

Technical sheet :

# **ES-C 510**



 **MANITOU**  
HANDLING YOUR WORLD

| Technical characteristics |   |           | Metric                 |
|---------------------------|---|-----------|------------------------|
| 1.1                       | Manufacturer  |           | Manitou                |
| 1.2                       | Model Name  |           | ES-C 510               |
| 1.3                       | Power source  |           | Electrical - Lead      |
| 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 cushion   |
| 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       | 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 | 1932   | 2182   |
| h2 - Mast free lift                         | mm | 1420   | 1670   |
| h3 - Mast lifting height                    | mm | 1500   | 1700   |
| h4 - Mast extended height                   | mm | 2030   | 2280   |
| 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 | 1932   | 2182   | 2382   |
| h3 - Mast lifting height                    | mm | 2900   | 3400   | 3800   |
| h4 - Mast extended height                   | mm | 3460   | 3960   | 4360   |
| 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 | 1932   | 2182   |
| h2 - Mast free lift                         | mm | 1420   | 1670   |
| h3 - Mast lifting height                    | mm | 2900   | 3400   |
| h4 - Mast extended height                   | mm | 3460   | 3960   |
| 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 | 1890   |
| h2 - Mast free lift                         | mm | 1380   |
| h3 - Mast lifting height                    | mm | 4200   |
| h4 - Mast extended height                   | mm | 4770   |
| Residual capacity at max height             | kg | 800    |



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