

## Standard Equipment/Optional Equipment

### Standard Equipment

Linde twin drive pedals to control forward/reverse travel and braking  
 Original Linde Load Control integrated in armrest  
 Hydraulic suspended seat with extensive range of adjustment  
 Hydrostatic power steering  
 Three wheel configuration with original Linde center-pivot axle for excellent maneuverability  
 Four wheel configuration with patented Linde combi steering axle  
 Linde compact drive axle with maintenance free oil-bath disc brake  
 Famous Linde dual motor drive with 2 x 4,6 kW/5 kW for 48 V models  
 11 kW (48 V) maintenance free AC lift motor  
 Curve Assist for automatic, proportional speed adaption  
 Plenty of storage space for writing utensils, beverage cans ...  
 Anti-glare display with clock, hour meter, service information and accurate battery condition indicator  
 Standard truck fits into ISO containers  
 Superelastic tyres

Two different battery capacities for each model:  
 E14=48 V/13,1 kWh or 39,2 kWh,  
 E16C=48 V/13,1 kWh or 39,2 kWh,  
 E16=48 V/16,3 kWh or 45,7 kWh,  
 E18=48 V/16,3 kWh or 45,7 kWh,  
 E16P=48 V/16,3 kWh or 45,7 kWh  
 Easy charging via rear

#### STANDARD features for the EVO models:

Seat/armrest generation for outstanding ergonomics  
 Improved energy consumption  
 Enhanced tractive force and climbing ability  
 Self-activating parking brake  
 Individual drive dynamic mode providing perfect combination of performance and efficiency  
 Showing battery operating time by the minute  
 Dust and dirt protected Linde Load Control  
 Enlarged step-in for high models  
 New diagnostic plug for fast service access

### Optional Equipment

Single drive pedal with direction selector on armrest  
 Overhead guard can be upgraded to full cabin with roof, front and rear screens and doors (also available with tinted glass)  
 Roof screen – armored safety glass  
 Wiper-washers for front, rear and roof screens  
 Alternative seats with additional comfort and adjustments  
 Cab heater with integrated pollen filter  
 Radio with speakers  
 Sun screen, clipboard and interior light  
 Standard mast lifts up to 5650 mm  
 Duplex mast (full free lift) lifts up to 4145 mm  
 Triplex mast (full free lift) lifts up to 6075 mm  
 Single or double additional hydraulics for all mast types  
 Tilt cylinder and roof protection  
 Integrated sideshift

Integrated fork positioner  
 Mirrors  
 Linde original BlueSpot™  
 Speed Assist for zone depending speed adjustment  
 Road traffic specification  
 Load backrest  
 Swivelling seat  
 12 V socket

Truck lighting & working lamps  
 Cold store protection  
 Custom paintwork

Connected solutions like access control for individual driver authorization, recording and remote transfer of the operating hours and active usage analysis of complete truck fleet

Other options available on request



Electric Counterbalanced Trucks  
 Capacity 1400 - 1800 kg, Li-ION  
 E14 *EVO*®, E16 *EVO*®, E18 *EVO*® Series 386

### Safety

The protective overhead guard forms a strong and completely enclosed protective zone providing optimum structural integrity, safety and protection for the operator. The top mounted tilt cylinders provide seamless, smooth control of the tilt movements for excellent load stability in all operating conditions. This unique design also enables slim mast profiles to be fitted for outstanding visibility.

### Performance

One would expect a high performance truck to have a high performance traction system – and that is exactly what the Linde compact drive axle and lift system delivers. Powerful motors and intelligent electronic control form an impressive power pack to deliver the highest levels of productivity.

### Comfort

Consistently high levels of performance and efficiency for extended periods are only possible if the operator feels comfortable. The ergonomic layout of all the controls, the adjustability of the armrest and seat, Linde Load Control and twin accelerator pedals provide the best possible intuitive interface between the truck and the operator.

### Reliability

An electric fork lift truck depends on reliable electronic systems. The Linde electronic control system provides a high level of reliability because of its dual circuit monitoring system and the sealed aluminium housing which provides total protection for the electronics from the ingress of dust and moisture.

### Productivity

Time intensive battery changes, long charging times, and costly battery maintenance from now on belong to the past with the new Li-ION trucks from Linde. Battery changing becomes unnecessary due to intermediate charging opportunity in any break. Not only is the new Linde Li-ION battery maintenance and emissions free, but there is also no need for a costly battery room.

## Features

#### Intermediate charging

- Constant truck uptime
- Multi-shift availability
- No place-specific charging
- No charging-room needed

#### Fast charging

- Shorter charging times
- Lunch & charge
- Economic use of each break
- Modern HF-technology



#### Longer battery life-time

- 2.500 full charging cycles with at least 80% residual capacity
- Afterwards: Several thousand full-charging cycles still possible
- Combined with higher battery efficiency a all in all higher usable battery capacity

#### Safe battery technology

- Self-monitoring via autonomous battery management system
- Safety functions on cell-, module- and battery level
- Safe control of the truck in any battery status
- Integrated shock sensor

#### Higher efficiency

- Up to 30% higher electrical efficiency than lead acid batteries
- Less energy loss
- Less heat development inside battery
- Full usability down to 5% State of Charge (SoC)



#### Emission-free battery

- No evolving battery gases (hydrogen) and acid
- No need of extraction unit
- Does not contain any toxic substances like Cd, Pb or Hg



#### No battery change necessary

- No second battery necessary
- Higher truck availability
- Cost & time savings
- No need for battery change- and charging room



#### No battery-maintenance needed

- No water-refilling, battery cleanup etc.
- No battery control necessary
- No need of electrolyte-circulation





# Technical Data according to VDI 2198

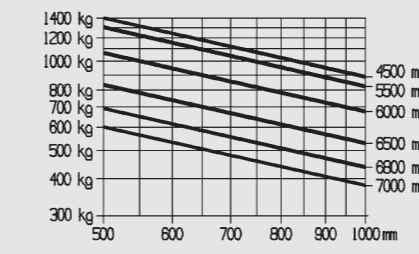
		Characteristics				
		1.1	1.2	1.3	1.4	1.5
	Manufacturer	LINDE				
	Model designation	<b>E14 ION</b>				
1.2a	Series	386-02				
1.3	Power unit	Battery				
1.4	Operation	Seat				
1.5	Load capacity/Load	Q (t)	1.4	1.6	1.6	1.8
1.6	Load centre	c (mm)	500	500	500	500
1.8	Axle centre to fork face	x (mm)	365	365	365	370
1.9	Wheelbase	y (mm)	1301 <sup>1)</sup>	1301 <sup>1)</sup>	1409 <sup>1)</sup>	1429 <sup>1)</sup>
2.1	Service weight	(kg)	2959 <sup>2)</sup>	3062 <sup>2)</sup>	2993 <sup>2)</sup>	3209 <sup>2)</sup>
2.2	Axle load with load, front/rear	(kg)	3767 / 592	4100 / 562	4075 / 518	4443 / 566
2.3	Axle load without load, front/rear	(kg)	1436 / 1523 <sup>3)</sup>	1436 / 1626 <sup>3)</sup>	1493 / 1500 <sup>3)</sup>	1532 / 1677 <sup>3)</sup>
3.1	Tyres rubber, SE, pneumatic, polyurethane		SE	SE	SE	SE
3.2	Tyre size, front		180/70-8 (18x7-8)	180/70-8 (18x7-8)	180/70-8 (18x7-8)	200/50-10
3.3	Tyre size, rear		15x4 1/2-8	15x4 1/2-8	15x4 1/2-8	140/55-9
3.5	Wheels, number front/rear (x = driven)		2x / 2	2x / 2	2x / 2	2x / 2
3.6	Track width, front	b10 (mm)	930	930	930	930
3.7	Track width, rear	b11 (mm)	168	168	168	172
4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	5.0 / 7.0	5.0 / 7.0	5.0 / 7.0	5.0 / 7.0
4.2	Height of mast, lowered	h1 (mm)	2019	2019	2019	2019
4.3	Free lift	h2 (mm)	150	150	150	150
4.4	Lift	h3 (mm)	2800	2800	2800	2800
4.5	Height of mast, extended	h4 (mm)	3401	3401	3401	3401
4.7	Height of overhead guard (cabin)	h6 (mm)	1970	1970	1970	1970
4.8	Height of seat/stand on platform	h7 (mm)	908	908	908	908
4.12	Towing coupling height	h10 (mm)	510	510	510	538
4.19	Overall length	l1 (mm)	2746	2766	2854	2879
4.20	Length to fork face	l2 (mm)	1846	1866	1954	2029
4.21	Overall width	b1/b2 (mm)	1090 / 1050	1090 / 1050	1090 / 1050	1172 / 1050
4.22	Fork dimensions	s/e/l (mm)	40 x 80 x 900	40 x 80 x 900	40 x 80 x 900	45 x 100 x 900
4.23	Fork carriage to ISO 2328, class/type A, B		2A	2A	2A	2A
4.24	Width of fork carriage	b3 (mm)	980	980	980	980
4.31	Ground clearance, below mast	m1 (mm)	89	89	92	97
4.32	Ground clearance, centre of wheelbase	m2 (mm)	96	96	96	103
4.33	Aisle width with pallet 1000 x 1200 across forks	Ast (mm)	3177 <sup>3)</sup>	3196 <sup>3)</sup>	3281 <sup>3)</sup>	3305 <sup>3)</sup>
4.34	Aisle width with pallet 800 x 1200 along forks	Ast (mm)	3301 <sup>3)</sup>	3320 <sup>3)</sup>	3405 <sup>3)</sup>	3429 <sup>3)</sup>
4.35	Turning radius	Wa (mm)	1486	1505	1590	1609
4.36	Minimum pivoting point distance	b13 (mm)	0	0	0	0
5.1	Travel speed, with/without load	(km/h)	16 / 16	16 / 16	16 / 16	20 / 20
5.2	Lifting speed, with/without load	(m/s)	0.4 / 0.6	0.4 / 0.6	0.4 / 0.6	0.5 / 0.6
5.3	Lowering speed, with/without load	(m/s)	0.58 / 0.47	0.58 / 0.47	0.6 / 0.55	0.58 / 0.5
5.5	Tractive force, with/without load	(N)	2300 / 2300	2300 / 2300	2300 / 2300	2300 / 2300
5.6	Maximum tractive force, with/without load	(N)	11000 / 11000	11000 / 11000	11000 / 11000	11000 / 11000
5.7	Climbing ability, with/without load	(%)	7.3 / 11.0	6.7 / 10.3	6.8 / 10.4	6.2 / 9.6
5.8	Maximum climbing ability, with/without load	(%)	27.1 / 42.1	24.6 / 38.9	24.8 / 39.4	22.6 / 36.2
5.9	Acceleration time, with/without load	(s)	4.5 / 3.8	4.5 / 3.8	4.5 / 3.8	4.5 / 3.8
5.10	Service brake		hydr./mech.	hydr./mech.	hydr./mech.	hydr./mech.
6.1	Drive motor, 60 minute rating	(kW)	2x 4.6	2x 4.6	2x 4.6	2x 5
6.2	Lift motor, rating at S3 15%	(kW)	10	10	10	11
6.3	Battery according to DIN 43531/35/36 A,B,C,no		Li-ION	Li-ION	Li-ION	Li-ION
6.4	Battery voltage/rated capacity (5h)	(V/Ah)	48 V / 13,1 kWh <sup>4)</sup>	48 V / 13,1 kWh <sup>4)</sup>	48 V / 16,3 kWh <sup>5)</sup>	48 V / 16,3 kWh <sup>5)</sup>
6.5	Battery weight (± 5%)	(kg)	708	708	802	802
6.6	Power consumption according to VDI cycle	(kWh/h)	4.4	4.6	4.6	4.8
8.1	Type of drive control		Digital/stepless	Digital/stepless	Digital/stepless	Digital/stepless
8.2	Operating pressure for attachments	(bar)	180	170	170	170
8.3	Oil flow for attachments	(l/min)	32	32	32	32
8.4	Noise level at operator's ear	(dB(A))	< 65	< 65	< 65	< 65

1) Mast in vertical position  
2) Figures with battery, see line 6.4/6.5.  
3) Including a 200 mm (min.) operating aisle clearance.

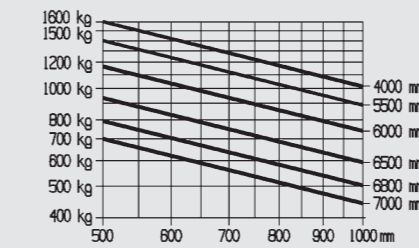
4) Option 48 V / 39,2 kWh  
5) Option 48 V / 45,7 kWh

## Load Capacity Diagrams

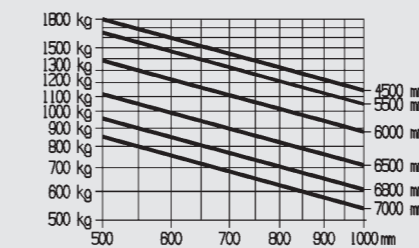
E14 (3-wheel)



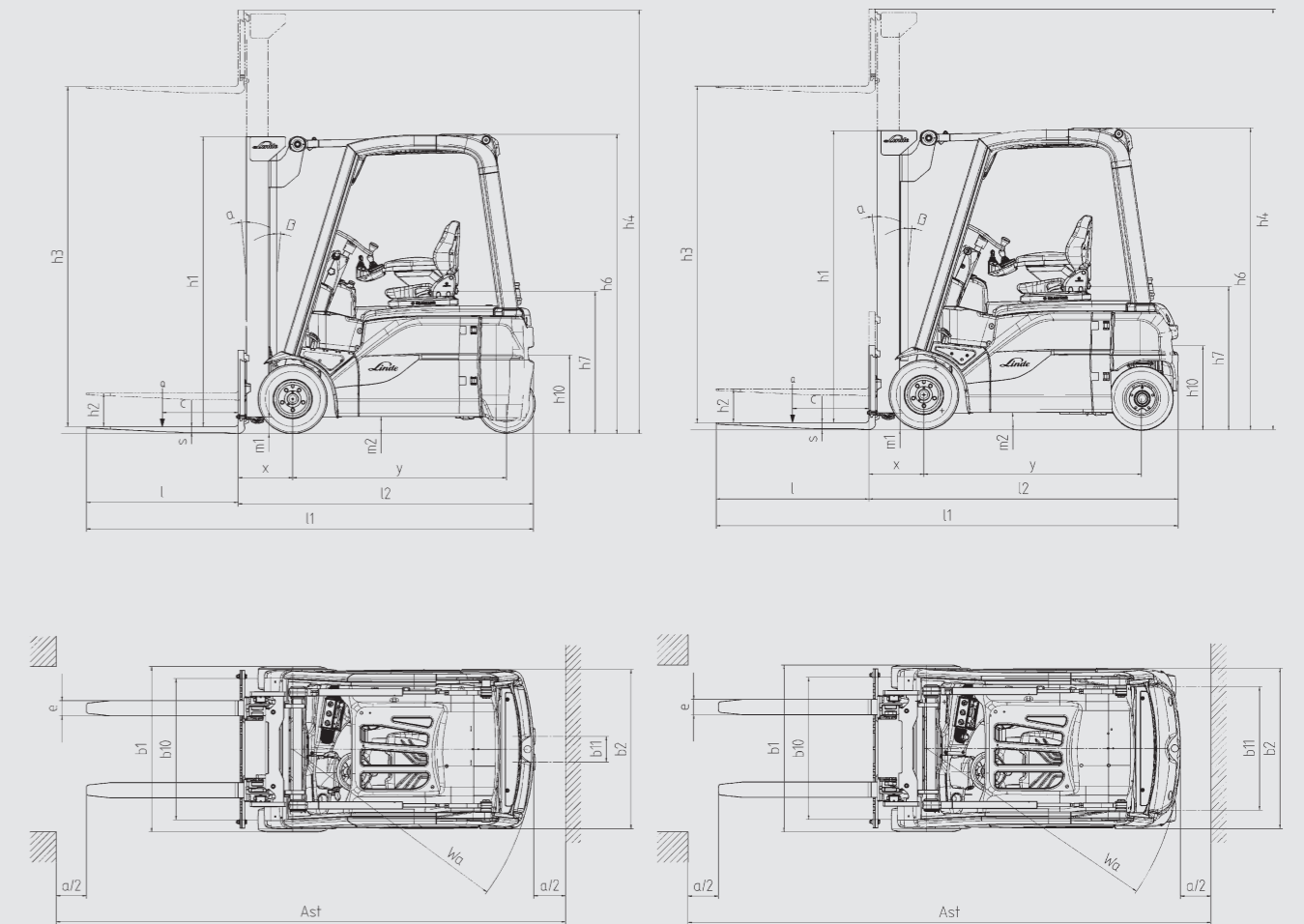
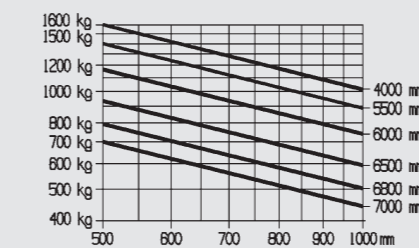
E16/E16C (3-wheel)



E18 (3-wheel)



E16P (4-wheel)



Standard mast (in mm)	E14/E16C/E16/E18				E16P			
Lift	<b>h3</b>	2800	3150	3850	4250	2800	3150	4250
Overall height, retracted (to 150 mm free lift)	<b>h1</b>	2021	2196	2546	2746	2021	2196	2746
Overall height extended	<b>h4</b>	3363	3713	4453	4813	3363	3713	4813
Duplex mast (in mm)	E14/E16C/E16/E18				E16P			
Lift	<b>h3</b>	2795	3145	3845	-	2795	3145	3845
Overall height, retracted	<b>h1</b>	1946	2121	2471	-	1946	2121	2471
Overall height, extended	<b>h4</b>	3377	3727	4427	-	3377	3727	4427
Special free lift	<b>h2</b>	1343	1518	1868	-	1343	1518	1868
Triplex mast (in mm)	E14/E16C/E16/E18				E16P			
Lift	<b>h3</b>	4100	4625	5475	-	4100	4625	5475
Overall height, retracted	<b>h1</b>	1946	2121	2471	-	1946	2121	2471
Overall height, extended	<b>h4</b>	4702	5227	6077	-	4702	5227	6077
Special free lift	<b>h2</b>	1344	1519	1781	-	1344	1519	1781

Other lift heights on request  
Minimum lift height does not apply to tall vehicle