

Air-Cooled 64–144 kWh

All-in-One Energy Storage System

For light commercial facilities and large estates



H64-32L → H144-60L

Integrating a hybrid inverter (PCS, STS, ATS, BMS, and EMS) in a single compact cabinet, the HELZ 64–144 kWh all-in-one energy storage system eliminates the complexity of multi-vendor integration. Built for light commercial facilities and large estates, it delivers reliable backup power for heavy loads — install in hours, not weeks.

64–144 kWh **30–60 kW**
RATED CAPACITY RATED POWER

0.5P **400 Vac**
CHARGE / DISCHARGE RATE RATED VOLTAGE

KEY FEATURES

✓ **Hybrid Inverter Integrated**

Hybrid inverter built into the cabinet: grid, load, PV and diesel-generator ports in one unit, with 150–950 V MPPT for direct PV connection.

✓ **Flexible Configuration**

64–144 kWh across six models (H64-32L → H144-60L), scalable as loads grow with dynamic capacity expansion.

✓ **Superior Safety**

LFP cells with built-in fire suppression and multi-level BMS protection; IP54 enclosure for harsh site environments.

✓ **Easy Set-up & Maintenance**

Fully integrated air-cooled cabinet: single-cabinet delivery, fast commissioning and simple routine maintenance.

APPLICATION SCENARIOS

Self-Consumption · Peak Shaving and Valley Filling · Demand Management · Dynamic Capacity Expansion · Microgrid

TECHNICAL SPECIFICATION

Parameter	H64-32L	H80-40L	H96-48L	H112-56L	H128-60L	H144-60L
DC Battery						
Cell Type	LFP 3.2 V / 314 Ah					
Rated Capacity	64 kWh	80 kWh	96 kWh	112 kWh	128 kWh	144 kWh
DC Rated Voltage	DC 204 V	DC 256 V	DC 307 V	DC 358 V	DC 409 V	DC 460 V
Battery Voltage Range	DC 160–233 V	DC 200–292 V	DC 240–350 V	DC 280–408 V	DC 320–467 V	DC 360–525 V
Max Charge/Discharge Current	200 A					
Charge/Discharge Rate	0.5P					
Grid Port (AC)						
Rated Power	30 kW	40 kW	48 kW	56 kW	60 kW	60 kW
Rated Current	43.5 A	58 A	69 A	80 A	86 A	86 A
Rated Voltage	400 VAC					

Parameter	H64-32L	H80-40L	H96-48L	H112-56L	H128-60L	H144-60L
Connection	3P+N+PE					
Grid Voltage Range	-15% ~ +15%					
Frequency	50 / 60 Hz					
THDi	< 3% (linear load < 1.5%)					
Power Factor	1 leading ~ 1 lagging (configurable)					
Load Port (AC)						
Rated Power	30 kW	40 kW	48 kW	56 kW	60 kW	60 kW
Rated Current	43.5 A	58 A	69 A	80 A	86 A	86 A
Rated Voltage	400 VAC					
Connection	3P+N+PE					
Frequency	50 / 60 Hz					
THDu	< 3% @ linear load					
Grid/Off-Grid Switching Time	≤ 10 ms					
PV Port						
Max Power	64 kW	80 kW	96 kW	102 kW	108 kW	108 kW
PV Max Open-Circuit Voltage	1000 V					
MPPT Voltage Range	150 – 950 V					
Start-up Voltage	180 V					
Number of PV Inputs	4 channels × 2					
Max PV Current	40 A × 4					
Short-Circuit Current	60 A × 4					
Diesel Generator Port						
Rated Power	30 kW	40 kW	48 kW	56 kW	60 kW	60 kW
Rated Voltage	400 VAC					
Connection	3P+N+PE					
System						
Dimensions (W×D×H)	1170 × 1230 × 1870 mm					
Weight	1180±50 kg	1290±50 kg	1400±50 kg	1510±50 kg	1620±50 kg	1730±50 kg
Cycle Life	8,000					
Protection Rating	IP54					
Cooling Method	Air-cooled					
Fire Suppression	Fully automatic (Aerosol)					
Communication	Ethernet / RS485 / CAN					
Operating Temperature	-15 °C ~ 45 °C					
Operating Altitude	4000 m (derated above 2000 m)					

Six models from H64-32L to H144-60L — per-model datasheet available on request. Specifications are subject to change without notice.