

## HYBRID SERIES

# TriP2-LB-3P 5-20K (Three-Phase)

- Supports three-phase unbalanced loads for greater compatibility with mixed residential or commercial applications
- Max. 3 MPPTs with 3 strings, Max. PV input: 30kW
- Compatible with 48V low-voltage battery systems
- Supports independent grid export control for each phase
- Time of use, 8 time periods for charging & discharging
- Max. 10 pcs parallel for on grid & off grid
- Dedicated GEN port for
  - Auto GEN control
  - Smart load function
  - AC coupling function



Low Voltage



| Model                                        | TriP2-LB-3P 5K                                    | TriP2-LB-3P 6K | TriP2-LB-3P 8K | TriP2-LB-3P 10K | TriP2-LB-3P 12K | TriP2-LB-3P 15K   | TriP2-LB-3P 20K   |
|----------------------------------------------|---------------------------------------------------|----------------|----------------|-----------------|-----------------|-------------------|-------------------|
| Input (PV DC)                                |                                                   |                |                |                 |                 |                   |                   |
| Max. PV input power (W)                      | 7500                                              | 9000           | 12000          | 15000           | 18000           | 22500             | 30000             |
| Rated PV input voltage (V)                   | 690                                               |                |                |                 |                 |                   |                   |
| Number of independent MPPT inputs            | 3 / (1:1:1)                                       |                |                |                 |                 |                   |                   |
| Max. PV input voltage (V)                    | 1000                                              |                |                |                 |                 |                   |                   |
| MPPT voltage range (V)                       | 200 ~ 900                                         |                |                |                 |                 |                   |                   |
| Start-up voltage (V)                         | 100                                               |                |                |                 |                 |                   |                   |
| Max. PV input current per MPPT (A)           | 20 / 20 / 20                                      |                |                |                 |                 |                   |                   |
| Max. PV short-circuit current input per MPPT | 25 / 25 / 25                                      |                |                |                 |                 |                   |                   |
| Battery                                      |                                                   |                |                |                 |                 |                   |                   |
| Compatible battery type                      | Lithium-ion / Lead-Acid                           |                |                |                 |                 |                   |                   |
| Battery voltage range (V)                    | 40 - 60                                           |                |                |                 |                 |                   |                   |
| Max. charging/discharging current (A)        | 125                                               | 150            | 200            | 220             | 250             | 250               | 250               |
| Max. charging/discharging power (W)          | 5000                                              | 6000           | 8000           | 10000           | 12000           | 12000             | 12000             |
| Charging Strategy for Li-ion Battery         | Self-adaption to BMS                              |                |                |                 |                 |                   |                   |
| Grid                                         |                                                   |                |                |                 |                 |                   |                   |
| Rated AC voltage (V)                         | 3L / N / PE, 230 / 400 Vac                        |                |                |                 |                 |                   |                   |
| Rated AC frequency (Hz)                      | 50 / 60                                           |                |                |                 |                 |                   |                   |
| Rated AC output power (W)                    | 5000                                              | 6000           | 8000           | 10000           | 12000           | 15000             | 20000             |
| Rated AC output current (A)                  | 7.20                                              | 8.70           | 11.60          | 14.50           | 17.40           | 21.70             | 29.00             |
| Max. AC input current (A)                    | 9                                                 | 10.9           | 14.5           | 18.1            | 21.8            | 27.1              | 36.25             |
| PF                                           | 0.99 (Adjustable from 0.8 leading to 0.8 lagging) |                |                |                 |                 |                   |                   |
| THDI                                         | < 3%                                              |                |                |                 |                 |                   |                   |
| Max. continuous AC passthrough current (A)   | 30                                                |                |                | 50              |                 |                   | 70                |
| GEN                                          |                                                   |                |                |                 |                 |                   |                   |
| Rated GEN voltage (V)                        | 3L / N / PE, 230 / 400Vac                         |                |                |                 |                 |                   |                   |
| Rated GEN frequency (Hz)                     | 50/60                                             |                |                |                 |                 |                   |                   |
| Rated GEN input current (A)                  | 30                                                |                |                |                 |                 |                   |                   |
| Rated GEN input power (W)                    | 20700                                             |                |                |                 |                 |                   |                   |
| UPS                                          |                                                   |                |                |                 |                 |                   |                   |
| Rated output power (W)                       | 5000                                              | 6000           | 8000           | 10000           | 12000           | 15000(PV+Battery) | 20000(PV+Battery) |
| Rated output voltage (V)                     | 3L / N / PE, 230 / 400 Vac                        |                |                |                 |                 |                   |                   |
| Rated output current (A)                     | 7.20                                              | 8.70           | 11.60          | 14.50           | 17.40           | 21.70             | 29.00             |
| Rated output frequency (Hz)                  | 50 / 60                                           |                |                |                 |                 |                   |                   |
| Surge power, duration                        | 1.5 × rated power for 5min                        |                |                |                 |                 |                   |                   |
| Switching time                               | ≤10ms                                             |                |                |                 |                 |                   |                   |
| Wave form                                    | Sine wave                                         |                |                |                 |                 |                   |                   |
| THDV                                         | < 3%                                              |                |                |                 |                 |                   |                   |
| Efficiency                                   |                                                   |                |                |                 |                 |                   |                   |
| Max. efficiency                              | 97.7%                                             |                |                |                 |                 |                   |                   |
| Max. charge/discharge efficiency             | 94.0%                                             |                |                |                 |                 |                   |                   |
| Protection                                   |                                                   |                |                |                 |                 |                   |                   |
| PV reverse polarity protection               | YES                                               |                |                |                 |                 |                   |                   |
| Over current/voltage protection              | YES                                               |                |                |                 |                 |                   |                   |
| Anti-islanding protection                    | YES                                               |                |                |                 |                 |                   |                   |
| AC Short-circuit protection                  | YES                                               |                |                |                 |                 |                   |                   |
| Leakage current protecion                    | YES                                               |                |                |                 |                 |                   |                   |
| Grid monitoring                              | YES                                               |                |                |                 |                 |                   |                   |
| DC switch                                    | YES                                               |                |                |                 |                 |                   |                   |
| Ingress protection                           | YES                                               |                |                |                 |                 |                   |                   |
| DC Surge protection                          | Type III                                          |                |                |                 |                 |                   |                   |
| AC Surge protection                          | Type III                                          |                |                |                 |                 |                   |                   |
| General                                      |                                                   |                |                |                 |                 |                   |                   |
| Dimensions (W × H × D)                       | 480 × 703 × 258mm / 18.9 × 27.7 × 10.2 in         |                |                |                 |                 |                   |                   |
| Weight                                       | 53 kg / 116.8 lbs                                 |                |                |                 |                 |                   |                   |
| Ingress protection rating                    | IP66                                              |                |                |                 |                 |                   |                   |
| Operating environment temperature range (°C) | -25~+60, > 45°C derating                          |                |                |                 |                 |                   |                   |
| Storage temperature range (°C)               | -25 ~ +60                                         |                |                |                 |                 |                   |                   |
| Relative humidity                            | 0 ~ 100                                           |                |                |                 |                 |                   |                   |
| Display & Communication interface            | Touch color screen, RS485 / Wifi / CAN            |                |                |                 |                 |                   |                   |
| Warranty                                     | 5 / 10 years                                      |                |                |                 |                 |                   |                   |
| Cooling method                               | Smart cooling                                     |                |                |                 |                 |                   |                   |
| Topology                                     | Transformerless                                   |                |                |                 |                 |                   |                   |
| Max. Operating Altitude (m)                  | 2000                                              |                |                |                 |                 |                   |                   |
| Noise emission (dB)                          | 50                                                |                |                |                 |                 |                   |                   |
| Standards & Certification                    |                                                   |                |                |                 |                 |                   |                   |

EN 62109/EN 61000, IEC 61683, EN 50549-10, PTPIREE TypeA, G99, G100