

ZYRA SERIES

The Zyra AMR series provide efficient handling for a variety of trolley types. Its compact body easily navigates narrow paths, carrying loads of up to 500 kg without any need for modifications, making it perfect for tight and confined environments.



BASIC INFORMATION

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|------------------|---|
| Model Number | ZYRA-S-TS-05 |
| Base Dimension | Length: Body: 1194 mm Width: 504 mm Height: 1944 mm |
| Lifting Payload | 500 kg |
| Load Surface | Length: 680 mm Width: 380 mm |
| Lifting Speed | 18.5 mm/s |
| Ground Clearance | 20 mm |

DRIVING AND NAVIGATION

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| Driving System | Steering Drive |
| Navigation System | Natural Feature Navigation With Marker for precision |
| Navigation Direction | Forward, Reverse, Turning around centre of two caster wheels |
| Motor Type | DC Brushless Motor with Closed Loop Speed Control |
| Suspension | Passive |
| Brake | Navigation: Electric Brake Parking & Emergency Stop: Electromechanical Brake |
| Minimum Turning Radius | 1005 mm |
| Minimum Width for Pivoting | 2010 mm |
| 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

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| Maximum Speed | 0.9 m/s (3.2 km/h) <ul style="list-style-type: none"> With rated payload Travelling max speed with rated payload (on site) is recommended to undergo Risk Assessment as well |
| Acceleration | 0.35 m/s² With rated payload |
| Stopping Accuracy | Laser Sensor (Natural Feature): ±50 mm, ±2° Laser Sensor (Marker/Docking): ±10 mm, ±1° <ul style="list-style-type: none"> Speed before stopping: 0.13 m/s (8 m/min) |
| Traversable Gap | 3 mm |
| Traversable Step | 3 mm |
| Maximum Gradeability | 5% (2.86°) <ul style="list-style-type: none"> 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

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|-------------------------------------|---|
| 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 Weight | 24 kg |
| Battery Voltage | 51.2 V |
| Battery Capacity | 40 Ah |

* To be confirmed.

INTERFACE

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|------------------------|---|
| 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

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|--------------------------|--|
| Emergency Switch | 1 Units |
| Navigation Laser Scanner | 1 Unit • Top with 360° field of view |
| Safety Laser Scanner | 1 Unit • Front with 270° field of view |
| Obstacle Laser Scanner | 1 Unit • Rear with 270° field of view |
| 3D Camera | 3 Units 1 at top front, 1 at top rear, and 1 at bottom front |
| Bumper | 1 Units 1 at front |
| Indicator | RGB LED lighting at front |
| Speaker | 2 Units 7cm, 5W speaker |

ENVIRONMENT

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|---------------------------|---|
| Ambient Temperature Range | 0 ~ 40 °C |
| Humidity | 45 ~ 70 % @ 40°C (Non-condensing) |
| 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_F25 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 |

ZYRA-S-TS-05 Product Drawing

