ROBOT Outsourcing Provider Co., Ltd.

Autonomous Forklift R1400F-LH16

LiDAR SLAM Navigation + 1400KG Payload

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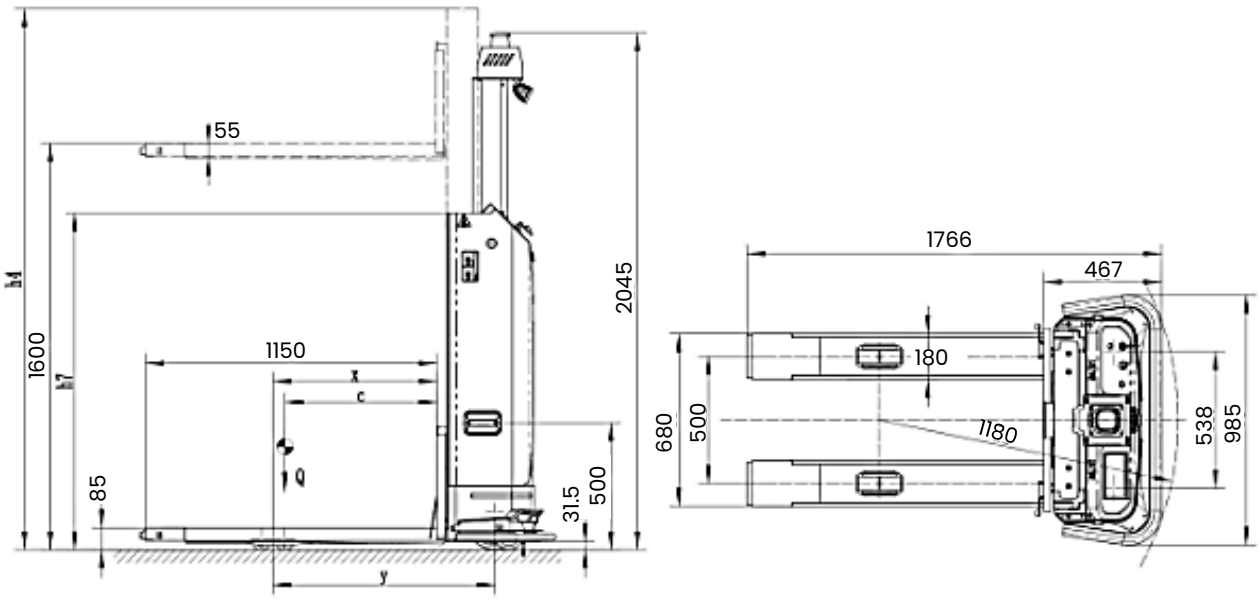
Dimension



Specification		
Overall height	h1	2045 mm
Lifting height	h3	1600 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	1766 mm
Vehicle length (without forks)	L2	467 mm
Overall width	b1	985 mm
Fork size (length/width/height)	l/e/s	1150/180/55 mm
Width of fork (outside)	b5	680 mm
Wheelbase, drive side	b10	538 mm
Wheelbase, load side	b11	500 mm
Minimum ground clearance	m1	31.5 mm
Minimum turning radius (with highest forks)	Wa	1180 mm
Minimum right angle stacking channel width (with highest forks)	Ast	1800+200 mm
Right angle stacking channel width, pallet 1000×1200 (1200 placed along the fork, with highest forks)	Ast	1925+200 mm

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Specification	
Basic parameters	
Name	Autonomous Forklift R1400F-LH16
Navigation mode	LiDAR SLAM
Drive mode	Steering Wheel Drive
Dimension (L x W x H)	1766 x 980 x 2045 mm
Weight (with batteries)	680 Kg (±10 Kg)
Maximum payload	1400 kg
Chassis ground clearance	30 mm
Standard lifting height	1600 mm
Fork dimensions (L x W)	1150 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]	≤3%/2 mm/5 mm
Navigation position accuracy [3]	±10 mm
Navigation angle accuracy [3]	±1°
Operation speed (Adjustable)	≤1.4 m/s
Battery Parameters	
Battery capacity	DC48V/40Ah (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.