

Material Handling

# FE4P14/16/20Q 1400kg / 1600kg / 2000kg capacity 4-wheel Electric forklift







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**NOBLELIFT INTELLIGENT EQUIPMENT CO., LTD** 

# **Product Overview**

The design of the Q series is based on the original Noblelift E series and N series with combination of the advantages to meet the light and medium applications with great comfort and efficieny. The truck is optional to equipped with either Lead-acid battery or Li-ion battery. With lowered center of gravity and overhead guard, the truck is ideal to be used in limited spaces such as entering elevator.

### **AC MAINTENANCE-FREE DRIVE MOTOR**

Adopt maintenance-free and powerful AC drive motor. Compared with traditional DC motors, Noblelift's AC motors do not need to replace Carbon brushes. Equipped With speed sensor and temperature sensor, greatly improving the AC motor's reliability.

### **QUIET LOW VIBRATION DESIGN**

The hydraulic system uses a low-noise gear pump and full hydraulic power steering. Quiet and comfortable operation.

Shock absorbing steer axle to protect the vehicle system and prolong the service life of the forklift.

#### **SIDE-EXTRACTION BATTERY**

Battery can be replaced easily by using another forklift, meeting continuous application if necessary.

### SAFER AND EASIER ELECTROMAGENTIC BRAKE

Adopts car control mode and electromagnetic braking to make the driver's operation more comfortable.

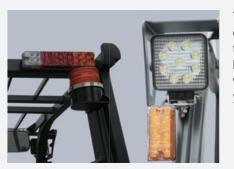
### **LOW CENTER OF GRAVITY**

Transmission system uses a horizontal fan-shaped drive Axle arranged in parallel and has a large transmission ratio. The battery is installed at the bottom of the frame, vehicle height is 2080mm with easy entrance to limited doors and high stability.





The vehicle hood and the left and right small side- panels are formed by steel plates at one time, which is simple and decent and more convenient to operate.



The forklift is equipped with standard LED lamps: headlamps, front turn lamps, rear combination lamps, warning lamps. Bright light with low power consumption allows you to operate freely at night.



Compared with other N series 4-wheel Electric counter balance forklift, this model is smaller in size and more flexible, which is more suitable for working in confined areas.



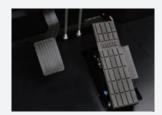
Intelligent buffering when descending to the ground, effectively protecting the ground and cargo from damage.



Transmission system uses a horizontal fan-shaped drive axle arranged in parallel with a large transmission ratio. The battery is installed at the bottom of the frame. Traveling motor adopts AC maintenance-free motor.



Steer axle shock absorption designed to protect the vehicle and prolong the service life of the truck.



Adopt car control mode: Suspended driving brake system, stepless speed change. Finding driving pleasure at work.

# Product Features



Front multi-way valve operating device makes operation more comfortable.



Multi-function display screen with fault alarm, low battery reminder. High, medium and low speed modes.



Electromagnetic brake button cut off power at one time, making brake safer and easier.



The trucks are equipped with **Curtis** controllers, **CAN-bus** technology makes the diagnostic and troubleshooting easier. The use of proved and certified components helps to

ensure the conformity to international safety standards with all the supporting documents available as required by law.



# Single

Battery Num	16				
Battery Type	Lithium				
Voltage(V)	52.4Electric(A)				
Electric(A)	0.0				
SOC	63.9%				
Discharge	ON				
Mean Volt(mV)	3281				
Diff Volt(mV)	2				
Mean Temp(℃)	11.1				
Diff Temp(℃)	0.7				
Envi Temp(℃)	10.9				
Charge	OFF				
BMS Time	2020-12-12 10:36:14				
$\textbf{Max Volt} \ \ \textbf{No}.(mV)$	[1] 3281				
Min Volt No.(mV)	[5] 3280				
Max Temp No.(℃)	[4] 11.7				
Min Temp No.(℃)	[2] 11.0				

Battery Status

Normal	Charge Electric Over	Norma
Normal	Discharge Electric Over	Norma
Normal	Electric Over Badly	Norma
Normal	SOC Lack	Norma
Normal	Gathering Line Off	Normal
Normal	Diff Volt Over	Norma
Normal	Envi Temp High	Norma
Normal	Envi Temp Low	Norma
	Normal Normal Normal Normal Normal	Normal Discharge Electric Over Normal Electric Over Badly Normal SOC Lack Normal Gathering Line Off Normal Diff Volt Over Envi Temp High

Single Temp	1	2	3	4	5	6	7	8
01—08	11.3°C	11.0°C	11.1°C	11.7°C	11.2°C	11.0°C	11.5°C	11.6°C
09—16	11.1°C	11.3℃	11.1 °C	11.7°C	11.1 °C	11.2°C	11.6°C	11.7°C
Single Volt	1	2	3	4	5	6	7	8

Single Volt	1	2	3	4	5	6	7	8
01—08	3.281V	3.282V	3.281V	3.281V	3.281V	3.281V	3.282V	3.280V
09—16	3.282V	3.281V	3.281V	3.281V	3.281V	3.282V	3.282V	3.280V

Each battery can be diagnosed via CAN connection with help of special software tool, the software can provide information about the battery condition such as balance of cells, amount of charging/discharging cycles, current, energy consumption, temperature, charging/discharging parameters, voltage of every cell, faults and alarms, settings of timing for automatic turn off.





It is optional to equip the forklift with Lithium



Ergonomic hydraulic controls for comfort operation with wide mast view and easy right-sided control levers and steering wheel with knob.



## FE4P14-16-20Q

	FE4F 14-10-20Q				
	Identification				
1.2	Manufacturer's type designation		FE4P14Q	FE4P16Q	FE4P20Q
1.3			electric	electric	electric
	Drive:electric(battery or mains),diesel,petrol gas,manual)				
1.4	Type of operation(hand,pedestrian,standing,seated,order-picke		seated	seated	seated
1.5	Load capacity/rated load	Q(kg)	1400	1600	2000
1.6	Load centre distance	<u>C(mm)</u>	500	500	500
1.8	Load distance,centre of drive axle to fork	x(mm)	381	381	386
	Weights				
2.1	Service weight incl. battery	kg	2940	2940	3180
	Wheels, Chassis				
3.1	Type:solid rubber,superelastic,pneumatic,polyurethane		_solid_rubber/pneumatic_	solid rubber/pneumatic	solid_rubber/pneumatic
3.2	Tyres size, front		18X7-8	18X7-8	18X7-8
3.3	Tyres size,rear		5.00-8-10PR	5.00-8-10PR	5.00-8-10PR
3.5	Wheels,number front/rear(×=driven wheels)		2×/2	2×/2	2×/2
3.6	Track width, front	b10(mm)	980	980	980
3.7	Track width,rear	b11(mm)	920	920	920
	Basic Dimemsions		6/10	6/10	6/10
- <del>- 4</del> .1 	Mast/fork carriage tilt forward/backward	α/β(°)	6/10	6/10	6/10
4.2	lowered mast height	h1(mm)	1985	1985	1985
4.3	Free lift	h2(mm)	130	130	130
4.4	Lift height	h3(mm)	3000	3000	3000
4.5	Extended mast height	h4(mm)	3990	3990	3990
4.7	Overhead load guardheight	h6(mm)	2075	2075	2075
4.8	Seat height/standing height	h7(mm)	1065	1065	1065
4.12	Coupling height	h10(mm)	530	530	530
 4.19	Overall length	11(mm)	3050	3050	3200
4.20	Length to face of forks	12(mm)	2130	2130	2130
4.21	Overall width	b1(mm)	1150	1150	1150
4.22	Fork dimensions		35/100/920	35/100/920	40/120/1070
		s/e/l(mm)	1040	1040	1040
<del></del>	Fork carriage width	b3(mm)			
4.31	Ground clearance ,laden,under mast	m1(mm)	98	98	<u>98</u>
4.32	Ground clearance, centre of wheelbase	m2(mm)	100	100	100
4.33	Aisle width for pallets 1000×1200 crossways	Ast(mm)	3571	3571	3576
4.34	Aisle width for pallets 800×1200 lengthways	Ast(mm)	3771	3771	3776
4.35	Turning radius	Wa(mm)	1990	1990	1990
	Performance Data				
5.1	Travel speed,laden/unladen	km/h	9/10	12/13	11/13
5.2	Lift speed,laden/unladen	m/s	0.27/0.35	0.27/0.35	0.25/0.35
5.3	lowering speed, laden/unladen	m/s	0.52/0.42	0.52/0.42	0.52/0.42
			6.5/10.5	12/15	
5.7	Max.Gradient performance,laden/unladen S2 5 min	70			
5.10	Service brake		electromagnetic brake	electromagnetic brake	electromagnetic brake
	E-Motor				
6.1	Drive motor rating S2 60 min	kW	3.9	7	7
6.2	Lift motor rating at S3 15%	kW	8.6	8.6	8.6
6.3	Battery standard		DIN	DIN	DIN
	Duran la		Pb-acid:48/360(48/400,48/460)	Pb-acid:48/360(48/400,48/460)	Pb-acid:48/400(48/460)
6.4	Battery voltage,nominal capacity K5	V/Ah	Li:48/200(48/300)	Li:48/200(48/300,48/400)	Li:48/200(48/300,48/400)
	01 7 1				
0.1	Other Details			16	10
8.1	Type of drive control		AC	AC	AC
8.2	Operating pressure for attachments	Mpa	14.5	14.5	14.5
8.3	Oil volume for attachments	l/ <u>mi</u> n_	30	30	30
8.4	Sound level at driver's ear according to EN 12 053	dB(A)	72	72	72

## Mast Table FE4P14-16-20Q

Designation	Lift height h3	Free Lift	Closed mast height	Extended mast height h4	Tilt forward/ backward		Capacity table(kg) C=500m without sideshift, single solid t		
Designtion	(mm)	(mm)	(mm)	(mm)	$\alpha/\beta(^{\circ})$	FE4P14O	FE4P16Q	FE4P20O	
-	2500	110	1803	3482	6/10	1400	1600	2000	
	2700	110	1903	3682	6/10	1400	1600	2000	
_	3000	110	2053	3982	6/10	1400	1600	2000	
	3300	110	2203	4282	6/10	1400	1600	2000	
Two-stage	3500	110	2303	4482	6/10	1400	1600	2000	
ZT	3700	110	2403	4682	6/10	1350	1600	1900	
-	4000	110	2603	4982	6/6	1300	1500	1800	
-	4300	110	2753	5282	6/6	1200	1400	1600	
-	4500	110	2853	5482	6/6	1150	1350	1500	
-	5000	110	3128	5982	6/6		900	1100	
	2500	853	1803	3482	6/10	1400	1600	2000	
-	2700	953	1903	3682	6/10	1400	1600	2000	
Two-stage	3000	1103	2053	3982	6/10	1400	1600	2000	
ZZ -	3300	1253	2203	4282	6/10	1400	1600	2000	
	3500	1353	2303	4482	6/10	1400	1600	2000	
-	3700	1453	2403	4682	6/10	1350	1600	1900	
-	4000	1653	2603	4982	6/6	1300	1500	1800	
Three-stage DZ -	4000	1029	1978	4981	6/6	1300	1500	1800	
	4300	1153	2103	5330	6/6	1200	1400	1600	
	4500	1203	2153	5480	6/6	1150	1300	1500	
	4800	1303	2253	5780	6/6		1000	1200	
	5000	1403	2353	5980	6/6		900	1100	

