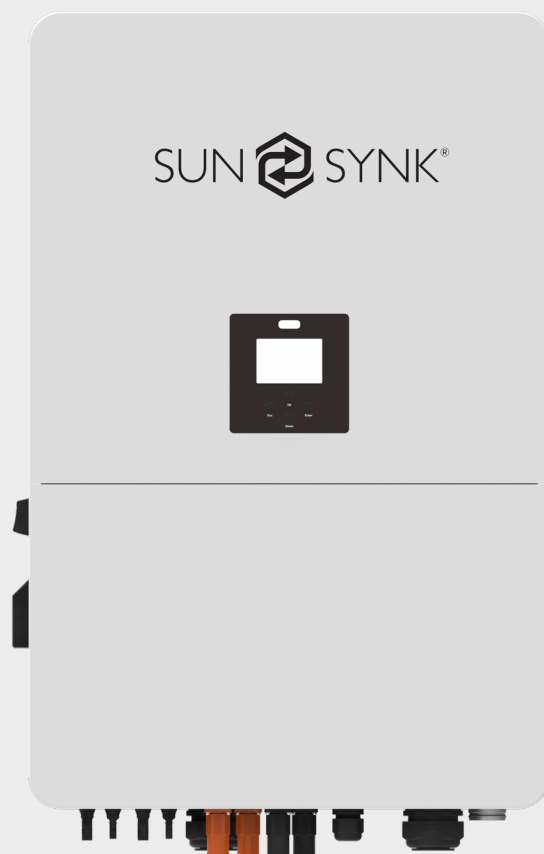




# THREE-PHASE HYBRID INVERTER



## DATASHEET

SUNSYNK-80K-SG02HP3-EU-EM6

[www.sunsynk.com](http://www.sunsynk.com)  
[sales@sunsynk.com](mailto:sales@sunsynk.com)  
[customerservices@sunsynk.com](mailto:customerservices@sunsynk.com)



| Model                                         | SUNSYNK-80K-SG02HP3-EU-EM6        |
|-----------------------------------------------|-----------------------------------|
| <b>Battery Input Data</b>                     |                                   |
| Battery Type                                  | Li-Ion                            |
| Battery Voltage Range                         | 160 Vd.c ~ 1000 Vd.c              |
| Max. Charging Current                         | 80+80 Ad.c                        |
| Max. Discharging Current                      | 80+80 Ad.c                        |
| Charging Strategy for Li-Ion Battery          | Self-adaption to BMS              |
| Number of Battery Input                       | 2                                 |
| <b>PV String Input Data</b>                   |                                   |
| Max. PV Access Power                          | 160000 W                          |
| Max. PV Input Power                           | 128000 W                          |
| Max. PV Input Voltage                         | 1000 V                            |
| Start-up Voltage                              | 180 V                             |
| PV Input Voltage Range                        | 180 ~ 1000 V                      |
| MPPT Voltage Range                            | 150 ~ 850 V                       |
| Full Load MPPT Voltage Range                  | 485 ~ 850V                        |
| Rated PV Input Voltage                        | 650 V                             |
| Max. Operating PV Input Current               | 36 + 36 + 36 + 36 + 36 + 36 Ad.c  |
| Max. Input Short-Circuit Current              | 54 + 54 + 54 + 54 + 54 + 54 Ad.c  |
| No. of MPPT/No. of Strings per MPPT           | 6/2+2+2+2+2+2                     |
| Max. Inverter Backfeed Current to the Array   | 0                                 |
| <b>AC Input/Output Data</b>                   |                                   |
| Rated AC Input/Output Active Power            | 80000 W                           |
| Max. AC Input/Output Apparent Power           | 88000 VA                          |
| Peak Power (Off-Grid)                         | 1.5 times of rated power, 10 s    |
| Rated AC Input/Output Current                 | 121.3/116 Aa.c                    |
| Max. AC Input/Output Current                  | 133.4/127.6 Aa.c                  |
| Max. Continuous AC Passthrough (grid to load) | 200 A                             |
| Max. Output Fault Current                     | 256 A                             |
| Max. Output Overcurrent Protection            | 334 A                             |
| Rated Input/Output Voltage/Range              | 220/380 V, 230/400 V 0.85Un-1.1Un |
| Grid Connection Form                          | 3L+N+PE                           |
| Rated Input/Output Grid Frequency/Range       | 50 Hz/45-55 Hz, 60 Hz/55-65 Hz    |
| Power Factor Adjustment Range                 | 0.8 leading to 0.8 lagging        |
| Total Current Harmonic Distortion THDi        | <3% (of nominal power)            |
| DC Injection Current                          | <0.5% In                          |
| <b>Efficiency</b>                             |                                   |
| Max. Efficiency                               | 98.70%                            |
| Euro Efficiency                               | 98.10%                            |
| MPPT Efficiency                               | >99%                              |

| Protection                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Integrated                     | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring, Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge Protection Level |
| Integrated (Optional)          | Arc Fault Circuit Interrupter (AFCI)                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Surge Protection Level         | TYPE III (DC), TYPE III (AC)                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Certifications and Standards   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Grid Connection Standard       | NRS 097-2-1; Additional connections available upon request                                                                                                                                                                                                                                                                                                                                                                                                               |
| EMC/Safety Standards           | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Interface                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Display                        | LCD+LED                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Communication Interface        | RS232/RS485/CAN                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Monitor Mode                   | GPRS/WIFI/Bluetooth/4G/LAN (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| General Data                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Operating Temperature Range    | -40~60°C, >45°C Derating                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Permissible Ambient Humidity   | 0~100%                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Permissible Altitude           | 3000 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Noise                          | ≤ 65 dB                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Ingress Protection (IP) Rating | IP65                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Inverter Topology              | Non-Isolated                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Over Voltage Category          | OVC II (DC), OVC III (AC)                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Weight                         | 105 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Cabinet Size (WxHxD)           | 606×927×314 mm (Excluding connectors and brackets)                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Warranty                       | 5 years (10 when installed with a Sunsynk battery)                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Type of Cooling                | Intelligent Cooling                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Pollution Degree               | PD2 (Inside) PD3 (Outside)                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Manufacturer Country           | China                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



## NOTICE

### Safe Transport and Handling of the Inverter

When transporting the equipment, always use its original packaging and keep it intact as a complete unit. Store the product in a dry environment, avoiding direct sunlight, and maintain a temperature range between -40°C and 60°C. As the equipment can be quite heavy, always consider its total weight when moving, transporting, or installing it, ensuring that the installation site has adequate load-bearing capacity. Transporting and installing the inverter should only be carried out by qualified personnel.



## Contact Us

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**Call** +44 151 832 4300 **Email** [sales@sunsynk.com](mailto:sales@sunsynk.com) **Website** [www.sunsynk.com](http://www.sunsynk.com)

**Address**

- HK** Room 702-704, 7/F Texwood Plaza, 6 How Ming Street, Kwun Tong, Kowloon, Hong Kong
- UK** Sunsynk UK Ltd, 17 Turnstone Business Park, Mulberry Avenue, Widnes, Cheshire, WA8 0WN
- SA** Unit 2, 3 & 4, 80 Highview Blvd, Ferndale, Randburg, 2160, South Africa
- NL** Sunsynk NL BV, Henri Wijnmalenweg 8, 5657 EP Eindhoven, Netherlands
- AU** Level 1, 982-988 Wellington Street, West Perth WA 6005, Australia
- ES** Tafetana, 32 P.I. Las Andoriñas 38639 Las Chafiras Santa Cruz de Tenerife
- US** 100 S. Ashley Drive, Suite 600, Tampa, Florida, 33602, United States of America