Technical sheet:

## **EMA II 18 HL-2**





Model Name			EMAII 18 HE-2 OIG	ated 011 3 May 2024 at 10.33.47 1 M
Model Name		Technical characteristics		Metric
Bechical	1.1	Manufacturer		Manitou
	1.2	Model Name		EMA II 18 HL-2
Max. capacity	1.3	Power source		Electrical
Lead center of grawly	1.4	Operator type		Seated
	1.5	Max. capacity	Q	1750 kg
	1.6	Load center of gravity	С	500 mm
	1.8		X	
	1.9		V	1745 mm
Serice weight				
	2.1	•		8700 ka
	2.2	•		
	2.3	. , , ,		
Times type	2.0	. , , , ,		0 100 kg / 0220 kg
	3 1			Solid tires
Dimensions of rear wheels				
1.5   Number of front wheels / rear wheels   2 / 2				
5.2         Number of drive wheels         2           6.6         Front wheel gauge         b10         1110 mm           6.7         Height of owehead guard (cabin)         b11         1350 mm           1.8         Set height of owehead guard (cabin)         h6         2260 mm           1.8         Set height of sale height         h7         1200 mm           1.9         Overall length         11         3740 mm           2.0         Length to face of foks         12         2590 mm           2.1         Overall width         b1         1350 mm           2.2         Forks section / width / length         \$ / e / I         40 mm x 125 mm x 1150 mm           2.2         Forks cearlings ISO 2238 (class/form) A/B         2         2           2.4         Fork cearlings ISO 2328 (class/form) A/B         3         860 mm           3.1         Ground clearance at centre of wheelbase         m1         50 mm           3.2         Fork cearlings ISO 2328 (class/form) A/B         a5         860 mm           3.1         Ground clearance at centre of wheelbase         m2         150 mm           3.2         Alsle width for 800 x 1200 crossways         Ast         20000 mm           3.4         Alsle width for 800 x 12				
10				
			h10	
	3./		DII	1350 mm
Seat height/stand height   h7   1200 mm     19	4.7		16	2000
19   Overall length   11   3740 mm   12   2590 mm				
Length to face of forks   12   2590 mm     Overall width width width   1350 mm     Fork section / width / length   5 / 4   40 mm x 125 mm x 1150 mm     Fork carriage Si20 228 (class/form) A/B   2     24   Fork carriage Si20 228 (class/form) A/B   2     24   Fork carriage width   53   860 mm     31   Ground clearance below mast   m1   50 mm     32   Ground clearance at centre of wheelbase   m2   130 mm     33   Aisle Width for pallets 1000 x 1200 crossways   Ast   2000 mm     34   Aisle Width for 800 x 1200 pallet lengthways   Ast   2200 mm     Performances				
221         Overall width         b1         1350 mm           222         Forks section / width / length         s / e / l         40 mm x 125 mm x 1150 mm           23         Fork carriage ISO 2328 (class/form) A/B         2         2           24         Fork carriage width         b3         860 mm           .31         Ground clearance below mast         m1         50 mm           .32         Ground clearance at centre of wheelbase         m2         130 mm           .33         A isle Width for p80 x 1200 pallet lengthways         Ast         2000 mm           .34         A isle width for 800 x 1200 pallet lengthways         Ast         2000 mm           .4         A isle width for 800 x 1200 pallet lengthways         Ast         2000 mm           .5.1         Travel speed (laden / unladen)         S         9 km/h-9.50 km/h           .5.2         Lifting speed (laden / unladen)         9 km/h-9.50 km/h         3.3           .5.3         Lowering speed (laden / unladen)         8 % / 10.50 %         8 % / 10.50 %           .5.1         Gradeability (laden / unladen)         8 % / 10.50 %         8 % / 10.50 %           .5.1         Drive motor rating \$2.60 min         10 kW         10 kW           .5.2         Lift motor rating \$2.60 min		-		
222         Forks section / width / length         s / e / I         40 mm x 125 mm x 1150 mm           23         Fork carriage Riot 2328 (class/form) A/B         2           24         Fork carriage width         b3         860 mm           31         Ground clearance at centre of wheelbase         m2         130 mm           .32         Ground clearance at centre of wheelbase         m2         130 mm           .33         Aisle Width for pallets 1000 x 1200 crossways         Ast         2000 mm           .34         Aisle width for 800 x 1200 pallet lengthways         Ast         2200 mm           .34         Aisle width for 800 x 1200 pallet lengthways         Ast         2200 mm           .35         Travel speed (laden / unladen)         9 km/h-9.50 km/h           .36         Lifting speed (laden / unladen)         9 km/h-9.50 km/h           .37         Gradeability (laden / unladen)         8 % 10.50 %           .38         Lowering speed (laden / unladen)         8 % 10.50 %           .39         Service brake         9 kW           .30         Service brake         9 kW           .31         Drive motor rating \$2.50 min         10 kW           .32         Lift motor rating \$2.50 min         9 kW           .33				
.23         Fork carriage ISO 2328 (class/form) A/B         2           .24         Fork carriage width         b3         860 mm           .31         Ground clearance at centre of wheelbase         m1         50 mm           .32         Ground clearance at centre of wheelbase         m2         130 mm           .33         Aisle Width for pallets 1000 x 1200 crossways         Ast         2000 mm           .34         Aisle width for 800 x 1200 pallet lengthways         Ast         2200 mm           Performances           .1         Travel speed (laden / unladen)         9 km/h-9.50 km/h           .5.1         Liffing speed (laden / unladen)         0.35 m/s-0.45 m/s           .5.2         Liffung speed (laden / unladen)         9.40 m/s-0.36 m/s           .5.3         Lowering speed (laden / unladen)         8 % / 10.50 %           .5.1         Service brake         Hydraulic           .5.1         Drive motor rating \$2.60 min         10 kW           .5.1         Drive motor rating \$2.50 min         10 kW           .5.2         Lift motor rating at \$3.15%         9 kW           .5.4         Battery according to DiN 43531/35/36 A, B, C         9 kW           .5.4         Battery welght (+/- 5%)         1300 kg	4.21			
Fork carriage width			s / e / l	
.31         Ground clearance below mast         m1         50 mm           .32         Ground clearance at centre of wheelbase         m2         130 mm           .33         Aisle width for pallets 1000 x 1200 crossways         Ast         2000 mm           .34         Aisle width for 800 x 1200 pallet lengthways         Ast         22000 mm           .34         Aisle width for 800 x 1200 pallet lengthways         Ast         22000 mm           .34         Travel speed (laden / unladen)         9 km/h-9.50 km/h         0.35 m/s-0.45 m/s           .32         Lifting speed (laden / unladen)         0.40 m/s-0.36 m/s         0.40 m/s-0.36 m/s           .33         Lowering speed (laden / unladen)         8 % / 10.50 %         8 % / 10.50 %           .34         Service brake         9 km/h-9.50 km/h         0.40 m/s-0.36 m/s         8 / 10.50 %           .40         Service brake         9 km/h-9.50 km/h         8 % / 10.50 %         8 / 10.50 %         9 km/h-9.50 km/h         6.50 %         9 km/h-9.50 km/h         6.50 %         6.50 %         9 km/h-9.50 km/h         6.50 %         9 km/h-9.50 km/h         6.50 m/s         6.50 m/s         6 m/s         10.50 %         6.50 m/s         6 m/s         10.50 %         6.50 m/s         6 m/s         10.60 km/s         6 m/s         10.60 km/s	4.23	. ,		
.32         Ground clearance at centre of wheelbase         m2         130 mm           .33         Aisle Width for pallets 1000 x 1200 crossways         Ast         2000 mm           .34         Aisle width for 800 x 1200 pallet lengthways         Ast         2200 mm           Performances           .10         Travel speed (laden / unladen)         9 km/h-9.50 km/h           .5.2         Lifting speed (laden / unladen)         0.35 m/s-0.45 m/s           .5.3         Lowering speed (laden / unladen)         0.40 m/s-0.36 m/s           .5.7         Gradeability (laden / unladen)         8 % / 10.50 %           .5.7         Gradeability (laden / unladen)         8 % / 10.50 %           .5.1         Drive motor rating \$2.60 min         10 kW           .5.2         Lift motor rating \$2.50 min         9 kW           .5.2         Lift motor rating at \$3.15%         9 kW           .5.3         Battery according to DIN 43531/35/36 A, B, C         DIN 43595           .5.4         Battery voltage / capacity         48 V / 930 Ah           .5.5         Battery weight (+/- 5%)         1300 kg           .5.6         Battery weight (+/- 5%)         1300 kg           .5.2         Working hydraulic pressure for attachments         200 bar <td< td=""><td>4.24</td><td>,</td><td></td><td></td></td<>	4.24	,		
33       Aisle Width for pallets 1000 x 1200 crossways       Ast       2000 mm         .34       Aisle width for 800 x 1200 pallet lengthways       Ast       2200 mm         Performances         5.1       Travel speed (laden / unladen)       9 km/h-9.50 km/h         5.2       Lifting speed (laden / unladen)       0.35 m/s-0.45 m/s         5.3       Lowering speed (laden / unladen)       0.40 m/s-0.36 m/s         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         6.1       Drive motor rating seed on in       10 kW         6.1       Drive motor rating seed on in       10 kW         6.2       Lift motor rating seed seed in the seed on in       10 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         6.4       Battery voltage / capacity       48 V / 930 Ah         6.5       Battery weight (+/- 5%)       1300 kg         6.5       Battery weight (+/- 5%)       Mosfet AC speed controller         6.1       Type of drive control       Mosfet AC speed controller         6.2       Working hydraulic pressure for attachments       200 bar         6.3       Oil flow rate for attachments       273 dB	4.31			
34       Aisle width for 800 x 1200 pallet lengthways       Ast       2200 mm         Perfomances       Perfomances       Perfomances         5.1       Travel speed (laden / unladen)       9 km/h-9.50 km/h         5.2       Lifting speed (laden / unladen)       0.35 m/s-0.45 m/s         5.3       Lowering speed (laden / unladen)       8 % 10.50 %         5.7       Gradeability (laden / unladen)       8 % 10.50 %         5.7       Gradeability (laden / unladen)       8 % 10.50 %         5.0       Service brake       Hydraulic         5.1       Drive motor rating \$2.60 min       10 kW         5.2       Lift motor rating \$2.50 min       10 kW         5.2       Lift motor rating at \$3.15%       9 kW         5.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         5.4       Battery voltage / capacity       48 V / 930 Ah         5.5       Battery weight (+/- 5%)       1300 kg         5.5       Battery weight (+/- 5%)       Mosfet AC speed controller         5.1       Type of drive control       Mosfet AC speed controller         5.2       Working hydraulic pressure for attachments       200 bar         5.3       Oil flow rate for attachments       25 l/min	4.32	Ground clearance at centre of wheelbase	m2	
Performances	4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	2000 mm
5.1       Travel speed (laden / unladen)       9 km/h-9.50 km/h         5.2       Lifting speed (laden / unladen)       0.35 m/s-0.45 m/s         5.3       Lowering speed (laden / unladen)       0.40 m/s-0.36 m/s         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.10       Service brake       Hydraulic         Engine         5.1       Drive motor rating \$2.60 min       10 kW         5.2       Lift motor rating at \$3.15%       9 kW         5.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         5.4       Battery voltage / capacity       48 V / 930 Ah         5.5       Battery weight (+/- 5%)       1300 kg         Miscellaneous         3.1       Type of drive control       Mosfet AC speed controller         3.2       Working hydraulic pressure for attachments       200 bar         3.3       Oil flow rate for attachments       25 l/min         3.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	1.34	Aisle width for 800 x 1200 pallet lengthways	Ast	2200 mm
5.2       Lifting speed (laden / unladen)       0.35 m/s-0.45 m/s         5.3       Lowering speed (laden / unladen)       0.40 m/s-0.36 m/s         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.1       Service brake       Hydraulic         Engine         5.1       Drive motor rating \$2.60 min       10 kW         5.2       Lift motor rating at \$3.15%       9 kW         5.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         5.4       Battery voltage / capacity       48 V / 930 Ah         5.5       Battery weight (+/- 5%)       1300 kg         Miscellaneous         3.1       Type of drive control       Mosfet AC speed controller         3.2       Working hydraulic pressure for attachments       200 bar         3.3       Oil flow rate for attachments       25 l/min         3.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB		Performances		
5.3       Lowering speed (laden / unladen)       0.40 m/s-0.36 m/s         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.10       Service brake       Hydraulic         6.1       Drive motor rating S2 60 min       10 kW         5.2       Lift motor rating at S3 15%       9 kW         5.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         5.4       Battery voltage / capacity       48 V / 930 Ah         5.5       Battery weight (+/- 5%)       1300 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	5.1	Travel speed (laden / unladen)		9 km/h-9.50 km/h
5.7       Gradeability (laden / unladen)       8 % / 10.50 %         .10       Service brake       Hydraulic         Engine       5.1       Drive motor rating S2 60 min       10 kW         5.2       Lift motor rating at S3 15%       9 kW         5.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         5.4       Battery voltage / capacity       48 V / 930 Ah         5.5       Battery weight (+/- 5%)       1300 kg         Miscellaneous       8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	5.2	Lifting speed (laden / unladen)		0.35 m/s-0.45 m/s
Service brake	5.3	Lowering speed (laden / unladen)		0.40 m/s-0.36 m/s
Engine         Image: Company of the policy of the pol	5.7	Gradeability (laden / unladen)		8 % / 10.50 %
5.1       Drive motor rating S2 60 min       10 kW         5.2       Lift motor rating at S3 15%       9 kW         5.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         5.4       Battery voltage / capacity       48 V / 930 Ah         5.5       Battery weight (+/- 5%)       1300 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	5.10	Service brake		Hydraulic
5.2       Lift motor rating at S3 15%       9 kW         5.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         5.4       Battery voltage / capacity       48 V / 930 Ah         5.5       Battery weight (+/- 5%)       1300 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB		Engine		
3.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         5.4       Battery voltage / capacity       48 V / 930 Ah         5.5       Battery weight (+/- 5%)       1300 kg         Miscellaneous         3.1       Type of drive control       Mosfet AC speed controller         3.2       Working hydraulic pressure for attachments       200 bar         3.3       Oil flow rate for attachments       25 l/min         3.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	6.1	Drive motor rating S2 60 min		10 kW
5.4       Battery voltage / capacity       48 V / 930 Ah         5.5       Battery weight (+/- 5%)       1300 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	6.2	Lift motor rating at S3 15%		9 kW
Battery weight (+/- 5%)  Miscellaneous  3.1 Type of drive control  Working hydraulic pressure for attachments  3.2 Working hydraulic pressure for attachments  3.3 Oil flow rate for attachments  3.4 Measured/guaranteed mean noise level at the ear of the operator  1300 kg  Mosfet AC speed controller  200 bar  25 l/min  473 dB	6.3	Battery according to DIN 43531/35/36 A, B, C		DIN 43595
Miscellaneous  3.1 Type of drive control Mosfet AC speed controller  3.2 Working hydraulic pressure for attachments 200 bar  3.3 Oil flow rate for attachments 25 l/min  3.4 Measured/guaranteed mean noise level at the ear of the operator < 73 dB	6.4	Battery voltage / capacity		48 V / 930 Ah
Type of drive control  Mosfet AC speed controller  Working hydraulic pressure for attachments  Oil flow rate for attachments  Mosfet AC speed controller  200 bar  25 l/min  Ad Measured/guaranteed mean noise level at the ear of the operator  < 73 dB	6.5	Battery weight (+/- 5%)		1300 kg
8.2     Working hydraulic pressure for attachments     200 bar       8.3     Oil flow rate for attachments     25 l/min       8.4     Measured/guaranteed mean noise level at the ear of the operator     < 73 dB				
8.2     Working hydraulic pressure for attachments     200 bar       8.3     Oil flow rate for attachments     25 l/min       8.4     Measured/guaranteed mean noise level at the ear of the operator     < 73 dB	8.1			Mosfet AC speed controller
0.3 Oil flow rate for attachments 25 l/min Weasured/guaranteed mean noise level at the ear of the operator <73 dB	8.2	•		
Measured/guaranteed mean noise level at the ear of the operator < 73 dB	8.3			
,	8.4			
3.4 Sound level at the driver's ear according to DIN 12 053	8.4	Sound level at the driver's ear according to DIN 12 053		73 dB

EMA II 18 HL-2 - Dimensional drawing



## Characteristics of masts and residual capacities

Free Lift Triplex (FLT)		FLT 80	FLT 84	FLT 90	FLT 95	FLT 100	FLT 102	FLT 110	FLT 120	FLT 125	FLT 127
Mast/fork carriage tilt, forward	۰	1	1	1	1	1	1	1	1	1	1
Mast/fork carriage tilt, backward	٠	4	4	4	4	4	4	4	4	4	4
h1 - Mast lowered height	mm	3720	3900	4150	4270	4590	4690	5000	5340	5550	5570
h2 - Mast free lift	mm	2900	3080	3330	3650	3770	3870	4180	4520	4680	4750
h3 - Mast lifting height	mm	8010	8400	9000	9500	10020	10200	11010	12000	12510	12720
h4 - Mast extended height	mm	8840	9230	9830	10350	10850	11175	11985	13005	13485	13695
Residual capacity with integrated side shift at max heigth	kg	1250	1250	1250	1100	1100	1000	850	750	700	500





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