

ELECTRIC THREE WHEEL FORKLIFT TRUCKS

FTB-VII SERIES

SPECIFICATIONS

FTB16-7 Max. Capacity: 1,600kg / Load Center: 500mm

FTB18-7 Max. Capacity: 1,750kg / Load Center: 500mm



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STANDARD SPECIFICATIONS

		TCM		
		FTB16-7	FTB18-7	
CHARACTERISTICS	1.1	Manufacturer		
	1.2	Model designation		
	1.3	Power unit		
	1.4	Type of operation		
	1.5	kg	1600	1750
	1.6	mm	500	
	1.8	mm	360	
	1.9	mm	1355	1465
	1.9	Wheelbase		
WHEELS AND TYRES	2.1	kg	2910	3030
	2.2	kg	4020 / 490	4270 / 510
	2.3	kg	1410 / 1500	1500 / 1530
	3.1	Pneumatic / SE		
	3.2	18 x 7-8-16PR		
	3.3	15 x 4 1/2 x 8		
	3.5	2 x / 2		
	3.6	mm	910	
	3.7	mm	175	
DIMENSIONS	4.1	deg.	5 / 6	
	4.2	mm	1995	
	4.3	mm	155	
	4.4	mm	3000	
	4.5	mm	4030	
	4.7	mm	2080	
	4.8	mm	965	
	4.12	mm	520	530
	4.19	mm	2825	2935
	4.20	mm	1905	2015
	4.21	mm	1075	
	4.22	mm	920 x 100 x 35	
	4.23		2A	
	4.24	mm	1060	
	4.31	mm	110	
4.32	mm	90		
4.33	mm	3225	3335	
4.34	mm	3350	3460	
4.35	mm	1540	1650	
PERFORMANCE	5.1	km/h	15.0 / 16.5	14.5 / 16.0
	5.2	mm/s	410 / 610	400 / 610
	5.3	mm/s	450 / 550	
	5.5	kN	9.0/11.6	
	5.7	%	20.0/20.0	
	5.9	sec.	5.2 / 4.8	
	5.10	Service brake	Foot - Hydraulic wet disk	
			Parking brake	
	5.20	Hydraulic power steering		
	DRIVE	6.1	kW	5.5 x 2
6.2		kW	10.4	
6.3		DIN 43531A		
6.4		V/Ah	48 / 625	48 / 750
6.5		kg	850 - 900	1000 - 1060
6.6		kWh/h	—	
OTHER	8.1	MOS-FET Inverter		
	8.2	kg/cm ²	160	
	8.3	lit./min	—	
	8.4	dB(A)	—	
	8.5	Pin		

Note: 1) Max. battery weight 2) Super mode 3) Max. battery capacity

WIDE VIEW MAST VM

Mast Model	Capacity at 500mm:Load Center		Max. Fork Height	Overall Mast Height		Tilting Angel	Service Weight (with battery)	
	FTB16-7	FTB18-7		Lowered	Raised with Backrest		FWD/BWD	FTB16-7
	kg	kg		mm	mm	mm	deg	kg
VM270	1600	1750	2700	1845	3730	5-6	2890	3010
VM300	1600	1750	3000	1995	4030	5-6	2910	3030
VM330	1600	1750	3300	2145	4330	5-6	2930	3050
VM350	1600	1750	3500	2245	4530	5-6	2940	3060
VM370	1600	1750	3700	2345	4730	3-6	2955	3075
VM400	1600	1750	4000	2545	5030	3-6	3015	3135
VM450	1500	1650	4500	2795	5530	3-6	3045	3165
VM500	1400	1450	5000	3045	6030	3-6	3075	3195
VM550	1050	1150	5500	3345	6530	3-6	3130	3250
VM600	750	850	6000	3595	7030	3-6	3160	3260

WIDE VIEW FULL FREE 2-STAGE MAST VFM

Mast Model	Capacity at 500mm:Load Center		Max. Fork Height	Overall Mast Height			Tilting Angle	Service Weight (with battery)	
	FTB16-7	FTB18-7		Lowered	(1)Raised with Backrest	(2)Free lift with Backrest		FWD/BWD	FTB16-7
	kg	kg		mm	mm	mm	mm	deg	kg
VFM270	1600	1750	2700	1845	3730	840	5-6	2945	3065
VFM300	1600	1750	3000	1995	4030	990	5-6	2985	3085
VFM330	1600	1750	3300	2145	4330	1140	5-6	2985	3105
VFM350	1600	1750	3500	2245	4530	1240	5-6	3000	3120
VFM370	1600	1750	3700	2345	4730	1340	3-6	3010	3130
VFM400	1600	1750	4000	2545	5030	1540	3-6	3070	3190
VFM450	1500	1650	4500	2795	5530	1790	3-6	3105	3225
VFM500	1400	1450	5000	3045	6030	2040	3-6	3135	3255

WIDE VIEW FULL FREE 3-STAGE MAST VFHM

Mast Model	Capacity at 500mm:Load Center		Max. Fork Height	Overall Mast Height			Tilting Angle	Service Weight (with Battery)	
	ETB16-7	FTB18-7		Lowered	(1)Raised with Backrest	(2)Free lift with Backrest		FWD/BWD	FTB16-7
	kg	kg		mm	mm	mm	mm	deg	kg
VFHM390	1450	1650	3600	1745	4630	740	3-6	3035	3155
VFHM400	1450	1650	4000	1870	5030	865	3-6	3060	3180
VFHM435	1400	1550	4350	1995	5380	990	3-6	3080	3200
VFHM480	1350	1450	4800	2145	5830	1140	3-6	3110	3230
VFHM500	1250	1350	5000	2245	6030	1240	3-6	3130	3250
VFHM550	900	1000	5500	2410	6530	1405	3-6	3155	3275
VFHM600	700	800	6000	2595	7030	1590	3-6	3215	3335

NOTE :

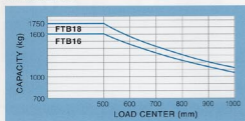
- (1) For height without backrest: - 463mm
 (2) For free lift without backrest: + 465mm
 Weight for without backrest: - 15kg

Lifting speed with VFM/VFHM mast: See below table
 Lowering speed with VFM/VFHM mast: See below table
 Overall vehicle length with VFHM mast: +25mm longer than of standard model with VM mast.

LIFTING & LOWERING SPEED

Speed (mm/s)		Mast Type	VM		VFM		VFHM	
		MODEL	FTB16-7	FTB18-7	FTB16-7	FTB18-7	FTB16-7	FTB18-7
Lifting speed (48v)	without load.	Super		610		530		560
		Power		590		510		540
		Economy		570		490		520
	with load.	Super	410	400	350	340	370	360
		Power	400	390	340	330	360	350
		Economy	390	380	330	320	350	340
Lowering speed	without load.	—	550		370		370	
	with load.	—	450		420		420	

LOAD CHART



BATTERY COMPARTMENT

Model	Battery compartment (Inner dimensions L x W x H)	Battery case size (Inner dimensions L x W x H)
FTB16-7	640 x 837 x 630	621 x 818 x 625
FTB18-7	750 x 837 x 630	731 x 818 x 625

STANDARD EQUIPMENT AND ACCESSORIES

EQUIPMENT

- AC system
- Anti-roll back system
- Battery case
- Cylinder type bonnet stay with locking function
- Comfortable suspension seat with bell
- Deadman safety system ¹⁾
- Drawbar device
- Emergency battery shut-off switch
- E rating of UL configuration (for North America) ²⁾
- Forks with 920mm long
- Hyd. control 3-spool valve with pressure relief
- Hydraulic power steering
- Hydraulic return filter
- Hydraulic suction filter
- ITA class II carriage
- Level gauge for hydraulic oil
- Load backrest
- Load check valve

- Over-discharge prevention system
- Overhead guard
- Regenerative braking system
- Shock-less cylinder (VM)
- Tilt adjustable steering post
- Tilt lock system
- Two stage wide view mast (VM300)
- Tyres

CONTROLS

- Electric controlled direction change lever
- Hydraulic control levers (Lift, tilt, 3rd)
- Parking brake system with interlock
- Power mode (Super/Power/Economy) select switch
- Speed control switch
- Turn signal lights with self-cancelling mechanism

INSTRUMENT AND SWITCHES

- Combined type switch lever (Lighting & turn signal)
- Horn button
- Main key switch
- LCD digital display
 - Battery charge/discharge level indicator
 - Battery discharge warning indicator
 - Controller overheat warning indicator
 - Electric motors overheat warning indicator
 - Hourmeter
 - Neutral indicator & safety warning
 - Parking brake indicator
 - Power mode (Super/Power/Economy) indicator
 - Self-diagnostic function display
 - Speed control operating indicator
 - Speedometer

ACCESSORIES

- Back-up buzzer
- Classy rubber floor mat
- Electric horn
- Front combination lights (turn signal & clearance)
- Headlights
- Hand assisted grip
- High-mounted rear combination lights (tail, brake, back-up, turn signal and reflector)
- Side view mirror

OPTIONAL EQUIPMENT AND ACCESSORIES

EQUIPMENT

- Auto-power-off system
- Auxiliary hydraulic valve modules(4 spool valve)
- Battery 48V JIS-type³⁾ 440Ah, 470Ah, 565Ah (FTB18 only)
- Battery charger (stationary type)
- Battery under plate
- Central battery electrolyte refilling system
- Cold-storage & fishery package (-35°C, -45°C)
- Cold-storage package (-35°C)

- ES rating of UL configuration (For North America) ²⁾
- Fingertip loading levers control
- Fishery industry package
- Front SE tyre
- Lift lock system
- Low-profile overhead guard (1995mm)
- Rotating warning light(red,yellow)
- Rotating warning light linked with back-up buzzer
- Steering knob auto-return mechanism
- 2-pedal brake configuration

ACCESSORIES

- Center mirror
- Custom coloring paint (TCM yellow, others)
- Fire extinguisher
- Head light guard
- Operator hand tool kit
- Overhead guard canvas
- Rear working light
- Tilt cylinder boot

OPTIONAL LOADING ATTACHMENT

- Alternative fork lengths
- Fork extension sleeves
- High & wide type load backrest
- Side shift (hook-on, integral type)
- Wide type fork carriage
- Wide view full free 2-stage (VFM) mast
- Wide view full free 3-stage (VFHM) mast

Others on request

Notes:

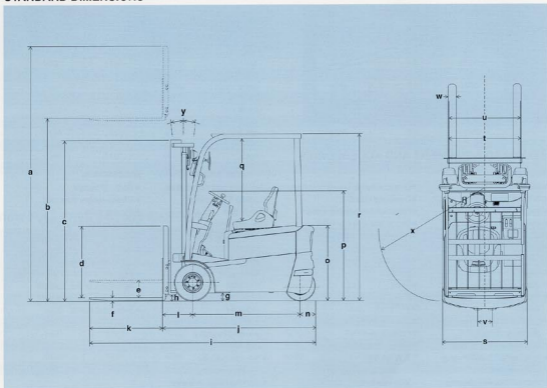
- 1) STD for Europe/North America trucks
- 2) Insurance classification
- 3) Excluding Europe/North America configurations

- These TCM lifttrucks meet the following major standards:
JIS D6001 Forklift trucks
JIS D6011 Stability & safety test
JIS D6021 Overhead guard
ISO 1074 Counter balanced lifttrucks, stability & safety test
ISO 3691 Powered industrial trucks-safety code
ISO 6055 Overhead guard

- In conformity with provision of the Machinery Directive 98/37/EC, as amended, and with National implementing legislation



STANDARD DIMENSIONS



(mm)

	FTB16-7	FTB18-7
a	4030	4030
b	3000	3000
c	1995	1995
d	1005	1005
e	155	155
f	35	35
g	90	90
h	110	110
i	2825	2935
j	1905	2015
k	920	920
l	360	360
m	1355	1465
n	190	190
o	930	930
p	1360	1360
q	1085	1085
r	2080	2080
s	1075	1075
t	920	920
u	910	910
v	175	175
w	100	100
x	1540	1650
y	5/6°	5/6°

-Available low-profile overhead guard (height:1995mm)

RIGHT ANGLE STACKING AISLE

(mm)

PALLET SIZE	Length		800		1000		1100		1200	
	Width	800	1100	1200	1000	1100	1200	1100	1200	1200
FTB16-7		3085	3085	3085	3190	3205	3225	3300	3320	3410
FTB18-7		3195	3195	3195	3300	3315	3335	3410	3430	3520

• Fork Length at 920mm

• Without pallet: FTB16-7: 3085mm, FTB-18-7: 3195mm