

## Camel-3000 重载举升机器人



### Functional Features:

- **Positioning & Navigation:** Utilizes multi-sensor fusion navigation technologies, such as QR code navigation and Laser SLAM, to achieve high-precision positioning;
- **Motion Control:** Features omnidirectional drive, supporting multiple motion modes including forward, backward, lateral movement, and rotation
- **Power Management:** Supports multi-level battery threshold control; users can freely set the minimum charging threshold. It also supports idle-time charging control;
- **Safety Protection:** Equipped with 360° LiDAR-based obstacle avoidance, contact-based safety edge collision detection, emergency stop buttons, and other redundant safety measures
- **Human-Machine Interaction:** Features a touch screen and audiovisual alarms to indicate the real-time operating status of the equipment;
- **Control Modes:** Supports automatic, manual and remote control modes;
- **Material Handling:** Supports lifting and transport operations for goods with a rated load of 2000kg; provides customized load attachments to adapt to various application scenarios;
- **Network Communication:** Supports Wi-Fi communication with seamless roaming, as well as 5G network expansion

### Target Industries:

E-commerce, 3C Electronics, Tobacco, Pharmaceuticals, and more. It also serves as an expandable platform with customizable attachments to meet the needs of diverse application scenarios.

### QR Code Spacing:

Standard reference spacing is 1000 x 1000 mm; supports non-uniform (irregular) QR code layout patterns.

Technical Specifications

| Model                    |                                    |                 | Camel-3000              |                  |
|--------------------------|------------------------------------|-----------------|-------------------------|------------------|
| Basic Specifications     | Dimensions: L*W*H                  |                 | 2000*1300*420           | mm               |
|                          | Minimum Rotation Diameter          |                 | 2304                    | mm               |
|                          | Self-weight                        |                 | 900                     | Kg               |
|                          | Rated Payload                      |                 | 3000                    | Kg               |
|                          | Ground Clearance                   |                 | 40                      | mm               |
|                          | Lifting Platform Dimensions        |                 | 1740*1040               | mm               |
|                          | Human-Machine Interaction Methods  |                 | Touch Screen (7in)      | /                |
|                          | Lifting Drive                      |                 | Hydraulic Lifting       | /                |
|                          | Lifting Height                     |                 | 130                     | mm               |
| Motion Performance       | Rated Speed (Unloaded)             |                 | 1.2                     | m/s              |
|                          | Rated Speed (Full Load)            |                 | 1.2                     | m/s              |
|                          | Acceleration (Unloaded)            |                 | 0.6                     | m/s <sup>2</sup> |
|                          | Acceleration (Full Load)           |                 | 0.3                     | m/s <sup>2</sup> |
|                          | Drive Type                         |                 | Dual Steer-Drive Wheels | /                |
| Positioning & Navigation | Navigation Method                  |                 | Laser SLAM or QR Code   | /                |
|                          | Stopping Accuracy                  |                 | ± 10                    | mm               |
|                          | Stop Angle Accuracy                |                 | ± 1                     | °                |
| Battery                  | Battery Type                       |                 | Lithium Iron Phosphate  | /                |
|                          | Capacity / Rated Voltage           |                 | 135/48                  | Ah/V             |
|                          | Cycle Count                        |                 | 1500 cycles (100% DOD)  |                  |
|                          | Battery Runtime (Rated Conditions) |                 | 8                       | h                |
|                          | Charging Time                      |                 | ≤ 2                     | h                |
| Safety & Protection      | LiDAR                              | Qty             | 2 (diagonally mounted)  | /                |
|                          |                                    | Mounting Height | 325                     | mm               |
|                          |                                    | Coverage Range  | 360                     | °                |
|                          | 3D Visual Obstacle Avoidance       |                 | Optional                | /                |
|                          | Emergency Stop Button              |                 | Qty: 4                  | /                |

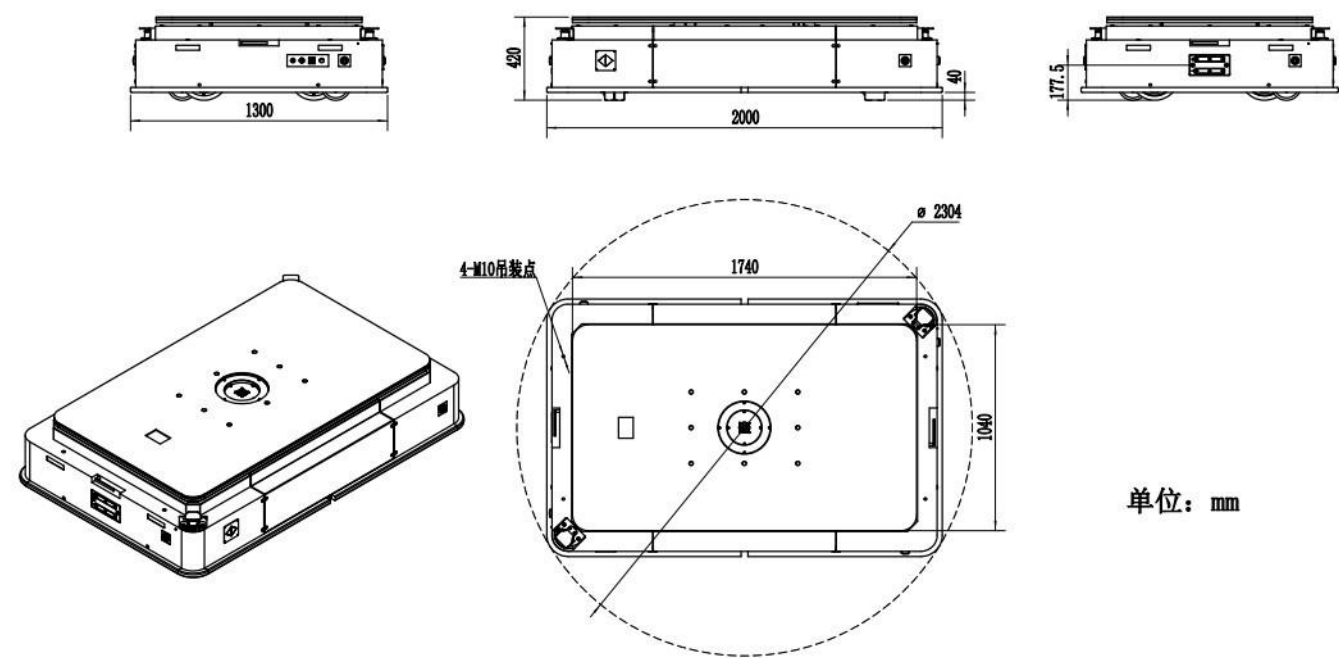
|                |                           |                           |             |
|----------------|---------------------------|---------------------------|-------------|
| Trafficability | Contact-based Protection  | Piezoelectric Safety Edge | /           |
|                | Audio-Visual Alarm        | Classic                   | /           |
|                | Chassis Suspension System | Floating Bar              | /           |
|                | Gradeability              | $\leq 5\%/3^\circ$        | $\%/^\circ$ |
|                | Step-climbing Ability     | $\leq 10$                 | mm          |
|                | Gap-crossing Ability      | $\leq 30$                 | mm          |

- ✧ The positioning accuracy specified above is obtained under ideal conditions;
- ✧ Actual accuracy is subject to site environment, rack/carrier dimensions, docking conditions, and other factors; please refer to the actual performance achieved on-site

## Operating Environment Requirements

|                  |                                                                                                                                                                                                                                                  |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment      | Indoor Environment                                                                                                                                                                                                                               |
| Floor Conditions | Optimal floor materials for AGV operation are hard concrete or conductive plastic (ESD) flooring                                                                                                                                                 |
|                  | The AGV operating surface must be kept free of iron filings, oil stains, and corrosive liquids                                                                                                                                                   |
|                  | Avoid seams in the driving path; maximum gaps should not exceed 10 mm                                                                                                                                                                            |
|                  | Floor slope should not exceed $3^\circ$ ; at docking positions requiring high-precision positioning, the slope must not exceed $1^\circ$ ;                                                                                                       |
|                  | To meet the requirements for safe braking distance and positioning accuracy, the floor's sliding friction coefficient must be at least 0.5;                                                                                                      |
| Temperature      | Working Environment Temperature: -<br>Operating Temperature Range: $-10^\circ\text{C}$ to $40^\circ\text{C}$<br>-Charging Temperature Range: $0^\circ\text{C}$ to $40^\circ\text{C}$<br>-Customization is required for cold storage environments |
| Ambient Humidity | Relative Humidity: 10%-90% (Non-condensing)                                                                                                                                                                                                      |
| Signal           | Dual-band WiFi (2.4GHz/5GHz)<br>Wireless signal coverage strength $> -70\text{ dBm}$                                                                                                                                                             |

Outline Dimensions Drawing



Optional Components

| Components        | Series             | Description |
|-------------------|--------------------|-------------|
| Charging Station  | Eh-4850-S1-178.5-0 |             |
| Manual Charger    | Eh-4810-C1-S       |             |
| Maintenance Tools | WDT-V1.0           |             |