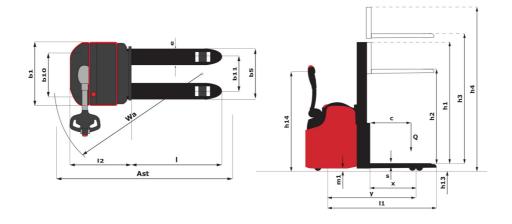
Technical sheet:

ES 820 LI



cal characteristics acturer Name Source or type apacity al capacity on wrapover forks enter of gravity the from Load backrest to center of rear axle the sase weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of drive wheels / Size of drive wheels heel gauge leel gauge stons ft	Q Q Q C X y y b b 10 b 11	Metric Manitou ES 820 LI Electrical Pedestrian 2000 kg 2000 kg 600 mm 716 mm 1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / / 120 x 50 3 / 4 1/254x100 664 mm
Assurate Source Source Or type Apacity al capacity on wrapover forks enter of gravity se from Load backrest to center of rear axle sase weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / Fazer wheels r of drive wheels / Size of drive wheels heel gauge leel gauge	Q c x y	Manitou ES 820 LI Electrical Pedestrian 2000 kg 2000 kg 600 mm 716 mm 1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
source or type apacity al capacity on wrapover forks enter of gravity se from Load backrest to center of rear axle sase weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of drive wheels / Size of drive wheels heel gauge stons	Q c x y	Electrical Pedestrian 2000 kg 2000 kg 600 mm 716 mm 1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
source or type apacity al capacity on wrapover forks enter of gravity se from Load backrest to center of rear axle sase weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of drive wheels / Size of drive wheels heel gauge stons	Q c x y	Electrical Pedestrian 2000 kg 2000 kg 600 mm 716 mm 1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
or type apacity al capacity on wrapover forks enter of gravity se from Load backrest to center of rear axle sase weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / Foze of drive wheels heel gauge leel gauge	Q c x y	Pedestrian 2000 kg 2000 kg 600 mm 716 mm 1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
apacity al capacity on wrapover forks enter of gravity the from Load backrest to center of rear axle the sase weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe or of load wheels / Size of load wheels or of castor wheels or of stabilizer wheels / Size of the stabilizer wheels or of front wheels / Size of drive wheels heel gauge theel gauge tel g	Q c x y	2000 kg 2000 kg 600 mm 716 mm 1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
al capacity on wrapover forks enter of gravity the from Load backrest to center of rear axle thase weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Fize of the stabilizer wheels r of front wheels / Size of drive wheels heel gauge leel gauge lions	Q c x y	2000 kg 600 mm 716 mm 1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / rear wheels r of front wheels / Size of drive wheels heel gauge leel gauge stons	c x y y	600 mm 716 mm 1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / Size of drive wheels heel gauge leel gauge stons	x y	716 mm 1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / Far wheels r of drive wheels / Size of drive wheels heel gauge leel gauge	b10	1509 mm 1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge leel gauge	b10	1800 kg 1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
weight on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge leel gauge		1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
on front axle (laden) / rear axle (laden) on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge leel gauge		1360 kg / 2500 kg 1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
on front axle (Unladen) / rear axle (Unladen) pe r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge leel gauge		1250 kg / 550 kg Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
pe r of load wheels / Size of load wheels r of castor wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge neel gauge		Polyurethane 4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
pe r of load wheels / Size of load wheels r of castor wheels r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge neel gauge		4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
r of load wheels / Size of load wheels r of castor wheels r of stabilizer wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge neel gauge		4 / 82 x 68 1 2 / 120 x 50 3 / 4 1/254x100
r of castor wheels r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge neel gauge		1 2 / 120 x 50 3 / 4 1/254x100
r of stabilizer wheels / Size of the stabilizer wheels r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge neel gauge stons		2 / 120 x 50 3 / 4 1/254x100
r of front wheels / rear wheels r of drive wheels / Size of drive wheels heel gauge neel gauge sions		3 / 4 1/254x100
r of drive wheels / Size of drive wheels heel gauge neel gauge sions		1/254x100
heel gauge neel gauge s <mark>ions</mark>		
neel gauge sions		
sions	BII	375 mm
		3/3 11111
	h5	110 mm
ight in low position	h13	86 mm
length	11	2123 mm
to face of forks	12	973 mm
width	b1	890 mm
ection / width / length	s / e / l	70 mm / 200 mm / 1150 mm
rriage width	b3	700 mm
clearance below mast	m1	20 mm
clearance at centre of wheelbase	m2	21 mm
lidth for pallets 1000 x 1200 crossways	Ast	2572 mm
		2531 mm
		1719 mm
	114/1114	900 mm / 1400 mm
		6 km/h / 6 km/h
		0.11 m/s / 0.20 m/s
- 1		0.21 m/s / 0.22 m/s
		6 % / 10 %
		Electro magnetic
		0.1-14
•		2 kW
-		4 kW
		Traction
voltage / capacity		24 V / 315 Ah
		273 kg
weight (+/- 5%)		
weight (+/- 5%) laneous		DC
y g	width for 800 x 1200 pallet lengthways g radius titiler min. / max. mances speed (laden / unladen) Is speed (laden / unladen) Ing speed (laden	width for 800 x 1200 pallet lengthways g radius titler min. / max. mances speed (laden / unladen) g speed (laden / unladen) gradeability (laden / unladen) ge brake motor rating S2 60 min otor rating at S3 15% raccording to DIN 43531/35/36 A, B, C ryoltage / capacity ry weight (+/- 5%)

ES 820 LI - Dimensional drawing



Characteristics of masts and residual capacities

Central Cylinder Simplex (CCS)		CCS 15	CCS 17
h1 - Mast lowered height	mm	1955	2205
h2 - Mast free lift	mm	1510	1760
h3 - Mast lifting height	mm	1510	1760
h4 - Mast extended height	mm	1965	2215
Residual capacity at max height	kg	2000	2000

Full Visibility Duplex (FVD)		FVD 29	FVD 34
h1 - Mast lowered height	mm	1955	2205
h3 - Mast lifting height	mm	2940	3440
h4 - Mast extended height	mm	3400	3900
Residual capacity at max height	ka	1600	1300

Free Lift Duplex (FLD)		FLD 29	FLD 34
h1 - Mast lowered height	mm	2205	2205
h2 - Mast free lift	mm	1510	1760
h3 - Mast lifting height	mm	2935	3435
h4 - Mast extended height	mm	3895	3895
Residual capacity at max height	kg	1600	1300

Free Lift Triplex (FLT)		FLT 42	FLT 47	FLT 54
h1 - Mast lowered height	mm	1915	2075	2315
h2 - Mast free lift	mm	1470	1630	1880
h3 - Mast lifting height	mm	4250	4730	5460
h4 - Mast extended height	mm	4725	5205	5895
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