

# Single Phase Inverter

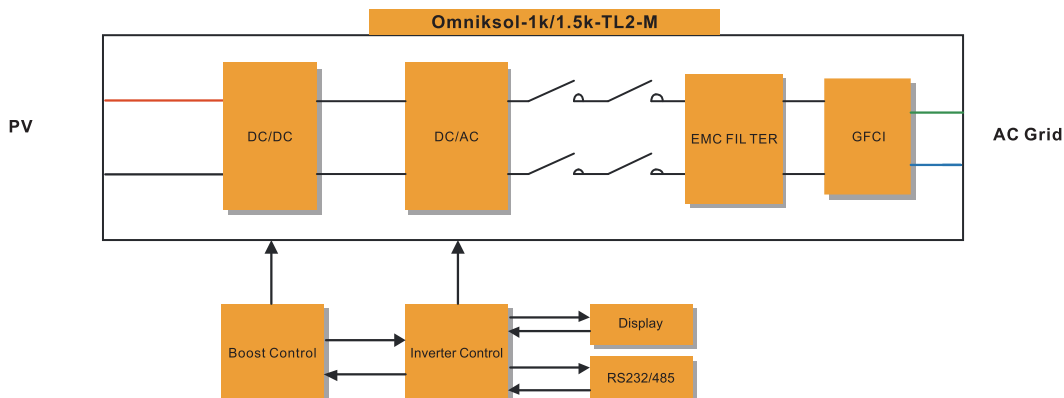
Omniksol-1k/1.5k-TL2-M



## Product Features

| 【Features】                                    | 【Advantages】                                     | 【Benefits】  |
|---|--|---|
| ·5-25 years warranty as optional              | ·Guaranteed product quality                      | ·High ROI   |
| ·Built-in GPRS module as optional             | ·Plug and play                                   | ·Remote monitoring without setting  |
| ·Built-in WiFi module as optional             | ·Free monitoring fee for data transmission       | ·Remote monitoring without any charge                                     |
| ·Circuit design based on temperature gradient | ·Lower internal temperature                      | ·Longer life cycle  |
| ·Smaller and lighter, only 5 kg               | ·Easy transportation and installation            | ·Saving storage and installation space                                    |
| ·Meet VDE AR-N-4105 certification             | ·Adjustable active and reactive power            | ·Meet the latest regulations  |
| ·Die casting technology                       | ·larger heat dissipation area                    | ·More reliable  |
| ·High performance DSP for algorithm control   | ·Faster CPU speed                                | ·Higher inverter control accuracy   |
| ·New topology design                          | ·Max. efficiency 96.5%,<br>Euro efficiency 96.0% | ·Increase system payback ability  |
| ·Single-button interface                      | ·User friendly operation                         | ·Easy to operate  |
| ·Power supply from AC side                    | ·Query the state of inverter at night            | ·Real-time data readable for 24 hours                                     |
| ·Anti-shadow function                         | ·Suitable to complex installation environment    | ·Increase the electricity generation of the system in shading environment |

## Block Diagram



# Technical Data

Omniksol-1k/1.5k-TL2-M

| Type                                | Omniksol-1k-TL2-M  | Omniksol-1.5k-TL2-M                    |                             |
|-------------------------------------|--|--|-----------------------------|
| <b>Input(DC)</b>                    |  |  |                             |
| Max. PV Module Power [W]            | 1250   | 1750                                   |                             |
| Max. DC Voltage [V]                 | 500  | 500                                    |                             |
| Nominal DC Voltage [V]              | 360  | 360                                    |                             |
| Operating MPPT Voltage Range [V]    | 60 - 400   | 60 - 400                               |                             |
| MPPT Voltage Range at Nominal       | 155 - 400  | 155 - 400                              |                             |
| Start up DC Voltage [V]             | 70   | 70                                     |                             |
| Turn off DC Voltage [V]             | 50   | 50                                     |                             |
| Max. DC Current [A]                 | 10   | 10                                     |                             |
| Max. Short Circuit Current [A]      | 12   | 12                                     |                             |
| Number of MPP trackers              | 1  | 1                                      |                             |
| Number of DC Connection             | 1  | 1                                      |                             |
| DC Connection Type                  | Amphenol Connector   | Amphenol Connector                     |                             |
| <b>Output(AC)</b>                   |  |  |                             |
| Max. AC Apparent Power [VA]         | 1100   | 1650                                   |                             |
| Nominal AC Power [W]                | 1000   | 1500                                   |                             |
| Nominal Grid Voltage [V]            | 220 / 230 / 240  | 220 / 230 / 240                        |                             |
| Nominal Grid Frequency [Hz]         | 50 / 60  | 50 / 60                                |                             |
| Max. AC Current [A]                 | 5  | 7.5                                    |                             |
| Grid Voltage Range [V]*             | 185 - 276  | 185 - 276                              |                             |
| Grid Frequency Range [Hz]*          | 45 - 55 / 55 - 65  | 45 - 55 / 55 - 65                      |                             |
| Power Factor                        | 0.8i - 0.8c  | 0.8i - 0.8c                            |                             |
| Total Harmonic Distortion (THD)     | < 3%   | < 3%                                   |                             |
| Night time Power Consumption [W]    | < 1  | < 1                                    |                             |
| AC Connection Type                  | Plug-in connector  | Plug-in connector                      |                             |
| <b>Efficiency</b>                   |  |  |                             |
| Max. Efficiency                     | 96.5%  | 96.5%                                  |                             |
| Euro Efficiency                     | 95.8%  | 96.0%                                  |                             |
| MPPT Efficiency                     | 99.9%  | 99.9%                                  |                             |
| <b>Safety and Protection</b>        |  |  |                             |
| Protection Functions                | Array ground insulation resistance monitoring  | Output over current protection         | Residual current monitoring |
|                                     | Array polarity reverse protection  | Output over/under voltage protection   | Surge protection            |
|                                     | Array over voltage protection  | Output over/under frequency protection | Anti-island protection      |
|                                     | Array over current protection  | Output short circuit protection        | Over temperature protection |
| Protection Class                    | I (According to IEC 62103)   |  |                             |
| Overvoltage Category                | PV II / Mains III (According to IEC 62109-1)   |  |                             |
| <b>Reference Standard</b>           |  |  |                             |
| Safety Standard                     | IEC/EN 62109   |  |                             |
| EMC Standard                        | EN 61000-6-1, EN61000-6-3, EN 61000-6-2, EN61000-6-4, EN61000-3-2, EN 61000-3-3                  |  |                             |
| Grid Standard                       | VDE-AR-N 4105, VDE 0126-1-1, C10/11, G83/2, UTE C 15-721-1, AS4777, CEI 0-21, EN50438, NB/T32004 |  |                             |
| <b>Physical Structure</b>           |  |  |                             |
| Dimensions (WxHxD) [mm]             | 210 * 290 * 90   |  |                             |
| Weight [kg]                         | 5  |  |                             |
| Environmental Protection Rating     | IP 65 (According to IEC 60529)   |  |                             |
| Cooling Concept                     | Natural convection   |  |                             |
| Mounting Information                | Wall bracket   |  |                             |
| <b>General Data</b>                 |  |  |                             |
| Operating Temperature Range [°C]    | -25 to +60 (derating above 45°C)   |  |                             |
| Relative Humidity                   | 0% to 100%, no condensation  |  |                             |
| Max. Altitude (above sea level) [m] | 2000   |  |                             |
| Noise Level [dB]                    | < 40   |  |                             |
| Isolation Type                      | Transformerless  |  |                             |
| Display                             | 2 LED, Backlight, 2 * 16 Character LCD   |  |                             |
| Data Communication Interfaces       | RS485 / WiFi / GPRS optional   |  |                             |
| Guarantee                           | 5 - 25 years optional  |  |                             |

\*The AC voltage and frequency range may vary depending on specific country grid.