

**HELI**

**CPD60/70/85/100**  
**GB2D/GB2DLI**



**HELI**  
LIFTING THE FUTURE

[heliforklifts.co.nz](http://heliforklifts.co.nz)

Contact us direct or get in touch with your local dealer

0800 435 469  
[sales@heliforklifts.co.nz](mailto:sales@heliforklifts.co.nz)

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**Li-ION 6-10 t**

G3 Series 6-7t Electric Battery  
Forklift Truck

# Compatible in system, Special in style

----- It is rather to achieve mutual achievement  
than give an ostentatious display of ability.

**Compatible** Lithium battery and lead acid  
battery are optional as you like.

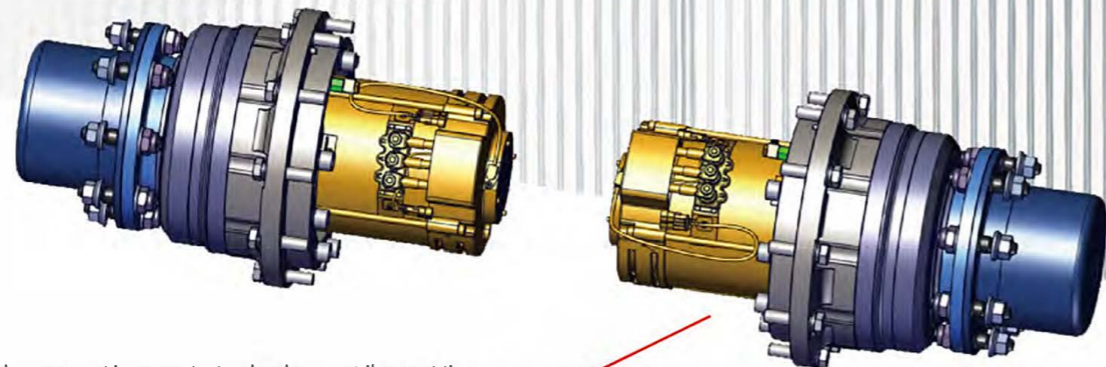
**Integrated** Combine the humanization design advantages of both  
internal combustion forklift truck and electric truck.



The truck is a continuation of HELI family style and creates a new concept of electric forklift  
through easy exchange between lead acid battery power and lithium battery power

# Efficient and Energy saving

- Powerful dual drive, superior gradeability.

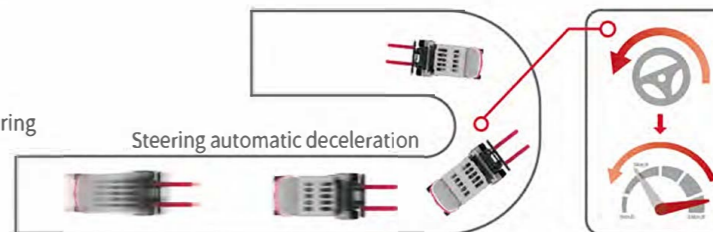


Dual drive power, imported motor and imported wheel reducer, while providing strong power, further improve the safety and stability of the truck.

**Gradient**  
6-8.5t: **18%**  
10t: **15%**

# Intelligent and Safe

- **Intelligent automatic parking:** optimized negative braking system and active parking in multiple applications are safe and easy which is safe and easy to make up omissions;
- **Intelligent turning speed limit:** active speed limit function, balance efficiency and safety when turning at high speed;
- **Intelligent limit buffer:** intelligent induction of mast lifting and lowering avoids limit impact and is safe and comfortable;
- **Intelligent operation protection:** a full set of OPS system can avoid misoperation and ensure safety;
- **Intelligent control strategy:** dual core controller is in line with the latest EU safety requirements.



<b>Driving speed:</b> 6-7t: <b>15-16km/h</b> 8.5-10t: <b>13-15.5km/h</b>	<b>Maximum gradeability with load:</b> 6-8.5t: <b>18%</b> 10t: <b>15%</b>	<b>Maximum speed with load:</b> 6-7t: <b>0.32m/s</b> 8.5-10t: <b>0.255m/s</b>	<b>Maximum speed without load:</b> 6-7t: <b>0.46m/s</b> 8.5-10t: <b>0.350m/s</b>	<b>Good bearing capacity at high position</b>

- Double gun charging, fast and efficient.

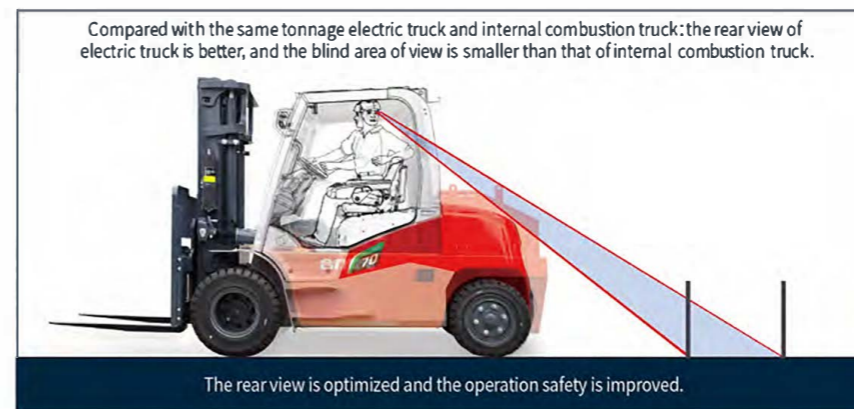
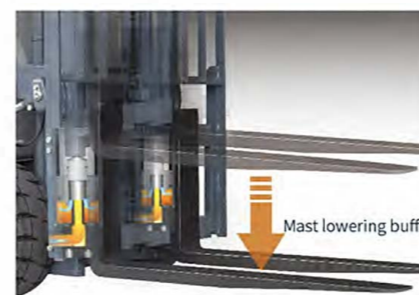


Lithium battery forklift truck is equipped with double gun charging as standard, which greatly reduces the charging time. Lithium batteries have high-density capability and can be used and charged at any time to realize efficient and continuous operation all day long.

### Lithium battery options:

- **606Ah capacity (standard configuration):** which can be charged for 8 hours at one time, suitable for light load condition;
- **813Ah capacity:** one charge can meet 8-9 hours of operation, suitable for standard working conditions;
- **1084 Ah capacity:** one charge, suitable for 9-10 hours operation, suitable for heavy load strengthening conditions.
- **808Ah capacity (8.5-10t Lithium battery options):** one charge can meet 8-9 hours of operation, suitable for standard working conditions;

- Multi configuration, low energy consumption.



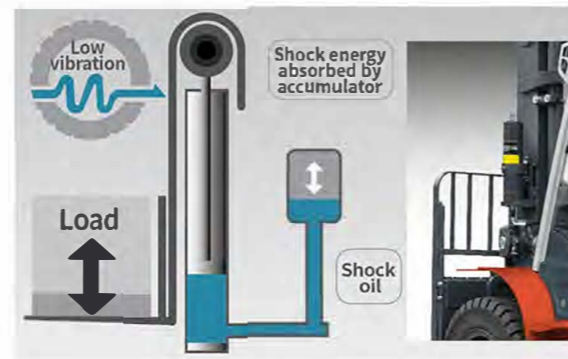
## Comfort and Intimate

- The mast with large opening offers good driving vision ensuring operation comfort and safety.
- It integrates the advantages of internal combustion forklift platform to make the driving space more comfortable.
- Standard imported silent gear pump, greatly reduce the ear noise.

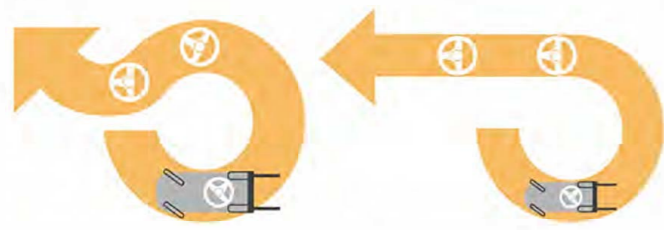


Optional configuration of intelligent safety buffer system cushion operator from effects of riding over uneven surface and it is more comfortable.

- **Vibration shock reduction**  
When driving under load conditions, the impact caused by uneven surface is greatly absorbed, and the vibration is effectively reduced.
- **Vibration and noise reduction**  
When driving under load condition, the impact noise caused by uneven surface is greatly reduced.
- **Reduced driving fatigue**  
During the emergency stop operation during the load lowering process, the vibration and driving fatigue caused by inertia impact can be effectively reduced, and the driving safety can be improved.



- Hydraulic synchronous steering system can adjust steering wheel and wheel angle offset smartly and offers accurate steering and comfortable driving. (optional)
- Color screen display which can switch between Chinese and English, display truck speed, working time, battery power, fault code and other information.



## Stable and Reliable

- Imported drive axle and motor are stable and reliable.
- Wet negative braking is safe and reliable.
- The innovative design of mast structure improves the overall strength and stiffness.
- The structural design of the welded large oil tank greatly improves the strength of the frame and the heat dissipation of the hydraulic oil.
- The whole truck can be operated alternately in -20°C cold storage for 6 hours and parked in the cold storage for 12 hours without failure and can continue to work.
- New design of steering axle is safe and reliable.



## Convenient and Maintenance

- The layout of the cab is optimized, the battery is located directly under the engine room, and the hood opening angle is large, which facilitate daily inspection and maintenance.
- The controller is located on the counterweight, giving consideration to heat dissipation and maintenance convenience.
- The battery side changing is installed for easy changing between lead-acid battery and lithium battery as you like meet the needs of different customers and occasions.

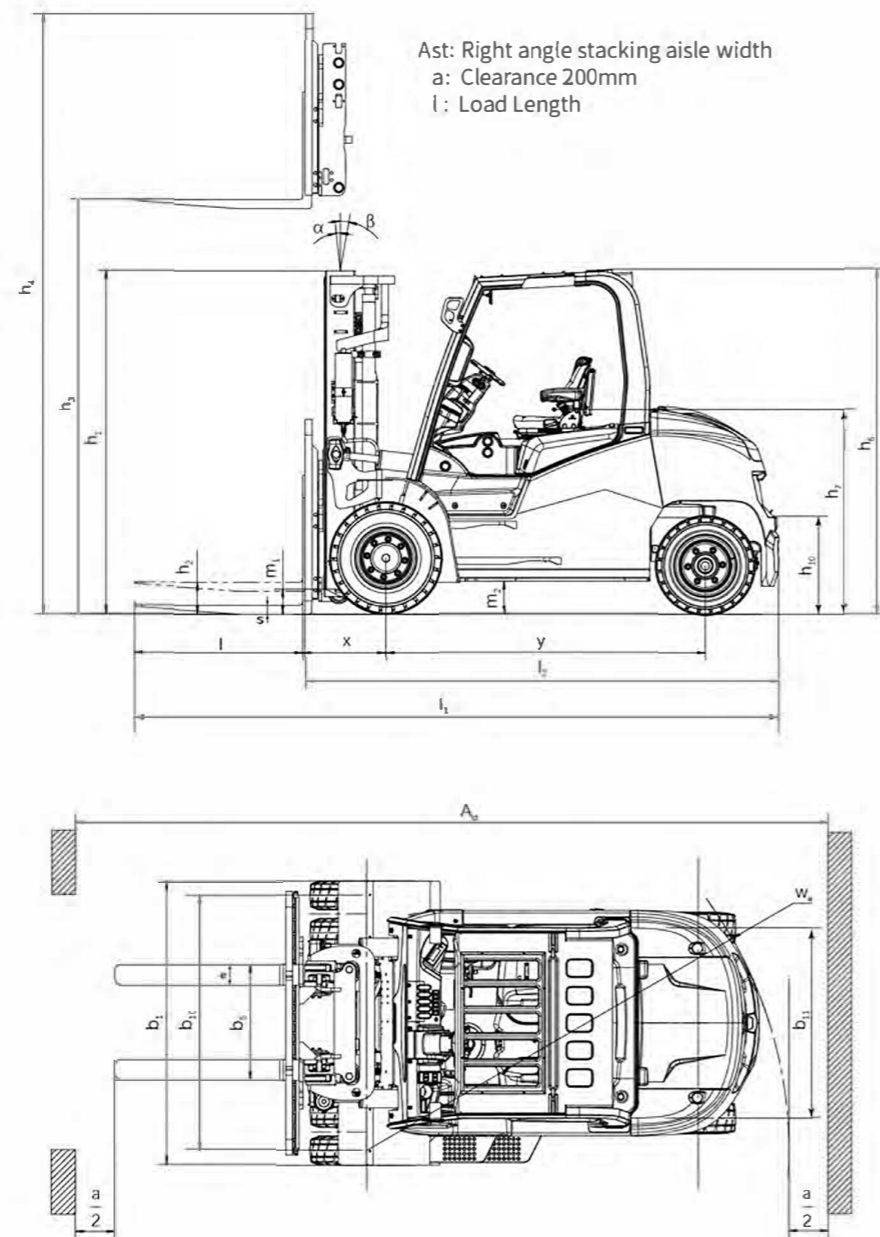


### HELI smart fleet management system(domestic basic edition)

Vehicle positioning	Statistical form
Remote diagnosis	Vehicle management
Remote monitoring	Identification recognition (optional)
Maintenance reminder	Weight management (optional)
Battery management	Collision management (optional)







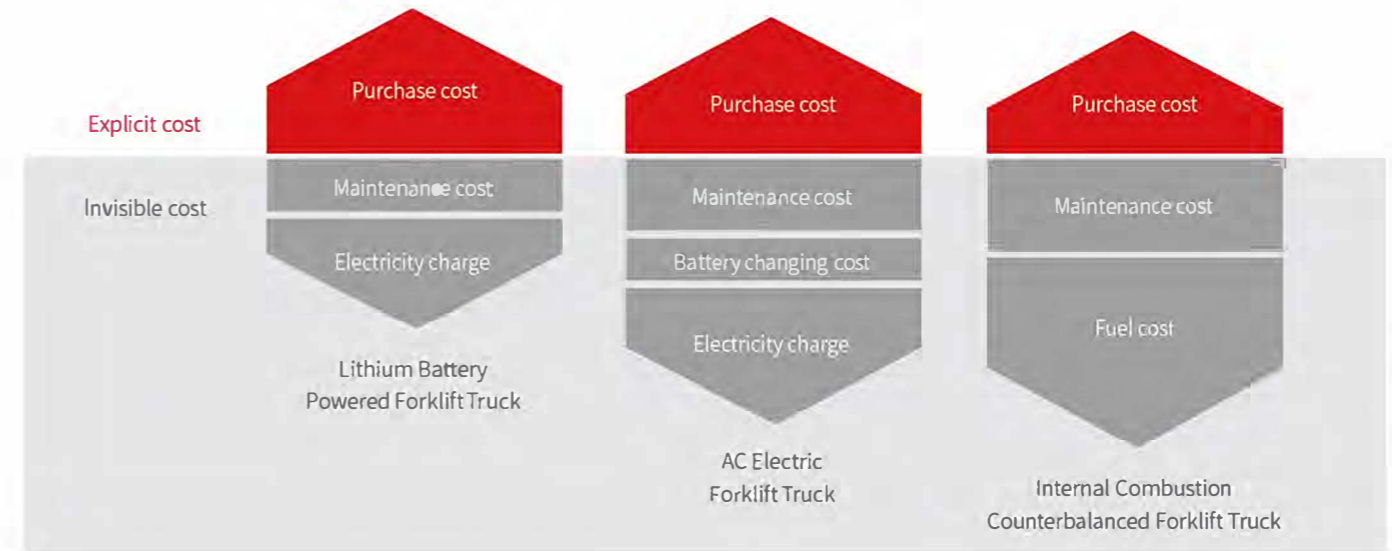
## Operating Cost Comparison: Lithium battery forklift **vs.** Lead-acid battery forklift **vs.** IC forklift

The advantages of HELI lithium battery forklift trucks are more prominent in the life cycle cost.

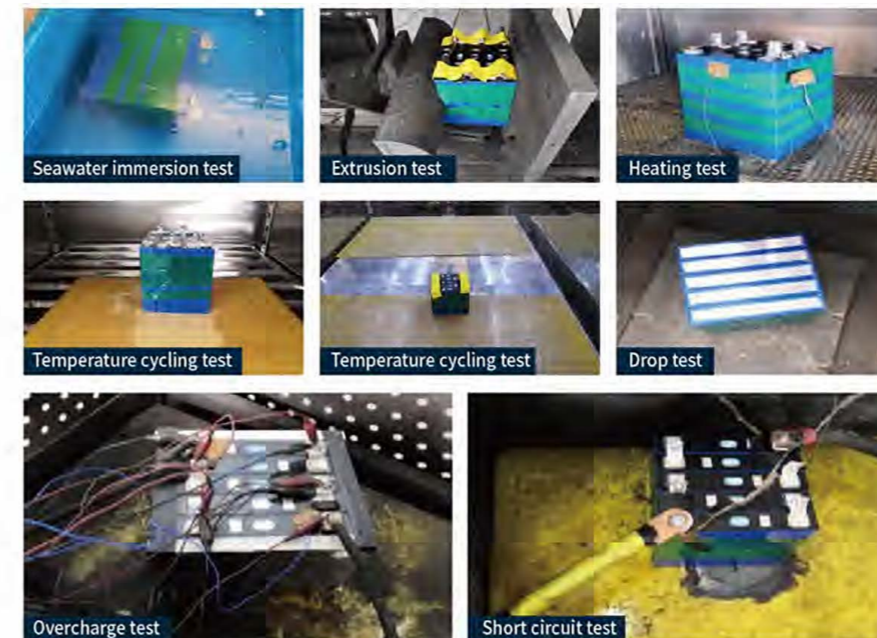
Compared with internal combustion forklift truck, lithium battery forklift truck has the advantages of no noise, no pollution, small vibration and simple operation.

Compared with the lead-acid battery forklift truck, lithium battery forklift has the characteristics of fast charging and charging at any time, which is more suitable for multi shift operation.

Besides, HELI lithium battery forklift is maintenance free, high power conversion efficiency, and economical overall operation cost.

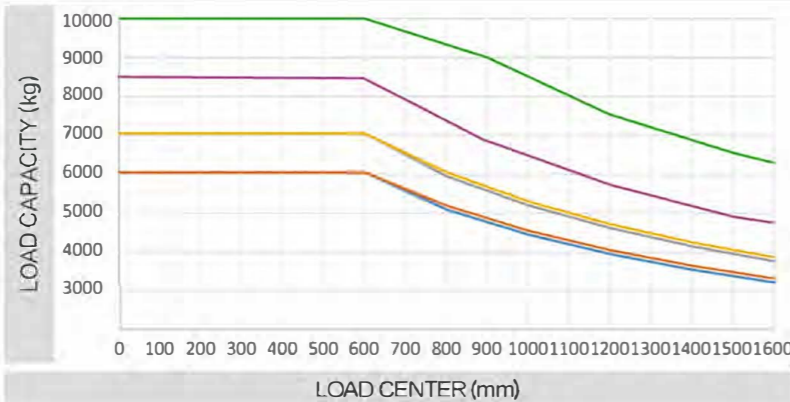


### Lithium Battery Advantages



- ✓ The truck selects mature and economical square iron phosphate lithium battery core and module used by large numbers of commercial vehicles;
- ✓ The module adopts aluminum alloy plate frame, which is firm, light in weight and has good heat dissipation effect;
- ✓ Fast charging: fast charging makes truck gapless operation possible, and it can be filled in 2 hours;
- ✓ High efficiency and safety: The charging and discharging efficiency is up to 98%, and temperature of thermal runaway is over 600 °C;
- ✓ Low temperature adaptability: Standard configuration of heating function ensures normal operation of low temperature environment;
- ✓ Long service life: the normal charging and discharging cycles is more than 4000 times or 5 years, and capacity retention rate is more than 75%;
- ✓ Maintenance free: the battery does not need manual maintenance and does not need to add distilled water electrolyte;
- ✓ Green and clean: no pollution and zero emission.

### Load curve



- CPD60-GB2D
- CPD60-GB2DLi
- CPD70-GB2D
- CPD70-GB2DLi
- CPD85-GB2D(Li)
- CPD100-GB2D(Li)

**Note:** The vertical axis stands for load capacity and the horizontal axis stands for load center which is calculated from the front surface of the forks to the gravity of the standard load. The standard load means a cubic with 1000mm edge length. When mast is tilted forward, using non-standard forks or loading large goods, the load capacity will be reduced. The load capacity of standard mast at different load center can be known from this load chart.

G3 6-7t Wide View Standard Mast

Table with 13 columns: Mast model, Max.lifting height (mm), Load capacity (lode center 600mm) (kg), Height (mast lowered) (mm), Free lift (with backrest) (mm), Service weight (kg), Mast tilt angle α/β (°). Rows include models M220 to M600.

G3 8.5-10t Wide View Standard Mast

Table with 13 columns: Mast model, Max.lifting height (mm), Load capacity (lode center 600mm) (kg), Height (mast lowered) (mm), Service weight (kg), Mast tilt angle α/β (°). Rows include models M250 to M600.

G3 6-7t Wide View Full Free 2-Stage Mast

Table with 13 columns: Mast model, Max.lifting height (mm), Load capacity (lode center 600mm) (kg), Height (mast lowered) (mm), Free lift (with backrest) (mm), Service weight (kg), Mast tilt angle α/β (°). Rows include models ZM220 to ZM600.

注: 不带挡货架自由起升高度6t: +340mm,7t: +180mm

G3 8.5-10t Wide View Full Free 2-Stage Mast

Table with 13 columns: Mast model, Max.lifting height (mm), Load capacity (lode center 600mm) (kg), Height (mast lowered) (mm), Free lift (with backrest) (mm), Service weight (kg), Mast tilt angle α/β (°). Rows include models ZM250 to ZM600.

G3 6-7t Wide View Full Free 3-Stage Mast

Table with 13 columns: Mast model, Max.lifting height (mm), Load capacity (lode center 600mm) (kg), Height (mast lowered) (mm), Free lift (with backrest) (mm), Service weight (kg), Mast tilt angle α/β (°). Rows include models ZSM360 to ZSM700.

注: 不带挡货架自由起升高度6t: +340mm,7t: +180mm

G3 8.5-10t Wide View Full Free 3-Stage Mast

Table with 13 columns: Mast model, Max.lifting height (mm), Load capacity (lode center 600mm) (kg), Height (mast lowered) (mm), Free lift (with backrest) (mm), Service weight (kg), Mast tilt angle α/β (°). Rows include models ZSM360 to ZSM600.

Configuration Table			
Categories for Safety	Steering deceleration	●	
	Rear handle with horn for truck reversing	●	
	Overspeed alarm (5km/h)	○	
	Overspeed alarm (8km/h)	○	
	Overspeed alarm (10km/h)	○	
	OPS(travelling+lifting+tilting+attachment )(lowering is included)	●	
	Control valve overload	●	
	Dry powder extinguisher (0.5kg)	○	
	Dry powder extinguisher (2kg)	○	
	Backward buzzer	●	
	Reversing speaker (Chinese)	○	
	Electronic upper buffering	●	
	Center wide angle rearview mirror	●	
	Rearview mirror on two sides + Center wide angle rearview mirror	○	
	Reverse radar (4 probes)	○	
	Categories for comfort	Reversing image (1 camera + 4 probes)	○
		GRAMMER full suspension seat	●
1 USB interface (5V/1A)		●	
Super low torque steering unit		●	
Steering started by steering wheel		●	
Mechanical operation valve		●	
Electromagnetic operation valve ( proportional valve+ thumb switch)		○	
Optional overhead guard	Fan	○	
	Overhead guard with iron frame	○	
cab / windshields	Overhead guard with protection net	○	
	Panel mounted cab( with fan and wiper)	○	
	Heater	○	
	Rear mounted air conditioner only for cooling	○	
	Rear mounted air conditioner only for cooling + heater	○	
	Front windshield (with wiper/no blow can)	○	
	High temperature resistant front windshield	○	
	Rear windshield	○	
lights	Top windshield (without fan)	○	
	LED rear working lamp (one)	●	
	Rear LED red/blue spot lamp	○	
	Left, right and rear blue bar	○	
	Fixed type LED rotating warning lamp	●	
others	Fixed type LED flicker warning lamp	○	
	Fixed type LED rotating buzzer warning lamp	○	
	Dual tyre (front wheel)	●	
	Metric screw	●	
	SAE screw	○	
	No protective sleeves for tilting cylinder and steering cylinder	○	
With protective sleeves for tilting cylinder and steering cylinder	●		
FICS(basic edition) (for domestic)	●		

NOTE: "●" standard ; "○" optional ; "-" not applicable; "\*" only ZAP electric controller.

Battery capacity configuration									
Truck model	Model	Standard battery	Option battery						
			Made in CHINA	FAAM		HOPPECKE			
Acid type	CPD60-GB2D	80V/840Ah	80V/960Ah		80V/840Ah		80V/840Ah		
	CPD70-GB2D			80V/1000Ah				80V/960Ah	80V/1000Ah
	CPD85-GB2D	80V/960Ah	-			80V/1000Ah			
	CPD100-GB2D								
Lithium type	-	HEDING		HEDING		ENEROC, CATL core			
	CPD60-GB2DLI	80V/606Ah	80V/808Ah		80V/840Ah	80V/606Ah	80V/684Ah		
	CPD70-GB2DLI			80V/1120Ah	80V/1212Ah			80V/813Ah	80V/906Ah
	CPD85-GB2DLI								
	CPD100-GB2DLI	80V/808Ah	-						80V/1084Ah