# Raython Model 1 & Model 2

## All-in-one Integrated System


• The Raython Model 1 and Model 2 systems are all-in-one standalone solar power systems. They are ideal solutions designed for holiday houses or single-family houses that have no access to the grid power and the users often use generators as their power supply. Featuring low pollution and low fuel consumption, they are also perfect solutions for people who pursue a more sustainable lifestyle.

• The Raython Model 1 and Model 2 systems are expertly assembled, tested and shipped as a complete system respectively, integrating a solar hybrid inverter (Model 1) or an inverter charger with an MPPT solar charge controller(Model 2), lithium battery modules, E4 LCD Monitor, and AC, DC and PV power distribution into one system. On arrival, Raython Model 1 and Model 2 systems are ready to install and the all-in-one design makes them easy to install and saves your precious time.

• Our Raython Model 1 and Model 2 Solar Systems are designed for applications with a daily power use from 10.08kWh-20.16kWh, to meet your different power need.


**Raython Model1 & Model 2**

RAYTHON MODEL 1

**5KW | 10.08kWh~20.16kWh**

RAYTHON MODEL 2

**8KW | 10.08kWh~20.16kWh**

# Raython Model 1

Off-grid System & Residential Energy Storage System

RAYTHON MODEL 1

**Lithium Battery Module**

48V 210Ah-420Ah

10.08kWh~20.16kWh

**E4 LCD Monitor**

For system local monitoring and control

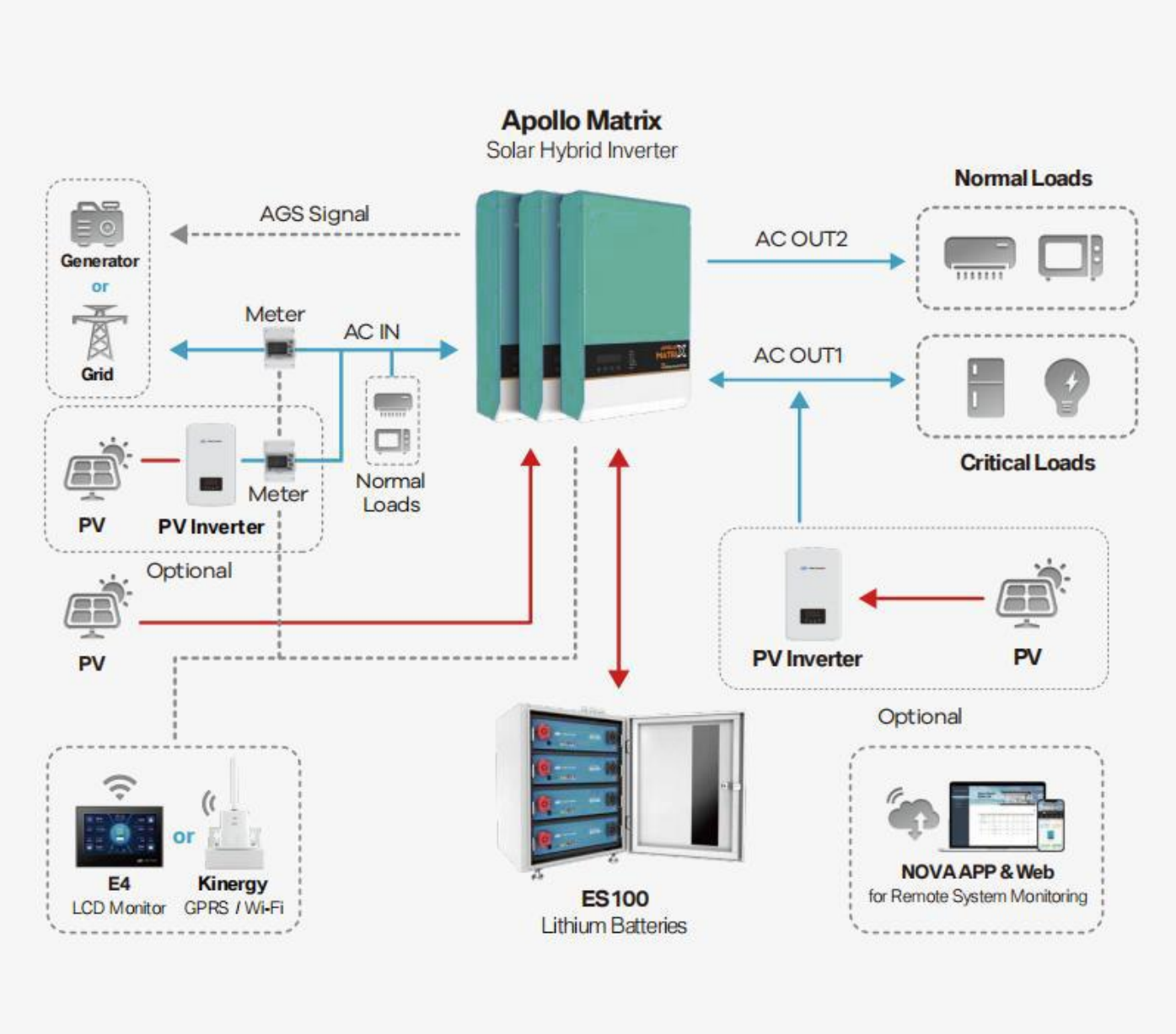
**Solar Hybrid Inverter Apollo Matrix 5.0S**

AC charger +Inverter+MPPT charger+AC transfer switch (50A)

Max output power 5000W

**AC+DC+PV Distribution**

# Raython Model 1 Off-grid & ESS Diagram




## Raython Model 1 Specifications

| Model | Raython Model 1 |
|---|---|
| **AC input** | |
| Generator compatible | Yes |
| AC input voltage range (VAC) | 175~265 |
| AC input frequency range (Hz) | 45~65 |
| AC input current (transfer switch) (A) | 50 |
| **Inverter** | |
| Product topology | Transformer based |
| Nominal battery voltage (VDC) | 48VDC |
| Input voltage range (VDC) | 42~68 |

| | |
|---|---|
| AC output voltage (VAC) | 220/230/240±2% |
| AC output frequency (Hz) | 50/60±0.1% |
| Harmonic distortion | ＜2% |
| Load power factor | 1.0 |
| Max output power at 25℃ (W) | 5000 |
| Cont output power at 25℃ (W) | 5000 |
| Peak power (10 sec)(W) | 8000 |
| Surge | 300% |
| Maximum efficiency | 96% |
| Zero Load Power (W) | 21 |
| Max AC charge current (A) | 70 |
| Main output (AC Out1) Current (A) | 50 |
| Transfer time | ＜2ms (＜15ms in Weak AC source Mode) |
| **MPPT Charger** | |
| Max output current (A) | 90 |
| Maximum PV power (W) | 6000 |
| PV open circuit voltage (V) | 150 |
| Maximum PV short circuit current (A) | 60 |
| MPPT voltage range (V) | 65~145 |
| MPPT charger maximum efficiency | 98% |
| MPPT efficiency | ＞99.5% |
| **Battery Parameter** | |
| Battery type | LiFePO4 Li-ion battery |
| Nominal energy capacity | 10.08kWh-20.16kWh |
| **General data** | |
| General purpose com. port | GPRS/Wi-Fi optional with Kinergy |
| Operating temperature range | Invert:-20℃ to 65℃/<br>Battery: discharge-20℃ to 55℃,<br>charge: 0℃ to 40℃ |
| Relative humidity in operation | 95% without condensation |
| Altitude (m) | 2000 |
| **Mechanical data** | |
| Dimension (mm)(max) | W*D*H(mm) 600*700*1100 |
| Net weight (kg) | 200kg (Estimated) |
| Cooling | Forced fan |
| Protection index | IP54 |
| **Standards** | |
| Safety | EN-IEC 62477-1, EN-IEC 62109-1,EN-IEC 62109-2 |
| EMC | EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-3-11, EN61000-3-12 |

| | |
|---|---|
| Grid Code | NRS 097-2-1:2017 |