



# SEF25/30/35

BYD Electrical forklift/Single-motor  
(2500 kg/3000 kg/3500 kg)

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  
**600,000** 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
	1.8	Load distance, centre of drive axle to fork	x	mm	425
	1.9	Wheelbase	y	mm	1505
Weights	2.1	Service weight (incl. Battery)		kg	4220
	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
	3.5	Wheels, number front rear (X=driven wheels)			2x/2
	3.6	Track Width, Front	b10	mm	970
	3.7	Track Width, Rear	b11	mm	955
Dimensions	4.1	Tilt of mast forward/backward	a/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
	4.7	Height of overhead guard	h6	mm	2195
	4.8	Seat height	h7	mm	1100
	4.12	Coupling height	h10	mm	333
	4.19	Overall Length	l1	mm	3375
	4.20	Length to face of forks	l2	mm	2305
	4.21	Overall Width	b1	mm	1195
	4.22	Fork Dimensions	s/e/l	mm	40/120/1070
	4.23	Fork Carriage ISO 2328, Class/type A, B			2A
	4.24	Fork carriage width	b3	mm	1085
	4.31	Ground clearance, with load, below mast	m1	mm	95
	4.32	Ground clearance, centre of wheelbase	m2	mm	100
	4.33	Aisle width for pallets 1000x1200 crossways	Ast	mm	3646
	4.34	Aisle width for pallets 800x1200 lengthways	Ast	mm	3845
	4.35	Turning Radius	Wa	mm	2020
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
	5.6	Max. drawbar pull, S2=5min, with/without load		kN	12.5/9.5
	5.8	Max. gradeability, S2=5min, with/without load		%	15/20
	5.9	Acceleration time, with/without load (0-10m)		s	4.9/4.3
	5.10	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
	6.4	Battery voltage, nominal capacity K5		V/Ah	80/270
	6.5	Battery weight		kg	350
	8.1	Type of drive control			AC
Others	8.2	Operating pressure for attachments		Mpa	16.8
	8.4	Sound level at the driver's ear		dB(A)	≤75
	8.5	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.

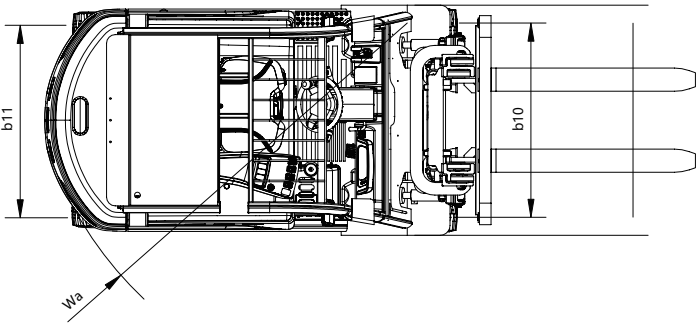
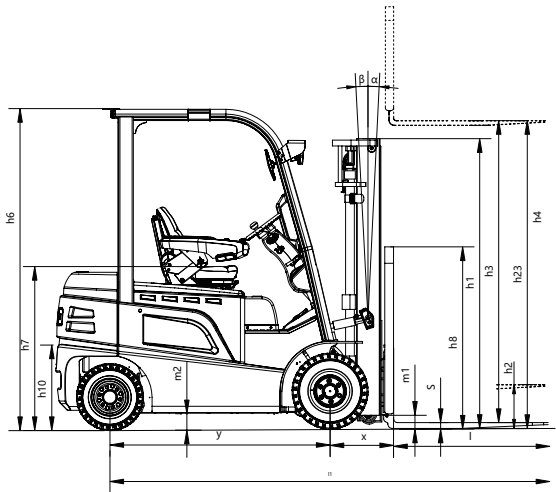
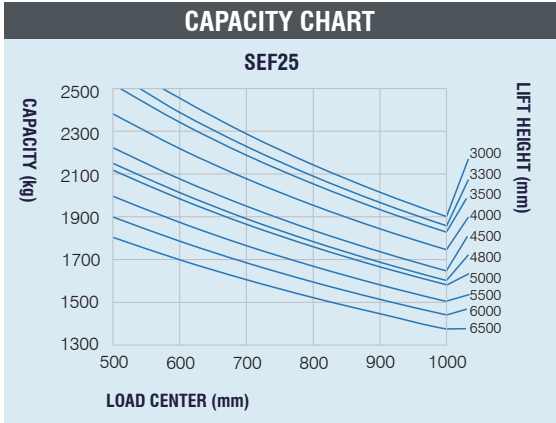
# SEF25 MAST TABLE

- 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	SEF25@600MM
Standard Mast	3000	140	1990	4240	5°	9°	2500	2455
	3500	140	2290	4740	5°	9°	2500	2342
	4000	140	2540	5240	5°	9°	2381	2219
	4500	140	2840	5740	5°	6°	2233	2086
	5000	140	3090	6240	5°	6°	2117	1982
2-stage FFL mast	3000	840	2040	4240	5°	9°	2500	2455
	3500	1090	2290	4740	5°	9°	2500	2342
	4000	1340	2540	5240	5°	9°	2381	2219
3-stage single FFL	4000	743	1943	5240	5°	6°	2381	2219
	4500	893	2093	5740	5°	6°	2233	2086
	4800	993	2193	6040	5°	6°	2160	2021
	5000	1093	2293	6240	5°	6°	2117	1982
	5500	1293	2493	6740	5°	6°	2004	1881
	6000	1493	2693	7240	5°	6°	1808	1768
	6500	1643	2843	7740	5°	3°	1759	1679

\*For special request, please contact BYD.

## LOADING CAPACITY



# SEF30/35 COUNTER BALANCE FORKLIFT SPECIFICATIONS

Characteristic	1.1	Manufacturer			BYD	BYD
	1.2	Model			SEF30	SEF35
	1.3	Drive			Electric	Electric
	1.4	Operation type			Seat	Seat
	1.5	Rated capacity	Q	kg	3000	3500
	1.6	Load Centre	c	mm	500	500
	1.8	Load distance, centre of drive axle to fork	x	mm	500	500
	1.9	Wheelbase	y	mm	1725	1725
Weights	2.1	Service weight (incl. Battery)		kg	5270	5600
	2.2	Axle load, with load, front/rear		kg	7311/959	8113/987
	2.3	Axle load, without load, front/rear		kg	2459/2811	2584/3016
Wheels	3.1	Tyres			SE	SE
	3.2	Tyre Size, Front			28x9-15	28x9-15
	3.3	Tyre Size, Rear			200/50-10	200/50-10
	3.5	Wheels, number front rear (X=driven wheels)			2x/2	2x/2
	3.6	Track Width, Front	b10	mm	1120	1120
	3.7	Track Width, Rear	b11	mm	955	955
Dimensions	4.1	Tilt of mast forward/backward	a/b	deg	5/8	5/8
	4.2	Height, mast lowered	h1	mm	2105	2105
	4.3	Free Lift	h2	mm	130	130
	4.4	Lift height	h3	mm	3000	3000
	4.5	Height, mast extended	h4	mm	4000	4000
	4.7	Height of overhead guard	h6	mm	2215	2215
	4.8	Seat height	h7	mm	1140	1140
	4.12	Coupling height	h10	mm	333	333
	4.19	Overall Length	l1	mm	3670	3670
	4.20	Length to face of forks	l2	mm	2600	2600
	4.21	Overall Width	b1	mm	1360	1360
	4.22	Fork Dimensions	s/e/l	mm	45/125/1070	50/125/1070
	4.23	Fork Carriage ISO 2328, Class/type A, B			3A	3A
	4.24	Fork carriage width	b3	mm	1145	1145
	4.31	Ground clearance, with load, below mast	m1	mm	110	110
	4.32	Ground clearance, centre of wheelbase	m2	mm	130	130
	4.33	Aisle width for pallets 1000x1200 crossways	Ast	mm	3970	3970
	4.34	Aisle width for pallets 800x1200 lengthways	Ast	mm	4170	4170
	4.35	Turning Radius	Wa	mm	2270	2270
Performance	5.1	Travel speed, with/without load		km/h	15/15	15/15
	5.2	Lift speed, with/without load		mm/s	380/450	380/450
	5.3	Lowering speed, with/without load		mm/s	550/450	550/450
	5.6	Max. drawbar pull, S2=5min, with/without load		kN	14/14	14/14
	5.8	Max. gradeability, S2=5min, with/without load		%	15/20	15/20
	5.9	Acceleration time, with/without load (0-10m)		s	4/4.5	4/4.5
	5.10	Service brake			Hydr.	Hydr.
Drive	6.1	Drive motor rating S2 60 min.		kW	21.5	21.5
	6.2	Lift motor rating at S3 15%		kW	24	24
	6.4	Battery voltage, nominal capacity K5		V/Ah	80/540	80/540
	6.5	Battery weight		kg	560	560
Others	8.1	Type of drive control			AC	AC
	8.2	Operating pressure for attachments		Mpa	16	18
	8.4	Sound level at the driver's ear		dB(A)	≤75	≤75
	8.5	Towing coupling, type			PIN	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.

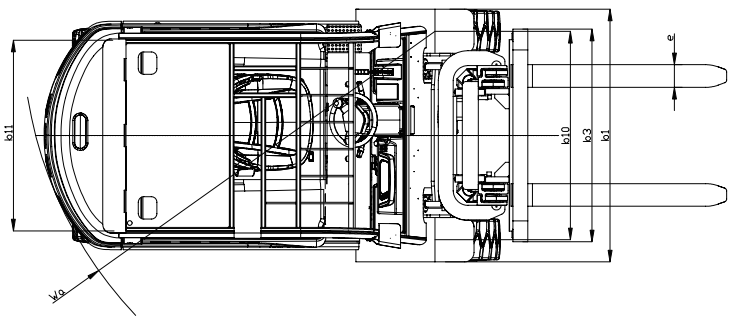
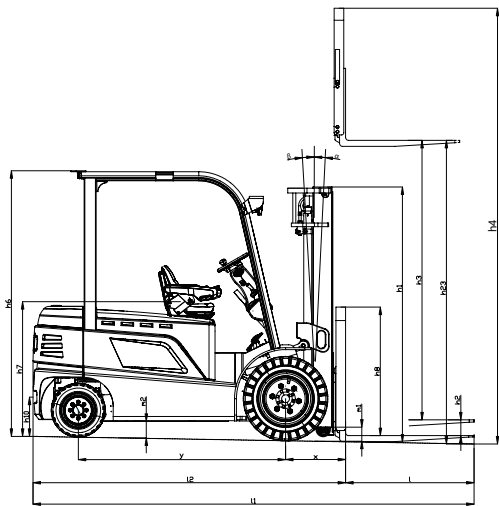
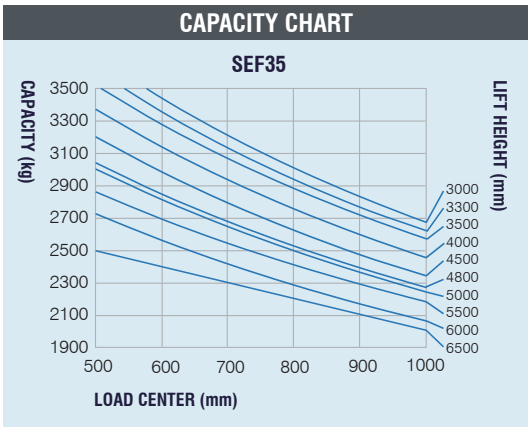
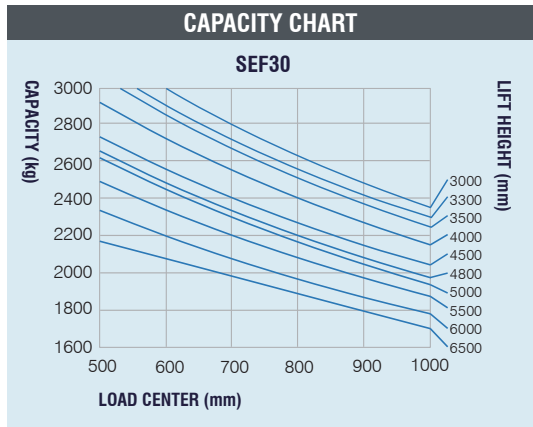
# SEF30/35 MAST TABLE

- 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)			
							SEF30 @500MM	SEF30 @600MM	SEF35 @500MM	SEF35 @600MM
Standard Mast	3000	140	1990	4240	5°	9°	3000	3000	3500	3329
	3500	140	2290	4740	5°	9°	3000	2960	3414	3187
	4000	140	2540	5240	5°	9°	3000	2826	3256	3045
	4500	140	2840	5740	5°	6°	2837	2660	3064	2872
	5000	140	3090	6240	5°	6°	2708	2544	2927	2750
2-stage FFL mast	3000	840	2040	4240	5°	9°	3000	3000	3500	3329
	3500	1090	2290	4740	5°	9°	3000	2960	3414	3187
	4000	1340	2540	5240	5°	9°	3000	2826	3256	3045
3-stage single FFL	4000	743	1943	5240	5°	6°	3000	2826	3256	3045
	4500	893	2093	5740	5°	6°	2837	2660	3064	2872
	4800	993	2193	6040	5°	6°	2754	2585	2977	2794
	5000	1093	2293	6240	5°	6°	2708	2544	2927	2750
	5500	1293	2493	6740	5°	6°	2585	2433	2798	2633
	6000	1493	2693	7240	5°	6°	2446	2306	2652	2501
	6500	1643	2843	7740	5°	3°	2306	2265	2515	2415

\*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 <sub>x</sub>	✗	✓	✓	✓
	HYDROCARBON C <sub>n</sub> H <sub>(2n+2)</sub>	✗	✓	✓	✓
	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 (SEF30/35)
- 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
- Twin tyres
- Battery options
  - 80V 270Ah battery (21.5 kWh) optional for SEF30
  - 80V 340Ah battery (27.2 kWh) optional for SEF25/30
  - 80V 540Ah battery (43.2 kWh) optional for SEF25
  - 80V 680Ah battery (54.8 kWh) optional for SEF30/35





## BYD Europe B.V.

📍 's-Gravelandseweg 256, 3125 BK Schiedam, The Netherlands  
☎ 0031 1020 70888    ✉ [forklift@byd.com](mailto:forklift@byd.com)    🌐 [www.bydforklift.com](http://www.bydforklift.com)



BYD forklifts conform to the European Safety Requirements

Printed in February 2023