



MPMC POWERTECH CORP.

## MPMC HBD® + Genset Combo Expert For Rental

### 14 YEARS OF MANUFACTURING EXPORTED TO 120+ COUNTRIES

In the Rental & Hire markets, a combo fleet of HBD Series Battery Energy Storage Systems (BESS) and diesel gensets can exert its own best performance, improve the load profile and gensets service life, reduce fuel consumption, OPEX and total cost of ownership (TCO), provide stable and safe power.

HBD Series lithium battery energy storage systems are eco-friendly and can operate individually with zero emissions and zero noise.

- Load tracking, automatic load shifting, avoid gensets from overloading that leads to shutting off.
- Monitor and control the output power of gensets. When loads < gensets max power, the gensets can generate power to support the loads while recharge the BESS.
- Reduce running time of the gensets and increase the genset lifespan by **3** times
- Reduce fuel consumption by up to **38%**
- Lower annual maintenance cost by **2/3**
- By running the HBD in parallel with gensets, the requirement for the rated power of the gensets can be reduced, especially when the motor is started, the required power of the gensets can be greatly reduced.

## Why MPMC HBD® Battery Energy Storage Systems

1. Renewable energy micro-grids: Includes solar power, wind turbines and other clean energy with lithium-ion battery energy storage system. A single unit can be connected to a PV power station or wind turbines with a maximum power of 500kW based on different models. Through tailored configuration of HBD Series BESS help to improve power stability of micro-grids, conversion efficiency of PV and wind power generation.
2. Genset + HBD Series BESS combo: Effectively reduce the allocating power of the gensets in the system, fuel consumption of the system and carbon emissions.
3. State-of-the-art smart EMS: Editable & flexible control strategies according to different application requirements with user friendly operation interface, as well as effectively manage different power sources and improve full utilization of each power source.
4. Long lifespan: excellent lithium-ion battery consistency ensures 4000 times of life cycles @1C, 8000 times of life cycles @0.3C, @90 DOD for 8 consecutive years.
5. Built-in air conditioning system: Improve the environmental adaptability of the product, meeting various application environments of high/low temperature.

6. Reliable and stable: High-safety BMS with three-level framework and multiple battery safety protection. Perfect battery testing equipment to ensure the consistency and reliability of each battery in the system and improve the safety and reliability of the overall system.
7. Fire protection system: Equipped with FM-200 gas fire-fighting system, automatic detection, automatic alarm, and automatic fire extinguishing.
8. Remote monitoring system: The mobile APP can monitor the system operation data and analyze the background data.
9. Durable design: sturdy and durable, easily transported such as hauling, lifting, and forklift transfer for small size and low transportation cost.
10. Low and convenient maintenance: The cabinet models have large cabin doors designed for external maintenance. The containerized models have walk-in aisles.
11. Plug & play: The external output of small HBD Series can be plugged and played through the quick connector, which is easy to operate.
12. Zero noise & Zero emissions: HBD products in individual operation are suitable for power supply in areas with restrictions on decibels and emission indicators.
13. High flexibility: Applicable to various applications, such as standard galvanized chassis for off-shores with salt fog; HVAC for air conditioning in desert or bitter cold regions.



A factory has a motor of about 120KW (with buck start, double the power), runs every day from 7:00 to 19:00, other loads are 60KW, and the minimum load at night is 20KW.



**MPMC Diesel Genset**  
Rated Power 500kW  
24h/day running

**GENSET ONLY**


**37271L**  
Annual Fuel Consumption

**110kW**  
Genset Average Output

**22%**  
Genset Average Load



+




**GENSET + HBD® BESS**

**↓ 33.3%**  
Genset + HBD® Combo Fuel & CO<sub>2</sub> Reduction Ratio

**110kW**  
Genset Average Output

**55%**  
Genset Average Load

The electricity consumption for the accommodation of a construction site has two peaks of 60KW every day. The minimum load at night is 5KW, and the average load is 32KW.




**MPMC Diesel Genset**  
Rated Power 150kW  
24h/day running

**GENSET ONLY**


**11012L**  
Annual Fuel Consumption

**32.5kW**  
Genset Average Output

**22%**  
Genset Average Load



+

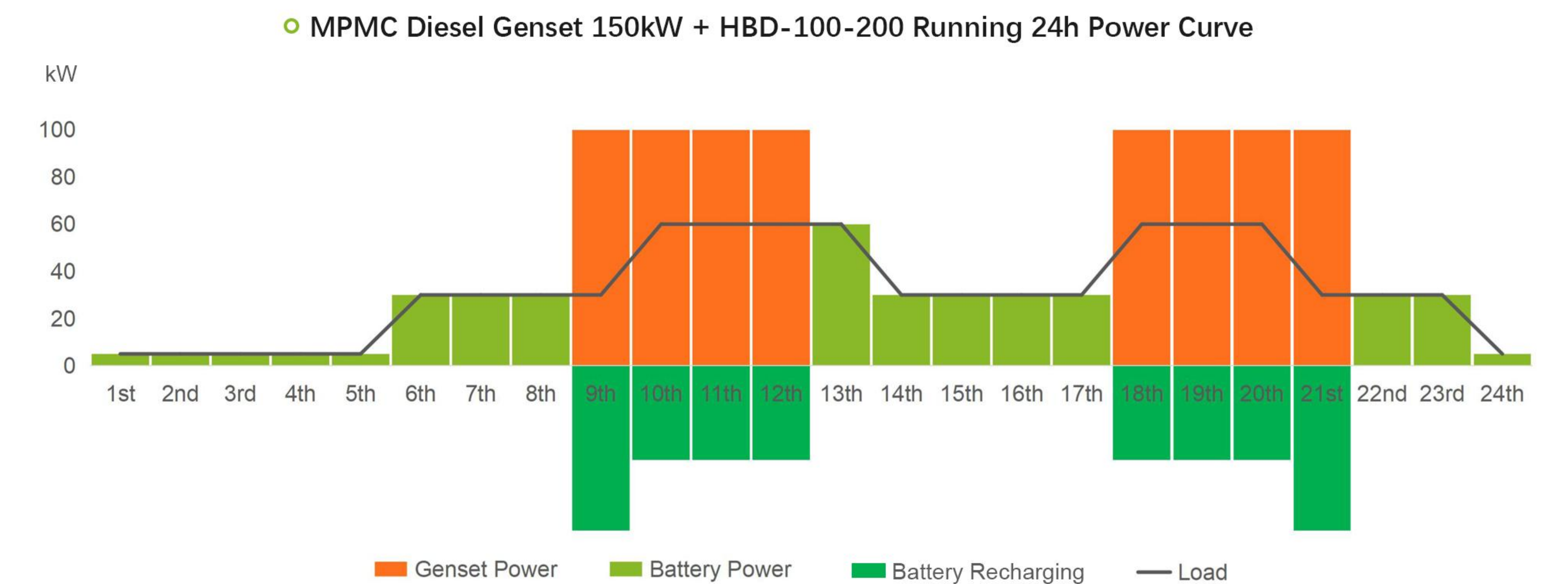
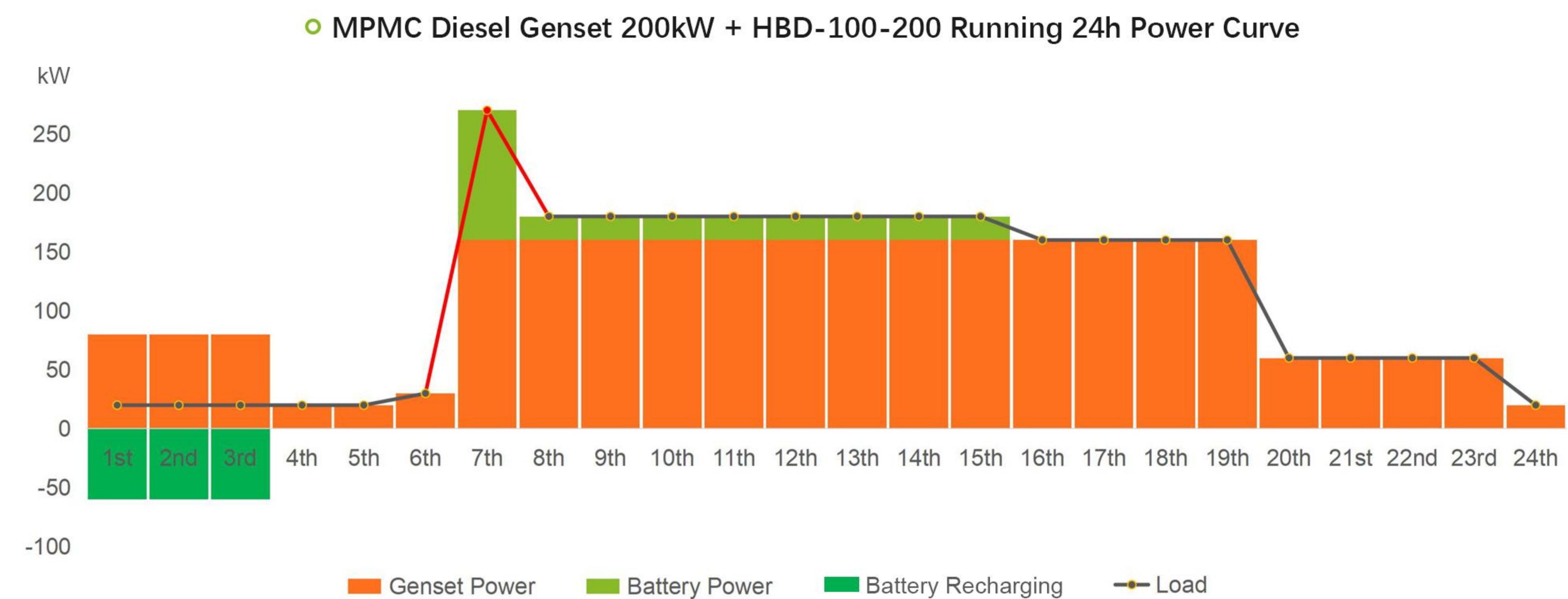









**GENSET + HBD® BESS**

**↓ 31.6%**  
Genset + HBD® Combo Fuel & CO<sub>2</sub> Reduction Ratio

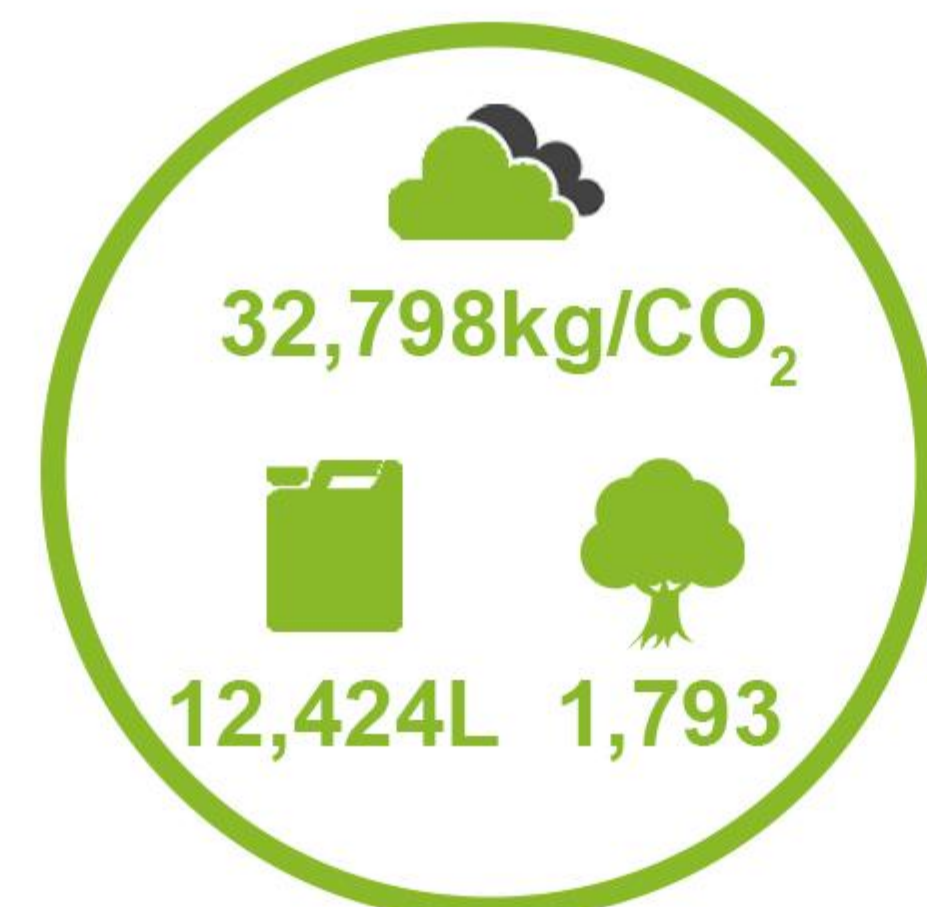
**100kW**  
Genset Average Output








**67%**  
Genset Average Load



	Day	Month	Year
 Genset 500kW	24h	720h	8,760h
	104L	3,106L	37,271L
	273kg/CO <sub>2</sub>	8,200kg/CO <sub>2</sub>	98,394kg/CO <sub>2</sub>
 Genset 200kW	24h	720h	8,760h
	69L	2,071L	24,847L
 +  HBD-100-200	182kg/CO <sub>2</sub>	5,466kg/CO <sub>2</sub>	65,596kg/CO <sub>2</sub>

**Annual Potential Saving**



	Day	Month	Year
 Genset 150kW	24h	720h	8,760h
	31L	918L	11,012L
	81kg/CO <sub>2</sub>	2,423kg/CO <sub>2</sub>	29,071kg/CO <sub>2</sub>
 Genset 150kW	8h	240h	2,880h
	21L	627L	7,529L
 +  HBD-100-200	55kg/CO <sub>2</sub>	1,656kg/CO <sub>2</sub>	19,878kg/CO <sub>2</sub>

**Annual Potential Saving**

