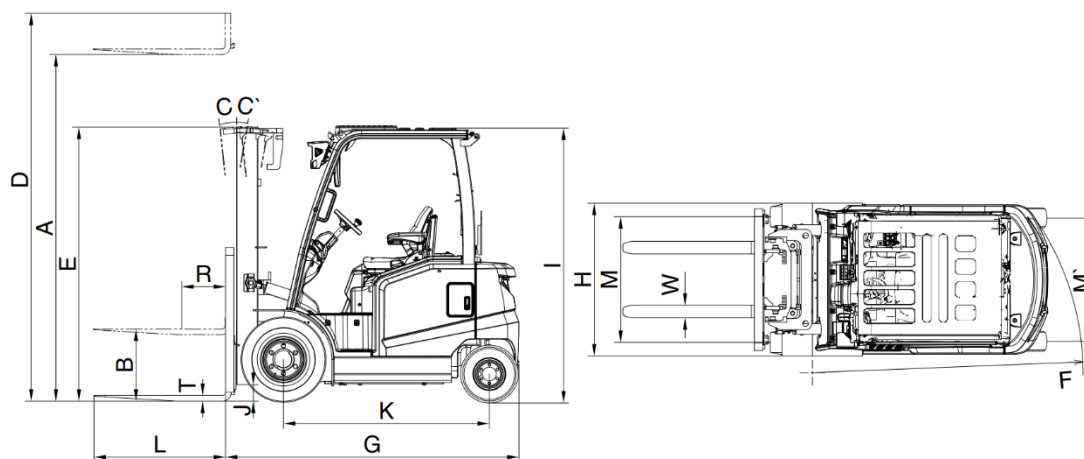


CHAPTER 8 SPECIFICATIONS

1. SPECIFICATION TABLE



Item			Unit	16BE-X	20BE-X
Rated load			kg	1600	2000
Center of gravity	R		mm	500	←
Weight			kg	3323	3678
Forks	Lifting height	A	mm	3000	←
	Free lift	B	mm	35	←
	Lifting speed (load/non-load)		mm/sec	330/500	←
	Lowering speed (load/non-load)		mm/sec	500/450	←
	Length × width × thickness		mm	900 × 100 × 40	←
Mast	Tilt angle(F/R)	C/C'	Degree	5/7	←
	Max. height	D	mm	4020	←
	Min. height	E	mm	1977	←
Others	Travel speed (load/non-load)		km/h	14/15	←
	Max. gradeability (load)		%	16	←
	Min. turning radius (outside)	F	mm	1890	1910
	Max. hydraulic force		MPa	19.0	←
	Hydraulic oil tank		l	33	←
Overall length		G	mm	3000	3020
Overall width		H	mm	1185	←
Overhead guard height		I	mm	2125	←
Ground clearance (mast)		J	mm	110	←
Distance between axles		K	mm	1370	←
Distance between wheels		M/M'	mm	980/945	←

2. SPECIFICATION FOR MAJOR COMPONENTS

1. CONTROLLER

Item	Unit	16/20BE-X	
Controller	-	Drive	Pump
Model	-	ZAPI ACE2 NEWGEN	←
Type	-	AC	←
Current limit	V-A	48-400	←
Communication	-	CAN	←

2. MOTOR

Item	Unit	16/20BE-X	
Motor	-	Drive	Pump
Type	-	YST8H4-9-001	YSP5H4-13-001
Rated voltage	Vac	29.5	29.5
Output	kW	9	13
Insulator	-	H	H

3. BATTERY

Item	Unit	16BE-X	20BE-X
Type	-	Plumbic acid	←
Rated voltage	V	48	←
Capacity	AH/hr	420/5	←
Electrolyte	-	Wet	←
Dimensions (W×L×H)	mm	826×422×744	←
Connector	-	SB350	←
Weight	kg	727	←

LITHIUM ION BATTERY (OPT)

Item	Unit	16BE-X	20BE-X
Rated voltage	V	51.2	←
Capacity	AH	300	←
Dimensions (W×L×H)	mm	826×422×744	←
Weight	kg	727	←
Connector	-	DIN 320	←

4. CHARGER

Item	Unit	16BE-X	20BE-X
Capacity of battery for charging	V-AH	48V/420-450	←
AC input	V	3-Phase,220	←
		3-Phase,380	←
		3-Phase,440	←
DC output	V	68±0.5	←
Charging time	hr	8±1	←
Connector	-	SB 350 or SR 350	←

LITHIUM ION CHARGER (OPT)

Item	Unit	16BE-X	20BE-X
Capacity of battery for charging	V-AH	51.2-300	←
AC input	V	3-Phase, 380-440	←
DC output	V	57.5-58	←
Charging time	hr	2.5	←
Connector	-	DIN 320	←

5. GEAR PUMP

Item	Unit	16BE-X	20BE-X
Type	-	Out gear pump	←
Capacity	cc/rev	21	←
Max. working pressure	bar	206	←
Rated rotation rate (max/min)	rpm	3000/500	←

6. MAIN CONTROL VALVE

Item	Unit	16/20BE-X
Type	-	2/3/4 spools
Operating mode	-	Mechanical
Primary relief valve pressure	bar	195
Secondary relief valve pressure	bar	160

7. T/M

Item	Unit	16/20BE-X
Type	-	Integrated
Stage	-	1/1
Transmission ratio	-	25.047
Noise (Rated input speed)	dB(a)	86
Transmission efficiency	-	≥90%

8. WHEEL

Item	16BE-X	20BE-X
Type (front/rear)	Solid (opt: pneumatic, no-marking)	←
Quantity (front/rear)	2/2	←
Front-wheel drive	21*8-9-16PR	28*9-15-16PR
Rear-wheel drive	18*7-8-14PR	←

9. BRAKE AND STEERING SYSTEMS

Item		16/20BE-X
Brake	Traveling	Front-wheel mounted, dry disk mode
	Parking	Mechanical
Steering	Type	Hydraulic steering

3. FASTENING TORQUE

Sequences	Item		Screw specifications	kgf·m
1	Electric systems	hydraulic pump motor mounting nut	M10 × 1.5	5.0 ± 0.7
2		Drive motor mounting bolt	M14 × 1.5	15.7 ± 3.0
3	Hydraulic systems	hydraulic pump mounting bolt	M10 × 1.5	6.9 ± 0.5
4		MCV mounting bolt, nut	M10 × 1.5	6.9 ± 0.5
5		Steering unit mounting bolt	M10 × 1.5	5.0 ± 0.5
6		Tilt cylinder rod-end bolt, nut	M12 × 1.75	9.5 ± 0.5
7		Tilt cylinder pin mounting bolt	M10 × 1.5	6.9 ± 0.5
8	Powertrain system	Drive axle mounting bolt, nut	M16 × 2.0	29.5 ± 0.5
9		Steering axle mounting bolt, nut	M20 × 2.5	57.5 ± 8.0
10		Transmission mounting bolt, nut	M10 × 1.25	7.5 ± 0.5
11		Front wheel mounting nut	M16 × 1.5	30 ± 3.0
12		Rear wheel mounting nut	M14 × 1.5	21 ± 1.5
13	Others	Counterweight mounting bolt	M24 × 3.0	73.5 ± 15
14		Mast mounting bolt	M16 × 2.0	36.5 ± 7.0
15		Operator's seat mounting nut	M8 × 1.25	3.4 ± 0.7
16		Overhead guard mounting bolt (front)	M12 × 1.75	12.0 ± 0.5
17		Overhead guard mounting bolt (rear)	M12 × 1.75	12.0 ± 0.5

Appendix

Revision Table

Revision	Version No.	Date	Note
00	9YMD-91010C	2023.05.08	The first printing
01	9YMD-91010C	2023.08.29	Correct errors
02	9YMD-91010C	2023.11.22	Cluster change

Electromagnetism compatibility is measured according to EN 12895:2015+A1:2019, and meet with Directive 2014/30/EU.

Products comply with the following EU directives and standards:

Machinery Directive 2006/42/EC

EMC Directive 2014/30/EU

LVD Directive 2014/35/EU

EN ISO 12100:2010

EN ISO 3691-1:2015+A1:2020

EN 1175:2020

EN 16307-1:2020

EN 12053:2001+A1:2008

EN 13059:2002+A1:2008

EN 60204-1:2018

EN 12895:2015+A1:2019