Laser SLAM
Ground Automatic Forklift
SFL-MP10S

Safe, reliable, flexible and efficient

Highly Customized Laser
More flexible for application scenario
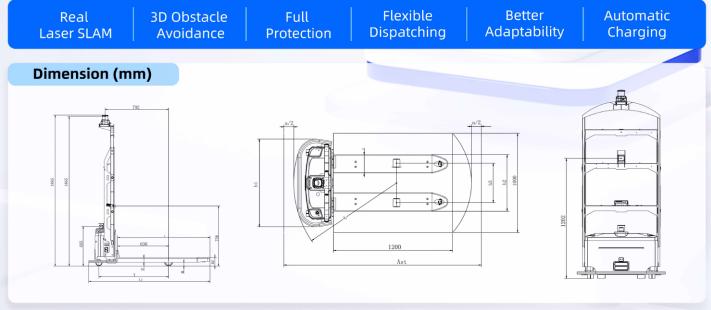
Collision Avoidance, Safe and Secure
Increased protection range of anti-collision strip

3D Obstacle Avoidance
360°full protection

| Real Laser SLAM | 3D Obstacle Avoidance | Full Protection | Flexible Dispatching | Better Adaptability | Automatic Charging |

Dimension (mm)

Parameter specification

● Standard ○ Optional - N/A

Technical parameters — SFL-MP10S

Powering method	Electric
Driving mode	Automatic navigation
Navigation type	Laser SLAM
Tray type	3-stringer pallet
Rated load capacity	800kg
Load centre distance	600mm
Wheelbase	869mm
Dead weight (with battery)	210kg
Navigation position accuracy	±10mm
Navigation angle accuracy	±0.5°
Fork in-position accuracy	-
Standard lifting height	70mm
Gantry height	-
Fork surface ground clearance (at the lowest position)	106±5mm
Navigation laser scanning height	1865mm
Vehicle size: length * width * height	1515*885*1885mm
Fork size: length * width * height	1150*186*60mm
Fork outer width	570/680mm
Right-angle stacking channel width, pallet 1000×1200 (1200 placed across forks)	1989mm
Right-angle stacking channel width, pallet 800×1200 (1200 placed along the fork)	1926mm
Map area (Single)	≤ 400000m²
Minimum turning radius	1035mm

Performance parameters

Driving speed: full load/no load	0.6/0.8m/s
Lifting speed: full load/no load	-
Lowering speed: full load/no load	-
Gantry movement speed: full load/no load	-
Passability (slope/step/gap)[2]	< 5%/5mm/10mm
Drive motor power (S2, 60 min)	0.6kW*2
Lifting motor power (S3, 15%)	0.8kW
Steering motor power (S2, 10 min)	-
Service braking mode	Electromagnetic brake
Drive control mode	Servo control

Battery parameters

Tire type: driving wheel/supporting wheel	Polyurethane/Polyurethane
Tire size: driving wheel	100mm
Tire size: bearing wheel	80mm
Tire size: Balance wheel	-
Wheel number: driving wheel (x= driving wheel)/ bearing wheel	-
Wheel base: bearing side	615mm
Wheel base: driving side	400mm

Battery parameters — SFL-MP10S

Battery specifications	48V/30Ah (Lithium Iron Phosphate)
Battery weight	15kg
Comprehensive battery life	8h
	48V/15A
Charging time (10%-80%)	2h
Charging method	Manual/Automatic
Battery cycle number	> 500

Certifications

ISO 3691-4	-
EMC/ESD	●
UN38.3	●
RoHS	●

Function configurations

Lidar number	1 (P+F R2000) +1 (OLEI LR-1BS2-V2)
Wi-Fi roaming function	●
3D obstacle avoidance	○
Remote emergency stop	○
Pallet recognition	○
Cage stack	-
High shelf pallet recognition	-
Pallet damage detection	○
Pallet stacking and unstacking	-
The HMI screen	-
Fork tooth distance sensor	●
Cargo overload detection	○

Safety configurations

E-stop button	●
Sound and light indicator	●
Braking distance: 1m/s / 1.5m/s	≤30cm / ≤50cm
Vehicle hardware fault detection	●
360° laser protection	-
Bumper strip	●
Fork teeth height protection	-

Others

Network	4G / 5G / Wi-Fi 802.11 a/b/g/n/ac
Ground flatness	±5mm/m²
Scenario requirements	Only suitable for indoor, light intensity ≤40 klx (IEC 61496-3), ground without water and oil and other scenes
Ambient temperature and humidity range	TEMP: 0-50 / RH: 10-90, no compression, no condensation
IP rating	IP20
Noise near driver's ear according to EN12053	≤70dB(A)