

# ECO HYBRID

## Split-Phase

# SNA US 12K

- 240/120V off-grid split-phase output
- 2 MPPTs with 4 strings, Max. 24kW PV input
- Max. charging and discharging current: 250A
- AFCI Protection Integrated
- Dual AC output ports for multiple load connections
- Separate GEN port
  - Up to 19.2kW Gen/AC coupling input
  - Auto generator start and stop control
- Integrated Design with Load and Battery Breaker
- PV or AC or Generator wake up battery
- AC/Generator (input 240V or 120V) charge function



# Specification

| INPUT (PV DC)                                    |  | SNA US 12000W                       |
|--|--|-------------------------------------|
| Max. PV array power (W)                          |  | 24000 (12000/12000)                 |
| Rated PV input voltage (V)                       |  | 320                                 |
| Number of independent MPPT inputs                |  | 2/(2:2)                             |
| PV input voltage range (V)                       |  | 100~480                             |
| MPPT voltage range (V)                           |  | 120~385                             |
| Start-up voltage (V)                             |  | 100                                 |
| Max. PV input current per MPPT (A)               |  | 35/35                               |
| Max. PV short-circuit current input per MPPT (A) |  | 44/44                               |
| Battery  |  |                                     |
| Compatible battery type                          |  | Lithium-ion/Lead-Acid               |
| Rated battery voltage (V)                        |  | 48/51.2                             |
| Battery voltage range (V)                        |  | 46.4-60/38.4-60                     |
| Max. charging / discharging current (A)          |  | 250                                 |
| Max. charging / discharging power (W)            |  | 12000                               |
| Force wake up battery from PV and Grid function  |  | YES                                 |
| Grid   |  |                                     |
| Rated AC voltage (V)                             |  | 110/220; 120/240                    |
| Acceptable input voltage range (V)               |  | 90~280                              |
| Rated AC frequency (Hz)                          |  | 60/50                               |
| Rated AC input current (A)                       |  | 105@220V/100@240V                   |
| Rated AC input power (W)                         |  | 24000                               |
| PF   |  | 0.99                                |
| THDI   |  | <5%                                 |
| Max. continuous AC passthrough current(A)        |  | 100                                 |
| UPS  |  |                                     |
| Rated output power (W)                           |  | 12000                               |
| Rated output voltage (V)                         |  | 110/220; 120/240                    |
| Rated output current (A)                         |  | 54@220V/50@240V                     |
| Rated output frequency (Hz)                      |  | 50/60                               |
| Surge power, duration                            |  | 2Pn, 5s                             |
| Switching time (UPS)                             |  | <10ms@Single and Parallel           |
| Wave form  |  | Sine wave                           |
| THDV   |  | 3%                                  |
| GEN  |  |                                     |
| Acceptable input voltage range                   |  | 110/220; 120/240                    |
| Max. AC input voltage (V)                        |  | 280                                 |
| Max. AC input current (A)                        |  | 63                                  |
| Rated input frequency                            |  | 50Hz/60Hz (Auto detection)          |
| Transfer time                                    |  | <10ms@Single; <20ms@Parallel        |
| THDV   |  | <3%                                 |
| Overload protection                              |  | 5s@≥150% load /10s@110%~150% load   |
| Efficiency                                       |  |                                     |
| Max. efficiency                                  |  | 93.5%                               |
| Max. charging / discharging efficiency           |  | 93.0%                               |
| Max. MPPT efficiency                             |  | 99.0%                               |
| Protection                                       |  |                                     |
| PV reverse polarity protection(Y/N)              |  | YES                                 |
| Over current / voltage protection(Y/N)           |  | YES                                 |
| AC Short-circuit current protection(Y/N)         |  | YES                                 |
| Grid monitoring(Y/N)                             |  | YES                                 |
| DC switch(Y/N)                                   |  | YES                                 |
| DC Surge protection Type III                     |  | YES                                 |
| AC Surge protection Type III                     |  | YES                                 |
| Battery reverse polarity protection(Y/N)         |  | YES                                 |
| RSD / AFCI monitoring(Y/N)                       |  | YES                                 |
| UPS/Battery breakers integrated                  |  | YES                                 |
| General  |  |                                     |
| Dimensions ( W*H*D mm )                          |  | 530*830*150mm (17.72*25.59*5.9inch) |
| Weight   |  | 45kg/99.2lbs                        |
| Ingress protection rating                        |  | IP20                                |
| Operating environment temperature range(°C)      |  | 0~45                                |
| Storage temperature range(°C)                    |  | -15~60                              |
| Relative humidity                                |  | 5%~95%                              |
| Display & Communication interface                |  | LCD+RGB, RS485 / Wifi / CAN         |
| Warranty   |  | 2 years                             |
| Cooling method                                   |  | Smart cooling                       |
| Topology on AC / Battery side                    |  | Transformer-less / Transformer      |
| Altitude (m)                                     |  | <2000                               |
| Noise emission (typical)                         |  | <50dB                               |
| Standard & Certification                         |  |                                     |