Technical sheet:

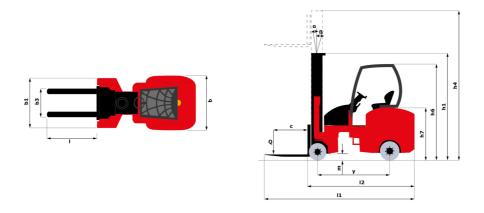
## **EMA II 18 HL-2**





Model Name			EMAII IS HL-2 GIC	ited off May 3, 2024 at 11.40.03 f M
Model Name		Technical characteristics		Metric
	1.1	Manufacturer		Manitou
Secret   S	1.2	Model Name		EMA II 18 HL-2
Max_capacity	1.3	Power source		Electrical
Lead cistance, centre of gravity   C	1.4	Operator type		Seated
Load distance, center of drive acide to fook   x   y   1745 mm	1.5	Max. capacity	Q	1750 kg
Weight   Weight   Weight   Service wei	1.6	Load center of gravity	С	500 mm
	1.8	• •	X	
	1.9		V	1745 mm
Seruce weight		Weight		
Weight on front aste (Lufem) / rear axite (Uniadem) / rear axite (	2.1	•		8700 ka
Weight on front axie (Unladen) / rear axie (Unladen)	2.2	-		*
Winesian   Tires type		. , , , ,		
Tires type	2.0	· , , , , ,		0 100 kg / 0220 kg
2.2   Dimensions of front wheels	3 1			Solid tires
Dimensions of rear wheels				
2				
.5.2         Number of drive wheels         2           3.6         Front wheel gauge         b10         1110 mm           3.7         Rear wheel gauge         b11         1350 mm           4.7         Height of ownhead guard (cabin)         h6         2260 mm           4.8         Sea theight/stand height         h7         1200 mm           1.19         Overall length         l1         3740 mm           1.20         Length to face of focks         l2         2590 mm           1.21         Overall width         b1         1350 mm           1.22         Focks section / width / length         s / e / l         40 mm x 125 mm x 1150 mm           1.22         Fock carriage ISO 2328 (class/form) A/B         2         2           2.4         Fock carriage ISO 2328 (class/form) A/B         2         2           2.4         Fock carriage ISO 2328 (class/form) A/B         b3         860 mm           3.3         Alsel settle stook of security of wheelbase         m1         50 mm           3.3         Alsel settle stook x 1200 crossways         Ast         20000 mm           3.3         Alsel width for pallest 1000 x 1200 crossways         Ast         20000 mm           5.1         Travel speed (laden / unladen) <td></td> <td></td> <td></td> <td></td>				
Sear wheel gauge				
Rear wheel gauge   bill   1350 mm			h10	
	3./		DII	1350 mm
4.8.         Seat height/stand height         h7         1200 mm           1.19         Overall length         11         3740 mm           1.20         Length to face of forks         12         2.590 mm           1.21         Overall width         b1         1.350 mm           1.22         Forks section / width / length         s / e / I         40 mm x 125 mm x 1150 mm           1.23         Fork camiage selo 2328 (class/form) A/B         2         2           1.24         Fork camiage width         b3         860 mm           1.31         Ground clearance below mast         m1         50 mm           3.22         Ground clearance at centre of wheelbase         m2         130 mm           3.33         A isle Width for pallets 1000 x 1200 crossways         Ast         2000 mm           3.34         A isle Width for allets 1000 x 1200 crossways         Ast         2000 mm           4.34         A isle width for 800 x 1200 pallet lengthways         Ast         2000 mm           5.2         Lifting speed (laden / unladen)         9 km/h-5.0 km/h           5.2         Lifting speed (laden / unladen)         0.35 m/s-0.45 m/s           5.7         Gradeability (laden / unladen)         8 % / 10.50 %           6.1         Drive mo	4.7		16	2252
11				
Length to face of forks   12   2590 mm     Length to face of forks   13   1350 mm     Length to face of forks section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width / length   1350 mm     Length to face section / width for 80 x 1200 cms     Length to face section / width for 80 x 1200 cms     Length to face section / width for 800 x 1200 cms     Length to face section / width for 800 x 1200 cms     Length to face section / width for 800 x 1200 cms     Length to face section / width for 800 x 1200 cms     Length to face section / width for 800 x 1200 cms     Length to face section / width for 800 x 1200 cms     Length to face section / width for 800 x 1200 cms     Length to face section / width for 800 x 1200 cms     Length for 800 x 1200 cms				
1.21         Overall width         b1         1350 mm           1.22         Forks section / width / length         \$ / e / I         40 mm x 125 mm x 1150 mm           1.23         Fork carriage ISQ 2328 (class/form) A/B         2         2           1.24         Fork carriage width         b3         860 mm           1.31         Ground clearance below mast         m1         50 mm           1.32         Ground clearance at centre of wheelbase         m2         130 mm           1.33         Aisle Width for pallets 1000 x 1200 crossways         Ast         2000 mm           1.34         Alse width for 800 x 1200 pallet lengthways         Ast         2000 mm           2.4         Ferformances         8         2000 mm           5.1         Travel speed (laden / unladen)         9 km/h-9.50 km/h         5.5           5.2         Lifting speed (laden / unladen)         9 km/h-9.50 km/h         5.5           5.3         Lowering speed (laden / unladen)         8 % / 10.50 %         8 % / 10.50 %           5.7         Gradeability (laden / unladen)         8 % / 10.50 %         8 % / 10.50 %           5.7         Gradeability (laden / unladen)         9 km         8 % / 10.50 %         9 kW           6.1         Dive motor rating \$2.60 min		•		
1.22         Forks section / width / length         s / e / l         40 mm x 125 mm x 1150 mm           1.23         Fork carriage Rio 2328 (class/form) A/B         2           1.24         Fork carriage width         b3         860 mm           1.31         Ground clearance below mast         m1         50 mm           1.32         Ground clearance at centre of wheelbase         m2         130 mm           1.33         Aisle Width for pallets 1000 x 1200 crossways         Ast         2000 mm           1.34         Aisle width for 800 x 1200 pallet lengthways         Ast         2200 mm           5.1         Travel speed (laden / unladen)         9 km/h-9.50 km/h         5.50 km/h           5.2         Lifting speed (laden / unladen)         9 km/h-9.50 km/h         5.50 km/h           5.7         Gradeability (laden / unladen)         8 % / 10.50 %         8 % / 10.50 %           5.7         Gradeability (laden / unladen)         8 % / 10.50 %         9 kW           6.1         Drive motor rating S2 60 min         10 kW         10 kW           6.2         Lift motor rating at S3 15%         9 kW         9 kW           6.3         Battery worlage / capacity         1300 kg         48 V/9300 Ah           6.5         Battery wollage / capacity         4				
Fork carriage ISO 2328 (class/form) A/B   2     Fork carriage width   50 mm   50 mm				
Fork carriage width			s / e / l	
Since   Sinc		, ,		
130 mm   1		3		
3.33       Aisle Width for pallets 1000 x 1200 crossways       Ast       2000 mm         1.34       Aisle width for 800 x 1200 pallet lengthways       Ast       2200 mm         Perfomances         5.1       Travel speed (laden / unladen)       9 km/h-9.50 km/h         5.2       Liffing 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 %         Engine         6.1       Drive motor rating \$2 60 min       10 kW         6.2       Lift motor rating at \$3 15%       9 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         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 1/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73	4.31			
Asise width for 800 x 1200 pallet lengthways   Ast   2200 mm			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 %         5.10       Service brake       Hydraulic         Engine         6.1       Drive motor rating \$2.60 min       10 kW         6.2       Lift motor rating at \$3 15%       9 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         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	4.34	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 %         5.10       Service brake       Hydraulic         Engine         6.1       Drive motor rating S2 60 min       10 kW         6.2       Lift motor rating at S3 15%       9 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         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		Performances		
Lowering speed (laden / unladen)   0.40 m/s-0.36 m/s	5.1	Travel speed (laden / unladen)		9 km/h-9.50 km/h
5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.10       Service brake       Hydraulic         Engine         6.1       Drive motor rating S2 60 min       10 kW         6.2       Lift motor rating at S3 15%       9 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         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         Incomposition of the protocol o	5.7	Gradeability (laden / unladen)		8 % / 10.50 %
6.1       Drive motor rating S2 60 min       10 kW         6.2       Lift motor rating at S3 15%       9 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         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
6.2       Lift motor rating at \$3 15%       9 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         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		
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         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	6.1	Drive motor rating S2 60 min		10 kW
6.4 Battery voltage / capacity 48 V / 930 Ah 6.5 Battery weight (+/- 5%) 1300 kg  Miscellaneous Uses 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  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  1300 kg  Mosfet AC speed controller  200 bar  25 1/min  4 73 dB	6.3	Battery according to DIN 43531/35/36 A, B, C		DIN 43595
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  Mosfet AC speed controller  200 bar  25 I/min  < 73 dB	6.4	Battery voltage / capacity		48 V / 930 Ah
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	6.5	Battery weight (+/- 5%)		1300 kg
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				
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
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	**		•
8.4 Measured/guaranteed mean noise level at the ear of the operator < 73 dB	8.3			
·	8.4			
8.4 Sound level at the driver's ear according to DIN 12 053 73 dB	8.4	-		

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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