

# On/off-grid | Three Phase | Low Voltage Hybrid Inverter

5/6/8/10/12kW



## Product Features

 **SiC Technology, Max. 98.2% Efficiency**

 **2 Independent Battery Ports for Mixture Use of Old & New Battery**

 **150%-200% PV Input Power, 3 MPPTs, PV Input Current 20A, Higher Compatibility with PV Panel**

 **200-480% Grid Input Power, Max.24kW, Supplying to Loads & Charging Battery in Parallel**

 **166-400% Overload**

 **165mm Ultra-thin, IP65**

 **Executive Generator Port, Smart Monitoring Max. Generator Input Current 36.4A**

 **Battery Current 250A, Battery Voltage 30-60V, Support Compability with Sodium-ion Battery**

 **6 Units in Parallel (Off-grid Mode) AFCI/PID Function (Optional)**

| Model Name                                   | Isuna D5K-TL   | Isuna D6K-TL | Isuna D8K-TL | Isuna D10K-TL | Isuna D12K-TL |
|--|--|--------------|--------------|---------------|---------------|
| <b>Off-grid Output</b>                       |  |              |              |               |               |
| Rated Output Power                           | 5kW  | 6kW          | 8kW          | 10kW          | 12kW          |
| Max. Output Power                            | 5.5kVA   | 6.6kVA       | 8.8kVA       | 11kVA         | 13.2kVA       |
| Peak Power & Duration                        | 20kVA(10s)*  |              |              |               |               |
| Max. Output Current                          | 8.3A   | 10A          | 13.3A        | 16A           | 20A           |
| Rated Output Voltage                         | 3/N/PE, 220/380Vac, 230/400Vac   |              |              |               |               |
| Switching Time                               | <10ms  |              |              |               |               |
| GEN Max. Current                             | 36.4A  |              |              |               |               |
| GEN Voltage Range                            | 185-276V(P2N)  |              |              |               |               |
| <b>On-grid Parameter</b>                     |  |              |              |               |               |
| Rated Output Power                           | 5kW  | 6kW          | 8kW          | 10kW          | 12kW          |
| Max. Output Power                            | 5.5kVA   | 6.6kVA       | 8.8kVA       | 11kVA         | 13.2kVA       |
| Max. Output Current                          | 8.3A   | 10A          | 13.3A        | 16A           | 20A           |
| Max. Input Power                             | 24kVA  |              |              |               |               |
| Rated Voltage                                | 3/N/PE, 220/380Vac, 230/400Vac   |              |              |               |               |
| Grid Voltage range                           | 185-276V (P2N)   |              |              |               |               |
| Grid Frequency                               | 50/60±5Hz  |              |              |               |               |
| <b>PV Input</b>                              |  |              |              |               |               |
| Max. Input Power                             | 18KW   |              |              |               |               |
| Max. Input Voltage                           | 800V   |              |              |               |               |
| Number of MPPT                               | 3  |              |              |               |               |
| Max. Input String Per MPPT                   | 1/1/1  |              |              |               |               |
| MPPT Voltage Range                           | 130-800V   |              |              |               |               |
| Starting Voltage                             | 140V   |              |              |               |               |
| Max. Input Current                           | 20A/20A/20A  |              |              |               |               |
| Short-Circuit Current                        | 24A/24A/24A  |              |              |               |               |
| <b>Battery Parameter</b>                     |  |              |              |               |               |
| Battery Type                                 | Lithium-ion/Lead-Acid/Sodium-ion   |              |              |               |               |
| Number of Battery Input                      | 2  |              |              |               |               |
| Battery Voltage Range                        | 30-60V   |              |              |               |               |
| Battery Charging/Discharging Current         | 125A*2   |              |              |               |               |
| <b>Efficiency</b>                            |  |              |              |               |               |
| Max. Efficiency                              | 98.20%   |              |              |               |               |
| European Efficiency                          | 97.70%   |              |              |               |               |
| Max. Battery Charging/Discharging Efficiency | 95.00%   |              |              |               |               |
| <b>General Data</b>                          |  |              |              |               |               |
| Size(W*H*D)                                  | 465mm*665mm*165mm  |              |              |               |               |
| Weight                                       | 36kg   |              |              |               |               |
| Noise  | <45dB(A)   |              |              |               |               |
| Operating Temperature                        | -25°C~+60°C (>45°C Derating)   |              |              |               |               |
| Operating Altitude                           | 4000m(>3000m Derating)   |              |              |               |               |
| Cooling Method                               | Intelligent Air Cooling  |              |              |               |               |
| Ingress Protection Grade                     | IP65   |              |              |               |               |
| Topology                                     | Isolation  |              |              |               |               |
| Communication Port                           | LED/WIFI/4G/Bluetooth/RS485  |              |              |               |               |
| Protection                                   | DC Switch; Reverse Polarity Protection; AC Overvoltage/Overcurrent/Short Circuit Protection; Anti-islanding Protection; Residual Current Monitoring; Insulation Resistance Detection; Surge Protection:DC Type II / AC Type III; AFCI(Optional); PID(Optional) |              |              |               |               |
| <b>Certification</b>                         |  |              |              |               |               |
| CE-LVD                                       | IEC62109-1&2, IEC62040-1   |              |              |               |               |
| CE-EMC                                       | EN61000-6-1, EN61000-6-2, EN61000-6-3,EN61000-6-4<br>EN 61000-4-16, EN 61000-4-18,EN 61000-4-29  |              |              |               |               |
| Grid   | VDE-AR-N 4105;VDE 0126-1-1 EN 50549-1;G98,G100; CEI 0-21;AS/NZS4777.2 NRS 097-2-1  |              |              |               |               |

\*Overload output is dependent on sufficient PV and battery energy