FOUR-WHEEL ELECTRIC COUNTERBALANCED LIFT TRUCKS
J2.2-3.5KN
2 200-3 500 KG
### Specification Data

#### Vibration

- Sound pressure level at the driver’s seat: 85 dB(A)

#### Oil Volume

- Oil volume for attachments: 10 l/min

#### Energy Consumption

- Energy consumption according to VDI cycle: 6.68 kW

#### Battery Specifications

- Battery weight (min/max): 220 kg
- Battery voltage/nominal capacity: 2336 V/3000 A
- Battery according to DIN 43531/35/36 A, B, C, no

#### Drive Motor Specifications

- Drive motor rating S2 60 min: 5.7 kW
- Drive motor rating S3 15%: 4.56 kW

#### Lift Motor Specifications

- Lift motor rating at S3 15%: 5.7 kW
- Lift motor rating at S3: 4.56 kW

#### Gradeability

- Maximum gradeability laden/unladen: 10% (5.8 minute rating)

#### Drawbar Pull

- Maximum drawbar pull laden/unladen: 5.5 kN (5.5 minute rating)

#### Lift Speed

- Lift speed, laden/unladen: 0.57 m/sec

#### Travel Speed

- Travel speed, laden/unladen: 0.40 m/sec

#### Tyre Specifications

- Tyre size, rear: 23 x 10 - 12
- Tyre size, front: 18 x 7 - 8

#### Axle Loading

- Axle loading, unladen front/rear: 2279 kg
- Axle loading, laden front/rear: 2469 kg

#### Tyre Pressure

- Operating pressure for attachments: 6.0 bar

#### Drive Control

- Drive control

#### Engine Specifications

- Engine specifications:
  - Engine size: 17956 cm³
  - Engine power: 18441 rpm
  - Engine torque: 18076 Nm

#### Transmission

- Transmission specifications:
  - Transmission type: Hydraulic

#### AXLE SPECIFICATIONS

- Axle specifications:
  - Axle width: 1370 mm
  - Axle overhang: 1130 mm

#### STEERING SYSTEM

- Steering system:
  - Steering angle: ± 29.3°

#### SEATING AND CABIN

- Seat height relating to SIP/stand height: 3960 mm
- Seat height: 100 mm

#### CABİN OPTIONS

- Cab height (open cab): 475 mm
- Height of overhead guard (cabin): 475 mm

#### TOWING COUPLING

- Towing coupling, type DIN: 5.10 kg

#### LOAD DISTANCE

- Load distance, centre of drive axle to fork: 706 / 810 mm

#### LOAD CENTRE DISTANCE

- Load centre distance: 1981 mm

#### SERVICE WEIGHT

- Service weight: 2336 kg

#### RATED CAPACITY / RATED LOAD

- Rated capacity / Rated load: 2043 kg

#### DRIVE SYSTEM

- Drive system:
  - Drive: Electric (battery or mains), Diesel, Petrol, Fuel Gas

#### BATTERY SPECIFICATIONS

- Battery weight (min/max): 220 kg
- Battery voltage/nominal capacity: 2336 V/3000 A

#### TILT OF MAST/FOOT CARTRIDGE

- Tilt of mast/foot carriage: ± 29.3°

#### TREAD

- Tread: 1067 mm

#### WHEELS

- Wheels, number front/rear: 2279 kg

#### TYRES

- Tyre size, rear: 23 x 10 - 12
- Tyre size, front: 18 x 7 - 8

#### Axle Loading

- Axle loading, unladen front/rear: 2279 kg
- Axle loading, laden front/rear: 2469 kg

#### Tyre Pressure

- Tyre pressure: 706 / 810 psi

#### Drive Motor

- Drive motor specification:
  - Drive motor type: AC elektronik

#### ELECTRICAL SYSTEM

- Electrical system:
  - electrical system: AC elektronik

#### SERVICE & MAINTENANCE

- Service & maintenance:
  - Service & maintenance:
    - Service & maintenance:
      - Service & maintenance:

#### ACCESSORIES & OPTIONS

- Accessories & options:
  - Accessories & options:

#### COMPLIANCE WITH STANDARDS

- Compliance with standards:
  - Compliance with standards:

#### ENFORCEMENT & WEIGHTS

- Enforcement & weights:
  - Enforcement & weights:

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**Note:** The data provided is based on VDI 2198 standards. The 2-stage limited free lift mast configuration includes a standard seat and overhead guard, with extended shift on a DIN battery. The standard carriage and 1000 mm forks with load backrest with extended shift on a DIN battery configuration, standard seat and overhead guard, and pneumatic shaped solid drive and steer tyres.
### Dimensions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>J2.2XN</th>
<th>J2.5XN</th>
<th>J3.0XN</th>
<th>J3.5XN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Turning Radius b13 (mm)</td>
<td>1931</td>
<td>1931</td>
<td>2073</td>
<td>2324</td>
</tr>
<tr>
<td>Aisle Dimensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>800 × 1200 long</td>
<td>4.34.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>800 x 1000 crossways b12 x l16</td>
<td>4.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal width b2 (mm)</td>
<td>4.04</td>
<td>4.04</td>
<td>4.04</td>
<td>4.04</td>
</tr>
<tr>
<td>Full Lift Height h7 (mm)</td>
<td>4.04</td>
<td>4.04</td>
<td>4.04</td>
<td>4.04</td>
</tr>
<tr>
<td>Fork Carriage Width</td>
<td>4.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fork Carriage ISO 2328, class/type A, B</td>
<td>4.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Width b1/b2 (mm)</td>
<td>4.19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Length l1 (mm)</td>
<td>4.12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coupling Height h10 (mm)</td>
<td>4.12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seat Height relating to SIP/stand height</td>
<td>4.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tyre Size, Front</td>
<td>3.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tyres: L = pneumatic, V = cushion, SE = Pneumatic Shape Solid</td>
<td>3.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Performance Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>J2.2XN</th>
<th>J2.5XN</th>
<th>J3.0XN</th>
<th>J3.5XN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Consumption according to VDI cycle kWh/h @Nr of Cycles</td>
<td>5.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gradeability laden/unladen, 5 minute rating ***</td>
<td>5.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Drawbar Pull laden/unladen, 5 minute rating *** N</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceleration time, laden/unladen 10m</td>
<td>5.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydraulics</td>
<td>5.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Brake</td>
<td>5.10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Weights

<table>
<thead>
<tr>
<th>Parameter</th>
<th>J2.2XN</th>
<th>J2.5XN</th>
<th>J3.0XN</th>
<th>J3.5XN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Pressure for Attachments bar</td>
<td>6.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight of attachments, laden/unladen kg</td>
<td>6.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery Weight (min/max) kg</td>
<td>6.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery Voltage/nominal capacity V/Ah</td>
<td>6.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Equipment & Weights

Complete truck with 3 390 mm (J2.5-2.5XN) or 3 200 mm (J3.0-3.5XN) 2-stage limited free lift mast, standard carriage and 1000 mm forks with load backrest with extended shift on with DIN battery configuration, standard seat and overhead guard and pneumatic shaped solid drive and steer tyres.
## MAST AND CAPACITY INFORMATION

Values shown are for standard equipment. When using non-standard equipment these values may change. Please contact your Hyster dealer for information.

### VISTA MASTS J2.2-2.5XN

<table>
<thead>
<tr>
<th>Mast Type</th>
<th>Maximum Fork Height (mm)</th>
<th>Back Lift</th>
<th>Overall Lowered Height (mm)</th>
<th>Overall Extended Height (mm)</th>
<th>Free Lift (Top of Forks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Stage</td>
<td>J2.2XN 3000 3500</td>
<td>5&quot;</td>
<td>2115</td>
<td>3949</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>J2.5XN 3000</td>
<td></td>
<td>2205</td>
<td>4189</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>J2.5XN 3000</td>
<td></td>
<td>2205</td>
<td>4189</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>3-Stage</td>
<td>3000 3500</td>
<td>5&quot;</td>
<td>2115</td>
<td>3949</td>
</tr>
</tbody>
</table>

#### NOTE

- Full suspension in compressed position specified. Add 604 mm for nominal position.
- Add 32 mm for battery side removal option.
- Add 104 mm for battery side removal option.
- Vertical/ventral battery removal.
- With sideshift carriage add 32 mm for J2.2XN, 34 mm for J2.5XN, 36 mm for J3.0XN, 30 mm for J3.5XN.
- Steering axle width minus the total clearance (dimension b) for extra operating margin at the rear of the truck.
- Gradability figures (lines 5.7 & 5.8) are provided for comparison of relative performance, but are not intended to endorse the operation of the vehicle on the stated inclines. Follow instructions in the operating manual regarding operation on inclines.
- Hyster Performance settings
- Plus Performance settings
- Full free lift as determined by dash display.

### VISTA MASTS J3.0-3.5XN

<table>
<thead>
<tr>
<th>Mast Type</th>
<th>Maximum Fork Height (mm)</th>
<th>Back Lift</th>
<th>Overall Lowered Height (mm)</th>
<th>Overall Extended Height (mm)</th>
<th>Free Lift (Top of Forks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Stage</td>
<td>J3.0XN 3000 3500</td>
<td>5&quot;</td>
<td>2115</td>
<td>3949</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>J3.5XN 3000</td>
<td></td>
<td>2205</td>
<td>4189</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>J3.5XN 3000</td>
<td></td>
<td>2205</td>
<td>4189</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>3-Stage</td>
<td>3000 3500</td>
<td>5&quot;</td>
<td>2115</td>
<td>3949</td>
</tr>
</tbody>
</table>

#### NOTE

- To calculate truck capacities with alternative truck specifications to those shown in the tables above, please consult your Hyster dealer. The rated capacities shown are for masts in a vertical position on trucks equipped with standard carriage and nominal length forks. Masts above the maximum fork heights shown in the mast table are classified as high lift and, depending on the weight of the configuration, may require limited free lift, reduced lift or wide track.
- Specifications are affected by the condition of the vehicle and how it is equipped, as well as the nature and condition of the operating area. If these specifications are critical, the proposed application should be discussed with your dealer.
- Maximum battery
- Bottom of forks
- Without load/backrest
- Add 28 mm with load backrest
- Add 601 mm with load backrest
- Add 104 mm for battery side removal option.
- Add 124 mm for battery side removal option.
- Vertical/ventral battery removal.
- With sideshift carriage add 32 mm for J2.2XN, 34 mm for J2.5XN, 36 mm for J3.0XN, 30 mm for J3.5XN.
- Steer axle width minus the total clearance (dimension b) for extra operating margin at the rear of the truck.
- Gradability figures (lines 5.7 & 5.8) are provided for comparison of relative performance, but are not intended to endorse the operation of the vehicle on the stated inclines. Follow instructions in the operating manual regarding operation on inclines.
- Hyster Performance settings
- Plus Performance settings
- Full free lift as determined by dash display.

### TRUCK DIMENSIONS

<table>
<thead>
<tr>
<th>Tract dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum fork height (mm)</td>
<td>h3 + s</td>
</tr>
<tr>
<td>Rated load (kg)</td>
<td>R = (l6 + x)² + b1² - b1³</td>
</tr>
</tbody>
</table>

**EXAMPLE:**

For a J2.2XN truck:

- Maximum fork height: 3000 mm
- Rated load: 2000 kg
- Centre of gravity of unladen truck: 3200 mm
- Minimum operating clearance: 200 mm

**EQUATION:**

\[ R = \left( \frac{h_3 + s}{a} \right)^2 + \left( \frac{b_1}{a} \right)^2 - \left( \frac{b_1}{a} \right)^3 \]

- Load length: 3200 mm
- Calculation:
  \[ R = \left( \frac{3000}{a} \right)^2 + \left( \frac{200}{a} \right)^2 - \left( \frac{200}{a} \right)^3 \]

**NOTE:**

- Load centre distance from front forks to centre of gravity of load.
- R: Rated load based on 3-Stage full free lift, vertical mast up to 510 mm bottom of forks.

### RATED CAPACITIES

<table>
<thead>
<tr>
<th>Load centre (mm)</th>
<th>Rated load (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2000</td>
</tr>
<tr>
<td>500</td>
<td>2200</td>
</tr>
<tr>
<td>1000</td>
<td>2400</td>
</tr>
<tr>
<td>1500</td>
<td>2600</td>
</tr>
<tr>
<td>2000</td>
<td>2800</td>
</tr>
<tr>
<td>2500</td>
<td>3000</td>
</tr>
<tr>
<td>3000</td>
<td>3200</td>
</tr>
</tbody>
</table>

**NOTICE:**

- Load centres must be exercised when handling elevated loads. When the carriage and/or load is elevated, truck stability is reduced. It is important that mast lift be in either direction before the load is kept to a minimum when loads are elevated.
- Operators must be trained and adhere to the instructions contained in the Operating Manual.
- Hyster products are subject to change without notice.
- Load centres illustrated may be before optional equipment.

**Safety:**

This truck conforms to the current EU requirements.
PRODUCT FEATURES

The Hyster J2.2-3.5XN series is available in 2 configurations – Advance & Advance+.

With enhanced performance characteristics, the Advance+ configuration has been designed to operate in intensive, high productivity applications with long runs and high lifts as an effective alternative to an engine-powered truck.

For example, in comparison to the Advance configuration, top speed (laden) has been increased to up to 21 km/h with faster acceleration and lifting speeds have been increased by 27%.

DEPENDABILITY

- Redesigned mast incorporates new chain placement and hose routings that maximise fork visibility for the driver and reliable, high performance lifting.
- Strong chassis construction and reliable, long-lasting components deliver excellent durability and stability, increasing driver confidence and enhancing productivity.
- AC motor technology on traction and hoist, with built-in thermal management system, allows the truck to work reliably over long runs and in demanding work cycles, reducing downtime significantly.
- The electrical system features a CANbus communications network and Hall Effect sensors for increased reliability.
- IP54 enclosed traction motors and IP65 protection of controls and all electrical connections prevents ingress of water and dust particles, reducing the probability of truck downtime.

ERGONOMICS

- The ergonomically designed operator compartment provides a comfortable and highly productive environment for the driver. The truck offers industry leading floor space and easy on/off access is enhanced thanks to the low intermediate non-slip step (height = 231 mm).
- Low noise and whole body vibration combined with a full suspension seat with 80 mm suspension travel and a range of adjustments ensures the operator remains comfortable over long shifts.
- The fully adjustable tilt steering column with telescopic adjustment, memory tilt and synchronised steering options allows the operator to get on and off the truck quickly and easily throughout the shift, ensuring maximum comfort and increased productivity.
- The TouchPoint™ mini-lever module armrest with built-in hydraulic controls, integrated directional control, emergency off switch and horn offers the ultimate in comfort and control. Alternatively, seat-side manual levers also provide handling ease.
- A ‘Heads-up’ display keeps the driver’s field of vision clear but provides him with ‘at a glance’ information on truck operating conditions or performance settings.
- A choice of weather protection options promotes a comfortable working environment, whatever the conditions.

LOW COST OF OWNERSHIP

- Customisable performance settings allow energy efficiency to be ideally balanced with productivity delivering high throughput at lower operating cost.
- The Vehicle System Manager (VSM) allows adjustment of truck performance parameters and monitors key functions, leading to application matched performance and minimum downtime.
- Durable, quality components, including virtually maintenance free oil immersed brakes and brushless AC motors offer long term reliability and lower maintenance costs.
- In-built thermal protection on traction motors and advanced cooling system protect truck components, leading to reduced maintenance costs.
- Fast delivery of diagnostic information allows precise troubleshooting, easy maintenance planning and lower costs.

PRODUCTIVITY

- Dual 10 kW AC front wheel traction motors deliver smooth acceleration, fast travel and rapid direction changes. This is combined with regenerative braking and a powerful hoist motor to deliver efficient load handling in the toughest of applications.
- Designed to offer excellent manoeuvrability in working aisles, speeding up throughput, the truck features a slim counterweight, Zero Turn Radius (ZTR) steer axle and dual drive motors.
- The maintenance-free mechanical Hyster Stability Mechanism (HSM) reduces truck lean when travelling over obstacles, increasing driver confidence and productivity.
- Extended battery shift life and easy side battery removal

SERVICEABILITY

- Standard 1 000 hour service interval.
- Access to diagnostic information via dash display with or plug-in port and laptop. This functionality saves technician time when setting up multiple items.
- Easily removable two-piece floor plate provides easy access to power contactor, traction controller fuses and relays.
- Motor, pump, controller and oil tank are located in the counterweight and are easily accessible, requiring only 2 thumb screws to be removed.
- Automatic park brake system can be released manually by activating lever arrangement underneath floor plates, reducing downtime.
- LED master, indicator, brake and back-up lights are designed to last the lifetime of the truck. Combined with the approved LED work lights
Hyster supplies a complete range of warehouse equipment, IC and electric counterbalanced trucks, container handlers and reach stackers. Hyster is committed to being much more than a lift truck supplier.

Our aim is to offer a complete partnership capable of responding to the full spectrum of material handling issues: Whether you need professional consultancy on your fleet management, fully qualified service support, or reliable parts supply, you can depend on Hyster.

Our network of highly trained dealers provides expert, responsive local support. They can offer cost-effective finance packages and introduce effectively managed maintenance programmes to ensure that you get the best possible value. Our business is dealing with your material handling needs so you can focus on the success of your business today and in the future.