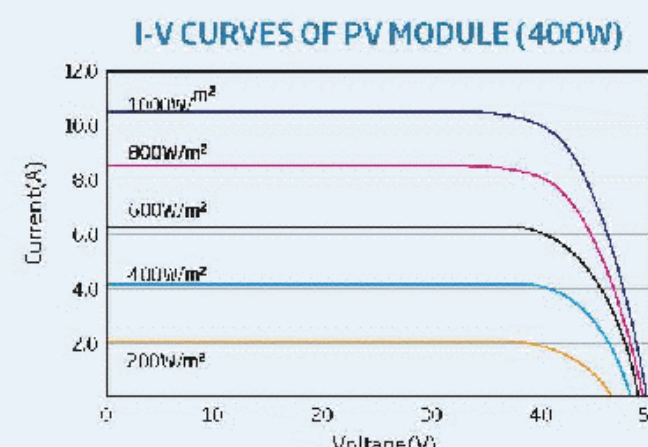
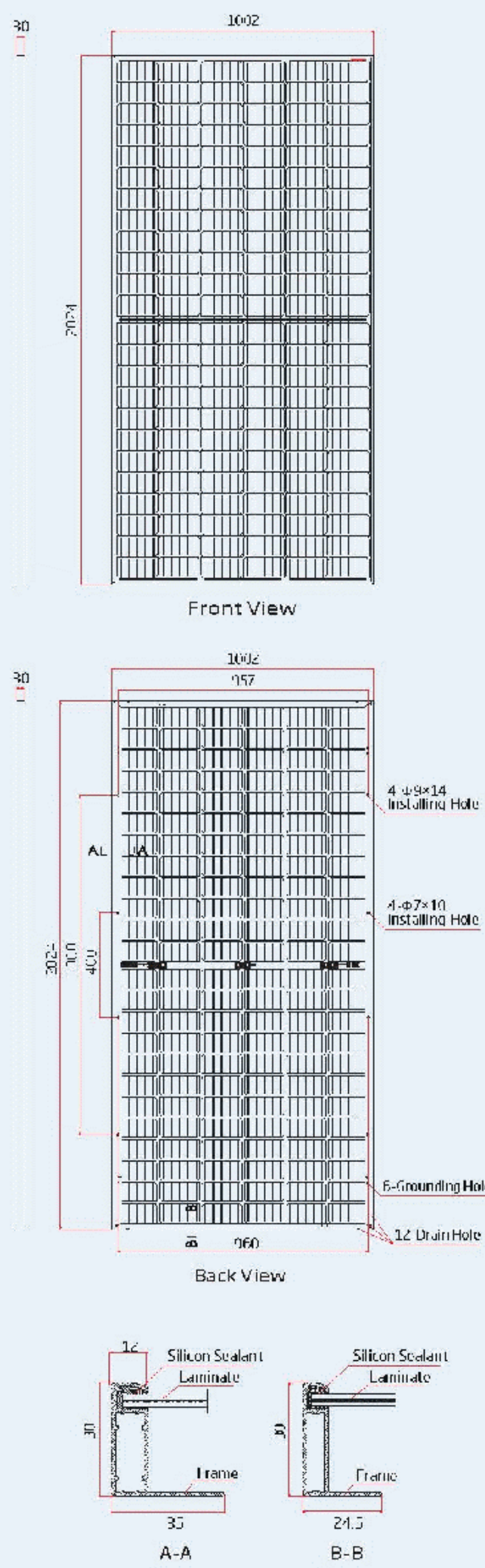
Easy to install, wide application

- Frame design enables compatibility with standard installation methods
- Deployable for ground mounted utility, carports, and agricultural projects
- Safe and easy to transport, handle, and install like normal framed modules



DUOMAX^{tw}

DIMENSIONS OF PV MODULE (mm)



BIFACIAL DUAL GLASS 144 HALF-CELL MODULE

ELECTRICAL DATA (STC)

Peak Power Watts- P_{max} (Wp)*	380	385	390	395	400	405
Power Output Tolerance- P_{max} (W)				0 ~ +5		
Maximum Power Voltage- V_{mp} (V)	40.3	40.4	40.5	40.6	40.7	40.8
Maximum Power Current- I_{mp} (A)	9.43	9.53	9.63	9.73	9.83	9.93
Open Circuit Voltage- V_{oc} (V)	49.2	49.4	49.6	49.7	49.9	50.1
Short Circuit Current- I_{sc} (A)	9.99	10.09	10.19	10.29	10.39	10.49
Module Efficiency η_m (%)	18.7	19.0	19.2	19.5	19.7	20.0

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
*Measuring tolerance: $\pm 3\%$.

ELECTRICAL DATA (NMOT)

Maximum Power- P_{max} (Wp)	289	292	296	300	304	308
Maximum Power Voltage- V_{mp} (V)	38.1	38.2	38.3	38.4	38.6	38.7
Maximum Power Current- I_{mp} (A)	7.58	7.65	7.73	7.81	7.88	7.95
Open Circuit Voltage- V_{oc} (V)	46.6	46.8	47.0	47.1	47.2	47.4
Short Circuit Current- I_{sc} (A)	8.05	8.13	8.21	8.29	8.37	8.45

NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

Electrical characteristics with different rear side power gains (referenced specifically to 400Wp front)**

Maximum Power- P_{max} (Wp)	420	440	460	480	500
Maximum Power Voltage- V_{mp} (V)	40.7	40.7	40.7	40.7	40.7
Maximum Power Current- I_{mp} (A)	10.32	10.81	11.30	11.60	12.29
Open Circuit Voltage- V_{oc} (V)	49.9	50.0	50.0	50.0	50.1
Short Circuit Current- I_{sc} (A)	10.91	11.43	11.95	12.47	12.99
P_{max} gain	5%	10%	15%	20%	25%

Power Bifaciality: 70 $\pm$ 5%.

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	144 cells (6 * 24)
Module Dimensions	2024 * 1002 * 30 mm (79.69 * 39.45 * 1.18 inches)
Weight	26.0 kg (57.3 lb)
Front Glass	2.0 mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	POE/EVA
Back Glass	2.0 mm (0.08 inches), Heat Strengthened Glass (White Grid Glass)
Frame	30mm (1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0 mm ² (0.006 inches ²) Portrait: 280/280 mm (11.02/11.02 inches) Landscape: 1900/1900 mm (74.80/74.80 inches)
Connector	Trina TS4

TEMPERATURE RATINGS

NMOT (Nominal Module Operating Temperature)	41°C ($\pm 3^\circ\text{C}$)
Temperature Coefficient of P_{max}	-0.35%/°C
Temperature Coefficient of V_{oc}	-0.25%/°C
Temperature Coefficient of I_{sc}	0.04%/°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	1500V DC (UL)
	20A

WARRANTY

12 year Product Workmanship Warranty

30 year Power Warranty

(Please refer to product warranty for details)

** Back-side power gain varies depending upon the specific project albedo

PACKAGING CONFIGURATION

Modules per box: 35 pieces

Modules per 40' container: 655 pieces

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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Version number: TSM-DEG15HC20_EN_2020_Red

www.trinasolar.com

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GCL 385W (5,850)
TOTAL: 12.32 MW

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TOTAL DERATED OUTPUT: 10 MW

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NEXTRACKER SINGLE AXIS TRACKER
60° MAX TILT

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PROJECT NO: 12119

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SHEET TITLE
MODULE
DATASHEET

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