Data sheet

AUTONOMOUS FORKLIFT



DESCRIPTION

A motorized industrial vehicle that forms the logistics backbone of any warehouse operation. It is designed to lift, transport, and place heavy palletized loads quickly and safely.

Its main function is to optimize inventory flow, allowing companies to load or unload trucks in minutes and stack loads at height to make the most of vertical storage space.



ITEM	DETAIL	UNIT	VALUE
Rated load capacity		kg	1500
Load center distance		mm	600
Motor type			AC, enclosed
Standard lift height		mm	1600
Standard fork size	Thickness / width / length	mm	35 / 100 / 950
Fork spread	Max / min	mm	754 / 215
Overall length	Forks included	mm	2109
Vehicle length	Without forks	mm	1140
Overall width		mm	1014
Mast height, lowered		mm	1800
Mast height, extended		mm	3350
Min. turning radius		mm	1110
Min. right-angle aisle width		mm	1420
Min. stacking aisle width	1000 × 1000 mm pallet	mm	2340
Travel speed	Forward (laden / unladen)	km/h	5 / 5
	Backward (laden / unladen)	km/h	5 / 5
Lift speed	Laden / unladen	mm/s	130 / 200
Lowering speed	Laden / unladen	mm/s	160 / 140
Total vehicle weight		kg	1965
Ground clearance	Minimum	mm	55
	At wheelbase center	mm	55
Brake type			Electromagnetic
Battery	Type		Welded
	Voltage / capacity	V / Ah	48 / 100
	Weight	kg	36



OPERATION

To maneuver precisely through the facility, these units use technology that eliminates the need for physical guidance systems. The vehicle navigates with chassis-mounted LiDAR sensors, which emit laser pulses to measure distances and generate and update a real-time 3D digital map of their surroundings. Since safety is the cornerstone of its autonomous operation, the system uses this dynamic mapping to feed its scanning areas, which are defined by proximity zones, to proactively prevent collisions.

PARAMETERS

This industrial autonomous vehicle features a 1500 kg load capacity, a 24-hour continuous working time supported by a battery rated for over 3,000 discharge cycles, and an overall service life exceeding 10 years. In terms of motion and precision, it operates on a 48 V DC drive voltage, reaches adjustable speeds from 0 to 90 m/min, has a 1110 mm turning radius, and delivers a navigation and stopping accuracy of ±5 mm. Its safety architecture includes an adjustable sensor range of up to 3 meters, audible and visual alarms, and a triple-protection system that combines obstacle sensors, mechanical anti-collision bumpers, and an emergency stop button, with a braking distance of less than 300 mm.





FEATURES

- **Control and guidance components:** a top-mounted navigation laser scanner, a main control box and an operator panel.
- **Retrofit kit:** includes dedicated navigation systems, electronic control modules, safety sensors, and additional mechanical parts.
- **Integrated perimeter safety:** safety sensors positioned at the chassis base and the fork tips to detect obstacles in its path.