

# TSUN Hybrid Inverter



TSOL-H3.0K/3.6K/4.0K/4.6K/5.0K/6.0K-S



## High-yield

- Real time precise MPPT algorithm for max power generation.
- Wide input voltage operation range.
- Independent dual MPPT for more flexible design.

## Reliable and Safe

- High efficiency, less maintenance.
- High frequency isolation between battery & PV/grid.
- Advanced BMS technology for better battery performance.
- Low battery voltage, much safer.

## Easier Operation

- Flexible installation site selection due to IP65.
- LCD Display, easy-to-read display.
- Easy monitoring by mobile phone (APP) & PC (web).

## Intelligent

- Reactive power capability.
- Limits AC output when grid frequency/voltage is too high or too low.
- Built-in anti-reflex function (optional).

CE VDE 0126 VDE 4105 CEI 0-21 G98 G99 IEC/EN 62109



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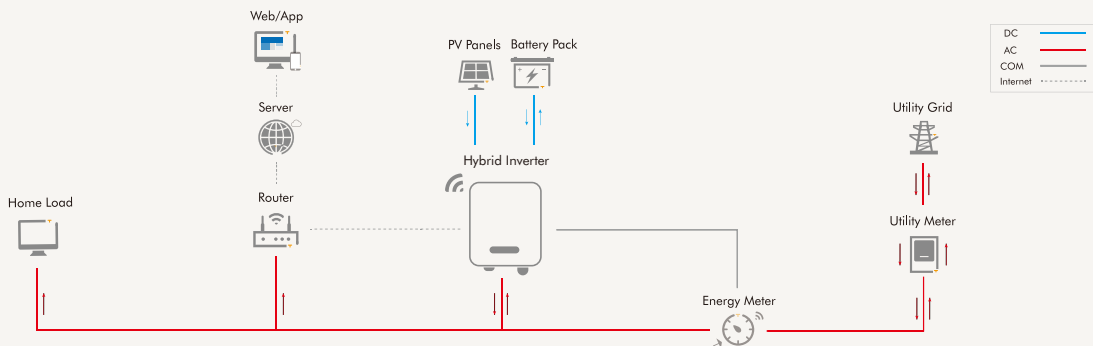
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# Technical Data

| Model                                   | TSOL-H3.0K-S | TSOL-H3.6K-S | TSOL-H4.0K-S | TSOL-H4.6K-SE | TSOL-H5.0K-SE                  | TSOL-H6.0K-SE | TSOL-H4.6K-S | TSOL-H5.0K-S | TSOL-H6.0K-S |
|---|--------------|--------------|--------------|---------------|--------------------------------|---------------|--------------|--------------|--------------|
| <b>PV Input Data (DC)</b>               |              |              |              |               |                                |               |              |              |              |
| Max. PV Input Power (W)                 | 4500         | 5400         | 6000         | 6900          | 7500                           | 9000          | 6900         | 7500         | 9000         |
| Max. PV Input Voltage (V)               |              |              |              |               | 600                            |               |              |              |              |
| Startup Voltage (V)                     |              |              |              |               | 120                            |               |              |              |              |
| MPP Voltage Range (V)                   |              |              |              |               | 90-550                         |               |              |              |              |
| No. of MPPTs                            |              |              |              |               | 2                              |               |              |              |              |
| Max. Number of PV Strings per MPPT      |              |              |              |               | 1                              |               |              |              |              |
| Max. PV Input Current (A)               |              |              |              |               | 12.5                           |               |              |              |              |
| DC Switch                               |              |              |              |               | Integrated                     |               |              |              |              |
| <b>AC Input and Output Data (AC)</b>    |              |              |              |               |                                |               |              |              |              |
| Max. AC Output Power (VA)               | 3000         | 3680         | 4000         | 4600          | 5000                           | 6000          | 4600         | 5000         | 6000         |
| Nominal AC Output Power (VA)            | 3000         | 3680         | 4000         | 4600          | 5000                           | 6000          | 4600         | 5000         | 6000         |
| Max. AC Output Current (A)              | 13.6         | 16.7         | 18.2         | 20.9          | 22.7                           | 27.3          | 20.9         | 22.7         | 27.3         |
| Nominal AC Voltage (V)※                 |              |              |              |               | L / N / PE , 220 or 230 or 240 |               |              |              |              |
| AC Voltage Range (V)※                   |              |              |              |               | 180-280                        |               |              |              |              |
| Nominal Frequency (Hz)※                 |              |              |              |               | 50 or 60                       |               |              |              |              |
| Frequency Range (Hz)※                   |              |              |              |               | 45 - 55 or 55 - 65             |               |              |              |              |
| THD                                     |              |              |              |               | <3%                            |               |              |              |              |
| Power Factor                            |              |              |              |               | 0.8 leading - 0.8 lagging      |               |              |              |              |
| <b>Protection</b>                       |              |              |              |               |                                |               |              |              |              |
| AC Short Circuit Protection             |              |              |              |               | YES                            |               |              |              |              |
| Overload Protection                     |              |              |              |               | YES                            |               |              |              |              |
| DC OV/UV Protection                     |              |              |              |               | YES                            |               |              |              |              |
| AC OV/UV Protection                     |              |              |              |               | YES                            |               |              |              |              |
| AC OF/UF Protection                     |              |              |              |               | YES                            |               |              |              |              |
| Peak-to-through Period Setting          |              |              |              |               | YES                            |               |              |              |              |
| <b>Battery Data</b>                     |              |              |              |               |                                |               |              |              |              |
| Battery Type                            |              |              |              |               | Li-ion Battery                 |               |              |              |              |
| Battery Voltage (V)                     |              |              |              |               | 48                             |               |              |              |              |
| Battery Voltage Range (V)               |              |              |              |               | 42 - 58.5                      |               |              |              |              |
| Max. Charge / Discharge Current (A)     |              |              | 60 / 60      |               |                                |               |              | 100 / 100    |              |
| <b>System Data</b>                      |              |              |              |               |                                |               |              |              |              |
| Max. Efficiency / European Efficiency   |              |              |              |               | 97.6% / 97%                    |               |              |              |              |
| Max. Discharge Efficiency               |              |              |              |               | 94.60%                         |               |              |              |              |
| Ingress Protection Rating               |              |              |              |               | IP65                           |               |              |              |              |
| Operating Ambient Temperature Range (C) |              |              |              |               | -25 to +60 (>45C derating)     |               |              |              |              |
| Ambient Humidity                        |              |              |              |               | 0 - 100% , non-condensing      |               |              |              |              |
| Cooling Method                          |              |              |              |               | Natural Convection             |               |              |              |              |
| Max. Operating Altitude (m)             |              |              |              |               | 4000 (>3000m derating)         |               |              |              |              |
| Noise (dB)                              |              |              |              |               | <29                            |               |              |              |              |
| Display                                 |              |              |              |               | LCD                            |               |              |              |              |
| Communication                           |              |              |              |               | WIFI , GPRS , Ethernet         |               |              |              |              |
| Dimensions W*H*D (mm)                   |              |              |              |               | 470 * 560 * 190                |               |              |              |              |
| Weight (kg)                             |              |              |              |               | 25                             |               |              |              |              |
| <b>Backup Data</b>                      |              |              |              |               |                                |               |              |              |              |
| Nominal Voltage (V)                     |              |              |              |               | 220 or 230 or 240              |               |              |              |              |
| Frequency (Hz)                          |              |              |              |               | 50 or 60                       |               |              |              |              |
| Nominal Output Power                    | 3000         | 3000         | 3000         | 4600          | 5000                           | 5000          | 4600         | 5000         | 5000         |
| Peak Output Apparent Power (VA)         |              |              | 3600, 10s    |               |                                |               | 6000, 10s    |              |              |

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



For more information, visit/contact us at [www.tsun-ess.com](http://www.tsun-ess.com)

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