

## 

# 

HEAVY-DUTY UNDERRIDE AMR

ENGINEERED TO HANDLE LOADS UP TO 2 TONS

#### **OMNIDIRECTIONAL DRIVE**

The FP22 is equipped with an advanced omnidirectional drive system, enabling it to move in any direction — forward, sideways, diagonally — and rotate around its own axis. This high degree of mobility allows the robot to operate smoothly in tight spaces and navigate complex layouts with precision, ensuring seamless integration into space-constrained production areas.

#### **HIGH PAYLOAD CAPACITY**

With a maximum payload of 2000 kg, FP22 is ideal for transporting large, bulky materials and nonstandard carriers. Its robust mechanical structure ensures stable and reliable performance even under full load, making it a versatile solution for demanding production environments.



#### ADVANCED SLAM NAVIGATION

Equipped with SLAM technology, the FP22 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.

**AFORMIC Inc.** 140 Congress Blvd, Suite G Duncan, SC 29334, USA **AFORMIC Polska Sp. z o.o.** Wyczółkowskiego 113 44-109 Gliwice, Poland

sales@aformic.com aformic.com



#### **COMPREHENSIVE SAFETY SYSTEM**

FP22 is equipped with a safety package, including four SICK Micro safety scanners, ten emergency stop buttons, 360° laser coverage, and blue spot warning lights.

Its onboard IMU module ensures stability and precise motion control even in complex environments, making it safe for operation alongside people and machinery.

#### **GENERAL SPECIFICATIONS**

- Payload capacity: 2000 kg
- Dimensions (L x W x H): 4330 x 1630 x 434 [mm]
- Lifting height: 40 mm
- Weight: 2343 kg
- Maximum speed: 1.5 m/s
- Drive type: omnidirectional
- Drive power: 4 x 1 kW
- Positioning accuracy (+/-): 1.0 cm

#### **POWER SYSTEM**

- Battery type: Lithium-ion (Li-ion)
- Battery capacity: 280 Ah
- Battery voltage: 48 V

#### SAFETY FEATURES

- Laser scanner field of view: 360°
- Sick Micro Scanners: 4 units
- Emergency push buttons: 10 units
- Blue spot lamp: 2 units
- IMU module: 1 unit

#### NAVIGATION SYSTEMS

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

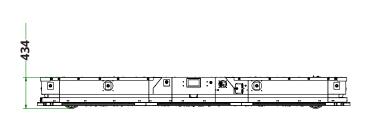
#### TERRAIN CAPABILITIES E

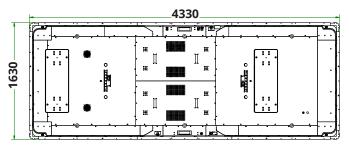
- Maximum longitudinal inclination: 3.0°
- Maximum lateral inclination: 5.0°
- Positioning accuracy (+/-): 1.0 cm

#### **ENVIRONMENTAL CONDITIONS**

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

### DIMENSIONS [MM]





##