

# GOLDI DUO APEX\_144GN Polycrystalline Module

## Key Features

- Excellent module conversion efficiency of up to 17.21%.
- Up to +2% positive power output guaranteed.
- About 4wp extra power gain per modules .
- Reducing equipment loss increases the power generation in overall system.
- High fill factor & four times lower loss in complete module.
- Split junction boxes reduce panel temperature resulting increased reliability.
- Improved performance in shade condition.
- Loss minimization due to excellent temperature co-efficient.
- BOS cost reduction for 1500 VDC system by connecting more modules in a string.
- Better performance even at low irradiance condition
- Higher specific yield.

## Quality & Reliability

- Manufactured in an ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 certified facility.
- Manufactured using high grade raw materials from reputed international suppliers adopting a stringent quality criteria.
- PID resistant (IEC 62804).
- Salt mist resistant (IEC 61701).
- IP68 rated junction box for long-term weather endurance.
- 25 years output warranty.
- Certified for hail resistance.
- Certified with IEC & BIS.

## Technical Data for GOLDI DUO APEX\_144GN - Polycrystalline Module

### Electrical Parameter at STC

| Module Type                    | GOLDI144CWpPY24 |       |       |       |       |
|--------------------------------|-----------------|-------|-------|-------|-------|
| Capacity rating – Pmax(Wp)     | 320             | 325   | 330   | 335   | 340   |
| Power Tolerance (%)            | 0 - 2           | 0 - 2 | 0 - 2 | 0 - 2 | 0 - 2 |
| Module efficiency (%)          | 16.20           | 16.46 | 16.71 | 16.96 | 17.21 |
| Rated voltage - Vmp(V)         | 36.90           | 37.20 | 37.40 | 37.70 | 37.90 |
| Rated current - Imp(A)         | 8.68            | 8.75  | 8.83  | 8.9   | 8.98  |
| Open circuit voltage - Voc(V)  | 45.70           | 45.90 | 46.20 | 46.50 | 46.80 |
| Short circuit current - Isc(A) | 9.05            | 9.12  | 9.19  | 9.26  | 9.32  |

Under Standard Test Conditions (STC) of irradiance 1000 W/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C. Except Pmax, all other parameters have a tolerance of ±3%.

### Electrical Parameter at NOCT

|                                |        |        |        |        |        |
|--------------------------------|--------|--------|--------|--------|--------|
| Capacity rating - Pmax(Wp)     | 238.01 | 241.89 | 245.41 | 249.34 | 252.78 |
| Rated voltage - Vmp(V)         | 34.17  | 34.44  | 34.63  | 34.91  | 35.16  |
| Rated current - Imp(A)         | 6.97   | 7.02   | 7.09   | 7.14   | 7.19   |
| Open circuit voltage - Voc     | 42.71  | 42.90  | 43.18  | 43.46  | 43.62  |
| Short circuit current - Isc(A) | 7.30   | 7.35   | 7.41   | 7.47   | 7.55   |

NOCT irradiance of 800 W/m<sup>2</sup>, ambient temperature of 20°C, Wind speed 1m/sec

### Guarantees and certifications

|                         |   |
|-------------------------|---|
| Product warranty**      | 10 years  |
| Performance guarantee** | Limited warranty for power output :-<br>90% for 10 years and 80% for 25 years |
| Product Certificates    | IEC 61215, IEC 61730, IEC 61701, CE, BIS                                      |

### Mechanical Specification

|                   |   |
|-------------------|---|
| Solar cells       | 144 pcs Polycrystalline Silicon, 5BB/4BB            |
| Encapsulation     | Ultra - clear PID free EVA (Ethylene-Vinyl-Acetate) |
| Backside          | UV protected reflective backsheet                   |
| Frame             | Silver Anodized Aluminium Alloy                     |
| Front glass       | 3.2 mm, High Transmission, AR Coated Tempered Glass |
| Dimensions        | (L) 1995 mm x (W) 990 mm x (H) 35mm                 |
| Weight            | 22 kg   |
| J-box             | IP 68 certified, 3 diodes junction box              |
| Cable             | Solar cable 400 mm length, 4 mm <sup>2</sup>        |
| Connectors        | MC4 compatible connectors                           |
| Application Class | Class A   |
| Electrical Safety | Class II  |
| Fire Safety       | Class C ( Type 1)                                   |
| Surface load      | (snow load 5400 Pa, wind load 2400 Pa).             |

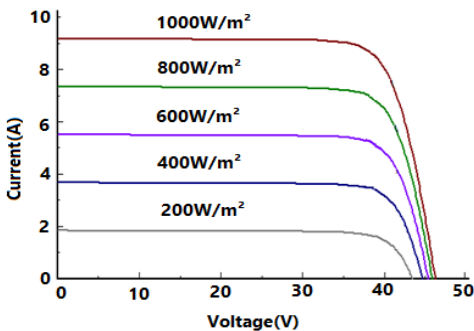
### Temperature Coefficients (TC)

|                                |            |
|--------------------------------|------------|
| Temperature Coefficient (Voc)  | -0.30% /°C |
| Temperature Coefficient (Isc)  | 0.05% /°C  |
| Temperature Coefficient (Pmax) | -0.38% /°C |

### Permissible Operating Conditions

|                        |  |
|------------------------|--|
| Temperature range      | -40°C to + 85°C                                |
| Maximum system voltage | 1500/1000 VDC                                  |
| NOCT                   | 45± 2°C  |
| Hail resistance        | Maximum diameter of 25 mm with velocity 23 m/s |

## IV Curve



- For handling & installation instructions refer Goldi Solar Installation Manual available on Company website.
- Before placing order confirm your requirement with our sales representative.
- The electrical data given here is for reference purpose only.
- Dispose-off the product as E-Waste after end of its working life.
- \*\* Refer to Goldi Solar's warranty document for terms and conditions.
- Due to constant product modifications, Goldi Solar reserves the right to amend the above specifications without prior notice.

|                    |        |        |
|--------------------|--------|--------|
| Container          | 20' GP | 40' HC |
| Pallets/ container | 10     | 22     |
| Modules/ Container | 300    | 660    |

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## Drawing (Measurements are in mm)

