SY35E

Battery capacity
70.18 kWh

Bucket capacity
0.12 m³

Operating weight
4300kg

SANY HEAVY MACHINERY LTD
http://www.sanyglobal.com

Compact electric powerhouse

The SY35E is SANY's first 3–4t electric excavator, featuring high efficiency, energy saving, environmental protection, safety, reliability, and durability. It also offers a range of special configurations to meet the diverse requirements of different markets and customers.

Extended endurance

Equipped with a high-capacity battery — one hour of charging provides 5–7 hours of operation.

Convenient charging

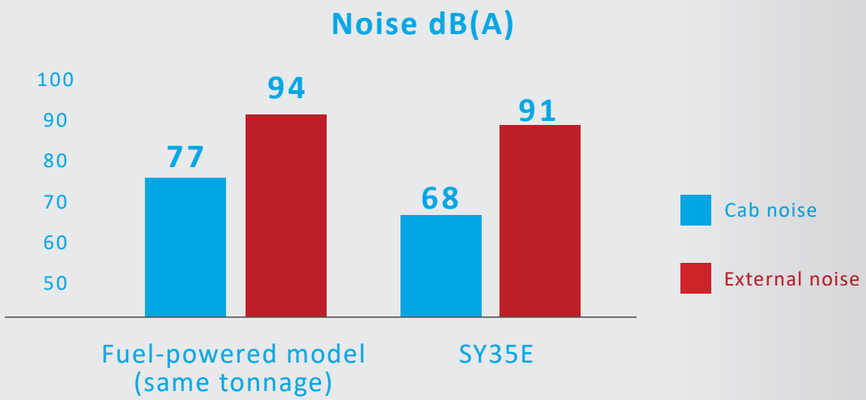
Supports DC fast charging, industrial power, and household AC charging; compatible with standard vehicle charging stations.

Safe and reliable

Short-tail design with tail-swing protection and triple electrical safety features.

Noise comparison

Quiet and comfortable
external noise 91 dB(A); cab noise 68 dB(A)



QUALITY CHANGES THE WORLD

Comfortable driving

The new seat cushion features adjustable depth and mechanical lumbar support to enhance overall seating comfort.
The new 7-inch touch screen seamlessly integrates Bluetooth, air conditioning, and various other functions, representing a harmonious fusion of cutting-edge technologies and intelligent features.

QUALITY CHANGES THE WORLD

Intelligence

A new 7-inch display offering real-time monitoring of battery charge and water temperature, an integrated keypad, one-touch start, self-diagnostics, and other intelligent features.

Quiet and comfortable

Cab noise is reduced to just 68 decibels, comparable to the volume of a conversation or meeting, virtually eliminating noise interference.

Seat upgrade

It features a 680mm high-back seat with fore and aft adjustment. The backrest is foldable for enhanced comfort. A generous 300mm of extra space is reserved to provide ample room for operation and ensure a more comfortable driving experience.

Complete research & development and test system

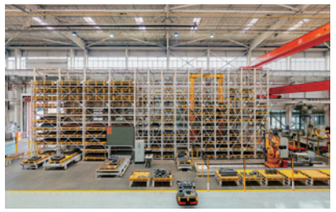
SANY has established a complete machine endurance test center with full functions. Each model of excavator must be subjected to over 2,000h field excavating test.

Key components like working device, cab and hydraulic components , etc. must be subject to fatigue test over 800,000 times.

Advanced manufacturing technology

SANY has an RGV assembling line and fullautomatic welding robots, and possesses high precision machining equipment and a precise machining center.

SANY's manufacturing and assembling lines won a five-star national site recognition in 2013 and national quality award in 2014. In 2023, SANY Mini Excavator Factory was awarded as the intelligent factory.



Advanced Energy-Saving Technology

Advanced SLSS Hydraulic System

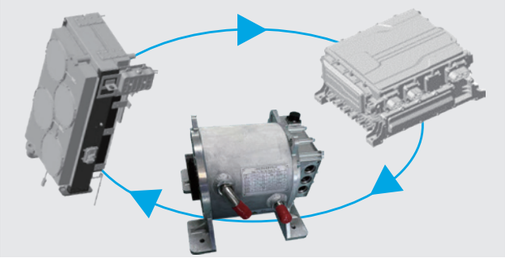
Precise flow control responds to load changes, providing excellent micro-operation performance, mimicking the precision of the human hand.

Full Hydraulic Control

All actions utilise pilot control, eliminating air pockets (or air stroke-free operation). This allows for precise micro-control, resulting in safe and accurate, smoother operation and lower fuel consumption.

Intelligent Thermal Management System

Equipped with a multi-stage high-power electronic fan and a hydraulic oil radiator/electronic coolant radiator arranged in series. It features an independent temperature control and thermal management controller. The electric motor incorporates a series circulation liquid cooling system to ensure efficient heat dissipation and achieve a 30% reduction in energy consumption.

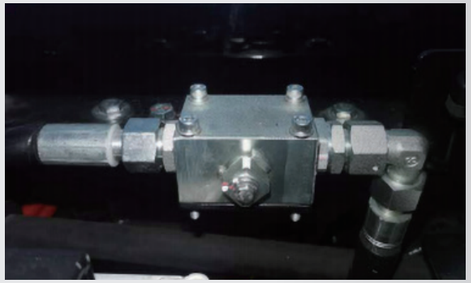


SY35E Hydraulic System

With a precision-tuned hydraulic system, the SY35E provides real-time matching of flow to both demand and available engine power. This ensures the machine operates at its peak efficiency.

Hydraulic Features

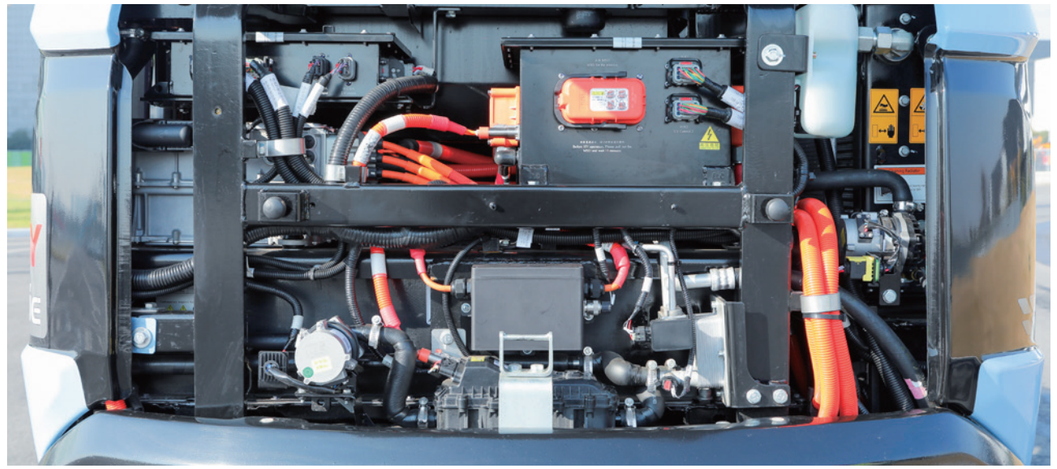
Excellent feathering control with work tools and fine grading, facilitated by a load-sensing hydraulic system. Precise control in hydraulic applications, providing smooth power delivery during digging. High swing drive reduction provides high swing speed and precise movements of the upper structure. The high-output variable displacement axial piston pump delivers a flow rate of 70 L/min to provide the necessary hydraulic power to complete the work.

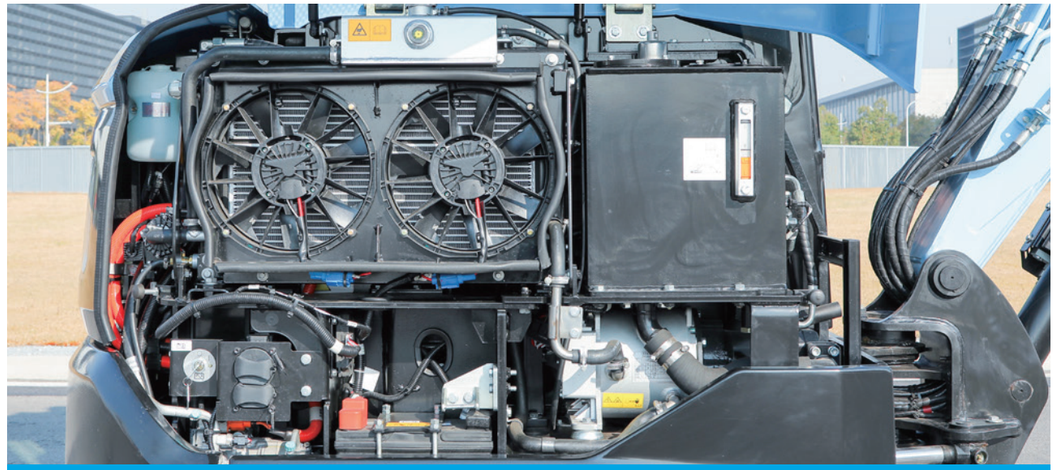


Auxiliary Hydraulics: The New Standard

Responsive two-way auxiliary hydraulics come standard, providing full power for high productivity and precise control. They are pre-plumbed with rigid lines to the end of the bucket cylinder rod for ready-to-use work tool connection.

Maintenance and service





Smart and Convenient Charging

Compatible with DC charging piles, industrial power, domestic power, and other charging modes, ensuring convenient and flexible charging.

Low Maintenance Cost

The battery, motor drive, and electronic control system all utilise internationally renowned brands. Maintenance is limited to the hydraulic system, thereby reducing overall maintenance costs by 80%. As a pure electric machine, energy consumption is over 50% lower than that of equivalent diesel engines.

Technical specification

Specification		Main performance	
Operating Weight	4300 kg	Travel Speed (High/Low)	4.2/2.4 (km/h)
Bucket Capacity	0.12 m^3	Swing Speed	10 r/min
Motor Type	Permanent magnet synchronization	Gradeability	58 %/30°
Motor Weight	50 kg	Ground Pressure	0.038 MPa
Rated Power	18 kW/2200 rpm	Bucket Digging Force	26.51 kN
Max Power	27 kW	Arm Digging Force	19.96 kN
Nominal Torque	80 N·m	Main Pump Displacement	40 cc/r
Battery Type	lithium iron phosphate	Max Hydraulic Flow	88 L/min
Nominal Voltage	405.72 V	Main Relief Pressure	24 MPa
Standard Capacity	173 A·h	Overload Relief Pressure	28 MPa
Battery Energy Capacity	70.18 kWh		

Hydraulic system			
Swing Torque	6.9 kN·m	Ground Pressure	387 kPa
Track Shoe Quantity (per side)	44	Maximum Traction Force	31.78 kN
Sprocket Quantity (per side)	1	Boom Cylinder Diameter × Stroke	45×85×500 mm
Carrier Roller Quantity (per side)	4	Arm Cylinder Diameter ×Stroke	45×75×588 mm
Boom	1.81 m	Bucket Cylinder Diameter × Stroke	40×63×538 mm
Arm Length	1.4 m	Blade Cylinder Diameter × Stroke	45×85×160 mm
Hydraulic Tank Capacity	28 L		
Coolant Capacity	11 L		
Refrigerant Charge	600 g		
Final Drive Oil Capacity	0.7 L		

Lifting Capacity Table

Rated Lift Capacity Charts

A/B		2.0m		3.0m		4.0m		Maximum	
4.0 m	kg							*719	656
3.0 m	kg					*671	502	*635	455
2.0 m	kg			*870	762	*727	489	*612	384
1.0 m	kg			*1205	701	*844	466	*640	361
0.0 m	kg			*1382	667	*923	449	*726	372
-1.0 m	kg	*2311	1248	*1332	664	*865	499	*795	429
-2.0 m	kg	*1621	1292	*945	691			*791	623

Rated Lift Capacity Charts

A/B		2.0m		3.0m		4.0m		Maximum	
4.0 m	kg							710	656
3.0 m	kg					541	502	491	455
2.0 m	kg			828	762	528	489	415	384
1.0 m	kg			765	701	504	466	390	361
0.0 m	kg			727	667	487	449	402	372
-1.0 m	kg	1402	1248	727	664	487	499	465	429
-2.0 m	kg	1448	1292	755	691			679	623

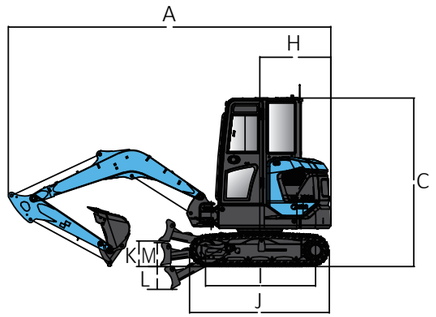
1. This lifting capacity is calculated according to GB/T 13331, ISO 10567 and SAE J1097 standards; The limiting coefficient of hydraulic system is 0.87; The tipping limit coefficient is 0.75;

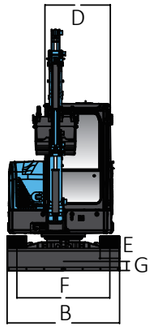
2. The hydraulic limiting factor is 0.87; The tipping load factor is 0.75.

3. Values marked with an asterisk (*) are limited by hydraulic capacity; those without an asterisk are limited by stability.

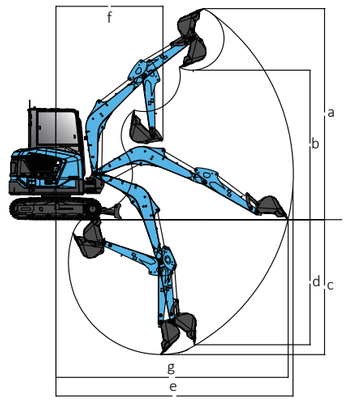
4. The lifting point is the support hole on the front of the arm (excluding the weight of the bucket). If additional attachments such as buckets are used, their weight must be deducted from the listed lift capacities.

Technical specification





Overall Dimensions (mm)	SY35E
A. Overall Length (Transport)	4920
B. Overall Width	1720
C. Overall Height (Transport)	2615
D. Cab Width	1000
E. Width of Standard Track Shoe	300
F. Track Gauge	1420
G. Minimum Ground Clearance	295
H. Tail Swing Radius	1100
I. Track Length on Ground	1670
J. Overall Track Length	2155
K. Max Lift Height of Blade	375
L. Max Lower Depth of Blade	370
M. Blade Height	350



Working Ranges (mm)	SY35E
a. Maximum Digging Height	4865
b. Maximum Dumping Height	3445
c. Maximum Digging Depth	2640
d. Maximum Vertical Wall Digging Depth	3115
e. Maximum Digging Reach	5480
f. Minimum Swing Radius	2475
g. Max Height at Minimum Swing Radius	5400

Note: As technology is constantly updated, materials and technical specifications are subject to change without prior notice. The machine shown may include optional equipment. The asterisk (*) symbol used in this manual is based on the actual vehicle configuration.

Standard configuration

Electric drive system		cab		Lower walking body	
11 speed control mode	●	Footrest, floor mat	●	Walking motor guard plate	●
Radiator auxiliary tank	●	Pilot control cut-out lever	●	Track hydraulic tensioning mechanism	●
Fan air hood	●	cab	●	Bolted to the drive wheel	●
Automatic idle system	●		●	Supporting wheel and sprocket	●
				bulldozing	●

Alarm system		Monitoring system instrument		Hydraulic system	
Intelligent machine diagnosis	●	7 "touch screen	●	Control valve with main relief valve	●
Insulation alarm	●	Fault diagnosis and alarm system	●	Oil suction filter	●
Walking warning light	●	Hour meter, power display	●	Return filter	●
Seat belt alarm	○	Motor coolant temperature	●		
		Power-on password	●		
		Automatic idle system	●		
		Charge status display	●		

Upper revolving platform		Air conditioning system		Front-end working device	
Hydraulic oil level gauge	●	Battery liquid cooling system	●	Welded connecting rod	●
				All welded box boom	●
				All welded box bucket rod	●

Bucket configuration		Bucket rod arrangement		Track arrangement	
0.12m³ standard bucket	○	1.4m standard bucket rod	●	300mm rubber track	●
Crushing hammer	○			300mm steel track	○
Hydraulic quick change	○				

Cab configuration		Other special configuration		Other	
12V auxiliary power supply 10A	●	Hammer line	●	Portable DC charging station	●
		LED working light	●		
		Car charger	●		
		Mains switch	●		
		Auxiliary line 2	●		

● Stands for standard configurations ○ stands for optional configurations