



SANY Robotics Technology Co., Ltd.
Make material handling more efficient, greener and smarter

Sany SCP16/20S

3-Wheel Electric Counterbalance Forklift



Narrow channel master solid tyre



Gradeability
> 22%

Travel speed
> 16km/h

Standard
Intelligent
instrument cluster

Voltage platform
96v

Standard battery capacity
22kW · h

Lifting speed (Loaded)
> 510mm/s

EIC Warranty
5 years or 10,000 hours.

Standard integrated motor
Unique in its class

Main features



High Efficiency & Long Range

- The 16/20S series comes standard with China's first integrated electric drive system, delivering low energy consumption and high operational efficiency.
- It features a smaller turning radius, shorter body length, and higher lifting speeds.
- A large-capacity 22 kWh lithium-ion battery is standard, supporting 1-hour fast charging (20% to 95%) and enabling an 8-hour work cycle.



Reliable Quality & Durability

- It is capable of prolonged operation at -20° C, and features a battery with standard electric heating, making it specifically suited for cold storage and warehouse applications.
- The EIC undergoes rigorous testing, featuring a IP rating $\geq$ IP67 for superior durability. Backed by an extended 5-year/10,000-hour warranty.



Easy Maintenance & High Adaptability

- Covers can be removed without tools, providing access to key maintenance components within one minute.
- It features China's first integrated e-drive system and a dual-fuel-tank system, with a streamlined layout for simple operation.



Ergonomics & Driving Comfort

- An oversized multifunctional LCD instrument cluster (with integrated TBOX) provides comprehensive vehicle data display and allows direct adjustment of key vehicle parameters.
- Exceptionally spacious footroom and headroom offer 30% more space than leading competitors.
- Optional proportional valve seat armrest and dual-pedal functionality allow for enhanced driving comfort.



Intelligent

- Standard TBOX cloud platform management enables remote upgrades and remote locking functions.
- Optional AVM.

Table of Standard Parameters

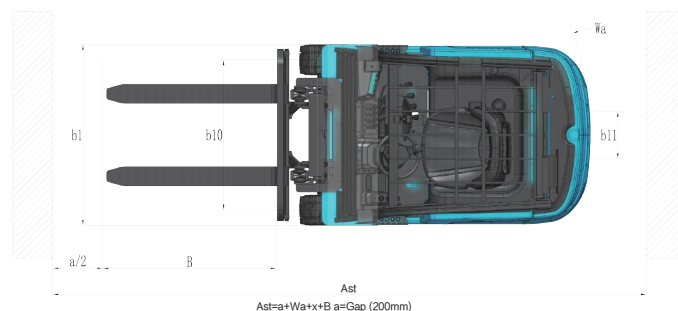
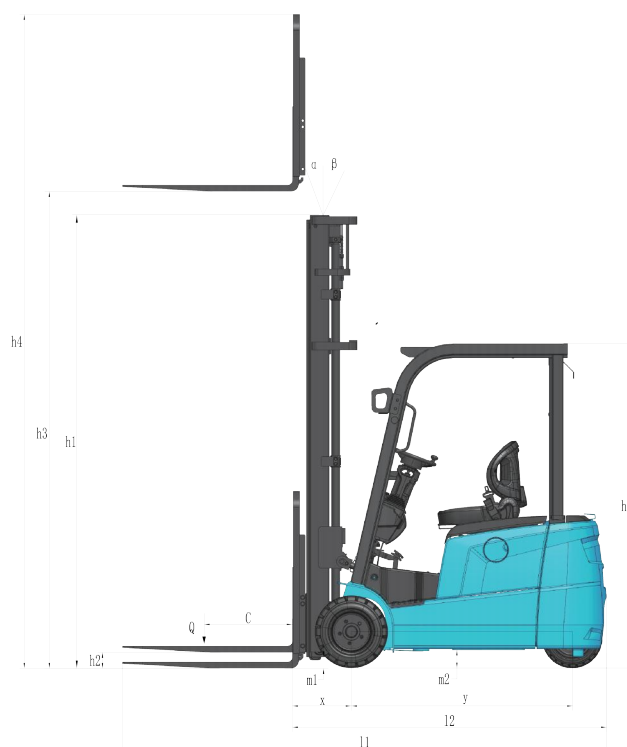
Class	Unit	SCP16S	SCP20S
Overview	Rated loading capacity	Q(kg)	1600
	Center distance of load	c(mm)	500
	Front overhang	x(mm)	365
	Wheel base	y(mm)	1300
Weight	Dead weight	kg	2950
	Axle load distribution – front/rear (loaded)	kg	3900/550
	Axle load distribution – front/rear (no load)	kg	1330/1620
Tire	Type of tyre	/	Solid tyre
	Front wheel specification	/	18 × 7–8
	Rear wheel specification	/	15 × 4.5–8
	Front wheel track	b10(mm)	945
	Rear wheel track	b11(mm)	190
Dimension	Mast tilt angle (front/rear)	$\alpha / \beta (^{\circ})$	5/7
	Height when the gantry is retracted	h1(mm)	2060
	Height of free lift	h2(mm)	100
	Lifting height	h3(mm)	3000
	Maximum lifting height of gantry	h4(mm)	4092
	Height of overhead guard	h6(mm)	2040
	Overall length (to fork face)	L2(mm)	1868
	Overall width	b1(mm)	1110
	Fork dimensions (thickness/width/length)	s/e/l(mm)	35/100/920
	Spacing of forks	mm	1040/200
	Minimum ground clearance at gantry	m1(mm)	90
	Minimum ground clearance at the center of wheelbase	m2(mm)	110
	Right-angle stacking aisle width (for 1000 × 1200 longitudinally placed pallets)	Ast(mm)	3200
	Right-angle stacking aisle width (for 800 × 1200 laterally placed pallets)	Ast(mm)	3320
	Minimum turning radius	Wa(mm)	1500
Performance	Maximum travel speed (loaded/unloaded)	km/h	16/16
	Maximum lifting speed (loaded/unloaded)	mm/s	510/530
	Lowering speed (loaded/unloaded)	mm/s	500/580
	Traction force (loaded)	N	13000
	Gradeability (loaded)	%	22
	Service brake	/	Hydraulic type
	Parking brake	/	Mechanical type
Motor battery	Travel motor (S2–60min)	kW	6 × 2
	Lifting motor (S3–15%)	kW	20
	Battery voltage/power	V/kWh	96/22
	Dead weight of battery	kg	220
Controller	Travel control form	–	Permanent magnet synchronous
	Attachment to provide pressure	Mpa	16

Options List

● Standard ○ Optional - Not available for this configuration

SCP series		SCP16S	SCP20S
Tire	Solid tyre	●	●
	Non-marking tyre	○	○
Seat	Domestic standard seat	●	●
	Domestic suspension seat	○	○
	Grammer suspension seat	○	○
Control valve	OPS mechanical valve 2-spool	●	●
	OPS mechanical valve 3-spool	○	○
	OPS mechanical valve 4-spool	○	○
	Cross joystick solenoid valve 2-spool	○	○
	Cross joystick solenoid valve 2-spool	○	○
	Cross joystick solenoid valve 3-spool	○	○
	Cross joystick solenoid valve 3-spool	○	○
	Cross joystick solenoid valve 4-spool	○	○
	Cross joystick solenoid valve 4-spool	○	○
	Fingertip control solenoid valve 2-spool	○	○
	Fingertip control solenoid valve 2-spool	○	○
	Fingertip control solenoid valve 3-spool	○	○
	Fingertip control solenoid valve 3-spool	○	○
	Fingertip control solenoid valve 4-spool	○	○
Intelligent terminal	Remote diagnostics function	●	●
Intelligent speed limit	Intelligent turning speed reduction	●	●
Mast	Standard 2-stage 3m	●	●
	Standard 2-stage 3.5m	○	○
	Standard 2-stage 4m	○	○
	Standard 2-stage 4.5m	○	○
	Standard 2-stage 5m	○	○
	2-stage full-free, 3m	○	○
	3-stage full-free, 4.5m	○	○
	3-stage full-free, 5m	○	○
Pipe	3-stage full-free, 5.5m	○	○
	3-stage full-free, 6m	○	○
	Single auxiliary attachment circuit (standard mast)	○	○
	Double auxiliary attachment circuit (standard mast)	○	○
	Single auxiliary attachment circuit (2-stage free mast)	○	○
	Double auxiliary attachment circuit (2-stage free mast)	○	○
Forks	Single auxiliary attachment circuit (3-stage free mast)	○	○
	Double auxiliary attachment circuit (3-stage free mast)	○	○
	920mm	●	●
	1070mm	○	○
	No forks required	○	○
	1220mm	○	○
	1370mm	○	○
	1520mm	○	○
Light	1670mm	○	○
	1820mm	○	○
	2000mm	○	○
	Standard lighting (front/rear combination lights)	●	●
	Rotating warning light (yellow)	○	○
	Rotating warning light (blue)	○	○
	Rear work light	○	○
	Blue spotlight	○	○
	Perimeter warning light strip (blue)	○	○
	Perimeter warning light strip (red)	○	○
	Rotating beacon with alarm (yellow)	○	○
	Fog light (yellow)	○	○

SCP series		SCP16S	SCP20S
Cab	Standard overhead guard	●	●
	Front windshield + top PC, wiper, washer tank + fan	○	○
	Full cab (without A/C)	○	○
	Full cab (without A/C + electric air heater)	○	○
Battery	Full cab (with heating/cooling A/C)	○	○
	22 kWh (96V)	●	●
	30 kWh (96V)	—	○
Alternator	96V 100A (380V industrial power)	●	●
	96V 200A (380V industrial power)	○	○
Working device	Side-shifter, etc.	○	○

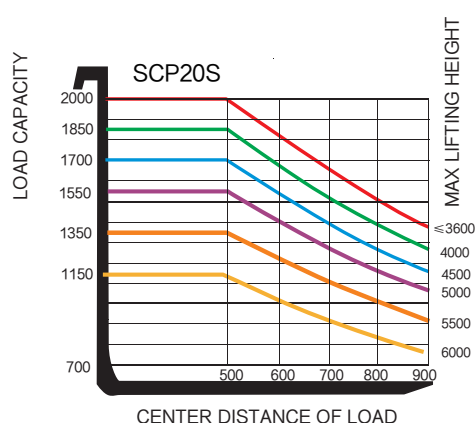
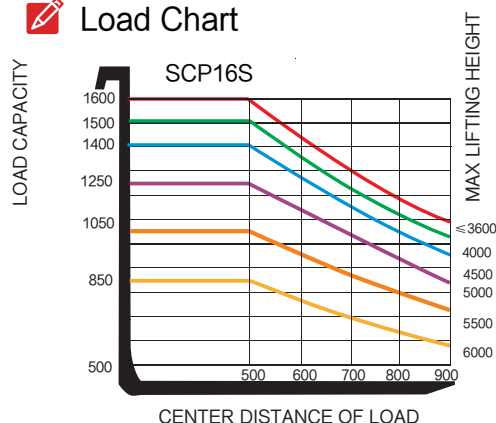


Mast Parameter Table

Mast type	Mast model	Max lifting height	SCP16/20S					
			Load capacity Load centre 500mm	Load capacity Load centre 500mm	Overall lowered height (mast lowered)	Maximum working height (mast raised)	Free lifting height	Mast tilt angle
			1.6t	2t		Without load backrest / With load backrest	Without load backrest / With load backrest	Forward / Rearward
		mm	kg	kg		mm	mm	°
2-stage wide-view mast	S30	3000	1600	2000	2060	3590/4052	100	5/7
	S35	3500	1600	2000	2310	4090/4552	100	5/7
	S40	4000	1500	1850	2600	4590/5052	100	3/5
	S45	4500	1450	1800	2850	5090/5552	100	3/5
	S50	5000	1320	1700	3100	5590/6052	100	3/5
2-stage full-free mast	D30	3000	1600	2000	2060	3620/4052	1380/948	5/7
3-stage full-free mast	T45	4500	1400	1700	2160	5120/5552	1480/1048	3/5
	T48	4800	1320	1620	2260	5420/5852	1580/1148	3/5
	T50	5000	1250	1550	2330	5620/6052	1650/1218	3/5
	T55	5500	1050	1350	2580	6120/6552	1900/1468	3/5
	T60	6000	850	1150	2830	6620/7052	2150/1718	3/5



Load Chart



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Due to continuous technical updates, technical parameters and configurations are subject to change without notice. The machine in the picture may include additional equipment. This album is for reference only, subject to actual product.

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