# All-in-one AC Coupled Unit

TSUN MORE SAFETY MORE POWER

3.0K/3.6K/4.0K/4.6K/5.0K/6.0K



## **Flexibility**

Compatible with on-grid photovoltaic systems, easy retrofits.

Intergrated design with battery, can be installed as a standalone unit Extra batteries can be added.

Multi operating modes optional.

### Reliability

IP65, suitable for indoor & outdoor usage.

Cooling by natural convection, No noisy fans.

High-frequency isolation between battery and inverter, resulting in much safer system.

## **Usability**

Higher charge & discharge efficiency.

Selectable monitoring modes.

3000VA emergency power supply.

Precise reverse flow prevention, adjustable self-consumption ratio.

**( €** VDE 4105 CEI 0-21 G98 IEC/EN 62619 UN38.3 AS4777

#### **TSUNESS Co., Ltd**

#### **Technical Data**

| Model   | ACU3.0K                       | ACU3.6K                     | ACU4.0K                          | ACU4.6K                     | ACU5.0K  | ACU6.0K  |  |
|---|-------------------------------|-----------------------------|----------------------------------|-----------------------------|--|--|--|
| Battery Data  |                               |                             |                                  |                             |  |  |  |
| Battery Type  | LiFePO4                       |                             |                                  |                             |  |  |  |
| Battery Capacity per Kit (kWh)  | 5.12                          |                             |                                  |                             |  |  |  |
| Battery Voltage per Kit (V)   | 51.2                          |                             |                                  |                             |  |  |  |
| Max. Battery Quantities per System  | 4 (Up to 20.48 kWh)           |                             |                                  |                             |  |  |  |
| Max. Charging Power (W)   | 3000                          | 3600                        | 4000                             | 4600                        | 5000   | 6000   |  |
| Max. Charging/ Discharging Current (A)  | 60/60                         | 72/72                       | 80/80                            | 92/92                       | 100/100  | 120/120  |  |
| AC Input & Output (On-grid)   |                               |                             |                                  |                             |  |  |  |
| Rated Output Power (W)  | 3000                          | 3600                        | 4000                             | 4600                        | 5000   | 6000   |  |
| Max. Output Power (VA)  | 3300                          | 3680                        | 4400                             | 4600                        | 5500   | 6000   |  |
| Rated Output Current (A)  | 13                            | 16                          | 17.4                             | 20                          | 21.7   | 26   |  |
| Max. Output Current (A)   | 14.3                          | 16                          | 19.1                             | 20                          | 21.7   | 28.7   |  |
| Rated Output Voltage (V)  |                               | 220 / 230 / 240, L / N / PE |                                  |                             |  |  |  |
| Rated Grid Frequency (Hz)   | 50/60                         |                             |                                  |                             |  |  |  |
| Power Factor (cos φ)  | 0.8 leading 0.8 lagging       |                             |                                  |                             |  |  |  |
| Total Harmonic Distortion (THDi)  | <3%                           |                             |                                  |                             |  |  |  |
| AC Output (Back-up Mode)  |                               |                             |                                  |                             |  |  |  |
| Rated Output Power (W)  | 3000                          | 3600                        | 4000                             | 4600                        | 5000   | 6000   |  |
| Max. Output Current (A)   | 13                            | 16                          | 17.4                             | 20                          | 21.7   | 26   |  |
| Rated Output Voltage (V)  |                               |                             | 220/230/240                      | O, L/N/PE                   |  |  |  |
| Rated Output Frequency (Hz)   | d Output Frequency (Hz) 50/60 |                             |                                  |                             |  |  |  |
| Total Harmonic Distortion of Voltage  | <3%                           |                             |                                  |                             |  |  |  |
| Switch Time (ms)  | <20                           |                             |                                  |                             |  |  |  |
| Peak Output Apparent Power (VA) 36  | 500VA, 60s                    | ec 4048VA, 60s              | ec 4400VA, 60sec                 | 5060VA, 60se                | c 5500VA, 60sec                                | 6600VA, 60sec  |  |
| Efficiency  |                               |                             |                                  |                             |  |  |  |
| Max. Battery Charging / Discharging Efficiency  |                               |                             | 95.0% / 95.0%                    |                             |  |  |  |
| Protection  |                               |                             | Protection                       |                             |  |  |  |
| Battery Input Reverse Polarity Protection   |                               | Integrated                  | Topology                         |                             | Transformerless                                |  |  |
| C Short Circuit Protection  |                               | Integrated                  | ntegrated Ingress Protection     |                             | IP65   |  |  |
| Overload Protection   |                               | Integrated                  | Operating Tempe                  | Operating Temperature Range |  | -30 to +60 °C  |  |
| urge Protection   |                               | Integrated Ambient Humidity |                                  | ty                          | 0 – 100 %                                      |  |  |
| esidual Current Protection  |                               | Integrated                  | Altitude                         |                             | 4000 m (> 3000 m Power Derating                |  |  |
|   |                               | Integrated                  | Noise[dBA]                       |                             | <25  |  |  |
| AC Overvoltage / Undervoltage Protection  | 1                             |                             |                                  |                             | Cooling Method Natural Convect                 |  |  |
|   |                               | Integrated                  | Cooling Method                   |                             | Natarar  | Convection   |  |
| AC Overfrequency / Underfrequency Prot  |                               | Integrated Integrated       |                                  | M v D mm)                   | 650 x 428 x 2                                  | 207 (Inverter)                                       |  |
| AC Overfrequency / Underfrequency Prot<br>Over Temperature Protection   |                               |                             | Cooling Method  Dimensions(H x \ | W x D mm)                   | 650 x 428 x 2                                  |  |  |
| AC Overfrequency / Underfrequency Prot<br>Over Temperature Protection<br>Anti-islanding protection  |                               | Integrated                  |                                  | W x D mm)                   | 650 x 428 x 2<br>650 x 355 x 2                 | 207 (Inverter)                                       |  |
| AC Overfrequency / Underfrequency Prot Over Temperature Protection Anti-islanding protection Interface  |                               | Integrated                  | Dimensions(H x \                 | ,                           | 650 x 428 x 2<br>650 x 355 x 2<br>20 (Inverte  | 207 (Inverter)<br>207 (Battery)                      |  |
| AC Overvoltage / Undervoltage Protection AC Overfrequency / Underfrequency Prot Over Temperature Protection Anti-islanding protection  Interface  Battery Connection Type  AC Connection Type | ection                        | Integrated                  | Dimensions(H x \                 | ity (Inverter)              | 650 x 428 x 2<br>650 x 355 x 2<br>20 (Inverter | 207 (Inverter)<br>207 (Battery)<br>r) / 50 (Battery) |  |