

Technical sheet :

# ES-C 510



 **MANITOU**  
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|       | Technical characteristics                               |           | Metric                 |
|-------|---|-----------|------------------------|
| 1.1   | Manufacturer  |           | Manitou                |
| 1.2   | Model Name  |           | ES-C 510               |
| 1.3   | Power source  |           | Electrical             |
| 1.4   | Operator type   |           | Pedestrian             |
| 1.5   | Max. capacity   | Q         | 1000 kg                |
| 1.6   | Load center of gravity                                  | c         | 500 mm                 |
| 1.8   | Distance from Load backrest to center of rear axle      | x         | 101 mm                 |
| 1.9   | Wheelbase   | y         | 1047 mm                |
|       | <b>Weight</b>   |           |                        |
| 2.1   | Service weight  |           | 1400 kg                |
|       | <b>Wheels</b>   |           |                        |
| 3.1   | Tires type  |           | Polyurethane           |
| 3.3   | Number of load wheels / Size of load wheels             |           | 2 / 150x70             |
| 3.5   | Number of front wheels / rear wheels                    |           | 1 / 2                  |
| 3.5.2 | Number of drive wheels / Size of drive wheels           |           | 1/230x70               |
| 3.7   | Rear wheel gauge  | b11       | 826 mm                 |
|       | <b>Dimensions</b>                                       |           |                        |
| 4.19  | Overall length  | l1        | 2285 mm                |
| 4.20  | Length to face of forks                                 | l2        | 1335 mm                |
| 4.21  | Overall width   | b1        | 923 mm                 |
| 4.22  | Forks section / width / length                          | s / e / l | 30 mm / 90 mm / 950 mm |
| 4.23  | Fork carriage ISO 2328 (class/form) A/B                 |           | 2B                     |
| 4.24  | Fork carriage width                                     | b3        | 750 mm                 |
| 4.31  | Ground clearance below mast                             | m1        | 60 mm                  |
| 4.32  | Ground clearance at centre of wheelbase                 | m2        | 69 mm                  |
| 4.33  | Aisle Width for pallets 1000 x 1200 crossways           | Ast       | 2825 mm                |
| 4.34  | Aisle width for 800 x 1200 pallet lengthways            | Ast       | 2935 mm                |
| 4.35  | Turning radius  | Wa        | 1360 mm                |
| 4.9   | Height tiller min. / max.                               | h14 / h14 | 830 mm / 1385 mm       |
|       | <b>Performances</b>                                     |           |                        |
| 5.1   | Travel speed (laden / unladen)                          |           | 6 km/h / 6 km/h        |
| 5.2   | Lifting speed (laden / unladen)                         |           | 0.18 m/s / 0.30 m/s    |
| 5.3   | Lowering speed (laden / unladen)                        |           | 0.27 m/s / 0.22 m/s    |
| 5.8   | Max Gradeability (laden / unladen)                      |           | 7 % / 10 %             |
| 5.10  | Service brake   |           | Electro magnetic       |
|       | <b>Engine</b>   |           |                        |
| 6.1   | Drive motor rating S2 60 min                            |           | 1.50 kW                |
| 6.2   | Lift motor rating at S3 15%                             |           | 3 kW                   |
| 6.3   | Battery according to DIN 43531/35/36 A, B, C            |           | DIN 43535-B            |
| 6.4   | Battery voltage / capacity                              |           | 24 V / 180 Ah          |
| 6.5   | Battery weight (+/- 5%)                                 |           | 175 kg                 |
|       | <b>Miscellaneous</b>                                    |           |                        |
| 8.1   | Type of drive control                                   |           | AC                     |
| 8.4   | Sound level at the driver's ear according to DIN 12 053 |           | 65 dB                  |

## ES-C 510 - Dimensional drawing



## Characteristics of masts and residual capacities

| Central Cylinder Simplex (CCS)              |    | CCS 15 | CCS 17 |
|---|----|--------|--------|
| $\alpha$ - Mast/fork carriage tilt, forward | °  | 4      | 4      |
| $\beta$ - Mast/fork carriage tilt, backward | °  | 6      | 6      |
| h1 - Mast lowered height                    | mm | 1931   | 2181   |
| h2 - Mast free lift                         | mm | 1420   | 1670   |
| h3 - Mast lifting height                    | mm | 1420   | 1670   |
| h4 - Mast extended height                   | mm | 2070   | 2320   |
| Residual capacity at max height             | kg | 1000   | 1000   |

| Full Visibility Duplex (FVD)                |    | FVD 29 | FVD 34 | FVD 38 |
|---|----|--------|--------|--------|
| $\alpha$ - Mast/fork carriage tilt, forward | °  | 4      | 4      | 4      |
| $\beta$ - Mast/fork carriage tilt, backward | °  | 6      | 6      | 6      |
| h1 - Mast lowered height                    | mm | 1931   | 2181   | 2381   |
| h3 - Mast lifting height                    | mm | 2850   | 3350   | 3750   |
| h4 - Mast extended height                   | mm | 3500   | 4000   | 4400   |
| Residual capacity at max height             | kg | 1000   | 1000   | 900    |

| Free Lift Duplex (FLD)                      |    | FLD 29 | FLD 34 |
|---|----|--------|--------|
| $\alpha$ - Mast/fork carriage tilt, forward | °  | 4      | 4      |
| $\beta$ - Mast/fork carriage tilt, backward | °  | 6      | 6      |
| h1 - Mast lowered height                    | mm | 1931   | 2181   |
| h2 - Mast free lift                         | mm | 1420   | 1670   |
| h3 - Mast lifting height                    | mm | 2850   | 3355   |
| h4 - Mast extended height                   | mm | 3500   | 4000   |
| Residual capacity at max height             | kg | 1000   | 1000   |

| Free Lift Triplex (FLT)                     |    | FLT 42 |
|---|----|--------|
| $\alpha$ - Mast/fork carriage tilt, forward | °  | 4      |
| $\beta$ - Mast/fork carriage tilt, backward | °  | 6      |
| h1 - Mast lowered height                    | mm | 1956   |
| h2 - Mast free lift                         | mm | 1380   |
| h3 - Mast lifting height                    | mm | 4160   |
| h4 - Mast extended height                   | mm | 4810   |
| Residual capacity at max height             | kg | 800    |



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