# Three Phase Hybrid Inverter

## SUN-60/70/75/80K-SG02HP3-AU-EM6



- 100% unbalanced output
- AC couple to retrofit existing solar system
- Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current of 160A
- High voltage battery, higher efficiency
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

# Technical Data



| Model | SUN-60K-SG02HP3 -AU-EM6 | SUN-70K-SG02HP3 -AU-EM6 | SUN-75K-SG02HP3 -AU-EM6 | SUN-80K-SG02HP3 -AU-EM6 |
|---|---|---|---|---|
| **Battery Input Data** | | | | |
| Battery Type | Lithium-ion | | | |
| Battery Voltage Range (V) | 160-1000 | | | |
| Max. Charging Current (A) | 80+80 | | | |
| Max. Discharging Current (A) | 80+80 | | | |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | |
| Number of Battery Input | 2 | | | |
| **PV String Input Data** | | | | |
| Max. PV Access Power (W) | 120000 | 140000 | 150000 | 160000 |
| Max. PV Input Power (W) | 96000 | 112000 | 120000 | 128000 |
| Max. PV Input Voltage (V) | 1000 | | | |
| Start-up Voltage (V) | 180 | | | |
| MPPT Voltage Range (V) | 150-850 | | | |
| Rated PV Input Voltage (V) | 650 | | | |
| Max. Operating PV Input Current (A) | 36+36+36+36+36+36 | | | |
| Max. Input Short-Circuit Current (A) | 54+54+54+54+54+54 | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 6/2+2+2+2+2+2 | | | |
| **AC Input/Output Data** | | | | |
| Rated AC Input/Output Active Power (W) | 60000 | 70000 | 75000 | 80000 |
| Max. AC Input/Output Apparent Power (VA) | 60000 | 70000 | 75000 | 80000 |
| Rated AC Input/Output Current (A) | 87 | 101.5 | 108.7 | 116.0 |
| Max. AC Input/Output Current (A) | 87 | 101.5 | 108.7 | 116.0 |
| Max. Continuous AC Passthrough (grid to load) (A) | 200 | | | |
| Peak Power (off-grid) (W) | 1.5 times of rated power, 10s | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | |
| Rated Input/Output Voltage/Range (V) | 230/400V 240/415V 0.85Un-1.1Un | | | |
| Rated Input/Output Grid Frequency/Range(Hz) | 50/45-55 | | | |
| Grid Connection Form | 3L+N+PE | | | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | | | |
| DC Injection Current | <0.5% In | | | |
| **Efficiency** | | | | |
| Max. Efficiency | 98.7% | | | |
| Euro Efficiency | 98.1% | | | |
| 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, Insulation Impedance Detection, Arc Fault Circuit Interrupter (optional), DC Switch, Anti-islanding Protection(Active Frequency shift) , Residual Current Detection | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | |
| **Interface** | | | | |
| Communication Interface | RS485/RS232/CAN | | | |
| LCD/LED Display | LCD+LED | | | |
| **General Data** | | | | |
| Operating Temperature Range (°C) | -40 to +60°C, >45°C Derating | | | |
| Permissible Ambient Humidity | 0-100% | | | |
| Permissible Altitude | 3000m | | | |
| Noise (dB) | ≤65 | | | |
| Ingress Protection(IP) Rating | IP 65 | | | |
| Protection Level | Class I | | | |
| Inverter Topology | Non-Isolated | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | |
| Cabinet Size (WxHxD mm) | 606×927×314 (Excluding Connectors and Brackets) | | | |
| Weight (kg) | 105 | | | |
| Type of Cooling | Smart Cooling | | | |
| Warranty | 10 Years | | | |
| 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 | | | |

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