



# ACURE | SINGLE-PHASE HYBRID INVERTER



## DATASHEET

SunC2-3.6LV01(W/B)  
SunC2-5.0LV01(W/B)  
SunC2-6.0LV01(W/B)  
SunC2-7.0LV01(W/B)  
SunC2-8.0LV01(W/B)

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v.8 (18/12/25)

 **PLEASE RETAIN FOR  
FUTURE REFERENCE**

| Model                                            | SunC2-3.6LV01(W/B)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SunC2-5.0LV01(W/B) | SunC2-6.0LV01(W/B) | SunC2-7.0LV01(W/B) | SunC2-8.0LV01(W/B) |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Battery Input Data</b>                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                    |                    |                    |
| Battery Type                                     | Lead-acid or Lithium-ion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                    |                    |                    |
| Battery Voltage Range                            | 40-60V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                    |                    |                    |
| Max. Charging Current                            | 90A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 120A               | 135A               | 175A               | 190A               |
| Max. Discharging Current                         | 90A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 120A               | 135A               | 175A               | 190A               |
| Charging Strategy for Li-ion Battery             | Self-adaption to BMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                    |                    |                    |
| Number of Battery Input                          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                    |                    |                    |
| <b>PV String Input Data</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                    |                    |                    |
| Max. PV Access Power                             | 7200W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10000W             | 12000W             | 14000W             | 16000W             |
| Max. PV Input Power                              | 5760W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 8000W              | 9600W              | 11200W             | 12800W             |
| Max. PV Input Voltage                            | 500V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                    |                    |                    |
| Start-up Voltage                                 | 125V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                    |                    |                    |
| MPPT Voltage Range                               | 150-425V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                    |                    |                    |
| Rated PV Input Voltage                           | 370V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                    |                    |                    |
| Max. Operating PV Input Current                  | 18+18A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                    | 32+32A             |                    |
| Max. Input Short-Circuit Current                 | 27+27A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                    | 48+48A             |                    |
| No. of MPP Trackers / No. of Strings MPP Tracker | 2/1+1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                    | 2/2+2              |                    |
| <b>AC Input/Output Data</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                    |                    |                    |
| Rated AC Input/Output Active Power               | 3600W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5000W              | 6000W              | 7000W              | 8000W              |
| Max. AC Input/Output Apparent Power              | 3960VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5500VA             | 6600W              | 7700VA             | 8800VA             |
| Peak Power (off-grid)                            | 2 times of rated power, 10s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                    |                    |                    |
| Rated AC Input/Output Current                    | 16.4/15.7A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 22.8/21.8A         | 27.3/26.1          | 31.9/30.5A         | 36.4/34.8A         |
| Max. AC Input/Output Current                     | 18/17.3A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 25/24A             | 30/28.7            | 35/33.5A           | 40/38.3A           |
| Max. Continuous AC Passthrough (Grid to Load)    | 35A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | 40A                | 50A                |                    |
| Rated Input/Output Voltage/Range                 | 220V/230V 0.85Un-1.1Un                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                    |                    |                    |
| Grid Connection Form                             | L+N+PE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                    |                    |                    |
| Rated Input/Output Grid Frequency/Range          | 50/45-55Hz 60/55-65Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                    |                    |                    |
| Power Factor Adjustment Range                    | 0.8 leading-0.8 lagging                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                    |                    |                    |
| Total Current Harmonic Distortion THDi           | <3% (of nominal power)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                    |                    |                    |
| DC Injection Current                             | <0.5% In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                    |                    |                    |
| <b>Efficiency</b>                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                    |                    |                    |
| Max. Efficiency                                  | 97.6%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                    |                    |                    |
| Euro Efficiency                                  | 96.5%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                    |                    |                    |
| MPPT Efficiency                                  | >99%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                    |                    |                    |
| <b>Protection</b>                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                    |                    |                    |
| Integrated                                       | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level |                    |                    |                    |                    |
| Surge Protection Level                           | TYPE II(DC), TYPE II(AC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                    |                    |                    |
| <b>Interface</b>                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                    |                    |                    |
| Display                                          | LCD+LED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                    |                    |                    |
| Communication Interface                          | RS485/RS232/CAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                    |                    |                    |
| Monitor Mode                                     | GPRS/WIFI/Bluetooth/4G/LAN(optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                    |                    |                    |

## General Data

|                                |                                                          |
|--------------------------------|----------------------------------------------------------|
| Operating Temperature Range    | -40 to +60°C, >45°C Derating                             |
| Permissible Ambient Humidity   | 0-100%                                                   |
| Permissible Altitude           | 2000m                                                    |
| Noise                          | <30dB                                                    |
| Ingress Protection (IP) Rating | IP65                                                     |
| Inverter Topology              | Non-Isolated                                             |
| Over Voltage Category          | OVC II(DC), OVC III(AC)                                  |
| Cabinet Size (WxHxD)           | 366x630x281.41mm (Excluding Connectors and Brackets)     |
| Weight                         | 27.1kg                                                   |
| Type of Cooling                | Intelligent Air Cooling                                  |
| Warranty                       | 5 years (10 years when installed with a Sunsynk battery) |
| Grid Regulation                | G98/G99, NRS 097-2-1, EN 50549-1                         |
| Safety / EMC Standard          | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2   |



### NOTE:

#### Safe Transport and Handling of Inverter:

When transporting the equipment, use its original packaging and keep it 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. Since 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 be carried out solely by qualified personnel.



## Contact Us

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