

DATASHEET - Epallet 1



DIMENSIONS and WEIGHT

Vehicle size	L = 1.588 mm	
	W = 662 mm	
	H = 490 mm (forks top)	
Equipment	Lift platform c/w pallet forks	
	Plane size	L = 1.120 mm W = 575 mm
	Stroke	100 mm
Vehicle weight w/o batteries	313 kg	

PAYLOAD and REQUIREMENTS

Nominal payload 100% deliveries	500 kg
Maximum payload 30% deliveries	700 kg
Payload max size	L = 1.200 mm
	W = 800 mm
	H = 1.500 mm
Center of gravity footprint	L = 740 mm
	W = 512 mm
Center of gravity height	H = 800 mm
Min load frame clearance	W = 720 mm
	H = 360 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	Painted Steel

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

- 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