



## RESIDENTIAL ENERGY STORAGE SYSTEM SOLUTIONS

EMPOWER TOMORROW WITH TRUSTED GREEN ENERGY

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## About RCT Power

Founded in Konstanz, Germany in 2015, RCT Power is a globally recognized leader in energy storage solutions and a BloombergNEF (BNEF) Tier 1 manufacturer. Drawing on Germany's renowned technology and quality standards, we are one of the earliest German brands dedicated to residential energy storage systems. Guided by our mission to "Deliver Reliable Green Energy, Power a Sustainable Future," RCT Power provides comprehensive green energy solutions worldwide for Residential (RESS), Commercial & Industrial (CESS), and Grid-Scale (GESS) Energy Storage Systems.

The company owns key patents and delivers world-class technical performance. Our innovative battery module stacking technology and system efficiency continually redefine industry benchmarks. All products meet rigorous global safety standards (including UL, IEC, and AS/NZS) and are listed by both the U.S. California Energy Commission (CEC) and Australia's Clean Energy Council (CEC).

With a vertically integrated supply chain spanning R&D, manufacturing, sales, and service, RCT Power has strategically expanded its global presence. The company operates dedicated R&D hubs and regional sales centers in Konstanz (Germany), Suzhou (China), California (USA), and Melbourne (Australia), supported by state-of-the-art manufacturing facilities in Penang (Malaysia) and Suzhou (China), enabling worldwide client support.

RCT Power's technological leadership is evidenced by six consecutive years as the #1 ranked provider in SPI Testing. The company has also earned prestigious EuPD Research awards, including "Top Energy Storage Inverter Brand" and "Top Residential ESS Brand."

As a catalyst for the global energy transition, RCT Power drives innovation in energy storage technology, empowering industries and communities with scalable, sustainable solutions.







## Layout



**40 GWh**  
Planned Capacity



**150000+ m<sup>2</sup>**  
Planned Manufacturing Bases



**200+**  
R&D Staff



**10+ GWh**  
Cumulative ESS Shipments



**100+**  
Successful Cases



**200+**  
Corporate Patents

# Catalogue

## POWER BATTERY



Power Battery  
8.0 | 16.0 | 24.0 | 32.0



Power Battery  
5.0 | 10.0 | 15.0 | 20.0



Power Battery  
5.0 | 7.5 | 10.0 | 12.5 | 15.0



Power Battery LV  
5.0

## HYBRID INVERTER



SolarWave Series  
15K | 20K | 25K | 30K



SolarWave Series  
5K | 6K | 8K | 10K | 12K | 15K



SolarLink Series  
3K | 3.6K | 4K | 4.6K | 5K |  
6K | 8K | 10K | 10.5K



Power Storage DC  
5.0 | 6.0 SP



Power Storage DC  
US 8.0 | 8.0 Pro



Power Storage DC  
US 15.0



SolarLink LV Series  
3K | 3.68K | 4K | 5K | 6K



## POWER SWITCH



AC Power Switch



Power Switch  
63/25 | 63/25-3



## POWER SENSOR



Power Sensor 50 | 100



## CLOUD & APP



RCT Power Cloud & APP



# POWER BATTERY 8.0 | 16.0 | 24.0 | 32.0

## MODULAR HIGH VOLTAGE OUTDOOR BATTERY FOR PV STORAGE SYSTEMS



support mixed use of  
old & new batteries



8kWh modular design  
scalable from 8 to 64kWh



easy to transport  
and install



5-layer safety  
protection/IP65

- **Modular Stackable Design** with pack-level optimization technology, enabling on-demand expansion and flexible adaptation for both household and commercial/industrial scenarios.
- **Active Energy Balancing** eliminates the "short-board" effect, supporting mixed use of old/new batteries and batteries with different SOH/SOC levels. New batteries feature plug-and-play for flexible capacity expansion, while facilitating inventory management for distributors.
- **Independent Module Management:** Each battery pack can charge/discharge independently, achieving fast charge/discharge power up to 4 kW. Maximum charge/discharge power per cluster system reaches 16 kW.
- **Extreme Temperature Resilience:** Operates from -20°C to 55°C, suitable for homes from the equator to polar regions.
- **Wireless Installation** with plug-and-play simplicity for effortless setup.
- **5-Layer Safety Protection** for ultimate security.
- **314Ah High-Capacity Cells** with high cycle life and long-term durability.
- **IP65 Protection Rating** to withstand harsh environments.
- **One-Click System Diagnosis**, real-time monitoring, and transparent visibility.
- **Remotely Scheduled OTA Updates** available anytime.
- **Expandable Capacity** up to 64kWh.

## POWER BATTERY

## RDM080040-EUR1

### ELECTRICAL PARAMETERS

|                         |                     |
|-------------------------|---------------------|
| Battery Cell Type       | LiFePO <sub>4</sub> |
| Battery Cell capacity   | 314Ah               |
| Battery Cycle           | 6000*               |
| Battery usable capacity | 8 kWh               |
| Max. output power       | 4 kW                |
| Nominal voltage         | 650 V               |
| Operating voltage range | 600~710V            |

### COMMUNICATION

|               |                                           |
|---------------|-------------------------------------------|
| Display       | SOC status indicator, LED indicator       |
| Communication | RS485 / CAN (only for parallel operation) |

### GENERAL SPECIFICATION

|                          |                                                                                 |
|--------------------------|---------------------------------------------------------------------------------|
| Power module dimension   | 80 x 760 x 268 mm                                                               |
| Power module weight      | 20 kg                                                                           |
| Battery module dimension | 358 x 760 x 268 mm                                                              |
| Battery module weight    | 80 kg                                                                           |
| Installation             | Floor stand                                                                     |
| Operating temperature    | Charge: 0~ 55°C<br>Discharge: -20 ~ 50°C                                        |
| Max. operating altitude  | 4000 m                                                                          |
| Relative humidity        | 5% - 95% RH                                                                     |
| Cooling                  | Natural                                                                         |
| IP rating                | IP65                                                                            |
| Noise emission           | < 29dB                                                                          |
| Scalability              | Max. 2 systems in parallel                                                      |
| Compatible inverters     | RCT HV Inverter**                                                               |
| Certificates             | EN61000-6-1, EN61000-6-3, IEC 62619, IEC 60730, IEC 62477, EN/IEC 62040, UN38.3 |

## MODEL

**RBS8.0**  
**HM650T-EU**

**RBS16.0**  
**HM650T-EU**

**RBS24.0**  
**HM650T-EU**

**RBS32.0**  
**HM650T-EU**

### TECHNICAL SPECIFICATION



### ELECTRICAL PARAMETERS

|                                                |        |        |         |         |
|------------------------------------------------|--------|--------|---------|---------|
| Number of battery modules                      | 1      | 2      | 3       | 4       |
| Battery usable capacity                        | 8 kWh  | 16 kWh | 24 kWh  | 32 kWh  |
| Max. output power                              | 4 kW   | 8 kW   | 12 kW   | 16 kW   |
| Weight (Floor stand toolkit included)          | 100 kg | 180 kg | 260 kg  | 340 kg  |
| Height (Floor stand and Power module included) | 488 mm | 846 mm | 1204 mm | 1562 mm |
| Width                                          | 760 mm |        |         |         |
| Depth                                          | 268 mm |        |         |         |

\* For specific details, please refer to the RCT power warranty documentation.

\*\* For detailed information, please consult the RCT Power sales or technical support team.



# POWER BATTERY 5.0 | 10.0 | 15.0 | 20.0

## MODULAR HIGH VOLTAGE OUTDOOR BATTERY FOR PV STORAGE SYSTEMS



support mixed use of  
old & new batteries



5kWh modular design  
scalable from 5 to 40kWh



easy to transport  
and install



5-layer safety  
protection/IP65

- **Modular Stackable Design** with pack-level optimization technology, enabling on-demand expansion and flexible adaptation for both household and commercial/industrial scenarios.
- **Active Energy Balancing** eliminates the "short-board" effect, supporting mixed use of old/new batteries and batteries with different SOH/SOC levels. New batteries feature plug-and-play for flexible capacity expansion, while facilitating inventory management for distributors.
- **Independent Module Management:** Each battery pack can charge/discharge independently, achieving fast charge/discharge power up to 2.5 kW. Maximum charge/discharge power per cluster system reaches 10 kW.
- **Extreme Temperature Resilience:** Operates from -20°C to 55°C, suitable for homes from the equator to polar regions.
- **Wireless Installation** with plug-and-play simplicity for effortless setup.
- **5-Layer Safety Protection** for ultimate security.
- **314Ah High-Capacity Cells** with high cycle life and long-term durability.
- **IP65 Protection Rating** to withstand harsh environments.
- **One-Click System Diagnosis**, real-time monitoring, and transparent visibility.
- **Remotely Scheduled OTA Updates** available anytime.
- **Expandable Capacity** up to 40kWh.



## POWER BATTERY

## RDM050025-EUR1

### ELECTRICAL PARAMETERS

|                         |                     |
|-------------------------|---------------------|
| Battery Cell Type       | LiFePO <sub>4</sub> |
| Battery Cell capacity   | 314Ah               |
| Battery Cycle           | 6000*               |
| Battery usable capacity | 5 kWh               |
| Max. output power       | 2.5 kW              |
| Nominal voltage         | 400 V               |
| Operating voltage range | 370~450V            |

### COMMUNICATION

|               |                                           |
|---------------|-------------------------------------------|
| Display       | SOC status indicator, LED indicator       |
| Communication | RS485 / CAN (only for parallel operation) |

### GENERAL SPECIFICATION

|                          |                                                                                 |
|--------------------------|---------------------------------------------------------------------------------|
| Power module dimension   | 80 x 760 x 268 mm                                                               |
| Power module weight      | 20 kg                                                                           |
| Battery module dimension | 358 x 760 x 268 mm                                                              |
| Battery module weight    | 50 kg                                                                           |
| Installation             | Floor stand                                                                     |
| Operating temperature    | Charge: 0~ 55°C<br>Discharge: -20 ~ 50°C                                        |
| Max. operating altitude  | 4000 m                                                                          |
| Relative humidity        | 5% - 95% RH                                                                     |
| Cooling                  | Natural                                                                         |
| IP rating                | IP65                                                                            |
| Noise emission           | < 29dB                                                                          |
| Scalability              | Max. 2 systems in parallel                                                      |
| Compatible inverters     | RCT HV Inverter**                                                               |
| Certificates             | EN61000-6-1, EN61000-6-3, IEC 62619, IEC 60730, IEC 62477, EN/IEC 62040, UN38.3 |

## MODEL

**RBS5.0**  
**HM400T-EU**

**RBS10.0**  
**HM400T-EU**

**RBS15.0**  
**HM400T-EU**

**RBS20.0**  
**HM400T-EU**

### TECHNICAL SPECIFICATION



### ELECTRICAL PARAMETERS

|                                                |        |        |         |         |
|------------------------------------------------|--------|--------|---------|---------|
| Number of battery modules                      | 1      | 2      | 3       | 4       |
| Battery usable capacity                        | 5 kWh  | 10 kWh | 15 kWh  | 20 kWh  |
| Max. output power                              | 2.5 kW | 5.0 kW | 7.5 kW  | 10.0 kW |
| Weight (Floor stand toolkit included)          | 70 kg  | 120 kg | 170 kg  | 220 kg  |
| Height (Floor stand and Power module included) | 488 mm | 846 mm | 1204 mm | 1562 mm |
| Width                                          | 760 mm |        |         |         |
| Depth                                          | 268 mm |        |         |         |

\* For specific details, please refer to the RCT power warranty documentation.

\*\* For detailed information, please consult the RCT Power sales or technical support team.



## POWER BATTERY

### 5.0 | 7.5 | 10.0 | 12.5 | 15.0

#### MODULAR HIGH VOLTAGE OUTDOOR BATTERY FOR PV STORAGE SYSTEMS



environmentally friendly  
and safe LiFePO<sub>4</sub> battery



modular space  
saving design



easy to transport  
and install



everything needed  
from one source

#### HIGH PERFORMANCE

- LiFePO<sub>4</sub> technology
- Max. 0.7C charging/discharging rate
- Intelligent equalization
- High voltage, high efficiency, low stress operation

#### EASY INSTALLATION

- Lightweight components
- Modern and space-saving design
- Modular concept and simple wiring for easy transport and installation
- Master battery management system
- Plug & play

#### MONITORING VIA APP

- Powerful RCT RESS App
- Full data visualization
- Monitoring from every location
- Configuration options
- One click update

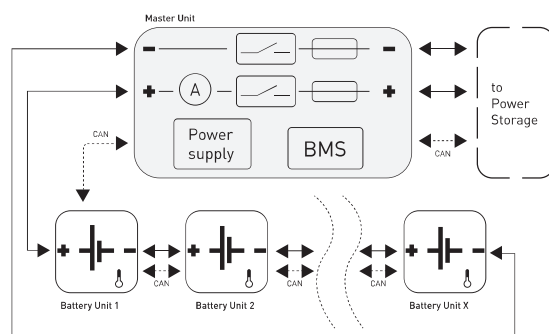
#### FLEXIBLE AND UPGRADEABLE

- Extendable capacity for lifetime use: 5-15 kWh
- Usable capacity scalable in increments of 2.25 kWh
- Upgradeable
- Suitable for back-up systems

#### SUSTAINABLE

- Lithium-iron-phosphate cell chemistry
- 10 years time value guarantee
- IP65: Suitable for outdoor installation
- Suitable for salt water-wet locations
- Corrosion-resistant aluminum housing
- All components carry necessary UL certifications

#### BLOCK DIAGRAM



## POWER BATTERY

**5.0****7.5****10.0****12.5****15.0**

### ELECTRICAL PARAMETERS

|                                    |               |                 |                 |                 |                 |
|------------------------------------|---------------|-----------------|-----------------|-----------------|-----------------|
| Nominal capacity                   | 5 kWh         | 7.5 kWh         | 10 kWh          | 12.5 kWh        | 15 kWh          |
| Usable capacity (90% DoD)          | 4.5 kWh       | 6.75 kWh        | 9 kWh           | 11.25 kWh       | 13.5 kWh        |
| Cycle Life                         | 6000          |                 |                 |                 |                 |
| Voltage range                      | 145 V...166 V | 218 V ... 248 V | 291 V ... 331 V | 364 V ... 414 V | 436 V ... 497 V |
| Nominal voltage                    | 154 V         | 230 V           | 307 V           | 384 V           | 461 V           |
| Maximum charge / discharge current | 25 A / 25 A   | 25 A / 25 A     | 25 A / 25 A     | 25 A / 25 A     | 25 A / 25 A     |
| Standby consumption                | < 5 W         |                 |                 |                 |                 |

### INTERFACES

|                         |     |
|-------------------------|-----|
| Power Storage interface | CAN |
|-------------------------|-----|

### GENERAL

|                                        |                                |                   |                    |                   |                    |
|----------------------------------------|--------------------------------|-------------------|--------------------|-------------------|--------------------|
| Battery technology                     | LiFePO <sub>4</sub>            |                   |                    |                   |                    |
| Dimensions (height x width x depth)    | 1.96'x1.13'x1.13'              | 2.72'x1.13'x1.13' | 3.47'x1.13'x1.13'  | 4.23'x1.13'x1.13' | 4.98'x1.13'x1.13'  |
| Weight (single stack 25.2 kg(55.5 lb)) | 56.4kg (124.3 lb)              | 81.6kg (179.9 lb) | 106.8kg (235.5 lb) | 132kg (291.0 lb)  | 157.2kg (346.6 lb) |
| Number of battery units                | 2                              | 3                 | 4                  | 5                 | 6                  |
| IP degree of protection                | IP65                           |                   |                    |                   |                    |
| Type of installation                   | floor stand / indoor / outdoor |                   |                    |                   |                    |
| Operating temperature range            | -0.4 °F~ 131 °F                |                   |                    |                   |                    |
| Connector type                         | Quick Contact MC4 - Evo 2      |                   |                    |                   |                    |

### SAFETY / STANDARDS

|              |                                                          |
|--------------|----------------------------------------------------------|
| Safety class | I                                                        |
| Certificates | UN 38.3, UL1973, UL60730-1, UL9540A, IEC 62619, IEC63056 |
| EMC          | FCC Part 15B, ICES-003, IEC 61000-6-1&-6-3               |
| Safety       | UL1973, UL60730-1, UL9540A, IEC60730, IEC62040           |

### WARRANTY

|          |           |
|----------|-----------|
| Warranty | 10 years* |
|----------|-----------|

\* Test condition of 77±35.6°F, 0.3C charge and discharge rate and SOH=70%



## POWER BATTERY LV

### LOW VOLTAGE OUTDOOR BATTERY FOR PV STORAGE SYSTEMS



environmentally friendly  
and safe LiFePO<sub>4</sub> battery



modular space  
saving design



easy to transport  
and install



everything needed  
from one source

### HIGH SAFETY

- Adopting circuit breakers and an intelligent BMS with automatic disconnection
- Ensuring dual protection mechanisms

### HIGH INTELLIGENCE

- Equipped with Bluetooth and WIFI functions
- A customized intelligent app
- Supports remote upgrades, reducing after-sales maintenance costs

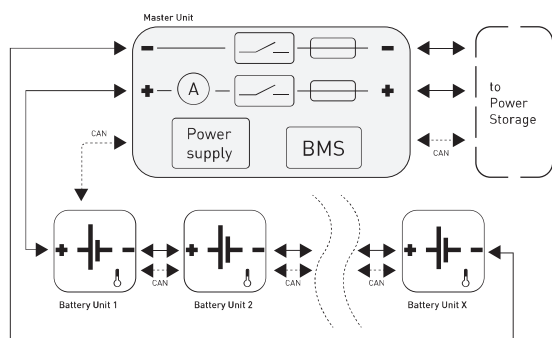
### HIGH COMPATIBILITY

- Capable of communicating with mainstream inverters available in the market

### HIGH AESTHETIC APPEAL

- Featuring an ultra-thin design of just 153 mm
- Supports wall mounting and vertical stacking,
- saving space

### BLOCK DIAGRAM





## POWER BATTERY LV

## RBM050100-EU

### ELECTRICAL PARAMETERS

|                                        |              |
|----------------------------------------|--------------|
| Nominal capacity                       | 5.12 kWh     |
| Usable capacity (90% DoD)              | 4.61 kWh     |
| Rated voltage                          | 51.2 V       |
| Cycle life                             | 6000         |
| Standard charge/discharge current      | 50 A / 50 A  |
| Max. constant charge/discharge current | 95 A / 100 A |
| Standby consumption                    | < 5 W        |

### INTERFACES

|               |           |
|---------------|-----------|
| Communication | RS485/CAN |
|---------------|-----------|

### GENERAL SPECIFICATION

|                         |                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------|
| Battery technology      | LiFePO <sub>4</sub>                                                                          |
| Dimensions (D x W x H)  | 153 x 490 x 625 mm                                                                           |
| Weight                  | 52 kg                                                                                        |
| Humidity Range          | 5% - 85% RH                                                                                  |
| IP rating               | IP65                                                                                         |
| Type of installation    | Wall-mounted                                                                                 |
| Operating temperature   | Charge: 0 °C ~ 60 °C<br>Discharge: -20 °C ~ 60 °C                                            |
| Max. operating altitude | 3000 m                                                                                       |
| Connector type          | Quick Connect plug: ESC-HP120-025-PB, socket: ESC-HP120-052,<br>communication: YGC583-RJ45RG |
| Scalability             | Max. 5 systems in parallel                                                                   |

### SAFETY / STANDARDS

|              |                                                                            |
|--------------|----------------------------------------------------------------------------|
| Certificates | UN38.3, IEC62619, IEC63056, IEC62040, IEC62477, IEC61000-6-1, IEC61000-6-3 |
|--------------|----------------------------------------------------------------------------|

### WARRANTY

|          |          |
|----------|----------|
| Warranty | 10 years |
|----------|----------|

## SOLARWAVE SERIES

### THREE-PHASE HYBRID INVERTER FOR RESIDENTIAL AND COMMERCIAL PV SYSTEMS



high efficiency



back-up  
power supply



up to 3 roof  
orientations



modular space  
saving design



quick and easy  
installation



everything needed  
from one source

#### HIGH PERFORMANCE

- < 10ms UPS-level switching
- Three MPPTs, Max.36A input per MPPT
- Up to 98.1% operating efficiency
- Optimized for high-power solar panel
- Max.150% PV oversizing
- 150% Peak backup power for 10 seconds

#### UNIQUE FLEXIBILITY

- Support 100% unbalanced loads
- Supports microgrid and generator functions
- Supports up to two high-voltage battery groups per inverter

#### USER FRIENDLY

- Convenient remote monitoring via App and Cloud
- Flexible configuration, time-efficient and labor-saving
- Remote diagnosis & update

#### PREMIUM DESIGN

- Compact and lightweight hardware design
- IP66 Design: suitable for indoor and outdoor
- Optional AFCI & RSD function

#### EXPANDABLE SOLUTION

- Support AC retrofit application
- Support up to 3 units parallel connection

## MODEL

RHT15.0KHR-EU

RHT20.0KHR-EU

RHT25.0KHR-EU

RHT30.0KHR-EU

### PV INPUT

|                                |              |        |        |        |
|--------------------------------|--------------|--------|--------|--------|
| Max. Recommended DC Power [W]  | 30,000       | 40,000 | 45,000 | 45,000 |
| Max. DC Voltage [V]            | 1,000        |        |        |        |
| Max. Input Current [A]         | 36 / 36 / 36 |        |        |        |
| Max. Short Circuit Current [A] | 46 / 46 / 46 |        |        |        |
| MPPT Voltage Range [V]         | 180 - 960    |        |        |        |
| Start-up Voltage [V]           | 200          |        |        |        |
| No. of MPP Trackers            | 3            |        |        |        |
| Strings Per MPP Tracker        | 2            |        |        |        |
| PV Over Management             | 200%         | 200%   | 180%   | 150%   |

### BATTERY

|                                    |                     |                 |                 |                 |
|------------------------------------|---------------------|-----------------|-----------------|-----------------|
| Battery Type                       | LiFePO <sub>4</sub> |                 |                 |                 |
| Battery Voltage [V]                | 180 - 800           |                 |                 |                 |
| Max. Charge/ Discharge Power [W]   | 30,000 / 15,000     | 30,000 / 20,000 | 30,000 / 25,000 | 30,000 / 30,000 |
| Max. Charge/ Discharge Current [A] | 50 / 50             |                 |                 |                 |
| Communication Interface            | CAN                 |                 |                 |                 |

### AC OUTPUT

|                                    |                                  |        |        |        |
|------------------------------------|----------------------------------|--------|--------|--------|
| Max. AC Output Apparent Power [VA] | 16,500                           | 22,000 | 27,500 | 33,000 |
| Rated AC Output Power [W]          | 15,000                           | 20,000 | 25,000 | 30,000 |
| Max. AC Output Current [A]         | 25.0                             | 33.4   | 41.7   | 50     |
| Rated AC Output Current [A]        | 22.8                             | 30.3   | 37.9   | 45.5   |
| Rated AC Voltage [V]               | 3 / N / PE, 220 / 380, 230 / 400 |        |        |        |
| Grid Frequency [Hz]                | 50 / 60                          |        |        |        |
| Adjustable Power Factor [cosφ]     | 0.8 leading ~ 0.8 lagging        |        |        |        |
| Output THDi (@Rated Output)        | < 3%                             |        |        |        |

### AC INPUT

|                           |                                  |        |        |        |
|---------------------------|----------------------------------|--------|--------|--------|
| Max. AC Input Power [VA]  | 30,000                           | 40,000 | 41,500 | 41,500 |
| Max. AC Input Current [A] | 45.5                             | 60.3   | 63.0   | 63.0   |
| Rated AC Voltage [V]      | 3 / N / PE, 220 / 380, 230 / 400 |        |        |        |
| Grid Frequency [Hz]       | 50 / 60                          |        |        |        |

### BACKUP OUTPUT (WITH BATTERY)

|                                         |                                  |        |        |        |
|-----------------------------------------|----------------------------------|--------|--------|--------|
| Rated Power [W]                         | 15,000                           | 20,000 | 25,000 | 30,000 |
| Rated Voltage[V]                        | 3 / N / PE, 220 / 380, 230 / 400 |        |        |        |
| Rated Frequency [Hz]                    | 50 / 60                          |        |        |        |
| Rated Current [A]                       | 22.8                             | 30.3   | 37.9   | 45.5   |
| Output THDv (@Linear Load)              | < 3%                             |        |        |        |
| Automatic Switch Time [ms]              | < 10                             |        |        |        |
| Peak Apparent Power, Duration [VA, 10s] | 22,500                           | 30,000 | 37,500 | 45,000 |

### EFFICIENCY

|                                          |        |  |  |  |
|------------------------------------------|--------|--|--|--|
| Max. Efficiency                          | 98.10% |  |  |  |
| Euro-Efficiency [%]                      | 97.70% |  |  |  |
| Max. Battery Charge/Discharge Efficiency | 97.60% |  |  |  |

### GENERAL DATA

|                                |                                                                     |         |       |       |
|--------------------------------|---------------------------------------------------------------------|---------|-------|-------|
| Dimensions (W*H*D) [mm]        | 630 x 514 x 239                                                     |         |       |       |
| Weight [kg]                    | 45.32                                                               | 45.32   | 47.00 | 47.00 |
| Display                        | LED + LCD                                                           |         |       |       |
| Communication                  | RS485, USB Update, 4 × DI, 2 × DO, Optional: WiFi or 4G or Ethernet |         |       |       |
| Ambient Temperature Range [°C] | -30 ~ +60                                                           |         |       |       |
| Relative Humidity              | 0 ~ 100%                                                            |         |       |       |
| Operating Altitude [m]         | < 2000                                                              |         |       |       |
| Night Self-consumption [W]     | < 15                                                                |         |       |       |
| Topology                       | Non-isolated                                                        |         |       |       |
| Cooling                        | Natural                                                             | Natural | Fan   | Fan   |
| Ingress Protection             | IP66                                                                |         |       |       |

### CERTIFICATIONS & STANDARDS

|                   |                                                                                          |
|-------------------|------------------------------------------------------------------------------------------|
| Grid Regulation   | IEC61727/IEC62116, EN50549-1/EN50549-10, EN50549-PL, EN50549-CZ, VDE-AR-N 4105, CEI 0-21 |
| Safety Regulation | IEC 62109-1, IEC 62109-2, EN 62109-1, EN 62109-2                                         |
| EMC               | EN / IEC 61000-6-1, EN / IEC 61000-6-2, EN / IEC 61000-6-3, EN / IEC 61000-6-4           |



## SOLARWAVE SERIES

### THREE-PHASE HYBRID INVERTER FOR RESIDENTIAL AND COMMERCIAL PV SYSTEMS



high efficiency



back-up power supply



up to 3 roof orientations



modular space saving design



quick and easy installation



everything needed from one source

### HIGH PERFORMANCE

- < 10ms UPS-level switching
- Three MPPTs, Max.20A input per MPPT
- Up to 98.8% operating efficiency
- Optimized for high-power solar panel
- Max.200% PV oversizing
- 200% Peak backup power for 60 seconds

### UNIQUE FLEXIBILITY

- Support 100% unbalanced loads
- Supports microgrid and generator functions
- Supports up to two high-voltage battery groups per inverter

### USER FRIENDLY

- Convenient remote monitoring via App and Cloud
- Flexible configuration, time-efficient and labor-saving
- Remote diagnosis & update

### PREMIUM DESIGN

- Compact and lightweight hardware design
- IP66 Design: suitable for indoor and outdoor
- Optional AFCI & RSD function

### EXPANDABLE SOLUTION

- Support AC retrofit application
- Support up to 10 units parallel connection

| MODEL                                | RHT5.0K<br>HE-EU                                                                                                                                                                                                                                           | RHT6.0K<br>HE-EU | RHT8.0K<br>HE-EU | RHT10.0K<br>HE-EU | RHT12.0K<br>HE-EU | RHT15.0K<br>HE-EU |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|-------------------|-------------------|-------------------|
| PV INPUT                             |                                                                                                                                                                                                                                                            |                  |                  |                   |                   |                   |
| Max. Recommended DC Power [W]        | 10,000                                                                                                                                                                                                                                                     | 12,000           | 16,000           | 20,000            | 24,000            | 30,000            |
| Max. DC Voltage [V]                  | 1,000                                                                                                                                                                                                                                                      |                  |                  |                   |                   |                   |
| Max. Input Current [A]               | 20 / 20 / 20                                                                                                                                                                                                                                               | 20 / 20 / 20     | 20 / 20 / 20     | 20 / 20 / 40      | 20 / 20 / 40      | 20 / 20 / 40      |
| Max. Short Circuit Current [A]       | 30 / 30 / 30                                                                                                                                                                                                                                               | 30 / 30 / 30     | 30 / 30 / 30     | 30 / 30 / 60      | 30 / 30 / 60      | 30 / 30 / 60      |
| MPPT Voltage Range [V]               | 100 - 900                                                                                                                                                                                                                                                  |                  |                  |                   |                   |                   |
| Start-up Voltage [V]                 | 50                                                                                                                                                                                                                                                         |                  |                  |                   |                   |                   |
| No. of MPP Trackers                  | 3                                                                                                                                                                                                                                                          |                  |                  |                   |                   |                   |
| Strings Per MPP Tracker              | 1 / 1 / 1                                                                                                                                                                                                                                                  | 1 / 1 / 1        | 1 / 1 / 1        | 1 / 1 / 2         | 1 / 1 / 2         | 1 / 1 / 2         |
| PV Over Management                   | 200%                                                                                                                                                                                                                                                       |                  |                  |                   |                   |                   |
| BATTERY                              |                                                                                                                                                                                                                                                            |                  |                  |                   |                   |                   |
| Battery Type                         | LiFePO <sub>4</sub>                                                                                                                                                                                                                                        |                  |                  |                   |                   |                   |
| Battery Voltage [V]                  | 80 - 800                                                                                                                                                                                                                                                   |                  |                  |                   |                   |                   |
| Rated. Charge/ Discharge Current [A] | 50 / 50                                                                                                                                                                                                                                                    |                  |                  |                   |                   |                   |
| Max. Charge/ Discharge Current [A]   | 60 / 60                                                                                                                                                                                                                                                    |                  |                  |                   |                   |                   |
| Communication Interface              | RS485, CAN                                                                                                                                                                                                                                                 |                  |                  |                   |                   |                   |
| AC OUTPUT (On-Grid Side)             |                                                                                                                                                                                                                                                            |                  |                  |                   |                   |                   |
| Max. AC Output Apparent Power [VA]   | 5,000                                                                                                                                                                                                                                                      | 6,000            | 8,000            | 10,000            | 12,000            | 15,000            |
| Rated AC Output Power [W]            | 5,000                                                                                                                                                                                                                                                      | 6,000            | 8,000            | 10,000            | 12,000            | 15,000            |
| Max. AC Output Current [A]           | 7.2                                                                                                                                                                                                                                                        | 8.7              | 11.6             | 14.5              | 17.4              | 21.7              |
| Rated AC Output Current [A]          | 7.2                                                                                                                                                                                                                                                        | 8.7              | 11.6             | 14.5              | 17.4              | 21.7              |
| Rated AC Voltage [V]                 | 3 / N / PE, 220 / 380, 230 / 400, 240 / 415, 312 ~ 520                                                                                                                                                                                                     |                  |                  |                   |                   |                   |
| Grid Frequency [Hz]                  | 50 / 60                                                                                                                                                                                                                                                    |                  |                  |                   |                   |                   |
| Adjustable Power Factor [cosφ]       | > 0.99, 0.8 leading ~ 0.8 lagging                                                                                                                                                                                                                          |                  |                  |                   |                   |                   |
| Output THDi (@Rated Output)          | < 3%                                                                                                                                                                                                                                                       |                  |                  |                   |                   |                   |
| AC OUTPUT (Back-Up)                  |                                                                                                                                                                                                                                                            |                  |                  |                   |                   |                   |
| Rated Power [W]                      | 5,000                                                                                                                                                                                                                                                      | 6,000            | 8,000            | 10,000            | 12,000            | 15,000            |
| Peak Apparent Power for 60s [W]      | 10,000                                                                                                                                                                                                                                                     | 12,000           | 16,000           | 20,000            | 24,000            | 30,000            |
| Rated Voltage[V]                     | 3 / N / PE, 220 / 380, 230 / 400, 240 / 415, 312 ~ 520                                                                                                                                                                                                     |                  |                  |                   |                   |                   |
| Rated output current[A]              | 7.2                                                                                                                                                                                                                                                        | 8.7              | 11.6             | 14.5              | 17.4              | 21.7              |
| Rated Frequency [Hz]                 | 50 / 60                                                                                                                                                                                                                                                    |                  |                  |                   |                   |                   |
| Output THDv (@Linear Load)           | < 3%                                                                                                                                                                                                                                                       |                  |                  |                   |                   |                   |
| Automatic Switch Time [ms]           | < 10                                                                                                                                                                                                                                                       |                  |                  |                   |                   |                   |
| EFFICIENCY                           |                                                                                                                                                                                                                                                            |                  |                  |                   |                   |                   |
| Max. Efficiency                      | 98.80%                                                                                                                                                                                                                                                     |                  |                  |                   |                   |                   |
| Euro-Efficiency [%]                  | 98.30%                                                                                                                                                                                                                                                     |                  |                  |                   |                   |                   |
| GENERAL DATA                         |                                                                                                                                                                                                                                                            |                  |                  |                   |                   |                   |
| Dimensions (W*H*D) [mm]              | 507 x 522 x 194                                                                                                                                                                                                                                            |                  |                  |                   |                   |                   |
| Weight [kg]                          | 26                                                                                                                                                                                                                                                         |                  |                  |                   |                   |                   |
| Communication                        | WiFi, 4G, GPRS, Bluetooth, RS485, CAN                                                                                                                                                                                                                      |                  |                  |                   |                   |                   |
| Ambient Temperature Range [°C]       | -25 ~ +60                                                                                                                                                                                                                                                  |                  |                  |                   |                   |                   |
| Relative Humidity                    | 0 ~ 100%                                                                                                                                                                                                                                                   |                  |                  |                   |                   |                   |
| Operating Altitude [m]               | < 3000                                                                                                                                                                                                                                                     |                  |                  |                   |                   |                   |
| Topology                             | Non-isolated                                                                                                                                                                                                                                               |                  |                  |                   |                   |                   |
| Cooling                              | Fan                                                                                                                                                                                                                                                        |                  |                  |                   |                   |                   |
| Ingress Protection                   | IP66                                                                                                                                                                                                                                                       |                  |                  |                   |                   |                   |
| CERTIFICATIONS & STANDARDS           |                                                                                                                                                                                                                                                            |                  |                  |                   |                   |                   |
| Grid Regulation                      | AS/NZS4777:2020, EN50549-10:2022, G98:2021, G99:2021, NC RFG, ABNT NBR 16150, VDE-AR-N 4105, CEI0-21, CEI0-16, RD1699, NA/EEA, C10:2019, PPDS:2021, Tor+R25, IEC61683, IEC61727&621611727/IEC62116, EN50549-1/EN50549-10, EN50549-PL, EN50549-CZ, CEI 0-21 |                  |                  |                   |                   |                   |
| Safety / EMC Regulation              | IEC-62109-1/-2, IEC-61000-6-1/-2/-3, NB/T32004                                                                                                                                                                                                             |                  |                  |                   |                   |                   |





## SOLARLINK SERIES

### SINGLE-PHASE HYBRID INVERTER FOR RESIDENTIAL AND COMMERCIAL PV SYSTEMS



high efficiency



back-up power supply



up to 2 roof orientations



modular space saving design



quick and easy installation



everything needed from one source

### HIGH PERFORMANCE

- Premium grid peak shaving capabilities, friendly to grid
- 100% full load charge and discharge
- Max. 200% back-up output overloading @60S

### FULLY COMPATIBILITY

- Lithium batteries voltage range 80-500V
- Max. PV input current per string 18A
- Enhanced compatibility with 2 MPPTs

### UNIQUE FLEXIBILITY

- Supports diesel generators in off-grid locations
- Max. charging/discharging current 60A

### SMART SYSTEM

- Intelligent EMS function, improving battery's reliability
- Longevity and almost no derating at high temperature
- Settable charge and discharge time

### EASY TO USE

- Plug-and-play installation
- Easy anytime, anywhere monitoring

### PREMIUM DESIGN

- IP66 protection for indoor and outdoor use
- Optional AFCI protection

### EXPANDABLE SOLUTION

- Support AC retrofit application
- Support up to 4 units parallel connection

## MODEL

| RHS3.0K<br>HE-EU | RHS3.6K<br>HE-EU | RHS4.0K<br>HE-EU | RHS4.6K<br>HE-EU | RHS5.0K<br>HE-EU | RHS6.0K<br>HE-EU | RHS8.0K<br>HE-EU | RHS10.0K<br>HE-EU | RHS10.5K<br>HE-EU |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|

## PV INPUT

|                                |              |      |      |      |      |      |       |       |       |
|--------------------------------|--------------|------|------|------|------|------|-------|-------|-------|
| Max. Recommended DC Power [W]  | 3900         | 4680 | 5200 | 5980 | 6500 | 7800 | 10400 | 13000 | 13650 |
| Max. DC Voltage [V]            | 600          |      |      |      |      |      |       |       |       |
| Max. Input Current [A]         | 36 / 36 / 36 |      |      |      |      |      |       |       |       |
| Max. Short Circuit Current [A] | 46 / 46 / 46 |      |      |      |      |      |       |       |       |
| MPPT Voltage Range [V]         | 80 - 580     |      |      |      |      |      |       |       |       |
| Start-up Voltage [V]           | 40           |      |      |      |      |      |       |       |       |
| No. of MPP Trackers            | 2            |      |      |      |      |      |       |       |       |
| Strings Per MPP Tracker        | 1 / 2        |      |      |      |      |      |       |       |       |
| PV Over Management             | 130%         |      |      |      |      |      |       |       |       |

## BATTERY

|                                    |                     |
|------------------------------------|---------------------|
| Battery Type                       | LiFePO <sub>4</sub> |
| Battery Voltage [V]                | 80 - 500            |
| Max. Charge/ Discharge Current [A] | 60 / 60             |
| Communication Interface            | RS485,CAN           |

## AC OUTPUT

|                                    |                           |       |       |       |       |       |       |        |        |
|------------------------------------|---------------------------|-------|-------|-------|-------|-------|-------|--------|--------|
| Max. AC Output Apparent Power [VA] | 3,000                     | 3,600 | 4,000 | 4,600 | 5,000 | 6,000 | 8,000 | 10,000 | 10,500 |
| Rated AC Output Power [W]          | 3,000                     | 3,600 | 4,000 | 4,600 | 5,000 | 6,000 | 8,000 | 10,000 | 10,500 |
| Max. AC Output Current [A]         | 13.0                      | 15.7  | 17.4  | 20.0  | 21.7  | 26.1  | 34.8  | 43.5   | 45.6   |
| Rated AC Output Current [A]        | 13.0                      | 15.7  | 17.4  | 20.0  | 21.7  | 26.1  | 34.8  | 43.5   | 45.6   |
| Rated AC Voltage [V]               | 220 / 230 / 240 (180~300) |       |       |       |       |       |       |        |        |
| Grid Frequency [Hz]                | 50 / 60                   |       |       |       |       |       |       |        |        |
| Adjustable Power Factor [cosφ]     | 0.8 leading ~ 0.8 lagging |       |       |       |       |       |       |        |        |
| Output THDi (@Rated Output)        | < 3%                      |       |       |       |       |       |       |        |        |

## BACKUP OUTPUT (WITH BATTERY)

|                                |                           |       |       |       |       |       |       |        |        |
|--------------------------------|---------------------------|-------|-------|-------|-------|-------|-------|--------|--------|
| Rated Power [W]                | 3,000                     | 3,600 | 4,000 | 4,600 | 5,000 | 6,000 | 8,000 | 10,000 | 10,500 |
| Rated Voltage[V]               | 220 / 230 / 240 (180~300) |       |       |       |       |       |       |        |        |
| Rated Frequency [Hz]           | 50 / 60                   |       |       |       |       |       |       |        |        |
| Rated Current [A]              | 13.0                      | 15.7  | 17.4  | 20.0  | 21.7  | 26.1  | 34.8  | 43.5   | 45.6   |
| Adjustable Power Factor [cosφ] | 0.8 leading ~ 0.8 lagging |       |       |       |       |       |       |        |        |
| Output THDv (@Linear Load)     | < 3%                      |       |       |       |       |       |       |        |        |

## EFFICIENCY

|                     |        |
|---------------------|--------|
| Max. Efficiency     | 98.60% |
| Euro-Efficiency [%] | 98.10% |

## GENERAL DATA

|                                |                                                                                                                                         |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Dimensions (W*H*D) [mm]        | 411 x 401 x 166                                                                                                                         |
| Weight [kg]                    | 17.7                                                                                                                                    |
| Communication                  | Wifi, 4G, GPRS, Bluetooth, RS485, CAN                                                                                                   |
| Max. operation altitude(m)     | 3,000                                                                                                                                   |
| Ambient Temperature Range [°C] | -25 ~ +60                                                                                                                               |
| Topology                       | transformerless                                                                                                                         |
| Cooling                        | Natural cooling   Natural cooling   Natural cooling   Natural cooling   Natural cooling   Smart Fan   Smart Fan   Smart Fan   Smart Fan |
| Ingress Protection             | IP66                                                                                                                                    |
| Grid Regulation                | AS/NZS4777:2020, EN50549-10:2022, G98:2021, G99:2021, NC RFG, ABNT NBR 16150, VDE-AR-N 4105,                                            |
| Grid Regulation                | CEI0-21, CEI0-16, RD1699, NA/EEA, C10:2019, PPDS:2021, Tor+R25, IEC61683, IEC61727&62161                                                |
| Safety/EMC Regulation          | IEC-62109-1/-2, IEC-61000-6-1/-2/-3, NB/T32004                                                                                          |



## POWER STORAGE DC 5.0 | 6.0 SP

### SINGLE-PHASE HYBRID OUTDOOR INVERTER FOR RESIDENTIAL AND COMMERCIAL PV SYSTEMS



high efficiency



up to 3 roof  
orientations



quick and easy  
installation



everything needed  
from one source

#### HIGH EFFICIENCY

- Three independent MPP-trackers
- Input for high voltage battery
- Suitable for dynamic power adjustment
- Intelligent energy storage management with forecast based charging
- Exact and fast control behaviour

#### UNIQUE FLEXIBILITY

- DC & AC Coupling compatible
- 1-phase feed-in
- Up to 2 high voltage batteries per inverter
- Wide MPP range for flexible string planning and easy repowering
- Max-Power Control - self-learning shade management
- Cascadable, expandable and combinable with existing PV-systems
- Hybrid-ready charging of the battery also with external AC sources
- Emergency power capability in conjunction with the RCT Power Switch

#### EASY INSTALLATION

- DC and AC connection with plug & play
- Integrated RCT RESS App solution

#### USER FRIENDLY COMMUNICATION

- LAN and WLAN
- RCT Power Portal for user-friendly system monitoring
- Suitable for wallbox chargers, heating elements, heat pumps and energy management systems

#### INNOVATIVE DESIGN

- Silent, maintenance free cooling
- Durable aluminium housing
- With 22 kg a lightweight in its category
- IP65 protection: Suitable for outdoor installation

## POWER STORAGE DC

## 5.0 SP

## 6.0 SP

### DC INPUT

|                                              |                |
|----------------------------------------------|----------------|
| Max. recommended DC power                    | 9300 W         |
| MPPT                                         | 3              |
| Input per MPPT                               | 1              |
| Max. DC current per MPPT                     | 16 A           |
| Max. Short circuit current PV input (Iscmax) | 20 A           |
| Rated DC voltage                             | 360 V          |
| DC start up voltage / power                  | 120 V / 50W    |
| MPP voltage range                            | 90 V ... 580 V |
| Max. voltage DC                              | 600 V          |
| Connector type                               | Phoenix XLIX   |

### BATTERY INPUT

|                                 |                 |
|---------------------------------|-----------------|
| DC Voltage range                | 120 V ... 520 V |
| Max. charge / discharge current | 25 A / 25 A     |
| Number of battery input         | 2               |
| Connector-type                  | MC4 Evo2        |

### AC OUTPUT (GRID-MODE)

|                                        |                                          |         |
|----------------------------------------|------------------------------------------|---------|
| Gird connection                        | 1 phase                                  |         |
| Real AC output power                   | 5000 W                                   | 6000 W  |
| Max. active power                      | 5000 W                                   | 6000 W  |
| Max. apparent power                    | 5000 VA                                  | 6000 VA |
| Max. AC input apparent power from grid | 5000 VA                                  | 6000 VA |
| Nominal AC current per phase           | 21,7 A                                   | 26,1 A  |
| Max. AC current per phase              | 21,7 A                                   | 26,1 A  |
| Rated frequency                        | 50 Hz                                    |         |
| Frequency range                        | 45 Hz ... 55 Hz                          |         |
| Rated AC voltage                       | 230 V, L/N/PE                            |         |
| AC voltage range                       | 184 ... 265 V                            |         |
| Total harmonic distortion (THD)        | < 3 %                                    |         |
| Reactive power factor (cos phi)        | 1 (adjustable range 0,8 cap....0,8 ind ) |         |
| Earth fault protection                 | RCD                                      |         |
| Type of AC connection                  | quick connection plug                    |         |

### AC OUTPUT (BACK-UP MODE)\*

|                               |               |         |
|-------------------------------|---------------|---------|
| Max. AC output apparent power | 5000 VA       | 6000 VA |
| Rated AC voltage              | 230 V, L/N/PE |         |
| Max. AC output current        | 21,7 A        | 26,1 A  |
| Rated frequency               | 50 Hz         |         |

### PERFORMANCE

|                                |                 |
|--------------------------------|-----------------|
| Stand-by consumption           | < 5 W           |
| Max. efficiency (PV2AC)        | 97,1 %          |
| Max. efficiency (Battery2Grid) | 97,1 %          |
| European weighted efficiency   | 96,6 %          |
| Topology                       | transformerless |

### OTHERS

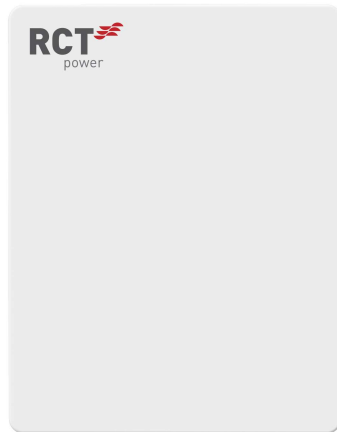
|                                     |                                      |
|-------------------------------------|--------------------------------------|
| Dark start function                 | yes                                  |
| PV disconnect switch                | integrated                           |
| Data interface                      | BAT/CAN, WLAN, LAN, RS485            |
| Display                             | LED indicator                        |
| Cooling                             | convection                           |
| IP degree of protection             | IP 65                                |
| Max. operating altitude             | 4000 m                               |
| Max. relative humidity              | 0 - 100 %                            |
| Typical noise                       | < 30 dB                              |
| Operating temperature range         | -25°C ... 60°C (derating above 45°C) |
| Dimensions (height x width x depth) | 445 x 605 x 165 mm                   |
| Weight                              | 22 kg                                |

### SAFETY / STANDARDS

|                         |                                                                                                   |
|-------------------------|---------------------------------------------------------------------------------------------------|
| Safety                  | EN/IEC 62109-1, EN/IEC 62109-2                                                                    |
| Grid support regulation | EN 50549-1, EN 50549-10, RD 647/UNE 217001/UNE 217002/NTS 631 Type A, G99, CEI 0-21, AS/NZS4777.2 |
| EMC                     | IEC/EN 61000-6-1/2/3/4                                                                            |

### WARRANTY

|          |          |
|----------|----------|
| Warranty | 10 years |
|----------|----------|



## AC POWER SWITCH

### SAFE SUPPLY OF HOUSEHOLD AND FUNCTIONAL RELIABILITY OF PV SYSTEM IN CASE OF GRID FAILURE



high efficiency



back-up  
power supply



quick and easy  
installation



everything needed  
from one source

## BACKUP POWER SUPPLY

- Provision of backup grid
- 1-phase supply
- Automatic switching in case of power failure
- Switch-on delay less than 20 ms
- Battery and PV system can be used as energy source

## EASY INSTALLATION

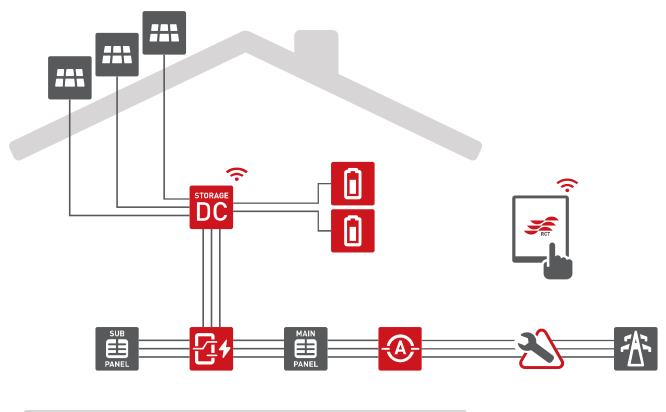
- Compact and lightweight housing
- Wall mounting
- Upgradeable

## EFFICIENT

- Up to 6 kVA for single phase Storage DC 6.0 SP
- Fast switching

## WHAT IS RCT BACKUP POWER?

In the event of a power failure, the RCT Power Switch ensures that the PV system and connected battery storage unit keep operational. The RCT Power Switch all-pole disconnects the domestic network from the mains supply. It then creates a stand-alone grid in combination with the DC-connected RCT Power storage system.



## AC POWER SWITCH

## RAL8.0K-230G2

### AC OUT (ON GRID)

|                         |            |
|-------------------------|------------|
| Grid connection         | 1-phase    |
| Rated voltage           | 230 V      |
| AC frequency            | 50 Hz      |
| AC output voltage range | 184 ~265 V |
| Rated current           | 50 A       |

### AC OUT (BACK UP)

|                      |         |
|----------------------|---------|
| Load connection      | 1-phase |
| Rated voltage        | 230 V   |
| AC frequency         | 50 Hz   |
| Rated apparent power | 8000 VA |
| Rated output current | 34.8 A  |
| Switch over time     | < 20 ms |

### AC INPUT (INVERTER)

|               |       |
|---------------|-------|
| Rated voltage | 230 V |
| AC frequency  | 50 Hz |

### OTHERS

|                                     |                    |
|-------------------------------------|--------------------|
| Operating temperature range         | -25°C...+60°C      |
| Relative humidity                   | 0 % - 100 %        |
| Type of installation                | wall mounting      |
| Dimensions (height x width x depth) | 450 x 350 x 110 mm |
| Weight                              | 6.2 kg             |

### SAFETY / STANDARDS

|           |                  |
|-----------|------------------|
| IP-class  | IP65             |
| Standards | IEC/EN 61439-1/2 |

### WARRANTY

|          |          |
|----------|----------|
| Warranty | 10 years |
|----------|----------|





## POWER STORAGE DC US-8.0 | 8.0 PRO

### DC-COUPLED HYBRID INVERTER FOR RESIDENTIAL AND COMMERCIAL PV SYSTEMS



high efficiency



back-up  
power supply



up to 3 roof  
orientations



modular space  
saving design



quick and easy  
installation



everything needed  
from one source

### HIGH EFFICIENCY

- Intelligent energy storage management
- 3 independent MPP-trackers, switchable to parallel mode
- Transformerless topology
- Fanless cooling
- Dynamic power adjustment (1- 100%)
- Forecast based battery charging
- Back-up power supply

### UNIQUE FLEXIBILITY

- Possible input voltage range between 120 V and 520 V
- Up to 2 high voltage batteries per inverter
- Modular and space saving design

### EASY INSTALLATION

- Plug and play installation
- Quick commissioning with wizard via RCT Power App
- Integrated auto-transformer
- Separate Power Switch installation possible

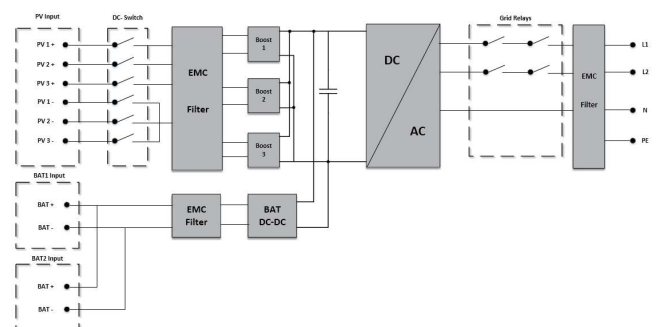
### USER FRIENDLY COMMUNICATION

- Multicolor LED light path display
- Comfortable remote monitoring via App and Cloud
- Multifunction relay for connecting consumers

### PREMIUM DESIGN

- German technology
- Flexible and sophisticated design
- Durable aluminium housing

### BLOCK DIAGRAM



## POWER STORAGE DC

## US-8.0

## US-8.0 PRO

### DC INPUT

|                             |                         |
|-----------------------------|-------------------------|
| Max. recommended DC power   | 12000 W                 |
| MPPT                        | 3                       |
| Input per MPPT              | 1                       |
| Maximum DC current per MPPT | 14 A                    |
| Rated DC voltage            | 360                     |
| DC start up voltage         | 125 V                   |
| MPP voltage range           | 120 V ~ 500 V           |
| Maximum Voltage DC          | 520 V                   |
| Connector type              | Quick Contact MC1-Evo 2 |

### BATTERY INPUT

|                                    |                  |
|------------------------------------|------------------|
| DC Voltage Range                   | 120 V ~ 520 V    |
| Maximum charge / Discharge current | 25 A             |
| Maximum charge / Discharge power   | 11550 W / 8000 W |
| Connector-type                     | Wiring box       |

### AC OUTPUT (GRID-MODE)

|                                    |                                         |
|------------------------------------|-----------------------------------------|
| Real AC output power               | 8000 W                                  |
| Nominal AC current                 | 34 A                                    |
| Frequency range                    | 58 Hz to 62 Hz                          |
| Grounding fault protection current | 30 mA, 60 mA, 150 mA                    |
| Rated AC voltage                   | 240 Vac                                 |
| AC voltage range                   | 211 V ~ 264 V                           |
| Total harmonic distortion          | < 3%                                    |
| Reactive power factor              | Adjustable range 0.80 cap. . . 0.80 ind |
| Anti-islanding operation           | YES                                     |
| Earth fault protection             | RCD                                     |
| Type of AC connection              | Wiring box                              |

### AC OUTPUT (BACK-UP MODE)

|                             |                             |
|-----------------------------|-----------------------------|
| Maximum output power        | 8000 W*                     |
| Rated AC voltage            | 120 / 240ZVac (Split Phase) |
| Nominal AC current          | 34 A                        |
| Nominal AC output frequency | 60 Hz                       |
| Total harmonic distortion   | < 5 %                       |
| Type of AC connection       | Wiring box                  |

### PERFORMANCE

|                                   |                 |
|-----------------------------------|-----------------|
| Stand-by consumption              | < 4 W           |
| Maximum efficiency (PV-Grid)      | 97.94 %         |
| Maximum efficiency (Battery-Grid) | 97.48 %         |
| CEC efficiency                    | 97.5 %          |
| Topology                          | Transformerless |

### OTHERS

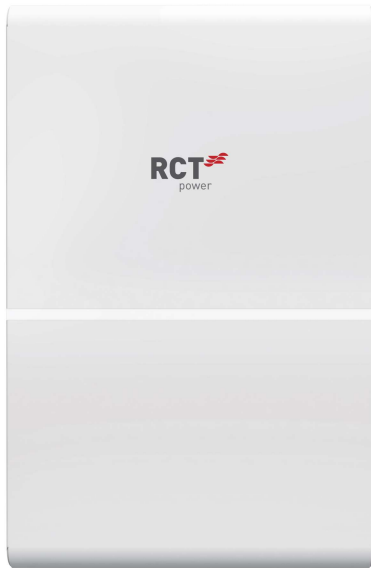
SYSTEMS

|                             |                           |              |
|-----------------------------|---------------------------|--------------|
| Dark Start Function         | Yes                       |              |
| PV Disconnect switch        | Integrated in wiring box  |              |
| Data interface              | BAT/CAN, WLAN, LAN, RS485 |              |
| Display                     | LED Light                 |              |
| Cooling                     | Convection                |              |
| Max. operating altitude     | 6500 ft                   |              |
| Max. relative humidity      | 5 - 95 % (non condensing) |              |
| Typical noise               | < 35 dB                   |              |
| Operating temperature       | -13 °F ~ 140 °F           |              |
| Enclosure type              | NEMA Type 1               | NEMA Type 3R |
| Size Power Inverter (HxWxD) | 2.79' x 1.90' x 0.67'     |              |
| Size Power Switch (HxWxD)   | 2.79' x 1.05' x 0.67'     |              |
| Weight Power Inverter       | 75 lb                     |              |
| Weight Power Switch         | 45 lb                     |              |

### SAFETY / STANDARDS

|                            |                                 |                         |                                         |
|----------------------------|---------------------------------|-------------------------|-----------------------------------------|
| Safety                     | UL1741 , CSA-C22.2 No. 107.1-16 | AFCI                    | UL1699B (TYPE 1)                        |
| Grounding fault protection | UL1741 CRD                      | Grid support regulation | UL1741 SB, IEEE1547, California Rule 21 |
| Software approval          | UL1998                          | Storage system          | UL9540                                  |
| Anti-islanding protection  | IEEE1547, IEEE1547.1            | EMC                     | FCC part 15 Class B                     |

\* Need to use 3~6 pcs power battery stacks



## POWER STORAGE DC US-15.0

### SPLIT-PHASE HYBRID INVERTER FOR RESIDENTIAL AND COMMERCIAL PV SYSTEMS



high efficiency



back-up  
power supply



up to 3 roof  
orientations



modular space  
saving design



quick and easy  
installation



everything needed  
from one source

#### HIGH PERFORMANCE

- Dynamic power adjustment (1- 100%)
- Input for high voltage battery
- 200% DC/AC ratio for higher yields
- Three MPPTs, Max.30A input per MPPT
- 160% peak backup power for 10 seconds
- Up to 96,5% operating efficiency

#### UNIQUE FLEXIBILITY

- Compatible with DC or AC Coupling applications
- Compatible with 120/240V and 120/208V voltage systems
- Supports microgrid and generator functions
- 200A AC passthrough current for whole-home backup
- Supports up to two high-voltage batteries per inverter
- UL 9540 Available
- External RSD, built-in transmitter

#### USER FRIENDLY

- Multicolor LED light path display
- Convenient remote monitoring via App and Cloud
- Flexible configuration, time-efficient and labor-saving
- Seamless switching on or off grid Installation

#### PREMIUM DESIGN

- German technology
- Combination of aesthetics and functionality design
- Corrosion-resistant aluminum housing
- NEMA 3R Design:suitable for indoor and outdoor

#### EXPANDABLE SOLUTION

- Modular 15kW hybrid inverter
- Add up to (6) 15kW hybrid inverters in parallel (90kW max)

## POWER STORAGE DC

## US-15.0

### BATTERY INPUT DATA

|                             |             |
|-----------------------------|-------------|
| Battery Type                | Lithium-ion |
| Battery Voltage Range(V)    | 120-520     |
| Max. Charging Current(A)    | 50          |
| Max. Discharging Current(A) | 50          |
| Number of battery input     | 2           |

### PV STRING INPUT DATA

|                                    |          |
|------------------------------------|----------|
| Max DC Input Power(W)              | 30,000   |
| Max DC Input Voltage(V)            | 600      |
| Start-up Voltage(V)                | 150      |
| MPPT Voltage Range(V)              | 120-520  |
| Rated DC Input Voltage(V)          | 380      |
| Max Input Short-Circuit Current(A) | 45/45/45 |
| Max Operating PV Input Current(A)  | 30/30/30 |
| No. of MPP Trackers                | 3        |
| No. of String Per MPP Tracker      | 2        |

### AC INPUT/OUTPUT DATA

|                                                  |                                    |
|--------------------------------------------------|------------------------------------|
| Rated AC Input/Output Active Power(W)            | 15,000                             |
| Max AC Input/Output Apparent Power (VA)          | 15,000                             |
| Peak Power (off-grid) (W)                        | 24,000, 10s                        |
| Rated AC Input/Output Current(A)                 | 62.5                               |
| Max AC Input/Output Current(A)                   | 200                                |
| Max Continuous AC Passthrough (grid to load) (A) | 200                                |
| Rated Input/Output Voltage/Range(V)              | 120/240, 120/208, 0.88Un-1.1Un     |
| Grid Connection Form                             | 2L + N + PE                        |
| Rated Input/Output Grid Frequency/Range          | 60Hz / 58.8-61.2Hz / 57-63Hz(HECO) |
| 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                          |
| Backup Transfer Time                             | < 10ms                             |
| Stackable                                        | Up to 6 in parallel                |

### EFFICIENCY

|                 |        |
|-----------------|--------|
| Max Efficiency  | 97.60% |
| CEC Efficiency  | 96.50% |
| MPPT Efficiency | > 99%  |

### EQUIPMENT PROTECTION

|                                              |                          |
|----------------------------------------------|--------------------------|
| PV Reverse Polarity Protection               | Yes                      |
| AC Output Overcurrent Protection             | Yes                      |
| AC Output Overvoltage Protection             | Yes                      |
| AC Output Short Circuit Protection           | Yes                      |
| DC Terminal Insulation Impedance Monitoring  | Yes                      |
| Ground Fault Detection — NEC 690.5           | Yes                      |
| Anti-islanding Protection                    | Yes                      |
| PV DC Disconnect Switch — NEC 240.15         | Yes                      |
| Residual Current (RCD) Detection             | Yes                      |
| PV Rapid Shutdown Control (RSD) — NEC 690.12 | Yes                      |
| PV Arc Fault Detection (AFCI) — NEC 690.11   | Yes                      |
| Surge Protection Level                       | Type II(DC), Type II(AC) |

### INTERFACE

|                         |                            |
|-------------------------|----------------------------|
| Communication Interface | WIFI, RS485, CAN, Ethernet |
|-------------------------|----------------------------|

### GENERAL DATA

|                                |                       |
|--------------------------------|-----------------------|
| Operating Temperature          | -13 °F ~ 140 °F       |
| Permissible Ambient Humidity   | 0 - 100%              |
| Permissible Altitude           | 6561.68 ft            |
| Noise                          | ≤ 45 dB (A) (3.28 ft) |
| Ingress Protection (IP) Rating | IP65 / TYPE 3R        |
| Inverter Topology              | Non-Isolated          |
| Dimensions (HxWxD)             | 2.79' x 1.77' x 0.99' |
| Weight (lb)                    | 132 lb                |

### CERTIFICATIONS

|                             |                                                                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Certifications and Listings | UL1741-3rd & CSA C22.2 No.107.1-16, UL1998, UL1699B, IEEE1547-2018 & IEEE1547.1-2020, UL1741 SB, FCC 15 Part B, UL1741 CRD PCS, UL3141, CA Rule 21, HECO Rule 14H(SRD-V2.0) |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### WARRANTY

|          |           |
|----------|-----------|
| Warranty | 10 Years* |
|----------|-----------|

\* The ambient temperature during the operation of the products shall not fall below -13°F or exceed 140°F.  
Inverter need to connect to RCT power cloud and generation data been successfully uploaded to RCT power server.  
See the warranty document for specific test conditions.

# SOLARLINK LV SERIES



## SINGLE-PHASE HYBRID INVERTER FOR RESIDENTIAL AND COMMERCIAL PV SYSTEMS



high efficiency



back-up  
power supply



up to 2 roof  
orientations



modular space  
saving design



quick and easy  
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### HIGH EFFICIENCY

- Maximum 16 A DC input current per string
- Compatible with 650W+ PV module
- Dual MPPT input, more flexible configuration
- Shadow scan without optimizer

### FLEXIBLE AND CONVENIENT

- Peak shaving
- Multiple periods for battery charging/discharging
- Support both lithium-ion and lead-acid batteries

### SAFE AND RELIABLE

- UPS function to ensure stable operation of critical loads
- Switchover time less than 10 ms
- Support 2 times peak power for more energy
- Battery terminal temp protection

### SMART CONTROL

- Smart load control via dry contact
- Zero export with CT or Meter
- 24/7 Online Monitoring

| MODEL                                    | RHS3.0K<br>LH-EU                                                                                                                                                                              | RHS3.68K<br>LH-EU | RHS4.0K<br>LH-EU | RHS5.0K<br>LH-EU | RHS6.0K<br>LH-EU |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|------------------|------------------|
| PV INPUT                                 |                                                                                                                                                                                               |                   |                  |                  |                  |
| Max. Recommended DC Power [W]            | 6,000                                                                                                                                                                                         | 7,360             | 8,000            | 10,000           | 12,000           |
| Max. DC Voltage [V]                      | 600                                                                                                                                                                                           |                   |                  |                  |                  |
| Max. Input Current [A]                   | 16 / 16                                                                                                                                                                                       |                   |                  |                  |                  |
| Max. Short Circuit Current [A]           | 20 / 20                                                                                                                                                                                       |                   |                  |                  |                  |
| MPPT Voltage Range [V]                   | 80 - 550                                                                                                                                                                                      |                   |                  |                  |                  |
| Start-up Voltage [V]                     | 70                                                                                                                                                                                            |                   |                  |                  |                  |
| No. of MPP Trackers                      | 2                                                                                                                                                                                             |                   |                  |                  |                  |
| Strings Per MPP Tracker                  | 1                                                                                                                                                                                             |                   |                  |                  |                  |
| PV Over Management                       | 200%                                                                                                                                                                                          |                   |                  |                  |                  |
| BATTERY                                  |                                                                                                                                                                                               |                   |                  |                  |                  |
| Battery Type                             | Lithium-ion/Lead-Acid                                                                                                                                                                         |                   |                  |                  |                  |
| Rated Battery Voltage [V]                | 48                                                                                                                                                                                            |                   |                  |                  |                  |
| Battery Voltage [V]                      | 40 ~ 60                                                                                                                                                                                       |                   |                  |                  |                  |
| Max. Charge/ Discharge Current [A]       | 70 / 70                                                                                                                                                                                       | 70 / 70           | 80 / 80          | 120 / 120        | 120 / 120        |
| Communication Interface                  | RS485, CAN                                                                                                                                                                                    |                   |                  |                  |                  |
| Charging strategy for Li-ion battery     | Self Adaption to BMS                                                                                                                                                                          |                   |                  |                  |                  |
| Charging strategy for lead-acid battery  | 3 Stages Curve                                                                                                                                                                                |                   |                  |                  |                  |
| AC OUTPUT (On-Grid Side)                 |                                                                                                                                                                                               |                   |                  |                  |                  |
| Max. AC Output Apparent Power [VA]       | 3,300                                                                                                                                                                                         | 4,048             | 4,400            | 5,500            | 6,600            |
| Rated AC Output Power [W]                | 3,000                                                                                                                                                                                         | 3,680             | 4,000            | 5,000            | 6,000            |
| Max. AC Output Current [A]               | 14.3                                                                                                                                                                                          | 17.6              | 19.1             | 23.9             | 28.7             |
| Rated AC Output Current [A]              | 13                                                                                                                                                                                            | 16                | 17.4             | 21.7             | 26.1             |
| Max. AC Input Current [A]                | 28.7                                                                                                                                                                                          | 35.2              | 38.3             | 40               | 40               |
| Rated AC Voltage [V]                     | 220 / 230 / 240 V                                                                                                                                                                             |                   |                  |                  |                  |
| Grid Frequency [Hz]                      | 50 / 60                                                                                                                                                                                       |                   |                  |                  |                  |
| Adjustable Power Factor [cosφ]           | 0.8 ind - 0.8 cap                                                                                                                                                                             |                   |                  |                  |                  |
| Output THDi (@Rated Output)              | < 3%                                                                                                                                                                                          |                   |                  |                  |                  |
| AC OUTPUT (Back-Up)                      |                                                                                                                                                                                               |                   |                  |                  |                  |
| Rated Power [W]                          | 3,000                                                                                                                                                                                         | 3,680             | 4,000            | 5,000            | 6,000            |
| Peak Apparent Power for 10s [W]          | 6,000                                                                                                                                                                                         | 7,360             | 8,000            | 7,500            | 9,000            |
| Rated Voltage [V]                        | 230                                                                                                                                                                                           |                   |                  |                  |                  |
| Rated output current [A]                 | 13                                                                                                                                                                                            | 16                | 17.4             | 21.7             | 26.1             |
| Rated Frequency [Hz]                     | 50 / 60                                                                                                                                                                                       |                   |                  |                  |                  |
| Output THDv (@Rated Power)               | < 2%                                                                                                                                                                                          |                   |                  |                  |                  |
| Automatic Switch Time [ms]               | < 10                                                                                                                                                                                          |                   |                  |                  |                  |
| AC Grid Bypass                           | /                                                                                                                                                                                             |                   |                  |                  |                  |
| EFFICIENCY                               |                                                                                                                                                                                               |                   |                  |                  |                  |
| Max. Efficiency                          | 98.00%                                                                                                                                                                                        |                   |                  |                  |                  |
| Euro-Efficiency [%]                      | 97.60%                                                                                                                                                                                        |                   |                  |                  |                  |
| GENERAL DATA                             |                                                                                                                                                                                               |                   |                  |                  |                  |
| Dimensions (W*H*D) [mm]                  | 455 x 365 x 182                                                                                                                                                                               |                   |                  |                  |                  |
| Weight [kg]                              | 18.4                                                                                                                                                                                          |                   |                  |                  |                  |
| Communication with Meter                 | RS485                                                                                                                                                                                         |                   |                  |                  |                  |
| Communication with Cloud                 | RS485 / WIFI / 4G / LAN (option)                                                                                                                                                              |                   |                  |                  |                  |
| CT Connection Type                       | Plug-in Connector                                                                                                                                                                             |                   |                  |                  |                  |
| Battery Connection Type                  | Plug-in                                                                                                                                                                                       |                   |                  |                  |                  |
| PV Connection Type                       | MC4                                                                                                                                                                                           |                   |                  |                  |                  |
| AC Connection Type                       | OT Terminal + Shell                                                                                                                                                                           |                   |                  |                  |                  |
| Operating Ambient Temperature Range [°C] | -30 ~ +60                                                                                                                                                                                     |                   |                  |                  |                  |
| Relative Humidity                        | 0 ~ 100%                                                                                                                                                                                      |                   |                  |                  |                  |
| Operating Altitude [m]                   | 3000 m (> 3000m Derating)                                                                                                                                                                     |                   |                  |                  |                  |
| Topology                                 | Transformerless                                                                                                                                                                               |                   |                  |                  |                  |
| Cooling                                  | Natural                                                                                                                                                                                       |                   |                  |                  |                  |
| Ingress Protection                       | IP65                                                                                                                                                                                          |                   |                  |                  |                  |
| CERTIFICATIONS & STANDARDS               |                                                                                                                                                                                               |                   |                  |                  |                  |
| Grid Regulation                          | EU: EN50549-1, EN50549-10; SP: RD1699, RD661, RD413, RD244, UNE217001, UNE217002, NTS V2.1; IT: CEI 0-21; SA:NRS 097-2-1,INT: IEC61727, IEC62116, IEC61683, IEC60068-2-1/-2/-14/-30, IEC50530 |                   |                  |                  |                  |
| Safety                                   | IEC62109-1/-2, EN62109-1/-2                                                                                                                                                                   |                   |                  |                  |                  |
| EMC Regulation                           | IEC/EN 61000-6-1/-3, EN 62920, EN 55011                                                                                                                                                       |                   |                  |                  |                  |



**[www.rct-power.com.cn](http://www.rct-power.com.cn)**  
**[info@rct-power.com.cn](mailto:info@rct-power.com.cn)**