POWERFULLY AGILE

EP14N2T
EP16CN2T
EP18CN2T
EP16N2T
EP18N2T
EP20N2T

EP16CN2
EP18CN2
EP16N2
EP18N2
EP20N2

SPECIFICATIONS

ELECTRIC POWERED LIFT TRUCKS 48V, 1.4 - 2.0 TONNES

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* 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).
- *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	○	○	○	○	○	○	○	○	○	○	○
Palm Steering	○	○	○	○	○	○	○	○	○	○	○
Rapid sideways battery exchange chassis (SWE)	○	○	○	○	○	○	○	○	○	○	○
Chassis-integrated roller bed (for battery SWE)	○	○	○	○	○	○	○	○	○	○	○
Special (RAL) colour for frame	○	○	○	○	○	○	○	○	○	○	○
POWER SOURCE											
Li-ion battery*	○	○	○	○	○	○	○	○	○	○	○
Lead-acid battery	○	○	○	○	○	○	○	○	○	○	○
HYDRAULIC											
3 valve hydraulic fingertip control mounted on adjustable armrest	●	●	●	●	●	●	●	●	●	●	●
4th and 5th hydraulic options	○	○	○	○	○	○	○	○	○	○	○
Manual lever hydraulic control	○	○	○	○	○	○	○	○	○	○	○
Hydraulic accumulator for smoother load handling on rough surfaces	○	○	○	○	○	○	○	○	○	○	○
SilentRun+ hydraulic pumps	○	○	○	○	○	○	○	○	○	○	○
MAST, FORKS AND CARRIAGE											
Load backrest	●	●	●	●	●	●	●	●	●	●	●
Passive sway control for mast at high lifts	●	●	●	●	●	●	●	●	●	●	●
Simplex, duplex or triplex masts, from 3m to 7m	○	○	○	○	○	○	○	○	○	○	○
Forks 900mm - 2000mm	○	○	○	○	○	○	○	○	○	○	○
Sideshifter W920mm	○	○	○	○	○	○	○	○	○	○	○
Integrated sideshifter W920mm	○	○	○	○	○	○	○	○	○	○	○
Integrated fork positioner with sideshift	○	○	○	○	○	○	○	○	○	○	○
Load weight indicator, in 50kg increments	○	○	○	○	○	○	○	○	○	○	○
Performance reduction from 2m to 3.5m mast (above standard)	○	○	○	○	○	○	○	○	○	○	○
DRIVE AND LIFT CONTROLS											
Variable speed control on all hydraulic functions	●	●	●	●	●	●	●	●	●	●	●
Curve control	●	●	●	●	●	●	●	●	●	●	●
Armrest direction control	●	●	●	●	●	●	●	●	●	●	●
Electronic differential lock	○	○	○	○	○	○	○	○	○	○	○
Automatic tilt centring via the F2 button on fingertip controller	○	○	○	○	○	○	○	○	○	○	○
Tilt centring second function. Two pcs. of angle memories	○	○	○	○	○	○	○	○	○	○	○
Forward-reverse direction selection lever on steering column	○	○	○	○	○	○	○	○	○	○	○
Dual pedal system - forward and reverse	○	○	○	○	○	○	○	○	○	○	○
Operator presence pedal	○	○	○	○	○	○	○	○	○	○	○

● Standard ○ Option

* Li-ion battery option is available in selected regions.

For more information about standard and available optional equipment, please contact your dealer.

STANDARD EQUIPMENT AND OPTIONS CONTINUED

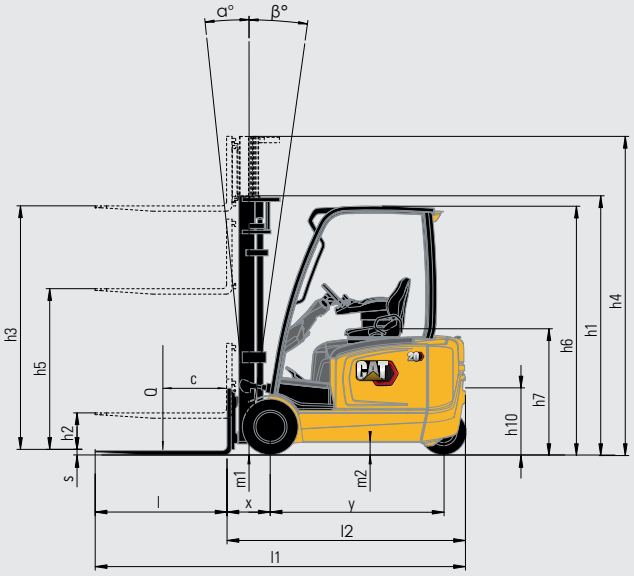
	3 WHEEL 48V						4 WHEEL 48V				
ELECTRIC	**EP14N2T**	**EP16CN2T**	**EP18CN2T**	**EP16N2T**	**EP18N2T**	**EP20N2T**	**EP16CN2**	**EP18CN2**	**EP16N2**	**EP18N2**	**EP20N2**
LED working lights, 2 front and 1 rear	●	●	●	●	●	●	●	●	●	●	●
Automatic reversing light	●	●	●	●	●	●	●	●	●	●	●
Automatic light switch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

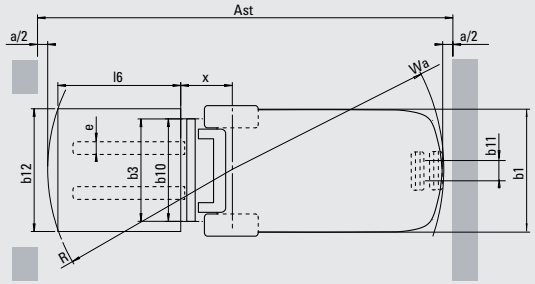
● Standard O Option

For more information about standard and available optional equipment, please contact your dealer.

	Characteristics								
				Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks
1.1	Manufacturer			**EP14N2T**	**EP16CN2T**	**EP18CN2T**	**EP16N2T**	**EP18N2T**	**EP20N2T**
1.2	Manufacturer's model designation			Electric	Electric	Electric	Electric	Electric	Electric
1.3	Power source: (battery, diesel, LP gas, petrol)			Seated	Seated	Seated	Seated	Seated	Seated
1.4	Operator type: pedestrian, standing, seated			1400	1600	1800	1600	1800	2000
1.5	Load capacity	Q	(kg)	500	500	500	500	500	500
1.6	Load centre distance	c	(mm)	343	343	343	343	343	358
1.8	Load distance, axle to fork face	x	(mm)	1320	1320	1320	1428	1428	1428
1.9	Wheelbase	y	(mm)						
	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)			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
	Dimensions								
4.1	Mast tilt, forwards/backwards	α/ß	°	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)	h1	(mm)	2125	2125	2125	2125	2125	2125
4.3	Free lift (see tables)	h2	(mm)	80	80	80	80	80	80
4.4	Lift height (see tables)	h3	(mm)	3290	3290	3290	3290	3290	3290
4.5	Overall height with mast raised	h4	(mm)	4335	4335	4335	4335	4335	4335
4.7	Height to top of overhead guard	h6	(mm)	2050	2050	2050	2050	2050	2050
4.8	Seat height	h7	(mm)	1035	1035	1035	1035	1035	1035
4.12	Tow coupling height	h10	(mm)	540	540	540	540	540	540
4.19	Overall length	l1	(mm)	2996	2996	2996	3104	3104	3119
4.20	Length to fork face (includes fork thickness)	l2	(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		N	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								
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			DIN 43531 A/no	DIN 43531 A/no	DIN 43531 A/no	DIN 43531 A/no	DIN 43531 A/no	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
	Miscellaneous								
8.1	Type of drive control			AC	AC	AC	AC	AC	AC
8.2	Maximum operating pressure for attachments		bar	210	210	210	210	210	210
8.3	Oil flow for attachments		l/min	30	30	30	30	30	30
8.4	Noise level, value at operator's ear (EN 12053)		dB(A)	65	65	65	65	65	65
8.5	Towing coupling design / DIN type, ref.			DIN15170-H	DIN15170-H	DIN15170-H	DIN15170-H	DIN15170-H	DIN15170-H

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

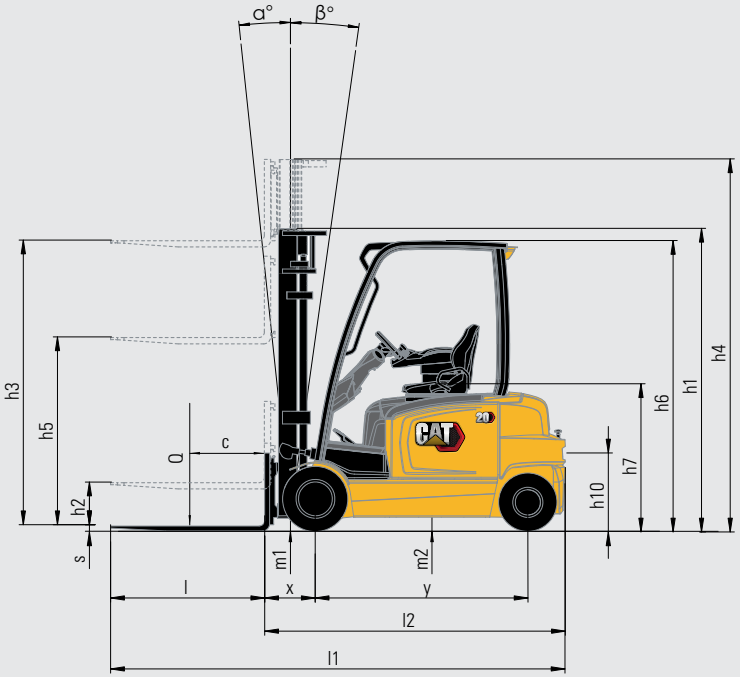


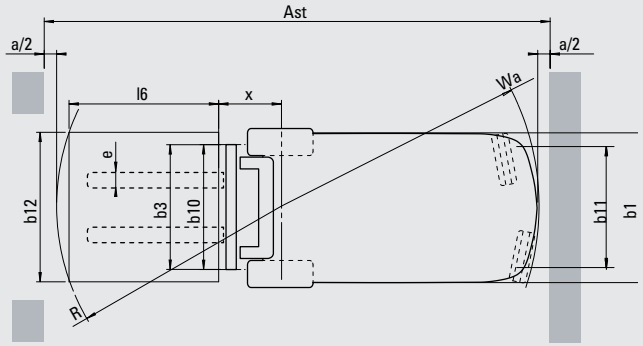


Ast = Wa + R + a
Ast = Working aisle width
Wa = Turning radius
a = Safety clearance = 2 x 100 mm
R = $\sqrt{(l6 + x)^2 + (b12 / 2)^2}$
l6 = Pallet length (800 or 1000 mm)
b12 = Pallet width (1200 mm)

	Characteristics								
1.1	Manufacturer			Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks
1.2	Manufacturer's model designation			**EP16CN2**	**EP18CN2**	**EP16N2**	**EP18N2**	**EP20N2**
1.3	Power source: (battery, diesel, LP gas, petrol)			Electric	Electric	Electric	Electric	Electric
1.4	Operator type: pedestrian, standing, seated			Seated	Seated	Seated	Seated	Seated
1.5	Load capacity	Q	(kg)	1600	1800	1600	1800	2000
1.6	Load centre distance	c	(mm)	500	500	500	500	500
1.8	Load distance, axle to fork face	x	(mm)	343	343	343	343	358
1.9	Wheelbase	y	(mm)	1394	1394	1502	1502	1502
	Weight							
2.1	Truck weight, without load / including battery (simplex mast, lowest lift height)		kg	2944	3114	2957	3097	3287
2.2	Axle loading with maximum load, front/rear (simplex mast, lowest lift height)		kg	3990/554	4311/603	4008/550	4295/603	4668/620
2.3	Axle loading without load, front/rear (simplex mast, lowest lift height)		kg	1422/1522	1422/1692	1510/1448	1484/1613	1525/1762
	Wheels, Drive Train							
3.1	Tyres: V=solid, L=pneumatic, SE=solid pneumatic - front/rear			SE	SE	SE	SE	SE
3.2	Tyre dimensions, front	pcm/	(mm)	18x7-8	18x7-8	18x7-8	18x7-8	200/50-10
3.3	Tyre dimensions, rear			16x6-8	16x6-8	16x6-8	16x6-8	16x6-8
3.5	Number of wheels, front/rear (x=driven)			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	938
3.7	Track width (centre of tyres), rear	b11	(mm)	898	898	898	898	898
	Dimensions							
4.1	Mast tilt, forwards/backwards	α/ß	°	5/7.5	5/7.5	5/7.5	5/7.5	5/7.5
4.2	Height with mast lowered (see tables)	h1	(mm)	2125	2125	2125	2125	2125
4.3	Free lift (see tables)	h2	(mm)	80	80	80	80	80
4.4	Lift height (see tables)	h3	(mm)	3290	3290	3290	3290	3290
4.5	Overall height with mast raised	h4	(mm)	4335	4335	4335	4335	4335
4.7	Height to top of overhead guard	h6	(mm)	2050	2050	2050	2050	2050
4.8	Seat height	h7	(mm)	1035	1035	1035	1035	1035
4.12	Tow coupling height	h10	(mm)	520	520	520	520	520
4.19	Overall length	l1	(mm)	3152	3152	3260	3260	3275
4.20	Length to fork face (includes fork thickness)	l2	(mm)	2002	2002	2110	2110	2125
4.21	Overall width	b1/b2	(mm)	1090	1090	1090	1090	1140
4.22	Fork dimensions (thickness, width, length)	s / e / l	(mm)	35x100x1150	35x100x1150	35x100x1150	35x100x1150	35x100x1150
4.23	Fork carriage to DIN 15 173 A/B/no			2A	2A	2A	2A	2A
4.24	Fork carriage width	b3	(mm)	920	920	920	920	920
4.31	Ground clearance under mast, with load	m1	(mm)	95	95	95	95	95
4.32	Ground clearance at centre of wheelbase, with load (forks lowered)	m2	(mm)	95	95	95	95	95
4.33	Working aisle width with 1000 x1200 mm pallets, crosswise	Ast	(mm)	3333	3333	3441	3441	3455
4.34a	Working aisle width with 800 x1200 mm pallets, lengthwise	Ast	(mm)	3456	3456	3564	3564	3579
4.35	Turning circle radius	Wa	(mm)	1662	1662	1770	1770	1770
4.36	Minimum distance between centres of rotation	b13	(mm)	0	0	0	0	0
	Performance							
5.1	Travel speed, with/without load		km/h	17/17	17/17	17/17	17/17	17/17
5.2	Lifting speed, with/without load		m/s	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
5.5	Rated drawbar pull, with/without load		N	4900/5200	4800/5100	4900/5200	4800/5100	4700/5100
5.6	Maximum drawbar pull, with/without load (5 min. short duty)		N	14900/15200	14900/15200	15000/15300	14900/15200	14800/15200
5.7	Gradeability, with/without load		%	15/25	14/23	15/26	14/23	12/21
5.8	Maximum gradeability, with/without load		%	27/35	26/35	27/35	26/35	24/35
5.9	Acceleration time (10 metres) with/without load		s	4.1/3.8	4.2/3.8	4.0/3.8	4.2/3.8	3.9/4.4
5.10	Service brakes (mechanical/hydraulic/electric/pneumatic)			Electric	Electric	Electric	Electric	Electric
	Electric Motors							
6.1	Drive motor capacity (60 min. short duty)		kW	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
6.3	Battery to DIN 43 531/35/36 A/B/C/no			DIN 43531 A/no	DIN 43531 A/no	DIN 43531 A/no	DIN 43531 A/no	DIN 43531 A/no
6.4	Battery voltage/min-max capacity		V/Ah	500-625	500-625	625-750	625-750	625-750
6.5	Battery weight		kg	679	679	679	812	812
6.6a	Energy consumption according to EN 16796		kWh/h	3.9	4.2	3.9	4.2	4.5
	Miscellaneous							
8.1	Type of drive control			AC	AC	AC	AC	AC
8.2	Maximum operating pressure for attachments		bar	210	210	210	210	210
8.3	Oil flow for attachments		l/min	30	30	30	30	30
8.4	Noise level, value at operator's ear (EN 12053)		dB(A)	65	65	65	65	65
8.5	Towing coupling design / DIN type, ref.			DIN15170-H	DIN15170-H	DIN15170-H	DIN15170-H	DIN15170-H

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





Ast = Wa + R + a
Ast = Working aisle width
Wa = Turning radius
a = Safety clearance = 2 x 100 mm
R = $\sqrt{(l6 + x)^2 + (b12 / 2 - b13)^2}$
l6 = Pallet length (800 or 1000 mm)
b12 = Pallet width (1200 mm)

					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	Q@ c=500mm kg	Q@ c=500mm kg	Q@ c=500mm kg	Q@ c=500mm kg	Q@ c=500mm kg	Q@ c=500mm kg	Q@ c=500mm kg	Q@ c=500mm kg	Q@ c=500mm kg	Q@ c=500mm kg	Q@ 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

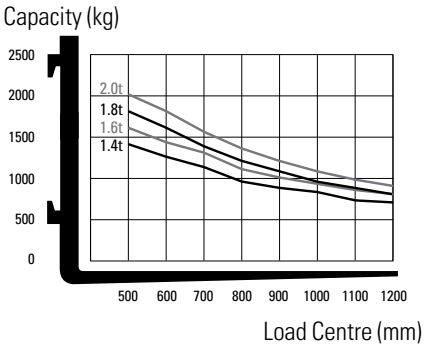
* Lower than overhead guard **CSM

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)

Capacities at various load centres

Simplex - h3 = 3700mm



Battery Dimensions

		EP14N2T	EP16CN2T	EP18CN2T	EP16N2T	EP18N2T	EP20N2T	EP16CN2	EP18CN2	EP16N2	EP18N2	EP20N2
Battery voltage	V	48	48	48	48	48	48	48	48	48	48	48
Capacity at a 5-hour discharge	Ah	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	kg	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	kg	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	mm	522	522	522	630	630	630	522	522	630	630	630
Width	mm	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006	830 / 1006
Height	mm	627	627	627	627	627	627	627	627	627	627	627
Battery compartment size												
Length	mm	532	532	532	640	640	640	532	532	640	640	640
Width	mm	850 / 1018	850 / 1018	850 / 1018	850 / 1018	850 / 1018	850 / 1018	850 / 1018	850 / 1018	850 / 1018	850 / 1018	850 / 1018
Height	mm	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

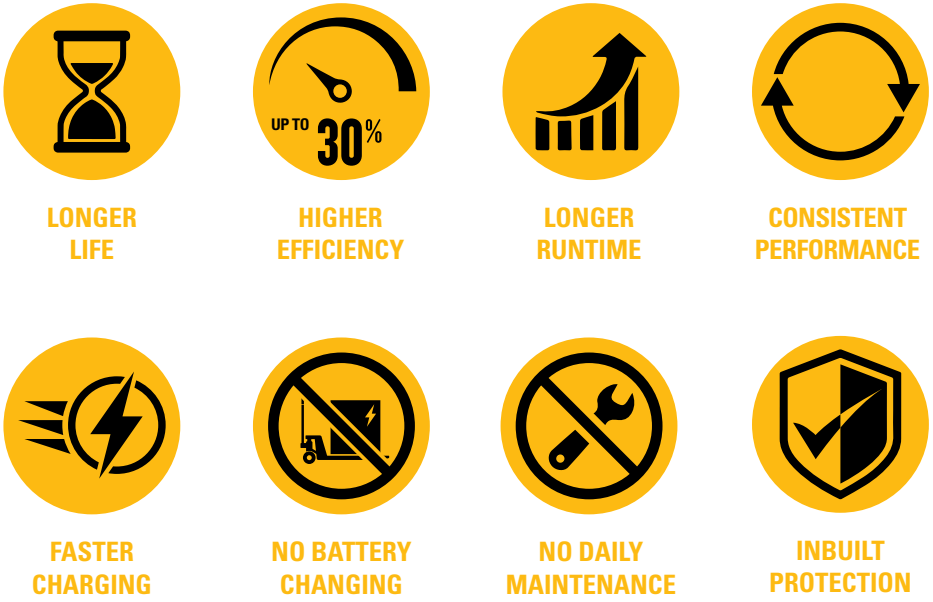
LI-ION BATTERIES

TIME TO SWITCH?

LiION BATTERY TECHNOLOGY

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 check-ups, which give extra peace of mind.

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

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