Technical sheet :

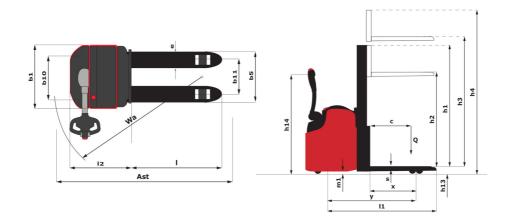




|       | Technical characteristics                               |           |
|-------|---|-----------|
| 1.1   | Manufacturer  |           |
| 1.2   | Model Name  |           |
| 1.3   | Power source  |           |
| 1.4   | Operator type   |           |
| 1.5   | Max. capacity   | Q         |
| 1.51  | Nominal capacity on wrapover forks                      | Q         |
| 1.6   | Load center of gravity                                  | С         |
| 1.8   | Distance from Load backrest to center of rear axle      | x         |
| 1.9   | Wheelbase   | у         |
|       | Weight  | ,         |
| 2.1   | Service weight  |           |
| 2.2   | Weight on front axle (laden) / rear axle (laden)        |           |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)    |           |
| 2.5   | Wheels  |           |
| 3.1   | Tires type  |           |
| 3.3   | Number of load wheels / Size of load wheels             |           |
| 3.4   | Number of road wheels                                   |           |
| 3.4   | Number of castor wheels / Size of the stabilizer wheels |           |
|       |   |           |
| 3.5   | Number of front wheels / rear wheels                    |           |
| 3.5.2 | Number of drive wheels / Size of drive wheels           | 140       |
| 3.6   | Front wheel gauge                                       | b10       |
| 3.7   | Rear wheel gauge  | b11       |
| 16    | Dimensions  |           |
| 4.6   | Initial lift  | h5        |
| 4.15  | Fork height in low position                             | h13       |
| 4.19  | Overall length  | 1         |
| 4.20  | Length to face of forks                                 | 12        |
| 4.21  | Overall width   | b1        |
| 4.22  | Forks section / width / length                          | s / e / l |
| 4.24  | Fork carriage width                                     | b3        |
| 4.31  | Ground clearance below mast                             | m1        |
| 4.32  | Ground clearance at centre of wheelbase                 | m2        |
| 4.33  | Aisle Width for pallets 1000 x 1200 crossways           | Ast       |
| 4.34  | Aisle width for 800 x 1200 pallet lengthways            | Ast       |
| 4.35  | Tuming radius   | Wa        |
| 4.9   | Height tiller min. / max.                               | h14 / h14 |
|       | Performances  |           |
| 5.1   | Travel speed (laden / unladen)                          |           |
| 5.2   | Lifting speed (laden / unladen)                         |           |
| 5.3   | Lowering speed (laden / unladen)                        |           |
| 5.8   | Max Gradeability (laden / unladen)                      |           |
| 5.10  | Service brake   |           |
|       | Engine  |           |
| 6.1   | Drive motor rating S2 60 min                            |           |
| 6.2   | Lift motor rating at S3 15%                             |           |
| 6.3   | Battery according to DIN 43531/35/36 A, B, C            |           |
| 6.4   | Battery voltage / capacity                              |           |
| 6.5   | Battery weight (+/- 5%)                                 |           |
|       | Miscellaneous   |           |
| 8.1   | Type of drive control                                   |           |
| 8.4   | Sound level at the driver's ear according to DIN 12 053 |           |
|       |   |           |

| ES 820 L  | Created on August 21, 2025 at 11:02 AM UTC |
|-----------|--|
|           | Metric                                     |
|           | Manitou                                    |
|           | ES 820 LI                                  |
|           | Electrical - Lead                          |
|           | Pedestrian                                 |
| Q         | 2000 kg                                    |
| Q         | 2000 kg                                    |
| c         | 600 mm                                     |
| x         | 716 mm                                     |
|           | 1509 mm                                    |
| у         | 1309 mm                                    |
|           | 1800 kg                                    |
|           | 1360 kg / 2500 kg                          |
|           |  |
|           | 1250 kg / 550 kg                           |
|           | Deleveration                               |
|           | Polyurethane                               |
|           | 4 / 82 x 68                                |
|           | 1  |
|           | 2 / 120 x 50                               |
|           | 3 / 4                                      |
|           | 1/254x100                                  |
| b10       | 664 mm                                     |
| b11       | 375 mm                                     |
|           |  |
| h5        | 110 mm                                     |
| h13       | 86 mm                                      |
| 11        | 2123 mm                                    |
| 12        | 973 mm                                     |
| b1        | 890 mm                                     |
| s / e / l | 70 mm / 200 mm / 1150 mm                   |
| b3        | 700 mm                                     |
| m1        | 20 mm                                      |
| m2        | 21 mm                                      |
| Ast       | 2572 mm                                    |
| Ast       | 2531 mm                                    |
| Wa        | 1719 mm                                    |
| h14 / h14 | 900 mm / 1400 mm                           |
|           |  |
|           | 6 km/h / 6 km/h                            |
|           | 0.11 m/s / 0.20 m/s                        |
|           | 0.21 m/s / 0.22 m/s                        |
|           | 6 % / 10 %                                 |
|           | Electro magnetic                           |
|           |  |
|           | 2 kW                                       |
|           | 4 kW                                       |
|           | Traction                                   |
|           | 24 V / 315 Ah                              |
|           | 273 kg                                     |
|           |  |
|           | DC   |
|           | 65 dB                                      |
|           |  |

## ES 820 LI - Dimensional drawing



## Characteristics of masts and residual capacities

| Central Cylinder Simplex (CCS)  |    | CCS 15 | CCS 17 |
|---------------------------------|----|--------|--------|
| h1 - Mast lowered height        | mm | 1955   | 2205   |
| h2 - Mast free lift             | mm | 1510   | 1760   |
| h3 - Mast lifting height        | mm | 1510   | 1760   |
| h4 - Mast extended height       | mm | 1965   | 2215   |
| Residual capacity at max height | kg | 2000   | 2000   |

| Full Visibility Duplex (FVD)    |    | FVD 29 | FVD 34 |
|---------------------------------|----|--------|--------|
| h1 - Mast lowered height        | mm | 1955   | 2205   |
| h3 - Mast lifting height        | mm | 2940   | 3440   |
| h4 - Mast extended height       | mm | 3400   | 3900   |
| Residual capacity at max height | kg | 1600   | 1300   |

| Free Lift Duplex (FLD)          |    | FLD 29 | FLD 34 |
|---------------------------------|----|--------|--------|
| h1 - Mast lowered height        | mm | 2205   | 2205   |
| h2 - Mast free lift             | mm | 1510   | 1760   |
| h3 - Mast lifting height        | mm | 2935   | 3435   |
| h4 - Mast extended height       | mm | 3895   | 3895   |
| Residual capacity at max height | kg | 1600   | 1300   |

| Free Lift Triplex (FLT)         |    | FLT 42 | FLT 47 | FLT 54 |
|---------------------------------|----|--------|--------|--------|
| h1 - Mast lowered height        | mm | 1915   | 2075   | 2315   |
| h2 - Mast free lift             | mm | 1470   | 1630   | 1880   |
| h3 - Mast lifting height        | mm | 4250   | 4730   | 5460   |
| h4 - Mast extended height       | mm | 4725   | 5205   | 5895   |
| Residual capacity at max height | kg | 750    | 550    | 450    |



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