

# Sentinel C&I All-in-One ESS

(50kW / 100kWh)



## Model

Sentinel 100



### Integrated All-in-One System

50 kW / 100 kWh Rated Capacity  
Single Cabinet Design



### UPS-Grade Power Continuity

<10ms Transfer Time  
UPS Tier-3 standards



### Ultra-Compact Footprint

≤2 m<sup>2</sup> Installation Area  
25 kW/m<sup>2</sup> Power Density



### Flexible Scalability

Up to 10 Units Parallel  
500 kW / 960 kWh System



### High System Efficiency

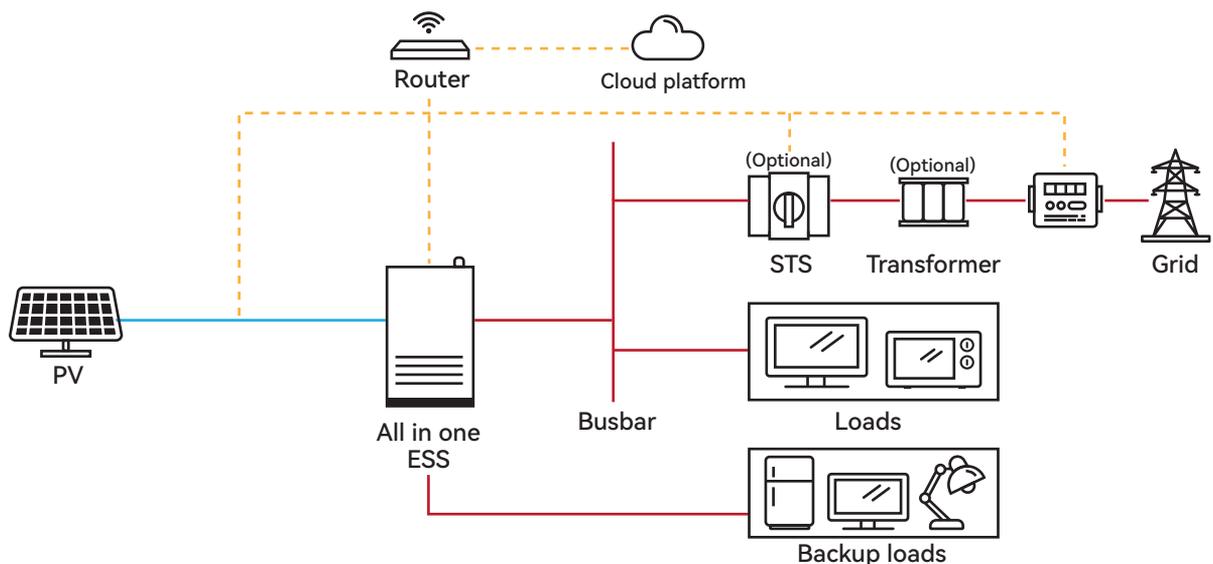
98.2% Peak Efficiency  
97.1% European Efficiency



### High-Safety LFP Battery

Single-String Architecture  
Precision HVAC Cooling

## System Connection Illustration (For Reference)



Model	Sentinal 100
<b>DC Side</b>	
Max. DC Input Voltage	1000 V
MPPT Voltage Range	180 – 900 V
Number of MPPTs	4
Max. Input Current (per MPPT)	36 A
<b>AC Output (On-Grid)</b>	
Rated AC Power	50 kW
Max. Apparent Power	55 kVA
Rated Grid Voltage	3L / N / PE, 380 / 400 V
Rated Grid Frequency	50 / 60 Hz
Rated Output Current	79 A
Power Factor	>0.99 (adjustable 0.8 leading ... 0.8 lagging)
Total Harmonic Distortion (THDi)	<3%
<b>AC Output (On-Grid)</b>	
Max. Bypass Current	87 A
Rated Input Voltage	3L / N / PE, 380 / 400 V
Rated Frequency	50 / 60 Hz
<b>Generator Input</b>	
Max. Input Power	50 kW
Rated Input Current	79 A
Rated Voltage	3L / N / PE, 380 / 400 V
Rated Frequency	50 / 60 Hz
<b>EPS Output (Off-Grid)</b>	
Rated Output Power	50 kW
Max. Apparent Power / Peak	75 kW / 10 s
Grid / Off-Grid Transfer Time	<10 ms
Rated Voltage	3L / N / PE, 380 / 400 V
Rated Frequency	50 / 60 Hz
Rated Output Current	79 A
<b>System</b>	
Max. System / PCS Efficiency	98.20%
European Efficiency	97.10%
<b>Battery</b>	
Cell Type	LFP, 3.2 V 314 Ah
Battery Configuration	96S1P
Rated Battery Voltage	307.2 V
Rated Energy	96.6 kWh (314 Ah @ 307.2 V)
Operating Voltage Range	249.6 – 350.4 V
Charge / Discharge Rate	0.5 C
<b>System</b>	
Protection Rating	IP55
Dimensions (W × D × H)	1125 × 1270 × 2080 mm (±10 mm)
Weight	1200 ± 20 kg
Communication	RS485, WiFi / BLE
Cooling Method	Air-conditioned cooling
Operating Temperature	-20 to 50 °C (derating >45 °C)
Relative Humidity	0 – 95% (non-condensing)
Max. Altitude	<4000 m
Expansion	Off-grid: Up to 10 units    On-grid: greater capacity achievable
<b>Certifications</b>	
Safety / EMC	IEC 62619 / IEC 63056 / CE-EMC / CE-LVD / UN38.3 / IP tests
Grid Codes	CEI 0-21 / NRS097-2-1:2017 / VDE-AR-N 4105:2018 / COC 3310-2014

All specifications are for reference only. Dimensions and weight are approximate and subject to change as product design is finalized.