

# ezSWD150IH.14x/C-x



- ✓ ez-Wheel® ezSWD150IH.14x/C-x - SWD® 150
- ✓ world's first Safety Wheel Drive for AGVs / AMRs
- ✓ suitable for:
  - mobile robotics
  - AGVs
  - AMRs

**IP66**  
Index

SIL2 PLd
SIL3 PLe

 Functional Safety

## Technical characteristics

<b>Diameter</b>	150 mm
<b>Type of Tyre</b>	PU 92 sh.A - Flat profile
<b>Speed range (traction)</b>	0 to 3.7 km/h
<b>Peak pushing effort</b>	60 daN Moves 1 500 kg
<b>Nominal performance</b>	23 daN at 2.9 km/h
<b>Maximum vertical load</b>	700 kg
<b>Battery capacity</b>	100 Wh
<b>Nominal voltage</b>	24 VDC
<b>Option(s)</b>	Internal battery Parking brake /B

## Component specifications

### Motor



Technology	BLDC PM
Gearbox	2-stages planetary ratio 14:1
Indicative lifespan*	5 000 h / 15 000 km 1 500 000 starts/stops
Nominal speed	100 rpm (2.9 km/h)
Nominal power	185 W (S1)
Peak torque	45 Nm

### Battery (option)



Electrochemistry	Li-ion high power
Energy	100 Wh
Indicative lifespan*	2-3 years
Recharge mode	Charger External power
Minimum charging time*	0.7 hour (to 80%)

## Safety features



Motor disconnection	STO SIL3/PLe
Motion control	SLS, SDI, SMS, SIL2/PLd
Braking	SBC SIL2/PLd
Encoder	412 ppr SIL2/PLd
Interface	CANopen Safety®

## Conditions of use



Temperatures	0 to +40 °C
IP index	IP66 (electronic housing)
Maintenance period*	5 years / 2-3 years for battery

The wheel can be used inside or outside, over a wide range of temperatures. The components – including the battery – do not need any inspection or maintenance over the product's whole lifespan.

## Weight



Wheel weight	10.5 kg 11.3 kg with brake
--------------	-------------------------------

Thanks to the reinforced cast iron housing and wheel hub, the wheel can withstand knocks and severe vibration and enables the wheel to carry some load.

All values are subject to changes without prior notice.

\*: Values for reference, based on standard condition testing, may vary with different application cases.

\*: Internal battery life time may vary with cycling conditions.