SPECIFICATIONS ELECTRIC POWERED LIFT TRUCKS 48V, 1.4 - 2.0 TONNES



POWERFULLY AGILE

18



EP16CN2 EP18CN2 EP16N2 EP18N2 EP20N2

TUNED IN TO THE DRIVER

THIS INTELLIGENT FORKLIFT'S ADVANCED FEATURES MAKE DRIVING AND LOAD HANDLING EASIER, STEADIER, SAFER AND MORE COMFORTABLE. DRIVERS FEEL THE MACHINE IS TOTALLY IN TUNE WITH THEM, SO THEY ARE HAPPY, CONFIDENT AND HIGHLY PRODUCTIVE.







360° steering option gives greater agility in turning. This allows the truck to turn and move in the opposite direction (180°) without stopping, and avoids destabilising the load (3 wheel model).

Responsive Drive System 2 (RDS2) reacts instantly to changes in the speed of pedal and hydraulic control movement. It means all actions are smoothly controlled, including cornering behaviour, stops and starts. Load-sensing hydraulic system automatically adjusts to the weight being handled, to maintain precise control. Passive sway control keeps the automatic parking brake open so mast sway energy is absorbed by the mass of the whole truck. All masts and low-friction side-shift minimise sway, twisting and noise.



The adjustable seat and steering column assure a perfect driving position for drivers of all sizes. Forward, downward and side views are excellent due to a specially designed free lift cylinder structure where hoses and chains are positioned to minimise obstacles to vision. Ergonomic controls include an adjustable armrest, with inbuilt fingertip levers, and a set of low-fatigue pedals.

LOWER COST OF OPERATION

- Efficient motors with high RPM range give better precision in acceleration control, create more torque at low speeds and reduce energy consumption.
- Fully electronic magnetic brakes require less servicing and offer greater energy efficiency.
- Robust construction and sealed components reduce maintenance needs.
- Durable hose and hydraulic cylinder sealing specification withstands high temperature range, weathering and physical wear.
- Fast battery compartment access speeds up servicing and exchanges.
- Easy-to-read multi-function colour display encourages correct use and maintenance of truck.
- Modular design simplifies addition or replacement of parts, including overhead guard and cabin options.
- Li-ion battery option adds even greater efficiency and runtime, along with minimal maintenance needs and much longer life, for lower long-term total cost of operation (TCO).

UNMATCHED PRODUCTIVITY

- *Responsive Drive System 2 (RDS2)* traction tuning adapts performance rapidly in reaction to speed of pedal operation, and ensures all movements, stops and starts are smooth.
- *Responsive Drive System 2 (RDS2)* mast tuning adjusts constantly to the driver's hydraulic control behaviour, ensuring optimally matched functionality, sensitivity and reaction speed for the best possible operator experience.
- *PowerBurst* option automatically delivers extra torque to maintain ramp speed or provide strong acceleration, even when carrying heavy loads.
- Variable steering ratio and steering force are continuously optimised for different travel speeds.
- Advanced curve control co-ordinates the two front-wheel drive motors and rear steer axle motor to optimise turning speed, stabilise fast sideways movements of the counterweight, and prevent tilting when straightening after high-speed turns.
- Dual drive '4-wheel steering' with a +100° rear turning axle provides smooth and agile manoeuvring, including instant side turns with no need to push back.
- 360° steering option enables fluid turning without stopping to change direction (3 wheel).
- Electric differential lock option maximises grip on slippery surfaces by locking front wheels to increase traction (activated automatically at small steering angles or manually via an optional pedal function).
- Optional *SmoothFlow* hydraulic system automatically adjusts to load weight, ensuring fast but smooth and precise control of all mast and fork actions whether individual or simultaneous.
- Passive sway control keeps automatic parking brake open during lifts, so mast sway energy can be absorbed by chassis.

- As standard, truck acceleration and hydraulic performance is automatically limited at lifts from 3.5 metres for steady, controlled handling. As an option, this feature can be set to activate at lifts above 2 metres.
- High-specification masts and low-friction side-shift minimise sway, twisting and noise.
- Pre-set ECO and PRO modes can be selected for different drivers and tasks, or customised settings can be applied by service engineers.
- Li-ion option enhances performance and permits fast opportunity charging for continuous operation without battery changes.

SAFETY AND ERGONOMICS

- Market-leading *SilentRun+* hydraulic pumps (optional) plus quiet drive units and other low-noise technologies keep driver comfortable and stress-free, increase awareness of surrounding activity and avoid disturbing neighbours and co-workers.
- Extended seat and steering column adjustability assures a comfortable driving position, and enables good vision with no need to lean forward.
- Spacious operator compartment offers comfort and easy access features for drivers of all sizes.
- Inclined and narrow dashboard, one-spoke steering wheel and optimised free lift cylinder structure maximise forward, downward and side visibility.
- Spring-force-optimised fingertip hydraulic controls on adjustable armrest ensure ergonomically perfect hand positioning, anatomical support and free movement.
- Pedal design, position and angles reduce fatigue for drivers of any height or foot size.
- Steering knob automatically returns to convenient 8 o'clock position when truck drives straight, even if the wheel has been overturned.
- Dual joystick option separates functions such as clamp opening, to avoid accidental moves, and is especially useful if fingertip levers are too small for operation with gloves (or large hands).
- *ErgoSense* single joystick option offers anatomically optimised design and multi-function control layout for efficient operation with minimal fatigue.
- *Palm Steering* option offers enhanced forward view, relaxed driving position and operation with minimal effort ideal if driver is seated for long periods.
- Low-noise gearbox improves conditions for drivers and their colleagues.
- Presence Detection System+ includes automatic parking brake, hill hold and if operator is not seated prevention of travel and hydraulic movement.
- Flashing brake light option warns others of slowdown when accelerator pedal released, and is replaced by steady light when brake pedal pressed.
- Safety lights (optional) include red lines, highlighting exclusion boundary around truck, and red or blue spots (front and rear) warning pedestrians of truck's approach.

STANDARD EQUIPMENT AND OPTIONS

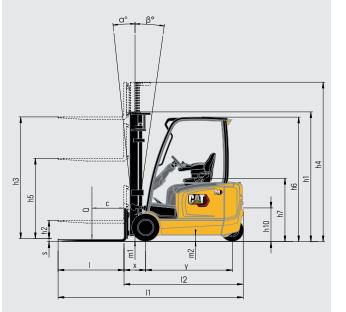
	3 WHEEL 48V								4 WHEEL 48V		
GENERAL	EP14N2T	EP16CN2T	EP18CN2T	EP16N2T	EP18N2T	EP20N2T	EP16CN2	EP18CN2	EP16N2	EP18N2	EP20N2
3 and 4 wheel chassis, 48 volts, front wheel drive	•	•			•			•			
Operator-selectable economy or high performance modes ECO/PRO	•	•	•	•	•	•	•	•	•	•	•
Multifunctional colour display (hour meter, BDI etc.)											
Lift tilt interlock and hydraulic and drive interlock / PDS	•	•	•	•	•	•	•	•		•	•
Tiltable steering column		•			•			•			
Fully electric brakes	•	•	•	•	•	•		•		•	•
Battery compartment side door and opening battery hood cover											
SST (Seat Switch Timeout: all functions are disabled – truck enters 'stop mode' and park brake is automatically applied)	•	•	•	•	•	•	•	•	•	•	•
Basic overhead guard		•									
Trucktool set-up and diagnostics	•	•	•	•	•	•	•	•	•	•	•
Dual joysticks	0	0	0	0	0	0	0	0	0	0	0
Palm Steering	0	0	0	0	0	0	0	0	0	0	0
<i>ErgoSense</i> joystick	0	0	0	0	0	0	0	0	0	0	0
Rapid sideways battery exchange chassis (SWE)	0	0	0	0	0	0	0	0	0	0	0
Chassis-integrated roller bed (for battery SWE)	0	0	0	0	0	0	0	0	0	0	0
Special (RAL) colour for frame	0	0	0	0	0	0	0	0	0	0	0
POWER SOURCE											
Li-ion battery*	0	0	0	0	0	0	0	0	0	0	0
Lead-acid battery	0	0	0	0	0	0	0	0	0	0	0
HYDRAULIC											
3 valve hydraulic fingertip control mounted on adjustable armrest	•	•		•	•			•		•	
4th and 5th hydraulic options	0	0	0	0	0	0	0	0	0	0	0
Manual lever hydraulic control	0	0	0	0	0	0	0	0	0	0	0
Hydraulic accumulator for smoother load handling on rough surfaces	0	0	0	0	0	0	0	0	0	0	0
SilentRun+ hydraulic pumps	0	0	0	0	0	0	0	0	0	0	0
MAST. FORKS AND CARRIAGE		•	•	•	•	Ū		•	0	•	•
Load backrest	•	•	•	•	•		•	•		•	•
Passive sway control for mast at high lifts	•	•	•	•	•	•	•	•	•	•	•
Simplex, duplex or triplex masts, from 3m to 7m	0	0	0	0	0	0	0	0	0	0	0
Forks 900mm - 2000mm	0	0	0	0	0	0	0	0	0	0	0
Sideshifter W920mm	0	0	0	0	0	0	0	0	0	0	0
Integrated sideshifter W920mm	0	0	0	0	0	0	0	0	0	0	0
Integrated fork positioner with sideshift	0	0	0	0	0	0	0	0	0	0	0
Load weight indicator, in 50kg increments	0	0	0	0	0	0	0	0	0	0	0
Performance reduction from 2m to 3.5m mast (above standard)	0	0	0	0	0	0	0	0	0	0	0
DRIVE AND LIFT CONTROLS	0	0	0	0	0	0	0	0	0	0	0
Variable speed control on all hydraulic functions											
variable speed control on all hydraulic functions Curve control	•	•		•	•	•		•	•	•	•
Armrest direction control		•	•	•	•	•	•	•	•	•	-
Armrest direction control Electronic differential lock	•	•		•	•	•		•	•	•	•
	0	0	0	0	0	0	0	0	0	0	0
Automatic tilt centring via the F2 button on fingertip controller	0	0	0	0	0	0	0	0	0	0	0
Tilt centring second function. Two pcs. of angle memories	0	0	0	0	0	0	0	0	0	0	0
Forward-reverse direction selection lever on steering column	0	0	0	0	0	0	0	0	0	0	0
Dual pedal system - forward and reverse	0	0	0	0	0	0	0	0	0	0	0
Operator presence pedal	0	0	0	0	0	0	0	0	0	0	0

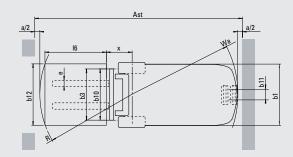
Standard Option

STANDARD EQUIPMENT AND OPTIONS CONTINUED

			3 WH	EEL 48V		4 WHEEL 48V						
ELECTRIC	EP14N2T	EP16CN2T	EP18CN2T	EP16N2T	EP18N2T	EP20N2T	EP16CN2	EP18CN2	EP16N2	EP18N2	EP20N2	
LED working lights, 2 front and 1 rear							•					
Automatic reversing light	•	•	•	•	•	•	•	•	•	•	•	
Automatic light switch	0	0	0	0	0	0	0	0	0	0	0	
Amber strobe light	0	0	0	0	0	0	0	0	0	0	0	
Road light kit	0	0	0	0	0	0	0	0	0	0	0	
Electronic smart reversing alarm	0	0	0	0	0	0	0	0	0	0	0	
'Blue point' safety light, located rear and/or front	0	0	0	0	0	0	0	0	0	0	0	
Red line safety lights, located on the sides	0	0	0	0	0	0	0	0	0	0	0	
Pin code access	0	0	0	0	0	0	0	0	0	0	0	
5V USB connector output 2 x 2.5A (max 4.4A)	0	0	0	0	0	0	0	0	0	0	0	
240W, 12V power supply for accessories	0	0	0	0	0	0	0	0	0	0	0	
OHG AND CABIN												
Grammer MSG65 vinyl with seat belt switch	•		•									
Grammer MSG65 or MSG75 with options vinyl / cloth / heater / backrest extension / armrest (MSG65)	0	0	0	0	0	0	0	0	0	0	0	
Swivel seat	0	0	0	0	0	0	0	0	0	0	0	
Plexi roof cover	0	0	0	0	0	0	0	0	0	0	0	
Panel cabin: front screen with wiper + roof with crane opening	0	0	0	0	0	0	0	0	0	0	0	
Panel cabin: economy - front screen without wiper, plexi roof cover	0	0	0	0	0	0	0	0	0	0	0	
Panel cabin steel doors	0	0	0	0	0	0	0	0	0	0	0	
Panel cabin rear screen	0	0	0	0	0	0	0	0	0	0	0	
PVC doors	0	0	0	0	0	0	0	0	0	0	0	
Heater for cabin	0	0	0	0	0	0	0	0	0	0	0	
Interior package, including radio with speakers, roof lining, reading light	0	0	0	0	0	0	0	0	0	0	0	
Deluxe cabin, including windscreen with wiper, roof, steel doors, heater and interior lining	0	0	0	0	0	0	0	0	0	0	0	
Rear view mirror, basic / outside / wide view	0	0	0	0	0	0	0	0	0	0	0	
List bracket - A4	0	0	0	0	0	0	0	0	0	0	0	
Storage plastic locker	0	0	0	0	0	0	0	0	0	0	0	
Sun visor	0	0	0	0	0	0	0	0	0	0	0	
Accessory rack	0	0	0	0	0	0	0	0	0	0	0	
RAM-mounts dummy, D-series	0	0	0	0	0	0	0	0	0	0	0	
RAM-mounts computer rack, C-series	0	0	0	0	0	0	0	0	0	0	0	
RAM-mounts scanner rack, C-series	0	0	0	0	0	0	0	0	0	0	0	
Powder fire extinguisher	0	0	0	0	0	0	0	0	0	0	0	
Narrow overhead guard for drive-in racking	0	0	0	0	0	0	0	0	0	0	0	
TYRES												
Solid pneumatic tyres												
Solid non-marking tyres	0	0	0	0	0	0	0	0	0	0	0	
ENVIRONMENT												
Hot area hydraulic oil, VG46	0	0	0	0	0	0	0	0	0	0	0	
Cold area hydraulic oil, VG15	0	0	0	0	0	0	0	0	0	0	0	
Hydraulic oil food grade	0	0	0	0	0	0	0	0	0	0	0	
Bio grade oil	0	0	0	0	0	0	0	0	0	0	0	
Cold store option (to -35°C)	0	0	0	0	0	0	0	0	0	0	0	

	Characteristics								
1.1	Manufacturer			Cat Lift Trucks					
1.2	Manufacturer's model designation			EP14N2T	EP16CN2T	EP18CN2T	EP16N2T	EP18N2T	EP20N2T
1.3	Power source: (battery, diesel, LP gas, petrol)			Electric	Electric	Electric	Electric	Electric	Electric
1.4	Operator type: pedestrian, standing, seated			Seated	Seated	Seated	Seated	Seated	Seated
1.5	Load capacity	Q	(kg)	1400	1600	1800	1600	1800	2000
1.6	Load centre distance	С	(mm)	500	500	500	500	500	500
1.8	Load distance, axle to fork face	х	(mm)	343	343	343	343	343	358
1.9	Wheelbase	у	(mm)	1320	1320	1320	1428	1428	1428
	Weight								
2.1	Truck weight, without load / including battery (simplex mast, lowest lift height)		kg	2790	2966	3156	2949	3119	3342
2.2	Axle loading with maximum load, front/rear (simplex mast, lowest lift height)		kg	3688/502	4015/551	4351/605	4020/529	4333/586	4711/631
2.3	Axle loading without load, front/rear (simplex mast, lowest lift height)		kg	1394/1396	1393/1573	1401/1754	1476/1474	1471/1649	1509/1833
	Wheels, Drive Train								
3.1	Tyres: V=solid, L=pneumatic, SE=solid pneumatic - front/rear			SE	SE	SE	SE	SE	SE
3.2	Tyre dimensions, front	pcm/	(mm)	18x7-8	18x7-8	18x7-8	18x7-8	18x7-8	200/50-10
3.3	Tyre dimensions, rear			140/55-9	140/55-9	140/55-9	140/55-9	140/55-9	140/55-9
3.5	Number of wheels, front/rear (x=driven)	1.40		2 x / 2	2 x / 2	2 x / 2	2 x / 2	2 x / 2	2 x / 2
3.6	Track width (centre of tyres), front	b10	(mm)	930	930	930	930	930	938
3.7	Track width (centre of tyres), rear	b11	(mm)	174	174	174	174	174	174
4.1	Dimensions Mast tilt, fapuarda/backuurda	α/ß	0	E/2 E	E/7 5	E/7 F	E/2 E	F (7 5	F/2 F
4.1	Mast tilt, forwards/backwards	α/is h1	(mm)	5/7.5	5/7.5	5/7.5	5/7.5	5/7.5	5/7.5
4.2	Height with mast lowered (see tables)	h2	(mm)	2125	2125	2125 80	2125 80	2125 80	2125
4.3 4.4	Free lift (see tables)	h3	(mm)	80	80 3290	3290	3290	3290	80 3290
4.4	Lift height (see tables) Overall height with mast raised	h4	(mm)	4335	4335	4335	4335	4335	4335
4.5	Height to top of overhead guard	h6	(mm)	2050	2050	2050	2050	2050	4335
4.7	Seat height	h7	(mm)	1035	1035	1035	1035	1035	1035
4.12	Tow coupling height	h10	(mm)	540	540	540	540	540	540
4.12	Overall length	11	(mm)	2996	2996	2996	3104	3104	3119
4.20	Length to fork face (includes fork thickness)	12	(mm)	1846	1846	1846	1954	1954	1969
4.21	Overall width	b1/b2	(mm)	1090	1090	1090	1090	1090	1140
4.22	Fork dimensions (thickness, width, length)	s/e/l	(mm)	35x100x1150	35x100x1150	35x100x1150	35x100x1150	35x100x1150	35x100x1150
4.23	Fork carriage to DIN 15 173 A/B/no		. ,	2A	2A	2A	2A	2A	2A
4.24	Fork carriage width	b3	(mm)	920	920	920	920	920	920
4.31	Ground clearance under mast, with load	m1	(mm)	95	95	95	95	95	95
4.32	Ground clearance at centre of wheelbase, with load (forks lowered)	m2	(mm)	95	95	95	95	95	95
4.33	Working aisle width with 1000 x1200 mm pallets, crosswise	Ast	(mm)	3173	3173	3173	3281	3281	3295
4.34a	Working aisle width with 800 x1200 mm pallets, lengthwise	Ast	(mm)	3296	3296	3296	3404	3404	3419
4.35	Turning circle radius	Wa	(mm)	1502	1502	1502	1610	1610	1610
4.36	Minimum distance between centres of rotation	b13	(mm)	0	0	0	0	0	0
	Performance								
5.1	Travel speed, with/without load		km/h	16/16	16/16	16/16	16/16	16/16	16/16
5.2	Lifting speed, with/without load		m/s	0.55/0.62	0.52/0.62	0.46/0.62	0.52/0.62	0.46/0.62	0.42/0.62
5.3	Lowering speed, with/without load		m/s	0.56/0.56	0.56/0.56	0.56/0.56	0.56/0.56	0.56/0.56	0.56/0.56
5.5	Rated drawbar pull, with/without load		Ν	4900/5200	4900/5200	4800/5100	4900/5200	4800/5100	4700/5100
5.6	Maximum drawbar pull, with/without load (5 min. short duty)		N	15000/15300	14900/15200	14900/15200	14900/15200	14900/15200	14800/15200
5.7	Gradeability, with/without load		%	16/26	15/25	13/23	15/25	13/23	12/21
5.8	Maximum gradeability, with/without load		%	27/35	27/35	26/35	27/35	26/35	24/35
5.9	Acceleration time (10 metres) with/without load		S	4.0/3.8	4.1/3.8	4.2/3.8	4.1/3.8	4.2/3.8	4.3/3.9
5.10	Service brakes (mechanical/hydraulic/electric/pneumatic)			Electric	Electric	Electric	Electric	Electric	Electric
	Electric Motors		1.1.4.4	0.77	0.5.5	0.77	0.55	0.77	0.7.7
6.1	Drive motor capacity (60 min. short duty)		kW	2x5.5	2x5.5	2x5.5	2x5.5	2x5.5	2x5.5
6.2	Lift motor output at 15% duty factor		kW	10	10	10	10	10	10
6.3	Battery to DIN 43 531/35/36 A/B/C/no		1//01	DIN 43531 A/no					
6.4	Battery voltage/min-max capacity		V/Ah	500-625	500-625	500-625	625-750	625-750	625-750
6.5	Battery weight		kg	679	679	679	812	812	812
6.6a	Energy consumption according to EN 16796		kWh/h	3.7	3.9	4.2	3.9	4.2	4.5
0.1	Miscellaneous			AC	AC	AC	AC	AC	AC
8.1	Type of drive control		hor						
8.2	Maximum operating pressure for attachments		bar Vmin	210	210	210	210	210	210
8.3	Oil flow for attachments		l/min	30	30	30	30	30	30
8.4 8.5	Noise level, value at operator's ear (EN 12053)		dB(A)	65 DIN15170-H	65 DIN15170-H	65 DIN15170-H	65 DIN15170-H	65 DIN15170-H	65 DIN15170-H
0.0	Towing coupling design / DIN type, ref.	1		Н-0/161ИПО	DIN13170-H	DIN13170-H	Н-0/ТСТИНО	H-UINI31/U-H	



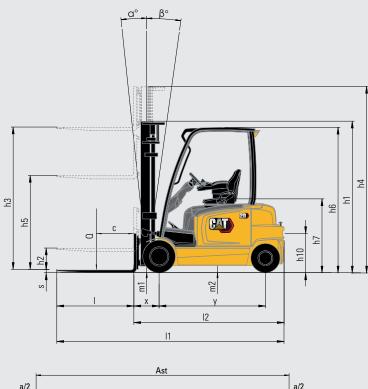


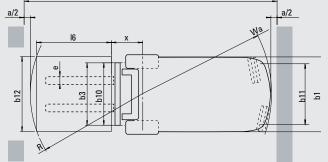
Ast = Wa + R + a Ast = Working aisle width Wa = Turning radius a = Safety clearance = 2 x 100 mm

- $R = \sqrt{(16 + x)^2 + (b12 / 2)^2}$
- I6 = Pallet length (800 or 1000 mm)
- b12 = Pallet width (1200 mm)

This specification sheet provides details of the standard truck specification in accordance with VDI Guideline 2198.

Annotation Annotation 35 Number of wheels, front/rear (x-driven) Image: Strack width (centre of tyres), front Image: Strack width (centre of tyres), front Image: Strack width (centre of tyres), rear Image: Strack width wid		_					
13 Power source: (bestrey, diesel, LP gas, petrol) Image: Comparison of the streme of			Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks
14 Operator type: pedestrian, standing, seated C 15 Lead capacity C 16 Lead capacity C 18 Lead distance, axle to fork face X 19 Wheelbase Y 21 Truck weight, without load / including battery (simplex mast, lowest lift height) X 22 Ade loading withon maximum load, front/rear (simplex mast, lowest lift height) X 23 Ade loading withon tiad, front/rear (simplex mast, lowest lift height) X 24 Ade loading withon tiad, front/rear (simplex mast, lowest lift height) X 27 Tread measions, front P 36 Treak with (entre of tyres), front D 37 Track with (entre of tyres), front D 38 Treak with (entre of tyres), front D 39 Treak with (entre of tyres), front D 30 Treak with (entre of tyres), front D 31 Tree lift (see tables) D D 32 Tree dimensions D D 33 Tree lift (see tables) D D 34 Lift height with mast raised D D 35 Noreal height D D 36 Fork carriage with load D			EP16CN2	EP18CN2	EP16N2	EP18N2	EP20N2
15 Load capacity C 16 Load centre distance C 16 Load centre distance C 17 Varkenez, axie to fork face X 17 Truck weight, without load / including battery (simplex mast, lowest lift height) X 17 Varke weight, without load, fornt/rear (simplex mast, lowest lift height) X 17 Varke iso, Drive Train Y 17 Varke iso, Drive Train Y 17 Varke iso, Drive Train Y 17 Track woidh (centre of tyres), front X 17 Track woidh (centre of tyres), rear X 17 Track vink (nearte of tyres), rear X 18 Seat height N 19 Overall height with mast lowered (see tables) N 11 Hast tilt, forwards/backwards A 12 Height with mast lowered (see tables) N 13 Free lift (see tables) N 14 Height with mast lowered (see tables) N 15 Overall height with mast lowered (see tables) N 14 Height with ast raised N 15 Overall weight with Nast lowered (see tables) N 16 Tock carriage to DIN 15 173 A/B/no N			Electric	Electric	Electric	Electric	Electric
6 Load centre distance C 8 Load distance, ake to fork face X 9 Wheelbase X 11 Track weight, without load / incluing battery (simplex mast, lowest lift height) X 2 Ake loading withoux load, front/rear (simplex mast, lowest lift height) X 3 Ake loading withoux load, front/rear (simplex mast, lowest lift height) X 11 Tyres: V-solid, L-pneumatic, SE-solid pneumatic - front/rear Y 2 Tyre dimensions, front P 3 Tyre dimensions, front K 5 Number of wheels, front/rear (x-driven) K 6 Track widh (centre of tyres), front K 7 Track widh (centre of tyres), front K 7 Track widh (centre of tyres), front K 8 Ith freight (see tables) K 3 Tree lift (see tables) K 4 Ith freight (see tables) K 5 Overall height with mast raised K 7 Height twith mast cowered (see tables) K 10 Deart (front frace (includes fork thickness) K 21 Tow coupling height K 10 Deart (front frace (includes fork thickness) K 22			Seated	Seated	Seated	Seated	Seated
8 Lad distance, axle to fork face x 9 Wheelbase y 1 Tuck weight, without load, front/rear (simplex mast, lowest lift height) x 10 Tyre dimensions, front y 11 Tyres dimensions, rear y 12 Tack width (centre of tyres), front p 13 Track vidth (centre of tyres), rear p 14 Height with mast lowered (see tables) n 15 Overall height with mast raised n 14 Lift height (see tables) n 15 Overall height n 16 Tock artiage with n 17 Tock with (nast raised n 18 Seat height n 19 Overall height with mast raised n 10 Overall height n 10 Overall height		(kg)	1600	1800	1600	1800	2000
9 Wheelbase y 9 Weight I 1 Truck weight, without load, / Including battery (simplex mast, lowest lift height) Ale loading with maximum load, front/rear (simplex mast, lowest lift height) 3 Ale loading without load, front/rear (simplex mast, lowest lift height) I 3 Ale loading without load, front/rear (simplex mast, lowest lift height) I 4 Vesolid, Lepneumatic, SE-solid pneumatic - front/rear P 5 Number of Wheels, front B 6 Track with (centre of tyres), front B 7 Track with (centre of tyres), front B 9 Overall height with mast raised P 9 Free tift (see tables) P 9 Free tift (see tables) P 9 Overall height with mast raised P 9 Overall height Not por overhead guard P 8 Seat height P 10 Torak dimensions (thickness, width, length) P 21 Overall height Not Do of overhead guard P 3 Fork carriage to DIN 15 173 A/B/no P 22 Fork dimensions (thickness, width, length) P 33 Fork carriage width P 34 Working aisle width with 800 x1200 mm		(mm)	500	500	500	500	500
Weight Prote weight, without load / including battery (simplex mast, lowest lift height) Including with maximum load, front/rear (simplex mast, lowest lift height) Ade loading without load, front/rear (simplex mast, lowest lift height) Including with maximum load, front/rear (simplex mast, lowest lift height) Wheels, Drive Train Including with maximum load, front/rear (simplex mast, lowest lift height) Including with maximum load, front/rear (simplex mast, lowest lift height) Inserve stations, front Including with (centre of ryses), front Including with maximum load, front/rear Including with (centre of ryses), front Including with maximum load, front/rear <		(mm)	343	343	343	343	358
1 Truck weight, without load / including battery (simplex mast, lowest lift height) Image: Simple Simple Simplex mast, lowest lift height) 2 Ake loading with maximum load, front/rear (simplex mast, lowest lift height) Image: Simplex Simplex Mast, lowest lift height) 1 Tyres: V-solid, L-pneumatic, SE-solid pneumatic - front/rear P 2 Tyre dimensions, front P 3 Tyre dimensions, front P 4 Track with (centre of tyres), front P 5 Number of wheels, front/rear (acdriven) P 6 Track with (centre of tyres), front P 7 Track with (centre of tyres), rear P 9 Height with mast lowerd (see tables) P 3 Free lift (see tables) P 4 Lift height (see tables) P 5 Overall height with mast raised P 7 Height tot pof overhead guard P 8 Seat height P 10 Overall length P 11 Mast filt, from adds with, length) S 21 Overall height with Node P 22 Loweral users P 33 Free lift (see tables) P 34 Tork (arriage with (see tables) P <t< td=""><td></td><td>(mm)</td><td>1394</td><td>1394</td><td>1502</td><td>1502</td><td>1502</td></t<>		(mm)	1394	1394	1502	1502	1502
2 Akle loading with maximum load, front/rear (simplex mast, lowest lift height) Image: Solution (Solution							
3 Akle loading without load, front/rear (simplex mast, lowest lift height) I 1 Tyres: V-solid, L=pneumatic, SE-solid pneumatic - front/rear p 1 Tyres: V-solid, L=pneumatic, SE-solid pneumatic - front/rear p 3 Tyre dimensions, rear p 5 Number of wheels, front/rear (x=driven) p 6 Track width (centre of tyres), front p 7 Track width (centre of tyres), rear p 9 Track width (centre of tyres), rear p 9 Height with mast lowered (see tables) p 3 Free lift (see tables) p 4 Lift height with mast raised p 5 Overall height with mast raised p 7 Height tot pof overhead guard p 8 Seat height p 10 Overall length p 11 Mast tit, fore, face (includes fork thickness) p 21 Overall width p 22 Fork dimensions (thickness, width, length) p 23 Fork carriage to DN 15 173 / S// No p 24 Fork carriage under mast, with load p 35 Fork carriage width with 1000 x1200 mm pallets, crosswise p 34a Working		kg	2944	3114	2957	3097	3287
Wheels, Drive Train Pres: V-solid, L-pneumatic, SE-solid pneumatic - front/rear Preve: V-solid, L-pneumatic, SE-solid pneumatic - front/rear 2 Tyre dimensions, front Preve: V-solid, L-pneumatic, SE-solid pneumatic - front/rear 5 Number of wheels, front/rear (x-driven) Free dimensions, rear 6 Track width (centre of tyres), rear Dimensions 1 Mast tilt, forward/S/backwards o 2 Height with mast lowered (see tables) free 3 Free lift (see tables) free 5 Doerall height with mast raised free 7 Height to top of overhead guard free 8 Seat height free 10 Overall height with mast raised free 11 Mast discherability, see tables) free 12 Tow coupling height free 13 Overall height with mast raised free 14 Tork dimensions (thickness, width, length) seat height free 15 Overall height with 100 A1200 mm pallets, crosswise free free 24 Fork carriage to DIN 15 1		kg	3990/554	4311/603	4008/550	4295/603	4668/620
1 Tyres: V=solid, L=pneumatic, SE=solid pneumatic - front/rear P 2 Tyre dimensions, front P 3 Tyre dimensions, rear P 5 Number of wheels, front/rar (x=driven) D 6 Track width (centre of tyres), front D 7 Track width (centre of tyres), front D 7 Track width (centre of tyres), front D 8 Track width (centre of tyres), front D 9 Mast tilt, forwards/backwards D 2 Height with mast lowered (see tables) D 3 Free lift (see tables) D 5 Overall height with mast raised D 7 Height tot top of overhead guard D 8 Seat height D 9 Overall height with mast raised D 10 Overall width D 11 Tow couping height D 12 Tow couping height D 13 Greau of low face (includes fork thickness) D 24 Fork carriage width D 25 Fork dimensions (thickness, width, length) S 26 Fork carriage width D 31 Ground clearance at centre of wheelbase, with load (forks		kg	1422/1522	1422/1692	1510/1448	1484/1613	1525/1762
2 Tyre dimensions, front p 3 Tyre dimensions, rear p 5 Number of wheels, front/rear (x=driven) p 6 Track width (centre of tyres), front p 7 Track width (centre of tyres), rear p 9 Track width (centre of tyres), rear p 10 Mast tilt, forwards/backwards p 2 Height with mast lowered (see tables) p 3 Free lift (see tables) p 4 Lift height (iset tables) p 5 Overall height with mast raised p 7 Height turb top of overhead guard p 8 Seat height p 9 Length to fork face (includes fork thickness) p 21 Overall height with p 9 Overall width p 10 Length to fork face (includes fork thickness) p 21 Overall earance under mast, with load p 23 Fork arriage width p 24 Fork carriage width with 800 x1200 mm pallets, lengthwise p 33 Working aisle width with 800 x1200 mm pallets, lengthwise p 34 Working aisle width with 800 x1200 mm pallets, lengthwise p <td< td=""><td></td><td></td><td>05</td><td>05</td><td>05</td><td>05</td><td>05</td></td<>			05	05	05	05	05
33 Tyre dimensions, rear Image of wheels, front/rear (x=driven) 5 Number of wheels, front/rear (x=driven) Image of wheels, front/rear (x=driven) 6 Track width (centre of tyres), rear Image of the set of tyres), rear 7 Track width (centre of tyres), rear Image of the set of tyres), rear 0 Dimensions Image of the set of tyres), rear 1 Mast tilt, forwards/backwards Image of the set of tyres), rear 1 Mast tilt, forwards/backwards Image of the set of tyres), rear 2 Height with mast lowered (see tables) Image of the set of tyres), rear 3 Free lift (see tables) Image of the set of tyres), rear 4 Lift height with mast raised Image of the set of tyres), rear 5 Overall height Image of the set of tyres), rear 12 Tow coupling height Image of the set o		(mm)	SE 10.7.0	SE 10.7.0	SE	SE 10.7.0	SE
5 Number of wheels, front/rear (x=driven) I 6 Tack width (centre of tyres), front D 7 Tack width (centre of tyres), rear D 0 Namerian D 1 Mast tilt, forwards/backwards d 2 Height with mast lowered (see tables) h 3 Free lift (see tables) h 4 Lift height (see tables) h 5 Overall height with mast raised h 7 Height to top of overhead guard h 8 Seat height h 10 Overall length h 11 Overall length h 12 Tow coupling height h 13 Ground clearance at centre of wheelbase, with load (forks lowered) n 24 Fork carriage width n 25 Turning circle radius N 36 Minimum distance between centres of rotation n 37 Gradeability, with/without load n 38 Rated drawbar pull, with/without load n 39 Avering sile width with 800 x1200 mm pallets, crosswise n 34 Working aile width with 800 x1200 mm pallets, crosswise n 34 Vorking sile width with 800	cm/	(mm)	18x7-8	18x7-8	18x7-8	18x7-8	200/50-10
6 Track width (centre of tyres), rear D 7 Track width (centre of tyres), rear D 9 Dimensions C 1 Mast tilt, forwards/backwards C 2 Height with mast lowered (see tables) httt 3 Free lift (see tables) httt 4 Lift height (see tables) httt 5 Overall height with mast raised httt 7 Height to top of overhead guard httt 8 Seat height httt 10 Lorerall height with mast raised htttt 11 Tow coupling height htttt 12 Tow coupling height htttttt 13 Overall width htttt 14 Tok carriage to DIN 15 173 A/B/no fttt 15 Fork carriage to DIN 15 173 A/B/no fttt 16 Ground clearance under mast, with load fttt 17 Ground clearance ander mast, with load fttt 18 Working aisle width with 000 x1200 mm pallets, crosswise Att 14 Tarvel speed, with/without load seatheight 15 Turing circle radius seatheight 16 Maximum distance between centres of rotation seatheight		_	16x6-8 2 x / 2	16x6-8	16x6-8 2 x / 2	16x6-8 2 x / 2	16x6-8 2 x / 2
Track width (centre of tyres), rear It Dimensions It Mast tilt, forwards/backwards It A Height with mast lowered (see tables) It Free lift (see tables) It Free lift (see tables) It Verall height with mast raised It Verall height with mast raised It Reight It In Seat height 10 Overall length 11 Tow coupling height 12 Tow coupling height 13 Overall width 24 Fork face (includes fork thickness) 21 Overall width 22 Fork dimensions (thickness, width, length) 23 Fork carriage width 24 Fork carriage width 25 Fork carriage width 26 Ground clearance at centre of wheelbase, with load 27 Travel speed, with/without load 28 Working aisle width with 800 x1200 mm pallets, rosswise 24 Morking aisle width with 800 x1200 mm pallets, lengthwise 35 Lurring circle radius 26 Working aisle width with 800 x1200 mm pallets, lengthwise 36 Maximum drawbar pull, with/without load 37 Luring speed, with/without load <td>10</td> <td>(mm)</td> <td>930</td> <td>2 x / 2 930</td> <td>930</td> <td></td> <td></td>	10	(mm)	930	2 x / 2 930	930		
Dimensions Image: Constraint of the second of the seco	11	(mm)	898	898	898	930 898	938 898
1 Mast tilt, forwards/backwards a 2 Height with mast lowered (see tables) h 3 Free lift (see tables) h 4 Lift height (see tables) h 5 Overall height with mast raised h 7 Height to top of overhead guard h 8 Seat height h 10 Tow coupling height h 11 Tow coupling height h 12 Tow coupling height h 13 Overall length h 14 Length to fork face (includes fork thickness) L 121 Overall length h 13 Fork carriage to DIN 15 173 A/B/no s 24 Fork carriage width h 25 Fork carriage width h 26 Fork carriage width h 21 Ground clearance ander mast, with load fork slowered) n 23 Fork immensions (thickness) n n 24 Working aisle width with 800 x1200 mm pallets, crosswise A 24a Working aisle width with 800 x1200 mm pallets, lengthwise A 24a Working aisle width with 800 x1200 mm pallets, engthwise A 25 Turning circle		(11111)	030	090	030	030	030
2 Height with mast lowered (see tables) ht 3 Free lift (see tables) ht 4 Lift height (see tables) ht 5 Overall height with mast raised ht 7 Height tot p of overhead guard ht 8 Seat height ht 10 Devrall length ht 11 Tow coupling height ht 12 Tow coupling height ht 13 Grand (includes fork thickness) ht 14 Lift factor (face (includes fork thickness) ht 15 Overall width ht 16 Overall width ht 17 Fork carriage to DIN 15 173 A/B/no ht 28 Fork carriage width ht 29 Fork carriage width ht 20 Ground clearance at centre of wheelbase, with load (forks lowered) nt 20 Working aisle width with 1000 x1200 nm pallets, crosswise At 30 Working aisle width with 1000 x1200 nm pallets, lengthwise At 31 Turning circle radius ht 32 Turning circle radius ht 33 Lowering speed, with/without load ht 34 Working aisle width with 1000 x1200 mm pal	ı/ß	0	5/7.5	5/7.5	5/7.5	5/7.5	5/7.5
a Free lift (see tables) http://withuthuthuthuthuthuthuthuthuthuthuthuthut		(mm)	2125	2125	2125	2125	2125
If the light (see tables) h If the light (see tables) h Seat height with mast raised h Height to top of overhead guard h Seat height h Tow coupling height h Io Overall length h Overall length h Overall length h Io Overing alse width with 1000 x1200 mn palle	2	(mm)	80	80	80	80	80
5 Overall height with mast raised ht 7 Height to top of overhead guard ht 8 Seat height ht 10 Tow coupling height ht 11 Tow coupling height ht 12 Tow coupling height ht 13 Overall length ft 21 Overall width bt 22 Fork dimensions (thickness, width, length) ss 23 Fork carriage to DIN 15 173 A/B/no bt 24 Fork carriage width bt 35 Gorund clearance at centre of wheelbase, with load (forks lowered) nt 36 Gorund clearance at centre of wheelbase, with load (forks lowered) nt 37 Working aisle width with 800 x1200 mm pallets, lengthwise At 38 Working aisle width with 800 x1200 mm pallets, lengthwise At 39 Working aisle width/without load V 30 Lowering speed, with/without load se 31 Lowering speed, with/without load se 32 Fork earriage in the with/without load se 33 Lowering speed, with/without load se 34 Maximum gradeability, with/without load service brakes (mechanical/hydraulic/electric/pneumatic)		(mm)	3290	3290	3290	3290	3290
7 Height to op of overhead guard ht 8 Seat height ht 10 Overall length ht 11 Tow coupling height ht 12 Tow coupling height ht 12 Tow coupling height ht 12 Length to fork face (includes fork thickness) ht 20 Derall width ht 21 Overall width ht 22 Fork dimensions (thickness, width, length) s 23 Fork carriage width ht 24 Fork carriage width ht 25 Fork carriage width ht 26 Ground clearance at centre of wheelbase, with load (forks lowered) nt 31 Ground clearance at centre of wheelbase, with load (forks lowered) nt 32 Fork arriage width with 1000 x1200 mm pallets, lengthwise At 34a Working aisle width with 800 x1200 mm pallets, lengthwise At 35 Turning circle radius Working aisle width/without load It 36 Minimum distance between centres of rotation De 9 Acceleration time (numerees of rotation It 9 Acceleration time (numerees of rotation It 9 Acceleration time (nu		(mm)	4335	4335	4335	4335	4335
B Seat height http://without.guite.guit		(mm)	2050	2050	2050	2050	2050
Tow coupling height ht 1 Tow coupling height ht 19 Overall length ht 19 Overall length ht 20 Length to fork face (includes fork thickness) ht 21 Overall width bt 22 Fork carriage to DIN 15 173 A/B/no st 24 Fork carriage width bt 31 Ground clearance under mast, with load nt 32 Ground clearance at centre of wheelbase, with load (forks lowered) nt 33 Working aisle width with 1000 x1200 mm pallets, lengthwise At 34 Working aisle width with 1000 x1200 mm pallets, lengthwise At 35 Turning circle radius V 36 Minimum distance between centres of rotation bt 7 Fravel speed, with/without load travel speed, with/without load 21 Lifting speed, with/without load stead drawbar pull, with/without load 31 Lowering speed, with/without load steated drawbar pull, with/without load 32 Service brakes (mechanical/hydraulic/electric/pneumatic) steated drawbar pull, with/without load 33 Lowering radeability, with/without load steated drawbar pull, with/without load 34 Maximum gradeability, with/without load		(mm)	1035	1035	1035	1035	1035
19 Overall length 1 20 Length to fork face (includes fork thickness) 10 21 Devrall width 10 22 Fork dimensions (thickness, width, length) 15 23 Fork carriage to DIN 15 173 A/B/no 10 24 Fork carriage width 10 25 Fork carriage width 10 26 Fork carriage width 10 27 Ground clearance under mast, with load 10 28 Ground clearance at centre of wheelbase, with load (forks lowered) 11 29 Working aisle width with 1000 x1200 mm pallets, crosswise 14 30 Working aisle width with 800 x1200 mm pallets, crosswise 14 31 Tarvel speed, with/without 1000 x1200 mm pallets, lengthwise 14 32 Turning circle radius 14 33 Working aisle width with 800 x1200 mm pallets, lengthwise 14 34 Working aisle width with 800 x1200 mm pallets, lengthwise 14 35 Turning circle radius 14 36 Minimum distance between centres of rotation 15 35 Turning circle vith/without load 15 36 Lowering speed, with/without load 16 37 Gradeability, with/without load 16	10	(mm)	520	520	520	520	520
20 Length to fork face (includes fork thickness) 11 21 Overall width bb 22 Fork dimensions (thickness, width, length) ss 23 Fork carriage to DIN 15 173 A/B/no ss 24 Fork carriage to DIN 15 173 A/B/no ss 25 Fork carriage width bb 26 Fork carriage width bd 27 Ground clearance under mast, with load nn 28 Ground clearance at centre of wheelbase, with load (forks lowered) nn 30 Working aisle width with 800 x1200 mm pallets, lengthwise A 34 Working aisle width with 800 x1200 mm pallets, lengthwise A 35 Turning circle radius W 36 Minimum distance between centres of rotation bd 31 Travel speed, with/without load se 32 Lifting speed, with/without load se 33 Lowering speed, with/without load se 34 Maximum drawbar pull, with/without load se 35 Rated drawbar pull, with/without load se 36 Maximum gradeability, with/without load se 37 Gradeability, with/without load se 38 Maximum gradeability, with/without load se </td <td>1</td> <td>(mm)</td> <td>3152</td> <td>3152</td> <td>3260</td> <td>3260</td> <td>3275</td>	1	(mm)	3152	3152	3260	3260	3275
21 Overall width bt 22 Fork dimensions (thickness, width, length) ss 23 Fork carriage to DIN 15 173 A/B/no ss 24 Fork carriage width bt 25 Fork carriage width bt 26 Fork carriage width bt 31 Ground clearance at centre of wheelbase, with load (forks lowered) nt 33 Working aisle width with 1000 x1200 mm pallets, crosswise At 34a Working aisle width with 800 x1200 mm pallets, lengthwise At 35 Turning circle radius V 36 Minimum distance between centres of rotation bt 9 Performance st 11 Travel speed, with/without load st 2 Lifting speed, with/without load st 3 Lowering speed, with/without load st 4 Maximum drawbar pull, with/without load st 5 Rated drawbar pull, with/without load st 6 Maximum gradeability, with/without load st 10 Service brakes (mechanical/hydraulic/electric/pneumatic) st 2 Lift motor capacity (60 min. short duty) st 11 Drive motor capacity (60 min. short duty) st 2 <td>2</td> <td>(mm)</td> <td>2002</td> <td>2002</td> <td>2110</td> <td>2110</td> <td>2125</td>	2	(mm)	2002	2002	2110	2110	2125
22 Fork dimensions (thickness, width, length) s 23 Fork carriage to DIN 15 173 A/B/no f 24 Fork carriage width b 25 Fork carriage width b 26 Fork carriage width b 27 Ground clearance at centre of wheelbase, with load n 27 Ground clearance at centre of wheelbase, with load (forks lowered) n 27 Working aisle width with 1000 x1200 mm pallets, crosswise A 34a Working aisle width with 800 x1200 mm pallets, lengthwise A 35 Turning circle radius V 36 Minimum distance between centres of rotation V 37 Travel speed, with/without load F 38 Lowering speed, with/without load S 39 Lowering speed, with/without load S 30 Maximum gradeability, with/without load S 31 Groue capacity (60 min. short duty) S 31 Grove brakes (mechanical/hydraulic/electric/pneumatic) S 32 Lift motor output at 15% duty factor S 33 Battery woltpa(-min-max capacity S 34 Battery woltpa(-min-max capacity S 35 Battery woltpa(-min-max capacity S <td>1/b2</td> <td>(mm)</td> <td>1090</td> <td>1090</td> <td>1090</td> <td>1090</td> <td>1140</td>	1/b2	(mm)	1090	1090	1090	1090	1140
23 Fork carriage to DIN 15 173 A/B/no b 24 Fork carriage width b 25 Fork carriage width b 26 Forund clearance under mast, with load for 27 Ground clearance at centre of wheelbase, with load (forks lowered) for 26 Ground clearance at centre of wheelbase, with load (forks lowered) for 30 Working aisle width with 1000 x1200 mm pallets, crosswise for 315 Turning circle radius W 326 Minimum distance between centres of rotation b 327 Performance for 338 Lowering speed, with/without load for 349 Lowering speed, with/without load for 340 Maximum drawbar pull, with/without load for deability, with/without load 349 Acceleration time (10 metres) with/without load for deability, with/without load 340 Service brakes (mechanical/hydraulic/electric/pneumatic) for 344 Battery to DIN 43 531/35/36 A/B/C/no for 345 Battery wolght for 346 Battery wolght for 346 Battery wolght for 346 Battery wolght for 347 Battery wolght for	/e/l	(mm)	35x100x1150	35x100x1150	35x100x1150	35x100x1150	35x100x1150
24 Fork carriage width bb 31 Ground clearance under mast, with load m 32 Ground clearance at centre of wheelbase, with load (forks lowered) m 33 Working aisle width with 1000 x1200 mm pallets, crosswise A 34 Working aisle width with 800 x1200 mm pallets, lengthwise A 35 Turning circle radius V 36 Minimum distance between centres of rotation bb 7 Fradel speed, with/without load c 21 Travel speed, with/without load c 22 Lifting speed, with/without load c 23 Lowering speed, with/without load c 24 Waximum draebaar pull, with/without load (5 min. short duty) c 25 Rated drawbar pull, with/without load c 26 Maximum gradeability, with/without load c 29 Acceleration time (10 metres) with/without load c 20 Service brakes (mechanical/hydraulic/electric/pneumatic) c 21 Drive motor capacity (60 min. short duty) c 23 Battery to DIN 43 531/35/36 A/B/C/no c 36 Battery voltage/min-max capacity c 37 Battery weight c 38 Battery weight			2A	2A	2A	2A	2A
2 Ground clearance at centre of wheelbase, with load (forks lowered) n 33 Working aisle width with 1000 x1200 mm pallets, crosswise A 34a Working aisle width with 800 x1200 mm pallets, lengthwise A 35 Turning circle radius V 36 Minimum distance between centres of rotation b 9 Performance V 11 Travel speed, with/without load L 2 Lifting speed, with/without load L 3 Lowering speed, with/without load L 4 Maximum drawbar pull, with/without load L 5 Rated drawbar pull, with/without load L 6 Maximum drawbar pull, with/without load L 7 Gradeability, with/without load L 8 Maximum gradeability, with/without load L 9 Acceleration time (10 metres) with/without load L 10 Service brakes (mechanical/hydraulic/electric/pneumatic) L 2 Lift motor output at 15% duty factor L 3 Battery woltgag/min-max capacity L 4 Battery woltgag/min-max capacity L 5 Battery woltgat according to EN 16796 L Miscellaneous L L	3	(mm)	920	920	920	920	920
33 Working aisle width with 1000 x1200 mm pallets, rosswise A 34a Working aisle width with 800 x1200 mm pallets, lengthwise A 35 Turning circle radius W 36 Minimum distance between centres of rotation W 37 Travel speed, with/without load W 38 Lowering speed, with/without load I 39 Lowering speed, with/without load I 30 Kaimum drawbar pull, with/without load I 31 Lowering speed, with/without load I 32 Lowering speed, with/without load I 33 Kaimum drawbar pull, with/without load (5 min. short duty) I 34 Gradeability, with/without load I 35 Rated drawbar pull, with/without load I 34 Maximum gradeability, with/without load I 35 Rate drawbar pull, with/without load I 36 Maximum gradeability, with/without load I 37 Gradeability, with/without load I 38 Working a short duty) I I 39 Acceleration time (10 metres) with/without load I 30 Drive motor capacity (60 min. short duty) I 31 Drive motor capacity (60 min. short du	n1	(mm)	95	95	95	95	95
34a Working aisle width with 800 x1200 mm pallets, lengthwise A 355 Turning circle radius W 364 Minimum distance between centres of rotation b 375 Performance F 376 Performance F 371 Travel speed, with/without load F 372 Lowering speed, with/without load F 373 Lowering speed, with/without load F 374 Rated drawbar pull, with/without load F 375 Rated drawbar pull, with/without load F 376 Gradeability, with/without load F 377 Gradeability, with/without load F 388 Maximum gradeability, with/without load F 399 Acceleration time (10 metres) with/without load F 310 Service brakes (mechanical/hydraulic/electric/pneumatic) F 311 Drive motor capacity (60 min. short duty) F 311 Battery woltgag/min-max capacity F 312 Lift motor output at 15% duty factor F 313 Battery woltgat F 311 Type of drive control F	n2	(mm)	95	95	95	95	95
35 Turning circle radius V 36 Minimum distance between centres of rotation bb 37 Performance 1 11 Travel speed, with/without load 1 2 Lifting speed, with/without load 1 31 Lowering speed, with/without load 1 32 Lowering speed, with/without load 1 33 Lowering speed, with/without load 1 34 Maximum drawbar pull, with/without load (5 min. short duty) 1 35 Rated drawbar pull, with/without load 1 36 Maximum gradeability, with/without load 1 35 Acceleration time (10 metres) with/without load 1 36 Feetric Motors 1 37 Drive motor capacity (60 min. short duty) 1 38 Battery to DIN 43 531/35/36 A/B/C/no 1 39 Battery voltage/min-max capacity 1 30 Battery weight 1 30 Entery consumption according to EN 16796 1 31 Type of drive control 1	Ast	(mm)	3333	3333	3441	3441	3455
38 Minimum distance between centres of rotation b Performance 1 1 Travel speed, with/without load 2 2 Lifting speed, with/without load 3 3 Lowering speed, with/without load 4 3 Lowering speed, with/without load 5 5 Rated drawbar pull, with/without load 5 6 Maximum drawbar pull, with/without load 6 7 Gradeability, with/without load 7 8 Maximum gradeability, with/without load 8 9 Acceleration time (10 metres) with/without load 7 9 Acceleration time (10 metres) with/without load 7 10 Service brakes (mechanical/hydraulic/electric/pneumatic) 7 2 Lift motor output at 15% duty factor 7 3 Battery to DIN 43 531/35/36 A/B/C/no 8 4 Battery voltage/min-max capacity 7 5 Battery weight 7 6a Energy consumption according to EN 16796 7 11 Type of drive control 7	Ast	(mm)	3456	3456	3564	3564	3579
Performance 1 Travel speed, with/without load 2 Lifting speed, with/without load 3 Lowering speed, with/without load 4 Bated drawbar pull, with/without load 5 Rated drawbar pull, with/without load 6 Maximum drawbar pull, with/without load 7 Gradeability, with/without load 8 Maximum gradeability, with/without load 9 Acceleration time (10 metres) with/without load 10 Service brakes (mechanical/hydraulic/electric/pneumatic) Electric Motors I 1 Drive motor capacity (60 min. short duty) 2 Lift motor output at 15% duty factor 3 Battery voltage/min-max capacity 3 Battery voltage/min-max capacity 5 Battery weight 6a Energy consumption according to EN 16796 Miscellaneous 11 Type of drive control	Va	(mm)	1662	1662	1770	1770	1770
1 Travel speed, with/without load 2 Lifting speed, with/without load 3 Lowering speed, with/without load 5 Rated drawbar pull, with/without load 6 Maximum drawbar pull, with/without load (5 min. short duty) 7 Gradeability, with/without load 8 Maximum gradeability, with/without load 9 Acceleration time (10 metres) with/without load 10 Service brakes (mechanical/hydraulic/electric/pneumatic) Electric Motors Lift motor output at 15% duty factor 3 Battery to DIN 43 531/35/36 A/B/C/no 4 Battery voltage/min-max capacity 5 Battery woltght 6a Energy consumption according to EN 16796 Miscellaneous 1 Type of drive control	13	(mm)	0	0	0	0	0
2 Lifting speed, with/without load 3 Lowering speed, with/without load 5 Rated drawbar pull, with/without load (5 min. short duty) 6 Maximum drawbar pull, with/without load (5 min. short duty) 7 Gradeability, with/without load 8 Maximum gradeability, with/without load 9 Acceleration time (10 metres) with/without load 9 Acceleration time (10 metres) with/without load 9 Acceleration time (10 metres) with/without load 10 Service brakes (mechanical/hydraulic/electric/pneumatic) Electric Motors 1 Drive motor capacity (60 min. short duty) 2 Lift motor output at 15% duty factor 3 Battery voltage/min-max capacity 5 Battery voltage/min-max capacity 6a Energy consumption according to EN 16796 Miscellaneous 1 1 Type of drive control							
3 Lowering speed, with/without load 5 Rated drawbar pull, with/without load 6 Maximum drawbar pull, with/without load (5 min. short duty) 7 Gradeability, with/without load 8 Maximum gradeability, with/without load 9 Acceleration time (10 metres) with/without load 10 Service brakes (mechanical/hydraulic/electric/pneumatic) 2 Electric Motors 1 Drive motor capacity (60 min. short duty) 2 Lift motor output at 15% duty factor 3 Battery voltage/min-max capacity 5 Battery weight 6a Energy consumption according to EN 16796 Miscellaneous 1 1 Type of drive control		km/h	17/17	17/17	17/17	17/17	17/17
5 Rated drawbar pull, with/without load 6 Maximum drawbar pull, with/without load (5 min. short duty) 7 Gradeability, with/without load 8 Maximum gradeability, with/without load 9 Acceleration time (10 metres) with/without load 10 Service brakes (mechanical/hydraulic/electric/pneumatic) Electric Motors 1 1 Drive motor capacity (60 min. short duty) 2 Lift motor output at 15% duty factor 3 Battery to DIN 43 531/35/36 A/B/C/no 4 Battery voltage/min-max capacity 5 Battery weight 6 Energy consumption according to EN 16796 Miscellaneous 1 1 Type of drive control		m/s	0.52/0.62	0.46/0.62	0.52/0.62	0.46/0.62	0.42/0.62
6 Maximum drawbar pull, with/without load (5 min. short duty) 7 7 Gradeability, with/without load 8 8 Maximum gradeability, with/without load 9 9 Acceleration time (10 metres) with/without load 10 10 Service brakes (mechanical/hydraulic/electric/pneumatic) 1 11 Drive motor capacity (60 min. short duty) 2 12 Lift motor output at 15% duty factor 3 3 Battery to DIN 43 531/35/36 A/B/C/no 8 4 Battery voltage/min-max capacity 6 5 Battery woltage consumption according to EN 16796 1 7 Type of drive control 1		m/s	0.56/0.56	0.56/0.56	0.56/0.56	0.56/0.56	0.56/0.56
7 Gradeability, with/without load Image: Constraint of the second secon		N	4900/5200	4800/5100	4900/5200	4800/5100	4700/5100
8 Maximum gradeability, with/without load 9 Acceleration time (10 metres) with/without load 10 Service brakes (mechanical/hydraulic/electric/pneumatic) Electric Motors 1 Drive motor capacity (60 min. short duty) 2 Lift motor output at 15% duty factor 3 Battery to DIN 43 531/35/36 A/B/C/no 4 Battery voltage/min-max capacity 5 Battery weight 6a Energy consumption according to EN 16796 Miscellaneous 1 Type of drive control		Ν	14900/15200	14900/15200	15000/15300	14900/15200	14800/15200
9 Acceleration time (10 metres) with/without load 10 Service brakes (mechanical/hydraulic/electric/pneumatic) Electric Motors 1 Drive motor capacity (60 min. short duty) 2 Lift motor output at 15% duty factor 3 Battery to DIN 43 531/35/36 A/B/C/no 4 Battery voltage/min-max capacity 5 Battery weight 6a Energy consumption according to EN 16796 Miscellaneous 1 Type of drive control		%	15/25	14/23	15/26	14/23	12/21
10 Service brakes (mechanical/hydraulic/electric/pneumatic) Image: Service brakes (mechanical/hydraulic/electric/pneumatic) 1 Drive motor capacity (60 min. short duty) Image: Service brakes 2 Lift motor output at 15% duty factor Image: Service brakes 3 Battery to DIN 43 531/35/36 A/B/C/no Image: Service brakes 4 Battery voltage/min-max capacity Image: Service brakes 5 Battery weight Image: Service brakes 6 Energy consumption according to EN 16796 Image: Im		%	27/35	26/35	27/35	26/35	24/35
Electric Motors Drive motor capacity (60 min. short duty) Lift motor output at 15% duty factor Battery to DIN 43 531/35/36 A/B/C/no Battery to DIN 43 531/35/36 A/B/C/no Battery voltage/min-max capacity 5 Battery weight 6a Energy consumption according to EN 16796 Miscellaneous Type of drive control		S	4.1/3.8	4.2/3.8	4.0/3.8	4.2/3.8	3.9/4.4
Drive motor capacity (60 min. short duty) Ift motor output at 15% duty factor Battery to DIN 43 531/35/36 A/B/C/no Battery voltage/min-max capacity Battery weight Ga Energy consumption according to EN 16796 Miccellaneous Type of drive control			Electric	Electric	Electric	Electric	Electric
2 Lift motor output at 15% duty factor 3 Battery to DIN 43 531/35/36 A/B/C/no 4 Battery voltage/min-max capacity 5 Battery weight 6a Energy consumption according to EN 16796 Miscellaneous 1 1 Type of drive control							
Battery to DIN 43 531/35/36 A/B/C/no Battery voltage/min-max capacity Battery voltage/min-max capacity Energy consumption according to EN 16796 Battery velopht Interpretation according to EN 16796 Miscellaneous Interpretation according to EN 16796		kW	2x5.5	2x5.5	2x5.5	2x5.5	2x5.5
4 Battery voltage/min-max capacity 5 Battery weight 6a Energy consumption according to EN 16796 Miscellaneous 1 Type of drive control		kW	10	10	10	10	10
5 Battery weight 6a Energy consumption according to EN 16796 Miscellaneous 1 Type of drive control		1//01	DIN 43531 A/no	DIN 43531 A/no	DIN 43531 A/no	DIN 43531 A/no	DIN 43531 A/n
Baa Energy consumption according to EN 16796 Miscellaneous 1 Type of drive control		V/Ah	500-625	500-625	625-750	625-750	625-750
Miscellaneous Image: Control C		kg	679	679	679	812	812
1 Type of drive control		(Wh/h	3.9	4.2	3.9	4.2	4.5
			AC	A.C.	40	A.C.	10
				AC	AC	AC	AC
		bar Vmin	210	210	210	210	210
3 Oil flow for attachments		I/min	30	30	30	30	30
Noise level, value at operator's ear (EN 12053) Towing coupling design / DIN type, ref.		dB(A)	65 DIN15170-H	65 DIN15170-H	65 DIN15170-H	65 DIN15170-H	65 DIN15170-H





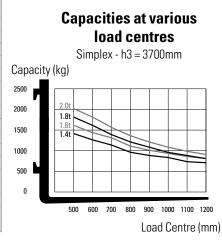
Ast = Wa + R + a Ast = Working aisle width Wa = Turning radius a = Safety clearance = 2 x 100 mm R = $\sqrt{(16 + x)^2 + (127 - 100 mm)^2}$ 16 = Pallet length (800 or 1000 mm) b12 = Pallet width (1200 mm) **SPECIFICATIONS ELECTRIC POWERED LIFT TRUCKS 1.4 - 2.0 TONNES**

This specification sheet provides details of the standard truck specification in accordance with VDI Guideline 2198.

					STD	CABIN	EP14N2T	EP16CN2T	EP18CN2T	EP16N2T	EP18N2T	EP20N2T	EP16CN2	EP18CN2	EP16N2	EP18N2	EP20N2
Mast Type	h3 mm	h1 mm	h4 mm	h2/h5 mm	tilt angle (fwd-rev) degrees	tilt angle (fwd-rev) degrees	0@ c=500mm kg	c = 500mm kg	0@ c=500mm kg	c = 500mm kg	c = 500mm kg	0@ c=500mm kg	0.@ c=500mm kg	c = 500mm kg	0@ c=500mm kg	0@ c=500mm kg	0@ c=500mm kg
Simplex	2000**	1480*	3045	80	5/6	-	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	2560**	1760*	3605	80	5/6	5/5	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	2760**	1860*	3805	80	5/7.5	5/6	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	3000	1980*	4045	80	5 / 7.5	5/6	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	3290	2125	4335	80	5/7.5	5/7.5	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	3530**	2245	4575	80	5 / 7.5	5/7.5	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	3720	2385	4765	80	5/7.5	5/7.5	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	4090	2570	5135	80	5/7.5	5/7.5	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	4480	2775	5525	80	5/5	5/5	1350	1550	1750	1575	1775	2000	1600	1800	1600	1800	2000
	5000	3035	6045	80	5/5	5/5	1300	1475	1675	1525	1700	1925	1525	1725	1600	1775	1950
	5500	3285	6545	80	5 / 3.5	5 / 3.5	1250	1425	1600	1475	1650	1850	1475	1650	1550	1725	1875
	6000	3535	7045	80	5 / 3.5	5 / 3.5	1200	1375	1450	1425	1500	1775	1225	1225	1500	1500	1825
Duplex	2800**	1880*	3845	835	5/6	5/6	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	3000	1980*	4045	935	5/6	5/6	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	3295	2125	4340	1080	5/6	5/6	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	3515**	2245	4560	1200	5/6	5/6	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	3700	2385	4745	1340	5/6	5/6	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	4030	2570	5075	1525	5/6	5/6	1350	1550	1750	1575	1775	2000	1600	1800	1600	1800	2000
Triplex	3710	1780*	4755	735	5/6	5 / 3.5	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	4010	1880*	5055	835	5/6	5 / 3.5	1400	1600	1800	1600	1800	2000	1600	1800	1600	1800	2000
	4310	1980*	5355	935	5/6	5/5	1350	1600	1750	1600	1800	2000	1600	1800	1600	1800	2000
	4750	2125	5795	1080	5/6	5/5	1300	1600	1700	1550	1800	2000	1600	1750	1600	1800	2000
	5090	2245	6135	1200	5 / 3.5	5 / 3.5	1275	1450	1650	1550	1750	1925	1550	1700	1600	1750	1925
	5490	2385	6535	1340	5 / 3.5	5 / 3.5	1225	1400	1650	1500	1700	1900	1500	1600	1550	1700	1900
	5990	2570	7035	1525	5 / 3.5	5 / 3.5	1175	1350	1600	1400	1600	1750	1400	1600	1450	1625	1800
	6490	2830	7535	1785	5 / 3.5	5 / 3.5	1125	1350	1350	1350	1400	1650	1350	1400	1400	1400	1600
	7000	3035	8045	1990	5 / 3.5	5 / 3.5	1100	1100	1100	1100	1100	1350	1100	1100	1100	1100	1300

Mast Performance and Capacity

- h1 Height with mast lowered
- h2 Standard free lift
- h3 Lift height
- h4 Height with mast raised
- h5 Full free lift
- Q Lifting capacity, rated load
- c Load centre (distance)



* Lower than overhead guard **CSM

Battery Dimensions

		EP14N2T	EP16CN2T	EP18CN2T	EP16N2T	EP18N2T	EP20N2T	EP16CN2	EP18CN2	EP16N2	EP18N2	EP20N2
Battery voltage	/	48	48	48	48	48	48	48	48	48	48	48
Capacity at a 5-hour discharge A	h	500 / 625	500 / 625	500 / 625	625 / 750	625 / 750	625 / 750	500 / 625	500 / 625	625 / 750	625 / 750	625 / 750
Battery weight, min k	g	679/812	679/812	679/812	812 / 900	812 / 900	812/900	679/812	679/812	812/900	812 / 900	812 / 900
Battery weight, max k	g	1000/1000	1000/1000	1000/1000	1160 / 1160	1160 / 1160	1160/1160	1000/1000	1000/1000	1160 / 1160	1160 / 1160	1160 / 1160
Battery box dimensions												
Length m	m	522	522	522	630	630	630	522	522	630	630	630
Width m	m	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006
Height m	m	627	627	627	627	627	627	627	627	627	627	627
Battery compartment size												
Length m	m	532	532	532	640	640	640	532	532	640	640	640
Width m	m	850 / 1018	850 / 1018	850 / 1018	850 / 1018	850 / 1018	850/1018	850 / 1018	850 / 1018	850 / 1018	850/1018	850 / 1018
Height m	m	690 / 660*	690 / 660*	690 / 660*	690 / 660*	690 / 660*	690 / 660*	690 / 660*	690 / 660*	690 / 660*	690 / 660*	690 / 660*

* With battery exchange rollers

LI-ION BATTERIES

TIME TO SWITCH?

Lithium-ion (Li-ion) battery technology is available in the Cat® electric counterbalance and warehouse truck ranges. While lead-acid batteries remain a popular choice for our customers, and still have much to offer, they present various challenges which Li-ion can overcome.

Perhaps the most noticeable change when switching to Li-ion is the use of opportunity charging. Instead of exchanging batteries between shifts, you can simply plug into a fast charger during short breaks and keep the same battery going 24/7. This, together with other efficiency, environmental and safety benefits, makes Li-ion a very appealing alternative.





Cat Li-ion advantages over lead-acid

Li-ion is an investment which should be viewed against ongoing savings on energy, equipment, labour and downtime.

- Longer life 3 to 4 times lead-acid lifespan reduces overall battery investment
- Higher efficiency energy losses during charging and discharging are up to 30% lower, so electricity consumption is reduced
- Longer runtime thanks to more efficient battery performance and use of opportunity charges, which can be given at any time without damaging the battery or shortening its lifespan
- **Consistently high performance** with a more constant voltage curve maintains greater truck productivity, even toward the end of a shift
- Faster charging enables full charge in as little as 1 hour with the fastest chargers
- No battery changing fast opportunity charges 15 minutes for several hours of extra runtime enable continuous operation with just one battery and minimise the need to buy, store and maintain spares
- No daily maintenance the battery stays on board the truck for charging and there is no need for water top-ups or electrolyte checks
- No gas or acid spills avoids the space, equipment and running costs of a battery room and ventilation system
- Inbuilt protection intelligent battery management system (BMS) automatically prevents excessive discharge, charge, voltage and temperature, as well as virtually eliminating misuse

Batteries and chargers with different capacities are available. Your dealer will identify the best combination for your needs. You should also ask your dealer about optional 5-year warranties, subject to annual checkups, which give extra peace of mind.

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improvement. For this reason, some materials, options and specifications could change without notice.

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NOTE: Performance specifications may vary depending on standard manufacturing tolerances, vehicle condition, types of tyres, floor or surface conditions, applications, or operating environment. Trucks may be

shown with non-standard options. Specific performance requirements and locally available configurations should be discussed with your Cat lift trucks Dealer. Cat Lift Trucks follows a policy of continual product









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