

# Split Phase Hybrid Inverter

SUN-7.6/8K-SG02LP2-US-AM2-P

SUN-10/12K-SG02LP2-US-AM3-P



Colorful touch LCD, IP65 protection degree



AC couple to retrofit existing solar system

16

Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel

250

Max. charging/discharging current of 250A

6

6 time periods for battery charging/discharging



Support storing energy from diesel generator

**Deye**

Stock Code: 605117.SH

# Technical Data

| Model                                              | SUN-7.6K-SG02<br>LP2-US-AM2-P                                                                                                                                                                                                                                                                                                   | SUN-8K-SG02<br>LP2-US-AM2-P | SUN-10K-SG02<br>LP2-US-AM3-P | SUN-12K-SG02<br>LP2-US-AM3-P |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------|------------------------------|
| Battery Input Data                                 |                                                                                                                                                                                                                                                                                                                                 |                             |                              |                              |
| Battery Type                                       | Lead-acid or Lithium-ion                                                                                                                                                                                                                                                                                                        |                             |                              |                              |
| Battery Voltage Range (V)                          | 40-60                                                                                                                                                                                                                                                                                                                           |                             |                              |                              |
| Max. Charging Current (A)                          | 190                                                                                                                                                                                                                                                                                                                             | 190                         | 220                          | 250                          |
| Max. Discharging Current (A)                       | 190                                                                                                                                                                                                                                                                                                                             | 190                         | 220                          | 250                          |
| Charging Strategy for Li-ion Battery               | Self-adaption to BMS                                                                                                                                                                                                                                                                                                            |                             |                              |                              |
| Number of Battery Input                            | 1                                                                                                                                                                                                                                                                                                                               |                             |                              |                              |
| PV String Input Data                               |                                                                                                                                                                                                                                                                                                                                 |                             |                              |                              |
| Max. PV Input Power (W)                            | 11400                                                                                                                                                                                                                                                                                                                           | 12000                       | 15000                        | 18000                        |
| Max. PV Input Voltage (V)                          | 500                                                                                                                                                                                                                                                                                                                             |                             |                              |                              |
| Start-up Voltage (V)                               | 125                                                                                                                                                                                                                                                                                                                             |                             |                              |                              |
| MPPT Voltage Range (V)                             | 150-425                                                                                                                                                                                                                                                                                                                         |                             |                              |                              |
| Rated PV Input Voltage (V)                         | 370                                                                                                                                                                                                                                                                                                                             |                             |                              |                              |
| Max. Operating PV Input Current (A)                | 32+32                                                                                                                                                                                                                                                                                                                           |                             | 32+32+32                     |                              |
| Max. Input Short-Circuit Current (A)               | 60+60                                                                                                                                                                                                                                                                                                                           |                             | 60+60+60                     |                              |
| No. of MPP Trackers/<br>No. of Strings MPP Tracker | 2/2+2                                                                                                                                                                                                                                                                                                                           |                             | 3/2+2+2                      |                              |
| AC Input/Output Data                               |                                                                                                                                                                                                                                                                                                                                 |                             |                              |                              |
| Rated AC Input/Output Active Power (W)             | 7600                                                                                                                                                                                                                                                                                                                            | 8000                        | 10000                        | 12000                        |
| Max. AC Input/Output Apparent Power (VA)           | 8360                                                                                                                                                                                                                                                                                                                            | 8000                        | 10000                        | 12000                        |
| Rated AC Input/Output Current (A)                  | 31.7                                                                                                                                                                                                                                                                                                                            | 33.4                        | 41.7                         | 50                           |
| Max. AC Input/Output Current (A)                   | 31.7                                                                                                                                                                                                                                                                                                                            | 33.4                        | 41.7                         | 50                           |
| Max. Continuous AC Passthrough (grid to load) (A)  | 200                                                                                                                                                                                                                                                                                                                             |                             |                              |                              |
| Peak Power (off-grid) (W)                          | 2 times of rated power, 10s                                                                                                                                                                                                                                                                                                     |                             |                              |                              |
| Power Factor Adjustment Range                      | 0.8 leading to 0.8lagging                                                                                                                                                                                                                                                                                                       |                             |                              |                              |
| Rated Input/Output Voltage/Range (V)               | 120/240; 208 0.88Un-1.1Un                                                                                                                                                                                                                                                                                                       |                             |                              |                              |
| Rated Input/Output Grid Frequency/Range(Hz)        | 60/55-65                                                                                                                                                                                                                                                                                                                        |                             |                              |                              |
| Grid Connection Form                               | 2L+N+PE                                                                                                                                                                                                                                                                                                                         |                             |                              |                              |
| Total Current Harmonic Distortion THDi             | <3% (of nominal power)                                                                                                                                                                                                                                                                                                          |                             |                              |                              |
| DC Injection Current                               | <0.5% In                                                                                                                                                                                                                                                                                                                        |                             |                              |                              |
| Efficiency                                         |                                                                                                                                                                                                                                                                                                                                 |                             |                              |                              |
| Max. Efficiency                                    | 97.6%                                                                                                                                                                                                                                                                                                                           |                             |                              |                              |
| Euro Efficiency                                    | 96.5%                                                                                                                                                                                                                                                                                                                           |                             |                              |                              |
| MPPT Efficiency                                    | >99%                                                                                                                                                                                                                                                                                                                            |                             |                              |                              |
| Equipment Protection                               |                                                                                                                                                                                                                                                                                                                                 |                             |                              |                              |
| Integrated                                         | DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection |                             |                              |                              |
| Surge Protection Level                             | TYPE II(DC), TYPE II(AC)                                                                                                                                                                                                                                                                                                        |                             |                              |                              |
| Interface                                          |                                                                                                                                                                                                                                                                                                                                 |                             |                              |                              |
| LCD/LED display                                    | LCD                                                                                                                                                                                                                                                                                                                             |                             |                              |                              |
| Communication Interface                            | WIFI,RS485                                                                                                                                                                                                                                                                                                                      |                             |                              |                              |
| General Data                                       |                                                                                                                                                                                                                                                                                                                                 |                             |                              |                              |
| Operating Temperature Range (°C)                   | -40 to +60°C, >45°C Derating                                                                                                                                                                                                                                                                                                    |                             |                              |                              |
| Permissible Ambient Humidity                       | 0-100%                                                                                                                                                                                                                                                                                                                          |                             |                              |                              |
| Permissible Altitude                               | 2000m                                                                                                                                                                                                                                                                                                                           |                             |                              |                              |
| Noise (dB)                                         | <45                                                                                                                                                                                                                                                                                                                             |                             |                              |                              |
| Ingress Protection(IP) Rating                      | TYPE 3R                                                                                                                                                                                                                                                                                                                         |                             |                              |                              |
| Inverter Topology                                  | Non-Isolated                                                                                                                                                                                                                                                                                                                    |                             |                              |                              |
| Over Voltage Category                              | OVC II(DC), OVC III(AC)                                                                                                                                                                                                                                                                                                         |                             |                              |                              |
| Cabinet Size (WxHxD mm)                            | 450×800×243 (Excluding Connectors and Brackets)                                                                                                                                                                                                                                                                                 |                             |                              |                              |
| Weight (kg)                                        | 40                                                                                                                                                                                                                                                                                                                              |                             |                              |                              |
| Type of Cooling                                    | Intelligent Air Cooling                                                                                                                                                                                                                                                                                                         |                             |                              |                              |
| Warranty                                           | 5 Years/10 Years<br>the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy                                                                                                                                                                                              |                             |                              |                              |
| Grid Regulation                                    | IEEE 1547.1, SRD V2.0                                                                                                                                                                                                                                                                                                           |                             |                              |                              |
| Safety / EMC Standard                              | FCC, UL 1741                                                                                                                                                                                                                                                                                                                    |                             |                              |                              |