ROBOT Outsourcing Provider Co., Ltd.

Autonomous Forklift R3000F-L

LiDAR SLAM Navigation + 3000KG Payload

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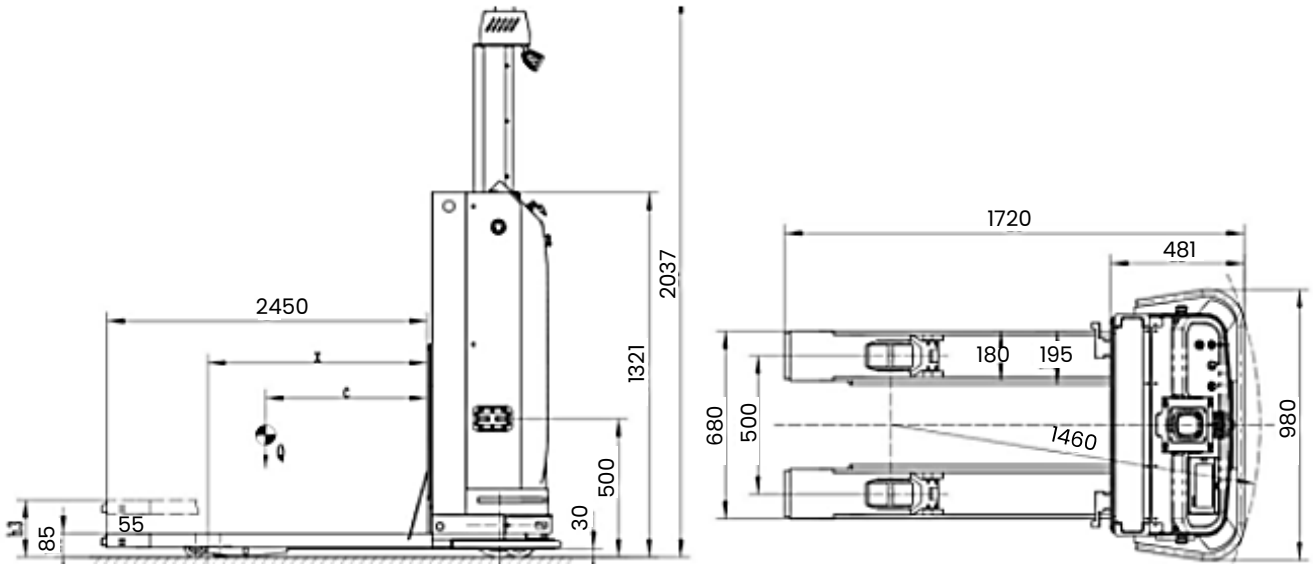
Dimension



Specification		
Overall height	h1	2037 mm
Lifting height	h3	210 mm
Fork face ground clearance (with lowest fork)	h5	85 mm
The height of the charging brush plate above the ground	h6	500 mm
Overall length	L1	1720 mm
Vehicle length (without forks)	L2	481 mm
Overall width	b1	980 mm
Fork size (length/width/height)	l/e/s	2450/180/55 mm
Width of fork (outside)	b5	680 mm
Wheelbase, drive side	b10	498 mm
Wheelbase, load side	b11	500 mm
Minimum ground clearance	m1	30 mm
Minimum turning radius (with highest forks)	Wa	1460 mm
Minimum right angle stacking channel width (with highest forks)	Ast	1915+200 mm
Right angle stacking channel width, pallet 1000×1200 (1200 placed along the fork, with highest forks)	Ast	2030+200 mm

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Specification	
Basic parameters	
Name	Autonomous Forklift R3000F-L
Navigation mode	LiDAR SLAM
Drive mode	Steering Wheel Drive
Dimension (L x W x H)	1720 x 980 x 2037 mm
Weight (with batteries)	620 Kg (±10 Kg)
Maximum payload	3000 kg
Chassis ground clearance	30 mm
Standard lifting height	210 mm (±5 mm)
Fork dimensions (L x W)	2450 x 180 mm
Pallet type	Tote dolly / shelf
Network	Ethernet / Wi-Fi 802.11 a/b/g/n/ac
Ambient temperature and humidity range	Temperature: 0~50℃ / Humidity: 10~90%, No compression condensation
IP rating [1]	IP20
Performance Parameters	
Possibility (slope/step/gap) [2]	≤5%/10 mm/30 mm
Navigation position accuracy [3]	±10 mm
Navigation angle accuracy [3]	±1°
Operation speed (Adjustable)	≤1.5 m/s
Battery Parameters	
Battery capacity	24V / 210Ah (Lithium iron phosphate)
Comprehensive battery life	8 hr.
Comprehensive battery life	≤2 hr.
Charging mode	Manual/Automatic
Cycle times	1500 cycles, capacity≥80%
Safety Parameters	
Emergency stop button	✓
Sound and light indicator	✓
Braking distance (1 m/s / 1.5 m/s)	≤30 cm/ ≤50 cm
360° laser protection	✓
Bumper strip	✓
Fork height protection	✓
Functions Parameters	
Basic function [4]	✓
Wi-Fi Roaming	✓
3D obstacle avoidance	Optional
Pallet recognition	Optional
HMI display	✓

[1] Designed for indoor transport, not recommended for outdoor environments.

[2] Road surface is smooth, clean and without significant undulations. Slope5%= arctan (0.05) ≈ 2.8°. The robot may not stop or turn at ramps, steps, or gaps, but may only pass quickly perpendicular to them.

[3] Navigation accuracy usually refers to the repeated accuracy of the robot navigation to the target site. When the environment scanned by the robot LiDARis relatively stable (change rate <30%), the repeated accuracy of the robot navigation from the fixed direction to the target site can reach the expected value. When the robot runs along the virtual path, it will try to fit the path, but it does not guarantee repeatability. That is, the robot can guarantee the accuracy of the point, without guaranteeing the accuracy of the navigation path. The minimum site spacing supported by the robot is 1cm.

[4] The basic functions include map editing, model editing, positioning and navigation, basic motion model (differential), API interface, etc.