

DATASHEET - Ecobot 2



DIMENSIONS and WEIGHT

Vehicle size	L = 1058 mm	
	W = 625 mm	
	H = 800 mm	
Equipment	ABB Yumi	
	Size	H = 550 mm
Vehicle weight w/o batteries	240 kg	

PAYLOAD and REQUIREMENTS

Nominal payload 100% deliveries	300 kg
Maximum payload 20% deliveries	350 kg
Center of gravity footprint	L = 550 mm W = 435 mm
Center of gravity height	H = 600 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	2x300 W
Braking torque	2x4 Nm

MATERIALS

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

BATTERY

Battery	LiFePO4 24V 120 Ah	PureLead 24V 120 Ah
Depth of discharge	70%	40%
Autonomy	8 h	5 h
Recharging time	3 h	6 h
Battery weight	38 kg	86 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