

# Hybrid Inverter

SUN-7.6/8K-SG05LP1-AU



Colorful touch LCD, IP65 protection degree



DC couple and AC couple to retrofit existing solar system

16

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

190

Max. charging/discharging current of 190A

6

6 time periods for battery charging/discharging



Support storing energy from diesel generator

**Deye**

Stock Code: 605117.SH

| Model                                | SUN-7.6K-SG05LP1-AU                                                                                                                                                                                                                                 | SUN-8K-SG05LP1-AU |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <b>Battery Input Data</b>            |                                                                                                                                                                                                                                                     |                   |
| Battery Type                         | Lead-acid or Li-Ion                                                                                                                                                                                                                                 |                   |
| Battery Voltage Range (V)            | 40~60                                                                                                                                                                                                                                               |                   |
| Max. Charging Current (A)            | 190                                                                                                                                                                                                                                                 | 190               |
| Max. Discharging Current (A)         | 190                                                                                                                                                                                                                                                 | 190               |
| External Temperature Sensor          | Yes                                                                                                                                                                                                                                                 |                   |
| Charging Curve                       | 3 Stages / Equalization                                                                                                                                                                                                                             |                   |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS                                                                                                                                                                                                                                |                   |
| <b>PV String Input Data</b>          |                                                                                                                                                                                                                                                     |                   |
| Max. DC Input Power (W)              | 9880                                                                                                                                                                                                                                                | 10400             |
| Rated PV Input Voltage (V)           | 370 (125~500)                                                                                                                                                                                                                                       |                   |
| Start-up Voltage (V)                 | 125                                                                                                                                                                                                                                                 |                   |
| MPPT Voltage Range (V)               | 150-425                                                                                                                                                                                                                                             |                   |
| Full Load DC Voltage Range (V)       | 200-425                                                                                                                                                                                                                                             |                   |
| PV Input Current (A)                 | 26+26                                                                                                                                                                                                                                               |                   |
| Max. PV ISC (A)                      | 34+34                                                                                                                                                                                                                                               |                   |
| Number of MPPT / Strings per MPPT    | 2/1+1                                                                                                                                                                                                                                               |                   |
| <b>AC Output Data</b>                |                                                                                                                                                                                                                                                     |                   |
| Rated AC Output and UPS Power (VA)   | 7600                                                                                                                                                                                                                                                | 8000              |
| Max. AC Output Power (W)             | 7600                                                                                                                                                                                                                                                | 8000              |
| AC Output Rated Current (A)          | 33                                                                                                                                                                                                                                                  | 34.8              |
| Max. AC Current (A)                  | 33                                                                                                                                                                                                                                                  | 34.8              |
| Max. Continuous AC Passthrough (A)   | 50                                                                                                                                                                                                                                                  |                   |
| Peak Power (off grid)                | 2 time of rated power, 10 S                                                                                                                                                                                                                         |                   |
| Power Factor                         | 0.8 leading to 0.8 lagging                                                                                                                                                                                                                          |                   |
| Output Frequency and Voltage         | 50Hz; L/N/PE 230V/ 195.5V-253V 240V/204V-264V                                                                                                                                                                                                       |                   |
| Grid Type                            | Single Phase                                                                                                                                                                                                                                        |                   |
| DC injection current (mA)            | THD<3% (Linear load<1.5%)                                                                                                                                                                                                                           |                   |
| <b>Efficiency</b>                    |                                                                                                                                                                                                                                                     |                   |
| Max. Efficiency                      | 97.60%                                                                                                                                                                                                                                              |                   |
| Euro Efficiency                      | 97.00%                                                                                                                                                                                                                                              |                   |
| MPPT Efficiency                      | 99.90%                                                                                                                                                                                                                                              |                   |
| <b>Protection</b>                    |                                                                                                                                                                                                                                                     |                   |
| Integrated                           | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection |                   |
| Output Over Voltage Protection       | DC Type II/AC Type III                                                                                                                                                                                                                              |                   |
| <b>Certifications and Standards</b>  |                                                                                                                                                                                                                                                     |                   |
| Grid Regulation                      | AS/NZS 4777.2                                                                                                                                                                                                                                       |                   |
| Safety EMC / Standard                | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2                                                                                                                                                                                              |                   |
| <b>General Data</b>                  |                                                                                                                                                                                                                                                     |                   |
| Operating Temperature Range (°C)     | -40~60°C, >45°C derating                                                                                                                                                                                                                            |                   |
| Cooling                              | Natural cooling                                                                                                                                                                                                                                     |                   |
| Noise (dB)                           | <30 dB                                                                                                                                                                                                                                              |                   |
| Communication with BMS               | RS485; CAN                                                                                                                                                                                                                                          |                   |
| Weight (kg)                          | 24                                                                                                                                                                                                                                                  |                   |
| Size (mm)                            | 330W x 580H x 237D                                                                                                                                                                                                                                  |                   |
| Protection Degree                    | IP65                                                                                                                                                                                                                                                |                   |
| Installation Style                   | Wall-mounted                                                                                                                                                                                                                                        |                   |
| Warranty                             | 5 years                                                                                                                                                                                                                                             |                   |