

SPECIFICATIONS



PERFORMANCE

Supply voltage:	24V
Performance:	LiFePO ₄ 24V/2x420W/h
Duration of use:	4-5h*
Charging time:	30min 20-80%
Lifting:	130mm (low 93 - high 223mm)
Maximum speed:	1m/s in main direction
Tare weight:	229kg
TTO:	15000h

ENVIRONMENT

Max ambient temperature:	30° C
Min. Ambient temperature:	0° C
Humidity:	95% no condensation

FLOOR CONDITIONS

Floor conditions:	Dry, flat, non-dusty
Bumpiness maximum:	5mm
Maximum inclination:	3%

PALLET LOAD

Euro pallet:	800x1200mm
Industrial pallet:	1000x1200mm (3 runners)
Other pallets after release by the Manufacturer	
Max. Load:	1000kg
Max. Load balancing front/rear:	60/40%
Max. Load distribution left/right:	55/45%
Max. Load height:	2.3m

MATERIALS

Frame:	Steel
Forks:	Stainless Steel SS304

SURFACE TREATMENT

Frame:	White pearl with blank Polyurethane coating Black RAL 9005 structure finish
Forks:	Stainless Steel SS304
Fasteners:	Galvanised steel
Purchased parts:	Standard supplier finish

CONTROLS

Controls Nipper:	PLC controlled
HMI:	3,5" touchscreen
Language:	English
Navigation:	Natural feature navigation
Fleet manager:	Bluebotics
Visualisation:	Web based

NAVIGATION

Scanner:	2D Lidar 360° navigation scanning
Scanner type:	Pepperl + Fuchs 360° High Definition scanning
Scanning height:	Between 2 and 2,5m above floor level

NIPPER DOCKING STATION

Docking station:	Consists of two separate chargers (each for every fork)
Input power supply:	2x 230V~ 50Hz 3,2A
Connector:	2x EURO connector
Output power supply:	2x 29V-17A

SAFETY

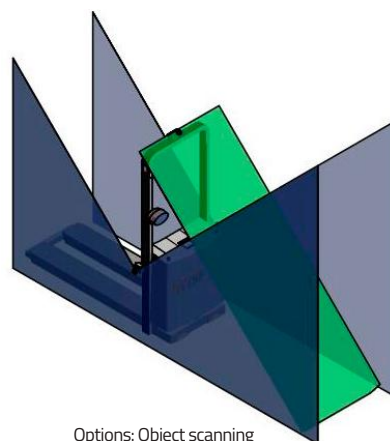
- Sick S300 2d LIDAR safety scanner (main direction)
- Scanners in forks for backwards driving
- 2 Mechanical bumpers in front of forks
- 2 Mechanical bumpers in back of forks
- Torque limitation driving sideways (90° on main direction)
- Two emergency stops on top of vehicle
- Bluespot warning light for visualisation on floor
- Orange direction indicators
- Flashing orange light for awareness at eyelevel in operation mode
- Red and green LED in forks (front and back) for indication of driving direction
- PLd (performance level d)

OPTIONS

Object scanning

The 'object scanning' solution consists of three (3) Sick TIM320 scanners. These are installed on the Nipper. Two (2) scanners on each side with a 2D vertical plane next to the vehicle and one (1) scanner on top of the vehicle with an obliquely downward facing field.

The Sick scanners have a field of view of 270°. The blind sides of the scanners at the side are directed upwards.



Options: Object scanning

*according to the standard cycle for comparability

DOCUMENTATION & REGULATION

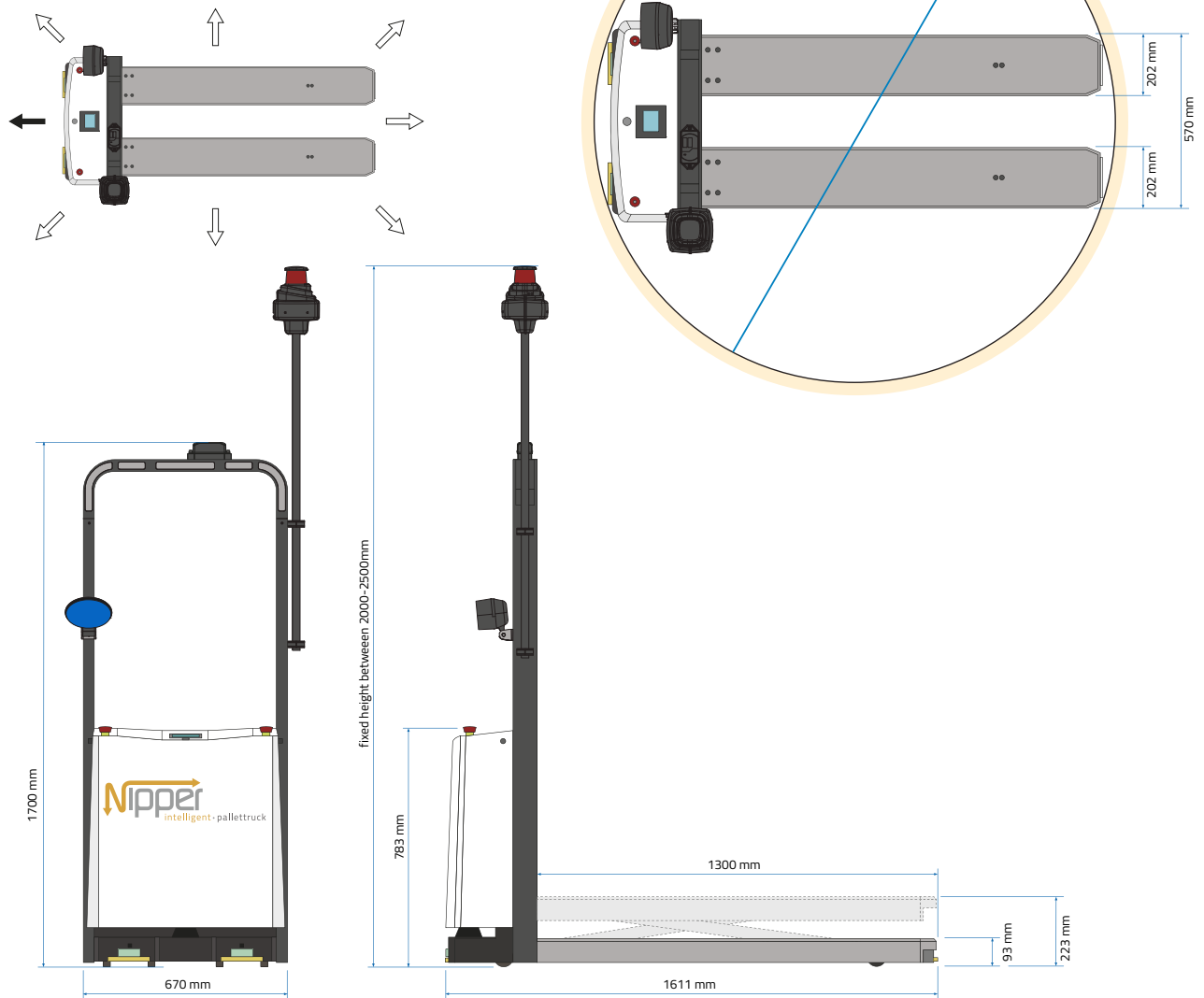
Manual:	User manual 1x digital
Language:	Standard English (inside EU depending on country)
Certification:	CE

Regulations:

2006/42/EC	Machinery Directive
2014/30/EU	EMC-Directive
NEN-EN-ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction
NEN-EN-ISO 4413:2010	Hydraulic fluid power - General rules and safety requirements for systems and their components
NEN-EN-ISO 13849-1:2016	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design
NEN-EN-ISO 13850:2015	Safety of machinery - Emergency stop function - Principles for design
NEN-EN-IEC 60204-1: 2006	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
NEN-EN 1525:1997	Safety of industrial trucks - Driverless trucks and their systems
NEN-EN1175-1:1998+A1:2010en	Safety of industrial machinery trucks - Electrical requirements - Part 1: General requirements for battery powered trucks

DIMENSIONS

Main direction: Black arrow 1 m/s
Other directions: Max 300 mm/s



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