

## DATASHEET - Eroller 1



### DIMENSIONS and WEIGHT

Vehicle size	L = 1.400 mm
	W = 662 mm
	H = 850 mm

Equipment	Powered roller	
	Roller plane size	L = 855 mm W = 655 mm H = 800 mm
	Rollers	9xØ50 mm - 35W - i 1:30

Vehicle weight w/o batteries	350 kg
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## PAYLOAD and REQUIREMENTS

Nominal payload 100% deliveries	150 kg
Maximum payload 30% deliveries	180 kg
Payload max size	L = 800 mm
	W = 600 mm
	H = 400 mm
Center of gravity footprint	L = 810 mm
	W = 433 mm
Center of gravity height	H = 1.000 mm

## PERFORMANCE

Kinematics and Drive	Double trike, omnidirectional
Speed	0,1 m/s min
	1,0 m/s max
X, Y accuracy	+/- 10 mm
$\theta$ 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	15 mm
Motor wheel power	2x300 W
Braking torque	2x4 Nm

## MATERIALS

Wheels coating	Polyurethane grip + Vulkollan®
Chassis material	AISI 304
Shell material	Painted Steel

## BATTERY

Battery	LiFePO4 24V 120 Ah	LeadGel 24V 140 Ah	PureLead 24V 120 Ah
Depth of discharge	70%	30%	40%
Autonomy	9 h	4 h	6 h
Recharging time	3 h	8 h	6 h
Battery weight	38 kg	85 kg	86 kg
Battery cycle life	2.000 cycles	500 cycles	1.200 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 Sensitive board (front/rear) N.2 E-stop buttons Safety control central unit Sick Flexi
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	<ul style="list-style-type: none"><li>• 2006/42/EC Machinery Directive</li></ul>
	<ul style="list-style-type: none"><li>• 2014/35/EU Low Voltage Directive</li></ul>
	<ul style="list-style-type: none"><li>• 2014/30/EU Electromagnetic Compatibility Directive</li></ul>
	<ul style="list-style-type: none"><li>• ISO 3691-4: 2020 Safety of driverless industrial trucks</li></ul>