# SH5K-30

## Residential Hybrid Single Phase Inverter

AU



#### FLEXIBLE APPLICATION

- · Suitable for new install and retrofit
- Supports parallel connection with full communication between inverters
- Energy trading ready with 3rd-party EMS to maximise ROI

### SMART MANAGEMENT

- Optimised energy management and battery usage strategies
- Feature-rich online monitoring to enhance energy management for end user, installer and retailer
- · Remote firmware update and customisable settings

#### SAFE AND RELIABLE

- Seamless transition to backup mode to protect against power outages
- Finish maintained for long term with high anti-corrosion enclosure
- Build-in Certified PV Isolator

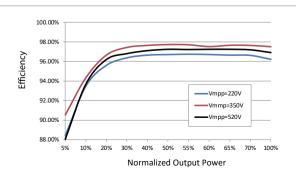
#### (5) EASY INSTALLATION

- Cleaner and simpler install with EPS built-in to inverter
- Mounting plate with built-in level
- Fast and easy commissioning via front panel LCD or App

#### **CIRCUIT DIAGRAM**

# DC Switch AG AG Bell Filter AG AC Bell Filter DC Switch AG Bell Filter AG AC Bell Filter AG AC Bell Filter AG Bell Filter AG Bell Filter DC Switch AG Bell Filter AG

#### **EFFICIENCY CURVE**







| Type designation  | SH5K-30   |
|---|---|
|   | 31131730  |
| DC Input Data   | CEOO W  |
| Recommended max. PV input power   | 6700 W  |
| Max. PV input voltage   | 600 V   |
| Startup voltage   | 125 V   |
| Rated input voltage   | 350 V   |
| MPP voltage range   | 125 V – 560 V   |
| MPP voltage range for rated power   | 240 V – 520 V   |
| No. of MPPTs  | 2   |
| Max. number of PV strings per MPPT  | 1/1   |
| Max. PV input current   | 22 A (11 A / 11 A)  |
| Max. current for input connector  | 15A   |
| Short-circuit current of PV input   | 30 A (15 A / 15 A)  |
| AC Input and Output Data  |   |
| Rated AC output power   | 5000 W *1   |
| Rated AC ouput current  | 22.7 A *2   |
| Max. AC output apparent power   | 5000 VA   |
| Rated AC output apparent power  | 5000VA  |
| Max. AC output current  | 22.7 A <sup>*2</sup>  |
| Max. AC input power   | 8000 W  |
| Max. AC input current   | 36.4 A <sup>*3</sup>  |
| Rated AC voltage  | 220 Vac / 230 Vac / 240 Vac   |
| AC voltage range  | 176 Vac – 276 Vac   |
| Rated grid frequency  | 50Hz  |
| Grid frequency range  | 45 – 55Hz (this may vary with grid standards)   |
| THD (Total Harmonic Distortion)   | <3 % (of rated power)   |
| DC current injection  | <0.5 % (of rated current)   |
| Power factor  | > 0.99 / 0.8 leading – 0.8 lagging  |
| Protection  | ,   |
| Anti-islanding protection   | Yes   |
| AC short circuit protection   | Yes   |
| Leakage current protection  | Yes   |
| DC switch (solar)   | Yes   |
| DC fuse (battery)   | Yes   |
| Overvoltage Category  | III [MAIN], II [PV] [BATTERY]   |
| Battery Data  | III [MAIN], II [FV] [DATTERT]   |
| Battery type  | Li-ion battery / Lead-acid battery  |
|   | 48 V (32 V–70 V)  |
| Battery voltage   | 65 A / 65 A   |
| Max. charge / discharge current  System Data  | 03 A / 63 A   |
| Max. efficiency   | 97.7 %  |
| •   | 97.1 %  |
| European efficiency   | 94.0 %  |
| Max. charge / discharge efficiency  |   |
| Isolation method (solar)  | Transformerless   |
| Isolation method (battery)  | HF  |
| Ingress protection rating   | IP65  |
| Operating ambient temperature range   | -25 °C to 60 °C (>45 °C derating)   |
| Relative humidity range   | 0%-100%   |
| Cooling method  | Natural convection  |
| Max. operating altitude   | 2000m   |
| Display   | Graphic LCD   |
| Communication   | 2 × RS485, WiFi , CAN, Ethernet   |
| Power management  | 1 × Digital Output  |
| Earth alarm   | email, buzzer inside  |
| PV connection type  | MC4   |
| AC connection type  | Clamping yoke connector   |
| 31  | 10/170 (5550 0000 150 00000 1 15000000 0 15000 (557)  |
| Certification   | AS/NZS 4777.2:2020,IEC 62109-1, IEC62109-2,IEC62477-1,  |
| Certification   | IEC 62040-1, EN 61000-6-1/-3, ABNT NBR 16149: 2013,ABNT NBR 16150: 2013   |
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\*1: AS4777 : 4990 W, 4990 VA \*2: AS4777 : 21.7 A

\*3: AS4777 : 34.8 A

