

3-WHEEL ELECTRIC

 **TOYOTA**
INDUSTRIAL EQUIPMENT
REACH NEW HEIGHTS

3000 - 4000 LBS.

SPECIFICATIONS



8FBE15U-20U | 8FBES15U | 8FBEH18U

CLASS
1

ELECTRIC MOTOR RIDERS

ToyotaForklift.com

3-WHEEL ELECTRIC

CAPACITY
3000 - 4000 LBS.

WHEELBASE
47.6 - 55.1 IN.

LIFT HEIGHT
277.5 IN.

INDUSTRIES



STANDARD FEATURES

SAFETY

- Active Mast Control (AMC)
 - Forward tilt angle control
 - Rear tilt speed control
 - Lift speed limitation with forward tilt
- Wet disc brakes
- Operator Presence Sensing System (OPSS)
- Momentary hold/controlled descent
- Key lowering interlock
- Foot-operated parking brake
- Electric horn
- Manual return to neutral
- Turn speed control

PERFORMANCE

- 36-Volt electrical system
- AC drive system
- AC lift system
- Programmable hydraulics
- UL-approved model type E
- Transverse-mounted AC drive motors
- Power select functions (E.S.P.H.)
- Digital multifunction display
 - Time & date
 - Speedometer
 - Multifunction hour meter
 - Battery capacity indicator
 - Parking brake indicator
 - Over-discharge warning (lift interrupt)
 - Mast tilt indicator
- Maximum speed limiter
- Power keep function
- 3-way hydraulic control valve
- Programmable auto-off system
- Three forms of energy regeneration
 - Coast control
 - Plug braking
 - Foot braking

BODY/EXTERIOR DESIGN

- Wide-view 2-stage mast (V)
- Punched plate entry/exit step
- Bolt-on overhead guard
- Smooth cushion tires (dual steer tires)
- 36"-wide ITA class II fork carriage
- 48" load backrest extension
- 90°-wide-opening battery hood
- 42" tapered forks
- 81" OHG height
- SB 350 battery connector (gray)
- Drawbar pin

OPERABILITY & ERGONOMICS

- Strategically configured instrument display
- On-demand, hydrostatic power steering
- Cowl-mounted hydraulic controls
- Automatic fork-leveling control
- Large dual operator assist grips
- Operator restraint system (ORS) with full-suspension seat
- Retractable seat belt
- Electric directional shift control
- Memory-tilt steering column
- Hood-integrated paper clip
- Heavy-duty slip-resistant floor mat
- Two-spoke steering wheel
- Integrated switch for headlight & turn signal
- Dash-mounted cup holder
- Curvilinear OHG front pillars

SERVICEABILITY

- Maintenance-free AC motors
- Thermal protection monitor
- Easy-access controllers
- Programmable maintenance timer
- Battery compartment hood assist damper
- Easy access no-tools floorboard
- Built-in analyzer
- Self-diagnostics

OPTIONAL EQUIPMENT

- UL-approved model type "EE"
- UL-approved model type "ES"
- 48-Volt electrical system
- Air-filled pneumatic tires (3-3.5K)
- Solid pneumatic tires
- Non-marking tires
- Mini-lever controls
- Cold storage model
- Battery roll-out or slide-out
- 4-way hydraulic control valve
- Battery compartment side panels
- EZ Pedal (foot directional control)
- Cloth 4-way adjustable full-suspension seat
- String cutter
- Rear assist grip with horn button
- PIN code entry system (with 10-digit keypad)
- Shock sensor
- Special paint (1-2 colors)
- Cloth 12° swivel seat
- Battery connector color (blue, red or yellow)
- Sideshifter
- Drive-in rack OHG
- Rearview mirrors (left & right)
- 12-Volt power supply
- Inset headlights within OHG
- Front headlights
- Operator compartment light
- Strobe lights (yellow or red)
- LED front headlights
- Front/rear combination lights
- LED rear combination lights
- Rear working light
- Key off headlight system
- Adjustable volume back up alarm (smart alarm)
- Anti-static strap
- Wide-view full free-lift 2-stage mast (FV)
- Wide-view full free-lift 3-stage mast (FSV)
- Wide-view full free-lift 4-stage mast (QFV)
- Polycarbonate OHG cover
- Inching while braking
- Keyless ignition
- Fully tapered & polished forks (FTP)
- 40"-wide carriage
- Various load backrest extension heights
- Mast tilt (bottler's tilt 10° forward/5° backward)
- Tilt cylinder boots
- Front protector cover
- Side hosing termination
- Pencil/tape holder
- Fire extinguisher
- Quick disconnects (single & dual)
- Steering wheel with knob
- Synchronized steering (steering wheel knob is recommended)
- Clamp release interlock systems
- Auto speed control
- Emergency power shutdown button
- Orange seatbelt
- T-Matics COMMAND or MOBILE
- Integral side-shifting fork positioner

Note: Please check with your local Toyota sales professional for additional options.

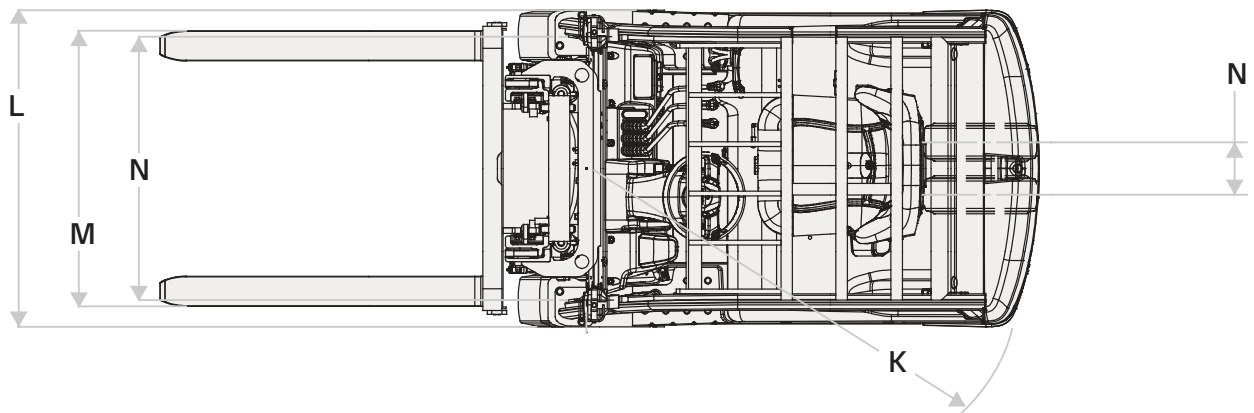
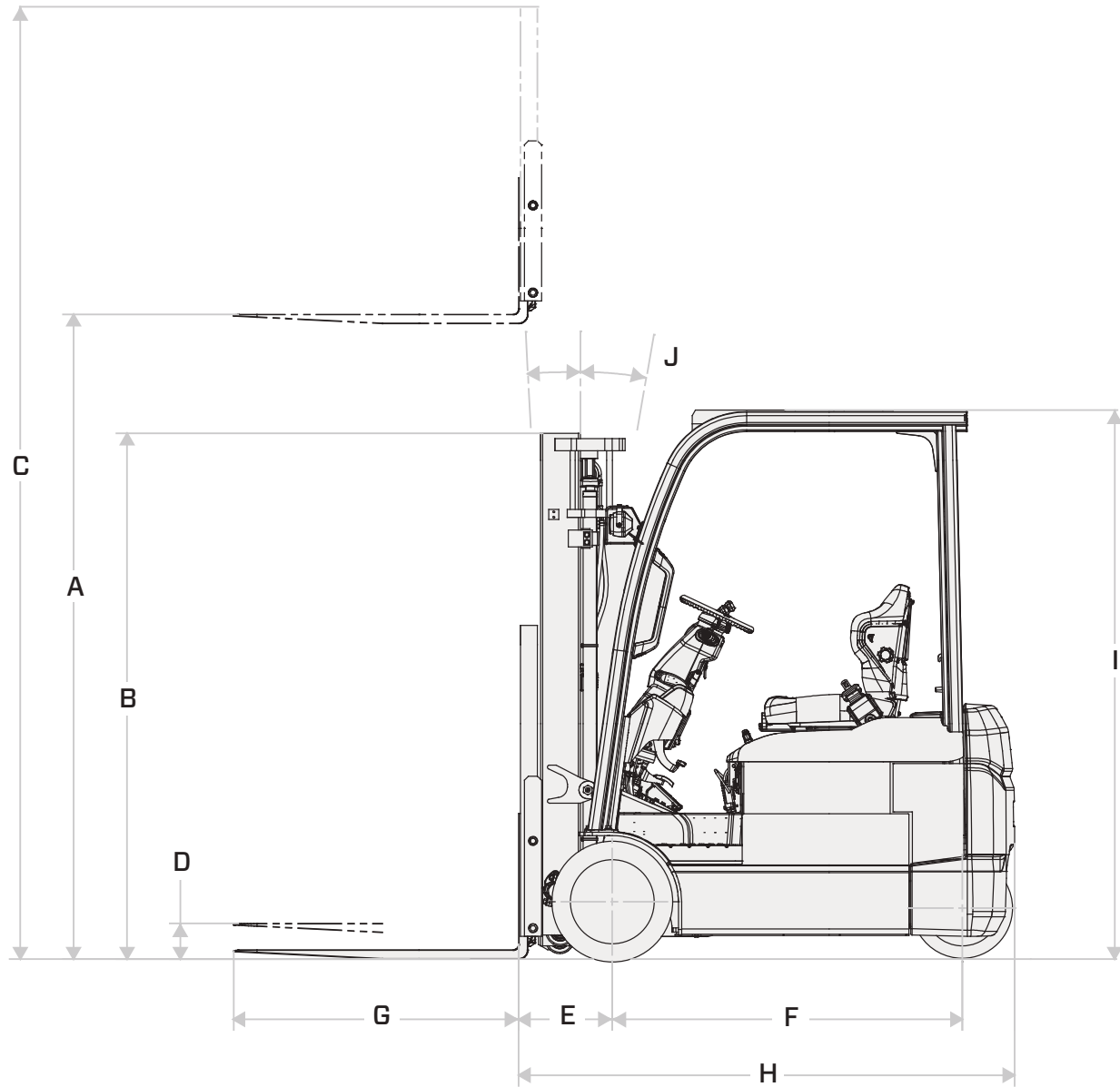
TRUCK SPECIFICATIONS

MODEL NUMBERS

GENERAL DATA				8FBE15U	8FBES15U	8FBE18U	8FBEH18U	8FBE20U
Load Capacity (with 24" load center)	lb			3000	3000	3500	3500	4000
Service Brake / Parking Brake				Wet Disc (Foot) / Mechanical (Foot)				
EXTERIOR DIMENSIONS				8FBE15U	8FBES15U	8FBE18U	8FBEH18U	8FBE20U
A Maximum Fork Height (MFH)	in			119	119	119	119	119.5
B Mast Lowered Height	in			77.6	77.6	77.6	77.6	77.6
C Mast Extended Height (top of load backrest)	in			167.5	167.5	167.5	167.5	167.7
D Free-Lift (top of forks)	in			5.7	5.7	5.7	5.7	5.9
E Load Distance ¹	in			13.8	13.8	13.8	13.8	14.4
F Wheelbase	in			51.6	47.6	51.6	55.1	55.1
G Fork Size (T x W x L)	in			1.4 x 4 x 42	1.4 x 4 x 42	1.4 x 4 x 42	1.4 x 4 x 42	1.6 x 5 x 42
H Length to Fork Face	in			72	69	74.2	76.4	77.2
I Overhead Guard Height	in			81	81	81	81	81
J Tilt Range (forward / backward)	deg			5 / 6.5	5 / 6.5	5 / 6.5	5 / 6.5	5 / 6.5
K Outside Turning Radius	in			58.3	55.1	60.5	62.8	62.8
L Overall Width	in			41.5 [42.1]	41.5 [42.1]	41.5 [42.1]	41.5 [42.1]	41.5
M Carriage Width	in			36	36	36	36	36
N Tread Width	Front	in		34.5 [36]	34.5 [36]	34.5 [36]	34.5 [36]	34.5 [36]
	Rear	in		6.9	6.9	6.9	6.9	6.9
POWER SYSTEM				8FBE15U	8FBES15U	8FBE18U	8FBEH18U	8FBE20U
Battery Compartment	Width	in		39.2	39.2	39.2	39.2	39.2
	Length	in		21.7	17.7	21.7	25.1	25.1
	Height	in		24.5	24.5	24.5	24.5	24.5
Power Type				Battery				
Battery	Voltage / Capacity (6-hour ratings)	STD 36V / 48V	Ah	595 / 375	510 / 360	595 / 375	765 / 660	765 / 660
		High 36V / 48V	Ah	880 / 660	660 / 440	880 / 660	1100 / 770	1100 / 770
	Min. Weight	lb	1543	1475	1543	2105	2105	
Electric Motors	Drive	36V / 48V	kW	4.8 x 2 / 5.0 x 2	4.8 x 2 / 5.0 x 2	4.8 x 2 / 5.0 x 2	4.8 x 2 / 5.0 x 2	4.8 x 2 / 5.0 x 2
	Load Handling	36V / 48V	kW	12 / 12	12 / 12	12 / 12	12 / 12	12 / 12
Control Type	Drive			MOSFET Transistor				
	Load Handling			MOSFET Transistor				
PERFORMANCE DATA				8FBE15U	8FBES15U	8FBE18U	8FBEH18U	8FBE20U
Maximum Travel Speed (H-mode)	Fwd / Rvs - Full Load	36V	mph	9.9 [9.5]	9.9 [9.5]	9.9 [9.5]	9.9 [9.5]	9.7 [9.8]
	Fwd / Rvs - Full Load	48V	mph	9.9 [9.5]	9.9 [9.5]	9.9 [9.5]	9.9 [9.5]	9.7 [9.8]
	Fwd / Rvs - No Load	36V	mph	9.9 [9.5]	9.9 [9.5]	9.9 [9.5]	9.9 [9.5]	9.9 [9.9]
	Fwd / Rvs - No Load	48V	mph	10.2 [9.8]	10.2 [9.8]	10.2 [9.8]	10.2 [9.8]	9.9 [9.9]
Lift Speed (V mast only)	Full Load	36V / 48V	fpm	77 / 94	77 / 94	71 / 89	71 / 89	67 / 83
	No Load	36V / 48V	fpm	134 / 134	134 / 134	134 / 134	134 / 134	134 / 134
Lowering Speed (V mast only)	Full Load		fpm	104	104	104	104	104
	No Load		fpm	108	108	108	108	108
Maximum Drawbar Pull	Full Load ³		lb	2560	2560	2540	2540	2500
	No Load ³		lb	2540	2540	2540	2540	2520
Maximum Gradeability	Full Load ³		%	27	25	24	24	22
	No Load ³		%	24	22	22	24	22
UNDERCLEARANCE				8FBE15U	8FBES15U	8FBE18U	8FBEH18U	8FBE20U
Center of Wheelbase	in			3.3	3.3	3.3	3.3	3.3
TRUCK WEIGHTS				8FBE15U	8FBES15U	8FBE18U	8FBEH18U	8FBE20U
Gross Weight Without Battery	lb			4620 [4495]	5090 [4970]	4990 [4870]	4700 [4575]	5270 [5190]
Weight Distribution (with standard battery)	Full Load	Front	lb	8450 [8320]	8610 [8485]	9310 [9180]	9500 [9380]	9830 [9765]
		Rear	lb	1030 [960]	1270 [1200]	1090 [1025]	1160 [1090]	1530 [1520]
	No Load	Front	lb	2990 [2865]	2990 [2865]	2940 [2820]	3300 [3175]	3370 [3305]
		Rear	lb	3180 [3110]	3580 [3515]	3590 [3440]	3510 [3440]	4000 [3990]
ATTACHMENT				8FBE15U	8FBES15U	8FBE18U	8FBEH18U	8FBE20U
Attachment Max Operating Hydraulic Pressure	psi			2000	2000	2000	2000	2000
TIRES				8FBE15U	8FBES15U	8FBE18U	8FBEH18U	8FBE20U
Type (front / rear)				Cushion / Cushion [Pneumatic / Pneumatic]				
Size (OD x W x ID)	Drive			18 x 7 x 12-1/8 [18 x 7-8-16PR]	18 x 7 x 12-1/8 [18 x 7-8-16PR]	18 x 7 x 12-1/8 [18 x 7-8-16PR]	18 x 7 x 12-1/8 [18 x 7-8-16PR]	18 x 7 x 12-1/8 [18 x 7-8-16PR]
	Steer			15 x 5 x 11-1/4 [16 x 6-8-10PR]	15 x 5 x 11-1/4 [16 x 6-8-10PR]	15 x 5 x 11-1/4 [16 x 6-8-10PR]	15 x 5 x 11-1/4 [16 x 6-8-10PR]	15 x 5 x 11-1/4 [16 x 6-8-10PR]

1 Centerline of front axle to front face of forks.
 2 Add load length & aisle clearance.
 3 3-minute rating computed values.
 [] Pneumatic tire model specifications.

EXTERIOR DIMENSIONS



MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT				FREE-LIFT		TILT RANGE		LOAD CAPACITY AT 24 IN. (610 MM) LOAD CENTER ¹	
		LOWERED	EXTENDED		WITHOUT LOAD BACKREST	WITH STANDARD LOAD BACKREST	FWD	BWD	CUSHION	SOLID PN	
			WITHOUT LOAD BACKREST	WITH STANDARD LOAD BACKREST							deg
8FBE20U											
Wide Visible (V)	100 (2540)	67.7 (1720)	122.2 (3105)	147.8 (3755)	5.9 (150)	5.9 (150)	5	5	4000 (1814)	3950 (1790)	
	108 (2740)	71.7 (1820)	130.1 (3305)	155.7 (3955)	5.9 (150)	5.9 (150)	5	6.5	4000 (1814)	3950 (1790)	
	119.5 (3040)	77.6 (1970)	141.9 (3605)	167.5 (4255)	5.9 (150)	5.9 (150)	5	6.5	4000 (1814)	3950 (1790)	
	131.5 (3340)	83.5 (2120)	153.7 (3905)	179.3 (4555)	5.9 (150)	5.9 (150)	5	6.5	4000 (1814)	3950 (1790)	
	139 (3540)	87.4 (2220)	161.6 (4105)	187.2 (4755)	5.9 (150)	5.9 (150)	5	6.5	4000 (1814)	3950 (1790)	
	147 (3740)	93.7 (2380)	169.5 (4305)	195.1 (4955)	5.9 (150)	5.9 (150)	5	6.5	4000 (1814)	3950 (1790)	
Full Free-Lift 2-Stage (FV)	159 (4040)	101.2 (2570)	181.3 (4605)	206.9 (5255)	5.9 (150)	5.9 (150)	5	6.5	4000 (1814)	3950 (1790)	
	108 (2740)	71.7 (1820)	129.1 (3280)	155.7 (3955)	50.4 (1280)	23.8 (605)	5	6.5	4000 (1814)	3950 (1790)	
	119.5 (3040)	77.6 (1970)	140.9 (3580)	167.5 (4255)	56.3 (1430)	29.7 (755)	5	6.5	4000 (1814)	3950 (1790)	
	131.5 (3340)	83.5 (2120)	152.8 (3880)	179.3 (4555)	62.2 (1580)	35.6 (905)	5	6.5	4000 (1814)	3950 (1790)	
	139 (3540)	87.4 (2220)	160.6 (4080)	187.2 (4755)	66.1 (1680)	39.6 (1005)	5	6.5	4000 (1814)	3950 (1790)	
Full Free-Lift 3-Stage (FSV)	147 (3740)	93.7 (2380)	168.5 (4280)	195.1 (4955)	72.4 (1840)	45.9 (1165)	5	6.5	4000 (1814)	3950 (1790)	
	159 (4040)	101.2 (2570)	180.3 (4580)	206.9 (5255)	79.9 (2030)	53.3 (1355)	5	6.5	4000 (1814)	3950 (1790)	
	147 (3740)	69.7 (1770)	168.3 (4275)	195.1 (4955)	48.6 (1235)	21.9 (555)	5	6.5	3950 (1791)	3750 (1700)	
	159 (4040)	73.6 (1870)	180.1 (4575)	206.9 (5255)	52.6 (1335)	25.8 (655)	5	6.5	3900 (1769)	3750 (1700)	
	170.5 (4340)	77.6 (1970)	191.9 (4875)	218.7 (5555)	56.5 (1435)	29.7 (755)	5	6.5	3850 (1740)	3680 (1670)	
	189 (4800)	83.5 (2120)	209.6 (5325)	236.4 (6005)	62.4 (1585)	35.6 (905)	5	6.5	3750 (1700)	3370 (1530)	
	198 (5040)	87.4 (2220)	219.5 (5575)	246.3 (6255)	66.3 (1685)	39.6 (1005)	5	6.5	3500 (1587)	2980 (1350)	
Full Free-Lift 4-Stage (QFV)	218 (5540)	93.7 (2380)	239.2 (6075)	265.9 (6755)	72.6 (1845)	45.9 (1165)	5	6.5	3300 (1496)	2490 (1130)	
	237.5 (6040)	101.2 (2570)	258.9 (6575)	285.6 (7255)	80.1 (2035)	53.3 (1355)	5	6.5	2550 (1156)	1790 (810)	
	241.5 (6135)	83.5 (2120)	262.6 (6670)	289.4 (7350)	62.4 (1585)	35.6 (905)	5	3	2800 (1270)	2250 (1020)	
	259.6 (6595)	89.4 (2270)	281.3 (7145)	307.5 (7810)	68.3 (1735)	41.5 (1055)	5	3	2550 (1157)	1990 (900)	
	277.5 (7055)	95.7 (2430)	299.4 (7605)	325.6 (8270)	74.6 (1895)	47.8 (1215)	5	3	1850 (839)	1410 (640) ¹	

Note: Height of standard load backrest is 48".

¹ All capacities of 1,500 lbs. or less are subject to a secondary review & could be denied by Toyota.

Some product features described herein are optional. Please consult your dealer for specifications.
Details of specifications and equipment are based on information available at time of printing and may change without notice.



INDUSTRIAL EQUIPMENT

REACH NEW HEIGHTS

007228FBESS

©2016 Toyota Material Handling, U.S.A., Inc.