

FE4P25Q-35Q

Four wheel Li-iron Electric Forklift



Professional Lithium-iron Forklift

ADVANTAGES

- The FE4P25Q-35Q is a cost-effective electric forklift with combination of the traditional Internal Combustion forklift and lithium-iron powered electric forklift, it has the characteristics of large driving space and comfortable operation. The standard configuration is lithium iron phosphate (LFP) battery with efficient fast charging. Optional different battery capacities: the standard configuration is 76.8V206Ah, optional 76.8V277Ah and 412Ah.
- Standard full AC control system and optional fleet management system. Standard REMA/Anderson connection for charging, optional automotive type intelligent plug-in high frequency charging technology.
- The truck adopt similar design of the Internal Combustion forklift with spacious operation space and comfort. The mast system, front and rear axles as well as the durability of chassis is similar to traditional Internal Combustion forklift. The truck combined the durability of Internal Combustion forklift with layout advantage of Li-iron electric forklift, so that the truck's weight is light and gravity center is optimized, therefore the overall energy consumption is effectively improved.



Excellent ergonomic design



Li-iron



Easy maintenance



Robust design



Capacity:
2500-3500Kg



High performance



Easy Operation, Excellent View



The truck adopts long tiller ratchet parking brake design for easy operation.



Ratchet-type parking brake allows the truck stay at the slope of 15% without safety concern.



Combination switch as automotive, the seat can be adjusted back and forth so that the operator can choose the ideal driving position.



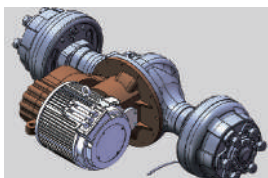
U design of steering wheel, front-located multi-way valve operating device makes the operation effortless and comfortable.



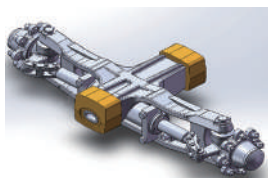
Wide view through the optimized mast and hydraulic design, the forks with intelligent buffer, protect the ground and goods from damage from hitting the ground.



Excellent Design and Performance



Drive system uses a horizontal fan-shaped drive axle arranged in parallel with a large transmission ratio. The battery is located at the bottom of chassis, the truck has good stability. Drive motor uses AC maintenance-free motor. Long wheelbase (1700mm) design, better stability.



Integrally forged Integrated steering axle, with shock mitigation system with excellent driving comfort and prolongs the service life.



Lifting Motor located in high position so the truck can work in applications where there are water on the ground.



Ergonomically designed LED display with large screen and great visibility for easy control and operation with all around truck status information.



Big diameter tyres with better performance for outdoor applications, and comfortable driving experience, optional to have solid tyres.

Simplified structure for easy maintenance



Simplified structure without compromising on the strength, makes the truck looks stronger.



Controller assembly located on higher position for easy ventilation and maintenance.



Standard Lithium power, high efficiency

Q Series Forklift Lithium battery option (LFP)		
Model	Standard	Optional
FE4P25—28Q	206Ah	277/412/544Ah
FE4P30Q	206Ah	277/412/544Ah
FE4P35Q	277Ah	412/544Ah



All lithium-iron batteries are equipped built-in battery management system(BMS) that manages all important data during charging and discharging. The management of the battery by BMS can ensure the safety of the battery throughout its life cycle. **Lithium-iron batteries have been certified for safe transportation(by air and sea)and operating standards.** BMS communicates with the truck management system through CAN. CAN protocol CAN monitor the battery and diagnose and repair the battery through specific software.



Fast charging with battery fully charged in 2-3 hours. The intelligent high frequency charger with automobile charging technology has a working efficiency of more than 95%, which is much higher than the 80% working efficiency of traditional low frequency charger.



Optional: automotive type intelligent plug-in charging gun with high frequency charging technology.
Note: press the “stop” button of the charger before pulling the gun.



Standard: REMA/Anderson plugin.



FE4P25Q—35Q	
Workable for Models	Standard
Nominal Battery Capacity	277/412/544Ah
Voltage	76.8V
Cell Chemistry	Lithium/Iron Phosphate
Operating Temperatue	-20 °C ~ + 55 °C
Optional Charger	76.8V /65A(76.8V/100A/150A/200A)
Charging time	2-3H
Operating Temperature for charger	0°C~55°C -20°C~55°C (With auxiliary heating function)

ENVIRONMENT-FRIENFLY

High cost performance

- The Lithium battery is more environment-friendly. There is no acid evaporation, odor and pollution during the charging process. The operation of Li-ion powered trucks are relatively quiet and zero carbon dioxide emissions. Therefore, Li-ion powered trucks is an ideal plan for the industry that has environment concern, such as food processing, chemical and pharmaceutical industry.
- Each lithium truck requires only one battery attributing to its fast charging feature no matter how many work shifts. Life time of lithium battery is three times that of lead acid battery. The maintenance-free feature of lithium battery gives much higher cost performance than lead-acid battery.

FAST CHARGING

Charge your battery whenever and wherever you need

- The unique fast-charging feature of lithium battery makes it an ideal choice for multi-shift work. Comparing with traditional lead-acid battery, it is no longer needed to change batteries among shifts, or prepare stand-by battery and special charging area for Li-ion powered trucks. Fast charging allows charging at interval from operations which extends greatly the working time of truck. In addition, lithium battery has no memory of charging cycles which will not affect the life time at all. The lithium charger is no longer required to be placed in a specified area due to the environment-friendly feature of lithium battery, which brings much higher flexibility.
- The power lithium battery system is composed of high-safety high-density lithium iron phosphate battery, intelligent battery management system (BMS), thermal management system, and automotive-grade DC high-voltage control system. BMS enables the communication network between the power lithium battery and controller, the truck itself, the charger and the remote management platform, real-time detection of the status of the lithium battery, the operating state of the truck and the charging state, so as to maximize the safety and reliability of lithium batteries.

SAFETY

Efficient, Maintenance-free

- Lithium battery reduces 35% energy consumption, requires no specified charging area and exempts from cost for battery maintenance. It saves space, requires no device to be taken out of truck as well as additional ventilation and liquid filling device.

Mast Table FE4P25—28Q													
Designation	Lift height		Free Lift		Closed mast height		Extended mast height		Tilt forward/backward		Capacity table(kg) C=500mm without sideshift, single pneumatic tyres		
	h3 (mm)		h2 (mm)		h1 (mm)		h4 (mm)		$\alpha / \beta(^{\circ})$				
	FE4P25Q	FE4P28Q	FE4P25Q	FE4P28Q	FE4P25Q	FE4P28Q	FE4P25Q	FE4P28Q	FE4P25Q	FE4P28Q	FE4P25Q	FE4P28Q	
Two-stage ZT	2000	2000	130	135	1555	1555	2974	3079	6/10	6/10	2500	2800	
	2500	2500	130	135	1865	1865	3474	3579	6/10	6/10	2500	2800	
	3000	3000	130	135	2055	2055	3974	4079	6/10	6/10	2500	2800	
	3300	3300	130	135	2205	2205	4274	4379	6/10	6/10	2500	2800	
	3500	3500	130	135	2305	2305	4474	4579	6/10	6/10	2500	2700	
	3600	3600	130	135	2355	2355	4574	4679	6/10	6/10	2500	2700	
	3700	3700	130	135	2405	2405	4674	4779	6/10	6/10	2500	2700	
	4000	4000	130	135	2605	2605	4974	5079	6/6	6/6	2450	2650	
	4300	4300	130	135	2755	2755	5274	5379	6/6	6/6	2300	2500	
	4500	4500	130	135	2855	2855	5474	5579	6/6	6/6	2100	2250	
5000	5000	130	135	3105	3105	5974	6079	6/6	6/6	1850	2050		
Two-stage ZZ	2000	2000	631	491	1555	1555	2968	3079	6/10	6/10	2500	2800	
	2500	2500	881	741	1805	1805	3468	3579	6/10	6/10	2500	2800	
	3000	3000	1131	991	2055	2055	3968	4079	6/10	6/10	2500	2800	
	3300	3300	1281	1141	2205	2205	4268	4379	6/10	6/10	2500	2800	
	3500	3500	1381	1241	2305	2305	4468	4579	6/10	6/10	2500	2700	
	3600	3600	1431	1291	2355	2355	4568	4679	6/10	6/10	2500	2700	
	3700	3700	1481	1341	2405	2405	4668	4779	6/10	6/10	2500	2700	
4000	4000	1681	1541	2605	2605	4968	5079	6/6	6/6	2400	2600		
Three-stage DZ	4000	4000	1056	916	1980	1980	4976	5079	6/6	6/6	2350	2550	
	4350	4350	1181	1041	2105	2105	5326	5379	6/6	6/6	2200	2400	
	4500	4500	1231	1091	2155	2155	5476	5579	6/6	6/6	2000	2200	
	4800	4800	1331	1191	2255	2255	5776	5879	6/6	6/6	1900	2100	
	5000	5000	1474	1334	2398	2398	5976	6079	6/6	6/6	1700	2000	
	5500	5500	1708	1568	2647	2647	6476	6579	3/6	3/6	1400	1500	
	6000	6000	1941	1801	2865	2865	6976	7079	3/6	3/6	950	1100	
	6500	6500	2174	2034	3098	3098	7476	7579	3/6	3/6	700	750	

Free lift height (no load-backrest) +425mm

Mast Table FE4P30—35Q												
Designation	Lift height		Free Lift		Closed mast height		Extended mast height		Tilt forward/backward		Capacity table(kg) C=500mm without sideshift, single pneumatic tyres	
	h3 (mm)		h2 (mm)		h1 (mm)		h4 (mm)		$\alpha / \beta(^{\circ})$			
	FE4P30Q	FE4P35Q	FE4P30Q	FE4P35Q	FE4P30Q	FE4P35Q	FE4P30Q	FE4P35Q	FE4P30Q	FE4P35Q	FE4P30Q	FE4P35Q
Two-stage ZT	2000	2000	140	145	1575	1685	3079	3079	6/10	6/10	3000	3500
	2500	2500	140	145	1825	1935	3579	3579	6/10	6/10	3000	3500
	3000	3000	140	145	2075	2185	4079	4079	6/10	6/10	3000	3500
	3300	3300	140	145	2225	2335	4379	4379	6/10	6/10	3000	3500
	3500	3500	140	145	2325	2435	4579	4579	6/10	6/10	3000	3500
	3600	3600	140	145	2375	2485	4679	4679	6/10	6/10	3000	3500
	3700	3700	140	145	2425	2535	4779	4779	6/10	6/10	3000	3500
	4000	4000	140	145	2625	2735	5079	5079	6/6	6/6	2950	3300
	4300	4300	140	145	2775	2885	5379	5379	6/6	6/6	2850	3250
	4500	4500	140	145	2875	2985	5579	5579	6/6	6/6	2600	3100
5000	5000	140	145	3125	3235	6079	6079	6/6	6/6	2400	2650	
Two-stage ZZ	2000	2000	496	496	1575	1575	3079	3079	6/10	6/10	3000	3500
	2500	2500	746	746	1825	1825	3579	3579	6/10	6/10	3000	3500
	3000	3000	996	996	2075	2075	4079	4079	6/10	6/10	3000	3500
	3300	3300	1146	1146	2225	2225	4379	4379	6/10	6/10	3000	3500
	3500	3500	1246	1246	2325	2325	4579	4579	6/10	6/10	3000	3500
	3600	3600	1296	1296	2375	2375	4679	4679	6/10	6/10	3000	3500
	3700	3700	1346	1346	2425	2425	4779	4779	6/10	6/10	3000	3450
	4000	4000	1546	1546	2625	2625	5079	5079	6/6	6/10	2950	3300
Three-stage DZ	4000	4000	921	921	2000	2000	5079	5079	6/6	6/6	2900	3250
	4350	4350	1046	1046	2125	2252	5429	5429	6/6	6/6	2700	3150
	4500	4500	1096	1096	2175	2175	5579	5579	6/6	6/6	2600	3000
	4800	4800	1196	1196	2275	2275	5879	5879	6/6	6/6	2400	2800
	5000	5000	1339	1339	2418	2418	6079	6079	6/6	6/6	2300	2650
	5500	5500	1573	1573	2652	2652	6579	6579	3/6	3/6	1800	2200
	6000	6000	1806	1806	2885	2885	7079	7079	3/6	3/6	1400	1500
	6500	6500	2039	2039	3118	3118	7579	7579	3/6	3/3	800	900
	7000	7000	2205	2205	3284	3284	8079	8079	3/6	3/6	600	700

Free lift height (no load-backrest) +425mm

Type sheet for industrial truck acc. to VDI 2198

Identification						
1.2	Manufacturer's type designation		FE4P25Q	FE4P25Q2	FE4P28Q	FE4P28Q2
1.3	Drive:electric(battery or mains),diesel,petrol gas>manual)		electric	electric	electric	electric
1.4	Type of operation(hand,pedestrian,standing,seated,order-picker)		seated	seated	seated	seated
1.5	Load capacity/rated load	Q(kg)	2500	2500	2800	2800
1.6	Load centre distance	c(mm)	500	500	500	500
1.8	Load distance,centre of drive axle to fork	x(mm)	478	478	483	483
1.9	wheelbase	y(mm)	1620	1620	1700	1700
Weights						
2.1	Service weight incl. battery	kg	3600	3600	3860	3860
2.2	Axle loading ,laden front/rear	kg	5500/600	5500/600	6010/650	6010/650
2.3	Axle loading,unladen front/rear	kg	1540/2060	1540/2060	1680/2180	1680/2180
Wheels、 Chassis						
3.1	Type:solid rubber,superelastic,pneumatic,polyurethane		pneumatic	pneumatic	pneumatic	pneumatic
3.2	Tyres size,front		7.00-12-12PR	7.00-12-12PR	7.00-12-14PR	7.00-12-14PR
3.3	Tyres size,rear		6.00-9-10PR	6.00-9-10PR	6.00-9-12PR	6.00-9-12PR
3.5	Wheels,number front/rear(×=driven wheels)		2×/2	2×/2	2×/2	2×/2
3.6	Track width,front	b10(mm)	973	973	973	973
3.7	Track width,rear	b11(mm)	982	982	982	982
Basic Dimensions						
4.1	Mast/fork carriage tilt forward/backward	α/β(°)	6/10	6/10	6/10	6/10
4.2	lowered mast height	h1(mm)	2070	2070	2070	2070
4.3	Free lift	h2(mm)	135	135	140	140
4.4	Lift height	h3(mm)	3000	3000	3000	3000
4.5	Extended mast height	h4(mm)	3974	3974	4079	4079
4.7	Overhead load guardheight	h6(mm)	2150	2150	2150	2150
4.8	Seat height/standing height	h7(mm)	1130	1130	1130	1130
4.12	Coupling height	h10(mm)	580	580	580	580
4.19	Overall length	l1(mm)	3568	3568	3663	3663
4.20	Length to face of forks	l2(mm)	2498	2498	2593	2593
4.21	Overall width	b1(mm)	1150	1150	1150	1150
4.22	Fork dimensions	s/e/l(mm)	40/120/1070	40/120/1070	45/125/1070	45/125/1070
4.24	Fork carriage width	b3(mm)	1040	1040	1100	1100
4.31	Ground clearance ,laden,under mast	m1(mm)	135	135	135	135
4.32	Ground clearance,centre of wheelbase	m2(mm)	150	150	150	150
4.33	Aisle width for pallets 1000×1200 crossways	Ast(mm)	3908	3908	3933	3933
4.34	Aisle width for pallets 800×1200 lengthways	Ast(mm)	4108	4108	4133	4133
4.35	Turning radius	Wa(mm)	2230	2230	2350	2350
Performance Data						
5.1	Travel speed,laden/unladen	km/h	13/14	13/14	13/14	13/14
5.2	Lift speed,laden/unladen	m/s	0.26/ 0.34	0.26/ 0.34	0.26/ 0.34	0.26/ 0.34
5.3	lowering speed,laden/unladen	m/s	<0.6	<0.6	<0.6	<0.6
5.5	Max.drawbar pull,laden/unladen	N	13000/14000	13000/14000	13000/14000	13000/14000
5.7	Max.Gradient performance,laden/unladen S2 5 min	%	15/15	15/15	15/15	15/15
5.10	Service brake		hydraulic	hydraulic	hydraulic	hydraulic
E-Motor						
6.1	Drive motor rating S2 60 min	kW	16	16	16	16
6.2	Lift motor rating at S3 15%	kW	16	16	16	16
6.3	Battery standard		Lion	lead-acid	Lion	lead-acid
6.4	Battery voltage,nominal capacity K5	V/Ah	76.8/206 option:76.8/277/412/554	80/400	76.8/206 option:76.8/277/412/554	80/400
6.5	Battery weight	kg	200	1090	200	1090
	Battery dimensions l/w/h	mm	770/600/680	812/640/760	770/600/680	812/640/760
Other Details						
8.1	Type of drive control		AC	AC	AC	AC
8.2	Operating pressure for attachments	Mpa	17.5	17.5	17.5	17.5
8.3	Oil volume for attachments	l/min	36	36	36	36
8.4	Sound level at driver's ear according to EN 12 053	dB(A)	74	74	75	75

Type sheet for industrial truck acc. to VDI 2198

Identification						
1.2	Manufacturer's type designation		FE4P30Q	FE4P30Q2	FE4P35Q	FE4P35Q2
1.3	Drive:electric(battery or mains),diesel,petrol gas>manual)		electric	electric	electric	electric
1.4	Type of operation(hand,pedestrian,standing,seated,order-picker)		seated	seated	seated	seated
1.5	Load capacity/rated load	Q(kg)	3000	3000	3500	3500
1.6	Load centre distance	c(mm)	500	500	500	500
1.8	Load distance,centre of drive axle to fork	x(mm)	478	478	483	483
1.9	wheelbase	y(mm)	1800	1700	1800	1700
Weights						
2.1	Service weight incl. battery	kg	4070	4070	4480	5030
2.2	Axle loading ,laden front/rear	kg	6390/680	6810/760	7140/840	7660/870
2.3	Axle loading,unladen front/rear	kg	1750/2320	2270/2300	1960/2520	2410/2620
Wheels- Chassis						
3.1	Type:solid rubber,superelastic,pneumatic,polyurethane		pneumatic	pneumatic	superelastic	superelastic
3.2	Tyres size,front		28×9-15-14PR	28×9-15-14PR	28×9-15-14PR	28×9-15-14PR
3.3	Tyres size,rear		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
3.5	Wheels,number front/rear(×=driven wheels)		2×/2	2×/2	2×/2	2×/2
3.6	Track width,front	b10(mm)	1004	1004	1004	1004
3.7	Track width,rear	b11(mm)	982	982	982	982
Basic Dimensions						
4.1	Mast/fork carriage tilt forward/backward	α/β(°)	6/10	6/10	6/10	6/10
4.2	lowered mast height	h1(mm)	2070	2070	2185	2185
4.3	Free lift	h2(mm)	140	140	145	145
4.4	Lift height	h3(mm)	3000	3000	3000	3000
4.5	Extended mast height	h4(mm)	4079	4079	4079	4079
4.7	Overhead load guardheight	h6(mm)	2150	2200	2150	2200
4.8	Seat height/standing height	h7(mm)	1130	1130	1130	1130
4.12	Coupling height	h10(mm)	580	580	580	580
4.19	Overall length	l1(mm)	3773	3666	3818	3671
4.20	Length to face of forks	l2(mm)	2703	2596	2748	2601
4.21	Overall width	b1(mm)	1226	1226	1226	1226
4.22	Fork dimensions	s/e/l(mm)	45/125/1070	45/125/1070	50/125/1070	50/125/1070
4.24	Fork carriage width	b3(mm)	1100	1100	1100	1100
4.31	Ground clearance ,laden,under mast	m1(mm)	135	135	135	135
4.32	Ground clearance,centre of wheelbase	m2(mm)	150	150	150	150
4.33	Aisle width for pallets 1000×1200 crossways	Ast(mm)	4078	4078	4123	4123
4.34	Aisle width for pallets 800×1200 lengthways	Ast(mm)	4278	4278	4323	4323
4.35	Turning radius	Wa(mm)	2400	2350	2440	2350
Performance Data						
5.1	Travel speed,laden/unladen	km/h	13/14	13/14	12/13	12/13
5.2	Lift speed,laden/unladen	m/s	0.32/0.40	0.32/0.40	0.30/0.40	0.30/0.40
5.3	lowering speed,laden/unladen	m/s	<0.6	<0.6	<0.6	<0.6
5.5	Max.drawbar pull,laden/unladen	N	14000/15000	14000/15000	14000/15000	14000/15000
5.7	Max.Gradient performance,laden/unladen S2 5 min	%	15/15	15/15	15/15	15/15
5.10	Service brake		hydraulic	hydraulic	hydraulic	hydraulic
E-Motor						
6.1	Drive motor rating S2 60 min	kW	16	16	16	16
6.2	Lift motor rating at S3 15%	kW	16	16	16	16
6.3	Battery standard		Lion	lead-acid	Lion	lead-acid
6.4	Battery voltage,nominal capacity K5	V/Ah	76.8/206 option:76.8/277/412/554	80/400	76.8/277 option:76.8/412/554	80/400
6.5	Battery weight	kg	215	1090	280	1090
	Battery dimensions l/w/h	mm	770/650/680	812/640/760	770/650/680	812/640/760
Other Details						
8.1	Type of drive control		AC	AC	AC	AC
8.2	Operating pressure for attachments	Mpa	17.5	17.5	17.5	17.5
8.3	Oil volume for attachments	l/min	36	36	36	36
8.4	Sound level at driver's ear according to EN 12 053	dB(A)	74	74	75	75