

KOMATSU FORKLIFT

AMX~BMX series SPECIFICATIONS

Three-Wheel Lift Trucks
3,000-4,000 lbs. Capacity
Electric, 36/48 volt



ISO 9001 CERTIFIED

The Forklift With Proven Ability.™

TRUCK DATA

GENERAL		FB15M-3	FB15M-3
Power Type		Electric (36V)	Electric (48V)
Operation Type		Sit-Down	Sit-Down
Capacity @ 24 in. (600 mm) load center *	lbs. (kg)	3,000 (1,350)	3,000 (1,350)
Load distance from center axle (2-stage mast)	in. (mm)	15.3 (390)	15.3 (390)
Load distance from center axle (3-stage mast)	in. (mm)	15.3 (390)	15.3 (390)
Wheelbase	in. (mm)	51.6 (1,310)	51.6 (1,310)
WEIGHT			
Service weight (includes min. weight battery, 2-stage std. mast & forks)	lbs. (kg)	6,900 (3,130)	6,900 (3,130)
TIRE			
Tire type		Cushion Solid	Cushion Solid
Tire size, front		18 x 6 x 12 1/8	18 x 6 x 12 1/8
Tire size, rear		16 x 5 x 10 1/2 (Double)	16 x 5 x 10 1/2 (Double)
Number of wheel, front / rear	x = driven	2x / 2	2x / 2
Tread (center of tires) front / rear	in. (mm)	35.5 (900) / 8.3 (210)	35.5 (900) / 8.3 (210)
DIMENSIONS			
Tilting angle, 2-stage (FV) masts, forward / backward	deg.	5 / 7	5 / 7
Tilting angle, 3-stage (TFV) masts, forward / backward	deg.	5 / 5	5 / 5
Mast height, lowered (2-stage std. mast)	in. (mm)	86.5 (2,200)	86.5 (2,200)
Mast height, extended (2-stage std. mast) †	in. (mm)	178.0 (4,520)	178.0 (4,520)
Maximum fork height (2-stage std. mast) **	in. (mm)	130.0 (3,300)	130.0 (3,300)
Free lift height (2-stage std. mast)	in. (mm)	5.5 (140)	5.5 (140)
Height overhead guard	in. (mm)	76.8 (1,950)	76.8 (1,950)
Length to fork face (2-stage mast)	in. (mm)	75.0 (1,905)	75.0 (1,905)
Length to fork face (3-stage mast)	in. (mm)	75.0 (1,905)	75.0 (1,905)
Overall width, at drive tires	in. (mm)	42.1 (1,070)	42.1 (1,070)
Forks, thickness x width x length	in. (mm)	1.6 x 3.9 x 42.1 (40 x 100 x 1,070)	1.6 x 3.9 x 42.1 (40 x 100 x 1,070)
Carriage width / ITA Class	in. (mm)	37.0 (940) / II	37.0 (940) / II
Ground clearance, under 2-stage std. mast	in. (mm)	5.5 (140)	5.5 (140)
Ground clearance, under 3-stage std. mast	in. (mm)	3.5 (90)	3.5 (90)
Ground clearance, center of wheelbase	in. (mm)	3.9 (100)	3.9 (100)
Right angle stacking aisle (2-stage mast) ††	in. (mm)	74.2 (1,885)	74.2 (1,885)
Right angle stacking aisle (3-stage mast) ††	in. (mm)	74.2 (1,885)	74.2 (1,885)
Turning radius, outside	in. (mm)	58.9 (1,495)	58.9 (1,495)
Battery compartment: width x length x height	in. (mm)	38.8 x 21.3 x 24.0 (985 x 540 x 610)	38.8 x 21.3 x 24.0 (985 x 540 x 610)
PERFORMANCE			
Travel speed, forward, loaded / unloaded	mph (km/h)	9.0 (14.5) / 9.6 (15.5)	9.0 (14.5) / 9.6 (15.5)
Lifting speed, loaded / unloaded (2-stage mast)	fpm (mm/s)	63 (320) / 100 (510)	85 (430) / 128 (650)
Lifting speed, loaded / unloaded (3-stage mast)	fpm (mm/s)	63 (320) / 98 (500)	83 (420) / 122 (620)
Lowering speed, loaded / unloaded (2-stage mast)	fpm (mm/s)	98 (500) / 89 (450)	98 (500) / 89 (450)
Lowering speed, loaded / unloaded (3-stage mast)	fpm (mm/s)	96 (490) / 89 (450)	96 (490) / 89 (450)
Max. drawbar pull, loaded	lbs. (N)	2,030 (9,020)	2,030 (9,020)
Max. gradeability, loaded / unloaded at 1 mph	%	17 / 24	17 / 24
Service brake, operation / control		Foot / Hydraulic	Foot / Hydraulic
Parking brake, operation / control		Hand / Mechanical	Hand / Mechanical
Steering, type		Hydraulic	Hydraulic
DRIVE			
Drive motor, 60 minute rating	HP (kW)	6.4 (4.8) x 2 motors	6.4 (4.8) x 2 motors
Pump motor, 5 minute rating	HP (kW)	10.6 (7.9)	13.1 (9.8)
PS motor, 60 minute rating	HP (kW)	0.46 (0.34)	0.60 (0.45)
Battery voltage	volts	36	48
Battery capacity, minimum	Ah/6 hr. rate	440	330
Battery capacity, maximum	Ah/6 hr. rate	880	660
Battery weight, minimum	lbs. (kg)	1,570 (710)	1,570 (710)
Battery weight, maximum	lbs. (kg)	2,160 (980)	2,160 (980)
OTHER			
Drive motor control		Transistor Invertor	Transistor Invertor
Relief pressure, maximum	psi (bar)	2,420 (170)	2,420 (170)
Hydraulic tank capacity	U.S. gallons (liters)	4.8 (18)	4.8 (18)

NOTE: Most values shown in this publication are rounded. Therefore, direct conversion between metric and English or Imperial may be slightly different from those shown. The performance of machines is affected by the condition of the vehicle and how it is equipped as well as the nature and condition of the operating area. If these specifications are critical or if your needs exceed the specifications shown here, discuss the proposed application with your authorized dealer.

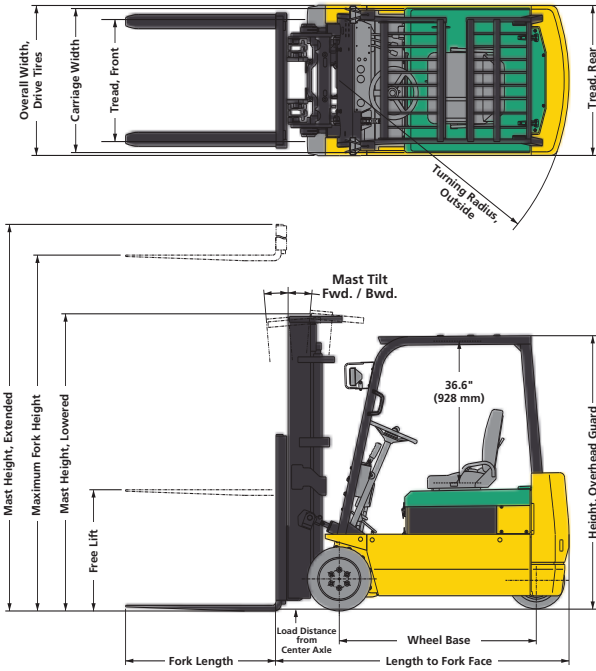
FB18M-3	FB18M-3	FB18MG-3	FB18MG-3	FB20M-3	FB20M-3
Electric (36V)	Electric (48V)	Electric (36V)	Electric (48V)	Electric (36V)	Electric (48V)
Sit-Down	Sit-Downg	Sit-Down	Sit-Down	Sit-Down	Sit-Down
3,500 (1,580)	3,500 (1,580)	3,500 (1,580)	3,500 (1,580)	4,000 (1,810)	4,000 (1,810)
15.3 (390)	15.3 (390)	16.3 (415)	16.3 (415)	16.3 (415)	16.3 (415)
15.3 (390)	15.3 (390)	16.3 (415)	16.3 (415)	16.3 (415)	16.3 (415)
51.6 (1,310)	51.6 (1,310)	55.3 (1,405)	55.3 (1,405)	55.3 (1,405)	55.3 (1,405)
7,330 (3,325)	7,330 (3,325)	8,180 (3,710)	8,180 (3,710)	8,470 (3,840)	8,470 (3,840)
Cushion Solid	Cushion Solid	Cushion Solid	Cushion Solid	Cushion Solid	Cushion Solid
18 x 6 x 12 1/8	18 x 6 x 12 1/8	18 x 8 x 12 1/8	18 x 8 x 12 1/8	18 x 8 x 12 1/8	18 x 8 x 12 1/8
16 x 5 x 10 1/2 (Double)	16 x 5 x 10 1/2 (Double)	16 x 5 x 10 1/2 (Double)	16 x 5 x 10 1/2 (Double)	16 x 5 x 10 1/2 (Double)	16 x 5 x 10 1/2 (Double)
2x / 2	2x / 2	2x / 2	2x / 2	2x / 2	2x / 2
35.5 (900) / 8.3 (210)	35.5 (900) / 8.3 (210)	34.3 (870) / 8.3 (210)	34.3 (870) / 8.3 (210)	34.3 (870) / 8.3 (210)	34.3 (870) / 8.3 (210)
5 / 7	5 / 7	5 / 7	5 / 7	5 / 7	5 / 7
5 / 5	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5
86.5 (2,200)	86.5 (2,200)	86.5 (2,200)	86.5 (2,200)	86.5 (2,200)	86.5 (2,200)
178.0 (4,520)	178.0 (4,520)	178.0 (4,520)	178.0 (4,520)	178.0 (4,520)	178.0 (4,520)
130.0 (3,300)	130.0 (3,300)	130.0 (3,300)	130.0 (3,300)	130.0 (3,300)	130.0 (3,300)
5.5 (140)	5.5 (140)	5.5 (140)	5.5 (140)	5.5 (140)	5.5 (140)
76.8 (1,950)	76.8 (1,950)	76.8 (1,950)	76.8 (1,950)	76.8 (1,950)	76.8 (1,950)
76.4 (1,940)	76.4 (1,940)	80.9 (2,055)	80.9 (2,055)	80.9 (2,055)	80.9 (2,055)
76.4 (1,940)	76.4 (1,940)	80.9 (2,055)	80.9 (2,055)	80.9 (2,055)	80.9 (2,055)
42.1 (1,070)	42.1 (1,070)	42.1 (1,070)	42.1 (1,070)	42.1 (1,070)	42.1 (1,070)
1.6 x 3.9 x 42.1 (40 x 100 x 1,070)	1.6 x 3.9 x 42.1 (40 x 100 x 1,070)	1.6 x 3.9 x 42.1 (40 x 100 x 1,070)	1.6 x 3.9 x 42.1 (40 x 100 x 1,070)	1.6 x 3.9 x 42.1 (40 x 100 x 1,070)	1.6 x 3.9 x 42.1 (40 x 100 x 1,070)
37.0 (940) / II	37.0 (940) / II	37.0 (940) / II	37.0 (940) / II	37.0 (940) / II	37.0 (940) / II
5.5 (140)	5.5 (140)	3.5 (90)	3.5 (90)	3.5 (90)	3.5 (90)
3.5 (90)	3.5 (90)	3.5 (90)	3.5 (90)	3.5 (90)	3.5 (90)
3.9 (100)	3.9 (100)	3.9 (100)	3.9 (100)	3.9 (100)	3.9 (100)
76.2 (1,935)	76.2 (1,935)	80.9 (2,055)	80.9 (2,055)	80.9 (2,055)	80.9 (2,055)
76.2 (1,935)	76.2 (1,935)	80.9 (2,055)	80.9 (2,055)	80.9 (2,055)	80.9 (2,055)
60.8 (1,545)	60.8 (1,545)	64.6 (1,640)	64.6 (1,640)	64.6 (1,640)	64.6 (1,640)
38.8 x 21.3 x 24.0 (985 x 540 x 610)	38.8 x 21.3 x 24.0 (985 x 540 x 610)	39.0 x 25.0 x 24.0 (990 x 635 x 610)	39.0 x 25.0 x 24.0 (990 x 635 x 610)	39.0 x 25.0 x 24.0 (990 x 635 x 610)	39.0 x 25.0 x 24.0 (990 x 635 x 610)
9.0 (14.5) / 9.6 (15.5)	9.0 (14.5) / 9.6 (15.5)	8.4 (13.5) / 9.0 (14.5)	8.4 (13.5) / 9.0 (14.5)	8.1 (13.0) / 8.7 (14.0)	8.1 (13.0) / 8.7 (14.0)
61 (310) / 100 (510)	81 (410) / 128 (650)	TBA	TBA	TBA	TBA
59 (300) / 98 (500)	79 (400) / 122 (620)	55 (280) / 95 (480)	77 (390) / 122 (620)	53 (270) / 95 (480)	75 (380) / 122 (620)
98 (500) / 89 (450)	98 (500) / 89 (450)	TBA	TBA	TBA	TBA
96 (490) / 89 (450)	96 (490) / 89 (450)	96 (490) / 89 (450)	96 (490) / 89 (450)	96 (490) / 89 (450)	96 (490) / 89 (450)
1,980 (8,820)	1,980 (8,820)	2,095 (9,320)	2,095 (9,320)	2,050 (9,120)	2,050 (9,120)
15 / 22	15 / 22	14 / 21	14 / 21	13 / 20	13 / 20
Foot / Hydraulic	Foot / Hydraulic	Foot / Hydraulic	Foot / Hydraulic	Foot / Hydraulic	Foot / Hydraulic
Hand / Mechanical	Hand / Mechanical	Hand / Mechanical	Hand / Mechanical	Hand / Mechanical	Hand / Mechanical
Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
6.4 (4.8) x 2 motors	6.4 (4.8) x 2 motors	6.4 (4.8) x 2 motors	6.4 (4.8) x 2 motors	6.4 (4.8) x 2 motors	6.4 (4.8) x 2 motors
10.6 (7.9)	13.1 (9.8)	10.6 (7.9)	13.1 (9.8)	10.6 (7.9)	13.1 (9.8)
0.46 (0.34)	0.60 (0.45)	0.46 (0.34)	0.60 (0.45)	0.46 (0.34)	0.60 (0.45)
36	48	36	48	36	48
440	330	675	450	675	450
880	660	1,100	770	1,100	770
1,570 (710)	1,570 (710)	2,160 (980)	2,160 (980)	2,160 (980)	2,160 (980)
2,160 (980)	2,160 (980)	2,580 (1,170)	2,580 (1,170)	2,580 (1,170)	2,580 (1,170)
Transistor Invertor	Transistor Invertor	Transistor Invertor	Transistor Invertor	Transistor Invertor	Transistor Invertor
2,420 (170)	2,420 (170)	2,630 (185)	2,630 (185)	2,630 (185)	2,630 (185)
4.8 (18)	4.8 (18)	4.8 (18)	4.8 (18)	4.8 (18)	4.8 (18)

* Optional masts, attachments, longer load dimensions, and higher lifting heights may result in derating of the capacity. Contact your authorized dealer.

** Other mast heights available. See MAST DATA chart for other standard mast heights. Contact your authorized dealer.

† Includes 48-inch (1,220 mm) high load backrest. Contact your authorized dealer.

†† Add load length and clearance. Contact your authorized dealer.



CALL YOUR LOCAL KOMATSU FORKLIFT DEALER FOR MAST & ATTACHMENT OPTIONS.



Komatsu "Proven Ability"

is Komatsu's ability to eclipse the competition by taking the complicated and making it simple. We strive to provide innovative solutions using the technologies of tomorrow—today.

SPECIAL FEATURES

- Powerful AC induction drive motor for top level performance and low maintenance
- 3 types of regenerative braking recharging the batteries when:
 - Accelerator is released
 - Switch back (reverse shift)
 - Brake pedal activated
- Low and wide floorboard for easier on and off
- Convenient hinged side access cover provides fast access to power steering and hydraulic motors and pumps
- Easy opening, all steel, swing up battery cover
- Overhead guard with full lattice top design and angled front cross member offers exceptional upward view for the operator

STANDARD EQUIPMENT

- AC drive motor controller
- Battery and operator restraint systems
- Battery discharge indicator
- DC lift and power steering
- Dual hydraulic disk brakes
- Fully hydrostatic power steering (FHPS)
- Lift interrupt
- Load backrest
- Headlights—OHG mounted
- Overhead guard (ANSI)
- Tilt steering column
- 3-way valve

OPTIONAL EQUIPMENT

- Additional length forks
- Attachments
- Auxiliary hydraulic valve
- Battery slide removal
- Cold/freezer protection
- Drive-in rack OHG
- Internal hydraulic hosing
- Rear, stop, and tail lamps
- Warning devices—audible
- Warning devices—visual

Contact your authorized dealer for other options.

MOTORS

Drive motors: Two AC three-phase induction motors, drip proof, with internal inherent cooling. Flange-mounted, with sealed ball bearings on each end. Each drive motor is 8" x 11.5" with a temperature rating of Class F, having a one hour rated 36V/48V with 6.4 hp (4.8 kW) capability. The AC drive motors provide control feedback, utilizing an integral speed and direction sensor bearing, to a microprocessor control unit for precise torque, acceleration, and speed control.

Each AC drive motor includes a direct read temperature sensor for delivering top performance while maintaining operations within the motors performance specifications, preventing overheating and overloading during periods of high-load demand and under adverse conditions. The AC type motor has no brushes, thus making the AC drive motors virtually maintenance free.

- Pump motor: DC Series wound, drip proof, fan cooled, fully guarded. Type H insulation. High torque, low speed reduces noise level and current draw, sealed ball bearing on each end of armature, box-type holders align graphite brushes. Motor mounted on rubber mounts to reduce noise and vibration. Five minute rated @ 1,500 rpm. 36V, 10.6 hp/48V, 13.1 hp.
- Power Steer Motor: Permanent magnet type, completely enclosed with sealed ball bearing on each end of armature to give many years of service. 1 hour rated @ 2,200 rpm. 36V, 0.62 hp/48V, 0.65 hp.

ELECTRICAL SYSTEM

The electrical system uses either the 36 or 48-volt battery. A battery discharge indicator (BDI) with lift interrupt is standard. The lift and the steering system uses DC motors (see specifications chart for details). The two independent AC drive motors use a time proven state-of-the-art AC induction motor controller (ACS MOSFET driver) and a microprocessor control unit for delivering increased efficiency, sustained driving power, and battery energy conservation. The microprocessor control unit automatically adjusts for the different battery voltages and types, providing the same forward/reverse travel speeds and acceleration performance. The control unit offers specific drive control limits to be designated by the customer for additional speed control and energy conservation.

Additional features include pre-engagement safety checks, four enhanced methods of regenerative braking power saving techniques, and downhill roll resistance. A key-on self-diagnostics test is performed at

each start up providing the operator with a positive operational status and early warning of operational degradation scenarios and a battery charge indicator with an integral lift cutoff when 20% battery life is attained. Ramp speed control allows truck to restart from stopped position on ramps. The "Static Return to Off," requires the forward/reverse lever to be returned to the neutral position to restart the truck whenever the driver leaves the seat.

DRIVE TRAIN

Individually controlled drive motors give top performance for tight turns and supreme maneuverability through its unique, proportional steering to drive concept. When the truck enters a turn, the rotation speed of the drive motor of the wheel on the inside of the turn becomes slower than the outer wheel due to turning physics. When the steering angle is increased further, the power to the drive motor on the inner wheel cuts out, allowing it to free-wheel. When the angle of the steer wheel exceeds 73 degrees, power to the drive motor on the inside wheel is resumed, driving the wheel in reversed direction which gives supreme turning capabilities.

The high performance, high torque motors are bolted directly to the gear case for positive alignment with the helical gears, reducing noise and giving smooth, fast acceleration.

BRAKES

Hydraulic disc brakes for positive braking with low effort pedal action. Moisture and dust resistant pads offer excellent heat dissipation for controlled stopping. Brakes are mounted to the ends of each drive motor for easier adjustments and replacement of pads. Accessible under foot plate for routine inspections and maintenance service. The parking brake is also connected to these brakes by a toggle-type lever, and is adjustable to provide constant force.

FRAME

Steel plate welded construction. Box-type for maximum strength and protection of operator and components, with large capacity integral reservoir. Right side of battery compartment is made lower for easier battery removal.

MAST, CARRIAGE, LBR & FORKS

High visibility mast assemblies available in: 2-stage Free View Mast, 2-Stage Full Free View Mast, or a 3-Stage Full Free View Mast. All masts are equipped with sealed bearings to reduce maintenance cost. Side-thrust-

rollers on the carriage are standard. The carriage is equipped with ITA Class II fork-bars for mounting, heat-treated alloy steel forks, or a variety of specialty attachments. A 48" load-backrest is standard to stabilize high loads and prevent loads from falling into the mast or the operator's compartment. Single and double function internal hosing is available for operating attachments.

OPERATOR'S COMPARTMENT

- Seat: Contoured with lumbar and thigh support, is 19" wide and provides 6" fore/aft of adjustment. Includes a retractable seat belt and hip restraint.
- Instrument panel: On/off key switch, direct reading shockproof hour meter.
- Foot controls: Automotive positioned, rubber padded brake and accelerator pedals.
- Hand controls: Contoured grips with international symbols for function identification.

Overhead guard: Meets or exceeds current government standards.

POWER STEERING

Fully hydrostatic power steering improves operator efficiency and reduces fatigue through the low effort required to maneuver the truck in tight places. The two-way rod of the power steer cylinder results in no excess play as with mechanical linkage and no steering wheel kick-back from obstructions. Power steer motor starts only when direction lever is set for travel. Tilting steer column also aids operator accessibility, productivity, comfort, and control.

HYDRAULIC SYSTEM

Three-way hydraulic valve for lift, tilt, and attachment function features tilt lock and separate relief valve in accessory section to match pressure requirements of attachment. This achieves high efficiency, energy savings, and low noise. Filtration consists of 105 micron mesh strainer in suction line, 20 micron filter in return line, and breather filtering oil filter tube.

COMPLIANCE & APPROVALS

Meets or exceeds American National Standards Institute, ASME B56.1-Part III Safety Standards for Powered Industrial Trucks.

Classified by Underwriter's Laboratories, Inc. as to fire and electric shock hazard only. Contact your authorized dealer for application specifics.

Komatsu Forklift U.S.A, Inc. is an ISO 9001 Certified facility headquartered in Covington, Georgia.



Dependable Dealer Network

Komatsu Forklift has over 100 dealer locations throughout the United States, Canada, Mexico, the Caribbean, and Central & South America, and they are staffed with a highly dedicated team of professionals who are trained to meet your needs.

Komatsu Forklift U.S.A., Inc.

The Komatsu Forklift group has been producing quality forklifts since 1945 with production in the United States since 1987. Komatsu Forklift U.S.A., Inc. headquarters and ISO 9001 certified manufacturing plant are located in Covington, Georgia.

Strong Customer Satisfaction

Komatsu Forklift has always held their customer's satisfaction as top priority. There is a strong corporate-wide commitment to produce, deliver, and support quality products. We will work to the best of our abilities to assist you in maximizing your operation's productivity while minimizing costs.

Komatsu Forklift Product Line

3-4 Wheel Electric Rider



Cushion Tire Engine Powered



Pneumatic Tire Engine Powered



Narrow Aisle Reach & Order Selector



Low & High Lift Walkie



Genuine OEM Parts and Product Support

Quality Products & Service

Komatsu Forklift offers an expanding product line of over 120 electric and I.C.E. forklift models with capacities ranging from 2,000 to 35,000 lbs. We back them with a complete warranty program, superior service, and genuine OEM parts.

Contact Your Komatsu Forklift Dealer Today!

Your nearby Komatsu Forklift Dealer is ready to assist you. Ask about our financing and leasing options that can be tailored to your business plan. Forklifts for your specific applications and workplace are waiting for you.



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