



# AC Coupled Inverter

Retro-3680/Retro-5000

The LIVOLTEK AC coupled inverter is a cost-efficient solution to upgrade any existing PV inverter system to the hybrid one by adding a backup battery. This battery-based inverter allows you to store the surplus power to maximize self-consumption and protects you from rising electricity costs to achieve both grid-tied benefits and off-grid independence. Along with its ability to address the large retrofit market of existing PV systems, it also makes innovative residential storage solutions available for homes without solar-powered, ensuring energy flexibility and uninterrupted power supply. In addition, you also get the added benefit of easy-to-install, reliable and user friendly.



## Features

- Quick and easy installation
- Extremely quiet
- Intelligent storage management
- Indoor or outdoor installation
- Integrated with existing PV inverters
- Smart energy monitor and control



Local and Remote Monitoring



Maximized Self-consumption



Easy and Economical Way to Retrofit



Flexible Schedule for Charging and Discharging

## Compatible Products



Grid Tied Inverter



Energy Storage Battery



PSD200-FI Dongle



Smart Meter



Monitoring System

## Specifications

| Model                        | Retro-3000                                      | Retro-3680 | Retro-4600 | Retro-5000 |
|------------------------------|---|------------|------------|------------|
| <b>AC Output @ Grid</b>      |   |            |            |            |
| Nominal AC Power             | 3000W   | 3680W      | 4600W      | 5000W      |
| Max. Apparent Output Power   | 3000VA  | 3680VA     | 4600VA     | 5000VA     |
| Nominal AC Voltage           | 220V/230V/240V                                  |            |            |            |
| Nominal AC Voltage Range     | 186V~290V                                       |            |            |            |
| Output Frequency             | 50Hz/60Hz ±5Hz                                  |            |            |            |
| Max. AC Current              | 13.0A   | 16.0A      | 20.0A      | 21.7A      |
| THDi, Rated Power            | <3%   |            |            |            |
| Power Factor                 | ~1 (Adjustable from 0.8 Leading to 0.8 Lagging) |            |            |            |
| <b>EPS Output @ Off Grid</b> |   |            |            |            |
| Nominal EPS Power            | 2000W   | 3680W      | 4600W      | 5000W      |
| EPS Peak Power               | 1.1 x Pnom, 10 sec; 1.5 x Pnom, 1 sec           |            |            |            |
| Nominal Output Voltage       | 220V/230V                                       |            |            |            |
| Nominal Frequency            | 50Hz/60Hz                                       |            |            |            |
| Nominal Output Current       | 13.0A   | 16.0A      | 20.0A      | 21.7A      |
| Waveform                     | Pure Sinusoidal Wave                            |            |            |            |
| THDv(@Liner Load)            | < 3%  |            |            |            |
| <b>Battery Data</b>          |   |            |            |            |
| Battery Type                 | Lead-acid/Lithium                               |            |            |            |
| Nominal Battery Voltage      | 48V   |            |            |            |
| Battery Voltage Range        | 40V-60V   |            |            |            |
| BMS Communication            | CAN   |            |            |            |
| Max.Charge/Discharge Current | 60A   | 80A        | 100A       | 100A       |
| Communication with BMS       | According to the BMS Directive                  |            |            |            |
| <b>Efficiency</b>            |   |            |            |            |
| Max. Charging Efficiency     | 94.6%   |            |            |            |
| Max. Discharging Efficiency  | 94.6%   |            |            |            |
| <b>General Data</b>          |   |            |            |            |
| Dimensions(W*H*D)            | 415*625*155mm                                   |            |            |            |
| Weight                       | 28.5kg  | 29kg       | 29kg       | 29kg       |
| Mounting Method              | Wall-mounting Bracket                           |            |            |            |
| Protection Rating            | IP65  |            |            |            |
| Cooling                      | Natural Convection                              |            |            |            |
| Operating Temperature Range  | -25 C~+60 C (>45 C Derating)                    |            |            |            |
| Max. Operating Altitude      | 2000m   |            |            |            |
| Noise                        | <25dB   |            |            |            |
| Relative Humidity            | 0~100%,No Condensation                          |            |            |            |
| Display                      | LED & APP                                       |            |            |            |
| Topology                     | Transformerless                                 |            |            |            |

Remarks: The range of output Voltage and frequency may vary depending upon different grid codes.