

Technical sheet :

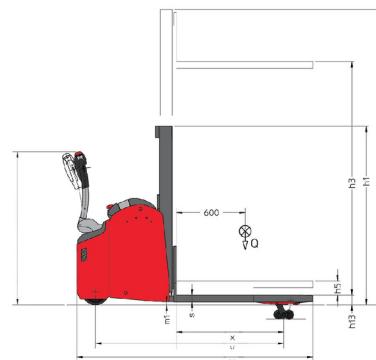
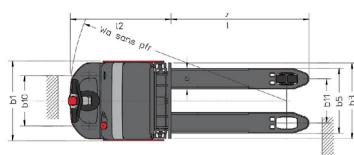
ES 420 DL



 **MANITOU**
HANDLING YOUR WORLD

Technical characteristics		Metric	
1.1	Manufacturer		Manitou
1.2	Model Name		ES 420 DL
1.3	Power source		Electrical - Lead
1.4	Operator type		Pedestrian
1.5	Max. capacity	Q	2000 kg
1.51	Nominal capacity on wrapover forks	Q	1000 kg
1.52	Nominal capacity in double stacking 1 / 2	Q / Q	1000 kg + 1000 kg
1.6	Load center of gravity	c	600 mm
1.8	Distance from Load backrest to center of rear axle	x	937 mm
1.9	Wheelbase	y	1644 mm
Weight		Weight	
2.1	Service weight		1020 kg
2.2	Weight on front axle (laden) / rear axle (laden)		1460 kg / 1560 kg
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		730 kg / 290 kg
Wheels		Wheels	
3.1	Tires type		Polyurethane cushion
3.3	Number of load wheels / Size of load wheels		4 / 82x68
3.4	Number of stabilizer wheels / Size of the stabilizer wheels		2 / 120x50
3.5	Number of front wheels / rear wheels		3 / 4
3.5.2	Number of drive wheels / Size of drive wheels		1/230x75
3.6	Front wheel gauge	b10	435 mm
3.7	Rear wheel gauge	b11	380 mm
Dimensions		Dimensions	
4.15	Fork height in low position	h13	85 mm
4.19	Overall length	l1	2060 mm
4.20	Length to face of forks	l2	870 mm
4.21	Overall width	b1	688 mm
4.22	Forks section / width / length	s / e / l	160 mm / 180 mm / 1190 mm
4.24	Fork carriage width	b3	650 mm
4.31	Ground clearance below mast	m1	25 mm
4.32	Ground clearance at centre of wheelbase	m2	30 mm
4.35	Turning radius	Wa	1870 mm
4.9	Height tiller min. / max.	h14 / h14	866 mm / 1320 mm
Performances		Performances	
5.1	Travel speed (laden / unladen)		5.50 km/h / 6 km/h
5.2	Lifting speed (laden / unladen)		0.11 m/s / 0.18 m/s
5.3	Lowering speed (laden / unladen)		0.20 m/s / 0.24 m/s
5.8	Max Gradeability (laden / unladen)		10 % / 20 %
5.10	Service brake		Electro magnetic
Engine		Engine	
6.1	Drive motor rating S2 60 min		1.70 kW
6.2	Lift motor rating at S3 15%		2 kW
6.3	Battery according to DIN 43531/35/36 A, B, C		No
6.4	Battery voltage / capacity		24 V / 270 Ah
6.5	Battery weight (+/- 5%)		245 kg
Miscellaneous		Miscellaneous	
8.1	Type of drive control		AC
8.4	Sound level at the driver's ear according to DIN 12 053		65 dB

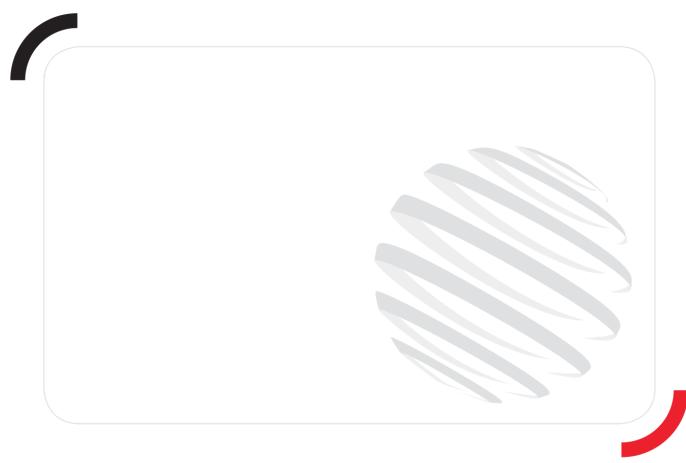
ES 420 DL - Dimensional drawing



Characteristics of masts and residual capacities

Central Cylinder Duplex (CCD)	CCD 17	CCD 21
h1 - Mast lowered height	mm 1365	mm 1560
h3 - Mast lifting height	mm 1725	mm 2125
h4 - Mast extended height	mm 2185	mm 2580
Residual capacity at max height	kg 1000	kg 1000

Central Cylinder Simplex (CCS)	CCS 17
h1 - Mast lowered height	mm 2180
h2 - Mast free lift	mm 1725
h3 - Mast lifting height	mm 1725
h4 - Mast extended height	mm 2180
Residual capacity at max height	kg 1000



MANITOU HANDLING YOUR WORLD

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