Technical sheet :

EMA II 18 HL-1



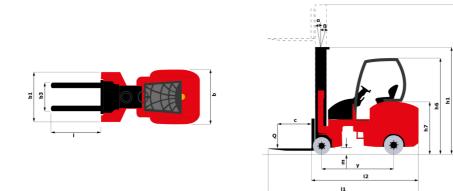


		2014 11 10 112	oreates
	Technical characteristics		
1.1	Manufacturer		
1.2	Model Name		
1.3	Power source		
1.4	Operator type		
1.5	Max. capacity	Q	
1.6	Load center of gravity	С	
1.8	Load distance, centre of drive axle to fork	х	
1.9	Wheelbase	у	
	Weight		
2.1	Service weight		
2.2	Weight on front axle (laden) / rear axle (laden)		
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		
	Wheels		
3.1	Tires type		
3.2	Dimensions of front wheels		
3.3	Dimensions of rear wheels		
3.5	Number of front wheels / rear wheels		
3.5.2	Number of drive wheels		
3.6	Front wheel gauge	b10	
3.7	Rear wheel gauge	b11	
0.7	Dimensions	511	
4.7	Height of overhead guard (cabin)	h6	
4.8	Seat height/stand height	h7	
4.19	Overall length	1	
4.20	Length to face of forks	12	
4.21	Overall width	b1	
4.22	Forks section / width / length	s/e/l	
4.23	Fork carriage ISO 2328 (class/form) A/B	37071	
4.24	Fork carriage width	b3	
4.31	Ground clearance below mast	m1	
4.32	Ground clearance at centre of wheelbase	m1 m2	
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	
1.04	Performances	731	
5.1	Travel speed (laden / unladen)		
5.2	Lifting speed (laden / unladen)		
5.3	Lowering speed (laden / unladen)		
5.7	Gradeability (laden / unladen)		
5.10	Service brake		
3.10	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%)		
0.1	Miscellaneous		
8.1	Type of drive control		
8.2	Working hydraulic pressure for attachments		
8.3	Oil flow rate for attachments		
8.4	Measured/guaranteed mean noise level at the ear of the operator		
8.4	Sound level at the driver's ear according to DIN 12 053		

c 500 mm x 308 mm y 1745 mm 6900 kg 4200 kg 4500 kg 2200 kg / 4500 kg 2200 kg / 4700 kg 300 kg 4200 kg / 4700 kg 200 kg / 4700 kg / 4700 kg / 4700 kg 200 kg / 4700 kg
EMA II 18 HL-1 Electrical Seated Q 1750 kg c 500 mm x 308 mm y 1745 mm g 6900 kg 4200 kg / 4500 kg 2200 kg / 4700 kg 2200 kg / 4700 kg 2200 kg / 4700 kg 412 x 178 412 x 178 412 x 178 412 x 178 412 x 178 2 2 2 10 1110 mm 11 1250 mm 12 2740 mm 2 2590 mm 11 1250 mm 2 2590 mm 11 250 mm 11 1250 mm 2 2590 mm 11 200 mm 12 30 mm 130 mm 130 mm 130 mm 1950 mm 131 950 mm 132 2200 mm 133 950 mm 14 1950 mm 1950 mm 130 mm
Electrical Seated Q 1750 kg c 500 mm x 308 mm y 1745 mm y 1200 kg / 4700 kg y 2 / 2 y 2 / 2 y 2 / 2 y 1110 mm 11 1250 mm y 1200 mm y 130 mm y 1950 mm
Seated Q 1750 kg S00 mm 308 mm x 308 mm y 1745 mm y 1745 mm 6900 kg 4200 kg / 4500 kg 2200 kg / 4700 kg 2200 kg / 4700 kg 2200 kg / 4700 kg 210 412 x 178 412 x 178 457 x 178 2 / 2 2 2 10 1110 mm 11 1250 mm 12 2740 mm 2 2590 mm 11 3740 mm 2 2590 mm 11 1250 mm 12 360 mm 13 3740 mm 2 2590 mm 11 250 mm 12 30 mm 130 mm 130 mm 131 950 mm 132 90 km/h 9.50 km/h 0.35 m/s 0.45 m/s 0.40 m/s 0.35 m/s 0.45 m/s 130 mm 130 mm 14 9 km/h 9.50 km/h
Q 1750 kg S00 mm xx 308 mm y 1745 mm 1745 mm 6900 kg 4200 kg / 4500 kg 2200 kg / 4700 kg 2200 kg / 4700 kg 2200 kg / 4700 kg 200 kg / 4700 kg 200 kg / 4700 kg 200 kg / 4700 kg 200 kg / 4700 kg 200 kg / 4700 kg 200 kg / 4700 kg 200 kg / 4700 kg 2/2 10 1110 mm 11 1250 mm 2 2590 mm 11 3740 mm 2 2590 mm 11 1250 mm 2 2590 mm 11 50 mm 2 130 mm 12 130 mm 13 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 % 8 % / 10.50 %
S00 mm 308 mm y 1745 mm 6900 kg 4200 kg / 4500 kg 2200 kg / 4700 kg 2200 kg / 4700 kg 200 kg / 4700 kg 2100 2 / 2 200 mm 11 1250 mm 2 2590 mm 11 200 mm x 125 mm x 1150 mm 2 2 33 860 mm 11 50 mm 2 33 860 mm 11 50 mm 2 33 860 mm 12 33
x 308 mm y 1745 mm 6900 kg 4200 kg / 4500 kg 2200 kg / 4700 kg 2200 kg / 4700 kg 301 tires 412 x 178 412 x 178 4
y 1745 mm 6900 kg 6900 kg 4200 kg / 4500 kg 2200 kg / 4700 kg 300 kg 4200 kg / 4700 kg 300 kg 412 x 178 412 x 178 412 x 178 412 x 178 457 x 178 2 / 2 2 2 10 1110 mm 11 250 mm 11 250 mm 12 2590 mm 11 3740 mm 12 2590 mm 11 1250 mm 12 3740 mm 12 3660 mm 13 360 mm 14 50 mm 15 mm 1950 mm 11 50 mm 12 30 mm 13 30 mm 14 30 mm 15 mm 1950 mm
6900 kg 4200 kg / 4500 kg 2200 kg / 4700 kg 200 kg / 4700 kg Solid tires 412 x 178 412 x 178 457 x 178 2 / 2 2 10 1110 mm 112 2260 mm 77 1200 mm 1 2590 mm 11 1250 mm 2 23 860 mm 11 1200 mm 12 13 860 mm 11 50 mm 12 13 860 mm 11 50 mm 12 130 mm 131 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
4200 kg / 4500 kg 2200 kg / 4700 kg Solid tires 412 x 178 457 x 178 2 / 2 2 10 1110 111 2260 mm 77 1200 mm 11 2260 mm 77 1200 mm 1 2590 mm 1 2590 mm 1 2500 mm 1 3740 mm 2 30 860 mm 11 50 mm 12 13 860 mm 14 50 mm 15 200 mm 11 50 mm 11 50 mm 12 130 mm 1950 mm 1950 mm 1950 mm 1950 mm 1950 mm 1950 mm 10.35 m/s-0.45 m/s <t< td=""></t<>
4200 kg / 4500 kg 2200 kg / 4700 kg 200 kg / 4700 kg Solid tires 412 x 178 457 x 178 2 / 2 2 10 1110 111 250 mm 1111 111
2200 kg / 4700 kg Solid tires 412 x 178 412 x 178 457 x 178 2 / 2 2 2 10 111 1250 mm 6 2260 mm 77 1200 mm 1 3740 mm 2 2590 mm 1 250 mm 1 3740 mm 2 3860 mm 1950 mm 12 130 mm 12 130 mm 12 130 mm 14 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 9 km/h-9.50 km/h
Solid tires 412 x 178 412 x 178 2 / 2 2 10 1110 mm 111 1250 mm 6 6 2260 mm 7 1 1 2 2 2500 mm 1 1 3 740 mm 2 2 2590 mm 1 1 2 3 8 60 mm 1 2 3 8 60 mm 1 2 3 8 1 9 1 9 1 9 1 1 50 mm 1 2 1 3 8 1 1 1 50 mm 1 2 1 3 8 1 1 1 1 1 1 1 1 1 1 1 1 1
412 x 178 457 x 178 2 / 2 2 10 1110 mm 11 1250 mm 11 1250 mm 11 2260 mm 11 2260 mm 12 2260 mm 13 2260 mm 14 2260 mm 15 2260 mm 10 2260 mm 10 200 mm
412 x 178 457 x 178 2 / 2 2 10 1110 mm 11 1250 mm 66 2260 mm 77 1200 mm 1 200 mm 1 3740 mm 2 2590 mm 1 1250 mm 2 2590 mm 1 250 mm 1 250 mm 1 250 mm 1 200 mm
457 x 178 2 / 2 10 1110 mm 11110 mm 111
2 / 2 2 10 1110 mm 11 1250 mm 11 2250 mm 12 2260 mm 14 2260 mm 15 2260 mm 16 2260 mm 17 1200 mm 12 2590 mm 10 2590 mm 10 2590 mm 10 250 mm 10 20 130 mm 11 50 mm 12 130 mm 13 30 mm 14 2200 mm 19 50 mm 10 50
2 10 1110 mm 11 1250 mm 11 2260 mm 16 2260 mm 17 1200 mm 17 1200 mm 18 2260 mm 19 2260 mm 19 2260 mm 10 2590 mm 10 20 2590 mm 10 20 2590 mm 10 20 30 mm 10 50 mm 11 50 mm 12 130 mm 13 50 mm 14 2200 mm 19 50 mm 10 20 19 50 mm 10 20 50 mm 10
10 1110 mm 11 1250 mm 16 2260 mm 17 1200 mm 18 3740 mm 2 2590 mm 11 1250 mm 2 2590 mm 11 1250 mm 12 3740 mm x 125 mm x 1150 mm 2 3860 mm 11 50 mm 12 130 mm 13 9 km/h 950 mm 14 950 mm 15 2200 mm 1950 mm 310 mm 10 30 mm 11 50 km/h 12 130 mm 13 9 km/h 9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 10 8 % / 10.50 %
11 1250 mm 16 2260 mm 17 1200 mm 18 3740 mm 2 2590 mm 11 1250 mm 2 2590 mm 11 1250 mm 2 33 860 mm 1 11 50 mm 12 130 mm 13 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 % 8 % / 10.50 %
16 2260 mm 17 1200 mm 11 3740 mm 2 2590 mm 11 1250 mm 2 2590 mm 11 1250 mm 2 203 mm x 125 mm x 1150 mm 2 2 03 860 mm 11 50 mm 12 130 mm 13 1950 mm 13 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 % 8 % / 10.50 %
1 1200 mm 1 3740 mm 2 2590 mm 1 1250 mm 1 1250 mm 2 40 mm x 125 mm x 1150 mm 2 2 33 860 mm 11 50 mm 12 130 mm 13 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 % 8 % / 10.50 %
1 1200 mm 1 3740 mm 2 2590 mm 1 1250 mm 1 1250 mm 2 40 mm x 125 mm x 1150 mm 2 2 3 860 mm 11 50 mm 12 130 mm st 2200 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
1 3740 mm 2 2590 mm 1 1250 mm 1 1250 mm 1 1250 mm 2 3 33 860 mm 11 50 mm 12 130 mm 13 2200 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
2 2590 mm 1 1250 mm 40 mm x 125 mm x 1150 mm 2 2 3 860 mm 1 50 mm 1 50 mm 1 2 130 mm 1 2 2200 mm 4 2200 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
11 1250 mm 40 mm x 125 mm x 1150 mm 2 33 860 mm 11 50 mm 12 130 mm st 2200 mm 54 2200 mm 54 2200 mm 55 1950 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
e / I 40 mm x 125 mm x 1150 mm 2 33 860 mm 11 50 mm 12 130 mm st 2200 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
2 3 860 mm 11 50 mm 12 130 mm st 1950 mm st 2200 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
3 860 mm 11 50 mm 12 130 mm st 2200 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
11 50 mm 12 130 mm 13 1950 mm 1950 mm 1950 mm 1950 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
12 130 mm st 1950 mm st 2200 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
st 1950 mm st 2200 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
st 2200 mm 9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
9 km/h-9.50 km/h 0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
0.35 m/s-0.45 m/s 0.40 m/s-0.36 m/s 8 % / 10.50 %
0.40 m/s-0.36 m/s 8 % / 10.50 %
8 % / 10.50 %
Hydraulic
10 kW
9 kW
DIN 43595
/Q \/ / 775 A b
48 V / 775 Ah 1435 kg
48 V / 775 Ah 1435 kg
1435 kg
1435 kg Mosfet AC speed controller
1435 kg Mosfet AC speed controller 200 bar
1435 kg Mosfet AC speed controller 200 bar 25 l/min
1435 kg Mosfet AC speed controller 200 bar

4

EMA II 18 HL-1 - Dimensional drawing



Characteristics of masts and residual capacities

Free Lift Triplex (FLT)		FLT 80	FLT 84	FLT 86	FLT 90	FLT 95	FLT 100	FLT 102	FLT 106
Mast/fork carriage tilt, forward	۰	1	1	1	1	1	1	1	1
Mast/fork carriage tilt, backward °		4	4	4	4	4	4	4	4
h1 - Mast lowered height	mm	3720	3900	4020	4150	4500	4590	4690	4820
h2 - Mast free lift	mm	2900	3080	3200	3330	3650	3770	3870	4000
h3 - Mast lifting height	mm	8010	8400	8610	9000	9500	10020	10200	10560
h4 - Mast extended height	mm	8840	9230	9440	9830	10475	10850	11175	11535
Residual capacity with integrated k side shift at max heigth		1250	1150	1150	1000	1000	750	750	650



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