Technical sheet:

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





|       |   |            | EMA II IO HL-2 Cleated off Julie 10, 2023 at 2.19 AWI OT |  |  |  |
|-------|---|------------|--|--|--|--|
|       | Technical characteristics                                       |            | Metric   |  |  |  |
| 1.1   | Manufacturer  |            | Manitou  |  |  |  |
| 1.2   | Model Name  |            | EMA II 18 HL-2   |  |  |  |
| 1.3   | Power source  |            | Electrical   |  |  |  |
| 1.4   | Operator type   |            | Seated   |  |  |  |
| 1.5   | Max. capacity   | Q          | 1750 kg  |  |  |  |
| 1.6   | Load center of gravity  | С          | 500 mm   |  |  |  |
| 1.8   | Load distance, centre of drive axle to fork                     | х          | 308 mm   |  |  |  |
| 1.9   | Wheelbase   | у          | 1745 mm  |  |  |  |
|       | Weight  |            |  |  |  |  |
| 2.1   | Service weight  |            | 8700 kg  |  |  |  |
| 2.2   | Weight on front axle (laden) / rear axle (laden)                |            | 6330 kg / 4080 kg  |  |  |  |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)            |            | 3480 kg / 5220 kg  |  |  |  |
|       | Wheels  |            | 3 3  |  |  |  |
| 3.1   | Tires type  |            | Solid tires  |  |  |  |
| 3.2   | Dimensions of front wheels                                      |            | 412 x 178  |  |  |  |
| 3.3   | Dimensions of rear wheels                                       |            | 457 x 178  |  |  |  |
| 3.5   | Number of front wheels / rear wheels                            |            | 2/2  |  |  |  |
| 3.5.2 | Number of drive wheels  |            | 2  |  |  |  |
| 3.6   | Front wheel gauge   | b10        | 1110 mm  |  |  |  |
| 3.7   | Rear wheel gauge  | b11        | 1350 mm  |  |  |  |
| 0.7   | Dimensions  | 511        | 1000 11111   |  |  |  |
| 4.7   | Height of overhead guard (cabin)                                | h6         | 2260 mm  |  |  |  |
| 4.8   | Seat height/stand height  | h7         | 1200 mm  |  |  |  |
| 4.19  | Overall length  | 11         | 3740 mm  |  |  |  |
| 4.19  | Length to face of forks   | 12         | 2590 mm  |  |  |  |
| 4.20  | Overall width   | b1         | 1350 mm  |  |  |  |
| 4.21  | Forks section / width / length                                  | s / e / l  | 40 mm x 125 mm x 1150 mm                                 |  |  |  |
| 4.22  | -   | 5/6/1      | 40 mm x 123 mm x 1130 mm                                 |  |  |  |
|       | Fork carriage ISO 2328 (class/form) A/B                         | <b>L</b> 2 | 860 mm   |  |  |  |
| 4.24  | Fork carriage width   | b3         |  |  |  |  |
| 4.31  | Ground clearance below mast                                     | m1         | 50 mm  |  |  |  |
| 4.32  | Ground clearance at centre of wheelbase                         | m2         | 130 mm   |  |  |  |
| 4.33  | Aisle Width for pallets 1000 x 1200 crossways                   | Ast        | 2000 mm  |  |  |  |
| 4.34  | 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 %  |  |  |  |
| 5.10  | 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  |  |  |  |
| 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 |
|--|----|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| α - Mast/fork carriage tilt,<br>forward                          | ۰  | 1      | 1      | 1      | 1      | 1       | 1       | 1       | 1       | 1       | 1       |
| β - Mast/fork carriage tilt,<br>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<br>integrated side shift at<br>max heigth | kg | 1250   | 1250   | 1250   | 1100   | 1100    | 1000    | 850     | 750     | 700     | 500     |





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