

Introducing
the GAME-CHANGER in IC
to Electric Conversions



A 140/600 X
A 160/600 X
A 160/1200 X
A 180/1200 X
A 200/1200 X



The A series [A 140/600 X, A 160/600 X, A 160/1200 X, A 180/1200 X, A 200/1200 X] is the ultimate expression of technological research developed by the Carer technical department.

It's an eco-friendly, noiseless forklift truck: a good alternative to traditional IC forklifts, contributing to reduce the impact of your work on global warming.

Nominal capacity up to 5,000 mm lifting height (side shifter and fork-positioner included).

MAIN FEATURES

- **Ideal for outdoor use**
 - front & rear pneumatic tyres same size
 - excellent ground clearance
- **Excellent performances**
 - travel speed up to 20 km/h and lifting speed up to 0.46 m/sec
- **Two powerful AC drive motors** integrated in the front axle to generate acceleration, torque and fast travel speed
- High autonomy guaranteed by efficiency and battery up to 144 V - 2064 Ah
- Advanced Multifunctional Display (AMD)
- Premium pneumatic, heated seat with automatic weight adjustment
- Automatic parking brake
- Tilting cylinders on the roof
- Proportional reduction of travel speed when cornering
- Lateral battery extraction system
- Rearview camera



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Electronics

All forklift functions are managed by sophisticated electronic inverters, which control the traction, lifting, and power steering motors. They are powered by AC, offering high efficiency and low maintenance.

Brakes and Energy Regeneration

The oil bath brake system can automatically intervene if needed.

The electric dynamic brake system is powered by two traction motors operating in opposition to the current.

Braking and energy regeneration can be accomplished by applying brakes, releasing the accelerator, reversing direction, and utilizing positive dynamic braking.

Motors

Electric motors are built and tested by CARER with the most advanced technologies. The AC high efficiency motors perform at high torque, guaranteeing speed, high performances and maneuverability. The highly advanced manufacturing technique makes them reliable and durable even under stress.

Two 30 kW traction motors and two 52 kW pump motors work at up to 5400 rpm, providing high torque and high reduction gear.

The motors are IP54 protected against access of dust and water and they allow to optimize power consumption and to guarantee extremely quiet operation. The new front axle consists of a unique block of two independent units: right and left gear boxes and motors.

Battery

144 V battery, with capacities up to 2064 Ah. The battery is divided into two side-by-side trays and it allows to have easy, safe and fast battery replacement.

Masts

The masts are designed and developed in order to guarantee the highest visibility. They are specifically designed with a superior welded profile, 4 bearings and an increased wheelbase to suit all applications. The profiles are cold treated to provide optimum resistance to bending and twisting.

The tilting cylinders mounted on the roof structure ensure load stability, high residual capacity and lower torsion to the mast.

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Rearview Camera

As standard the machine presents an integrated rear view camera to increase the driver's comfort and safety driving backward.

Cockpit

The overhead guard is specifically designed and manufactured using a narrow pillar profile to provide high visibility in all directions.

The forklift is equipped with separate, sealed cabs mounted on silent blocks to provide maximum comfort for the driver, offering a perfect isolation in terms of noiselessness and vibrations.

Moreover, the hydraulic pump and front axle gears with helical mechanism ensure maximum silence in all conditions of use.

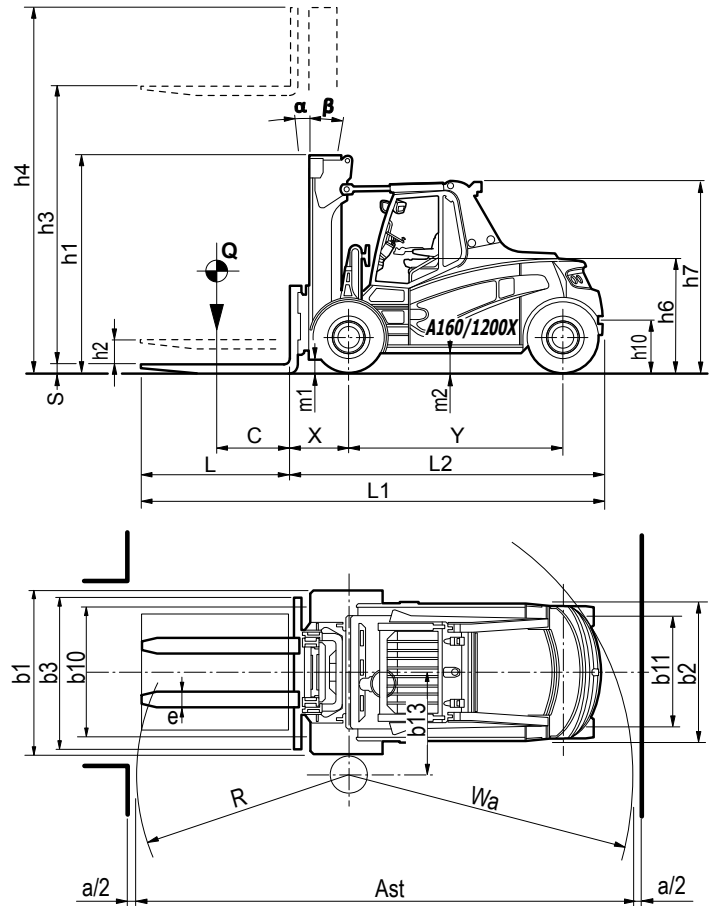
The operator compartment is spacious and with a generous foot plate. The steering wheel is inclinable and its height adjustable. The comfort seat is heated cushioned full air suspension, with automatic weight adjustment, armrest, backrest extension and safety belt.

Advanced Multifunctional Digital Display

Via an LCD 5.7" advanced multifunctional display, it is possible to adjust the settings of the truck depending on the applications and wishes of the operators to increase the benefits in terms of high performance and comfort. It allows to monitor vehicle speed, driving direction, battery state of charge, drive instantaneous consumption, battery voltage, working hours.

The warning lights show: parking brake, brake failure, no activation of the seat contact, headlights and direction indicators.

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Ergonomics

The optimal driving position offers excellent visibility in all directions.

Access to the machines is facilitated by wide nonslip steps and a big handle access.

To guarantee the maximum comfort to the driver, the machine has an ergonomic, fabric, heated seat with air suspension and lumbar support.

The armrest is integrated with mini-levers and command buttons.

The pedal system can be configured on the specific customer needs: double pedals, directional control at steering wheel or armrest, central brake pedals.

Efficiency

High energy efficiency is ensured by the use of the best market technologies. The forklift is equipped with two high-speed traction motors with high-reduction gear boxes to provide high productivity.

The electrical system layout has been designed to provide the maximum efficiency and reduce Joule-effect losses. The hydraulic system has been developed using larger sections to decrease the power losses and supplying a significant efficiency increase.

The electric valve bank is managed directly by two stepper motors in each section to reduce energy consumption in all the functions and improve the responsiveness.

Optional



A wide range of options allows to tailor the truck to the various operational needs: fingertip, joystick, heating, air conditioning, radio with remote control, electronic key access, weight indicator system, front camera and many other accessories enhance the comfort of the driver and help managing information of the vehicle operation from remote.

			C.A.R.E.R. Srl					
			A140X	A160X	A160@1200X	A180@1200X	A200@1200X	
FEATURES	1.1	Manufacturer						
	1.2	Manufacturer's type designation						
	1.3	Drive	electric	electric	electric	electric	electric	
	1.4	Operator type	seat	seat	seat	seat	seat	
	1.5	Load capacity/rated load	Q (t)	14	16	16	18	20
	1.6	Load center distance	C (mm)	600	600	1200	1200	1200
	1.8	Load distance	X (mm)	860 (1) (2)	880 (1) (2)	900 (1) (2)	900 (1) (2)	1025 (1) (2)
1.9	Wheelbase	Y (mm)	3000	3520	3520	3875	4000	
WEIGHTS	2.1	Weight	(kg)	22985	24760	28960	30535	30878
	2.2	Axle loading, laden front / rear	(kg)	33601 / 3384	37263 / 3497	41378 / 3582	44105 / 4430	46805 / 4073
	2.3	Axle loading, unladen front / rear	(kg)	12790 / 10195	14540 / 10220	15830 / 13130	16350 / 14185	15680 / 15198
WHEELS	3.1	Tires type		SEG - PN	SEG - PN	SEG - PN	SEG - PN	SEG - PN
	3.2	Tire size, front		12.00-24 12.00-20	12.00-24 12.00-20	12.00-24 12.00-20	12.00-24 HL 12.00-24	14.00-24 HL 14.00-24
	3.3	Tire size, rear		12.00-24 12.00-20	12.00-24 12.00-20	12.00-24 12.00-20	12.00-24 12.00-20	12.00-24 12.00-20
	3.5	Wheels, number front rear (x = driven wheels)		4X/2	4X/2	4X/2	4X/2	4X/2
	3.6	Track width, front	b10 (mm)	1840 1840	1840 1840	1840 1840	1840 1850	2000 2000
3.7	Track width, rear	b11 (mm)	1815 1815	1815 1815	1815 1815	1815 1815	1815 1815	
DIMENSIONS	4.1	Tilt of mast / fork carriage forward / backward	α/β (°)	7/10(2)	7/10(2)	7/10(2)	7/10(2)	7/10(2)
	4.2	Closed mast height	h1 (mm)	4200	4200	4200	4200	4200
	4.3	Free lift	h2 (mm)	0	0	0	0	0
	4.4	Lift (standard mast)	h3 (mm)	5000	5000	5000	5000	5000
	4.5	Height, mast extended	h4 (mm)	6700	6700	6700	6700	6800
	4.7	Height of overhead guard	h6 (mm)	3100	3100	3100	3200	3200
	4.8	Seat height	h7 (mm)	1900	1900	1900	1900	1900
	4.12	Coupling height	h10 (mm)	900	900	900	900	900
	4.19	Overall length	L1 (mm)	5700	6225	7445	7800	8070
	4.20	Length to face of forks	L2 (mm)	4500	5025	5045	5400	5670
	4.21	Overall width	b1/b2 (mm)	2500 2500	2500 2500	2500 2500	2530	2750 2750
	4.22	Fork dimensions	exsxL (mm)	200x70x1200	200x80x1200	200x100x2400	250x100x2400	250x110x2400
	4.23	Fork carriage iso 2328/30, FEM/A,B		TW CARER	TW CARER	TW CARER	TW CARER	TW CARER
	4.24	Fork-carriage width	b3 (mm)	2500	2500	2500	2500	2750
	4.31	Ground clearance, laden, below mast	m1 (mm)	250	250	250	250	250
	4.32	Ground clearance, center of wheelbase	m2 (mm)	350	350	350	350	350
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	6460	6860	6880	7550	7825
	4.34	Aisle width for pallets 800x1200 lengthways	Ast (mm)	6660	7060	7080	7750	8025
4.35	Turning radius	Wa (mm)	4400	4780	4780	5450	5600	
4.36	Internal turning radius	b13 (mm)	1900	1900	1900	2530	2610	
PERFORMANCE	5.1	Travel speed, laden / unladen	(km/h)	18 / 20	18 / 20	18 / 20	16 / 18	16 / 18
	5.2	Lift speed, laden / unladen	(m/s)	0,4 / 0,46	0,33 / 0,46	0,33 / 0,46	0,3 / 0,4	0,27 / 0,37
	5.3	Lowering speed, laden / unladen	(m/s)	0,44 / 0,41	0,43 / 0,41	0,43 / 0,41	0,43 / 0,41	0,4 / 0,3
	5.5	Drawbar pull, laden / unladen (S2 60')	(N)	26000 / 27000	26000 / 28000	25000 / 27000	28000 / 30000	28000 / 30000
	5.6	Max. drawbar pull, laden / unladen (S2 5')	(N)	79000 / 81000	82000 / 84000	80000 / 82000	87000 / 89000	87000 / 89000
	5.7	Gradeability, laden / unladen (S2 30')	(%)	12 / 20	12 / 20	10 / 17	10 / 17	10 / 17
	5.8	Max. gradeability, laden / unladen (S2 5')	(%)	19 / 32	19 / 32	19 / 30	20 / 33	20 / 33
	5.9	Acceleration time, laden / unladen (10 m)	(s)	6 / 4,9	6 / 4,9	6,2 / 5,2	6,2 / 5,2	6,2 / 5,2
	5.10	Service brake: mech./hydr./electr.		electric	electric	electric	electric	electric
	MOTOR / BATT.	6.1	Drive motor rating (S2 60')	(kW)	2x30	2x30	2x30	2x30
6.2		Lift motor rating (S3 20%)	(kW)	2x52	2x52	2x52	2x52	2x52
6.4		Battery voltage	U (V)	144	144	144	144	144
6.4.1		Rated capacity	K5 (Ah)	1085 / 1135 / 1204	1680 / 1720	1680 / 1720	1860 / 2064	1860 / 2064
6.5		Battery weight minimum/maximum	(kg)	4400 / 4950	6450 / 6950	6450 / 6950	7500 / 7700	7500 / 7700
OTHERS	8.1	Type of drive control		inverter	inverter	inverter	inverter	inverter
	8.2	Operating pressure for attachments	(bar)	250	250	250	250	250
	8.4	Sound level at the driver's ear	(dBA)	72	72	72	72	72

(1) With side-shifter integrated in the mast.

(2) Depending on kind of mast.

Wheels tyre legend: SE super elastic - SEG super elastic twins - C cushion - PN pneumatic - VLK vulkolan: for tires NO MARKING - OIL RESISTANT, please contact CARER.

The performance data refer to a forklift truck in perfect working condition, with battery weight corresponding to the values given in 6.5.

This specification sheet provides details of the standard truck only. Non-standard tyres, different masts, optional equipment, etc. may result in different values.

The CARER products and specifications are subject to change without notice.



Electric Forklift Trucks

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