

iCube-M Hybrid BESS

PV Connected Available

Diesel Generator Connected Available

iCube-M is an intelligent and modular energy storage system that integrates lithium batteries and multifunctional bidirectional PCSs.

iCube-M 50/75

iCube-M 100/150

iCube-M 150/225

iCube-M 200/300



iCube-M Hybrid BESS

Compact & Scalable

iCube-M parallelling provides enhanced flexibility and scalability. Standard size of 10/20-foot container design can be connected together to deliver a higher AC output power with higher energy capacity. Communication between them is set so that the output power required is shared and evenly distributed.

Core Advantages



Fully electric

Resulting in zero tailpipe emissions and a lower carbon footprint.



Engineered for safety

- Advanced string design between PCS and battery pack to prevent circulation and improve system reliability;
- BMS and AC/DC equip multi-layer protection to make the system safer;
- Eliminates diesel fire hazards and handling risks like spillage;
- Reduce health and safety risks to site staff.



Multiple working modes

- Hybrid mode: PV and Diesel generators can be directly connected
- Islanding mode
- Microgrid mode
- On-grid mode



Plug & Play

- One-key power switch enables quick and convenient operation;
- Integrated design, can be fixed or mounted on a vehicle, and easy to move.



Rugged & Robust

- Designed for challenging environments;
- Designed to withstand harsh industrial environments.



Full visibility with DowellCloud

- Gain real-time insights through remote monitoring, equipment management, and data analytics to meet the unique needs of industrial sites.



Improved economy

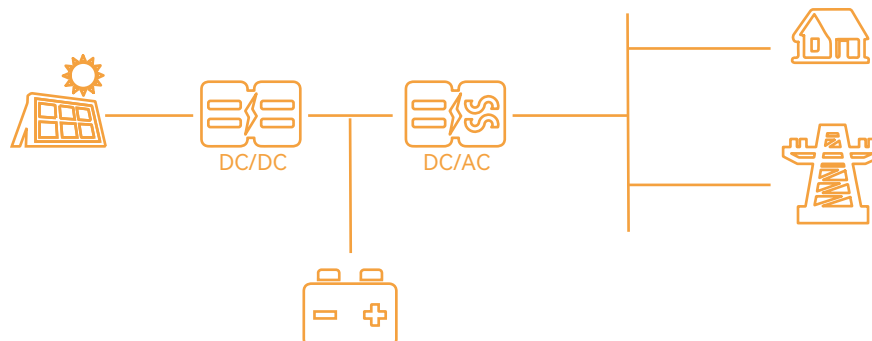
- Significantly reduced gas/diesel consumption up to 80% per day;
- Almost zero maintenance.



Support & Service

- Dowell team can monitor any issues remotely;
- Fast and professional service team provides you with on-site support.

Topology map



DowellCloud

Real-time data and remote monitoring at your fingertips

iCube-M's built-in DowellCloud brings you closer to your energy consumption data so you can achieve your business goals, such as optimizing operations or cutting costs.

- 24/7 real-time data insights and analytics. DowellCloud enables you to monitor all your devices anytime and anywhere.
- The energy Cloud platform automatically calculates how much energy your site consumes and calculates real-time and cumulative benefits.
- Real-time monitoring of the safety status of the energy storage system, and timely warning and alarm prompts



Structure Display



iCube-M Parameters

Product Model	iCube-M 50/75	iCube-M 100/150	iCube-M 150/225	iCube-M 200/300
PV Parameter				
MPPT voltage range	DC200V ~ DC700V			
MPPT full power voltage range	DC370V ~ DC700V			
Number of MPPT channels	0-2 (optional)			
Maximum single channel current	135A			
AC Parameter (on-grid)				
Rated output power	50kW	100kW	150kW	200kW
Maximum output power	55kW	110kW	165kW	220kW
Rated grid voltage	AC 380V/400V			
Grid	3W+N+PE			
Grid voltage range	-15% ~ +10%			
Rated grid frequency	50Hz/60Hz			
Grid frequency range	±2Hz			
Output current harmonics	≤ 3% (rated power)			
Power factor range	-0.9~+0.9			
AC Parameter (off grid)				
Rated output power	50kW	100kW	150kW	200kW
Maximum output power	55kW	110kW	165kW	220kW
Rated output voltage	3W+N+PE, 380V/400V			
Output voltage harmonics	3% (linear full load)			
Rated frequency	50Hz/60Hz			
Overload capacity	105%: continuous operation			
	105%—120%: 10 min			
	120%: 1 min			
Battery Parameter				
Cell type	Lithium iron phosphate			
Single battery module electricity	5.12kWh			
Number of battery modules	15	30	45	60
Battery system electricity	76.8kWh	153.6kWh	230.4kWh	307.2kWh
Running time	1.5 h (the duration can be customized by adjusting the number of battery modules)			
Cycle life	4000 times (0.5C@25°C charge and discharge@100%DOD, EOL80%)			
Protection				
DC switch	Equipped			
AC switch	Equipped			
Grid monitoring	Equipped			
Insulation monitoring	Equipped			
DC reverse connection protection	Equipped			
Ground fault protection	Equipped			
Surge protection	DC level 2/AC level 2			
Basic Parameter				
Size (W*D*H) (mm)	1680*1502*1700	1680*2264*1700	1680*3026*1700	1680*3788*1700
Weight (kg)	1395kg	2470kg	3545kg	4620kg
Isolation mode	Non-isolated			
Protection grade	IP54 for outdoor type			
Working temperature range	-20°C ~ 55°C (derating above 45°C)			
Relative humidity (without condensing)	0 ~ 95%			
Temperature control method	Electrical compartment: intelligent air cooling; Battery compartment: air conditioning			
Maximum working altitude	4000m(derating above 2,000 m)			
Display	Touch screen			
Communication interface	RS485、CAN、LAN			
Communication protocol	Modbus-RTU、Modbus-TCP、CAN2.0B			

Power The Future!



DOWELL



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