



ELECTRIC FORKLIFT

LIFT TRUCKS

SETTING INTERNATIONAL STANDARDS



3-WHEEL ELECTRIC FORKLIFT

Web Site : www.banngai.com
www.superform.com.my

"Pictured here with optional non marking tyres."

1, Performance

Drive Motor

- 1, Advanced AC drive motor has high traction power and driving dynamics, whether on uneven ground or when working on ramps.
- 2, The maintenance-free and highly efficient AC motor (dust and water jet protected) guarantees a long battery operating life.
- 3, Two independent, double heavy duty, drive unit gears are constantly lubricated in an oil bath, is quiet and reliable, thus providing years of trouble-free service.

AC Controller (ZAPI-made in Italy)

- 1, Regenerative braking charges the battery, increasing stored power even while operating.
- 2, AC technology on traction and lifting allows the truck to work more reliably and for longer shifts.
- 3, The intelligent programmable LCD can display the fault code, keeping the operator and service engineer aware of any problems, speed up servicing and help prevent damage.

Brake

- 1, Maintenance-free braking system makes braking safe, comfortable and durable.
- 2, Motor brake for regenerative braking during deceleration.
- 3, Automatically engaging parking brake for secure stopping, even on ramps.
- 4, Long service life of wet disc brake.

Hydraulics

- 1, Powerful UK made AC hydraulic motor provides high torque for rapid but smooth-and controlled-lifting and lowering.

Steering System

- 1, The main hydraulic pump delivers on-demand power steering only when steering is required, making for low battery consumption.
- 2, Two drive motors matches to the controller to deliver smooth steering at all angles, this helps the truck to accelerate, turn and manoeuvre even from a full turn start position.

Mast

- 1, High strength steel mast sections with combined mast rollers are constructed for low mast deflection and high rigidity.
- 2, Cylinders are placed behind the rails to create a wide view.
- 3, Flow limiting control valves regulate carriage lowering speed, even in the event of a hose failure.
- 4, Full I-section mast channel provides maximum section strength.





2, Operability, Ergonomics & Safety

- 1, Spacious operator compartment.
- 2, Large steering wheel tilt angle adjustment.
- 3, Dual power steering motors ensures light operation.
- 4, Ergonomically designed control levers, situated closer to the operator for easy reach.
- 5, Logical layout of instrument panel enables the operator to easily be aware of the truck's status.



2, Operability, Ergonomics & Safety

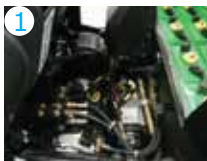
- 6, Roomy pedal area, long unique, low handrail design, enables the operator to mount and dismount easily and safely.
- 7, Ergonomically designed easy-grip handrail also makes it safer when reversing the truck.
- 8, Spacious and comfortable sports seat with side bolsters.
- 9, Large arc rear-view mirror with wide view.
- 10, Wide view mast increases operation efficiency.
- 11, Emergency stop button is right beside operator's hand, therefore it can be immediately cut off in shortest time.





3, Serviceability

- 1, Reasonable layout of driving motor, pump motor and brake pedal, optimized oil pipe arrangement and easily removed footrest, makes it easy to test, repair and replace.
- 2, Easily removed side frame cover of battery box, makes maintenance easier for the battery.
- 3, Easy access to brake fluid reservoir for replenishment when necessary.
- 4, The AC Drive Motor is brushless and highly reliable, therefore drastically reducing maintenance time and labour.
- 5, High quality American AMP connectors, prevents moisture and contaminants from interrupting truck operation in all environments, plus all the wires and cables are reliably protected and fixed this greatly reduces electrical error.
- 6, The pedal board opens without the need for tools making it easy to check the drive motor, cabling, hosing, etc.



3-wheel Electric Forklift Specification ฟอร์คลิฟไฟฟ้า 3 ล้อ

Specification		
1	Model รุ่น	
2	Rated capacity ความจุ	kg
3	Load center จุดโหลด	mm
4	Lifting height ความสูงสูงสุดของเสา	mm
5	Free lifting height ระยะฟรีของงาข	mm
6	Fork size	s×e×l mm
7	Tilting angle องศาการปรับองศาข	F/R Deg
Dimensions ขนาด		
8		Length to face of fork ความยาวงาข mm
9		Width ความกว้างงาข mm
10	Overall Dimension ขนาด	Height when mast lowered ความสูงของเสา mm
11		Height when mast lifting ความสูงสูงสุดของเสา mm
12		Height to safeguard ความสูงของโครงสร้าง mm
13		Height seat ความสูงของเบาะนั่ง mm
14	Turning radius รัศมี	Min mm
15	Overhand ความสูงโครงสร้างหลังคา	Front mm
16	Tread(Front/Rear) ระยะจากล้อซ้าย-ขวา (หน้า/หลัง)	mm
17	Ground clearance ระยะระหว่างพื้นกับตัวรถ	Min mm
18	Wheelbase ระยะระหว่างล้อหน้า-หลัง	mm
19	Fork spread ระยะการปรับงาขออก	Min/max mm
20	Working aisle ขนาดพื้นที่ปฏิบัติงาน	crossways mm
21	width with pallet(Ast)	lengthways mm
Performance		
22		Travel(Laden) ความเร็วการขับเคลื่อน(บรรทุก) km/h
23		Travel(Unladen) ความเร็วการขับเคลื่อน(ไม่บรรทุก) km/h
24	Speed ความเร็ว	Lifting(Laden) ความเร็วการยก(บรรทุก) mm/s
25		Lifting(Unladen) ความเร็วการยก(ไม่บรรทุก) mm/s
26		Lowering(Laden) ความเร็วการลดระดับงาข(บรรทุก) mm/s
27		Lowering(Unladen) ความเร็วการลดระดับงาข(ไม่บรรทุก) mm/s
28	Gradeability	Laden บรรทุก %
29		Unladen ไม่บรรทุก %
30	Service weight น้ำหนัก	Include battery box น้ำหนักรวมแบตเตอรี่ kg
31	Tyre ยาง	Front×2 ล้อหน้า
32		Rear×2 ล้อหลัง
Driven		
33	Motor มอเตอร์	Driven motor มอเตอร์ขับเคลื่อน kw
34		Pump motor มอเตอร์ยก kw
35	Battery แบตเตอรี่	standard แบตเตอรี่มาตรฐาน V/AH
36	Controller ระบบการควบคุม	Type ชนิด
37		Manufacturer ผู้ผลิต
38	Operating pressure for attachment แรงกดที่มีต่ออุปกรณ์เสริม	Mpa
39	Noise level ระดับเสียง	dB(A)

EF13TV	EF16TV	EF18TV	EF20TV
1300	1600	1800	2000
500	500	500	500
3000	3000	3000	3000
120	120	120	120
40×100×920/1220	40×100×920/1220	40×100×920/1200	40×100×1070/1220
6/6.5	6/6.5	6/6.5	6/6.5
1830	1930	1930	2040
1050	1050	1050	1050
1995	1995	1995	1995
3945	3945	3945	3945
2040	2040	2040	2040
855	855	855	855
1445	1555	1555	1665
375	375	375	375
902/175	902/175	902/175	902/175
95	95	95	95
1258	1358	1358	1468
200/1000	200/1000	200/1000	200/1000
3166	3276	3276	3385
3265	3370	3370	3485
13	13	13	13
14	14	14	14
300	280	280	260
430	430	430	430
440	440	440	440
435	435	435	435
10.5	10.5	10.5	10.5
14.5	14.5	14.5	14.5
2860	3100	3160	3430
18X7-8	18X7-8	18X7-8	18X7-8
15X4.5-8	15X4.5-8	15X4.5-8	15X4.5-8
9	9	9	9
11	11	11	11
48/400	48/500	48/500	48/500
AC	AC	AC	AC
ZAPI	ZAPI	ZAPI	ZAPI
14.5	14.5	14.5	14.5
68	70	70	74

TV MAST CHART

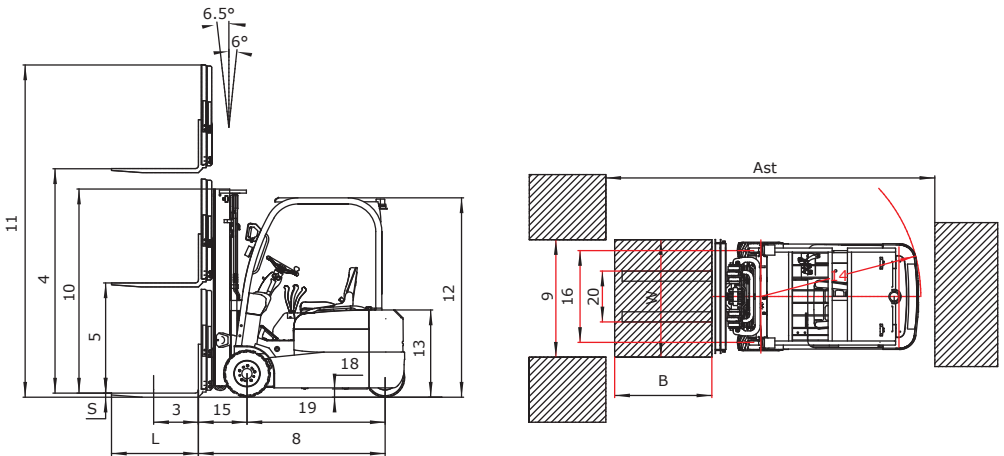
Type

Model รุ่น	Max.fork height ความสูงขั้นต่ำจาก mm	Overall height ความสูงทั้งหมด			Free lift ระยะฟรีของงาข		Front Overhang ระยะห่างแผงกับคูลูกศรหน้า			
		Lowered	Extended		Without backrest	With backrest	1.3t	1.6t	1.8t	2.0t
			Without backrest	With backrest						
		mm	mm	mm	mm	mm	mm	mm	mm	mm
Wide view mast										
2W300	3000	1995	3585	3955	120	120	375	375	375	375
2W330	3300	2145	3885	4255	120	120	375	375	375	375
2W350	3500	2245	4085	4455	120	120	375	375	375	375
2W360	3600	2295	4185	4555	120	120	375	375	375	375
2W400	4000	2545	4585	4955	120	120	375	375	375	375
2W430	4300	2695	4885	5255	120	120	375	375	375	375
2W450	4500	2795	5085	5455	120	120	375	375	375	375
wide view full 2-stage mast										
2F250	2500	1790	3105	3455	1045	765	375	375	375	375
2F270	2700	1890	3305	3655	1145	865	375	375	375	375
2F300	3000	2040	3605	3955	1345	1105	375	375	375	375
2F330	3300	2190	3905	4255	1495	1165	375	375	375	375
2F360	3600	2340	4205	4555	1645	1315	375	375	375	375
2F400	4000	2540	4605	4955	1815	1565	375	375	375	375
wide view full 3-stage mast										
3F430	4300	1965	5070	5255	1425	1080	395	395	395	395
3F450	4500	2045	5130	5465	1485	1140	395	395	395	395
3F480	4800	2160	5445	5755	1575	1230	395	395	395	395
3F500	5000	2210	5605	5955	1665	1320	395	395	395	395
3F550	5500	2375	6120	6455	1825	1480	395	395	395	395
3F600	6000	2600	6695	6955	1975	1630	395	395	395	395

Note:With sidershifter minus 150Kg, with integral sidershifter minus 100Kg.

Tilt range ระยะปรับเอียงภา		Capacity ความจุ								
FWD เดินหน้า	BWD ถอยหลัง	Load capacity at 500 mm ระยะจุดไหลศที่ 500 mm								
		Single tire ล้อเดี่ยว				Double tire ล้อคู่				
		1.3t	1.6t	1.8t	2.0t	1.3t	1.6t	1.8t	2.0t	
Deg	Deg	kg	kg	kg	kg	kg	kg	kg	kg	
6	6.5	1300	1600	1800	2000	1300	1600	1800	2000	
6	6.5	1300	1600	1800	2000	1300	1600	1800	2000	
6	6.5	1300	1600	1800	2000	1300	1600	1800	2000	
6	6.5	1300	1600	1800	2000	1300	1600	1800	2000	
6	6.5	1300	1500	1600	1800	1300	1600	1800	2000	
6	6.5	1200	1400	1500	1700	1300	1500	1600	1800	
6	6.5	1150	1350	1400	1600	1200	1400	1500	1700	
6	6.5	1300	1600	1800	2000	1300	1600	1800	2000	
6	6.5	1300	1600	1800	2000	1300	1600	1800	2000	
6	6.5	1300	1600	1800	2000	1300	1600	1800	2000	
6	6.5	1300	1600	1800	2000	1300	1600	1800	2000	
6	6.5	1200	1500	1700	1900	1300	1600	1800	2000	
6	6.5	1100	1350	1450	1600	1200	1500	1700	1900	
6	6.5	1050	1300	1350	1500	1100	1350	1450	1600	
6	6.5	1000	1200	1250	1400	1050	1250	1350	1500	
6	6.5	950	1150	1150	1350	1000	1200	1250	1400	
3	6	/	/	/	/	800	1100	1050	1350	
3	6	/	/	/	/	650	900	850	1150	

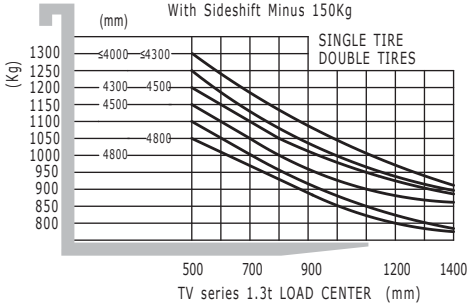
Dimensions



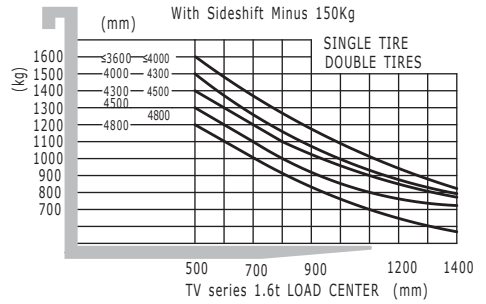
*Characters here refer to the Specification table on page 6-7 of this catalogue

Standard Features		Option	
1	AC drive system	1	3 or 4 spools control valve
2	Front capacity storage battery	2	2.0-5.0m/79-197 inch duplex mast
3	Emergency disconnect switch	3	2.5-4.0m/98-157 inch full free duplex mast
4	Rubber floor mat	4	4.3-6.5m./169-256 inch triplex mast
5	High elastic seat	5	Special carriage and backrest
6	2 Spools control valve	6	Option fork
7	3 meters 2-stage mast	7	High capacity battery
8	Adjustable steering controlled	8	Rear combined LED lamp and front combined LED lamp
9	Rearview mirror	9	Special color
10	Drive, lift, steering controlled	10	Dual drive wheel with fender
11	Rear combined lamp	11	Solid tyre
12	Beeper	12	Non marking tyre
13	Toolbox and file folder	13	Cabin
14	Hour meter, self-diagnose indicator	14	Heater
		15	Side shifter
		16	Integrated side shifter
		17	Other attachment

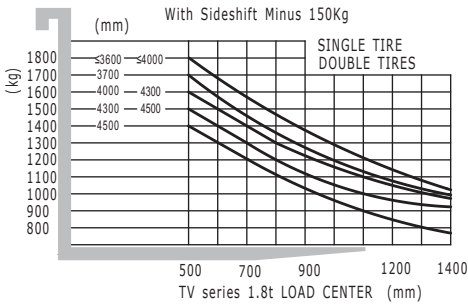
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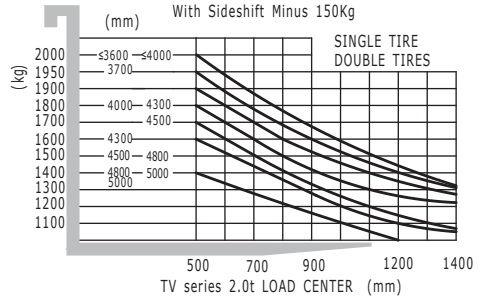
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