



SY215E

Battery capacity

422kWh

Bucket capacity

1.1 m³

Operating weight

23200kg



Charge anywhere



Charge faster



Work longer



Friendly maintenance



SANY HEAVY MACHINERY LTD

<http://www.sanyglobal.com>

This manual was printed in 2025. The product information may have been changed when you read it. Products (including specific configuration, detail, etc.) are based on the specific models and products applicable to markets outside China which are displayed and sold by agents. For more details, please visit the local authorized agent of SANY Heavy Machinery Ltd.



SANY electric excavator

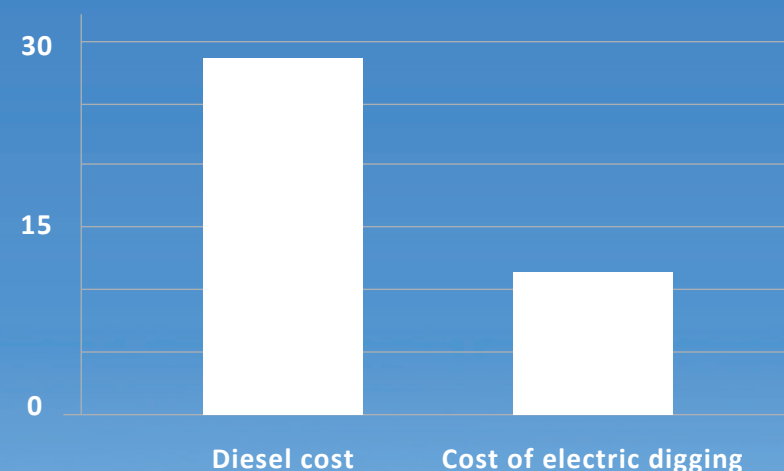
Electronic control plus scientific and technological intelligence



The choice of intelligent pure electricity value

SY215E is a new 21T class electric earthmoving excavator built by SANY Heavy Machine, specially designed for earthmoving conditions, taking into account stone work, suitable for tunnels, steel mills, scrap mills, municipal engineering and other working scenes, with energy saving and environmental protection to improve customer investment return as the goal, equipped with special functions for tunnel construction.

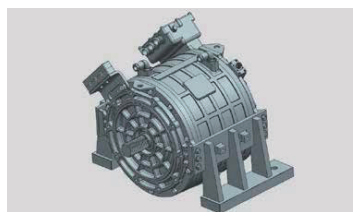
According to 3000h per year, it can save 180,000 per year



Oil mining: oil price 7 yuan /L, fuel consumption 14L/h; Electricity mining: Electricity price 0.7 yuan /h, energy consumption 50 degrees /h (Since the price of oil and electricity fluctuates with the market, the data is for reference only.)



The core configuration is energy efficient



High power motor

The customized permanent magnet synchronous motor has the advantages of high power density, high torque density, high efficiency, safety and reliability, and low energy consumption.



High Performance Battery

The 422KWh high-performance lithium-ion battery has the advantages of high power density, high protection level, long battery life, short charging time, safe and reliable, intelligent fault diagnosis and so on. International first-class brand lithium ion standard battery pack, more than 10 years of designed service life, a charge can comprehensive battery life of 6-10h.



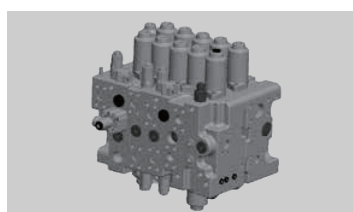
Integrated Type Controller

Configuration of customized multi-one inherited controller, using a high degree of circuit integration to achieve the electric drive MCU function, three-phase AC charging OBC function, low-voltage power supply DC/DC function, vehicle control VCU function, at the same time with the power precharge auxiliary function, small size, high integration.



Main pump

With K7V125 main pump, using the new fourth generation hydraulic system (electronic positive flow system), displacement in the same tonnage of products in the performance, more compliant, sensitive, better coordination.



Main valve

SANY main valve adopts developed products, new additions of the middle oil circuit cut-off, bucket rod 2 valve core electronic control and other functions, low pressure loss, low energy consumption.



Advanced energy saving technology

Dynamic optimization intelligent control system

Equipped with fully electronically controlled "positive flow" system and SANY's self-developed "DOMCS" motor-hydraulic pump-main valve integrated dynamic optimization intelligent control system, follow up the optimal output power required by the load.

Efficiency improvement **8%**. Energy consumption reduction **10%**.

AOCT self-optimizing control technology

Equipped with multi-stage high-power electric control fan, intelligent speed control, hydraulic oil radiator - electronic coolant radiator independent arrangement, independent temperature control - thermal management controller, motor electric control using series circulation liquid cooling system to ensure heat dissipation efficiency.

Energy consumption reduction **30%**. Noise reduction **20%**.



Advanced machine control system

Electronically regulated hydraulic valve

The main valve spool is all electrically controlled, the control is more flexible, and the human-machine interaction is more friendly.

High performance controller

Match high-performance controller and optimize control algorithm.

System security protection

Add safety functions such as abnormal alarm, emergency stop, start diagnosis, redundancy control when the system is abnormal to ensure man-machine safety.

Smart and convenient charging



Standard with 2 national standard charging ports
Supports DC fast charging

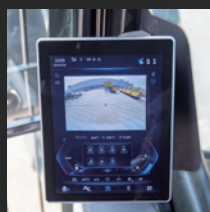


Intelligent monitoring of charging status
Optional high-power split type,
Integrated DC quick filling pile
Charging time ≤1.5 hours

Full cockpit upgrade

New 10-inch color LCD display, integrated key operation panel, power management module, USB interface, pedal new layout, easier to control, more convenient to use, to create a comfortable operating environment. High-definition large-size touch screen, real-time display of battery power and water temperature, one-click open automatic air conditioning, a variety of working modes are optional, real-time view of machine information, support online upgrade, optimize control performance at any time, intelligent fault self-diagnosis, maintain the best working state, backhand operation one-click switch, work efficiency increased by 8%.

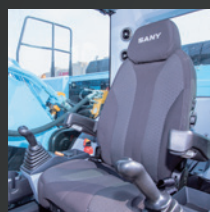
Equipped with multi-stage high-power electric control fan, intelligent speed control, hydraulic oil radiator - electronic coolant radiator independent arrangement, independent temperature control - thermal management controller, motor electric control using series circulation liquid cooling system, to ensure heat dissipation efficiency, energy consumption is reduced by 30%, noise as low as 71dB(A).



New 10-inch color display



Integrated key panel



Multi-directional adjustable suspension seat



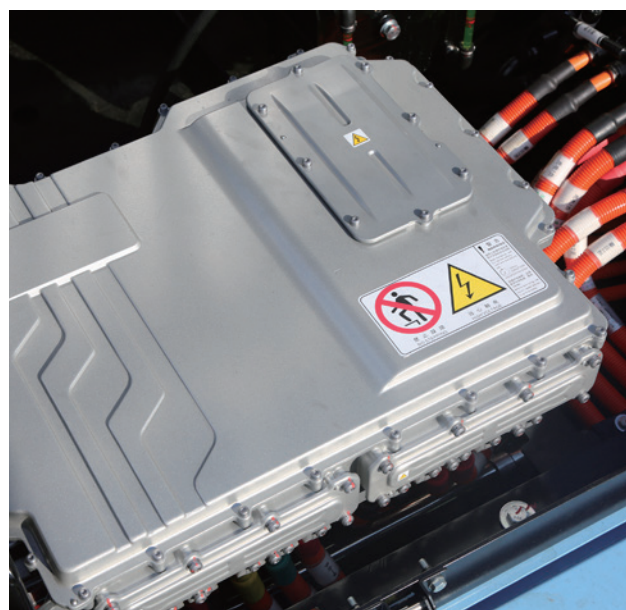
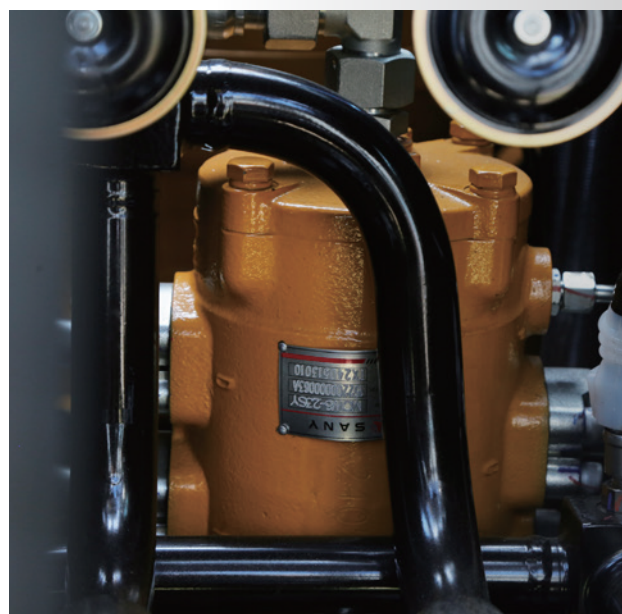
Large area skylight



New layout air outlet



Maintenance and service



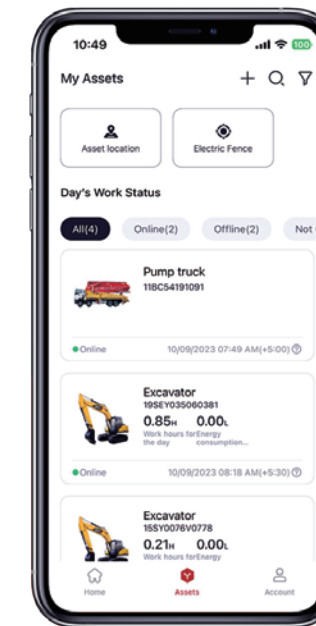
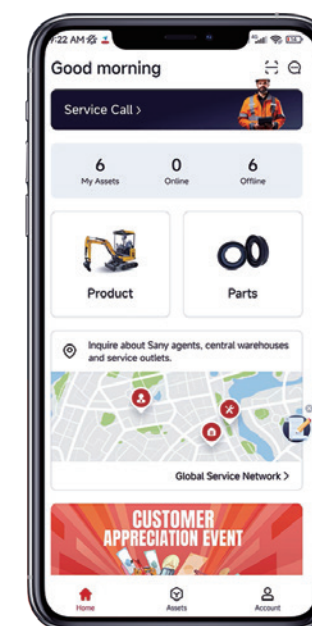
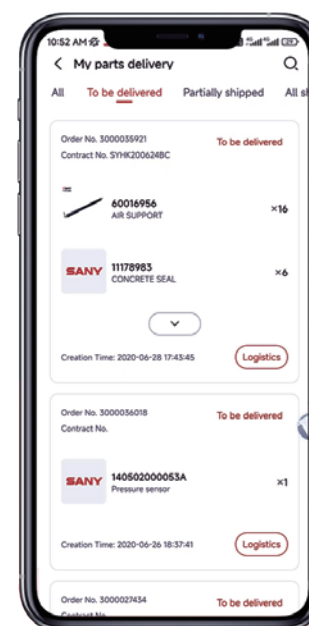
Convenient maintenance

The large-area covering piece is opened. After opening, it can stand on the ground for daily maintenance and maintenance, which is convenient for maintenance and good accessibility. For harsh working conditions, strengthen the convenient design of maintenance parts replacement, "large space, easy to start", and increase the operating space of various maintenance parts replacement by 20%-30%.

Radiator: The external protection network is specially designed, the dirt is blocked in the outer-side of the protection network, just remove the protection network to clean.

MySANY APP

Easy use, quick response



Quick Parts Access

- View parts manuals
- View parts availability
- Check equipment & parts order status

Fleet Management

- Check equipment working condition
- Monitor equipment energy consumption
- Set up e-fence

Streamlined Service

- One-click to initiate service request
- Check global service network
- View local service team's phone number & email



Scan to download!

Production research and development system



Advanced manufacturing technology

Advanced manufacturing technology is a reliable guarantee for creating excellent products. Sany has RGV assembly line and automatic welding robot, with high precision machining equipment and precision machining center.



Complete R & D test system

Complete R & D test system is a strong backing for excellent performance. Complete machine durability test center, each excavator must experience more than 1500 hours of field excavation test. The working device, cab, hydraulic components and other heavy components must undergo more than 300,000 fatigue tests.

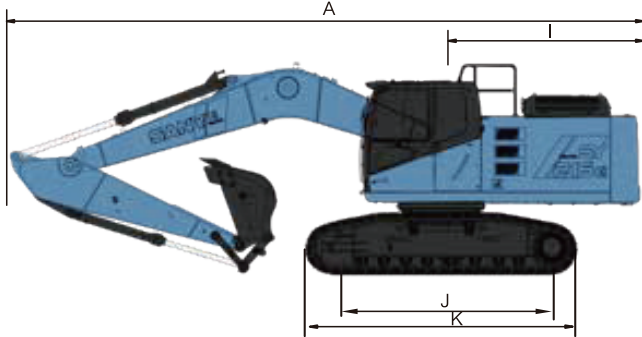
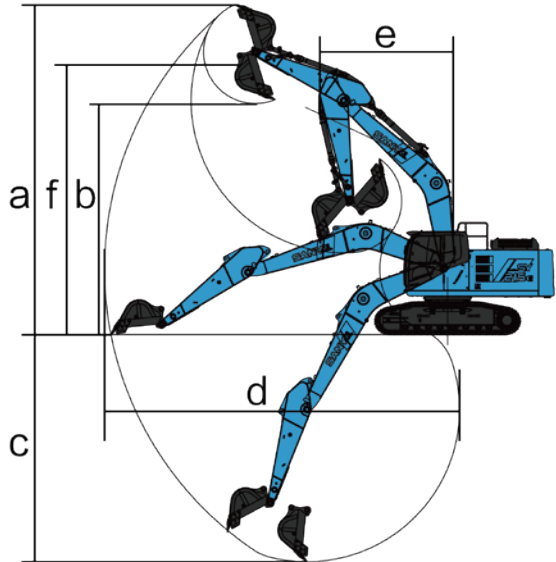
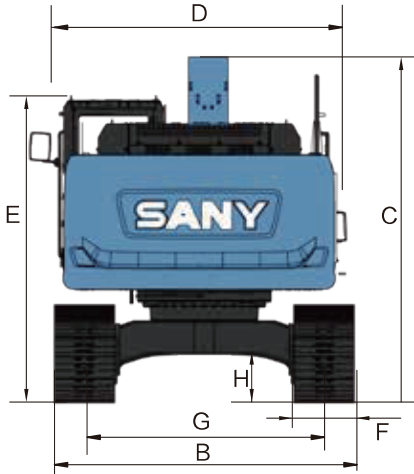


Safety certification

Advanced profile skeleton design, fully meet the European standard ROPS safety requirements after 30h high strength bench vibration test, safe and sound.

Technical specification

Specification SY215E		Overall size(mm) SY215E		Operating range (mm) SY215E	
Machine weight	23200 kg	A.Overall length	9910	a.Maximum excavation height	9600
Bucket capacity	1.1(0.8-1.2) m³	B.Overall width	2980	b.Maximum unloading height	6730
Rated storage energy	422 kWh	C.Total height	3440	c.Maximum digging depth	6255
Integrated battery life	5-7 h	D.Upper width	2875	d.Maximum digging distance	10280
motor	Permanent magnet synchronous AC motor	E.Total height (top of cab)	3075	e.Minimum radius of turn	3730
Rated power	150 kW/ 1800 rpm	F.Standard track plate width	600	f.Maximum height at minimum turning radius	7680
Travel speed (high/low)	5.4/3.3 (km/h)	G.gauge	2380		
Turning speed	11.3 rpm	H.Minimum ground clearance	440		
Tractive effort	220 kN	I.Tail radius	3125		
Climbing ability	70%(35°)	J.Track grounding length	3445		
Bucket digging force	138 kN	K.Track length	4250		
Bucket rod digging force	103 kN				



Standard configuration

Three-current system		Cab	Lower walking body
Lithium-ion battery pack	●	Soundproof steel cab	● Walking motor guard plate
Permanent magnet synchronous motor	●	Reinforced light glazing	● Track guide mechanism
Integrated controller	●	Silicone oil rubber shock absorber	● Track tightening mechanism
Battery self-heating	●	Open roof, front wall upper Windows and doors	● Driving wheel
High voltage interlock	●	Rear window emergency exit	● Sprocket and support wheel
Insulation testing	●	Wiper with cleaner (silent)	● Reinforced chain rail
Intelligent fault diagnosis	●	Hover seat with adjustable armrests and adjustable reclining	● 600mm three-rib track plate
Standard charging interface	●	AM-FM radio with digital clock (complimentary)	● Bottom cover plate
Dc charging pile	○	Footrest, floor mat	●
		Speaker, rearview mirror	●
		Safety belt, fire extinguisher (complimentary)	●
		Drinking cup holder, car light	●
		Escape hammer	●
		Storage bins, sundries bags	●
		Pilot control cut-out lever	●
		Fully automatic air conditioner	●
		Sun shade	●
		One click to start the machine	●
		10 "smart touch screen	●
		Bluetooth	●
		Multifunction panel	●
		Front guard net	○

● According to the standard ○ Said matching

Standard configuration

Hydraulic system		Front-end working device	Upper revolving platform
Working mode selection switch	●	Flange pin	● Hydraulic oil level gauge
Control valve with main relief valve	●	Welded bucket	● Rotary parking brake
Control valve with spare oil port	●	Welded connecting rod	● Rear view mirror (right)
Oil suction filter	●	Integrated lubrication system	●
Return filter	●	All bucket pins are equipped with dust-proof seals	●
Pilot filter	●	Reinforced all welded box boom	●
		Reinforced all welded box bucket rod	●

Air conditioning system

Heating and cooling (imported high-grade)	●
Integrated air conditioning control panel	●
Fresh air intake system	●

other

Standard battery	●
Lockable top cover	●
Non-slip stickers, handrails and sidewalks	●
Walking direction marker on the walking frame	●
Hand grease gun	●

● According to the standard ○ Said matching

The choice of intelligent
pure electricity value

