Battery-Diesel Hybrid Series
H-Cube

All in One Energy Storage System

Dowell Technology Co. Ltd.

Highly Integrated

Convenient storage and transportation

Excellent Performance

High ROI and quick payback

Easy Operation

Simple operation and easy maintenance

Multi-scenario Application

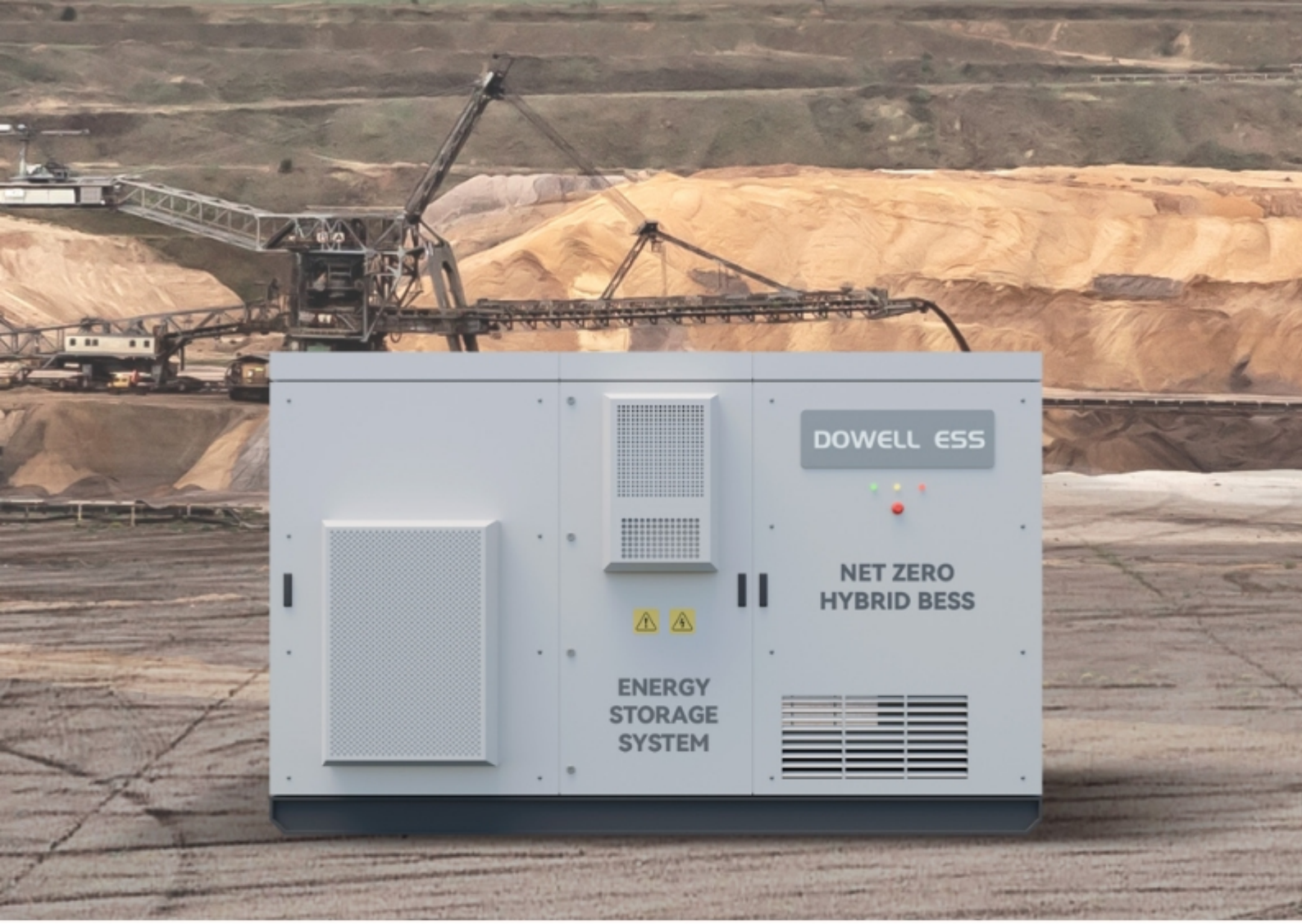
Power and capacity can be expanded and customized

Expert for Rental

Very suitable for rental use in construction sites, mines, etc.

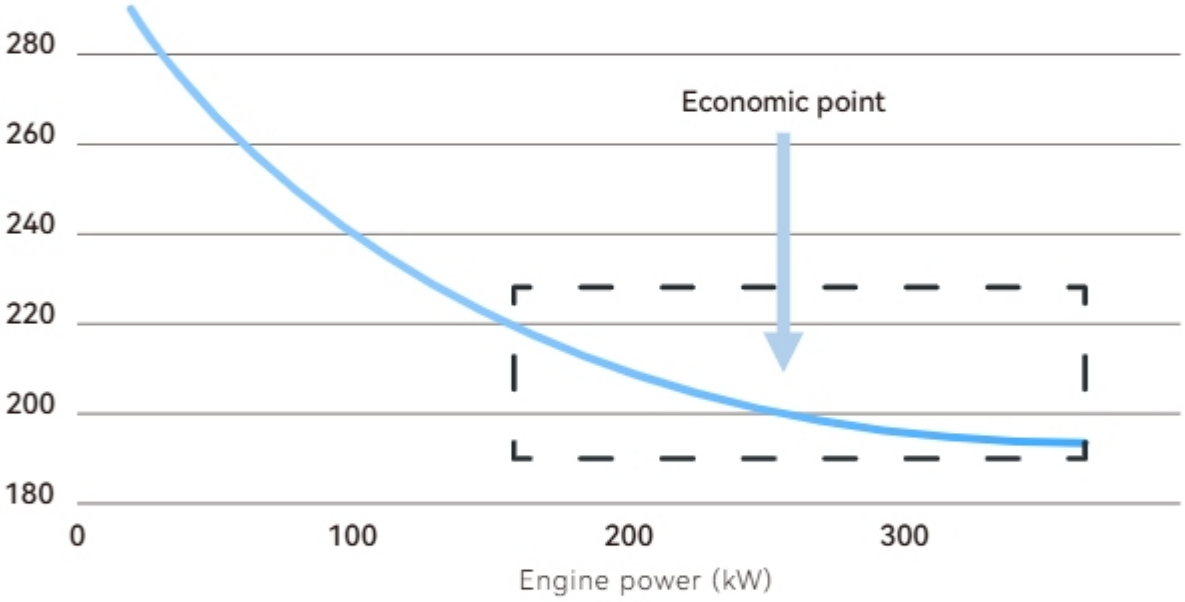
Worry-free Warranty

Battery: 4000 cycles (80% DOD) or 2 years after manufacture; Generator: 18 months after manufacture or 1500 hours running time



H-Cube Series is a new range of safe integrated hybrid energy storage system. It has the option of diesel generator, battery storage and hybrid solar inverter in one safe unit. H-Cube Series has been developed primarily to reduce emissions, reduce reliance on mains power and lower consumption costs.

Saving Up To 30% In Fuel Consumption

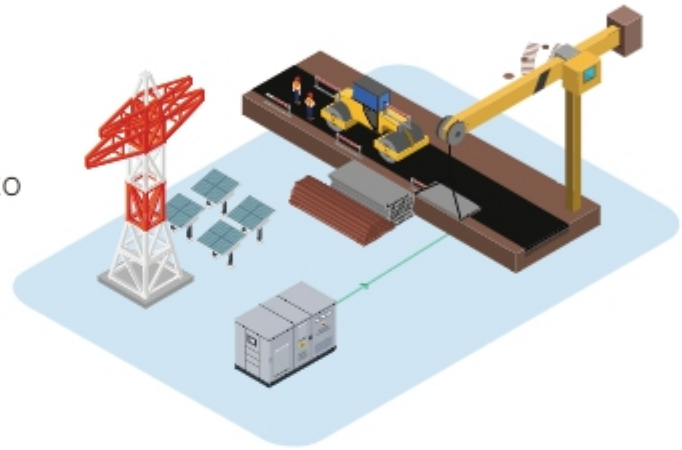


Through the engine + motor control + PCS main core control algorithm and dispatch management strategy, the on-load operating efficiency of the DC generator set is optimized, the fuel consumption of the generator set is reduced, and the cost of power supply is saved, achieving up to 30% more oil consumption save.

Two Working Modes

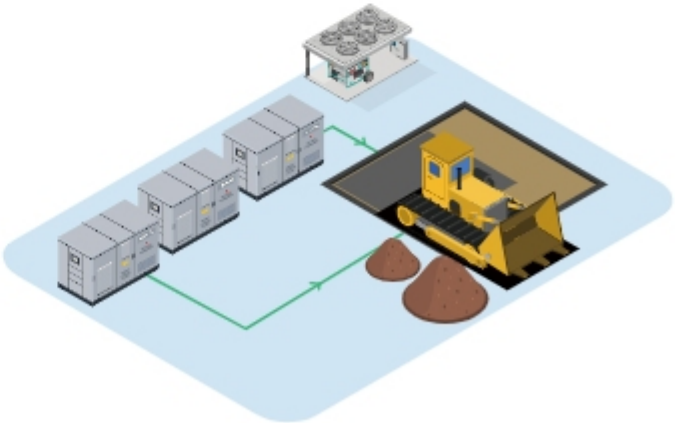
Hybrid Mode

The DC generator system and battery storage system are set up to work together to supply power to the load. Suitable for application requiring high loads and extended power supply time.



Battery-first Mode

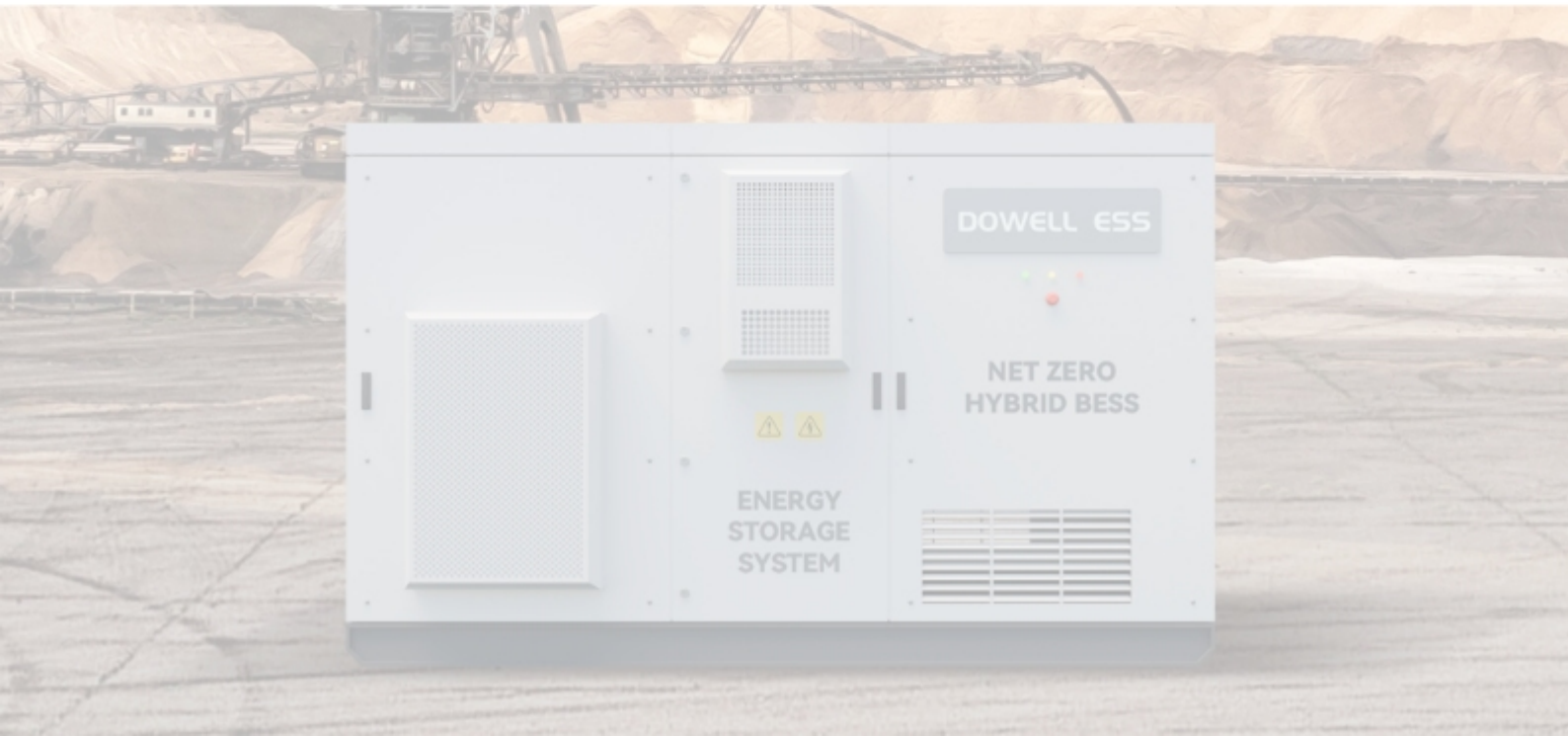
When multiple units are running in parallel, intelligent control start-stop technology is used to prioritize the operation of the battery storage system to provide load, and evaluate whether to start the DC generator system based on the load capacity.

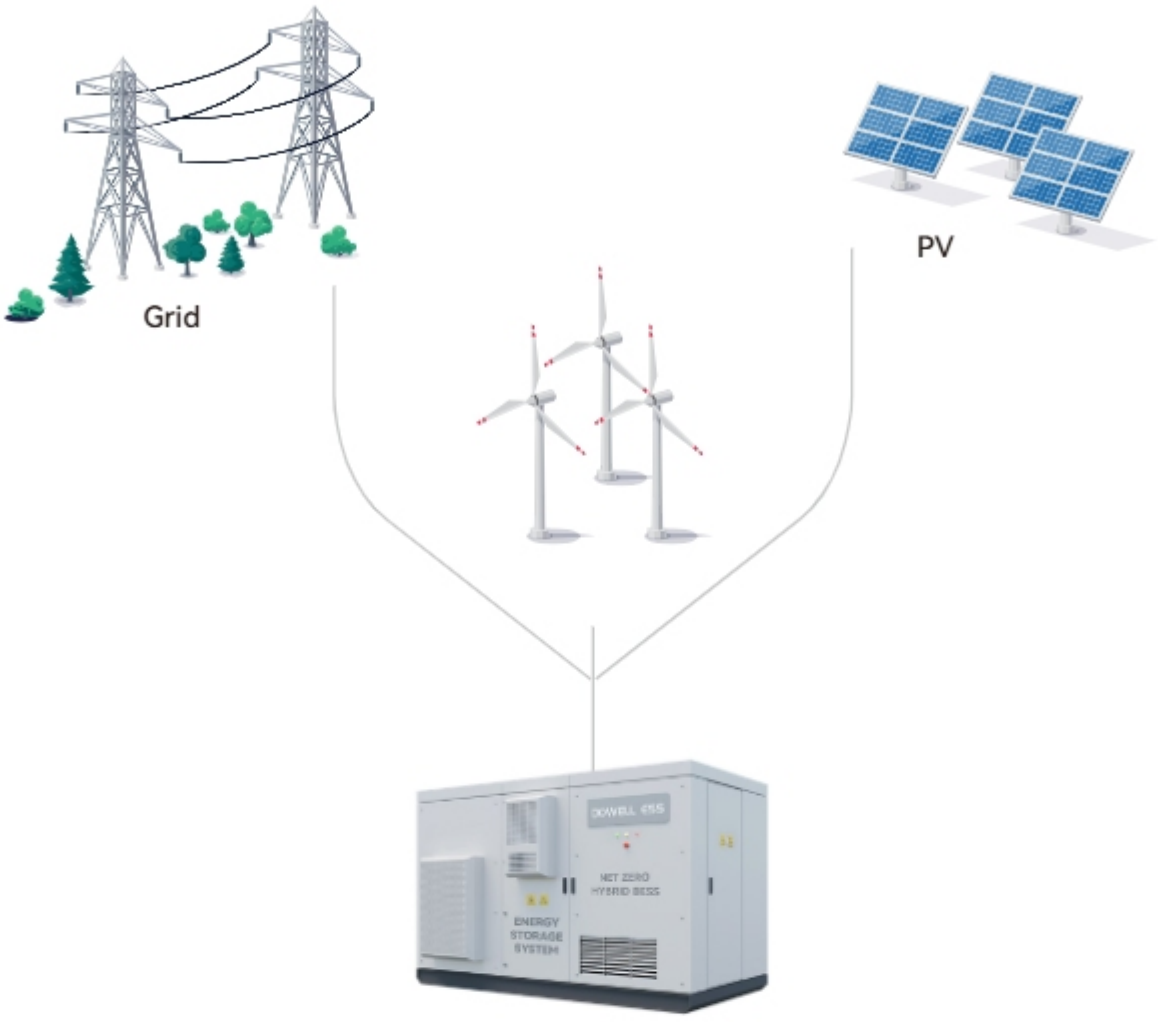


Wind + Solar + Diesel + BESS + Grid
Complementary Solutions

Through battery storage adjustment, unit operation management, and real-time monitoring, the whole system has high power supply reliability.

Equipped with an battery storage system, it can participate in peak-valley adjustment to earn electricity income when used in non-island applications.




Grid
PV
All in One
Energy Storage System
Infrastructure
Industrial
Residential
EV Charging
Station
Load Shifting
Off-Grid
Power Supply
Backup Power

H-Cube Series integrates battery, genset, EMS and PCS, provide a powerful and effective solution to help operators prioritize power according to different load demands and operate critical loads and other loads independently.

From generating and absorbing power to regulating active and reactive power quality, H-Cube series can play multiple roles in microgrids, such as primary power supply and backup power supply.

It is perfectly compatible with solar energy and wind turbine, can be used both on-grid and off-grid.

Industrial Manufacturing

Mining Operations

Public Sectors

Communities

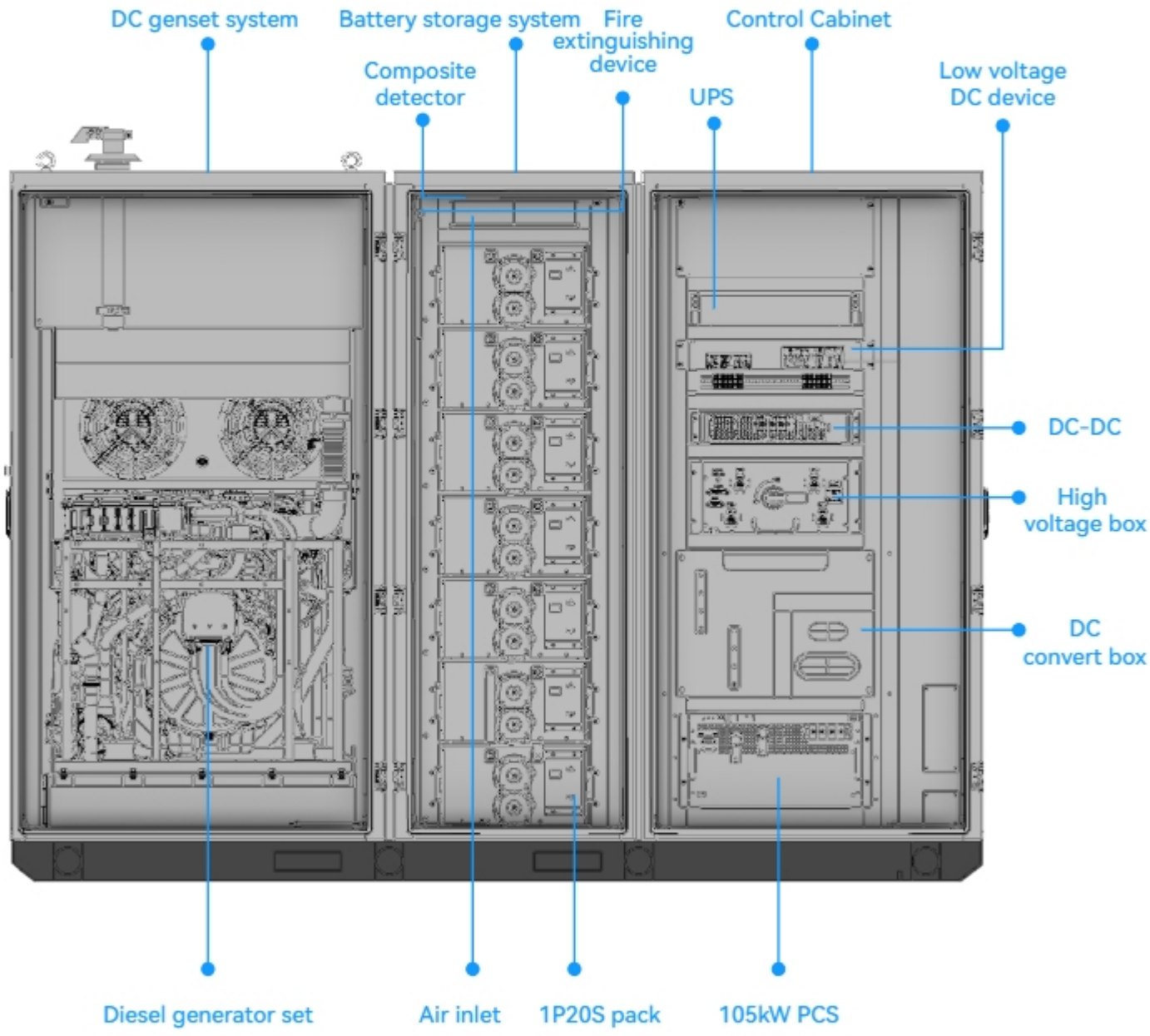
Grid Services

Independent Power Providers

Remote Communities

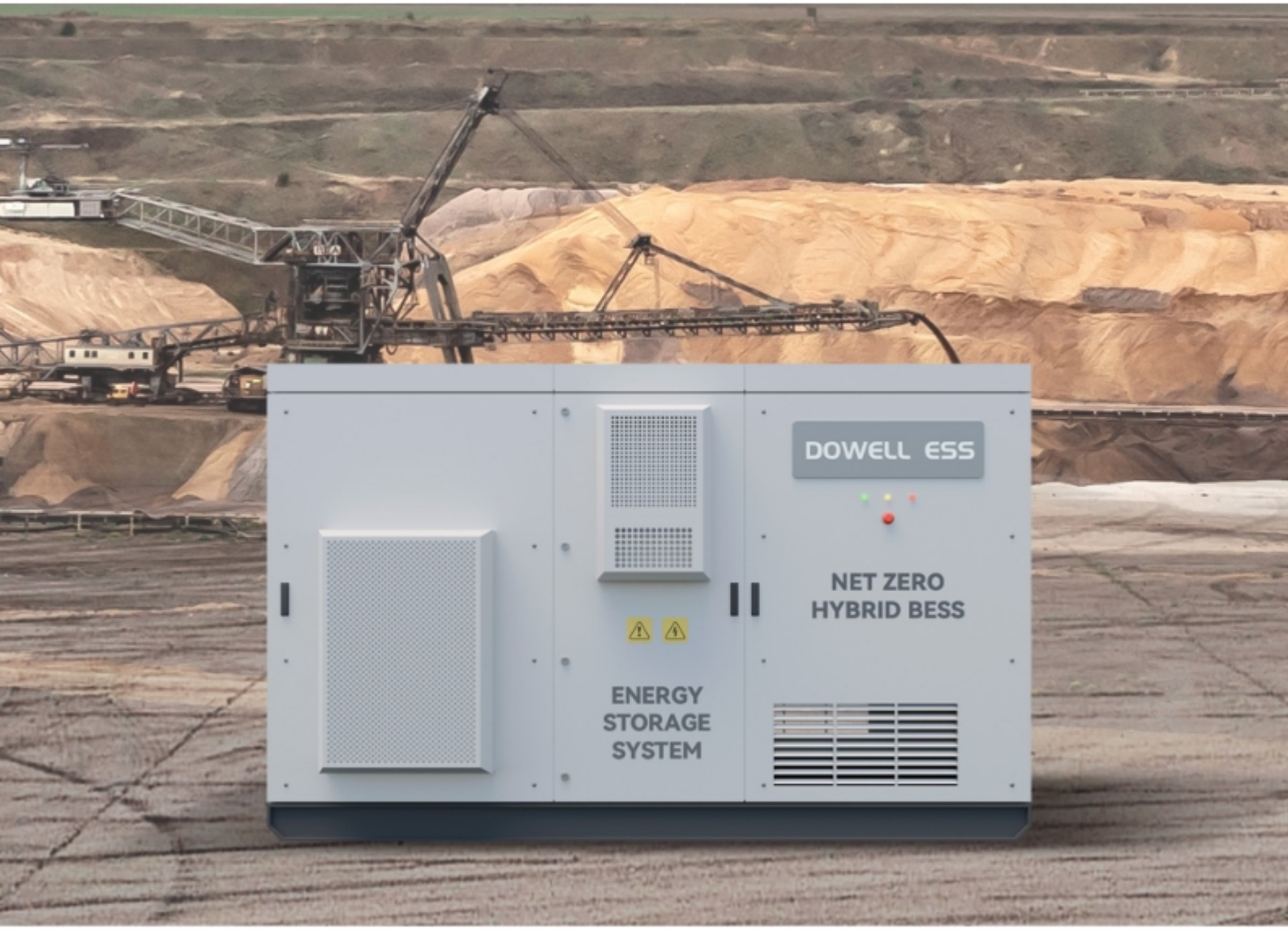
EV Charging

System Composition



H-Cube Technical Parameters

Battery Storage System									
Battery Type	LFP								
Cell	3.2V/280Ah								
Rated Current	140A0.5C								
PACK Configuration	1P20S								
RACK Configuration	1P140S						1P240S		
Battery Configuration	1P140S	2×1P140S	3×1P140S	4×1P140S	5×1P140S	6×1P140S	1P240S	2*1P240S	5*1P240S
Voltage Range	392-504Vdc						672-864Vdc		
Battery Capacity(kWh)	120	240	360	480	600	720	215.04	430.08	1075.2
Rated Power(kW)	60	120	180	240	300	360	105	210	500
Peak Power(kW)	60	120	180	240	300	360	115	230	500
DC Genset System									
Rated Power(kW)	60	120	180	240	300	360	100	200	400
Standby Power(kW	65	130	195	260	325	390	122	210	500
Continuous Power(kW)	60	120	180	240	300	360	93	147	300
DC Genset Qty(Set)	1	2	3	4	5	6	1	1	1
Max EfficiencykWh/L	4.06						4.19	4.24	4.42
Cylinders Qty - bore × strokemm	4-85×104						4-108×132	6-110×132	4-141×170
Exhaust VolumeL	2.36						4.837	17.5	15.93
Motor Type	Permanent magnet synchronous motor								
Working Voltage(Vdc)	576/400720								
Motor Rated Power/Speed(kW/rpm)	65/2100						100/1705	200/1600	421/1500
Motor Peak Power/Speed(kW/rpm)	80 /(21003000						135/(17053000)	240/(16002500)	500/(1500~2500)
Motor Max Speed(rpm)	3000						3000	2500	2500
Motor Protection Level	IP67								
Cooling Method	Liquid-cooling								
Rated/Max Capacity(kVA)	85/170						100/200	200/400	500/600
Motor Controller Protection Level	IP67								
Whole System									
Rated Power(kW)	105	210	315	420	525	630	105	200	500
Continuous Power(kW)	105	210	315	420	525	630	115	200	500
Peak Power(kW)	115	230	345	460	575	690	115	220	500
Bidirectional DC/DC Conversion Module	YES								
Rated Output Voltage	DC600/720Vdc AC380/400Vac								
Rated AC Output Frequency(Hz)	50								
Rated AC Output Current(A)	152						174A	303A	760A
Wiring Method	3P+PE/3P+N+PE								
On-grid/off-grid switching	Optional						/		
Controller & Communication Port	Total 2 sets/ RS485CANETH4G								
Working Temperature	0℃45℃								
Storage Temperature	-20℃55℃								
Working Humidity	095%								
System Noise	≤75dB								
Protection Level	IP54								



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