MAXOLUTION®
AN SEW-EURODRIVE COMPANY

Transport systems for factory automation

Modular Vehicle Selection Guide

Load handling vehicles

Platform

Our standard vehicle integrates seamlessly with customer load-handling systems like conveyors, lifts, and custom fixtures.

It uses an integrated lithium battery with inductive charging for continuous operation and precise axis control via a dedicated inverter and controller.

The system supports standard 24V DC power and Safe I/Os as well as advanced 360V DC, EtherCAT, and FSoE for efficient, reliable, and safe operation.

Model MLA B1600-P

Dimensions
L = 1500 mm | 60 in
W = 1000 mm | 40 in
H = 365 mm | 14.5 in

Energy supply
Inductive spot charging (maintenance free)

Navigation
Laser contour navigation via Lidar (SLAM)

Drive concept
Middle differential drive

Energy storage
LiFePO 4 Battery

Weight
430 kg | 950 lbs

Speed
1.6 m/s | ~5.0 ft/s

Special interface
Driven axis for customer specific load handling

Payload
1600 kg | 3525 lbs

Lift platform

This vehicle includes all the features of our platform model with the addition of an integrated lift capable of raising and lowering the platform for streamlined transportation of shelves, racks, bins, pallets, and other loads.

Model MLA B1250-LP

Dimensions
L = 1500 mm | 60 in
W = 1000 mm | 40 in
H = 400 mm | 15.75 in

Energy supply
Inductive spot charging (maintenance free)

Navigation
Laser contour navigation via Lidar (SLAM)

Drive concept
Middle differential drive

Energy storage
LiFePO 4 Battery

Weight
510 kg | 1125 lbs

Speed
1.5 m/s | ~5.0 ft/s

Stroke
150 mm | ~6 in
15 mm/s | ~0.6 in/s

Payload
1250 kg | 2750 lbs

Pallet transfer vehicles

Pallet transport with integrated lift module

This vehicle is built for pallet transport, featuring an integrated lift to collect pallets from various transfer stations. Its inductive charging during load exchanges ensures extended range and continuous operation.

Model MLA B1250-L

Dimensions
L = 1500 mm | 60 in
W = 1000 mm | 40 in
H = 420 mm | 16.5 in

Energy supply
Inductive spot charging
(maintenance free)

Navigation
Laser contour navigation
via Lidar (SLAM)

Drive concept
Middle differential drive

Energy storage
LiFePO 4 Battery

Weight
590 kg | 1300 lbs

Speed
1.6 m/s | ~5.0 ft/s

Stroke
150 mm | ~6 in
15 mm/s | ~0.6 in/s

Payload
1250 kg | 2750 lbs
450 mm | 18 in transfer height

Pallet transfer with integrated conveyor module

This vehicle is ideally suited for the seamless transfer of pallets, boxes, containers, and other loads thanks to its robust design, inductive charging capabilities, and advanced navigational technology.

Model MLA B1250-C

Dimensions
L = 1500 mm | 60 in
W = 1000 mm | 40 in
H = 675 mm | 26.5 in

Energy supply
Inductive spot charging
(maintenance free)

Navigation
Laser contour navigation
via Lidar (SLAM)

Drive concept
Middle differential drive

Energy storage
LiFePO 4 Battery

Weight
650 kg | 1425 lbs

Speed
1.6 m/s | ~5.0 ft/s

Transfer Height
500 mm | ~20 in

Payload
1250 kg | 2750 lbs

Large load vehicles

This versatile vehicle easily handles heavy, irregular loads. Its omni-directional drive ensures smooth movement in tight spaces, and the lift module allows precise vertical positioning.

Reference applications

Car body transport · Long material transport · Special load transport

Model MLA O3000-L

Dimensions
L = 3800 mm | 150 in
W = 1100 mm | 45 in
H = 450 mm | 17.75 in

Energy supply
Inductive spot charging (maintenance-free)

Navigation
Laser contour navigation

Drive concept
Omnidirectional drive

Energy storage
LiFePO 4 Battery & MoviDPS SuperCaps

Weight
1370 kg

Speed
1 m/s | ~3 ft/s

Stroke
105 mm | ~4 in

Payload
3000 kg

Supporting technology and service

Contactless energy transfer

MOVITRANS® is our advanced energy transfer system, providing spot or continuous inductive charging for both moving and stationary vehicles. Its decentralized design reduces downtime and eliminates the need for additional vehicles, offering flexible ground installation and power transfer capabilities of up to 11 kW.

Software solutions

FleetManager software system, developed by SEW-EURODRIVE , manages traffic, routing, and load management of AGV vehicles. It uses MQTT for system communication and follows the VDA5050 standard for AGV communication.

Project execution

MAXOLUTION® offers complete support that includes system design and simulation to commissioning and training. Remote support is available and based in the USA.

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