

ZETHA SERIES

Zetha efficiently transports palletized loads in floor-to-floor operations, handling up to 2 tonnes with a lifting height of 110mm. Its high payload capacity ensures smooth movement of heavy objects, enhanced by 3D camera-based pallet detection. Safety features include a physical bumper, safety lidar, and an emergency button. Compatible with NavWiz and DFleet.



BASIC INFORMATION

Model Number	ZETHA-S-TS-20
Base Dimension	Length: 1683 mm Width: 1022 mm Height: 2000 mm
Lifting Payload	2000 kg
Lifting Height	110 mm
Fork Dimension	Length: 1150 mm Width: 175 mm Height: 56 mm
Fork Outside Spread	650 mm

DRIVING AND NAVIGATION

Driving System	Steering Drive
Navigation System	Natural Feature Navigation • Optional marker for precision
Minimum Safety Clearance of Width	500 mm • Based on EN1525 • On both sides of robot
Minimum Safety Clearance of Height	2100 mm • Based on EN 1525 • Above robot • May change according to payload dimension



PERFORMANCE

Maximum Speed	Unladen: 1.5 m/s (5.4 km/h) Laden: 1.2 m/s (4.3 km/h) • Travelling max speed is recommended to undergo Risk Assessment as well
Stopping Accuracy	Laser Sensor (Natural Feature): ± 50 mm, $\pm 2^\circ$ Laser Sensor (Marker/Docking): ± 10 mm, $\pm 1^\circ$
Maximum Gradeability	5% (2.86°) • Without curb • With rated payload • Permissible ramp is to ensure safety, although robot might be able to climb ramp with more than stated value, but doing so will jeopardize robot's safety compliance

POWER

Running Time (90% to 10%)*	8 hours With rated payload
Charging Time (10% to 90%)	2 hours
Charging Time : Running Time Ratio*	1 : 4 With rated payload
Charging Method	Manual Charge: Through cable (Safety brake will be triggered) Auto Charge: Dock charging through charging station
Battery Type	LiFePO4
Battery Voltage	24 V
Battery Capacity	150 Ah

INTERFACE

Operating System	Standalone (NavWiz) / Fleet Management System (DFleet)
Language	English
User Interface	7", 1024x600 IPS HDMI Capacitive Touch Monitor Physical Buttons
Communications	802.11 a/b/g/n, 2.4GHz / 5GHz WiFi Open WiFi WPA & WPA2 Personal WPA & WPA2 Enterprise
Central Control System	IPC Intel i5

**SAFETY FEATURE**

Emergency Switch	2 Units
2D Obstacle Laser Scanner	2 Unit
3D Obstacle Laser Scanner	1 Unit
Physical Bumper	1 Units
Fork IR Sensor	2 Units 1 on each fork
3D Camera	1 Units
Indicator	RGB LED lighting
Speaker	2 Units 7cm, 5W speaker

ENVIRONMENT

Operating Environment	Indoor usage only, with no excessive dust or corrosive gases
Floor Requirement	Level surface or concrete no water, no oil, no dirt
Floor Flatness	F _f 25 Based on ACI 117 standard, it is the American Concrete Institute Standard for concrete floor F _f is flatness, F _L is the level. The higher F _f numbers represent flatter floors.
IP Class	IP 20

ZETHA-S-TS-20 Product Drawing

