



# CQD16-20RVF2

## Electric Reach Truck 1.6/2.0T

- Optimal visibility
- High stability
- Enjoyable lifting operation
- Easy and precise operation

**EP EQUIPMENT CO.,LTD**  
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## FEATURE

### Optimal visibility

Along with the offset layout of the oil tubes, stacking visibility and operation flexibility of CQD16/20RVF2 are greatly improved.



### Enjoyable lifting operations

CQD16RVF2 and 20RVF2 offer powerful performance and quiet operation through the upgraded hydraulic pump and reduces operation noise by 10 dB.



### Easy and precise operations

CQD16RVF2 and 20RVF2 are equipped with mechanic height indicators, that tells operators the correct height of the fork at various rack levels for precise operation to improve the stacking efficiency.



### High stability

The low center of gravity and the newly I-beam mast design enhance the truck stability. The maximum lifting height of CQD16RVF2 is 9500 mm while the one of CQD20RVF2 is 12000 mm.



## FEATURE

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### ■ Easy Steering

CQD16/20RVF2 come with full AC motors and electric power steering system that consumes less power compared to hydraulic power steering while keeps operation habits of trucks with mechanical steering through the additional damping force. So CQD16/20RVF2 give more working hours than ones with hydraulic power steering.



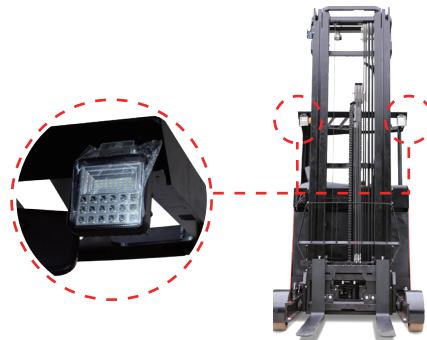
### ■ Full-color Display

CQD16/20RVF2 are designed with a color display to help operators easily monitor battery charge level, driving speed, and check error codes.



### ■ 6000K Led Light

CQD16/20RVF2 are equipped with 6000K led lights to cope with the dark environment for optimal visibility.

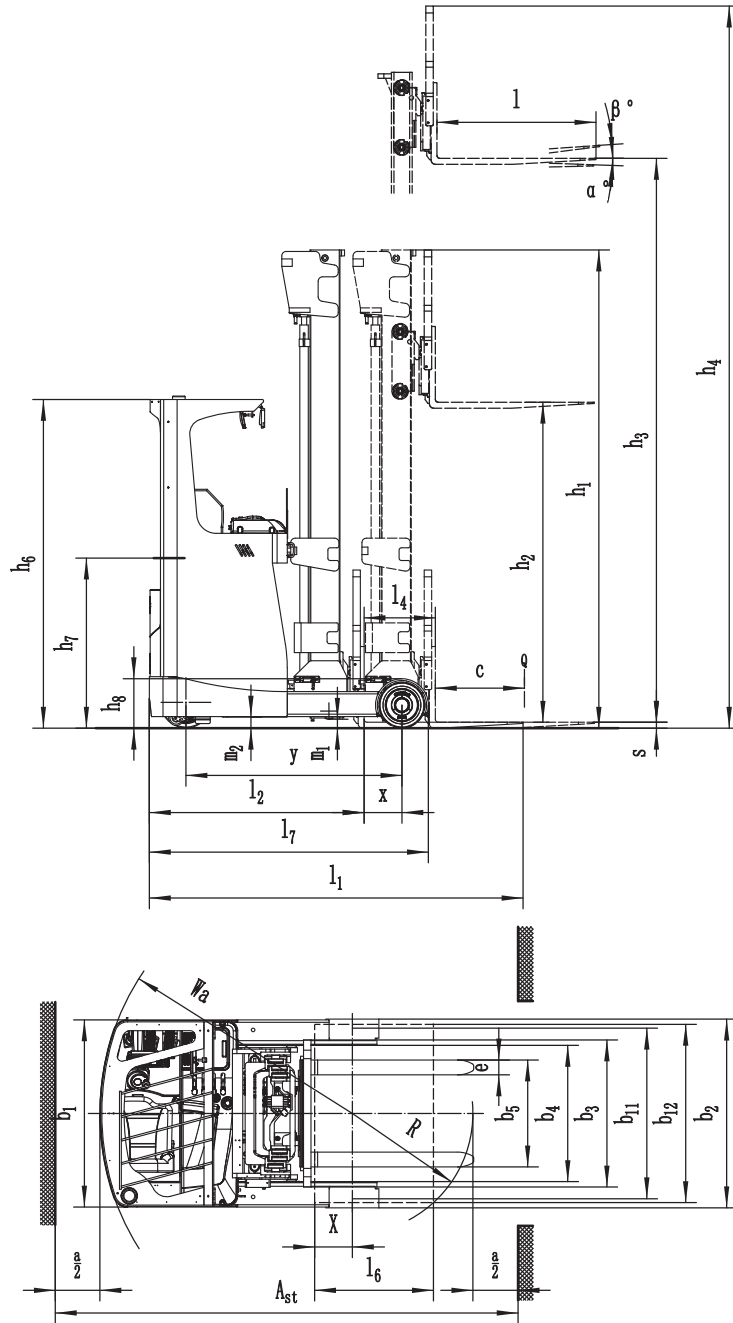


# Electric Reach Truck 1.6/2.0T

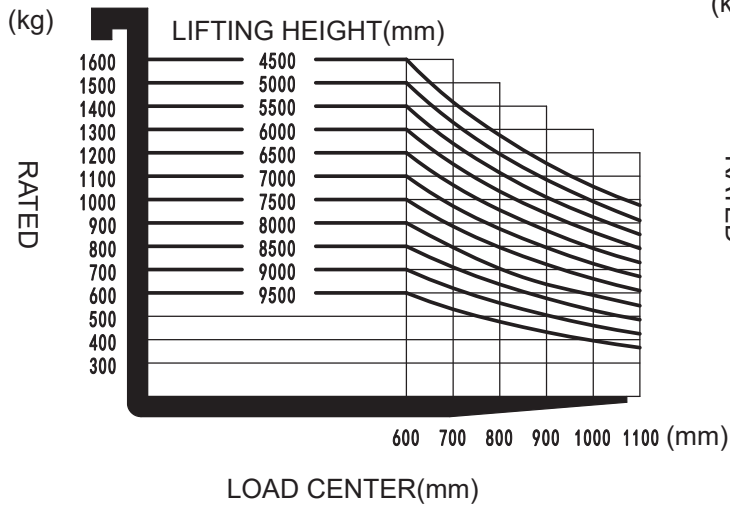
## CQD16RVF2/20RVF2

|                     |                  |  |                                       |                |                 |                 |      |
|---------------------|------------------|--|---------------------------------------|----------------|-----------------|-----------------|------|
| Distinguishing mark | 1.1              | Manufacturer                                   |                                       |                | EP              | EP              |      |
|                     | 1.2              | Model designation                              |                                       |                | CQD16RVF2       | CQD20RVF2       |      |
|                     | 1.3              | Drive  |                                       |                | Electric        | Electric        |      |
|                     | 1.4              | Operator type                                  |                                       |                | Seated          | Seated          |      |
|                     | 1.5              | Load capacity                                  | Q                                     | kg             | 1600            | 2000            |      |
|                     | 1.6              | Load center distance                           | c                                     | mm             | 600             | 600             |      |
|                     | 1.8              | Load distance, centre of drive axle to fork    | x                                     | mm             | 255             | 325             |      |
|                     | 1.9              | Wheelbase                                      | y                                     | mm             | 1454            | 1524            |      |
|                     | Service weight   | 2.1  | Service weight                        |                | kg              | 3741            | 3750 |
| 2.3.1               |                  | Axle loading, unladen front/rear               |                                       | kg             | —               | 2150/1520       |      |
| 2.4.1               |                  | Axle loading, fork advanced, laden front/rear  |                                       | kg             | —               | 500/5240        |      |
| Tyres/chassis       | 2.5.1            | Axle loading, fork retracted, laden front/rear |                                       | kg             | —               | 1820/3910       |      |
|                     | 3.1              | Tyre type                                      |                                       |                | Polyurethane    | Polyurethane    |      |
|                     | 3.2.1            | Tyre size, front                               |                                       | mm             | Φ343×140        | Φ343×140        |      |
|                     | 3.3.1            | Tyre size, rear                                |                                       | mm             | Φ310×118        | Φ310×118        |      |
|                     | 3.4              | Additional wheels (castor wheels)              |                                       | mm             | Φ102×51         | Φ102×51         |      |
|                     | 3.5.1            | Wheels, number front/rear (x=drive wheels)     |                                       | mm             | 1x/2            | 1x/2            |      |
|                     | 3.6.1            | Tread width, front                             | b <sub>10</sub>                       | mm             | —               | -               |      |
| Dimensions          | 3.7.1            | Tread width, rear                              | b <sub>11</sub>                       | mm             | 1148            | 1148            |      |
|                     | 4.1              | Tilt of mast/fork carriage forward/backward    | α/β                                   | °              | 2/4             | 2/4             |      |
|                     | 4.2              | Retracted mast height                          | h <sub>1</sub>                        | mm             | 3219            | 3219            |      |
|                     | 4.3              | Free lift                                      | h <sub>2</sub>                        | mm             | 1712            | 1712            |      |
|                     | 4.4              | Lift height                                    | h <sub>3</sub>                        | mm             | 7500            | 7500            |      |
|                     | 4.5              | Height, mast extended                          | h <sub>4</sub>                        | mm             | 8565            | 8565            |      |
|                     | 4.7              | Height of overhead guard (cabin)               | h <sub>6</sub>                        | mm             | 2213            | 2213            |      |
|                     | 4.8              | Seat height/standing height                    | h <sub>7</sub>                        | mm             | 1145            | 1145            |      |
|                     | 4.10             | Height of wheel arms                           | h <sub>8</sub>                        | mm             | 333             | 333             |      |
|                     | 4.19             | Overall length                                 | l <sub>1</sub>                        | mm             | 2515            | 2515            |      |
|                     | 4.20             | Length to face of forks                        | l <sub>2</sub>                        | mm             | 1445            | 1445            |      |
|                     | 4.21             | Overall width                                  | b <sub>1</sub> /b <sub>2</sub>        | mm             | 1270            | 1270            |      |
|                     | 4.22             | Fork dimensions                                | s×e×l                                 | mm             | 40/100/1070     | 40/120/1070     |      |
|                     | 4.23             | A,B Fork carriage class/type A, B              |                                       |                | 2A              | 2A              |      |
|                     | 4.24             | Fork carriage width                            | b <sub>3</sub>                        | mm             | 990             | 900             |      |
|                     | 4.25             | Distance between fork-arms                     | b <sub>5</sub>                        | mm             | 200-770         | 240-770         |      |
|                     | 4.26             | Distance between wheel arms/loading surfaces   | b <sub>4</sub>                        | mm             | 915             | 915             |      |
|                     | 4.28             | Reach distance                                 | l <sub>4</sub>                        | mm             | 480             | 555             |      |
|                     | Performance data | 4.31   | Ground clearance, laden, below mast   | m <sub>1</sub> | mm              | 60              | 60   |
|                     |                  | 4.32   | Ground clearance, center of wheelbase | m <sub>2</sub> | mm              | 70              | 70   |
| 4.34.1              |                  | Aisle width for pallets 1000×1200 crossways    | Ast                                   | mm             | 2873            | 2889            |      |
| 4.34.2              |                  | Aisle width for pallets 800×1200 lengthways    | Ast                                   | mm             | 2951            | 2952            |      |
| 4.35                |                  | Turning radius                                 | Wa                                    | mm             | 1700            | 1770            |      |
| 4.37                |                  | Length across wheel arms                       | l <sub>7</sub>                        | mm             | 1878            | 1948            |      |
| 5.1                 |                  | Travel speed, laden/unladen                    |                                       | km/h           | 10/11           | 9/9.5           |      |
| 5.2                 |                  | Lifting speed, laden/unladen                   |                                       | m/s            | 0.35/0.5        | 0.35/0.45       |      |
| 5.3                 |                  | Lowering speed, laden/unladen                  |                                       | m/s            | 0.41/0.38       | 0.41/0.38       |      |
| 5.4                 |                  | Reaching speed, laden /unladen                 |                                       | m/s            | 0.18/0.18       | 0.18/0.18       |      |
| 5.8                 |                  | Max. gradeability, laden/unladen               |                                       | %              | 10/11           | 10/15           |      |
| Electric-engine     | 5.10             | Service brake                                  |                                       |                | Electromagnetic | Electromagnetic |      |
|                     | 5.11             | Parking brake                                  |                                       |                | Electromagnetic | Electromagnetic |      |
|                     | 6.1              | Drive motor rating S2 60 min                   |                                       | kW             | 7               | 7               |      |
|                     | 6.2              | Lift motor rating at S3 15%                    |                                       | kW             | 11.75           | 13              |      |
|                     | 6.4              | Battery voltage/nominal capacity               |                                       | V/Ah           | 48/500          | 48/500          |      |
| Addition data       | 6.5              | Battery weight                                 |                                       | kg             | 925             | 925             |      |
|                     | 8.1              | Type of drive control                          |                                       |                | AC              | AC              |      |
|                     | 10.5             | Steering design                                |                                       |                | Electronic      | Electronic      |      |
|                     | 10.7             | Sound pressure level at the driver's ear       |                                       | dB(A)          | 75              | 75              |      |
|                     | 15.1             | Charger output current                         |                                       | A              | 60              | 60              |      |

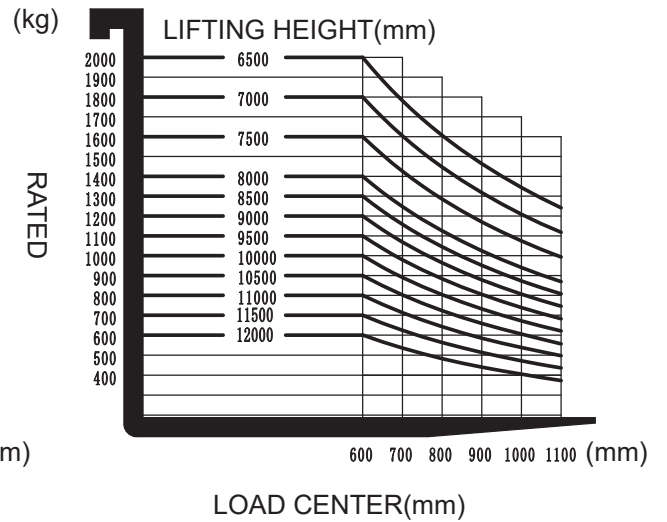
If there are improvements of technical parameters or configurations, no further notice will be given.  
The diagram shown may contain non-standard configurations.



RATED CAPACITIES GRAPH



RATED CAPACITIES GRAPH



# Mast Option

## ①Service weight (include battery)

| Mast stages  | Mast height(mm) | Model     |           |
|--------------|-----------------|-----------|-----------|
|              |                 | CQD16RVF2 | CQD20RVF2 |
| 2-stage mast | 2700            | 3078      | 3087      |
|              | 3000            | 3103      | 3112      |
|              | 3300            | 3127      | 3136      |
|              | 3640            | 3155      | 3164      |
|              | 4000            | 3184      | 3193      |
|              | 4300            | 3208      | 3217      |
|              | 4520            | 3236      | 3245      |
|              | 5000            | 3275      | 3284      |
|              | 5480            | 3317      | 3326      |
| 6000         | 3374            | 3383      |           |
| Mast stages  | Mast height(mm) | Model     |           |
|              |                 | CQD16RVF2 | CQD20RVF2 |
| 3-stage mast | 4050            | 3369      | 3378      |
|              | 4500            | 3411      | 3420      |
|              | 5000            | 3454      | 3463      |
|              | 5500            | 3502      | 3511      |
|              | 6000            | 3551      | 3560      |
|              | 6500            | 3594      | 3603      |
|              | 7000            | 3710      | 3719      |
|              | 7500            | 3741      | 3750      |
|              | 8000            | 3809      | 3818      |
|              | 8500            | 3869      | 3878      |
|              | 9000            | 3928      | 3937      |
|              | 9500            | 3976      | 3985      |
|              | 10000           | —         | 4336      |
|              | 10500           | —         | 4384      |
|              | 11000           | —         | 4430      |
| 11500        | —               | 4477      |           |
| 12000        | —               | 4523      |           |

## ③Dimensions(mm)

| With side shift                             | Mast stages | CQD16        |              |              |              |              |              | CQD20        |              |              |              |              |  |
|---|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
|   |             | 2-stage mast | 3-stage mast | 3-stage mast | 2-stage mast | 3-stage mast | 3-stage mast | 3-stage mast | 2-stage mast | 3-stage mast | 3-stage mast | 3-stage mast |  |
| Mast height h3                              |             | h3≤6m        | h3≤7.5m      | 8msh3≤9.5m   | h3≤6m        | h3≤7.5m      | 8msh3≤9.5m   | 10msh3≤12m   | h3≤6m        | h3≤7.5m      | 8msh3≤9.5m   | 10msh3≤12m   |  |
| Battery Capacity                            |             | ≤600Ah       |              |              |              |              |              | 700Ah, 750Ah |              |              |              |              |  |
| Wheel base                                  | y           | 1454         | 1454         | 1524         | 1524         | 1524         | 1594         | 1594         | 1524         | 1524         | 1594         | 1594         |  |
| Overall length (minimum)                    | l1          | 2515         | 2515         | 2515         | 2515         | 2515         | 2515         | 2515         | 2585         | 2585         | 2585         | 2585         |  |
| Length to face of forks                     | l2          | 1445         | 1445         | 1445         | 1445         | 1455         | 1455         | 1455         | 1525         | 1525         | 1525         | 1525         |  |
| Reach distance                              | l4          | 480          | 480          | 555          | 555          | 555          | 625          | 625          | 480          | 480          | 555          | 555          |  |
| Aisle width for pallets 1000×1200 crossways | Ast         | 2873         |              |              | 2889         |              |              | 2907         |              |              | 2943         |              |  |
| Aisle width for pallets 800×1200 lenthways  | Ast         | 2951         |              |              | 2952         |              |              | 2958         |              |              | 3016         |              |  |
| Aisle width for pallets 1000×1200 lenthways | Ast         | 2988         |              |              | 2996         |              |              | 3006         |              |              | 3058         |              |  |
| Aisle width for pallets 800×1200 crossways  | Ast         | 2734         |              |              | 2749         |              |              | 2776         |              |              | 2795         |              |  |
| Turning radius (minimum)                    | Wa          | 1700         |              |              | 1770         |              |              | 1840         |              |              | 1770         |              |  |
| Length across wheel arms (exclusive fork)   | l7          | 1878         |              |              | 1948         |              |              | 2018         |              |              | 1948         |              |  |
| Tyre size, loading wheels (diameter×width)  | \           | Φ310×118     |              |              |              |              |              | Φ310×208     |              | Φ310×118     |              |              |  |
| Overall width                               | b1/b2       | 1260/1270    |              |              |              |              |              | 1260/1450    |              | 1260/1270    |              |              |  |

## ④Battery

| Model            | CQD16     |  |           |  |
|------------------|-----------|--|-----------|--|
|                  | CQD20RVF2 |  |           |  |
| Battery capacity | 4HPzS 500 |  | 4HPzS 600 |  |
| Battery weight   | 925       |  | 935       |  |
|                  | 5HPzS 700 |  | 5HPzS 750 |  |
|                  | 1115      |  | 1140      |  |

②Mast

| Mast types      | Lift height ( h3 ) | Height, Mast             |                           |       | Height, Free lift(h2) |               |
|-----------------|--------------------|--------------------------|---------------------------|-------|-----------------------|---------------|
|                 |                    | Height, mast lowered(h1) | Height, mast extended(h4) |       | No backrest           | With backrest |
|                 | No backrest        |                          | With backrest             | mm    |                       |               |
|                 | mm                 | mm                       | mm                        | mm    | mm                    | mm            |
| 2-Standard Mast | 2700               | 1980                     | 3280                      | 3765  | 120                   | 120           |
|                 | 3000               | 2130                     | 3580                      | 4065  | 120                   | 120           |
|                 | 3300               | 2280                     | 3880                      | 4365  | 120                   | 120           |
|                 | 3640               | 2450                     | 4220                      | 4705  | 120                   | 120           |
|                 | 4000               | 2630                     | 4580                      | 5065  | 120                   | 120           |
|                 | 4300               | 2780                     | 4880                      | 5365  | 120                   | 120           |
| 3-Free Mast     | 4050               | 1999                     | 5113                      | 5115  | 522                   | 522           |
|                 | 4500               | 2149                     | 5563                      | 5565  | 672                   | 672           |
|                 | 5000               | 2299                     | 6063                      | 6065  | 772                   | 772           |
|                 | 5500               | 2469                     | 6563                      | 6565  | 952                   | 952           |
|                 | 6000               | 2649                     | 7063                      | 7065  | 1172                  | 1172          |
|                 | 6500               | 2799                     | 7563                      | 7565  | 1272                  | 1272          |
|                 | 7000               | 3049                     | 8063                      | 8065  | 1532                  | 1532          |
|                 | 7500               | 3219                     | 8563                      | 8565  | 1712                  | 1712          |
|                 | 8000               | 3389                     | 9063                      | 9065  | 1852                  | 1852          |
|                 | 8500               | 3609                     | 9563                      | 9565  | 2072                  | 2072          |
|                 | 9000               | 3769                     | 10063                     | 10065 | 2212                  | 2212          |
| 9500            | 3939               | 10563                    | 10565                     | 2392  | 2392                  |               |

| Mast types      | Lift height ( h3 ) | Height, Mast             |                           |       | Height, Free lift(h2) |               |
|-----------------|--------------------|--------------------------|---------------------------|-------|-----------------------|---------------|
|                 |                    | Height, mast lowered(h1) | Height, mast extended(h4) |       | No backrest           | With backrest |
|                 | No backrest        |                          | With backrest             | mm    |                       |               |
|                 | mm                 | mm                       | mm                        | mm    | mm                    | mm            |
| 2-Standard Mast | 2700               | 1980                     | 3280                      | 3765  | 120                   | 120           |
|                 | 3000               | 2130                     | 3580                      | 4065  | 120                   | 120           |
|                 | 3300               | 2280                     | 3880                      | 4365  | 120                   | 120           |
|                 | 3640               | 2450                     | 4220                      | 4705  | 120                   | 120           |
|                 | 4000               | 2630                     | 4580                      | 5065  | 120                   | 120           |
|                 | 4300               | 2780                     | 4880                      | 5365  | 120                   | 120           |
| 3-Free Mast     | 4050               | 1999                     | 5113                      | 5115  | 522                   | 522           |
|                 | 4500               | 2149                     | 5563                      | 5565  | 672                   | 672           |
|                 | 5000               | 2299                     | 6063                      | 6065  | 772                   | 772           |
|                 | 5500               | 2469                     | 6563                      | 6565  | 952                   | 952           |
|                 | 6000               | 2649                     | 7063                      | 7065  | 1172                  | 1172          |
|                 | 6500               | 2799                     | 7563                      | 7565  | 1272                  | 1272          |
|                 | 7000               | 3049                     | 8063                      | 8065  | 1532                  | 1532          |
|                 | 7500               | 3219                     | 8563                      | 8565  | 1712                  | 1712          |
|                 | 8000               | 3389                     | 9063                      | 9065  | 1852                  | 1852          |
|                 | 8500               | 3609                     | 9563                      | 9565  | 2072                  | 2072          |
|                 | 9000               | 3769                     | 10063                     | 10065 | 2212                  | 2212          |
|                 | 9500               | 3939                     | 10563                     | 10565 | 2392                  | 2392          |
|                 | 10000              | 4159                     | 11063                     | 11065 | 2612                  | 2612          |
|                 | 10500              | 4329                     | 11563                     | 11565 | 2792                  | 2792          |
|                 | 11000              | 4489                     | 12063                     | 12065 | 2932                  | 2932          |
| 11500           | 4659               | 12563                    | 12565                     | 3112  | 3112                  |               |
| 12000           | 4819               | 13063                    | 13065                     | 3252  | 3252                  |               |

# Option

| No.  | Optional items                  | CQD16RVF2  | CQD20RVF2   |
|------|---------------------------------|--|---|
| 1.1  | Fork dimension                  | ○900*600、2A、100*40*920<br>●900*600、2A、100*40*1070<br>○900*600、2A、100*40*1150<br>○900*600、2A、100*40*1220<br>○900*600、2A、100*40*1370 | ○1000*600、2A、122*40*920<br>●1000*600、2A、122*40*1070<br>○1000*600、2A、122*40*1150<br>○1000*600、2A、122*40*1220<br>○1000*600、2A、122*40*1370<br>○1000*600、2A、122*40*1500<br>○1000*600、2A、122*40*1600 |
| 1.2  | Leg width                       | ●917   | ●917  |
| 1.4  | Fork carriage width             | ●770mm   | ●770mm  |
| 1.5  | backrest height                 | ●1025mm  | ●1025mm   |
| 2.1  | Load wheel type                 | ●Single  | ●Single   |
| 2.2  | Load wheel material             | ●PU  | ●PU   |
| 2.3  | Drive wheel material            | ●PU  | ●PU   |
| 2.7  | Battery capacity                | ○400Ah●500Ah○560Ah<br>○600Ah○620Ah○405Ah-Li  | ●500Ah○560Ah○600Ah○620Ah<br>○700Ah○750Ah○775Ah○405Ah-Li   |
| 2.8  | Charger                         | ●48V-60A external<br>○48V-50A external<br>○48V-200A-Li external<br>○48V-150A-Li external   | ●48V-60A external<br>○48V-70A external<br>○48V-80A external<br>○48V-100A external<br>○48V-200A-Li external<br>○48V-150A-Li external   |
| 2.10 | Seat type                       | ●Suspension  | ●Suspension   |
| 2.11 | Attachments                     | ●Built-in sideshifter  | ●Built-in sideshifter   |
| 3.3  | Castor wheels                   | ●Yes and not customized  | ●Yes and not customized   |
| 3.4  | Water auto-filling system       | ●No○Yes and not customized   | ●No○Yes and not customized  |
| 3.5  | Front lamp                      | ●LED   | ●LED  |
| 3.6  | Rear lamp                       | ●No○LED  | ●No○LED   |
| 3.7  | Warning lamp                    | ●Yes and not customized  | ●Yes and not customized   |
| 3.9  | Blue lamp                       | ●No○Yes and not customized   | ●No○Yes and not customized  |
| 3.10 | Area warning lamp               | ●No○Yes and not customized   | ●No○Yes and not customized  |
| 3.11 | Rearview mirror                 | ●Yes and not customized  | ●Yes and not customized   |
| 3.12 | Buzzer                          | ●No○Yes and not customized   | ●No○Yes and not customized  |
| 3.13 | Height display                  | ●Yes and not customized<br>(only for 3-stage mast)   | ●Yes and not customized<br>(only for 3-stage mast)  |
| 3.14 | Camera                          | ●No○Yes and not customized   | ●No○Yes and not customized  |
| 3.15 | Fire extinguisher               | ●No○Yes and not customized   | ●No○Yes and not customized  |
| 3.17 | OPS system                      | ●Yes and not customized  | ●Yes and not customized   |
| 3.23 | Telematics                      | ●No○Yes and not customized   | ●No○Yes and not customized  |
| 4.1  | Battery side pull function      | ●No○Yes and not customized   | ●No○Yes and not customized  |
| 4.2  | Cold storage                    | ●No○Yes and not customized   | ●No○Yes and not customized  |
| 4.5  | Proportional lift system        | ●Yes and not customized  | ●Yes and not customized   |
| 4.6  | Forks tilt forward and backward | ●Yes and not customized  | ●Yes and not customized   |
| 4.7  | Overhead guard                  | ●Yes<br>○Yes and can be customized(Drive-in)   | ●Yes<br>○Yes and can be customized(Drive-in)  |
| 4.8  | Drive assembly                  | ●ZK25○GK25   | ●ZK25○GK25  |
| 5.1  | Battery side pull attachment    | ●No○Battery trolley○Side pull rack   | ●No○Battery trolley○Side pull rack  |

Note: ●Standard ○ Optional - Inconformity

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