

STANDARD AND OPTIONAL EQUIPMENT

Model/ Equipment		C-MATIC 06	C-MATIC 10	C-MATIC 15
Off Board Software	Smart routing algorithmen	○	○	○
	Smart charging logic	○	○	○
	Interfaces to existing WMS, ERP, ...	○	○	○
	Interfaces with infrastructure: doors, conveyors, ...	○	○	○
	Interfaces to Linde Warehouse Management Systems	○	○	○
On Board Software	QR Code navigation	●	●	●
	QR Code load identification	●	●	●
	User-friendly log-on the vehicle	●	●	●
Operation / Load Handling	Personal detection safety scanner in main driving direction	●	●	●
	Safety field switch between lifted and lowered platform	●	●	●
	Emergency stops on all sides (front left/right, rear left/right)	●	●	●
	Safety bumper around the vehicles (front, side, rear)	●	●	●
Navigation	Position accuracy ± 10 mm	●	●	●
	Stop accuracy ± 5 mm	●	●	●
	Angular accuracy ± 1°	●	●	●
	Navigation QR Codes with max. intervall 1000 × 1000 mm	○	—	—
	Navigation QR Codes with max. intervall 1350 × 1350 mm	—	○	○
HMI Interface	Control buttons	●	●	●
	LED indicators	●	●	●
	Depending on situation plays sound and/or voice package	●	●	●
Load Handling	QR Code load table identification	○	○	○
	Turn, transport and drop load by 90°, 180° and 270°	●	●	●
	Load table dimensions 900 × 900 mm	○	—	—
	Load table dimensions 1200 × 1200 mm	—	○	○
	Adaptor plate for pick and drop station at height = 320 mm	—	○	○
	Adaptor plate for workstations at height = 480 mm	—	○	○
	Adaptor plate for conveyor at height = 530 mm	—	○	○
Enviro- ment	Adaptor plate for heights between h13 = 290 mm and 700 mm	—	■	■
	Wifi Communication	●	●	●
Energy	Ambient temperature +0 - +40 °C	●	●	●
	Li-ION battery (Lithium-ion NMC technology)	●	●	●
Service	Automatic Opportunity Charging Connector	●	●	●
	Switch for automated or maintenance mode	●	●	●
	Plug for Hand Control Unit	●	●	●
	Hand Control Unit	○	○	○
Driving	Ramp to drive C-Matic from delivery pallet	○	○	○
	Differential drive with dual wheels	●	●	●
Turn on the spot with and without locked platform		●	●	●

● Standard equipment ○ Optional equipment — Not available ■ Special Equipment



TRANSPORTING – AUTONOMOUS MOBILE ROBOT

C-MATIC 06 | 10 | 15

Capacity 0.6 – 1.5 t | Series 8924-02, 8925-02, 8926-02

Automated solution for efficient goods transport over short and medium distances with little space requirement

- Effortless transport on tables to drive under or between transfer stations
- Model-dependent payload between 600 and 1500 kilograms
- Intelligent software control with efficient orientation by reading QR codes
- Safety technology for hazard-free cooperation in confined spaces



Customer process focus as a standard

Sales and Realization

- Project specific concept design of the automated solution including dynamic simulation and proof of concept on site if necessary
- Combination of manual handling processes and degree of automation can be optimized to fit the customer needs
- One face to the customer for the whole process from first contact to the lifecycle phase
- Intelligent, scalable software solutions to provide customers best control on their processes
- Project Management and Commissioning according to Linde standards with unified tools and templates in the entire network
- Realization expertise for project steering since 2015 with more than 700 installed AGV's

CHARACTERISTICS



Dynamic safety fields

Safety

- Laser scanner for reliable detection of the vehicle's surroundings
- Immediate reaction to people, vehicles or obstacles
- Ideal combination of maximum productivity and highest possible safety
- Stable collision protection and emergency stop switch for additional protection



Flexible load handling

Handling

- Orientation based on QR codes on the floor
- Calculation of the optimal route for each individual transport job
- QR codes on the optionally available transport tables for load tracking
- Direct transport of pallets with adapter plate for different transfer heights
- Optional self-charging station for fully automated battery charging



Low maintance design

Service

- Robust technology and long maintenance intervals for maximum availability
- Easy access to all main components for quick maintenance
- Fault diagnosis via cable connection

Presented by:

Subject to modification in the interest of progress. Illustrations and technical details could include options and not binding for actual constructions. All dimensions subject to usual tolerances.



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TECHNICAL DATA (According to VDI 2198)

Characteristics	1.1	Manufacturer		Linde	Linde	Linde
	1.2	Model		C-MATIC 06	C-MATIC 10	C-MATIC 15
	1.2.a	Series		8924-02	8925-02	8926-02
	1.3.	Power Unit		Battery	Battery	Battery
	1.4	Operation		Automated	Automated	Automated
Weights	1.5	Load capacity / Load	Q (t)	0.6	1.0	1.5
	2.1	Service weight	(kg)	145	205 ³⁾	215 ³⁾
Wheels / Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		PU	PU	PU
	3.4	Auxiliary wheels (dimensions)		200 × 40	200 × 40	200 × 40
	3.5	Wheels, number front / rear (x = driven)		2x +2	2x +2	2x +2
	3.6	Track width, front	b10 (mm)	668	758	758
	4.4	Lift	h3 (mm)	55	60	60
Dimensions	4.15	Height, lowered	h13 (mm)	240	260	260
	4.16	Loading platform, length	(mm)	Ø 680	950 ³⁾	1000 ³⁾
	4.18	Loading platform, width	(mm)	Ø 680	750 ³⁾	780 ³⁾
	4.19	Overall length	l1 (mm)	956	1182	1182
	4.21	Overall width	lb (mm)	730	832	832
Performance	4.33	Load dimension b12 × l6	b12 × l6 (mm)	900 × 900 ³⁾ (780 × 780) ⁴⁾	1200 × 1200 ³⁾⁵⁾ (1080 × 1080) ⁴⁾	1200 × 1200 ³⁾⁵⁾ (1080 × 1080) ⁴⁾
	4.34	Aisle width with predetermined load dimensions	Ast (mm)	1473 ⁴⁾	1897 ⁴⁾	1897 ⁴⁾
	4.35	Turning radius	Wa (mm)	478	618.5 ⁷⁾	618.5 ⁷⁾
	5.1	Travel speed, with/without load	(km/h)	5.4 / 7.2	4.3 / 5.4	4.3 / 5.4
	5.2	Lifting speed, with/without load	(m/s)	0.29	0.29	0.29
Drive	5.3	Lowering speed, with/without load	(m/s)	0.21	0.21	0.21
	5.8	Maximum climbing ability, with/without load	(%)	<5 ⁸⁾	<5 ⁸⁾	<5 ⁸⁾
Others	6.4	Battery voltage/rated capacity (5 h)	(V)/(Ah) o. (kWh)	48 / 36 ⁹⁾	48 / 36 ⁹⁾	48 / 36 ⁹⁾
	6.6	Power consumption according to VDI cycle	(kWh/h)	0.25 ¹⁰⁾	0.3 ¹⁰⁾	0.52 ¹⁰⁾
	10.7	Sound pressure level LpA2 (at the driver's seat)	(dB(A))	<75	<75	<75

- 1) Adaptor plate weight for C-Matic 10: (h13 = 450 mm, +70 kg), (500, +75) (700, +94); C-Matic 15: (450, + 62), (500, +66), (700, +86)

2) Loading platform rotation diameter: C-Matic 10: Ø 1060 mm; C-Matic 15: Ø 1114 mm

3) With loading platform: tables as load carrier are required

4) Load Inner Dimensions (l6.1 × b14)

5) Pallet handling with adaptor plate (l3 × b9 = 1200 × 887 mm) with 3 fixation positions l6: 1016 mm (Position 1), 1000 mm (Postion 2), 800 mm (Postion 3) b12: < 1219 mm

6) Including a 200 mm (min.) operating aisle clearance. With Adaptor plate and load dimensions (b12 × l6) of Euro pallet (1200 × 800) = 1642 mm;
- 7) UK pallet (1200 × 1000) = 1762 mm: US pallet (1219 × 1016) = 1898 mm

Unloaded rotation diameter C-Matic 06/10/15: Ø 956/1237/1237 mm with adator plate: C-Matic 10/15: Ø 1411 mm

8) Suggested max. climbing angle is ≤ 3 %, allowed step height ≤ 5 mm, traversable gap ≤ 15 mm

9) Lithium-Nickel-Manganese-Cobalt oxide battery

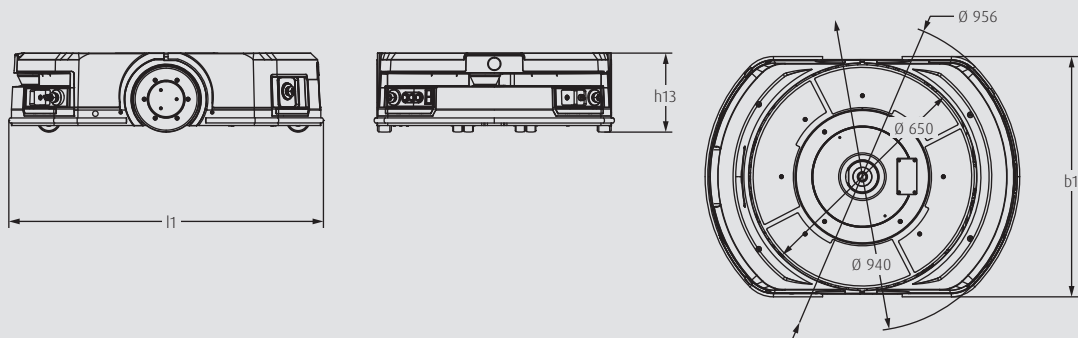
10) Battery running time (50 % fully loaded) C-Matic 06/10/15: 9 h/7.5 h/6.5 h; Battery charging time from SOC 0 ~ 100 %: ~1.5 h

PLATFORM AND ADAPTOR PLATE

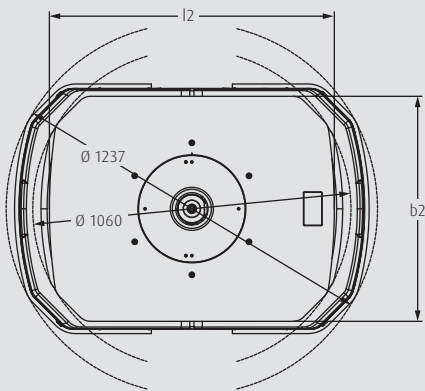
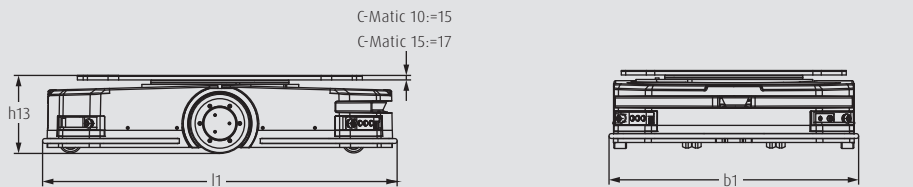
C-Matic 06	Lift	Height of platform extended max.	Pick up and Drop-off height	Max height of CoG	Max. displ. of CoG	Max. Capacity	Load carrier Type
h13 ¹⁾ (mm)	h3 (mm)	h4 (mm)	h13 + h2 ²⁾ (mm)	hc1 (mm)	c1 (mm)	c2 (mm)	l6 × b12 [× m2] (mm)
240	55	295	270	740	110	140	Table 900 × 900 × 270
C-Matic 10	Lift	Height of platform extended max.	Pick up and Drop-off height	Max height of CoG	Max. displ. of CoG	Max. Capacity	Load carrier Type
h13 ¹⁾ (mm)	h3 (mm)	h4 (mm)	h13 + h2 ²⁾ (mm)	hc1 (mm)	c1 (mm)	c2 (mm)	l6 × b12 [× m2] (mm)
260	60	320	290	890	120	160	Table 1200 × 1200 × 290
290	60	350	320	650	140	166	Pallets l6 × b12
450	60	510	480	650	127	153	Pallets l6 × b12
500	60	560	530	650	125	151	Pallets l6 × b12
700	60	760	730	650	117	143	Pallets l6 × b12
C-Matic 15	Lift	Height of platform extended max.	Pick up and Drop-off height	Max height of CoG	Max. displ. of CoG	Max. Capacity	Load carrier Type
h13 ¹⁾ (mm)	h3 (mm)	h4 (mm)	h13 + h2 ²⁾ (mm)	hc1 (mm)	c1 (mm)	c2 (mm)	l6 × b12 [× m2] (mm)
260	60	320	290	890	120	160	Table 1200 × 1200 × 290
290	60	350	320	650	140	166	Pallets l6 × b12
450	60	510	480	650	127	153	Pallets l6 × b12
500	60	560	530	650	125	151	Pallets l6 × b12
700	60	760	730	650	117	143	Pallets l6 × b12

1) h13 = height from floor to top of vehicle (lift lowered) 2) h2 = free lift

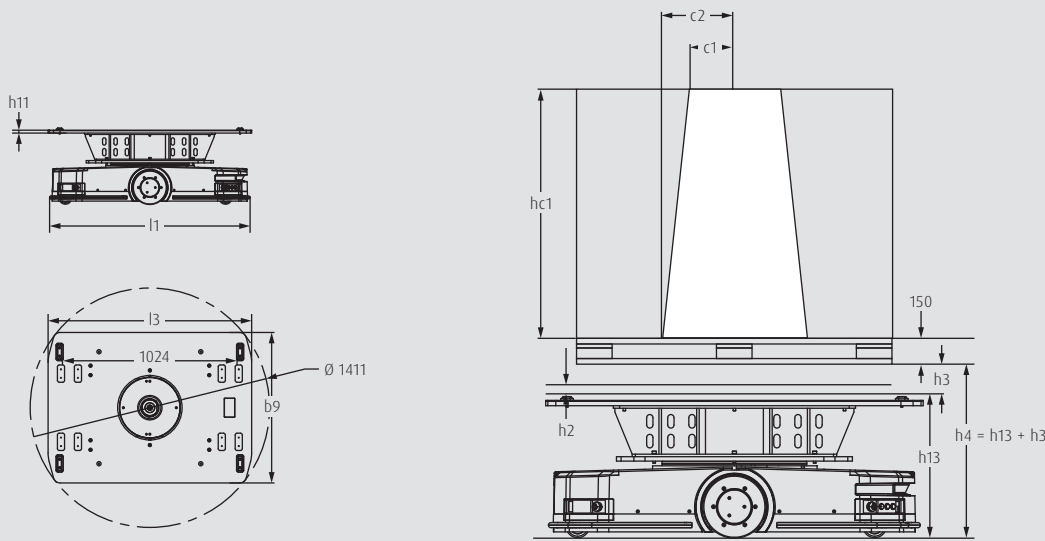
C-MATIC 06



C-MATIC 10, C-MATIC 15



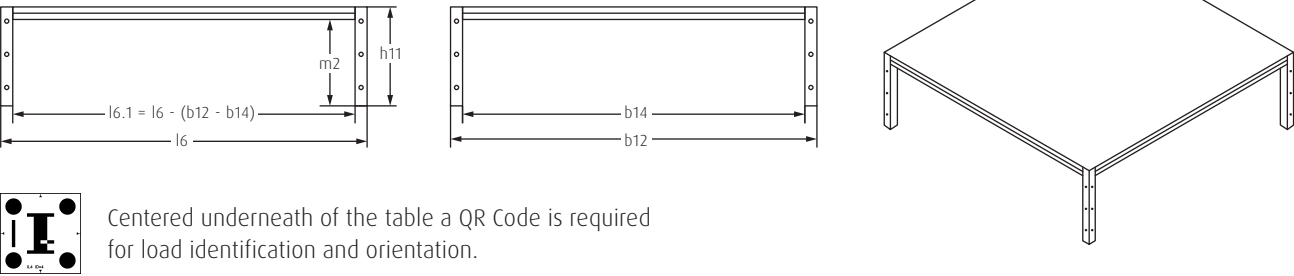
ADAPTOR PLATE



1) h13 = height from floor to top of vehicle (lift lowered) 2) h2 = free lift

APPLICATION INFORMATION

PLATFORM: TABLE REQUIREMENTS



Model	C-MATIC 06	C-MATIC 10	C-MATIC 15
Dimension l6 × b12 × m2 (mm)	900 × 900 × 270	1200 × 1200 × 290	1200 × 1200 × 290
Inner Dimensions l6.1 × b14	780 × 780	1080 × 1080	1080 × 1080
Capacity (kg)	600	1000	1500

ADAPTOR PLATE: PALLET REQUIREMENTS

