Technical sheet :

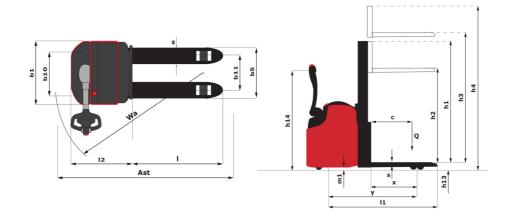




	Technical characteristics
1.1	Manufacturer
1.2	Model Name
1.3	Power source
1.4	Operator type
1.5	Max. capacity
1.6	Load center of gravity
1.8	Distance from Load backrest to center of rear axle
1.9	Wheelbase
	Weight
2.1	Service weight
2.2	Weight on front axle (laden) / rear axle (laden)
2.2	Weight on front axle (Inladen) / rear axle (Iuladen)
2.3	
2.1	Wheels Time time
3.1	Tires type
3.3	Number of load wheels / Size of load wheels
3.4	Number of stabilizer wheels / Size of the stabilizer wheels
3.5	Number of front wheels / rear wheels
3.5.2	Number of drive wheels / Size of drive wheels
3.6	Front wheel gauge
3.7	Rear wheel gauge
	Dimensions
4.15	Fork height in low position
4.19	Overall length
4.20	Length to face of forks
4.21	Overall width
4.22	Forks section / width / length
4.24	Fork carriage width
4.31	Ground clearance below mast
4.32	Ground clearance at centre of wheelbase
4.35	Turning radius
4.9	Height tiller min. / max.
	Performances
5.1	Travel speed (laden / unladen)
5.2	Lifting speed (laden / unladen)
5.3	Lowering speed (laden / unladen)
5.8	Max Gradeability (laden / unladen)
5.10	Service brake
0.70	Engine
6.1	Drive motor rating S2 60 min
6.2	Lift motor rating at S3 15%
6.3	Battery according to DIN 43531/35/36 A, B, C
6.4	
	Battery voltage / capacity
6.5	Battery weight (+/- 5%)
	Miscellaneous
8.1	Type of drive control
8.4	Sound level at the driver's ear according to DIN 12 053

ES 820	Created on May 2, 2024 at 11:03:00 PM UTC			
	Metric			
Manitou				
	ES 820 FR			
	Electrical			
	Pedestrian			
Q	2000 kg			
С	600 mm			
x	661 mm			
у	1378 mm			
	1620 kg			
	1180 kg / 2510 kg			
	1125 kg / 495 kg			
	Polyurethane			
	2 / 82x68			
	2 / 120x50			
	3/4			
	1/254x100			
b10	664 mm			
b11	393 mm			
h13	85 mm			
11	2048 mm			
12	898 mm			
b1	890 mm			
s / e / l	70 mm / 200 mm / 1150 mm			
b3	700 m			
m1	30 mm			
m2	21 mm			
Wa	1591 mm			
h14 / h14	975 mm / 1375 mm			
	6 km/h / 6 km/h			
	0.11 m/s / 0.20 m/s			
	0.22 m/s / 0.21 m/s			
	6 % / 10 %			
	Electro magnetic			
	2 kW			
	4 kW			
	Traction			
	24 V / 315 Ah			
	275 kg			
	AC			
	65 dB			

## ES 820 - Dimensional drawing



## Characteristics of masts and residual capacities

Central Cylinder Duplex (CCD)		FVD 29	FVD 34
h1 - Mast lowered height	mm	1940	2190
h3 - Mast lifting height	mm	2940	3440
h4 - Mast extended height	mm	3365	3865
Residual capacity at max height	kg	1600	1300

Central Cylinder Simplex (CCS)		CCS 15	CCS 17
h1 - Mast lowered height	mm	1940	2190
h2 - Mast free lift	mm	1510	1760
h3 - Mast lifting height	mm	1510	1760
h4 - Mast extended height	mm	1940	2190
Residual capacity at max height	kg	2000	2000

Free Lift Duplex (FLD)		FLD 29	FLD 34
h1 - Mast lowered height	mm	1940	2190
h2 - Mast free lift	mm	1510	1760
h3 - Mast lifting height	mm	2935	3435
h4 - Mast extended height	mm	3365	3865
Residual capacity at max height	kg	1600	1300

Free Lift Triplex (FLT)		FLT 42	FLT 47	FLT 54
h1 - Mast lowered height	mm	1900	2060	2300
h2 - Mast free lift	mm	1465	1625	1875
h3 - Mast lifting height	mm	4245	4725	5455
h4 - Mast extended height	mm	4710	5190	5880
Residual capacity at max height	kg	750	550	450



Head Office B.P. 249 - 430 rue de l'Aubinière 44150 Ancenis Cedex - France Tel: +33 (0)2 40 09 10 11 - Fax: +33 (0)2 40 09 10 97 www.manitou.com



This publication provides a description of the configuration versions and options for Manitou products, which may differ for equipment. The equipment presented in this brochure may be part of a series, as an option, or it may not be available, depending on the versions. Manitou reserves the right, at any time and without notice, to amend the specifications described and represented. The specifications provided do not bind the manufacturer. For more details, please contact your Manitou agent. This is not a contractually binding document. The presentation of the products is not contractually binding. List of specifications non-exhaustive. The logos as well as the visual identity of the company are owned by Manitou and cannot be used without authorisation. All rights reserved. The photos and diagrams contained in this brochure are only provided for consultation and information purposes.

MANITOU BF SA - Limited company with board of directors - Share capital: 39,668,399 euros - 857 802 508 RCS Nantes