



A Series 3-Wheel Electric Forklift

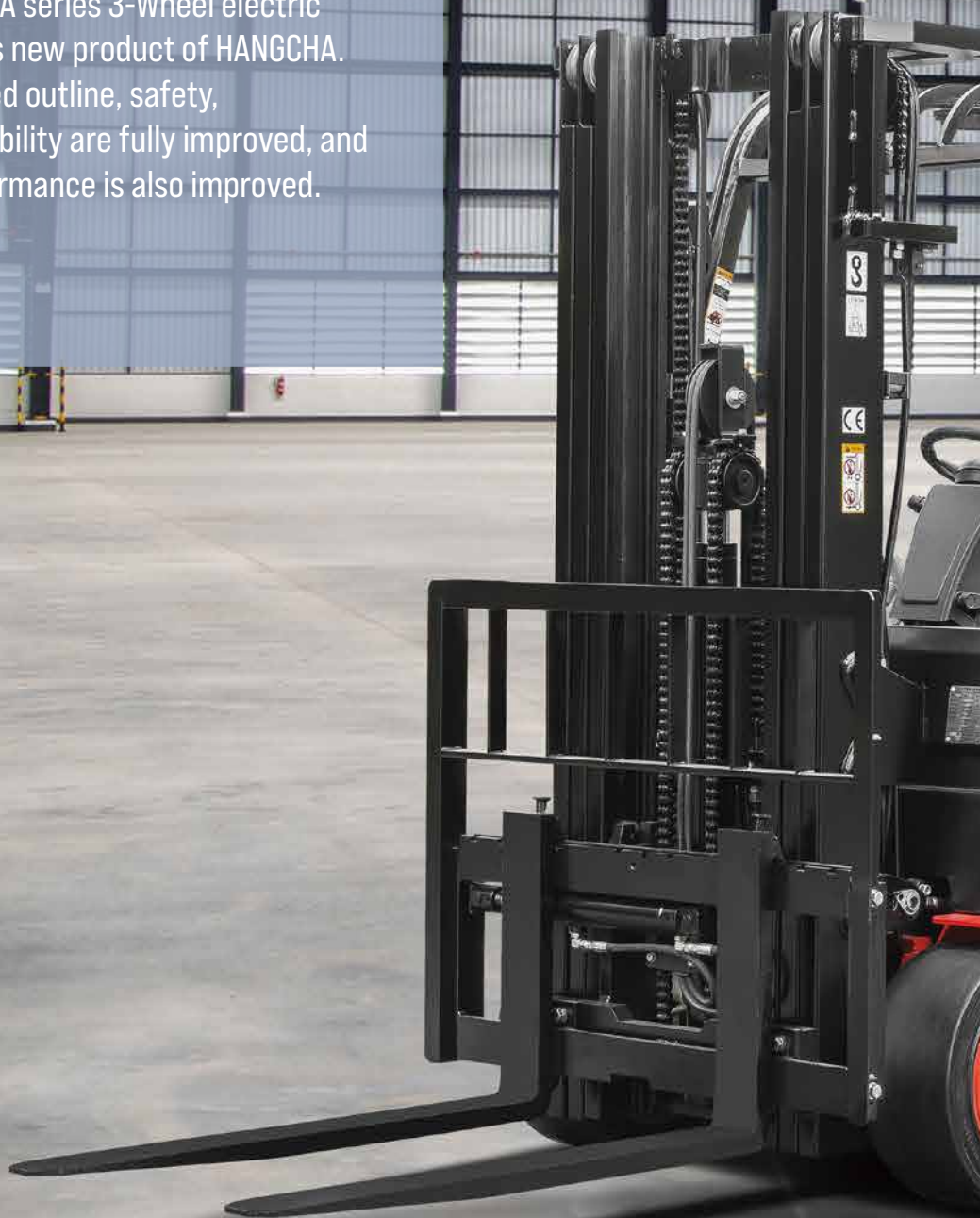
with capacities of 3,000 to 4,000lbs

The World of Hangcha



Move freely, lift freely

The newest generation A series 3-Wheel electric counterbalance truck is new product of HANGCHA. The totally new designed outline, safety, comfortability and reliability are fully improved, and the whole truck's performance is also improved.







Appearance

- / Compact design meets the limited space operation requirement. Eyeball catching designed smooth outline and metal material applied for exposed parts, all provide robust construction of the A series three-pivot electric counterbalance forklift truck.

Maneuverability

- / Front dual separated driving motors can realize the wheels forward or backward independently, the small turning radius is suitable for narrow channel; Imported reducer, high power driving motor provides a reliable and strong performance.

High Efficiency

- / High power pump motor and low noise gear pump, both improve the lifting speed and work efficiency.
- / Regenerative braking during deceleration is more energy saving and effectively.

Comfort

- / Thanks to the new designed adjustable levers, the operator can work more comfortable. New designed dashboard is easy to see and provides friendly human-computer interaction and with running hours, self diagnosis functions and the battery power show.
- / Both the steering column and seat can be adjusted easily, every operator can find the best driving position.
- / Low vibration and suspension seat reduce the driver's fatigue.

Stability

- / Sinking type battery layout provides good stability especially during cornering.
- / The soft landing system protects the forks from dashing against the ground.

Safety

- / Emergency switch is standard specification which meets the Euro safety regulation.
- / Both electronics and hydraulic system are equipped with overloading protection system.
- / Driving speed is automatically reduction during cornering.

Maintenance

- / Full opened battery cover is easy for battery service and changing.
- / The service engineer can remove the front floor board without any tool, it is convenient for the maintenance.

Advance

- / World famous controller, connectors, battery plug and emergency switch are applied to ensure the reliability of the performance and provides easy service.
- / High frequency MOSFET integrated control system provides accurate control of travelling, lifting and better adjustable performance that better matches with the motor. No roll-back on ramp is also provided thanks to MOSFET controller. Motor brake is for regenerative braking during deceleration, direction changing, and downward slope.



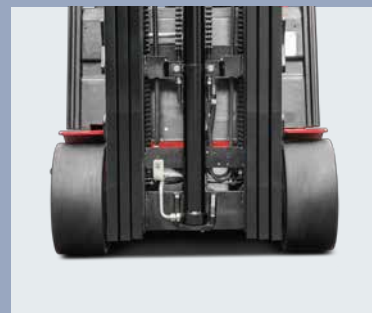
The 36v system and the 48v system can be switched by Changing the battery and switching the meter mode.

Standard Specification

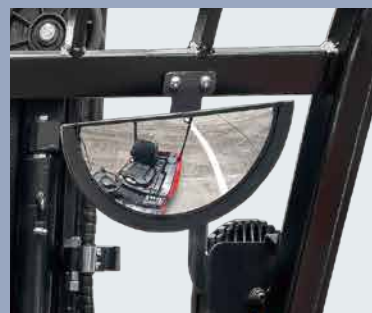
- / High efficiency AC driving motor
- / Multi-functions instrument
- / Front dual driving motors
- / Rubber floor mat
- / Smooth Cushion Tyre
- / Emergency disconnect switch
- / LED headlight
- / Rear combination LED light
- / Panoramic rearview mirror (in the middle position of the overhead guard)
- / 118.1 inch duplex wide view mast
- / Adjustable steering column
- / Full electronic controlled travelling, lifting and steering
- / Horn and reversing buzzer
- / CAN-BUS system
- / Low noise gear pump (Brand: Shimadzu, Made in Japan)
- / Full hydraulic steering
- / Soft landing system
- / Non suspension seat: Grammer GS12 with switch
- / ZF reducer and SCHABMULLER traveling motor
- / CURTIS controller

Options

- | | |
|--|---|
| / 3rd or 4th hydraulic function | / Non-marking tyre |
| / 98.4~177.2 inch duplex mast | / Battery charger |
| / 169.3~255.9 inch triplex mast | / Battery side extraction |
| / Rear working LED light | / Fingertip control on the adjustable armrest |
| / Reversing assist grip with horn button | / Freezer |
| / Integrated sideshifter | / Suspension seat |
| / Other attachments | / Full closed cabin |
| / Other dimension forks | / Traction tyres |
| / Special carriage and backrest | / Blue spot light |
| / Big capacity battery | / OPS system |



Front dual separated motors



Panoramic rearview mirror



Cover can be easily opened by adjusting the levels forward



The small turning radius is suitable for narrow aisle

A Series 3-Wheel Electric Forklift Truck

Characteristics	1.1	Manufacturer			HANGCHA GROUP CO.,LTD.							
		HCFAModel			FBT15		FBT16		FBT18		FBT20	
	1.2	Model			CPDS15-AC6-NA		CPDS16-AC6-NA		CPDS18-AC6-NA		CPDS20-AC6-NA	
	1.3	Power Type: Electric, Gas, Diesel, LPG			Electric(36V) Electric(48V)		Electric(36V) Electric(48V)		Electric(36V) Electric(48V)		Electric(36V) Electric(48V)	
Weight	1.4	Operation Type			Rider seated		Rider seated		Rider seated		Rider seated	
	1.5	Load capacity/rated load		Q	3000(1360)		3200(1450)		3500(1630)		4000(1810)	
	1.6	Load center		c	24(600)		24(600)		24(600)		24(600)	
	1.7	Load distance, centre of drive axle to fork		x	in(mm)		14.2(360)		14.2(360)		15(380)	
	1.8	Wheelbase		y	in(mm)		49.2(1250)		53.5(1358)		57.7(1466)	
	2.1	Service weight			lb(kg)		6570(2980)		7143(3240)		7650(3470)	
Types	2.2	Axle load, with load,front			lb(kg)		8576(3890)		9040(4100)		10472(4750)	
	2.3	Axle load, with load,rear			lb(kg)		1301(590)		1367(620)		1587(720)	
	2.4	Axle load, without load,front			lb(kg)		2976(1350)		3175(1440)		3373(1530)	
	2.5	Axle load, without load,rear			lb(kg)		3594(1630)		3704(1680)		4277(1940)	
	3.1	Tyres type					Cushion		Cushion		Cushion	
	3.2	Tyre size, front					18x7x12-1/8		18x7x12-1/8		18x8x12-1/8	
Dimensions	3.3	Tyre size, rear					15x4.5x11-1/4		15x4.5x11-1/4		15x4.5x11-1/4	
	3.4	Number of wheels, front / rear(x=driven)					2x/2		2x/2		2x/2	
	3.5	Track width, front		b _W	in(mm)		35.8(910)		35.8(910)		35.7(906)	
	3.6	Track width, rear		b _R	in(mm)		7.3(186)		7.3(186)		7.3(186)	
	4.1	Tilt of mast/fork carriage forward/backward		α/β	(*)		5.5/6		5.5/6		5.5/6	
	4.2	Height, mast lowered		h ₁	in(mm)		78.5(1995)		78.5(1995)		78(1980)	
Performance Data	4.3	Height, mast extended		h ₄	in(mm)		155.3(3945)		155.3(3945)		155.3(3945)	
	4.4	Free lift		h _z	in(mm)		5.7(145)		5.7(145)		5.7(145)	
	4.5	Lift		h ₃	in(mm)		118.1(3000)		118.1(3000)		118.1(3000)	
	4.6	Height overhead guard		h ₆	in(mm)		80.3(2040)		80.3(2040)		80.3(2040)	
	4.7	Overall length		l	in(mm)		106.9(2715)		111.1(2823)		116.2(2951)	
	4.8	Length to fork face		l _z	in(mm)		70.7(1795)		74.9(1903)		80(2031)	
	4.9	Overall width		b ₁	in(mm)		42.8(1086)		42.8(1086)		43.7(1109)	
	4.10	Fork dimensions		s×e×l	in(mm)		1.4×3.9×36.2 (35×100×920)		1.4×3.9×36.2 (35×100×920)		1.6×4.8×36.2 (40×122×920)	
	4.11	Fork carriage DIN 15 173, class/type A,B					IIA		IIA		IIA	
	4.12	Fork-carriage width		b ₃	in(mm)		39.4(1000)		39.4(1000)		39.4(1000)	
	4.13	Ground clearance, with load, below mast		m ₁	in(mm)		3.9(100)		3.9(100)		3.9(100)	
	4.14	Ground clearance, center of wheelbase		m ₂	in(mm)		4.3(110)		4.3(110)		4.3(110)	
	4.15	Aisle width for pallets 1000 x 1200 crossways		A _{st}	in(mm)		123.4(3134)		127.4(3237)		131.6(3342)	
Drive	4.16	Aisle width for pallets 800 x 1200 lengthways		A _{st}	in(mm)		128.2(3257)		132.3(3360)		136.4(3465)	
	4.17	Turning radius, outside		W _a	in(mm)		57.2(1452)		61.2(1555)		65.4(1660)	
	5.1	Travel speed, with/without load			mph (km/h)		9.9(16)/9.9(16)		9.9(16)/9.9(16)		9.3(15)/9.3(15)	
	5.2	Lift speed, with/without load			fpm (mm/s)		76.8(390)/92.5(470)		74.8(380)/92.5(470)		68.9(350)/88.6(450)	
	5.3	Lowering speed, with/without load			fpm (mm/s)		9.1(460)/86.6(440)		9.1(460)/82.7(420)		92.5(470)/82.7(420)	
	5.4	Max. Drawbar pull,with/without load			lbf(N)		2697.8(12000) /2697.8(12000)		2607.8(11600) /2585.3(11500)		2585.3(11200) /2562.8(11000)	
Other	5.5	Max. gradeability, with/without load			%		16/18		16/18		13/15	
	5.6	Service brake					Hydraulic		Hydraulic		Hydraulic	
	5.7	Parking brake					Mechanical		Mechanical		Mechanical	
	5.8	Steering					Hydraulic		Hydraulic		Hydraulic	
	6.1	Drive motor, 60 minute rating		HP (kW)			6.4(4.8)x2 AC		6.4(4.8)x2 AC		6.4(4.8)x2 AC	
	6.2	Pump motor, 15 minute rating		HP (kW)			13.4(10)		13.4(10)		13.4(10)	
Other	6.3	Battery voltage			volts		36 48		36 48		36 48	
	6.4	Battery capacity, minimum		Ah/6 hr. rate			575 400		690 500		805 600	
	6.5	Battery capacity, maximum		Ah/6 hr. rate			575 460		690 575		805 690	
	6.6	Battery weight, minimum			lb(kg)		1477(670)		1785(810)		2116(960)	
	6.7	Battery weight, maximum			lb(kg)		1653(750)		1984(900)		2348(1065)	
	7.1	Drive motor control					Curtis AC		Curtis AC		Curtis AC	
Other	7.2	Pressure for attachments			psi (bar)		2175(150)		2175(150)		2175(150)	

3,000~3,500lb Mast

Type	Model	Lifting height	Overall height				Free lifting height		Front Overhang	Tilting range		Capacity		
			Lowered	Extended		With backrest	Without backrest	Forward		Backward	Load capacity at 24 in (600mm)			
				With backrest	Without backrest						3000lb	3200lb	3500lb	
														in(mm)
Duplex wide view mast	M250	98.4(2500)	68.7(1745)	135.6(3445)	120.7(3065)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M270	106.3(2700)	72.6(1845)	143.5(3645)	128.5(3265)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M300	118.1(3000)	78.5(1995)	155.3(3945)	140.4(3565)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M330	129.9(3300)	84.4(2145)	167.1(4245)	152.2(3865)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M350	137.8(3500)	88.4(2245)	175(4445)	160(4065)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M360	141.7(3600)	90.4(2295)	178.9(4545)	164(4165)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M400	157.5(4000)	100.2(2545)	194.7(4945)	179.7(4565)	5.7(145)	5.7(145)	14.2(360)	3.5	5	3000(1360)	3200(1450)	3500(1630)	
	M430	169.3(4300)	106.7(2710)	206.5(5245)	191.5(4865)	5.7(145)	5.7(145)	14.2(360)	3.5	5	2800(1270)	3000(1360)	3400(1540)	
	M450	177.2(4500)	111(2820)	214.4(5445)	199.4(5065)	5.7(145)	5.7(145)	14.2(360)	3.5	5	2600(1180)	2800(1270)	3200(1450)	
Duplex full-free mast	U250	98.4(2500)	68.7(1745)	136(3455)	121.9(3095)	31.5(800)	45.7(1160)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U270	106.3(2700)	72.6(1845)	143.9(3655)	129.7(3295)	35.4(900)	49.6(1260)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U300	118.1(3000)	78.5(1995)	155.7(3955)	141.5(3595)	41.3(1050)	55.5(1410)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U330	129.9(3300)	84.4(2145)	167.5(4255)	153.3(3895)	47.2(1200)	61.4(1560)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U350	137.8(3500)	88.4(2245)	175.4(4455)	161.2(4095)	51.2(1300)	65.4(1660)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U360	141.7(3600)	90.4(2295)	179.3(4555)	165.2(4195)	53.1(1350)	67.3(1710)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U400	157.5(4000)	100.2(2545)	195.1(4955)	180.9(4595)	63(1600)	77.2(1960)	14.9(379)	3.5	5	3000(1360)	3200(1450)	3500(1630)	
Triplex mast	N400	157.5(4000)	75.2(1910)	195.1(4955)	180.9(4595)	38(965)	52.2(1325)	15.4(390)	3.5	5	3000(1360)	3200(1450)	3500(1630)	
	N430	169.3(4300)	79.1(2010)	206.9(5255)	192.7(4895)	42(1065)	56.1(1425)	15.4(390)	3.5	5	2800(1270)	3200(1450)	3400(1540)	
	N450	177.2(4500)	81.7(2075)	214.8(5455)	200.8(5095)	44.5(1130)	58.7(1490)	15.4(390)	3.5	5	2600(1180)	2800(1270)	3200(1450)	
	N480	189(4800)	85.6(2175)	226.6(5755)	212.4(5395)	48.4(1230)	62.6(1590)	15.4(390)	3.5	5	2400(1090)	2600(1180)	3000(1360)	
	N500	196.9(5000)	88.2(2240)	234.4(5955)	220.3(5595)	51(1295)	65.2(1655)	15.4(390)	3.5	5	2200(1000)	2400(1090)	2800(1270)	
	N550	216.5(5500)	94.9(2410)	254.1(6455)	240(6095)	57.7(1465)	71.9(1825)	15.4(390)	3.5	5	2000(910)	2200(1000)	2500(1310)	
	N600	236.2(6000)	103.3(2625)	273.8(6955)	260.8(6625)	66.1(1680)	79.1(2010)	15.4(390)	3.5	5	1800(810)	2000(910)	2200(1000)	
	N650	255.9(6500)	111.8(2840)	293.5(7455)	282.3(7170)	74.6(1895)	85.8(2180)	15.4(390)	3.5	5	1450(660)	1600(720)	1900(860)	

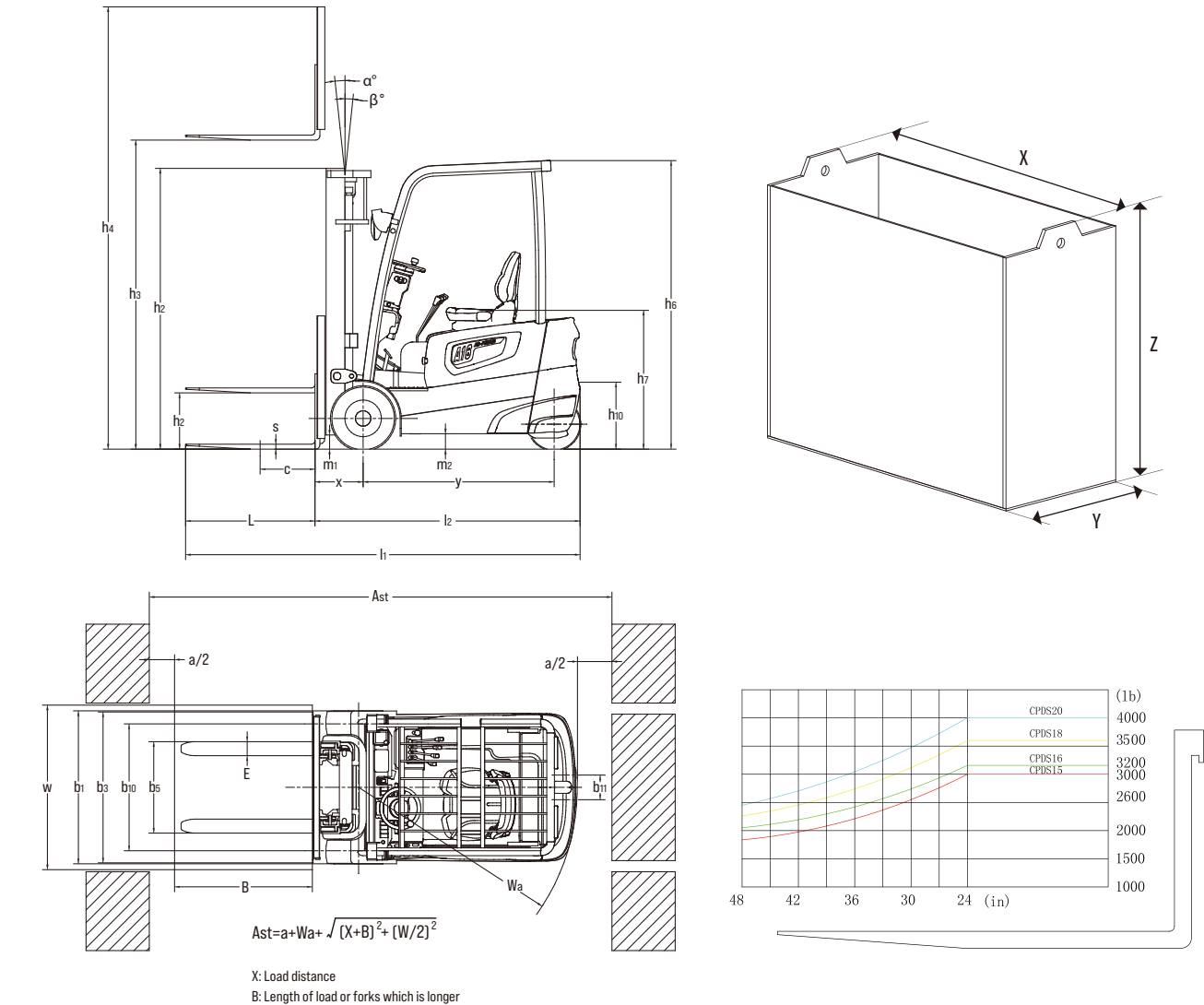
4,000lb Mast

Type	Model	Lifting height	Overall height				Free lifting height		Front Overhang	Tilting range		Capacity	
			Lowered	Extended		With backrest	Without backrest	With backrest		Without backrest	Forward	Backward	Load capacity at 24 in (600mm)
				With backrest	Without backrest								
		in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	deg	deg	4000lb	lb(kg)
Duplex wide view mast	M250	98.4(2500)	68.1(1730)	136.0(3455)	119.4(3033)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)		
	M270	106.3(2700)	72.0(1830)	143.9(3655)	127.3(3233)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)		
	M300	118.1(3000)	78.0(1980)	155.7(3955)	139.1(3533)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)		
	M330	129.9(3300)	83.9(2130)	167.5(4255)	150.9(3833)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)		
	M350	137.8(3500)	87.8(2230)	175.4(4455)	158.8(4033)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)		
	M360	141.7(3600)	91.7(2330)	179.3(4555)	162.7(4133)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)		
	M400	157.5(4000)	101.6(2580)	195.1(4955)	178.5(4533)	5.7(145)	5.7(145)	15.0(380)	3.5	5	4000(1810)		
	M430	169.3(4300)	107.5(2730)	206.9(5255)	190.3(4833)	5.7(145)	5.7(145)	15.0(380)	3.5	5	3800(1720)		
	M450	172.2(4500)	111.4(2830)	214.8(5455)	198.1(5033)	5.7(145)	5.7(145)	15.0(380)	3.5	5	3600(1630)		
	Duplex full-free mast	U250	98.4(2500)	68.7(1745)	135.6(3445)	120.4(3059)	31.5(800)	46.7(1186)	15.2(386)	5.5	6	4000(1810)	
U270		106.3(2700)	72.6(1845)	143.5(3645)	128.3(3259)	35.4(900)	50.6(1286)	15.2(386)	5.5	6	4000(1810)		
U300		118.1(3000)	78.5(1995)	155.3(3945)	140.1(3559)	41.3(1050)	56.5(1436)	15.2(386)	5.5	6	4000(1810)		
U330		129.9(3300)	84.4(2145)	167.1(4245)	151.9(3859)	47.2(1200)	62.4(1586)	15.2(386)	5.5	6	4000(1810)		
U350		137.8(3500)	88.4(2245)	175.0(4445)	159.8(4059)	51.2(1300)	66.4(1686)	15.2(386)	5.5	6	4000(1810)		
U360		141.7(3600)	90.4(2295)	178.9(4545)	163.7(4159)	53.1(1350)	68.3(1736)	15.2(386)	5.5	6	4000(1810)		
U400		157.5(4000)	100.2(2545)	194.7(4945)	179.5(4559)	63.0(1600)	78.2(1986)	15.2(386)	3.5	5	4000(1810)		
U450		172.2(4500)	106.1(2695)	206.5(5145)	185.3(4759)	68.9(1750)	84.1(2186)	15.2(386)	3.5	5	3800(1720)		
Triplex mast	N400	157.5(4000)	74.0(1880)	198.7(5046)	182.0(4622)	32.8(834)	49.5(1258)	15.6(395)	3.5	5	4000(1810)		
	N430	169.3(4300)	78.0(1980)	210.5(5346)	193.8(4922)	36.8(934)	53.5(1358)	15.6(395)	3.5	5	3800(1720)		
	N450	177.2(4500)	79.9(2030)	218.7(5556)	202.0(5132)	38.7(984)	55.4(1408)	15.6(395)	3.5	5	3600(1630)		
	N480	189.1(4800)	83.9(2130)	230.6(5856)	213.5(5422)	42.7(1084)	59.4(1508)	15.6(395)	3.5	5	3400(1540)		
	N500	196.9(5000)	86.8(2205)	238.0(6046)	221.3(5622)	45.6(1159)	62.3(1583)	15.6(395)	3.5	5	3200(1450)		
	N550	216.5(5500)	93.7(2380)	257.7(6546)	241.0(6122)	52.5(1334)	69.2(1758)	15.6(395)	3.5	5	3000(1360)		
	N600	236.2(6000)	101.6(2580)	277.4(7046)	260.7(6822)	60.4(1534)	77.1(1958)	15.6(395)	3.5	5	2600(1180)		
	N650	255.9(6500)	111.4(2830)	297.1(7546)	280.4(7122)	70.2(1784)	86.9(2208)	15.6(395)	3.5	5	2200(1000)		

With sideshifter minus 400lb(200kg),with integral sideshifter minus 200lb(100kg).

Battery and compartment size

Model		CPDS15		CPDS16/18		CPDS20		CPDS15		CPDS16/18		CPDS20	
Voltage		V		48		48		36		36		36	
Capacity		Ah		400		500		575		690		805	
Battery Compartment	"X" Max.	mm(in)		830(32.68)		830(32.68)		830(32.68)		830(32.68)		830(32.68)	
	"Y" Max.	mm(in)		522(20.55)		630(24.8)		522(20.55)		630(24.8)		738(29.06)	
	"Z" Max.	mm(in)		627(24.69)		627(24.69)		627(24.69)		627(24.69)		627(24.69)	
Batt.Wt.	Maximum	Kg(lb)		740(1631.42)		1000(2204.62)		740(1631.42)		1000(2204.62)		1100(2425.08)	
	Minimum	Kg(lb)		610(1344.82)		850(1873.93)		610(1344.82)		850(1873.93)		900(1984.16)	





HC FORKLIFT AMERICA CORPORATION

Company address:

10405-A Granite Street Charlotte,
NC 28273

Toll Free: 888-652-8395

Phone: 980-888-8335

Fax: 980-888-8336

america@hcforklift.com

www.hcforkliftamerica.com



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