

DATASHEET - Ecart 1



DIMENSIONS and WEIGHT

Vehicle size	L = 1.660 mm	
	W = 600 mm	
	H = 350 mm	
Equipment	Lift platform	
	Plane size	L = 1.020 mm W = 510 mm
	Stroke	100 mm
	Vehicle weight w/o batteries	220 kg

PAYLOAD and REQUIREMENTS

Nominal payload 100% deliveries	500 kg
Maximum payload 30% deliveries	700 kg
Payload max size	L = 1.250 mm
	W = 870 mm
	H = 1.500 mm
Center of gravity footprint	L = 740 mm
	W = 414 mm
Center of gravity height	H = 800 mm
Min load frame clearance	W = 660 mm
	H = 370 mm

PERFORMANCE

Kinematics and Drive	Diamond, bidirectional
Speed	0,1 m/s min
	1,4 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	5% (2,9°)
Slope min bending radius	15 m
Step	±5 mm
Gap	15 mm
Motor wheel power	1x700 W
Braking torque	1x8 Nm

MATERIALS

Wheels coating	Polyurethane grip
Chassis material	AISI 304
Shell material	Carbon + Kevlar®

BATTERY

Battery	LiFePO4 24V 120 Ah	LeadGel 24V 140 Ah	PureLead 24V 120 Ah
Depth of discharge	70%	30%	40%
Autonomy	10 h	5 h	7 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"> • 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