

**Powercity**

One Cabinet , One Micro-Grid

STAR Q | 50 kW/ 109kWh

PV+Diesel Generator

All-in-One

On/Off-Grid Operation



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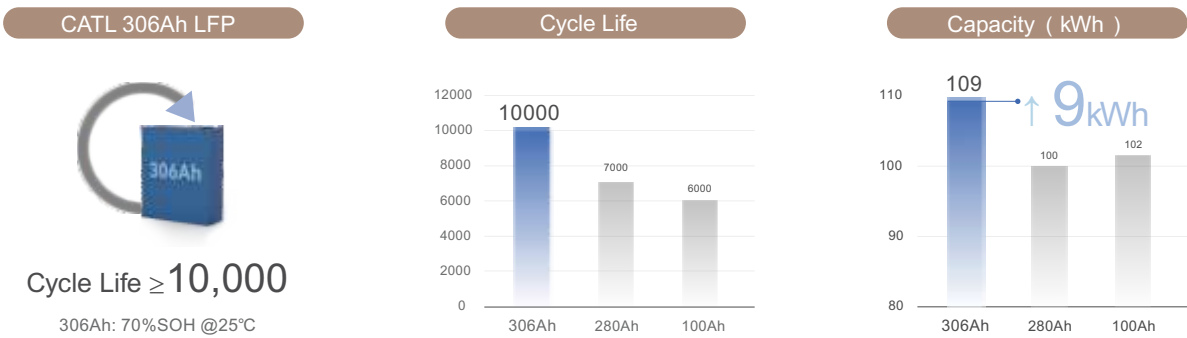
# STAR Q Product Advantages



## Seamless On/Off-Grid, One Cabinet Forms a Micro-Grid

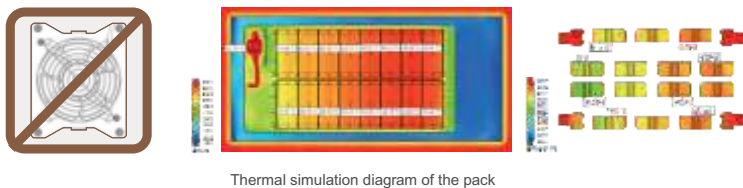
- Pure off-grid, Power 10 families a day**  
\*At 10 kWh/d/family (estimated)
- Adopt the hybrid inverter**  
 Supports access of multi-power sources: Diesel generator, PV, Grid...
- 0.02s On/Off-Grid switch**  
 Uninterrupted Power, always on

## CATL 306Ah LFP Battery Cell | Service Life ≥ 15years



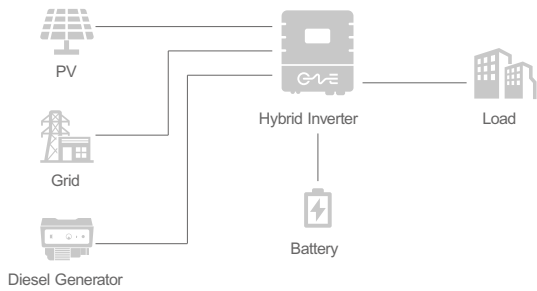
## Patented Self-Cooling Rack, Lifecycle Maintenance-Free

- Air-fin patent, even heat spread
- Fanless, quieter
- IP67 Sealed Protection  
Fully isolate condensate water, dust, etc.



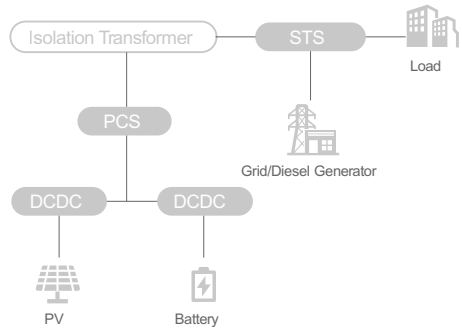
## Higher Efficiency , ↓ 70% Fuel Costs

CNTE PV+Diesel Generator+ESS Solution



More Concise Architecture      Optimize Power Quality  
 ↑ 8% Power Generation Efficiency      ↓ 70% fuel cost

PCS+DCDC Solution



× Complex Architecture  
 × Efficiency Loss

Support 6 AC in Parallel  
 Up to 10 Cabinets Expandable



All-in-One

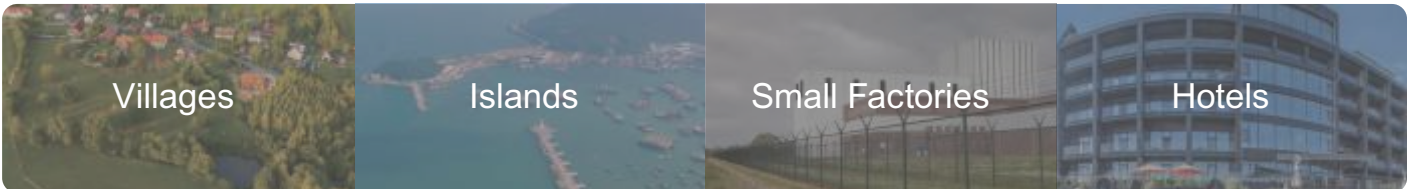
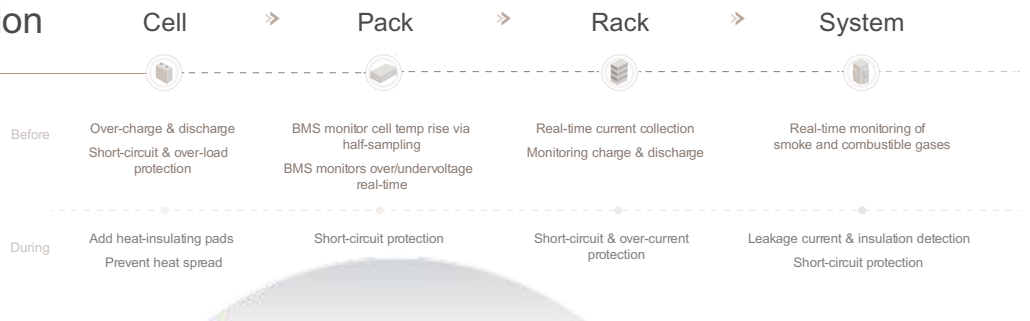
Pre-installation/debugging  
 Ready For Use  
 Easy Install, Flexible Deployment

🛡️  
 Insulation Detection at start up  
 Leakage Current Detection in operation

### Quadruple Protection

Fire-fighting accessories:

- Aerosol      sensors
- Pressure/Explosion relief
- Water Firefighting



# STAR Q Product Specifications



PRODUCT MODEL	STAR Q
<b>BATTERY SPECIFICATIONS</b>	
Battery Type	LFP
Battery Model	306Ah
Energy Capacity	109kWh
Cycle Life ( @25°C , 0.5P )	≥10000
P-rate	≤0.5P
Battery Compartment Ingress Protection	IP67
<b>AC Output (ON/OFF-GRID)</b>	
Rated output power	50kW
Rated Input Voltage (3L/N/PE)	380/400Vac
Rated Frequency	50/60Hz
THDi	< 3%
THDu	< 3%
<b>PV INPUT</b>	
MPPT Voltage Range	150 ~ 850Vdc
Maximun Input Power of PV	96kW
MPPT channels/Strings per MPPT channel	4/2
Max Input Current	40/40/40/40A
<b>GENERAL SPECIFICATIONS</b>	
On/Off-Grid Switching Time	< 20ms
Cooling Method	Air Cooling
Operating Temperature Range	-25 ~ 55°C
Relative Humidity	0 ~ 95% (Non-condensation)
Operating Altitude	≤4000m (> 2000m derating)
Ingress Protection	IP54
Dimension (W×D×H)	1272×1356.8×2070mm
Weight	≈1.8T
Compliance	EN 50549-1、EN50549-10、VDE-AR-N 4105、NRS 097-2-1、IEC 61000、IEC 62477、IEC 62619、IEC62109、UN38.3