



## ECB16Di ECB18Di ECB20SD

BYD COUNTERBALANCE FORKLIFT  
4-WHEELER (1600kg/1800kg/2000kg)

**CHANGE YOUR MIND  
NOT YOUR BATTERY**

 Lithium /  YRS **15,000HRS** Battery Warranty / BYD Iron-Phosphate

# Core Technology

**With many years of experience and innovation, BYD has the most reliable battery technology.**

BYD started as a battery manufacturer, producing its first battery in 1997. Currently, BYD batteries are widely applied to passenger vehicles, cabs, buses, coaches, logistic vehicles, sanitation trucks and other commercial vehicles. In order to

accomplish that, we believe in technology innovation and rigorous production processes. BYD batteries have been road-proven in over 1.7 million new energy passenger cars and over 70,000 electric buses around the world.

We are constantly refining our manufacturing, pack design and interconnection hardware to further enhance the battery safety profile. Samples from each batch must pass rigorous impact, collision, vibration and external fire testing before being released for electric vehicle integration.



## **BYD Iron-Phosphate technology**

BYD Iron-Phosphate electric forklift batteries are a major revolution for the industry. A solution for the present and future, synonymous with savings, sustainability, cleanliness, safety and care for the environment.



## **The BYD battery revolution**

BYD has accumulated vast experience to predict and respond to global sustainability challenges. Currently, BYD's patented BYD Iron-Phosphate batteries have been used in over 40 vehicle models, including passenger, commercial, and off-highway vehicles.

Compared to equivalent equipment powered by traditional lead acid batteries, BYD batteries require no maintenance, have a shorter charge time, a longer working life, and use up to 40% less energy. Combined with BYD's intelligent chargers, charging from empty to full can be achieved in under an hour, providing comfortably enough charge for a full eight-hour shift. Furthermore, BYD batteries can be topped-up during short breaks in operations, thus guaranteeing maximum uptime at the lowest-possible cost.

Unlike other Lithium-ion batteries featuring on competitors' forklifts, BYD designs, develops and manufactures its own batteries and chargers, meaning the entire energy ecosystem is optimised to offer maximum performance for your investment.

# BYD Iron-Phosphate Battery



## Savings

No battery changes, no maintenance, no distilled water or charger room, and with an energy consumption which is well below average.



## Sustainable

No pollution from heavy metals or corrosive acid, making BYD Iron-Phosphate batteries the most ecologically friendly on the market.



## Safety

No risk of explosion or fire, no flammable gases emissions, nor harm to the health of your employees.



## Opportunity Charging

Battery can be partially topped up frequently e.g. during lunch break with no detriment to battery life or capacity.



## Long life

Unrivalled industrial leading warranty 8 year/15,000 hours thanks to BYD active battery protection system standard in 1.5 GEN models.



## Fast-Charging

Charging power up to 16kW, with possibility to reduce charging time down to 1 hour, as compared to 8-12 hours charging time for lead acid batteries.



# ECB16Di ECB18Di ECB20SD

## Electronic Parking Brake Auto Switch-off

The electronic parking brake is incorporated into the range. It provides the advantage of automatic battery switch-off, a safety feature that prevents the battery draining if left unattended for an extended period of time.



## High full load capacity

The new forklift has improved stability and load capacity, with a 4000mm lift height @ 500 LC with full load capacity.



## Easy-on two steps pedal

The product provides a two-stage boarding pedal, providing a more user-friendly operation condition.



## Remodeled Steering Axle

With a larger steering angle now achievable, the overall turning radius of the forklift is minimised with a reduction of 3.57% to increase manoeuvrability in tight areas such as warehouse aisles.

# ECB16Di/ECB18Di/ECB20SD Counterbalance Forklifts Specifications

|                  |        |                                             |       |         |             |             |             |
|------------------|--------|---------------------------------------------|-------|---------|-------------|-------------|-------------|
| Identification   | 1.1    | Manufacturer                                |       |         | BYD         | BYD         | BYD         |
|                  | 1.2    | Model                                       |       |         | ECB16Di     | ECB18Di     | ECB20SD     |
|                  | 1.3    | Drive                                       |       |         | Electric    | Electric    | Electric    |
|                  | 1.4    | Operator type                               |       |         | Seat        | Seat        | Seat        |
|                  | 1.5    | Rated capacity                              | Q     | kg      | 1600        | 1800        | 2000        |
|                  | 1.6    | Load center                                 | c     | mm      | 500         | 500         | 500         |
|                  | 1.8    | Load distance, center of drive axle to fork | x     | mm      | 393         | 393         | 409         |
|                  | 1.9    | Wheelbase                                   | y     | mm      | 1400        | 1400        | 1450        |
| Weights          | 2.1    | Service weight                              |       | kg      | 3100        | 3260        | 3580        |
|                  | 2.2    | Axle load, with load, front/rear            |       | kg      | 4128/572    | 4445/615    | 4908/672    |
|                  | 2.3    | Axle load, without load, front/rear         |       | kg      | 1507/1593   | 1497/1763   | 1654/1926   |
| Wheels           | 3.1    | Tyres                                       |       |         | SE          | SE          | SE          |
|                  | 3.2    | Tyre size, front                            |       |         | 18x7-8      | 200/50-10   | 200/50-10   |
|                  | 3.3    | Tyre size, rear                             |       |         | 16×6-8      | 16×6-8      | 16×6-8      |
|                  | 3.5    | Wheels, number front rear (X=driven wheels) |       |         | 2x/2        | 2x/2        | 2x/2        |
|                  | 3.6    | Track width, front                          | b10   | mm      | 890         | 932         | 932         |
|                  | 3.7    | Track width, rear                           | b11   | mm      | 855         | 855         | 855         |
| Basic Dimensions | 4.1    | Tilt of mast/fork carriage forward/backward | a/b   | deg     | 5/7         | 5/7         | 5/8         |
|                  | 4.2    | Height, mast lowered                        | h1    | mm      | 2020        | 2020        | 1990        |
|                  | 4.3    | Free lift                                   | h2    | mm      | 120         | 120         | 150         |
|                  | 4.4    | Lift height                                 | h3    | mm      | 3000        | 3000        | 3000        |
|                  | 4.5    | Height, mast extended                       | h4    | mm      | 3985        | 3985        | 4040        |
|                  | 4.7    | Height of overhead guard                    | h6    | mm      | 2050        | 2050        | 2050        |
|                  | 4.8    | Seat height                                 | h7    | mm      | 985         | 985         | 985         |
|                  | 4.12   | Coupling height                             | h10   | mm      | 480         | 480         | 480         |
|                  | 4.19   | Overall length                              | l1    | mm      | 3195        | 3195        | 3260        |
|                  | 4.20   | Length to face of forks                     | l2    | mm      | 2125        | 2125        | 2190        |
|                  | 4.21   | Overall width                               | b1    | mm      | 1100        | 1130        | 1130        |
|                  | 4.22   | Fork dimensions                             | s/e/l | mm      | 40/100/1070 | 40/100/1070 | 40/100/1070 |
|                  | 4.23   | Fork carriage ISO 2328, class/type A, B     |       |         | 2A          | 2A          | 2A          |
|                  | 4.24   | Fork carriage width                         | b3    | mm      | 1040        | 1040        | 1040        |
|                  | 4.31   | Ground clearance, with load, below mast     | m1    | mm      | 95          | 95          | 95          |
|                  | 4.32   | Ground clearance, center of wheelbase       | m2    | mm      | 95          | 95          | 95          |
|                  | 4.34.1 | Aisle width for pallets 1000x1200 crossways | Ast   | mm      | 3400        | 3400        | 3470        |
|                  | 4.34.2 | Aisle width for pallets 800x1200 lengthways | Ast   | mm      | 3560        | 3560        | 3630        |
|                  | 4.35   | Turning radius                              | Wa    | mm      | 1755        | 1755        | 1815        |
|                  | 4.36   | Turning radius (inner)                      | Wa    | mm      | 200         | 200         | 221         |
| Performance Data | 5.1    | Travel speed, with/without load             |       | Km/h    | 16/16       | 16/16       | 16/16       |
|                  | 5.2    | Lift speed, with/without load               |       | mm/s    | 500/550     | 500/550     | 450/480     |
|                  | 5.3    | Lowering speed, with/without load           |       | mm/s    | 530/500     | 530/500     | 480/450     |
|                  | 5.6    | Maximum tractive force, with/without load   |       | KN      | 9.0/7.9     | 9.0/8.0     | 9.0/8.0     |
|                  | 5.8    | Max. gradeability, with/without load        |       | %       | 20/20       | 18/20       | 15/20       |
|                  | 5.10   | Service brake                               |       |         | hydr.       | hydr.       | hydr.       |
| Motor            | 6.1    | Drive motor rating S2 60 min.               |       | kW      | 2×5         | 2×5         | 2×6.5       |
|                  | 6.2    | Lift motor rating at S3 15%                 |       | kW      | 16          | 16          | 16          |
|                  | 6.4    | Battery voltage, nominal capacity           |       | V/Ah    | 80/270      | 80/270      | 80/270      |
|                  | 6.5    | Battery weight                              |       | kg      | 620         | 620         | 620         |
| Others           | 8.1    | Type of drive control                       |       |         | AC          | AC          | AC          |
|                  | 10.1   | Operating pressure for attachments          |       | Mpa     | 16          | 18          | ≤16         |
|                  | 10.7   | Noise level at operator's ear               |       | (dB(A)) | ≤75         | ≤75         | ≤75         |
|                  | 10.8   | Trailer                                     |       |         | PIN         | PIN         | PIN         |

\*BYD reserves the right to alter and modify the design, features and technical parameters of its products at any given time and without pre-advice, as products are subject to ongoing and continuous development.

## ECB16Di/ECB18Di MAST TABLE

- h3** Lifting Height (mm)    **h2** Full Free Lift Height (mm) (Load Backrest 1000mm)    **h1** Height, Mast Fully Lowered (mm)  
**h4** Height, Mast Fully Extended (mm) (Load Backrest 1000mm)    **α** Tilt Forward    **β** Tilt Backward

| Mast spec<br>(mm)             | h3   | h2 (with<br>backrest) | h1   | h4   | α  | β  | Residual Capacity (kg)(without attachment) |      |                          |      |
|-------------------------------|------|-----------------------|------|------|----|----|--------------------------------------------|------|--------------------------|------|
|                               |      |                       |      |      |    |    | ECB16Di<br>@500MM/@600MM                   |      | ECB18Di<br>@500MM/@600MM |      |
| 2-stage<br>Standard<br>Mast   | 3000 | 130                   | 2020 | 4040 | 5° | 7° | 1600                                       | 1561 | 1800                     | 1759 |
|                               | 3500 | 130                   | 2270 | 4540 | 5° | 7° | 1600                                       | 1500 | 1800                     | 1692 |
|                               | 4000 | 130                   | 2570 | 5040 | 5° | 7° | 1600                                       | 1443 | 1766                     | 1629 |
|                               | 4500 | 130                   | 2820 | 5540 | 5° | 5° | 1503                                       | 1389 | 1698                     | 1570 |
|                               | 5000 | 130                   | 3120 | 6040 | 5° | 5° | 1354                                       | 1339 | 1634                     | 1514 |
| 2-stage<br>FFL mast           | 3000 | 1020                  | 2020 | 4040 | 5° | 7° | 1600                                       | 1572 | 1800                     | 1770 |
|                               | 3300 | 1170                  | 2170 | 4340 | 5° | 7° | 1600                                       | 1550 | 1800                     | 1702 |
|                               | 3500 | 1270                  | 2270 | 4540 | 5° | 7° | 1600                                       | 1510 | 1787                     | 1669 |
|                               | 4000 | 1570                  | 2570 | 5040 | 5° | 7° | 1575                                       | 1453 | 1777                     | 1639 |
| 3-stage<br>Dual FFL<br>mast   | 4000 | 895                   | 1895 | 5040 | 5° | 5° | 1496                                       | 1379 | 1698                     | 1565 |
|                               | 4500 | 1045                  | 2045 | 5540 | 5° | 5° | 1429                                       | 1321 | 1624                     | 1501 |
|                               | 5000 | 1195                  | 2195 | 6040 | 5° | 5° | 1366                                       | 1265 | 1554                     | 1441 |
|                               | 5500 | 1395                  | 2395 | 6540 | 5° | 3° | 1306                                       | 1213 | 1489                     | 1384 |
| 3-stage<br>Single FFL<br>Mast | 4000 | 895                   | 1895 | 5040 | 5° | 5° | 1496                                       | 1379 | 1698                     | 1565 |
|                               | 4500 | 1045                  | 2045 | 5540 | 5° | 5° | 1429                                       | 1321 | 1624                     | 1501 |
|                               | 5000 | 1195                  | 2195 | 6040 | 5° | 5° | 1366                                       | 1265 | 1554                     | 1441 |
|                               | 5500 | 1395                  | 2395 | 6540 | 5° | 3° | 1306                                       | 1213 | 1489                     | 1384 |

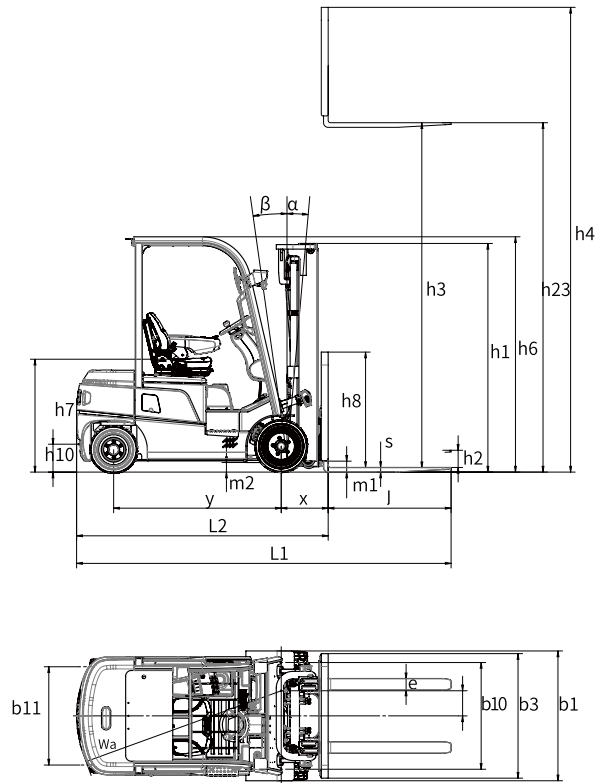
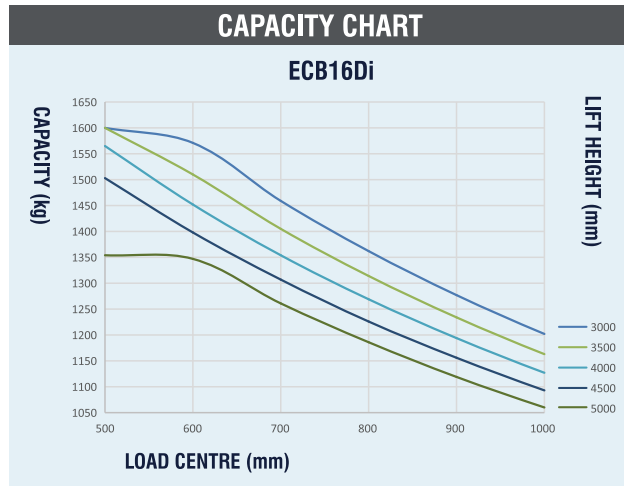
For special request, please contact BYD.

## ECB20SD MAST TABLE

| Mast spec<br>(mm)             | h3   | h2 (with<br>backrest) | h1   | h4   | α  | β  | Residual Capacity (kg)(without attachment) |      |
|-------------------------------|------|-----------------------|------|------|----|----|--------------------------------------------|------|
|                               |      |                       |      |      |    |    | ECB20SD<br>@500MM/@600MM                   |      |
| 2-stage<br>Standard<br>Mast   | 3000 | 130                   | 1990 | 4040 | 5° | 7° | 1600                                       | 1600 |
|                               | 3500 | 130                   | 2290 | 4540 | 5° | 7° | 1600                                       | 1600 |
|                               | 4000 | 130                   | 2540 | 5040 | 5° | 7° | 1600                                       | 1600 |
|                               | 4500 | 130                   | 2840 | 5540 | 5° | 5° | 1503                                       | 1503 |
|                               | 5000 | 130                   | 3090 | 6040 | 5° | 5° | 1354                                       | 1354 |
| 2-stage<br>FFL mast           | 3000 | 1000                  | 2040 | 4040 | 5° | 7° | 1600                                       | 1600 |
|                               | 3300 | 1150                  | 2190 | 4340 | 5° | 7° | 1600                                       | 1600 |
|                               | 3500 | 1250                  | 2290 | 4540 | 5° | 7° | 1600                                       | 1600 |
|                               | 4000 | 1500                  | 2540 | 5040 | 5° | 7° | 1575                                       | 1575 |
| 3-stage<br>Dual FFL<br>mast   | 4000 | 893                   | 1893 | 5040 | 5° | 5° | 1496                                       | 1496 |
|                               | 4500 | 1093                  | 2093 | 5540 | 5° | 5° | 1429                                       | 1429 |
|                               | 5000 | 1293                  | 2293 | 6040 | 5° | 5° | 1366                                       | 1366 |
|                               | 5500 | 1443                  | 2443 | 6540 | 5° | 3° | 1306                                       | 1306 |
| 3-stage<br>Single FFL<br>Mast | 4000 | 893                   | 1893 | 5040 | 5° | 5° | 1496                                       | 1496 |
|                               | 4500 | 1093                  | 2093 | 5540 | 5° | 5° | 1429                                       | 1429 |
|                               | 5000 | 1293                  | 2293 | 6040 | 5° | 5° | 1366                                       | 1366 |
|                               | 5500 | 1443                  | 2443 | 6540 | 5° | 3° | 1306                                       | 1306 |

For special request, please contact BYD.

## LOADING CAPACITY



## STANDARD FEATURES

- 80V Dual AC drive motor
- 4.8m 3-stage FFL Mast with dual FFL
- Cascade Integral sideshifter
- 4-Way Hydraulic valve
- Full LED lights
- 80V 270Ah
- MSG45 seat(basic model)/ MSG65 seat (Comfort model)
- 80V 100A IGBT Charger
- 1070mm forks
- Super Elastic solid tyres
- Electric parking brake
- Battery Auto Switch-off

## OPTIONAL FEATURES

- Mast variants
- Attachments upon requests
- MSG 65 Textile/Leather seat
- Full cabin options
- Lights option (Flashing beacon/spot light/rear working light)
- Panoramic Mirror
- Storage box with USB port
- 80V 200A IGBT Charger
- Non-marking tyres
- Battery options:340Ah



## **BYD Europe B.V.**

📍 s-Gravelandseweg 256, 3125 BK Schiedam, The Netherlands

☎ 0031 1020 70888

✉ forklift@byd.com

🌐 [www.bydforklift.com](http://www.bydforklift.com)



BYD forklifts conform to the European Safety Requirements

Printed in Feb 2024