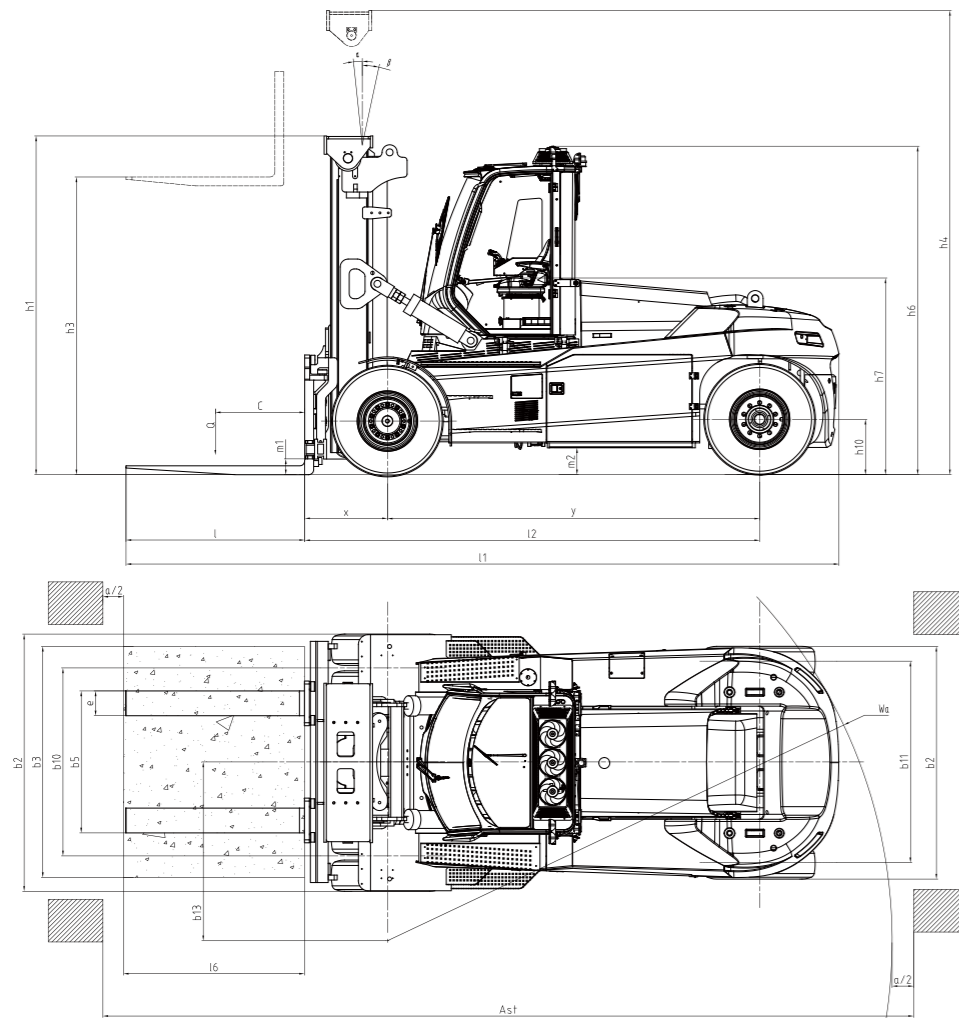
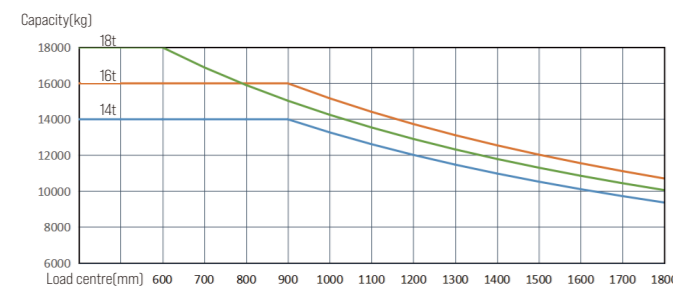


## 14-18t Mast Specification

| Type                   | Model           | Lifting height | Overall height |          | Tilt range | Capacity          |       |       |
|------------------------|-----------------|----------------|----------------|----------|------------|-------------------|-------|-------|
|                        |                 |                | Lowered        | Extended |            | Load center@900mm |       |       |
|                        |                 |                |                |          |            | 14t               | 16t   | 18t   |
|                        |                 | mm             | mm             | mm       | (°)        | kg                | kg    | kg    |
| 2-stage wide view mast | GXR160/X180M300 | 3000           | 3300           | 4800     | 6/12       | 14000             | 16000 | 18000 |
|                        | GXR160/X180M330 | 3300           | 3450           | 5100     | 6/12       | 14000             | 16000 | 18000 |
|                        | GXR160/X180M360 | 3600           | 3600           | 5400     | 6/12       | 14000             | 16000 | 18000 |
|                        | GXR160/X180M400 | 4000           | 3800           | 5800     | 6/12       | 14000             | 16000 | 18000 |
|                        | GXR160/X180M430 | 4300           | 4000           | 6150     | 6/12       | 14000             | 16000 | 18000 |
|                        | GXR160/X180M450 | 4500           | 4100           | 6350     | 6/12       | 14000             | 16000 | 18000 |
|                        | GXR160/X180M480 | 4800           | 4250           | 6650     | 6/6        | 14000             | 16000 | 18000 |
|                        | GXR160/X180M500 | 5000           | 4350           | 6850     | 6/6        | 14000             | 16000 | 18000 |
|                        | GXR160/X180M550 | 5500           | 4650           | 7400     | 3/6        | 12500             | 14500 | 16500 |
|                        | GXR160/X180M600 | 6000           | 4900           | 7900     | 3/6        | 11000             | 13000 | 15000 |
| GXR160/X180M650        | 6500            | 5200           | 8450           | 3/6      | 9500       | 11500             | 13500 |       |



Ast=L6+Wa+x+a L6: load length a: Clearance (200mm)



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ISO14001  
ISO14001:2015



ISO9001  
ISO9001:2015



HANGCHA trucks conform to the European Safety Requirements.

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INNOVATIVE LITHIUM-ION

# XH SERIES HIGH-VOLTAGE LITHIUM BATTERY FORKLIFT

with capacity of 12,000 to 18,000kg



The World of Hangcha



# XH SERIES HIGH-VOLTAGE LITHIUM BATTERY FORKLIFT

XH series high-voltage lithium battery forklifts are new series of high-voltage lithium battery forklifts independently developed by Hangcha relying on the new energy automobile voltage platform for the first time based on the deep understanding of electric forklifts and internal combustion forklifts for decades by breaking through the traditional design concept. The series of models redefine electric forklifts in terms of efficiency, power and reliability, and replace the internal combustion with electric forklifts.

VOLTAGE

**541V**

MAX. GRADEABILITY

**30%**

WATER RESISTANCE

**IPX4**

SPEED MODELS

**3**

TRAVEL SPEED

**27km/h**

PROTECTION RATE

**IP67**

## Exterior

/ Following the appearance of X series internal combustion forklifts, the series boast smooth and powerful contour lines, and exquisite and compact vehicle body, presenting both fashion and steadiness as a whole.

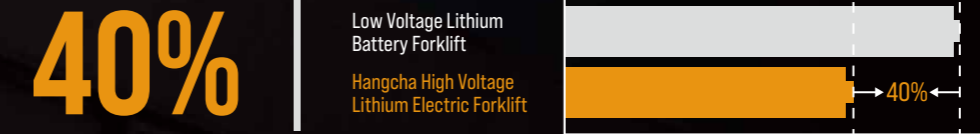
THE *Plus*  
FOR YOUR  
BUSINESS



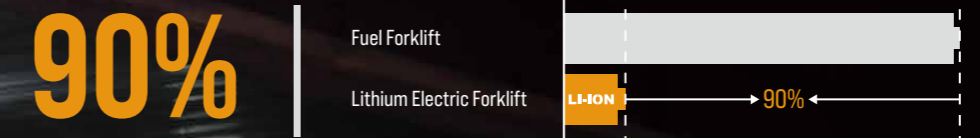
# COMMITTED TO IMPROVING

## FASTER & MORE EFFICIENCY.

Compared with low-voltage lithium battery forklifts, high-voltage lithium battery technology can save about 40% of the overall cost during the service cycle.



Compared with fuel forklifts, high-voltage lithium battery technology can save about 90% of the overall cost during the service cycle.



**4000** CYCLES OF CHARGING **75% LI-ION**

Under normal charging and discharging conditions, the lithium battery of Hangcha products has a capacity retention rate of more than 75% and a life span of up to 10 years after 4000 cycles of charging and discharging.

Through disruptive battery and fast charging technology, the charging time is greatly shortened.

Get the battery fully charge:

**1.5h**

Hangcha High Voltage Electric Forklift

**10h**

Electric Forklift

## POWER PERFORMANCE COMPARISON

|   | High Voltage Lithium Electric Forklift | Fuel Forklift |
|---|--|---------------|
| Travel speed, laden/unladen               | 26/27km/h                              | 15-20km/h     |
| Lift speed, laden/unladen                 | 400/500mm/s                            | 430/470mm/s   |
| Max. gradeability, S2-5min, laden/unladen | 30%                                    | 15%-20%       |

Fast charging makes it possible for the whole vehicle to work continuously, shortening the waiting time and greatly improving efficiency.

HIGH-VOLTAGE

**183.6Kwh**

Battery capacity



# EXCELLENT ERGONOMIC DESIGN

## Comfort

- / The wide-view mast with optimized design is unlikely to obstruct the operator's line of sight. The enlarged opening size of the fork carriage enables a wider view, a large operation space, and excellent ergonomic design.
- / The multifunctional color-screen instruments are designed to have graphical interfaces and display data clearly. The interfaces can be switched to be shown in Chinese and English to meet the needs of customers at home and abroad.
- / The new fully-suspended cab with panoramic view enables a clearer view. Performance of the air conditioner is improved to enable uniform conditioned air blowing from the air outlet and a strong cooling effect. The waterproof, dust-proof, heatproof, soundproof, noise-reducing sealing design improves driving comfort. The molded interior parts enable a more comfortable feel. The integral frame is constituted by profiled steel pipes. The structural parts have higher strength.
- / Integrated handle and pilot remote control allow flexible and accurate operation; hydraulic brake curve is optimized to achieve smooth and easy-to-control braking; suspension seat, following the floating multi-direction adjustable control platform, is comfortable to control.



## Intelligent

- / A vehicle central controller is provided, which has bus architecture, several built-in diagnosis and management functions and a central fault alarm function.
- / An optional intelligent management system is provided to enable intelligent remote monitoring and easier equipment management and logistics management.





## Advancement

- / Both the drive and operating systems are vehicle-grade permanent magnet synchronization systems. The driving speed, upslope degree and acceleration performance rival that of internal combustion vehicles, and the environmental performance is better than that of internal combustion vehicles.
- / The vehicle's 541V high-voltage platform, equipped with a heavy truck water-cooled standard box, features better heat dissipation, longer endurance mileage and more durable battery.
- / This is the first time that the electric control and motor adopt water-cooled control mode, which obtains better heat dissipation, allows long-term and high-intensity work exactly like an internal combustion forklift.
- / The vehicle adopts a whole machine controller to redeploy the traction integrated controller (PDU+DC/DC+MCU) and two-in-one oil pump controller to form an intelligent driving system, being light-weighted, efficient and independent.



## Safety

- / The cover of the vehicle is designed to be sealed to the water resistance level of IPX4. All the motor, electronic controls and high-voltage components reach the dust and water resistance level of IP67, a high protection level adequate to withstand harsh operating environments and ensure safety and reliability.
- / The electrical system is equipped with high-voltage interlocks, insulation detection, and vehicle-grade safety means. The MSD maintenance switch enables one-click power-down and safer maintenance.
- / Some key structural parts have been verified highly reliable by the market for many years while being used by internal combustion forklifts.



## Maintainability

- / The over-turnable cab and electric tipping cylinder make tipping easier and more labor-saving.
- / The wide-opened hood better facilitate repair and maintenance of electrical components.

## Standard Specification

- / Duplex wide-view mast
- / Hydraulic prong adjustment
- / Standard fork
- / Cab
- / Cooling and heating air conditioner
- / Fully hydraulic power steering
- / Quadruple multi-way valve
- / Chair sensing system
- / Steering wheel adjusting device
- / Self-locking valve in the tilting fuel circuit
- / Speed limit valve in the lifting fuel circuit
- / Traction device
- / Main power switch
- / Reversing radar
- / LCD bus instrument
- / Neutral indicator
- / Accumulator low pressure alarm
- / Hydraulic oil filter alarm
- / Vehicle LED lights
- / Pneumatic tire
- / Reverse buzzer
- / Snail horn
- / Manual/electric tipping pump
- / Armrest's multi-directional adjustment device
- / Vehicle toolkit
- / Multi-function color-screen combination instrument
- / Standard lithium battery box
- / Water chilling unit for lithium battery
- / Maintenance-free 24V lead-acid battery
- / Integrated controller (PDU+DC/DC+MCU)
- / Two-in-one oil pump motor controller
- / VCU controller
- / MSD maintenance switch
- / Emergency power off switch
- / Water chilling unit for electric control and motor
- / Automatic fire extinguisher for lithium battery
- / Cab fan



## Options

- / User specified color
- / Forks of Others specifications
- / Masts of Others specifications
- / Solid tire
- / Vehicle intercom
- / Reverse voice buzzer
- / Electronic alarm light (with/without a control switch)
- / Rear view system (optional with memory)
- / Front and rear view systems (optional with memory)
- / Fire extinguisher (2kg/4kg)
- / Mast LED operation light
- / Four-channel driving record system
- / Speed limit
- / Blue light
- / Weighing system

## Optional battery list

| Capacity (Ah) | 12-16t 541V | 12-16t 608V |
|---------------|-------------|-------------|
| 228           | ●           | —           |
| 302           | —           | ○           |

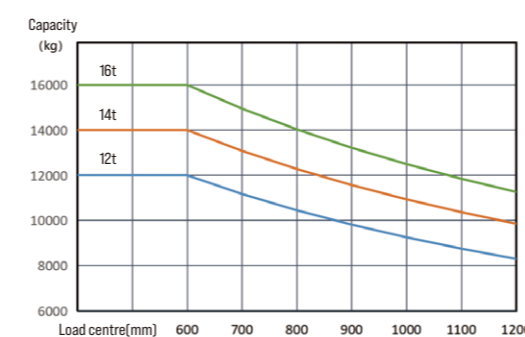
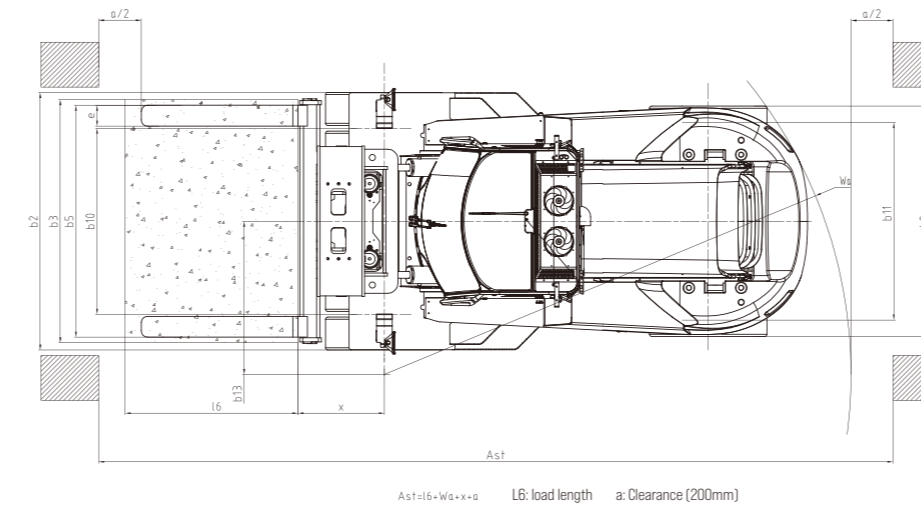
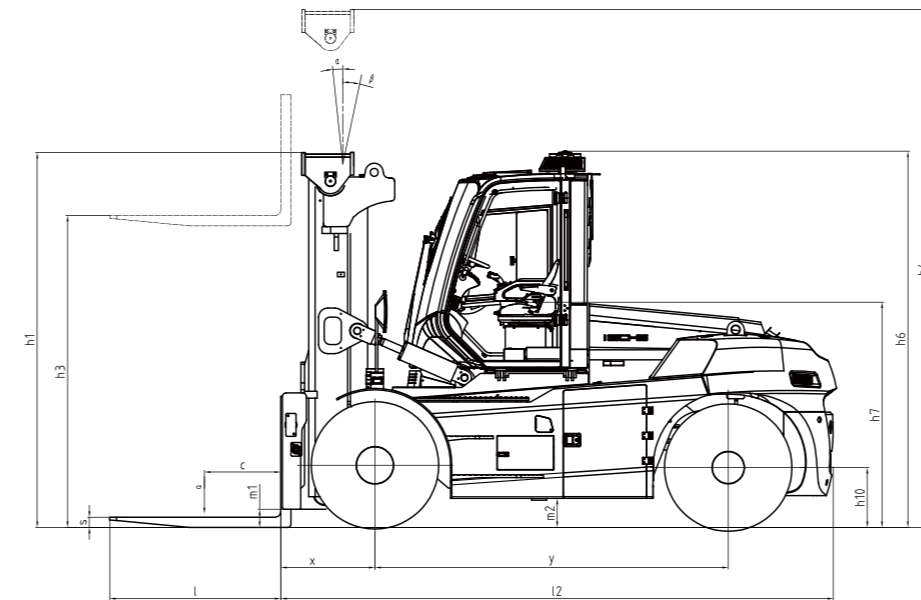
Note: ● Standard battery capacity; ○ Optional battery capacity; — Null

## XH Series 12-16t High-voltage Lithium Battery Forklift Specification

| Distinguishing mark | 1.1                               | Manufacturer  | HANGCHA GROUP CO.,LTD.                      |  |                            |
|---------------------|-----------------------------------|---|---|--|----------------------------|
|                     | 1.2                               | Manufacturer's type designation                                 | CPD140-XHL26                                | CPD160-XHL26   | CPD180-XHL26               |
|                     | 1.3                               | Drive: electric (battery or mains), diesel, petrol, fuel gas    | Electric                                    | Electric   | Electric                   |
|                     | 1.4                               | Operator type: hand, pedestrian, standing, seated, order-picker | Seated                                      | Seated   | Seated                     |
|                     | 1.5                               | Rated capacity/rated load                                       | 12000                                       | 14000  | 16000                      |
|                     | 1.6                               | Load centre distance  | c (mm)                                      | 600  | 600                        |
|                     | 1.8                               | Load distance, centre of drive axle to fork                     | x (mm)                                      | 746  | 825                        |
|                     | 1.9                               | Wheelbase   | y (mm)                                      | 3100   | 3100                       |
| Weight              | 2.1                               | Service Weight  | kg  | 17000  | 19400                      |
|                     | 2.2                               | Axle loading, laden front/rear                                  | kg  | 24590/3410   | 30200/3200                 |
|                     | 2.3                               | Axle loading, unladen front/rear                                | kg  | 8300/8700  | 9700/8700                  |
| Tyres, chassis      | 3.1                               | Tyres: solid rubber, superelastic, pneumatic, polyurethane      | pneumatic                                   | pneumatic  | pneumatic                  |
|                     | 3.2                               | Tyre size, front  | 10.00-20-18PR                               | 11.00-20-18PR  | 12.00-20-20PR              |
|                     | 3.3                               | Tyre size, rear   | 10.00-20-18PR                               | 11.00-20-18PR  | 12.00-20-20PR              |
|                     | 3.5                               | Wheels, number front / rear (x = driven wheels)                 | 4x/2  | 4x/2   | 4x/2                       |
|                     | 3.6                               | Tread, front  | b10 (mm)                                    | 1780   | 1780                       |
|                     | 3.7                               | Tread, rear   | b11 (mm)                                    | 1890   | 1890                       |
|                     | Dimensions                        | 4.1   | Tilt of mast/fork carriage forward/backward | $\alpha/\beta(^{\circ})$                               | 6/12                       |
| 4.2                 |                                   | Height, mast lowered  | h1 (mm)                                     | 3180   | 3270                       |
| 4.4                 |                                   | Lift  | h3 (mm)                                     | 3000   | 3000                       |
| 4.5                 |                                   | Height, mast extended   | h4 (mm)                                     | 4695   | 4790                       |
| 4.7                 |                                   | Height of overhead guard (cabin)                                | h5 (mm)                                     | 3265   | 3280                       |
| 4.8                 |                                   | Seat height/stand height  | h7 (mm)                                     | 1925   | 1940                       |
| 4.12                |                                   | Coupling height   | h9 (mm)                                     | 538  | 553                        |
| 4.19                |                                   | Overall length  | l1 (mm)                                     | 6190   | 6260                       |
| 4.20                |                                   | Length to face of forks   | l2 (mm)                                     | 4690   | 4760                       |
| 4.21                |                                   | Overall width   | b1 (mm)                                     | 2460   | 2460                       |
| 4.22                |                                   | Fork dimensions   | s/e/l (mm)                                  | 80/200/1500  | 90/200/1500                |
| 4.24                |                                   | Fork-carriage width   | b3 (mm)                                     | 2372   | 2372                       |
| 4.25                |                                   | Distance between fork-arms                                      | b5 (mm)                                     | 520/2200   | 520/2200                   |
| 4.31                |                                   | Ground clearance, laden, below mast                             | m1 (mm)                                     | 235  | 250                        |
| 4.32                |                                   | Ground clearance, centre of wheelbase                           | m2 (mm)                                     | 220  | 235                        |
| 4.34.1              | Aisle width for pallets crossways | Ast (mm)  | 6795  | 6875   |                            |
| 4.35                | Turning radius                    | Wa (mm)   | 4350  | 4450   |                            |
| Performance data    | 5.1                               | Travel speed, laden/unladen                                     | km/h  | 23/25  | 26/27                      |
|                     | 5.2                               | Lift speed, laden/unladen                                       | m/s   | 0.4/0.5  | 0.35/0.45                  |
|                     | 5.6                               | Max. Drawbar pull, laden/unladen                                | N   | 100000   | 100000                     |
|                     | 5.8                               | Max. gradeability, laden/unladen                                | %   | 30/30  | 25/25                      |
|                     | 5.10                              | Service brake   |   | Wet disc brake system(WDB)                             | Wet disc brake system(WDB) |
|                     |                                   | Parking brake   |   | Spring Applied,Hydraulic release multidisc brake(SAHR) |                            |
| Electric engine     | 6.1                               | Drive motor rating S2 60 min                                    | kW  | 120  | 120                        |
|                     | 6.2                               | Lift motor rating at S3 15%                                     | kW  | 50*2   | 50*2                       |
|                     | 6.4                               | Battery voltage, nominal capacity K5                            | V/Ah  | 541/228  | 541/228                    |
|                     | 6.5                               | Battery weight  | kg  | 1100   | 1100                       |
|                     |                                   | Battery dimensions  | l/b/h(mm)                                   | 1884/715/629   | 1884/715/629               |
|                     |                                   | Max. battery weight   | kg  | 1100   | 1100                       |
|                     | Min. battery weight               | kg  | 1500  | 1500   |                            |
| Addition data       | 8.1                               | Type of drive unit  |   | IGBT/AC  | IGBT/AC                    |
|                     | 10.1                              | Operating pressure for attachments                              | bar   | 140  | 140                        |
|                     | 10.8                              | Towing coupling, type DIN 15170                                 |   | Φ40Pin   | Φ40Pin                     |

## 12-16t Mast Specification

| Type                   | Model          | Lifting height | Overall height |        |          |        | Tilt range | Capacity          |       |       |
|------------------------|----------------|----------------|----------------|--------|----------|--------|------------|-------------------|-------|-------|
|                        |                |                | Lowered        |        | Extended |        |            | Load center@600mm |       |       |
|                        |                |                | 12t            | 14/16t | 12t      | 14/16t |            | 12t               | 14t   | 16t   |
| 2-stage wide view mast | GXR120/160M300 | 3000           | 3180           | 3290   | 4695     | 4790   | 6/12       | 12000             | 12000 | 16000 |
|                        | GXR120/160M330 | 3300           | 3330           | 3440   | 4995     | 5090   | 6/12       | 12000             | 12000 | 16000 |
|                        | GXR120/160M360 | 3600           | 3480           | 3590   | 5295     | 5390   | 6/12       | 12000             | 12000 | 16000 |
|                        | GXR120/160M400 | 4000           | 3680           | 3790   | 5695     | 5790   | 6/12       | 12000             | 12000 | 16000 |
|                        | GXR120/160M430 | 4300           | 3880           | 3990   | 6030     | 6140   | 6/12       | 12000             | 12000 | 16000 |
|                        | GXR120/160M450 | 4500           | 3980           | 4090   | 6230     | 6340   | 6/12       | 12000             | 12000 | 16000 |
|                        | GXR120/160M480 | 4800           | 4130           | 4240   | 6530     | 6640   | 6/6        | 12000             | 12000 | 16000 |
|                        | GXR120/160M500 | 5000           | 4230           | 4340   | 6730     | 6840   | 6/6        | 12000             | 12000 | 16000 |
|                        | GXR120/160M550 | 5500           | 4530           | 4640   | 7280     | 7390   | 3/6        | 10500             | 10500 | 14500 |
|                        | GXR120/160M600 | 6000           | 4780           | 4890   | 7780     | 7890   | 3/6        | 9000              | 9000  | 13000 |
|                        | GXR120/160M650 | 6500           | 5080           | 5190   | 8330     | 8440   | 3/6        | 7500              | 7500  | 11500 |



## XH Series 14-18t High-voltage Lithium Battery Forklift Specification

| Distinguishing mark | 1.1            | Manufacturer  | HANGCHA GROUP CO.,LTD.                      |  |                            |
|---------------------|----------------|---|---|--|----------------------------|
|                     | 1.2            | Manufacturer's type designation                                 | CPD140-XHL26                                | CPD160-XHL26   | CPD180-XHL26               |
|                     | 1.3            | Drive: electric (battery or mains), diesel, petrol, fuel gas    | Electric                                    | Electric   | Electric                   |
|                     | 1.4            | Operator type: hand, pedestrian, standing, seated, order-picker | Seated                                      | Seated   | Seated                     |
|                     | 1.5            | Rated capacity/rated load                                       | 14000                                       | 16000  | 18000                      |
|                     | 1.6            | Load centre distance  | c (mm)                                      | 900  | 600                        |
|                     | 1.8            | Load distance, centre of drive axle to fork                     | x (mm)                                      | 920  | 920                        |
|                     | 1.9            | Wheelbase   | y (mm)                                      | 3750   | 3750                       |
| Weight              | 2.1            | Service Weight  | kg  | 22800  | 23800                      |
|                     | 2.2            | Axle loading, laden front/rear                                  | kg  | 33120/3680   | 35900/3900                 |
|                     | 2.3            | Axle loading, unladen front/rear                                | kg  | 11628/11172  | 11662/12138                |
| Tyres, chassis      | 3.1            | Tyres: solid rubber, superelastic, pneumatic, polyurethane      | pneumatic                                   | pneumatic  | pneumatic                  |
|                     | 3.2            | Tyre size, front  | 12.00-20-20PR                               | 12.00-20-20PR  | 12.00-20-20PR              |
|                     | 3.3            | Tyre size, rear   | 12.00-20-20PR                               | 12.00-20-20PR  | 12.00-20-20PR              |
|                     | 3.5            | Wheels, number front / rear (x = driven wheels)                 | 4x/2  | 4x/2   | 4x/2                       |
|                     | 3.6            | Tread, front  | b10 (mm)                                    | 1894   | 1894                       |
|                     | 3.7            | Tread, rear   | b11 (mm)                                    | 2030   | 2030                       |
|                     | Dimensions     | 4.1   | Tilt of mast/fork carriage forward/backward | $\alpha/\beta(^{\circ})$                               | 6/12                       |
| 4.2                 |                | Height, mast lowered  | h1 (mm)                                     | 3300   | 3300                       |
| 4.4                 |                | Lift  | h3 (mm)                                     | 3000   | 3000                       |
| 4.5                 |                | Height, mast extended   | h4 (mm)                                     | 4800   | 4800                       |
| 4.7                 |                | Height of overhead guard (cabin)                                | h5 (mm)                                     | 3300   | 3300                       |
| 4.12                |                | Coupling height   | h9 (mm)                                     | 480  | 480                        |
| 4.19                |                | Overall length  | l1 (mm)                                     | 7270   | 7270                       |
| 4.20                |                | Length to face of forks   | l2 (mm)                                     | 5470   | 5470                       |
| 4.21                |                | Overall width   | b1 (mm)                                     | 2580   | 2580                       |
| 4.22                |                | Fork dimensions   | s/e/l (mm)                                  | 90/250/1800  | 90/250/1800                |
| 4.24                |                | Fork-carriage width   | b3 (mm)                                     | 2510   | 2510                       |
| 4.25                |                | Distance between fork-arms                                      | b5 (mm)                                     | 750/2300   | 750/2300                   |
| 4.31                |                | Ground clearance, laden, below mast                             | m1 (mm)                                     | 250  | 250                        |
| 4.32                |                | Ground clearance, centre of wheelbase                           | m2 (mm)                                     | 265  | 265                        |
| 4.34.1              |                | Aisle width for pallets crossways                               | Ast (mm)                                    | 6070+H6  | 6070+H6                    |
| 4.35                | Turning radius | Wa (mm)   | 4950  | 4950   |                            |
| Performance data    | 5.1            | Travel speed, laden/unladen                                     | km/h  | 27/28  | 27/28                      |
|                     | 5.2            | Lift speed, laden/unladen                                       | mm/s  | 350/400  | 350/400                    |
|                     | 5.6            | Max. Drawbar pull, laden/unladen                                | N   | 150000   | 150000                     |
|                     | 5.8            | Max. gradeability, laden/unladen                                | %   | 20/25  | 20/25                      |
|                     | 5.10           | Service brake   |   | Wet disc brake system(WDB)                             | Wet disc brake system(WDB) |
|                     |                | Parking brake   |   | Spring Applied,Hydraulic release multidisc brake(SAHR) |                            |
| Electric engine     | 6.1            | Drive motor rating S2 60 min                                    | kW  | 120  | 120                        |
|                     | 6.2            | Lift motor rating at S3 15%                                     | kW  | 50*2   | 50*2                       |
|                     | 6.4            | Battery voltage, nominal capacity K5                            | V/Ah  | 608/302  | 608/302                    |
|                     | 6.5            | Battery weight  | kg  | 1790   | 1790                       |
|                     |                | Battery dimensions  | l/b/h(mm)                                   | 1884/715/629   | 1884/715/629               |
|                     |                | Max. battery weight   | kg  | 1790   | 1790                       |
| Addition data       | 8.1            | Type of drive unit  |   | IGBT/AC  | IGBT/AC                    |
|                     | 10.1           | Operating pressure for attachments                              | bar   | 350  | 350                        |
|                     | 10.8           | Towing coupling, type DIN 15170                                 |   | Φ50Pin   | Φ50Pin                     |