

**DATASHEET - Ecart 10**



**DIMENSIONS and WEIGHT**

<b>Vehicle size</b>	L = 1656 mm	
	W = 910 mm	
	H = 275 mm	
<b>Equipment</b>	Lift platform	
	Plane size	L = 1.100 mm W = 750 mm
	Stroke	100 mm
<b>Vehicle weight w/o batteries</b>	280 kg	

## PAYLOAD and REQUIREMENTS

Nominal payload 100% deliveries	500 kg (towing 1.200 kg)
Maximum payload 30% deliveries	700 kg (towing 1.200 kg)
Payload max size	L = 1.200 mm
	W = 1.200 mm
	H = 1.500 mm
Center of gravity footprint	L = 860 mm
	W = 700 mm
Center of gravity height	H = 800 mm
Min load frame clearance	W = 1.050 mm
	H = 395 mm

## PERFORMANCE

Kinematics and Drive	QUOD, omnidirectional
Speed	0,1 m/s min
	1,2 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	4x600 W
Braking torque	4x4 Nm

## MATERIALS

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

## BATTERY

Battery	Lithium-Nichel-Manganese-Cobalt-Oxide 2x 24V 64 Ah
Depth of discharge	70%
Autonomy	10 h
Recharging time	2,5 h
Battery weight	2x10 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	<p>Nr. 2 Sick S300 laser scanners (PLd)</p> <p>Nr. 2 Sick Scangrid2 laser scanners (PLc)</p> <p>N.2 E-stop buttons</p> <p>Safety control central unit Sick Flexi (PLe)</p>
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>