



SEF25/35

BYD Electrical forklift/Single-motor
(2500kg/3500kg)

CHANGE YOUR MIND
NOT YOUR BATTERY

 Lithium | **8** YRS **10,000** HRS Battery Warranty | BYD Iron-Phosphate

BYD's e-mission: to create a better future

Founded in 1995 as a pioneer in battery technology, BYD's mission is to change the world by creating a complete, clean energy ecosystem that reduces the world's reliance on petroleum.

BYD's innovative products are leaders in multiple sectors, including battery-electric automobiles; buses; medium and heavy trucks and forklifts; SkyRail monorail system; solar power generation; energy storage systems; and consumer electronics.

With operations in **400** cities, **70** countries across **6** continents
230,000 employees all over the world.

BYD is devoted to the drive to make mobility more efficient, connected, comfortable and safe without creating emissions and pollution.

From energy generation and storage to its zero-emission logistics applications, BYD provides a sustainable complete solution.



Core Technology

With many years of experience and innovation, BYD has the most reliable battery technology.

BYD started as a battery manufacturer, producing its first battery in 1997. Currently, BYD batteries are widely applied to passenger vehicles, cabs, buses, coaches, logistic vehicles, sanitation trucks and other commercial vehicles. In order to

accomplish that, we believe in technology innovation and rigorous production processes. BYD batteries have been road-proven in over 1.7 million new energy passenger cars and over 70,000 electric buses around the world.

We are constantly refining our manufacturing, pack design and interconnection hardware to further enhance the battery safety profile. Samples from each batch must pass rigorous impact, collision, vibration and external fire testing before being released for electric vehicle integration.



BYD Iron-Phosphate technology

BYD Iron-Phosphate electric forklift batteries are a major revolution for the industry. A solution for the present and future, synonymous with savings, sustainability, cleanliness, safety and care for the environment.



The BYD battery revolution

BYD has accumulated vast experience to predict and respond to global sustainability challenges. Currently, BYD's patented BYD Iron-Phosphate batteries have been used in over 40 vehicle models, including passenger, commercial, and off-highway vehicles.

Compared to equivalent equipment powered by traditional lead acid batteries, BYD batteries require no maintenance, have a shorter charge time, a longer working life, and use up to 40% less energy. Combined with BYD's intelligent chargers, charging from empty to full can be achieved in under an hour, providing comfortably enough charge for a full eight-hour shift. Furthermore, BYD batteries can be topped-up during short breaks in operations, thus guaranteeing maximum uptime at the lowest-possible cost.

Unlike other Lithium-ion batteries featuring on competitors' forklifts, BYD designs, develops and manufactures its own batteries and chargers, meaning the entire energy ecosystem is optimised to offer maximum performance for your investment.

BYD Iron-Phosphate Battery



Savings

No battery changes, no maintenance, no distilled water or charger room, and with an energy consumption which is well below average.



Sustainable

No pollution from heavy metals or corrosive acid, making BYD Iron-Phosphate batteries the most ecologically friendly on the market.



Safety

No risk of explosion or fire, no flammable gases emissions, nor harm to the health of your employees.



Opportunity Charging

Battery can be partially topped up frequently e.g. during lunch break with no detriment to battery life or capacity.



Long life

Unrivalled industrial leading 8-year/10,000 hours.



Fast-Charging

Charging power up to 16kW, with possibility to reduce charging time down to 1 hour, as compared to 8-12 hours charging time for lead acid batteries.



SEF 25/35

High Performance

80V AC motor provides comparable speed and performance to diesel forklift.

Latest technology for all users

Commonality of components, a simplified drivechain and fewer moving parts mean there is now a BYD Iron-Phosphate Battery truck to suit every application and budget.

BYD Iron-Phosphate Technology

BYD's unique battery solution outperforms and outlasts rival Lithium-ion alternatives, without compromising operational capability.



Low Maintenance

High-quality European-spec components. Reliable, tried-and-tested, robust mast and chassis. Lower maintenance due to the maintenance-free battery and AC motor components.

Simple Operation

With the option of fingertip, joystick or levers, operators benefit from familiar and intuitive controls.

Eco-Friendly

Manufactured to satisfy today's demand for low-energy, low-carbon, zero-emission industrial workplace.

Practical

Suitable for wide variety of conditions, including inside, outside and cold-store environments.

SEF25 COUNTER BALANCE FORKLIFT SPECIFICATIONS

Characteristic	1.1	Manufacturer			BYD
	1.2	Model			SEF25
	1.3	Drive			Electric
	1.4	Operation type			Seat
	1.5	Rated capacity	Q	kg	2500
	1.6	Load Centre	c	mm	500
	1.7	Load distance, centre of drive axle to fork	x	mm	425
	1.8	Wheelbase	y	mm	1505
Weights	2.1	Service weight (incl. Battery)		kg	4200
	2.2	Axle load, with load, front/rear		kg	5830/890
	2.3	Axle load, without load, front/rear		kg	1793/2427
Wheels	3.1	Tyres			SE
	3.2	Tyre Size, Front			21x8-9
	3.3	Tyre Size, Rear			18x7-8
	3.4	Wheels, number front rear (X=driven wheels)			2x/2
	3.5	Track Width, Front	b10	mm	970
	3.6	Track Width, Rear	b11	mm	955
Dimensions	4.1	Tilt of mast forward/backward	α/b	deg	5/9
	4.2	Height, mast lowered	h1	mm	2290
	4.3	Free Lift	h2	mm	140
	4.4	Lift height	h3	mm	3500
	4.5	Height, mast extended	h4	mm	4540
	4.6	Height of overhead guard	h6	mm	2195
	4.7	Seat height	h7	mm	1100
	4.8	Coupling height	h10	mm	333
	4.9	Overall Length	l1	mm	3375
	4.10	Length to face of forks	l2	mm	2305
	4.11	Overall Width	b1	mm	1195
	4.12	Fork Dimensions	s/e/l	mm	40/120/1070
	4.13	Fork Carriage ISO 2328, Class/type A, B			2A
	4.14	Fork carriage width	b3	mm	1085
	4.15	Ground clearance, with load, below mast	m1	mm	95
	4.16	Ground clearance, centre of wheelbase	m2	mm	100
	4.17	Aisle width for pallets 1000x1200 crossways	Ast	mm	3646
	4.18	Aisle width for pallets 800x1200 lengthways	Ast	mm	3845
	4.19	Turning Radius	Wa	mm	2020
	4.20	Internal turning radius	b13	mm	555
Performance	5.1	Travel speed, with/without load		km/h	15/15
	5.2	Lift speed, with/without load		mm/s	420/450
	5.3	Lowering speed, with/without load		mm/s	500/400
	5.4	Max. drawbar pull, S2=5min, with/without load		kN	12.5/9.5
	5.5	Max. gradeability, S2=5min, with/without load		%	15/20
	5.6	Acceleration time, with/without load (0-10m)		s	4.9/4.3
	5.7	Service brake			Hydr.
Drive	6.1	Drive motor rating S2 60 min.		kW	8.5
	6.2	Lift motor rating at S3 15%		kW	20.7
	6.3	Battery voltage, nominal capacity K5		V/Ah	80/270
	6.4	Battery weight		kg	350
Others	7.1	Type of drive control			AC
	7.2	Operating pressure for attachments		Mpa	16.8
	7.3	Sound level at the driver's ear		dB(A)	≤75
	7.4	Towing coupling, type			PIN
		Battery Type			Lithium Iron-Phosphate

*BYD reserves the right to alter and modify the design, features and technical parameters of its products at any given time and without pre-advice, as products are subject to ongoing and continuous development.

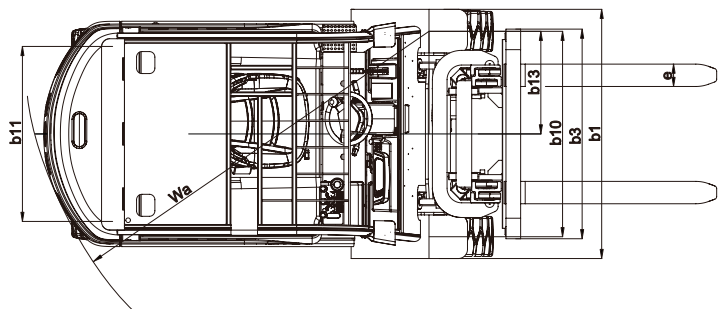
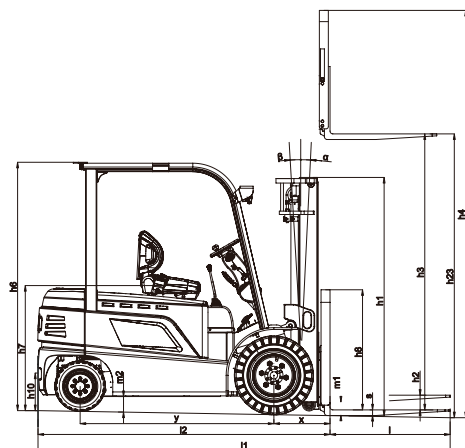
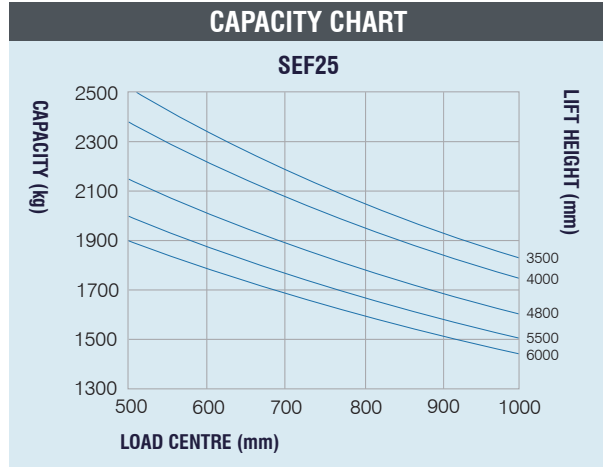
SEF25 MAST TABLE

- h3** Lifting Height (mm) **h2** Full Free Lift Height (mm) (Load Backrest 1000mm) **h1** Height, Mast Fully Lowered (mm)
h4 Height, Mast Fully Extended (mm) (Load Backrest 1000mm) **α** Tilt Forward **β** Tilt Backward

Mast spec (mm)	h3	h2 (with backrest)	h1	h4	α	β	Residual Capacity (kg) (without attachment)	
							SEF25 @500MM/@600MM	
Standard Mast	3500	140	2290	4540	5°	9°	2519	2326
	4000	140	2540	5040	5°	9°	2381	2204
2-stage FFL mast	3500	1290	2290	4540	5°	9°	2519	2326
	4000	1540	2540	5040	5°	9°	2381	2204
3-stage single FFL	4800	1193	2193	5840	5°	6°	2160	2008
	5500	1493	2493	6540	5°	6°	2004	1869
	6000	1693	2693	7040	5°	6°	1899	1775

*For special request, please contact BYD.

LOADING CAPACITY



SEF35 COUNTER BALANCE FORKLIFT SPECIFICATIONS

Characteristic	1.1	Manufacturer			BYD
	1.2	Model			SEF35
	1.3	Drive			Electric
	1.4	Operation type			Seat
	1.5	Rated capacity	Q	kg	3500
	1.6	Load Centre	c	mm	500
	1.7	Load distance, centre of drive axle to fork	x	mm	500
	1.8	Wheelbase	y	mm	1725
Weights	2.1	Service weight (incl. Battery)		kg	5600
	2.2	Axle load, with load, front/rear		kg	8113/987
	2.3	Axle load, without load, front/rear		kg	2584/3016
Wheels	3.1	Tyres			SE
	3.2	Tyre Size, Front			28x9-15
	3.3	Tyre Size, Rear			200/50-10
	3.4	Wheels, number front rear (X=driven wheels)			2x/2
	3.5	Track Width, Front	b10	mm	1120
	3.6	Track Width, Rear	b11	mm	955
Dimensions	4.1	Tilt of mast forward/backward	α/b	deg	5/8
	4.2	Height, mast lowered	h1	mm	2355
	4.3	Free Lift	h2	mm	130
	4.4	Lift height	h3	mm	3500
	4.5	Height, mast extended	h4	mm	4300
	4.6	Height of overhead guard	h6	mm	2215
	4.7	Seat height	h7	mm	1140
	4.8	Coupling height	h10	mm	333
	4.9	Overall Length	l1	mm	3670
	4.10	Length to face of forks	l2	mm	2600
	4.11	Overall Width	b1	mm	1360
	4.12	Fork Dimensions	s/e/l	mm	50/125/1070
	4.13	Fork Carriage ISO 2328, Class/type A, B			3A
	4.14	Fork carriage width	b3	mm	1145
	4.15	Ground clearance, with load, below mast	m1	mm	110
	4.16	Ground clearance, centre of wheelbase	m2	mm	130
	4.17	Aisle width for pallets 1000x1200 crossways	Ast	mm	3970
	4.18	Aisle width for pallets 800x1200 lengthways	Ast	mm	4170
	4.19	Turning Radius	Wa	mm	2270
	4.20	Internal turning radius	b13	mm	560
Performance	5.1	Travel speed, with/without load		km/h	15/16
	5.2	Lift speed, with/without load		mm/s	420/450
	5.3	Lowering speed, with/without load		mm/s	500/400
	5.4	Max. drawbar pull, S2=5min, with/without load		kN	12.5/9.5
	5.5	Max. gradeability, S2=5min, with/without load		%	15/20
	5.6	Acceleration time, with/without load (0-10m)		s	4/4.5
	5.7	Service brake			Hydr.
Drive	6.1	Drive motor rating S2 60 min.		kW	21.5
	6.2	Lift motor rating at S3 15%		kW	24
	6.3	Battery voltage, nominal capacity K5		V/Ah	80/540
	6.4	Battery weight		kg	620
Others	7.1	Type of drive control			AC
	7.2	Operating pressure for attachments		Mpa	18
	7.3	Sound level at the driver's ear		dB(A)	≤75
	7.4	Towing coupling, type			PIN
		Battery Type			Lithium Iron-Phosphate

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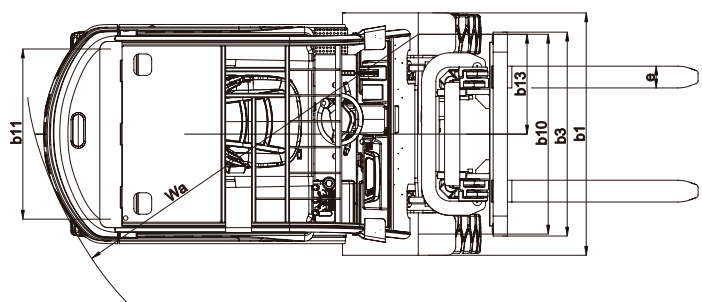
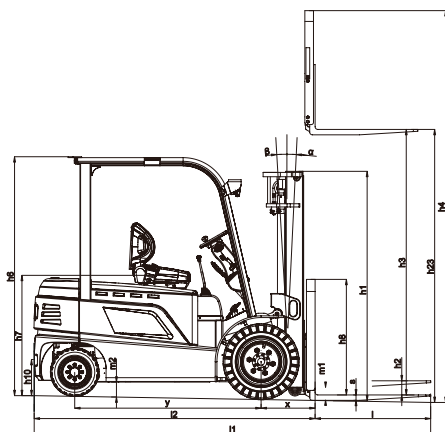
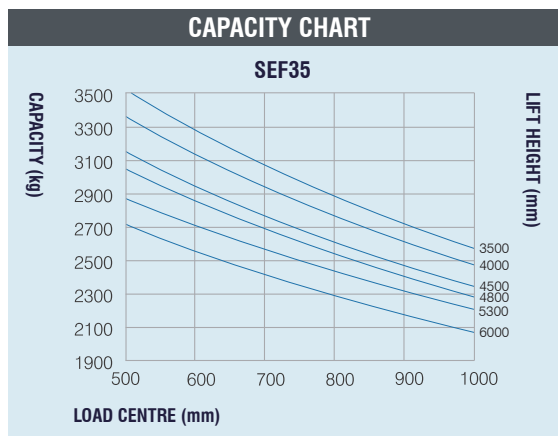
SEF35 MAST TABLE

- h3** Lifting Height (mm) **h2** Full Free Lift Height (mm) (Load Backrest 1070mm) **h1** Height, Mast Fully Lowered (mm)
h4 Height, Mast Fully Extended (mm) (Load Backrest 1070mm) **α** Tilt Forward **β** Tilt Backward

Mast spec (mm)	h3	h2 (with backrest)	h1	h4	α	β	Residual Capacity (kg) (without attachment)	
							SEF35 @500MM/@600MM	
Standard Mast	3500	130	2355	4300	5°	8°	3500	3254
	4000	130	2605	4800	5°	8°	3350	3108
2-stage FFL mast	3500	1605	2355	4300	5°	8°	3500	3254
	4000	1855	2605	4800	5°	8°	3350	3108
3-stage single FFL	4500	1505	2255	5300	5°	6°	3150	2929
	4800	1605	2355	5600	5°	6°	3059	2848
	5300	1770	2520	6100	5°	6°	2821	2632
	6000	2000	2750	6800	5°	6°	2720	2546

*For special request, please contact BYD.

LOADING CAPACITY



SMART INVESTMENT FOR ALL

The cost-effective BYD SEF range of forklift trucks brings the many advantages of BYD Iron-Phosphate battery technology to all customers regardless of their budget or intensity of operation.

		DIESEL FORKLIFT	LEAD-ACID BATTERY FORKLIFT	STANDARD LITHIUM-ION FORKLIFT	BYD IRON- PHOSPHATE FORKLIFT
LOW INITIAL PURCHASE COST		✓	✗	✗	✗
LOW TOTAL COST OF OWNERSHIP		✗	✗	✓	✓
LOW OPERATIONAL COST		✗	✗	✓	✓
LOW SERVICE COSTS		✗	✗	✓	✓
HIGH RESIDUAL VALUE		✗	✗	✓	✓
RUNS ON RENEWABLE ENERGY		✗	✓	✓	✓
PRESENTS GREEN IMAGE		✗	✗	✓	✓
OUTSIDE OPERATION		✓	✓	✓	✓
INSIDE OPERATION		✗	✓	✓	✓
QUIET IN OPERATION		✗	✓	✓	✓
SMOOTH IN OPERATION		✗	✓	✓	✓
ENERGY EFFICIENT		✗	✗	✓	✓
EMISSION-FREE AT POINT OF USE:	NITROGEN OXIDE NO _x	✗	✓	✓	✓
	HYDROCARBON C _n H _(2n+2)	✗	✓	✓	✓
	PARTICULATES	✗	✓	✓	✓
EMISSION-FREE AT POINT OF CHARGE:	ACID FUMES	▪	✗	✓	✓
	ACID SPILLAGE	▪	✗	✓	✓
MAINTENANCE-FREE BATTERY		▪	✗	✓/*	✓
ONE BATTERY PER TRUCK		▪	✗	✓/✗*	✓
CAN OPERATE FULL SHIFT WITHOUT REFUELLING/ RECHARGING		✓	✗	✓/✗	✓
FAST RECHARGE		▪	✗	✓	✓
OPPORTUNITY CHARGING		▪	✗	✓	✓
SUITABLE FOR FOOD MANUFACTURING ENVIRONMENTS		✗	✓	✓	✓
CAN OPERATE IN PROXIMITY TO WORKERS		✗	✓	✓	✓
NIMBLE/MANOUEVRABLE		✗	✓	✓	✓
LITTLE SPACE REQUIRED TO RECHARGE/REFUEL		✗	✗	✓	✓
LITTLE INFRASTRUCTURE INVESTMENT REQUIRED TO RECHARGE/REFUEL		✗	✗	✓	✓
REQUIRES NO BATTERY LIFTING/CHANGING EQUIPMENT		▪	✗	✓	✓
BATTERY DISPOSAL – NON-HAZARDOUS WASTE		▪	✗	✗	✓
REDUCED FIRE HAZARD		✗	✗	✗	✓
REDUCED EXPLOSION HAZARD		✗	✗	✗	✓
8-YEAR/10,000 CHARGE WARRANTY		✗	✗	✗	✓
BATTERY & CHARGING EQUIPMENT MANUFACTURED IN-HOUSE BY FORKLIFT MAKER		✗	✗	✗	✓

▪ denotes not applicable or not relevant

*most standard lithium-ion batteries cannot last a full 8-hour shift

STANDARD FEATURES

- 80V Single AC drive motor with gearbox driving both wheels
- 4.8m 3-stage FFL Mast with single FFL
- Hook-on side shifter
- 4-Way Hydraulic valve
- Full LED lights
- 80V 270Ah (SEF25)/540Ah (SEF35)
- MSG45 seat(basic model)/ MSG65 seat (Comfort model)
- 80V 100A IGBT Charger
- 1070mm forks
- Super Elastic solid tyres



OPTIONAL FEATURES

- Mast variants
- Hook-on fork positioner
- MSG 65 Textile/Leather seat
- Full cabin options
- Lights option (Flashing beacon/spot light/rear working light)
- Panoramic Mirror
- Storage box with USB port
- 80V 200A IGBT Charger
- Non-marking tyres





BYD Europe B.V.

📍 's-Gravelandseweg 256, 3125 BK Schiedam, The Netherlands

☎ 0031 1020 70888

✉ forklift@byd.com

🌐 www.bydforklift.com



BYD forklifts conform to the European Safety Requirements

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