

# H2 10-30K Three Phase Hybrid Inverter

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SAJ's latest hybrid inverter supported easy setting of smart working modes, UPS 10ms switch time and 1C VPP charging/discharging speed of battery. H2 covers 10-30kW, 3MPPTs and three phase grid.



- ❑ Easy setting of smart working modes
- ❑ DC 20A string matched with ultra high PV modules
- ❑ Supported three phase voltage imbalance
- ❑ Battery fast charging/ discharging supported
- ❑ 150% DC oversizing
- ❑ With backup switch time  $\leq 20\text{ms}$

H2-10K-T3 | H2-12K-T3 | H2-15K-T2  
H2-15K-T3 | H2-20K-T2 | H2-20K-T3  
H2-25K-T3-BE | H2-25K-T3 | H2-30K-T3-DE | H2-30K-T3

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| MODEL                                     | H2-10K-T3  | H2-12K-T3 | H2-15K-T2 | H2-15K-T3 | H2-20K-T2 | H2-20K-T3 | H2-25K-T3-BE | H2-25K-T3 | H2-30K-T3-DE | H2-30K-T3 |
|---|--|-----------|-----------|-----------|-----------|-----------|--------------|-----------|--------------|-----------|
| <b>DC Input</b>                           |  |           |           |           |           |           |              |           |              |           |
| Max. PV Array Power [Wp]@STC              | 20000  | 24000     | 30000     | 30000     | 30000     | 40000     | 45000        | 45000     | 45000        | 45000     |
| Max. DC Voltage [V]                       | 1000   |           |           |           |           |           |              |           |              |           |
| MPPT Voltage Range [V]                    | 180 ~ 900  |           |           |           |           |           |              |           |              |           |
| Rated DC Voltage [V]                      | 600  |           |           |           |           |           |              |           |              |           |
| Start Voltage [V]                         | 180  |           |           |           |           |           |              |           |              |           |
| Max. DC Input Current [A]                 | 40/40/40   |           | 40/40     | 40/40/40  | 40/40     |           |              |           | 40/40/40     |           |
| Max. DC Short Circuit Current [A]         | 50/50/50   |           | 50/50     | 50/50/50  | 50/50     |           |              |           | 50/50/50     |           |
| No. of MPPT                               | 3  |           | 2         | 3         | 2         |           |              |           | 3            |           |
| Number of String per MPPT Tracker         | 2/2/2  |           | 2/2       | 2/2/2     | 2/2       |           |              |           | 2/2/2        |           |
| <b>Battery Parameters</b>                 |  |           |           |           |           |           |              |           |              |           |
| Battery Type                              | LiFePO4  |           |           |           |           |           |              |           |              |           |
| Battery Voltage Range [V]                 | 180 ~ 800  |           |           |           |           |           |              |           |              |           |
| Max. Charging/Discharging Current [A]     | 50/50  |           |           |           |           |           |              |           |              |           |
| No. of BAT                                | 2  |           |           |           |           |           |              |           |              |           |
| <b>AC Output [On-grid]</b>                |  |           |           |           |           |           |              |           |              |           |
| Rated AC Power [W]                        | 10000  | 12000     | 15000     | 15000     | 20000     | 20000     | 25000        | 25000     | 29999        | 30000     |
| Max.Apparent Power [VA]                   | 11000  | 13200     | 16500     | 16500     | 22000     | 22000     | 25000        | 27500     | 29999        | 33000     |
| Rated Output Current [A]@230Vac           | 14.5   | 17.4      | 21.8      | 21.8      | 29.0      | 29.0      | 36.3         | 36.3      | 43.4         | 43.5      |
| Max. Output Current [A]                   | 16   | 19.2      | 24.0      | 24.0      | 31.9      | 31.9      | 36.3         | 39.9      | 43.4         | 47.9      |
| Rated AC Voltage/Range [V]                | 3L+N+PE, 220/380, 230/400, 240/415; 180 ~ 280/312 ~ 485  |           |           |           |           |           |              |           |              |           |
| Rated Output Frequency/Range [Hz]         | 50,60/45 ~ 55,55 ~ 65  |           |           |           |           |           |              |           |              |           |
| Power Factor [cos φ]                      | 0.8 leading ~ 0.8 lagging  |           |           |           |           |           |              |           |              |           |
| Total Harmonic Distortion [THDi]          | <3%  |           |           |           |           |           |              |           |              |           |
| <b>AC Input [On-grid]</b>                 |  |           |           |           |           |           |              |           |              |           |
| Rated AC Voltage/Range [V]                | 3L+N+PE, 220/380, 230/400, 240/415; 180 ~ 280/312 ~ 485  |           |           |           |           |           |              |           |              |           |
| Rated Input Frequency [Hz]                | 50,60  |           |           |           |           |           |              |           |              |           |
| Max. Input Current [A]@230Vac             | 28.3   | 28.3      | 28.3      | 28.3      | 37.7      | 37.7      | 47.2         | 47.2      | 56.5         | 56.6      |
| <b>AC Output [Back-up]</b>                |  |           |           |           |           |           |              |           |              |           |
| Max. Output Power [VA]                    | 10000  | 12000     | 15000     | 15000     | 20000     | 20000     | 25000        | 25000     | 29999        | 30000     |
| Max. Output Current [A]                   | 14.5   | 17.4      | 21.8      | 21.8      | 29.0      | 29.0      | 36.3         | 36.3      | 43.4         | 43.5      |
| Peak Output Apparent Power [VA]           | 15000,3S   | 18000,3S  | 22500,3s  | 22500,3s  | 30000,3s  | 30000,3s  | 37500,3s     | 37500,3s  | 45000,3S     | 45000,3s  |
| Rated AC Voltage/Range [V]                | 3L+N+PE, 220/380, 230/400, 240/415; 180 ~ 280/312 ~ 485  |           |           |           |           |           |              |           |              |           |
| Rated Output Frequency/Range [Hz]         | 50,60/45 ~ 55,55 ~ 65  |           |           |           |           |           |              |           |              |           |
| Output THDv (@ Linear Load)               | <3%  |           |           |           |           |           |              |           |              |           |
| <b>Efficiency</b>                         |  |           |           |           |           |           |              |           |              |           |
| Max. Efficiency                           | 98.0%  |           |           |           |           |           |              |           |              |           |
| Euro Efficiency                           | 97.6%  |           |           |           |           |           |              |           |              |           |
| <b>Protection</b>                         |  |           |           |           |           |           |              |           |              |           |
| Battery Input Reverse Polarity Protection | Integrated   |           |           |           |           |           |              |           |              |           |
| Over load Protection                      | Integrated   |           |           |           |           |           |              |           |              |           |
| AC Short Circuit Current Protection       | Integrated   |           |           |           |           |           |              |           |              |           |
| DC Surge Protection                       | Type II  |           |           |           |           |           |              |           |              |           |
| AC Surge Protection                       | Type II  |           |           |           |           |           |              |           |              |           |
| Anti-islanding Protection                 | Integrated   |           |           |           |           |           |              |           |              |           |
| AFCI Protection                           | Integrated   |           |           |           |           |           |              |           |              |           |
| <b>Interface</b>                          |  |           |           |           |           |           |              |           |              |           |
| PV Connection                             | MC4  |           |           |           |           |           |              |           |              |           |
| AC Connection                             | Terminal Block   |           |           |           |           |           |              |           |              |           |
| AC Connection                             | Quick connector  |           |           |           |           |           |              |           |              |           |
| Display                                   | LED+APP  |           |           |           |           |           |              |           |              |           |
| Communication                             | Wi-Fi/Ethernet/4G(Optional)  |           |           |           |           |           |              |           |              |           |
| <b>General Parameters</b>                 |  |           |           |           |           |           |              |           |              |           |
| Topology                                  | Non-isolated   |           |           |           |           |           |              |           |              |           |
| Operating Temperature Range               | -40°C to +60°C (45°C and above with derating)  |           |           |           |           |           |              |           |              |           |
| Cooling Method                            | Intelligent Fan cooling  |           |           |           |           |           |              |           |              |           |
| Ambient Humidity                          | 0-100% Non-condensing  |           |           |           |           |           |              |           |              |           |
| Altitude                                  | 4000m (>3000m Power Derating)  |           |           |           |           |           |              |           |              |           |
| Noise [dBA]                               | <50  |           |           |           |           |           |              |           |              |           |
| Ingress Protection                        | IP65   |           |           |           |           |           |              |           |              |           |
| Dimensions [H*W*D] [mm]                   | 576*659*242  |           |           |           |           |           |              |           |              |           |
| Weight [kg]                               | 50   |           |           |           |           |           |              |           |              |           |
| Warranty [Year]                           | 5/10/15  |           |           |           |           |           |              |           |              |           |
| Standard                                  | EN 62109-1/2, EN 61000-6-2/4, EN 50438, EN 50549, C10/11, IEC 62116, IEC 61727, RD 1699, RD 413, UNE 206006, UNE 206007, NTS, CEI 0-16, CEI 0-21, AS 4777.2, NBR 16149, NBR 16150, VDE-AR-N 4105, VDE 0126-1-1 |           |           |           |           |           |              |           |              |           |