

Technical sheet :

# ES 312 EASY

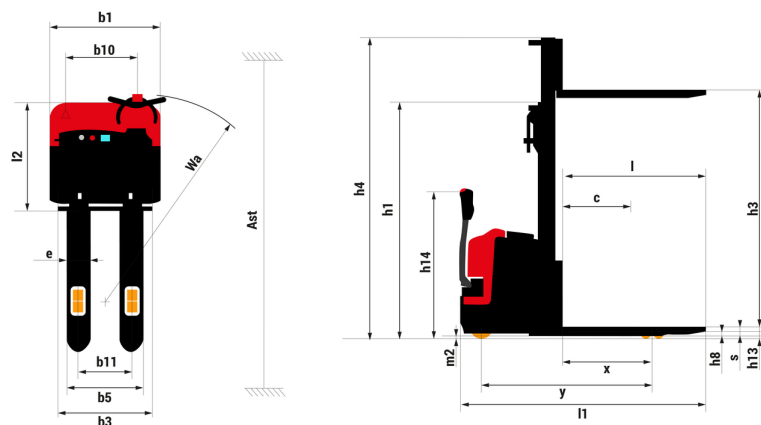
OXYGEN



 **MANITOU**  
HANDLING YOUR WORLD

|       | Technical characteristics                                                                 |           | Metric                   |
|-------|-------------------------------------------------------------------------------------------|-----------|--------------------------|
| 1.1   | Manufacturer                                                                              |           | MANITOU                  |
| 1.2   | Model Name                                                                                |           | ES 312 Easy              |
| 1.3   | Power source                                                                              |           | Electrical - Lithium     |
| 1.4   | Operator type                                                                             |           | Walking alongside        |
| 1.5   | Max. capacity                                                                             | Q         | 1200 kg                  |
| 1.6   | Load center of gravity                                                                    | c         | 600 mm                   |
| 1.8   | Load distance, centre of drive axle to fork (low/raised) - Low position / Raised position | x / x     | 700 mm / 700 mm          |
| 1.9   | Wheelbase                                                                                 | y         | 1318 mm                  |
|       | <b>Weight</b>                                                                             |           |                          |
| 2.1   | Service weight                                                                            |           | 1020 kg                  |
| 2.2   | Weight on front axle (laden) / rear axle (laden)                                          |           | 625 kg / 1595 kg         |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)                                      |           | 685 kg / 335 kg          |
|       | <b>Wheels</b>                                                                             |           |                          |
| 3.1   | Tires type                                                                                |           | Polyurethane cushion     |
| 3.3   | Number of load wheels / Size of load wheels                                               |           | 4 / 83x80                |
| 3.4   | Number of stabilizer wheels / Size of the stabilizer wheels                               |           | 1 / 140x55               |
| 3.5   | Number of front wheels / rear wheels                                                      |           | 2 / 4                    |
| 3.5.2 | Number of drive wheels / Size of drive wheels                                             |           | 1/250x80                 |
| 3.6   | Front wheel gauge                                                                         | b10       | 510 mm                   |
| 3.7   | Rear wheel gauge                                                                          | b11       | 385 mm                   |
|       | <b>Dimensions</b>                                                                         |           |                          |
| 4.10  | Height of wheel arms                                                                      | h8        | 80 mm                    |
| 4.15  | Fork height in low position                                                               | h13       | 90 mm                    |
| 4.19  | Overall length                                                                            | l1        | 1934 mm                  |
| 4.20  | Length to face of forks                                                                   | l2        | 784 mm                   |
| 4.21  | Overall width                                                                             | b1        | 800 mm                   |
| 4.22  | Forks section / width / length                                                            | s / e / l | 60 mm / 185 mm / 1150 mm |
| 4.24  | Fork carriage width                                                                       | b3        | 680 mm                   |
| 4.25  | Forks spread                                                                              | b5        | 570 mm                   |
| 4.32  | Ground clearance at centre of wheelbase                                                   | m2        | 25 mm                    |
| 4.33  | Aisle Width for pallets 1000 x 1200 crossways                                             | Ast       | 2420 mm                  |
| 4.34  | Aisle width for 800 x 1200 pallet lengthways                                              | Ast       | 2390 mm                  |
| 4.35  | Turning radius                                                                            | Wa        | 1550 mm                  |
| 4.9   | Height tiller min. / max.                                                                 | h14 / h14 | 790 mm / 1205 mm         |
|       | <b>Performances</b>                                                                       |           |                          |
| 5.1   | Travel speed (laden / unladen)                                                            |           | 6 km/h / 6 km/h          |
| 5.2   | Lifting speed (laden / unladen)                                                           |           | 0.22 m/s / 0.47 m/s      |
| 5.3   | Lowering speed (laden / unladen)                                                          |           | 0.45 m/s / 0.40 m/s      |
| 5.8   | Max Gradeability (laden / unladen)                                                        |           | 8 % / 16 %               |
| 5.10  | Service brake                                                                             |           | Electro magnetic         |
|       | <b>Engine</b>                                                                             |           |                          |
| 6.1   | Drive motor rating S2 60 min                                                              |           | 2.20 kW                  |
| 6.2   | Lift motor rating at S3 15%                                                               |           | 4.20 kW                  |
| 6.4   | Battery voltage / capacity                                                                |           | 48 V / 105 Ah            |
|       | Battery technology                                                                        |           | Lithium-ion              |
| 6.5   | Battery weight (+/- 5%)                                                                   |           | 65 kg                    |

## ES 312 Easy - Dimensional drawing



## Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)    |    | FVD 30 |
|---------------------------------|----|--------|
| h1 - Mast lowered height        | mm | 1990   |
| h2 - Mast free lift             | mm | 90     |
| h3 - Mast lifting height        | mm | 3000   |
| h4 - Mast extended height       | mm | 3490   |
| Residual capacity at max height | kg | 1200   |
| Height at max capacity          | mm | 3090   |

| Free Lift Triplex (FLT)         |    | FLT 43 |
|---------------------------------|----|--------|
| h1 - Mast lowered height        | mm | 1890   |
| h2 - Mast free lift             | mm | 1425   |
| h3 - Mast lifting height        | mm | 4300   |
| h4 - Mast extended height       | mm | 4780   |
| Residual capacity at max height | kg | 805    |
| Height at max capacity          | mm | 3290   |

## Equipment

| Standard                                                 |
|----------------------------------------------------------|
| Anti-crushing safety device                              |
| Battery - 5.04kWh - Lithium-ion                          |
| Emergency stop                                           |
| Onboard charger - 0.96kW AC - Lithium-ion - Single-phase |
| Pincode - On tiller                                      |
| Polyurethane tandem-load wheels                          |
| Turtle button                                            |

| Optional                                                 |
|----------------------------------------------------------|
| Cold environment (from -28°C (-18°F))                    |
| External charger - 2.4kW AC - Lithium-ion - Single-phase |
| Key switch entry                                         |
| Soft polyurethane drive wheel - 75 shore                 |



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