



# AFORMIC

## FR48

### REACH TRUCK AMR

FR48 is an autonomous forklift robot equipped with a steerable traction wheel, redefining the transport of loads up to 1600 kg.

Its advanced design combines agility, reliability, and safety, providing innovative solutions for modern intralogistics.

**EXTENDABLE MAST MOVING FRONT AND BACK WITH LIFTING CAPABILITIES TO 7 M**

### HIGH PAYLOAD CAPACITY

Capable of transporting loads up to 1600 kg, the FR48 is engineered for demanding industrial applications. Its durable construction ensures consistent performance under full load, offering a reliable and versatile solution across a wide range of intralogistics environments.

### STEERABLE TRACTION DRIVE

Equipped with a steerable traction wheel drive, FR48 offers a precise balance of maneuverability, energy efficiency, and positioning accuracy. Its intelligent design allows for reliable operation in narrow aisles and dynamic warehouse environments, supporting seamless integration into existing logistics systems and workflows.

### EXTENDED LIFTING REACH

The FR48 features an extendable mast with a lifting range of up to 7 meters, allowing it to efficiently handle high-bay pallet storage and retrieval. Its extended reach makes it ideal for vertical material handling in warehouses and distribution centers, optimizing space utilization and enhancing operational efficiency.



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## ADVANCED SLAM NAVIGATION

Equipped with SLAM technology, the FR48 enables real-time mapping and accurate localization. This supports efficient route planning, dynamic obstacle avoidance, and adaptability to changing environments, ensuring reliable operation in dynamic and complex intralogistics settings.

### GENERAL SPECIFICATIONS

- Payload capacity: 1600 kg
- Dimensions (L x W x H): 2120 x 1555 x 2380 [mm]
- Lifting height: 4800 mm
- Weight: 3800 kg
- Maximum speed: 1.5 m/s
- Drive type: steerable traction wheel
- Drive power: 8 kW
- Positioning accuracy (+/-): 1.0 cm

### POWER SYSTEM

- Battery type: Lithium-ion (Li-ion)
- Battery capacity: 460 Ah
- Battery voltage: 48 V

### TERRAIN CAPABILITIES

- Maximum longitudinal inclination: 1.0°
- Maximum lateral inclination: 5.0°
- Positioning accuracy (+/-): 1.0 cm

### SAFETY FEATURES

- Laser scanner field of view: 360°
- Safety scanners:
  - Sick Micro Scanners: 3 units
  - Sick Nano Scanners: 1 unit
- Emergency push buttons: 2 units
- Blue spot lamp: 1 unit
- IMU module: 1 unit

### NAVIGATION SYSTEMS

- SLAM Technology: yes
- Odometry: yes
- IMU (Inertial Measurement Unit): yes

### ENVIRONMENTAL CONDITIONS

- Operating temperature: 15°C – 40°C
- Relative humidity: >70%

## DIMENSIONS [MM]

