

DATASHEET - Eroller 5



DIMENSIONS and WEIGHT

Vehicle size	L = 3.000 mm	
	W = 2.010 mm	
	H = 650 mm	
Equipment	Powered roller	
	Roller plane size	L = 1.500 mm
		W = 1.000 mm
		H = 500 mm
Rollers	13xØ60 mm - 35W - i 1:30	
Vehicle weight w/o batteries	1.036 kg	

PAYLOAD and REQUIREMENTS

Nominal payload 100% deliveries	700 kg
Maximum payload 30% deliveries	1.000 kg
Payload max size	L = 2.500 mm
	W = 1.700 mm
	H = 1.200 mm
Center of gravity footprint	L = 1.660 mm
	W = 1.240 mm
Center of gravity height	H = 850 mm

PERFORMANCE

Kinematics and Drive	Double trike, omnidirectional
Speed	0,1 m/s min
	1,2 m/s max
X, Y accuracy	+/- 10 mm
θ accuracy	+/- 1°
Localization rate	5 Hz
Minimum bending radius	0 m; the vehicle turns on its vertical axis
Slope	3% (1,7°)
Slope min bending radius	15 m
Step	±5 mm
Gap	10 mm
Motor wheel power	2x300 W
Braking torque	2x4 Nm

MATERIALS

Wheels coating	Polyurethane
Chassis material	AISI 304
Shell material	Painted Steel

BATTERY

Battery	LiFePO4 24V 120 Ah
Depth of discharge	70%
Autonomy	6 h
Recharging time	2,5 h
Battery weight	38 kg
Battery cycle life	2.000 cycles

COMMUNICATION

Communication	WI-FI - WLAN 802.11a/b/g/n - 2,4/5 GHz
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SAFETY

Safety devices

- Nr. 2 Sick S300 laser scanners (PLd)
- N.2 E-stop buttons
- Safety control central unit Sick Flexi (PLe)

Performance Level	c
Safety field shape	360°

NAVIGATION

Navigation Odometric closed loop via laser scanner (natural navigation)

Mapping Auto acquisition by Mobile Robot

ENVIRONMENT

Temperature from +5 to 35 °C

Working relative humidity from 30% to 80% (absence of condensation)

IP degree 13

REGULATIONS

Regulations

- 2006/42/EC Machinery Directive
- 2014/35/EU Low Voltage Directive
- 2014/30/EU Electromagnetic Compatibility Directive
- ISO 3691-4: 2020 Safety of driverless industrial trucks