

ELECTRIC HEAVY DUTY FORKLIFT SERIES

HNF150S-EL/HNF160S-EL



**SOCMA POWER
LIFT YOUR BUSINESS**

FUJIAN SOUTHCHINA HEAVY MACHINERY MANUFACTURE CO., LTD

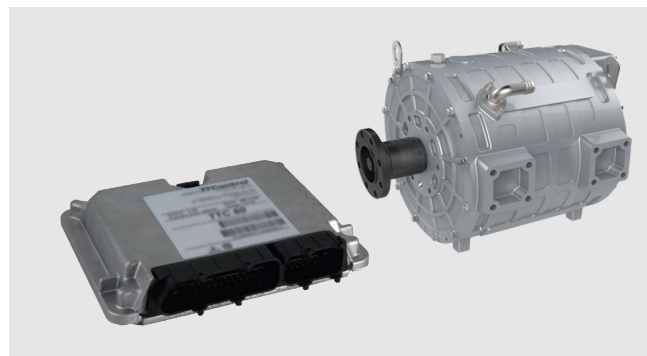
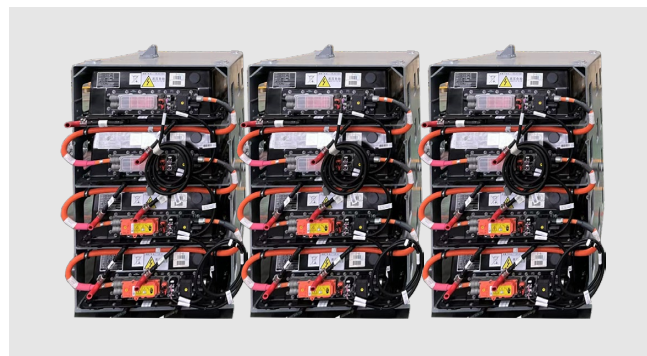
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HNF150S-EL/HNF160S-EL PURE ELECTRIC HEAVY-DUTY FORKLIFT



INNOVATION

- ◆ Large-capacity lithium iron phosphate battery ensures safety, efficiency, and long lifespan for the forklift.
- ◆ Direct drive axle with motor, providing stepless transmission and high transmission efficiency for smooth operation of the forklift.
- ◆ Automatic idle speed control strategy identifies idle conditions automatically, reducing reactive power loss and ensuring fast response upon action recovery for the forklift.
- ◆ Positive flow system with variable speed control based on electronic control handle prediction, offering excellent maneuverability, on-demand fuel supply, and high energy efficiency for the forklift.
- ◆ Monitoring of overall forklift motor, electronic control, and hydraulic oil temperatures achieves thermal balance throughout the forklift.

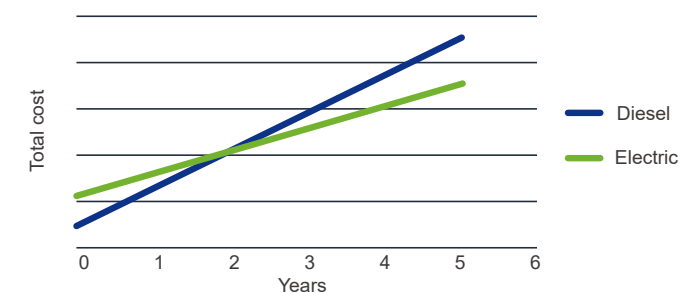


- ◆ Comprehensive forklift status monitoring, fault alerting, and protection systems ensure enhanced safety of the forklift conditions.
- ◆ It not only simply replaces the diesel engine with an electric motor, but also completely optimizes the hydraulic system.
- ◆ Independently develop variable speed and fixed displacement control system, global power matching, on-demand fuel supply, and reduction of throttling and overflow losses.
- ◆ Coordinated control of multiple motors, reasonable matching of motor loads, optimized energy management, and efficient operation; time-sharing work, automatic idle shutdown, reducing idling energy consumption of motors and pumps.
- ◆ Regenerate power for various negative loads and improve the energy utilization of the entire machine based on power lithium battery energy recovery.



ECONOMY

- ◆ Low cost of use: The cost of electricity is about 20~30% of the fuel consumption of traditional construction machinery.
- ◆ Low maintenance cost: fewer wearing parts, low failure rate, and simple maintenance; there is no need for regular maintenance of the diesel engine, replacement of oil, three filters, etc., and the maintenance cost is reduced by more than 50% compared with traditional diesel engineering machinery.



The battery system is safe, highly efficient, and has a long life, and can be used normally for 8 years, solving the pain points that users are concerned about.

- ◆ Using lithium iron phosphate battery, it has good thermal stability and solves the risk of spontaneous combustion or deflagration caused by thermal runaway. Its safety is substantially improved compared to ternary lithium battery.
- ◆ Lithium iron phosphate batteries can be charged and discharged more than 2,800 times, and their service life is about 2.5 times that of ternary lithium batteries and 5 to 10 times that of lead-acid batteries.
- ◆ Advanced battery management system (BMS) provides all-weather real-time safety monitoring of overcharge, over-discharge, over-current, insulation resistance and battery operating temperature to ensure the safety, efficiency and longevity of each battery pack.

RELIABLE HIGH PERFORMANCE

- ◆ Electric vehicle-grade motors and controllers, complete vehicle component status monitoring, electrical system IP67 protection level, high-quality, mature hydraulic parts, flame-retardant material wires, reliable and durable, and adaptable to harsh working environments.
- ◆ Intelligent electronic fan and efficient liquid cooling system to prevent overheating protection and shutdown.
- ◆ The battery has its own heating system and works normally in the environment of -30~+55℃ (-22~131℉).
- ◆ The working device is fully electronically controlled and multi-mode switching, making it safer to transport precise equipment; the independent motor drive for walking and the electronic throttle system facilitate various compound action conditions.

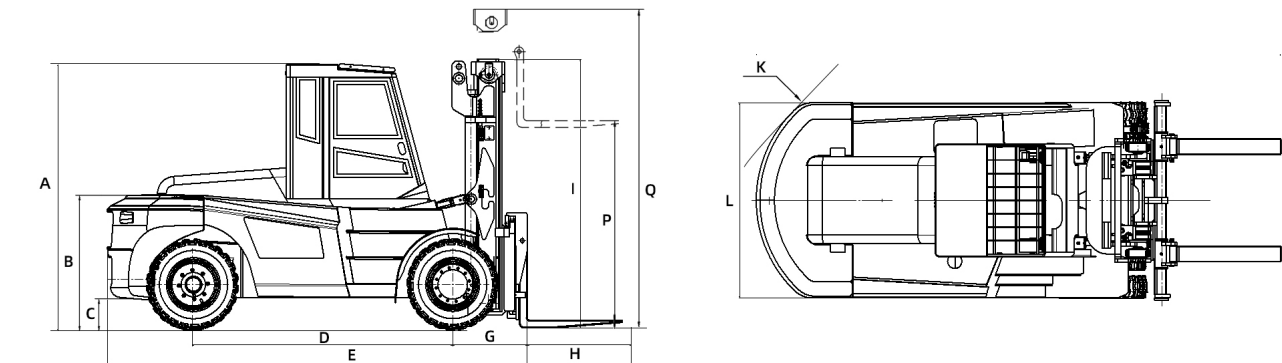


STRONG BATTERY LIFE

Independently research and develop the complete machine drive scheme and integrated management and control system, with high-efficiency interval operation, and the recovery of walking braking kinetic energy for regeneration to generate electricity, which significantly reduces power consumption and improves endurance under the same conditions. 350 kWh large-capacity lithium battery, SOC charging takes 1.2 hours and works for 8 hours.

COMFORTABLE AND ENVIRONMENTALLY FRIENDLY

Zero emission, zero pollution: There is no exhaust gas emission during driving and working. Low noise: The noise emitted by the electric motor during operation is much smaller than that of the high-power diesel engine of engineering machinery. Low Vibration: The vibration generated by the electric motor is much lower than that of the diesel engine, significantly improving the driving experience. Easy to operate: Intelligent, fully electronic control system reduces labor intensity.



TECHNICAL PARAMETER

Performance	Items	HNF150S-EL	HNF160S-EL
Basic parameters	Rated Lifting Capacity	15000kg	16000kg
	Load Center	600mm	
	Operation Weight	21000kg	21500kg
Transmission	Lifting Height	3000mm	
	Tilt Angle (F/R)	6°/12°	
	Transmission gears	Electric Motor Direct Drive	
	Driving speed (Load/Unload)	16 / 20 km/h	
	Gradeability	15%	
Driving motor parameters	Rated Traction	60kN	
	Motor Type		
	Motor rated power	90kW	
Pump motor	Rotation Speed	3500rpm	
	Motor Type		
	Motor rated power	74kW	
Battery parameter	Rotation Speed	1800rpm	
	Type of battery		
	Rated storage power of the battery	175kWh	
	Battery rated capacity	302Ah	
	Voltage	579.6V	
	Full charge and discharge cycles	2800C	
	Service Lifetime	>8 Year	
	Charging Time	1.0-1.5	
Hydraulic system	Pressure	19MPa	
	Flow	160L/min	
	Max.lifting speed (load/unload)	310/320mm/s	
	Max.lowering speed (load/unload)	340/320mm/s	
Steering system	Pressure	14MPa	
	Steering mode		
	Steering angle	55°	
Braking method	Service brake	Disc Brake	
	Parking brake		
Dimensions	Overall Height	3180mm	
	Overall Width	2350mm	
	Overall Length	6400mm	
	Axle Distance	3300mm	
	Wheel Distance(Front/Back)	1710 /1975mm	
	Fork Dimensions	1200×180×90mm	
	Ground Clearance	235mm	
	Turning Radius(Outside)	≤5550mm	
Tyre	Numbers(Frnt/Rear)	4/2	
	Tyre Specifications(Front/Back)	12.00-20/11.00-20	

Note: The above data are subject to change without prior notice



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