

DATASHEET - Ecart 8



DIMENSIONS and WEIGHT

Vehicle size	L = 1.660 mm	
	W = 600 mm	
	H = 350 mm	
Equipment	Lift platform	
	Plane size	L = 1.364 mm
		W = 600 mm
	Stroke	80 mm
Vehicle weight w/o batteries	315 kg	

PAYLOAD and REQUIREMENTS

Nominal payload 100% deliveries	500 kg
Maximum payload 30% deliveries	600 kg
Payload max size	L = 1.400 mm W = 900 mm H = 1.500 mm
Center of gravity footprint	L = 1.500 mm W = 360 mm
Center of gravity height	H = 800 mm
Min load frame clearance	W = 665 mm H = 365 mm

PERFORMANCE

Kinematics and Drive	Fully bi-directional
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	9% (5,2°)
Slope min bending radius	15 m
Step	±5 mm
Gap	15 mm
Motor wheel power	2x700 W Brushed
Braking torque	2x10 Nm

MATERIALS

Wheels coating	Polyurethane
Chassis material	AISI 304
Shell material	AISI 304

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
---------------	--

SAFETY

Safety devices	Nr. 2 Sick S300 laser scanners (PLd)
	Sensitive board (front/rear)
	N.2 E-stop buttons
	N. 3 - 3D cameras for safeguarding above the laser scanners
	Scan Grid2 for page protection
	Safety control central unit Sick Flexi (PLe)

Performance Level

c

Safety field shape

Boxes 360°

Trolleys 180°+180° Front/Rear

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

- 2006/42/EC Machinery Directive
- 2014/35/EU Low Voltage Directive
- 2014/30/EU Electromagnetic Compatibility Directive
- ISO 3691-4: 2020 Safety of driverless industrial trucks