

# C&I ENERGY STORAGE SYSTEM



## Integrated Solar-Storage-Diesel System

Multi-channel PV MPPT access, with integrated battery and diesel engine interface



## High-Reliability Backup Power

Fast grid-tied/off-grid switching within 20ms, transitioning from grid to battery to supply sensitive loads



## Long Lifespan

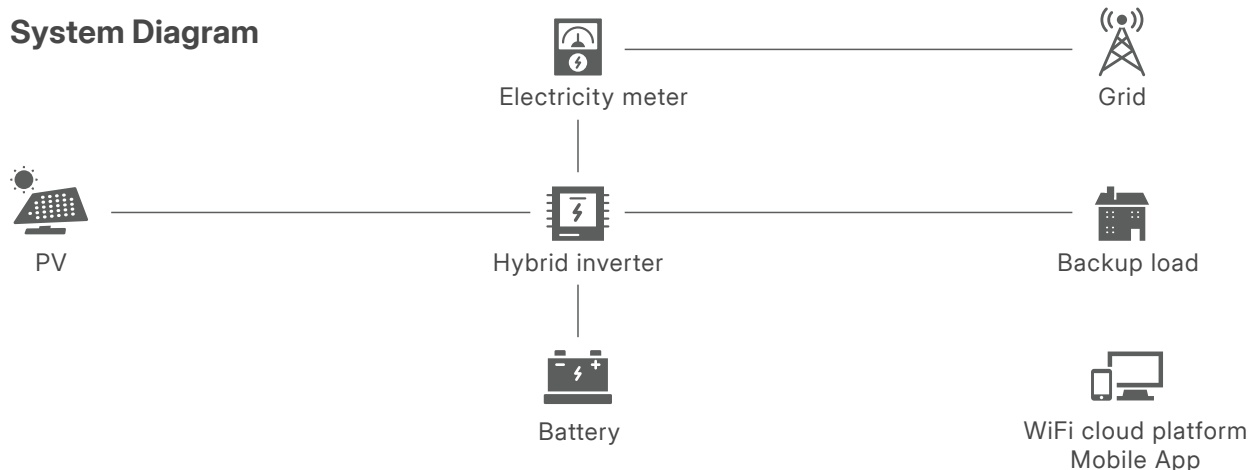
Utilizes large-capacity, high-cycle-life battery cells, supporting long-term stable operation



## High Protection

Supports use in harsh outdoor environments

### System Diagram



| Product Model                           | MorphC-30kW/<br>96kWh                             | MorphC-50kW/<br>120kWh | MorphC-50kW/<br>144kWh | MorphC-50kW/<br>168kWh |
|-----------------------------------------|---------------------------------------------------|------------------------|------------------------|------------------------|
| General parameter                       |                                                   |                        |                        |                        |
| Rated output power                      | 30kW                                              | 50kW                   | 50kW                   | 50kW                   |
| Rated energy                            | 96kWh                                             | 120kWh                 | 144kWh                 | 168kWh                 |
| Weight                                  | ~1.3t                                             | ~1.5t                  | ~1.7t                  | ~1.9t                  |
| Temperature range                       | -30°C~+55°C (Derating Below - 15°C or above 45°C) |                        |                        |                        |
| Humidity range                          | 0~95% (No condensation)                           |                        |                        |                        |
| Cooling type                            | Air cooling                                       |                        |                        |                        |
| Maximum working altitude                | 3000 m (> 2000 m Derating)                        |                        |                        |                        |
| Noise                                   | ≤75dB                                             |                        |                        |                        |
| Ingress protection rating               | IP55                                              |                        |                        |                        |
| Fire fighting                           | Aerosol                                           |                        |                        |                        |
| Warranty                                | 5 years                                           |                        |                        |                        |
| Dimension (W×D×H)                       | 850×1250×2250 mm                                  |                        |                        |                        |
| Battery parameters                      |                                                   |                        |                        |                        |
| Rated energy                            | 96kWh                                             | 120kWh                 | 144kWh                 | 168kWh                 |
| Rated voltage                           | DC307.2                                           | DC384V                 | DC460.8                | DC537.6                |
| Voltage range                           | DC268.8~DC345.6V                                  | DC336~DC432V           | DC403.2~DC518.4V       | DC470.4V~604.8V        |
| Rated Charge/Discharge rate             | 0.5C                                              |                        |                        |                        |
| Cycle life                              | 8000cycles (25°C±2°C, 0.5C, 80%DOD, 70%EOL)       |                        |                        |                        |
| Hybrid parameters (Grid side)           |                                                   |                        |                        |                        |
| Rated grid voltage                      | 3/N/PE, 230V/400V                                 |                        |                        |                        |
| Power factor                            | -1~1                                              |                        |                        |                        |
| On/Off grid switching time              | < 20ms                                            |                        |                        |                        |
| Rated grid frequency                    | 50Hz / 60Hz                                       |                        |                        |                        |
| Hybrid parameters (PV side)             |                                                   |                        |                        |                        |
| PV side voltage range                   | 150 V - 850 V                                     |                        |                        |                        |
| DC maximum current                      | 3*40A                                             | 4*40A                  | 4*40A                  | 4*40A                  |
| DC maximum power                        | 60kW                                              | 96kW                   | 96kW                   | 96kW                   |
| MPPT quantity/<br>Maximum Input Strings | 3/6                                               | 4/8                    | 4/8                    | 4/8                    |