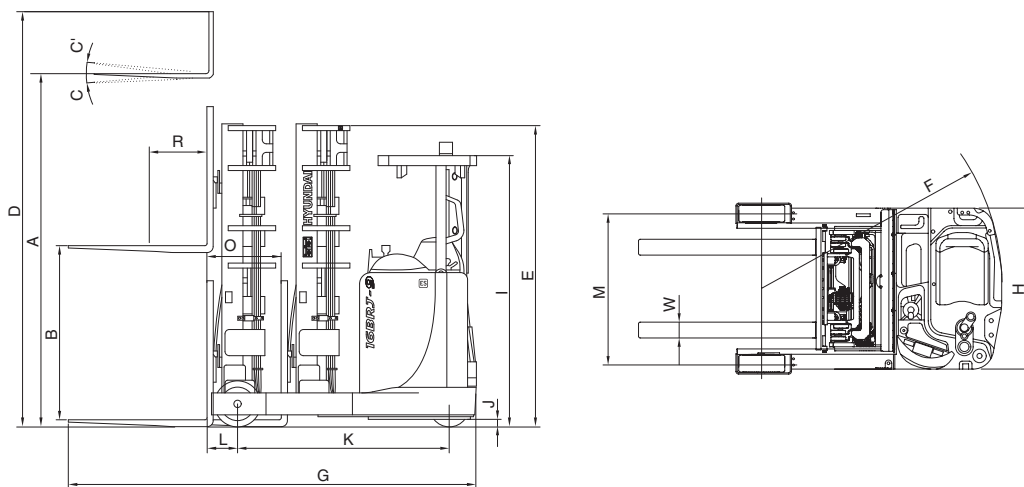


8. SPECIFICATIONS

1. SPECIFICATION

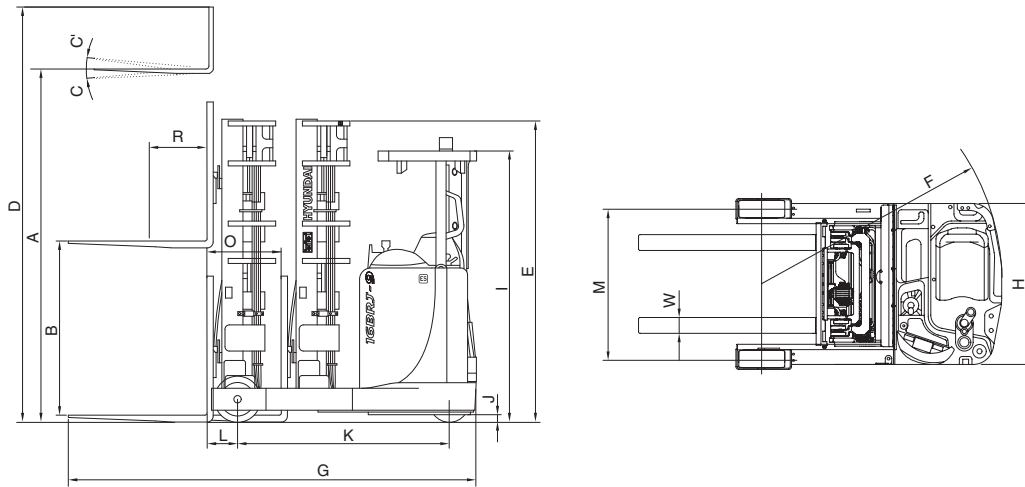
1) 14/16BRJ-9



14BRJ9SP01

Model			Unit	14BRJ-9	16BRJ-9
Capacity			kg (lb)	1400	1600
Load center		R	mm (in)	600	←
Weight (Unloaded, with battery)			kg (lb)	2910	3010
Fork	Lifting height	A	mm (ft-in)	5306	←
	Free lift	B	mm (in)	1761	←
	Lifting speed (Unload/Load)		mm/sec	580/370	←
	Lowering speed (Unload/Load)		mm/sec	450/500	←
	L × W × T	L, W, T	mm (in)	1200 × 100 × 40	1200 × 100 × 40
Mast	Tilt angle (forward/backward)	C/C'	degree	2/5	←
	Max height	D	mm (ft-in)	5812	←
	Min height	E	mm (ft-in)	2348	←
Body	Travel speed (Unload)		km/h	14	←
	Gradeability (Unload/Load)		%	18/13	18/12
	Min turning radius (Outside)	F	mm (ft-in)	1638	1685
ETC	Max hydraulic pressure		kgf/cm ²	190	←
	Hydraulic oil tank		l (usgal)	Refer to page 7-23	←
Overall length		G	mm (ft-in)	2570	←
Overall width		H	mm (ft-in)	1270	←
Overhead guard height		I	mm (ft-in)	2116	←
Ground clearance (Mast)		J	mm (in)	91	←
Wheel base		K	mm (ft-in)	1410	1460
Wheel tread rear (Load)		M/M'	mm (ft-in)	1149	←

2) 20/25BRJ-9



14BRJ9SP01

Model			Unit	20BRJ-9	25BRJ-9
Capacity			kg (lb)	2000	2500
Load center		R	mm (in)	600	←
Weight (Unloaded, with battery)			kg (lb)	3400	3700
Fork	Lifting height	A	mm (ft-in)	5305	←
	Free lift	B	mm (in)	1717	←
	Lifting speed (Unload/Load)		mm/sec	470/300	←
	Lowering speed (Unload/Load)		mm/sec	450/500	←
	L × W × T	L, W, T	mm (in)	1200 × 100 × 45	1200 × 122 × 45
Mast	Tilt angle (forward/backward)	C/C'	degree	2/5	←
	Max height	D	mm (ft-in)	5974	←
	Min height	E	mm (ft-in)	2386	←
Body	Travel speed (Unload)		km/h	14	←
	Gradeability (Unload/Load)		%	19/12	18/11
	Min turning radius (Outside)	F	mm (ft-in)	1742	1885
ETC	Max hydraulic pressure		kgf/cm ²	190	←
	Hydraulic oil tank		l (usgal)	Refer to page 7-23	←
Overall length		G	mm (ft-in)	2655	←
Overall width		H	mm (ft-in)	1270	←
Overhead guard height		I	mm (ft-in)	2135	←
Ground clearance (Mast)		J	mm (in)	109	←
Wheel base		K	mm (ft-in)	1520	1670
Wheel tread rear (Load)		M/M'	mm (ft-in)	1155	1184

2. SPECIFICATION FOR MAJOR COMPONENTS

1) 14/16BRJ-9

(1) CONTROLLER

Item	Unit	Drive & Pump motor controller	EPS motor controller	Fingertip controller
Model	-	AC-2	EPS-AC0	Mhyrio CB
Type	-	MOSFET	←	←
Dimension	mm	200×250×147.5	180×144×64.8	197×82×73
Current limit	A	450A	45A	-
Communication	-	CAN	←	←

(2) MOTOR

Item	Unit	Traction	Pump	EPS
Model	-	AMBL 4001	ABDD 4003	G104087A
Type	-	AC	AC	AC
Rated voltage	Vac	30	30	23
Output	kW	7.5	14.0	0.4
Insulation	-	Class F	Class F	Class H

(3) BATTERY

Item	Unit	14BRJ-9	16BRJ-9
Rated voltage	V	48	←
Dimension (W×L×H)	mm	1223×283 (*353)×787	←
Min. Battery weight	kg	710 (*890)	←
Max. Battery weight	kg	790 (*990)	←
Connector (CE spec)	-	SBE 320	

★ : Option

(4) CHARGER

Item	Unit	14BRJ-9	16BRJ-9
Type	-	Constant current, constant voltage	
Battery capacity for charge	V-AH	48-280~335	←
AC input	V	Triple phase 410	
		Single phase 220	
		Triple phase 220/380	
		Triple phase 440	
DC output	V	62±1	←
Charge time	hr	8±2	←
Connector (CE spec)	-	(SBE320)	(SBE 320)

(5) GEAR PUMP

Item	Unit	Specification
Type	—	Fixed displacement gear pump
Capacity	cc/rev	19.6
Maximum operating pressure	bar	210
Rated speed (max/min)	rpm	3000/500

(6) MAIN CONTROL VALVE

Item	Unit	Specification
Type	-	3 spool, 4 spool
Operating method	-	Proportional
Main relief valve pressure	bar	14BRJ : 160 16BRJ : 170

(7) DRIVE UNIT

Item	Unit	Specification
Gear ratio	-	14.5
Oil quantity	l	2.2

(8) WHEELS

Item	Specification
Type (Load / Drive /Caster)	Polyurethane
Quantity (Load / Drive /Caster)	2 / 1
Load wheel	ø 285 × 100
Drive wheel	ø 305 × 140

(9) BRAKES

Item	Specification
Brakes (Service & Parking)	Service : Load wheels, electromagnetic brake Parking : Drive wheel, electromagnetic brake

2) 20/25BRJ-9

(1) CONTROLLER

Item	Unit	Drive & Pump motor controller	EPS motor controller	Fingertip controller
Model	-	AC-2	EPS-AC0	Mhyrio CB
Type	-	MOSFET	←	←
Dimension	mm	200×250×147.5	180×144×64.8	197×82×73
Current limit	A	450A	45A	-
Communication	-	CAN	←	←

(2) MOTOR

Item	Unit	Traction	Pump	EPS
Model	-	AMBL 4001	ABDD 4003	G104087A
Type	-	AC	AC	AC
Rated voltage	Vac	30	30	23
Output	kW	7.5	14.0	0.4
Insulation	-	Class F	Class F	Class H

(3) BATTERY

Item	Unit	20BRJ-9	25BRJ-9
Rated voltage	V	48	←
Dimension (W×L×H)	mm	1223×353 (*425)×787	←
Min. Battery weight	kg	890 (*1065)	←
Max. Battery weight	kg	990 (*1180)	←
Connector (CE spec)	-	SBE 320	

★ : Option

(4) CHARGER

Item	Unit	20BRJ-9	25BRJ-9
Type	-	Constant current, constant voltage	
Battery capacity for charge	V-AH	48-450~520	←
AC input	V	Triple phase 410	
		Single phase 220	
		Triple phase 220/380	
		Triple phase 440	
DC output	V	62±1	←
Charge time	hr	8±2	←
Connector (CE spec)	-	(SBE320)	(SBE 320)

(5) GEAR PUMP

Item	Unit	Specification
Type	—	Fixed displacement gear pump
Capacity	cc/rev	19.6
Maximum operating pressure	bar	210
Rated speed (max/min)	rpm	3000/500

(6) MAIN CONTROL VALVE

Item	Unit	Specification
Type	-	3 spool, 4 spool
Operating method	-	Proportional
Main relief valve pressure	bar	20BRJ : 170 25BRJ : 190

(7) DRIVE UNIT

Item	Unit	Specification
Gear ratio	-	14.5
Oil quantity	l	2.2

(8) WHEELS

Item		Specification
Type (Load / Drive /Caster)		Polyurethane
Quantity (Load / Drive /Caster)		2 / 1
Load wheel	20BRJ-9	ø 355 × 106
	25BRJ-9	ø 355 × 135
Drive wheel		ø 345 × 140

(9) BRAKES

Item	Specification
Brakes (Service & Parking)	Service : Load wheels, electromagnetic brake Parking : Drive wheel, electromagnetic brake

3. TIGHTENING TORQUE

1) 14/16BRJ-9

NO	Items		Size	kgf · m	lbf · ft
1	Electric system	Hyd pump motor mounting bolt	M 8 × 1.25	2.5 ± 0.5	18 ± 3.6
2		Traction motor mounting bolt	M12 × 1.75	14.7 ± 2.2	106 ± 15.9
3	Hydraulic system	Hydraulic pump mounting bolt	M10 × 1.5	5 ± 1	36 ± 7.2
4		MCV mounting bolt, nut	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
5		Hydraulic oil tank mounting bolt	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
6	Power train system	Drive unit mounting bolt	M12 × 1.75	14.7 ± 2.2	106 ± 15.9
7		Load wheels mounting bolt	M 8 × 1.25	2.5 ± 0.2	18 ± 1.4
8		Drive wheel mounting nut	M14 × 1.5	15.7 ± 2.3	113.6 ± 16.6
9	Other	Seat mounting bolt	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
10		Head guard mounting bolt	M14 × 2	19.6 ± 2.9	141.8 ± 21

2) 20/25BRJ-9

NO	Items		Size	kgf · m	lbf · ft
1	Electric system	Hyd pump motor mounting bolt	M 8 × 1.25	2.5 ± 0.5	18 ± 3.6
2		Traction motor mounting bolt	M12 × 1.75	14.7 ± 2.2	106 ± 15.9
3	Hydraulic system	Hydraulic pump mounting bolt	M10 × 1.5	5 ± 1	36 ± 7.2
4		MCV mounting bolt, nut	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
5		Hydraulic oil tank mounting bolt	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
6	Power train system	Drive unit mounting bolt	M12 × 1.75	14.7 ± 2.2	106 ± 15.9
7		Load wheels mounting bolt	M 8 × 1.25	2.5 ± 0.2	18 ± 1.4
8		Drive wheel mounting nut	M14 × 1.5	15.7 ± 2.3	113.6 ± 16.6
9	Other	Seat mounting bolt	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
10		Head guard mounting bolt	M14 × 2	19.6 ± 2.9	141.8 ± 21