



## SOLAR GRID - TIE STRING INVERTER

### Leading Features

- More Reliable & Efficient with World Class Components for 20 Years Design Life
- High Frequency Switching Technology
- Low Start-up Voltage & Ultra Wide MPPT Range for more Power Generation
- Multiple Protection Levels
- THDi < 1.5%
- Max. Efficiency 98.1%
- Built-in Export Power Management for Export Control
- IP65 for outdoor Installation
- Compact Size & Light Weight Design for single person easy installation
- RS-485; Wi-Fi/GPRS/LAN Interface (Optional)
- Remote Monitoring on Web Portal & Mobile App
- 5 Years Standard Warranty
- Extendable upto 20 years

## TECHNICAL SPECIFICATIONS

| MODEL                                 | PSIS- 1K                                                                                                                                                                                                                                                         | PSIS- 1.5K | PSIS- 2K | PSIS- 3K | PSIS- 4K       | PSIS- 5K |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|----------|----------------|----------|
| RATING                                | 1 KW                                                                                                                                                                                                                                                             | 1.5 KW     | 2 KW     | 3 KW     | 4 KW           | 5 KW     |
| <b>INPUT DC</b>                       |                                                                                                                                                                                                                                                                  |            |          |          |                |          |
| Max. DC Input Power (kW)              | 1.2                                                                                                                                                                                                                                                              | 1.8        | 2.4      | 3.6      | 4.8            | 6        |
| Max. DC Input Voltage (V)             | 600                                                                                                                                                                                                                                                              |            |          |          |                |          |
| Start-Up Voltage (V)                  | 60                                                                                                                                                                                                                                                               |            | 90       |          | 120            |          |
| MPPT Voltage Range (V)                | 50 - 500                                                                                                                                                                                                                                                         |            | 80 - 500 |          | 100 - 500      |          |
| Max. Input Current (A)                | 11                                                                                                                                                                                                                                                               |            |          | 11 + 11  |                |          |
| MPPT Number / No. of Strings per MPPT | 1 / 1                                                                                                                                                                                                                                                            |            |          | 2 / 1    |                |          |
| <b>OUTPUT AC</b>                      |                                                                                                                                                                                                                                                                  |            |          |          |                |          |
| Rated Output Power (kW)               | 1                                                                                                                                                                                                                                                                | 1.5        | 2        | 3        | 4              | 5        |
| Max. Apparent Output Power (kVA)      | 1.1                                                                                                                                                                                                                                                              | 1.7        | 2.2      | 3.3      | 4.4            | 5.5      |
| Max. Output Power (kW)                | 1.1                                                                                                                                                                                                                                                              | 1.7        | 2.2      | 3.3      | 4.4            | 5.5      |
| Rated Grid Voltage (V)                | 230                                                                                                                                                                                                                                                              |            |          |          |                |          |
| Grid Voltage Range (V)                | 160 - 285 (Adjustable)                                                                                                                                                                                                                                           |            |          |          |                |          |
| Rated Grid Frequency (Hz)             | 50                                                                                                                                                                                                                                                               |            |          |          |                |          |
| Grid Frequency Range (Hz)             | 47-52                                                                                                                                                                                                                                                            |            |          |          |                |          |
| Operation Phase                       | Single                                                                                                                                                                                                                                                           |            |          |          |                |          |
| Rated Grid Output Current (A)         | 4.3                                                                                                                                                                                                                                                              | 6.5        | 8.7      | 13       | 17.4           | 21.7     |
| Max. Output Current (A)               | 5.2                                                                                                                                                                                                                                                              | 8.1        | 10.5     | 15.7     | 21             | 25       |
| Power Factor (at rated output power)  | 0.8leading ..1.. 0.8lagging                                                                                                                                                                                                                                      |            |          |          |                |          |
| THDi (at rated output power)          | < 1.5 %                                                                                                                                                                                                                                                          |            |          |          |                |          |
| DC Injection Current (mA)             | < 20 mA                                                                                                                                                                                                                                                          |            |          |          |                |          |
| <b>EFFICIENCY</b>                     |                                                                                                                                                                                                                                                                  |            |          |          |                |          |
| Max. Efficiency                       | 97.2%                                                                                                                                                                                                                                                            |            |          | 97.5%    | 98.1%          |          |
| EU Efficiency                         | 96.5%                                                                                                                                                                                                                                                            |            |          | 96.8%    | 97.3%          |          |
| MPPT Efficiency                       | >99.5%                                                                                                                                                                                                                                                           |            |          |          |                |          |
| <b>PROTECTIONS</b>                    |                                                                                                                                                                                                                                                                  |            |          |          |                |          |
| Built-in Protections                  | DC Reverse Polarity, Short Circuit Protection, Output Over Current, Output Over Voltage, Insulation Resistance Monitoring, Residual Current Detection, MOVs for Surge Protection on DC & AC sides, Grid Monitoring, Islanding Protection, Temperature Protection |            |          |          |                |          |
| <b>GENERAL DATA</b>                   |                                                                                                                                                                                                                                                                  |            |          |          |                |          |
| Dimension (mm)                        | 310W*373H*160D                                                                                                                                                                                                                                                   |            |          |          | 310W*543H*160D |          |
| Weight (kg)                           | 7.4                                                                                                                                                                                                                                                              |            |          | 7.7      | 11.5           |          |
| Topology                              | Transformerless                                                                                                                                                                                                                                                  |            |          |          |                |          |
| Self Consumption (watt)               | <1 (Night)                                                                                                                                                                                                                                                       |            |          |          |                |          |
| Operating Ambient Temperature Range   | -25 ~ 60 °C                                                                                                                                                                                                                                                      |            |          |          |                |          |
| Relative Humidity                     | 0~100%                                                                                                                                                                                                                                                           |            |          |          |                |          |
| Ingress Protection                    | IP65                                                                                                                                                                                                                                                             |            |          |          |                |          |
| Noise Emission {typical}              | <20 dBA                                                                                                                                                                                                                                                          |            |          |          | <30 dBA        |          |
| Cooling Concept                       | Natural Convection                                                                                                                                                                                                                                               |            |          |          |                |          |
| Max. Operation Altitude               | 4000m                                                                                                                                                                                                                                                            |            |          |          |                |          |
| Design life                           | >20 Years                                                                                                                                                                                                                                                        |            |          |          |                |          |
| <b>FEATURES</b>                       |                                                                                                                                                                                                                                                                  |            |          |          |                |          |
| DC Connection                         | MC-4 mateable                                                                                                                                                                                                                                                    |            |          |          |                |          |
| AC Connection                         | IP 67 Rated Plug                                                                                                                                                                                                                                                 |            |          |          |                |          |
| Display                               | LCD 2×20 Z                                                                                                                                                                                                                                                       |            |          |          |                |          |
| Communication Connections             | 4 pin RS485 connector                                                                                                                                                                                                                                            |            |          |          |                |          |
| Monitoring                            | WiFi / GPRS / LAN                                                                                                                                                                                                                                                |            |          |          |                |          |
| Warranty                              | 5 Years Standard (Extendable upto 20 years)                                                                                                                                                                                                                      |            |          |          |                |          |
| <b>IEC CERTIFICATES</b>               |                                                                                                                                                                                                                                                                  |            |          |          |                |          |
| Grid Connection                       | IEC 61727                                                                                                                                                                                                                                                        |            |          |          |                |          |
| Anti-Islanding Protection             | IEC 62116                                                                                                                                                                                                                                                        |            |          |          |                |          |
| Enviromental Testing                  | IEC 60068-2 (1-2-14-30)                                                                                                                                                                                                                                          |            |          |          |                |          |
| Safety                                | IEC 62109-1, IEC 62109-2                                                                                                                                                                                                                                         |            |          |          |                |          |
| EMC                                   | IEC 61000, EN61000-6:2007, EN61000-6-3:2007                                                                                                                                                                                                                      |            |          |          |                |          |
| Efficiency Measurement                | IEC 61683                                                                                                                                                                                                                                                        |            |          |          |                |          |

Note: Specifications are subject to change

### Corporate Office:

**POLYCARB INDIA LIMITED** (formerly known as Polycab Wires Limited)  
 Polycab house, 771 Mogul lane, Mahim (W), Mumbai 400 016.  
 Email: solar@polycab.com | Web: www.polycab.com

### Solar Division Marketing Office:

**POLYCARB INDIA LIMITED** (formerly known as Polycab Wires Limited\*)  
 Off. No. 34, Sangam Project Phase-2, Near RTO Pune,  
 Near Sangam Bridge, Opp. Air India Office, Pune- 411001.

Authorised Distributor / Dealer

### For Consumer Complaint Contact : Officer, Consumer Care Cell

Polycab House, 771, Mogul Lane, Mahim (W), Mumbai 400 016, Maharashtra, India.  
 Tel: 91-22-2432 7070 - 4,6735 1400 | Fax: 91-22-24327075  
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