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# AX SERIES

## 4.5-COMPACT 5T ELECTRIC FORKLIFT



AX Series Forklift



# maximal



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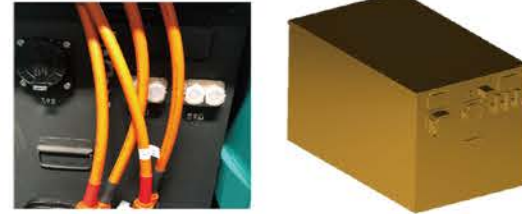
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## AX SERIES FBAX45-50 Product Features

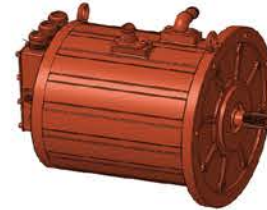
### High voltage lithium batteries

- The on-board voltage platform is 153.6V System nominal voltage is 153.6V
- 12V low voltage system is used to control 153.6V high voltage system, making the whole circuit system more secure
- GB standard connectors are used on high voltage component, the protection grade of the connectors reaches IP65



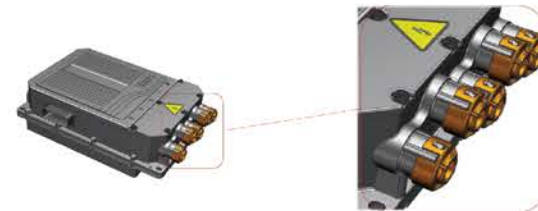
### Permanent magnet motor

- Maximum speed up to 6500 RPM
- Using rotary encoder to detect rotation angle, the motor speed can be faster and more accurately controlled at 6500 RPM
- At the same power, the motor size is smaller than the AC motor, which helps save the space



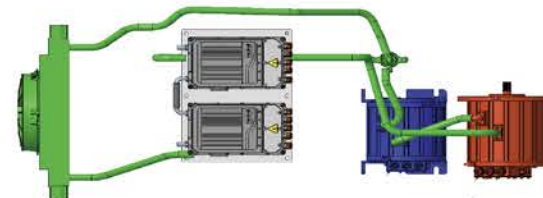
### PM controller

- Permanent magnet controllers and independently researched and developed cable protection connectors are used, whose protection grade reaches IP65
- Permanent magnet controller system can greatly improve driving comfort, make low speed control more accurate and high speed response faster
- Compared with common AC forklift, the service time can be extended by about 20%



### Water cooling system

- The customized motor housing adopts water cooling technology to control the motor temperature below 60°C to achieve heat balance
- The bottom of the controller is made of customized water-cooled aluminum plate with high protection level. The temperature rise of the controller can be controlled below 60°C to ensure the service life of the controller
- Intelligent electronic fan can be automatically turned on and off according to the temperature
- Silent electronic water pump, with the noise level less than 50dB



### Reliability

- FEA finite element analysis design, with the strength of internal combustion vehicle frame, providing excellent vehicle reliability
- The gear pump of Italy-imported brand, using special spiral rotor to reduce the output pressure and ensure the efficiency of the oil pump and high reliability
- Drive axle adopts integral shaft structure, with higher strength, more adaptable to all kinds of harsh conditions
- Intelligent water cooling system keeps the maximum temperature of the system below 60°C, greatly increasing its service life

### High efficiency

- Standard equipped batteries can be replaced from the side, which is fast and convenient, improving work efficiency
- With intelligent fast charging, the batteries can be fully charged in 2.5 hours. Competent for various long-term operations of high strength and high load
- Permanent magnet synchronous motor has a protection grade of IP65, provides efficient production efficiency, with the highest efficiency up to 95%

### Safety

- High-visibility mast provides great front view
- All cable connections are closed, with great protection performance and high security
- All high pressure components are equipped with safety warning marks for personal warning

### Comfort

- The driver's operating position space conforms to the ergonomic design requirements, so that the driver's operation is more comfortable
- Standard vehicle noise is below 70 dB (A)
- Enlarged handle design makes operation more comfortable, more convenient for operators to get on and off the truck



## AX SERIES FBAX45-50 Specification

Features	1.1	Manufacturer		HYM	HYM
		1.2	Model		FBAX45-YT2
	1.3	Drive: battery		Battery	Battery
	1.4	Operator type: seated		Seated	Seated
	1.5	Rated Capacity	Q (kg)	4500	5000
	1.6	Load center	c (mm)	500	500
	1.8	Load Distance	x (mm)	575	580
	1.9	Wheelbase	y (mm)	2100	2100
Weight	2.1	Service weight	kg	6750	7135
	2.2	Axle loading, laden front / rear	kg	9900 / 1350	10707 / 1428
	2.3	Axle loading, unladen front / rear	kg	3100 / 3650	3135 / 4000
Wheels and tires	3.1	Tyres: L = pneumatic, V = cushion, SE = Pneumatic Shape Solid		Pneumatic tire	Pneumatic tire
	3.2	Tire size, front		300-15-18PR	300-15-18PR
	3.3	Tire size, rear		7.00-12-12PR	7.00-12-12PR
	3.5	Number of wheels, front / rear (X=drive wheels)		2x / 2	2x / 2
	3.6	Tread, front wheel	b <sub>10</sub> (mm)	1190	1190
	3.7	Tread, rear wheel	b <sub>11</sub> (mm)	1130	1130
Size	4.1	Tilt of mast / fork carriage forward / backward	degrees	6 / 12	6 / 12
	4.2	Height, mast lowered	h <sub>1</sub> (mm)	2250	2250
	4.3	Free lift height	h <sub>2</sub> (mm)	150	155
	4.4	Fork lift height	h <sub>3</sub> (mm)	3000	3000
	4.5	Height, mast extended	h <sub>4</sub> (mm)	4260	4260
	4.7	Height of overhead guard	h <sub>6</sub> (mm)	2400	2400
	4.8	Seat height relating to SIP / stand height	h <sub>7</sub> (mm)	1350	1350
	4.12	Coupling height	h <sub>10</sub> (mm)	340	340
	4.19	Overall length	l <sub>1</sub> (mm)	4280	4345
	4.20	Length to face of forks	l <sub>2</sub> (mm)	3210	3275
	4.21	Overall width	b <sub>1</sub> (mm)	1490	1490
	4.22	Fork size	s/e/l (mm)	50 / 150 / 1070	55 / 150 / 1070
	4.23	Fork carriage ISO 2328, class / type A, B		3A	3A
	4.24	Fork carriage width	b <sub>3</sub> (mm)	1380	1380
	4.25	Over all fork width	b <sub>5</sub> (mm)	1340	1340
	4.31	Ground clearance, laden, below mast	m <sub>1</sub> (mm)	155	155
	4.32	Ground clearance, centre of wheelbase	m <sub>2</sub> (mm)	186	186
	4.33	Aisle width for pallets 1000 x 1200 wide	Ast (mm)	4625	4686
	4.34	Aisle width for pallets 800 x 1200 long	Ast (mm)	4825	4886
	4.35	Turning radius	Wva (mm)	2850	2905
4.36	Internal turning radius	b <sub>13</sub> (mm)	845	845	
Performance	5.1	Travel speed, laden / unladen	km/h	19 / 20	19 / 20
	5.2	Lift speed, laden / unladen	mm/s	400 / 480	400 / 480
	5.3	Lowering speed, loaded / unloaded	mm/s	480 / 500	480 / 500
	5.6	Maximum drawbar pull laden / unladen (3 minutes)	KN	30 / 22	33 / 25
	5.8	Gradeability laden / unladen, 30 minute rating	%	20 / 25	20 / 25
	5.10	Service brake		Hydraulic	Hydraulic
Motor	6.1	Drive motor rating	KW	30	30
	6.2	Lift motor rating	KW	25	25
Battery parameters	6.4	Battery voltage / nominal capacity (5 hours)	V/Ah	153.6 / 280	153.6 / 304
	6.5	Battery weight	kg	430	450
	6.5.1	Battery size	l/w/h (mm)	920 / 559 / 552	920 / 559 / 552

## AX SERIES FBAX45-50 Mast

Mast type	Maximum lift height (mm)	Forward/backward tilting angle Deg (°)		Mast retracted height (mm)		Mast extended height:				Free lift height				Front overhang (mm)	
		forward tilting	backward tilting	4.5t	5.0t	without load support (mm)		with load support (mm)		without load support (mm)		with load support (mm)		4.5t	5.0t
						4.5t	5.0t	4.5t	5.0t	4.5t	5.0t	4.5t	5.0t		
2-stage mast	3000	6	12	2250	2250	3855	3855	4260	4260	150	155	150	155	575	580
	3300	6	12	2400	2400	4155	4155	4560	4560	150	155	150	155	575	580
	3500	6	12	2500	2500	4355	4355	4760	4760	150	155	150	155	575	580
	3700	6	12	2600	2600	4605	4605	5010	5010	150	155	150	155	575	580
	4000	6	12	2800	2800	4855	4855	5260	5260	150	155	150	155	575	580
	4500	6	6	3050	3050	5355	5355	5760	5760	150	155	150	155	575	580
	5000	6	6	3300	3300	5855	5855	6260	6260	150	155	150	155	575	580
2-stage full free mast	5500	3	6	3600	3600	6355	6355	6760	6760	150	155	150	155	575	580
	6000	3	6	3850	3850	6855	6855	7260	7260	150	155	150	155	575	580
	3000	6	12	2250	2250	3855	3855	4250	4250	1425	1430	1030		585	590
	3300	6	12	2400	2400	4155	4155	4550	4550	1575	1580	1180		585	590
	3500	6	12	2500	2500	4355	4355	4750	4750	1675	1680	1280		585	590
	3750	6	12	2625	2625	4605	4605	5000	5000	1800	1805	1405		585	590
	4000	6	12	2800	2800	4855	4855	5250	5250	1975	1980	1580		585	590
3-stage full free mast	4000	6	6	2110	2110	4880	4880	5265	5265	1275	1280	885		630	635
	4350	6	6	2235	2235	5230	5230	5615	5615	1395	1400	1010		630	635
	4500	6	6	2285	2285	5385	5385	5770	5770	1450	1455	1060		630	635
	4800	6	6	2385	2385	5680	5680	6070	6070	1545	1550	1160		630	635
	5000	6	6	2485	2485	5880	5880	6265	6265	1645	1650	1260		630	635
	5400	3	6	2610	2610	6280	6280	6660	6660	1770	1775	1385		630	635
	6000	3	6	2850	2850	6875	6875	7260	7260	2010	2015	1625		630	635
6500	3	6	3050	3050	7375	7375	7760	7760	2210	2215	1825		630	635	



AX SERIES FBAX45-50 Load Curve

AX SERIES FBAX45-50 Specification

