SANY®

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

SCP20F7/25F7

SANY lithium battery counterbalance forklift

The world's first eight-in-one electric powertrain in the forklift industry

F7

Four major advantages

15% lower energy consumption than mainstream electric forklift architectures on the market

Lower production costs and Assembly complexity for higher cost-effectiveness

30% lower lifecycle maintenance cost with a simpler structure and easier maintenance

90% fewer interfaces for major electrical components, improving water resistance and reliability

Key features

Exceptional performance

- Core electrical components are IP67 rated, and the entire vehicle is IPX4 rated, easily handling various extreme operating conditions
- Travel speed of 20 km/h and gradeability of 20%, leading the industry

Safe and reliable

- Active safety system: Detects human movement and provides early warnings of potential hazards
- High-precision facial recognition system to prevent driver fatigue

Extended warranty

- Five-year/10,000-hour warranty on the battery, motor and electric control system for worry-free operation

Improved efficiency

- In-house developed dual-core VCU with superior computing power, delivering millisecond-level powerful drive response and control performance
- High-performance battery with fast charging, reaching 0%-95% in 1 hour

Energy saving and cost reduction

- Two SANY electric forklifts can deliver the economic efficiency of three internal combustion forklifts
- Non-stop operation, 8-hour work cycle, 24-hour continuous use

Cloud-based support

- Cloud-based intelligent monitoring for fleet management, remote fault diagnosis, etc
- Powertrain architecture greatly simplifies the entire vehicle

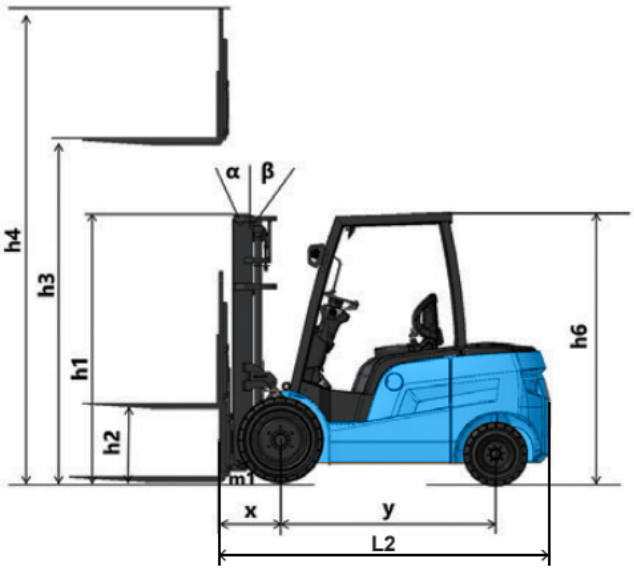
Standard parameter table

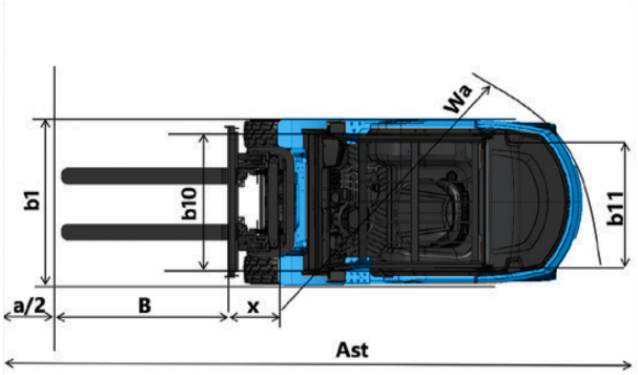
Category		Unit	SCP20F7	SCP25F7
Overview	Rated load capacity	Q (kg)	2000	2500
	Load center distance	c (mm)	500	500
	Front overhang	x (mm)	450	450
	Wheelbase	y (mm)	1650	1650
Weight	Service weight	kg	3650	3950
	Axle load, front/rear (laden)	kg	4950/700	5650/800
	Axle load, front/rear (unladen)	kg	1750/1900	1900/2050
Tyre	Tyre type	/	Pneumatic tires	Pneumatic tires
	Front wheel size	/	7.00-12-14PR	7.00-12-14PR
	Rear wheel size	/	18*7-8-14PR	18*7-8-14PR
	Front tread	b10 (mm)	1040	1040
	Rear tread	b11 (mm)	980	980
Dimensions	Mast tilt angle (forward/backward)	α/ β (°)	6/12	6/12
	Lowered mast height	h1 (mm)	2000	2000
	Free lift height	h2 (mm)	120	120
	Standard mast lift height	h3 (mm)	3000	3000
	Extended mast height	h4 (mm)	4100	4100
	Overhead guard height	h6 (mm)	2170	2170
	Overall length	L2 (mm)	2420	2420
	Overall width	b1 (mm)	1230	1230
	Fork dimensions(thickness/width/length)	s/e/l (mm)	40*122*1070	40*122*1070
	Fork spread	mm	250-1100	250-1100
	Minimum ground clearance (laden)	m2 (mm)	100	100
	Stacking aisle (1 m x 1.2 m pallet, transverse)	Ast (mm)	3750	3750
	Stacking aisle (0.8 m x 1.2 m pallet, longitudinal)	Ast (mm)	3950	3950
	Minimum turning radius	Wa (mm)	2100	2100
Performance	Maximum travel speed(laden/unladen)	km/h	20/20	20/20
	Maximum lift speed(laden/unladen)	mm/s	500/510	500/510
	Lowering speed(laden/unladen)	mm/s	420/480	420/480
	Traction force(laden/unladen)	N	14300	14300
	Gradeability(laden/unladen)	%	20	20
	Service brake	/	Hydraulic	Hydraulic
	Parking brake	/	Mechanical	Mechanical
Motor & Battery	Travel motor (S2-60min)	kW	18	18
	Lift motor (S3-15%)	kW	25	25
	Battery voltage/capacity	V/kWh	96/22	96/22
	Battery weight	kg	210	210
Controller	Travel control type	-	AC	AC
	Pressure for attachments	Mpa	17	17

Optional configuration table

● Standard ○ Optional - Not available

SCP series		SCP20F7	SCP25F7
Tyre	Pneumatic tires	●	●
	Solid tires	○	○
	Non-marking tyres	○	○
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	○	○
Intelligent terminal	Remote diagnosis 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	○	○
	Full free lift 3 m	○	○
	3-stage full free lift 4.5m	○	○
	3-stage full free lift 5m	○	○
	3-stage full free lift 5.5m	○	○
	3-stage full free lift 6m	○	○
Hoses	Single additional attachment hose (standard mast)	○	○
	Dual additional attachment hoses (standard mast)	○	○
	Single additional attachment hose (2-stage full free mast)	○	○
	Dual additional attachment hoses (2-stage full free mast)	○	○
	Single additional attachment hose (3-stage full free mast)	○	○
	Dual additional attachment hoses (3-stage full free mast)	○	○
Forks	920mm (three-point)	-	-
	1070mm	●	●
	Without forks	○	○
	1220mm	○	○
	1370mm	○	○
	1520mm	○	○
	1670mm	○	○
	1820mm	○	○
	2000mm	○	○
Lights	Standard lighting (front/rear combination lights)	●	●
	Rotating beacon (yellow)	○	○
	Rotating beacon (blue)	○	○
	Rear work light	○	○
	Blue spot light	○	○
	Boundary warning light strip (blue)	○	○
	Boundary warning light strip (red)	○	○
	Rotating audible and visual alarm (yellow)	○	○
	Fog light (yellow)	○	○
Cab	Standard overhead guard	●	●
Battery	22 kWh (96V)	●	●
	31 kWh (96V)	○	○
Charger	96V100A (380V industrial power)	●	●
	96V200A (380V industrial power)	○	○
Attachments	External sideshifter, etc.	○	○





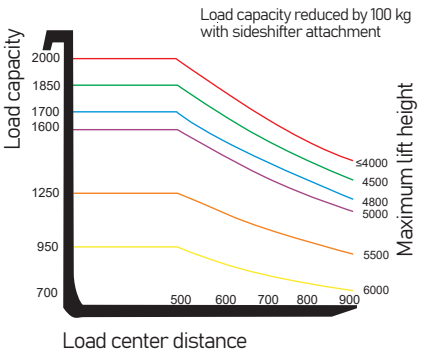
Ast=a+Wa+x+B a: clearance (200 mm)

Mast parameter table

Mast type	Mast model	Maximum lift height	SCP20F7/25F7					
			Load capacity (load center 600mm)		Mast height, lowered	Mast height, extended	Free lift height	Mast tilt angle
			3.0t	3.5t		Without load backrest/ With load backrest	Without load backrest/ With load backrest	Forward/ Backward
		mm	kg	kg	mm	mm	mm	°
2-stage wide-view mast	S30	3000	2000	2500	2000	3620/4090	100	6/12
	S35	3500	2000	2500	2250	4120/4590	100	6/12
	S40	4000	2000	2500	2500	4620/5090	100	6/12
	S45	4500	1850	2350	2750	5120/5590	100	6/6
	S50	5000	1700	2200	3000	5620/6090	100	6/6
2-stage full free lift mast	D30	3000	2000	2500	2050	3620/4090	1450/980	6/12
3-stage full free lift mast	T45	4500	1850	2300	2050	5120/5590	1450/980	6/6
	T50	5000	1600	2000	2220	5620/6090	1620/1150	6/6
	T55	5500	1250	1500	2435	6120/6590	1835/1365	3/3
	T60	6000	950	1050	2600	6620/7090	2000/1530	3/3

Load capacity chart

SCP20F7



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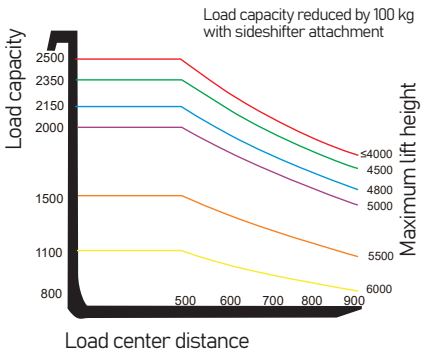

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Due to continuous technological updates, technical parameters and configurations are subject to change without prior notice. The machines shown may include additional equipment. This brochure is for reference purposes only, and the actual product specifications shall take precedence.

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