



SY19E

Battery capacity

24kW·h

Bucket capacity

0.04 m³

Operating weight

2050kg



SANY HEAVY MACHINERY LTD

<http://www.sanyglobal.com>

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The core configuration is energy efficient



High power motor

Customized permanent magnet synchronous motor, with high power density, high efficiency, safety and reliability, low energy consumption characteristics.



High performance battery

High-performance lithium-ion batteries have the advantages of high energy density, safety and reliability, and intelligent fault diagnosis.



Integrated controller

It is equipped with a customized all-in-one integrated controller and uses a high degree of circuit integration to realize electric drive MCU functions, three-phase AC charging OBC functions, low-voltage power supply DCDC functions, and high-voltage system PDU functions. It also has vehicle control VCU functions. All of these are within a compact and highly integrated form factor.



Main pump

Highly equipped with an MVP30 main pump, with constant pressure variable and load sensitive function, displacement in the same tonnage of products in excellent performance, more compliant, sensitive, and better coordination.



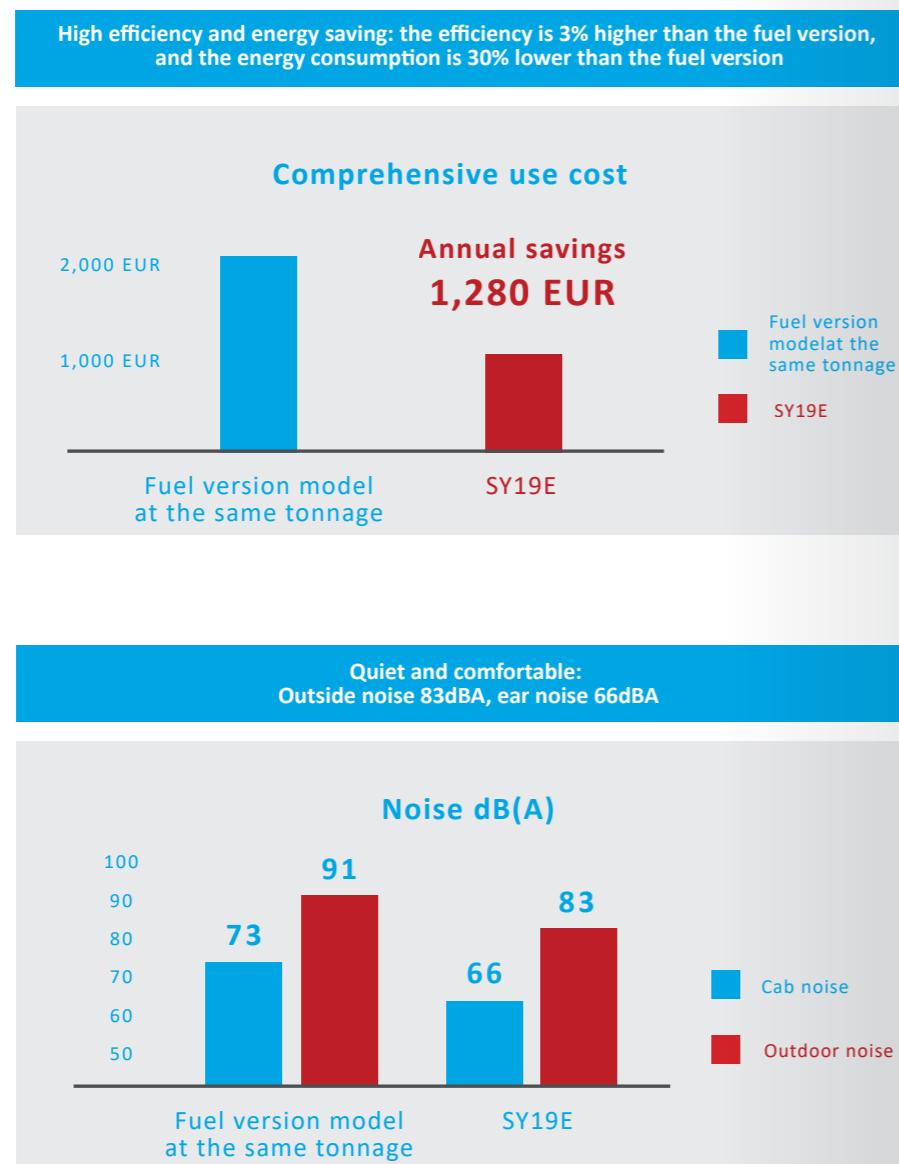
Main valve

SANY main valve adopts a Wolfe hydraulic control multi-way valve to realize the control of each actuator, which is more suitable for Chinese working conditions, with small pressure loss and low energy consumption.



The multifaceted warrior is small and delicate

The SY19E represents Sany's inaugural series of mini electric excavators, embodying features of high efficiency, energy conservation, environmental protection via technologies, safety, reliability, and durability. Moreover, it offers diverse special configuration site options, catering to the varied requirements of different countries and customers.



Comfortable driving

The seat depth of the new seat cushion is adjustable, and the mechanical lumbar support enhance overall seating comfort.

The new 7" touch screen, seamlessly integrating Bluetooth, air conditioning, and various other functions, represents a harmonious fusion of cutting-edge technologies and intelligent features.

Intelligence

New 7" display, real-time display of battery power and water temperature, integrated key operation panel, one-key start, fault self-diagnosis and other intelligent configurations.

**Quiet and comfortable**

Cab noise is reduced to 66 decibels, with the volume equivalent to the volume of the meeting speech, farewell to noise interference.

**Seat upgrade**

It features a 680mm high backrest seat that offers front and rear adjustments, featuring a foldable backrest for enhanced driving comfort. With a generous 300mm of reserved space, it provides ample room for operation, ensuring 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.

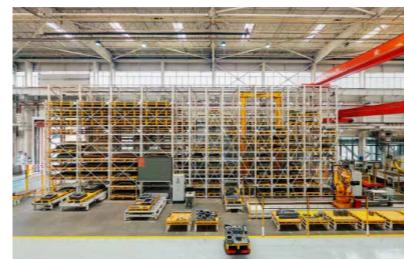
Key components like working device, cab and hydraulic components , etc. must be subject to fatigue test over 800,000 times.



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 according to load changes, excellent microoperation performance, like the human hand.

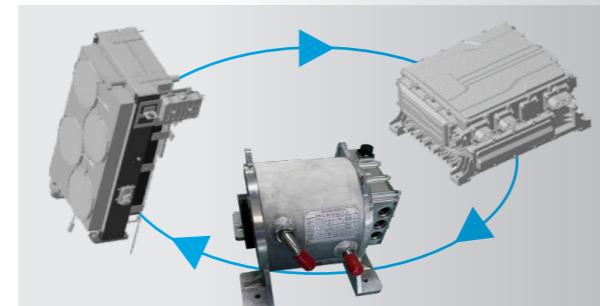
Full hydraulic control:

All actions adopt pilot hydraulic control, no air stroke, good microcontrol, safe and accurate, more smooth action, and lower fuel consumption.



Intelligent thermal management system

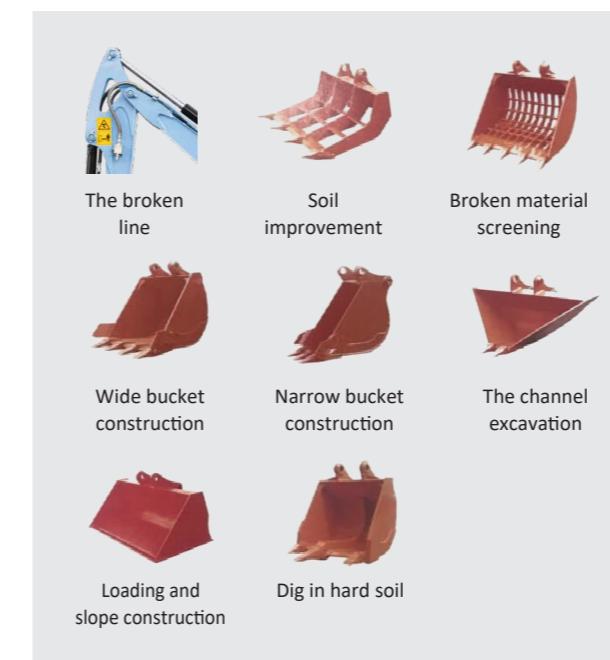
Equipped with multi-stage high-power electronic fan, hydraulic oil radiator - electronic coolant radiator series arrangement, independent temperature control - thermal management controller. The electric motor incorporates a series circulation liquid cooling system, ensuring efficient heat dissipation and reducing energy consumption by 30%.



Advanced energy saving technology

A tractor serves several purposes

The standard single-double auxiliary pipeline with a cut-off valve allows for the direct installation of crushing hammers and other auxiliary tools without additional markup. Coupled with various small tools, it offers versatility in handling a range of tasks, making it proficient in various applications.



Swivel shovel bucket

The rotary plug-in shovel bucket ensures passability, allowing the excavator to easily pass through workspaces of less than 1m, improving operation efficiency.



Boom and arm

Boom and arm are strong and durable, with performance surpassing the industry standards.



Deflector device

The working device has a deflection range from 595mm on the left to 350mm on the right, facilitating easy excavation to the outer edge of the track on both sides.

It can work in the wall corner and other space restricted positions.

Flexible and convenient retractable walking frame

The adjustable width range of the retractable walking frame is 980mm-1350mm, improving the stability of the whole machine.

- It can realize the exchange of rigid tracks and rubber tracks to meet the needs of various working conditions.



Maintenance and service



Smart and convenient charging

Compatible with DC charging piles, industrial electricity, civil electricity, charging vehicles and other charging modes, ensuring convenient and flexible charging.

Low maintenance cost

The battery, motor drive and electronic control system adopts international famous brand, with the maintenance only for the hydraulic system, reducing maintenance costs by 80%. Pure electric power, energy consumption is more than 50% lower than diesel engines. It can utilize Party A's power supply indoors and in the basement, resulting in use cost savings.

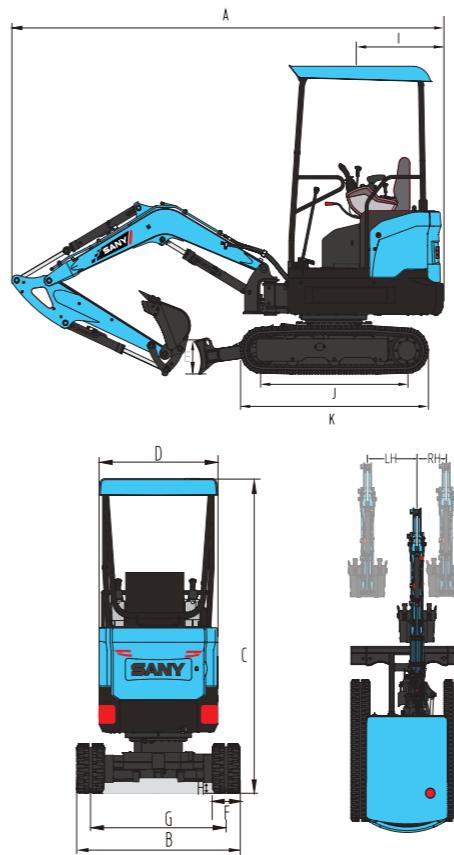


Technical specification

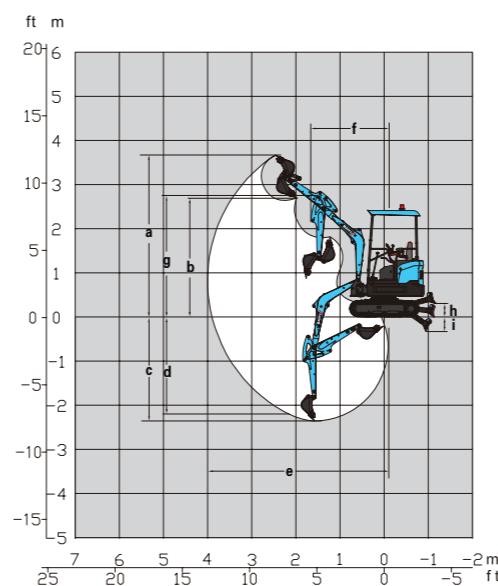
| Specification | SY19E | Main performance | SY19E |
|-------------------|----------------------------------|---------------------------------|----------------|
| Working weight | 2050 kg | Traveling speed (high and low) | 3.2/2.3 (km/h) |
| Bucket capacity | 0.04 m ³ | Gyration speed | 10 r/min |
| Electromotor | Permanent magnet synchronization | Grade ability | 50.6 % |
| Weight of motor | 26 kg | Ground pressure | 0.028 mPa |
| Rated power | 10 kW/2000 rpm | Bucket digging force | 15.2 kN |
| Peak power | 18 kW | Digging force of bucket bar | 9.2 kN |
| Nominal torque | 44 N·m | The main pump delivery | 30 mL/r |
| Power battery | lithium iron phosphate | Maximum system flow | 90 L/min |
| Reference voltage | 358 V | Main relief valve pressure | 24.5 mpa |
| Standard capacity | 67 A·h | Overload working pressure | 27 mpa |
| Battery capacity | 24 kW·h | | |

| Traveling part | SY19E |
|------------------------------|--------|
| Number of track chain plates | 2 |
| Track rollers on each side | 3 |
| Track width mm | 230 mm |

Technical specification



| Overall size(mm) | SY19E |
|---|----------|
| A. Total length (during transportation) | 3624 |
| B. Total width | 980/1350 |
| C. Total height (during transportation) | 2440 |
| D. Width of cab | 980 |
| E. Shovel bucket height | 270 |
| F. Track width | 230 |
| G. Track gauge | 750/1120 |
| H. Min. ground clearance | 160 |
| I. Tail gyration radius | 920 |
| J. Grounding length of track | 1225 |
| K. Track length | 1585 |



| Scope of operation(mm) | SY19E |
|--|-------|
| a. Maximum digging height | 3665 |
| b. Maximum unloading height | 2635 |
| c. Maximum digging depth | 2360 |
| d. Max. vertical digging depth | 2215 |
| e. Maximum digging radius | 4000 |
| f. Min. gyration radius | 1655 |
| g. Max. height at min. gyration radius | 2745 |
| h. Max. lift height of shovel bucket | 310 |
| i. Max. sinking depth of shovel bucket | 320 |

Note: As the technology is constantly updated, materials and technical specifications are subject to change without prior notice, the machine in the photo may include additional equipment, and the * number in this manual is based on the actual vehicle configuration.

Standard configuration

| Collocation | Collocation |
|---|-------------|
| Cab | ● |
| 230mm rubber track | ● |
| Extended shovel bucket | ○ |
| Car charger | ● |
| 12V power outlet | ○ |
| Battery pack | ● |
| Independently controlled auxiliary line | ● |
| Straight line function | ● |
| Arm working light protective cover | ● |
| 110V charging line | ○ |
| 220V charging line | ● |
| 380V charging line | ● |
| | |
| Grease gun | ● |
| LED working light | ● |
| Electric proportional handle | ○ |
| Mode switching valve | ● |
| Turning warning light | ○ |
| Seat belt alarm light | ○ |
| Yellow alarm light | ○ |
| Boom LED working light shield | ● |
| Power-on password | ● |
| Traveling alarm | ○ |
| Mechanical quick-change coupler | ○ |
| Hydraulic quick-change coupler | ○ |

● According to the standard ○ Said matching