

DATASHEET - Eroller 3



DIMENSIONS and WEIGHT

Vehicle size	L = 1224 mm	
	W = 630 mm	
	H = 1.150 mm	
Equipment	4x powered rollers on two levels	
	Roller plane size	L = 600 mm W = 415 mm H1 = 450 mm - H2 = 1.050 mm
	Rollers	4x 9xØ50 mm - 35W - i 1:30
	Vehicle weight w/o batteries	270 kg

PAYLOAD and REQUIREMENTS

Nominal payload 100% deliveries	4x 60 kg
Maximum payload 20% deliveries	4x 80 kg
Payload max size	L = 600 mm
	W = 400 mm
	H = 400 mm
Center of gravity footprint	L = 550 mm
	W = 435 mm
Center of gravity height	H = 950 mm

PERFORMANCE

Kinematics and Drive	Diamond, bidirectional
Speed	0,1 m/s min
	1,0 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	1x300 W
Braking torque	1x4 Nm

MATERIALS

Wheels coating	Polyurethane grip
Chassis material	AISI 304
Shell material	Painted Steel

BATTERY

Battery	LiFePO4 24V 60 Ah	PureLead 24V 60 Ah
Depth of discharge	70%	40%
Autonomy	6 h	4 h
Recharging time	2 h	3 h
Battery weight	21 kg	38 kg
Battery cycle life	2.000 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">• 2006/42/EC Machinery Directive
	<ul style="list-style-type: none">• 2014/35/EU Low Voltage Directive
	<ul style="list-style-type: none">• 2014/30/EU Electromagnetic Compatibility Directive
	<ul style="list-style-type: none">• ISO 3691-4: 2020 Safety of driverless industrial trucks