

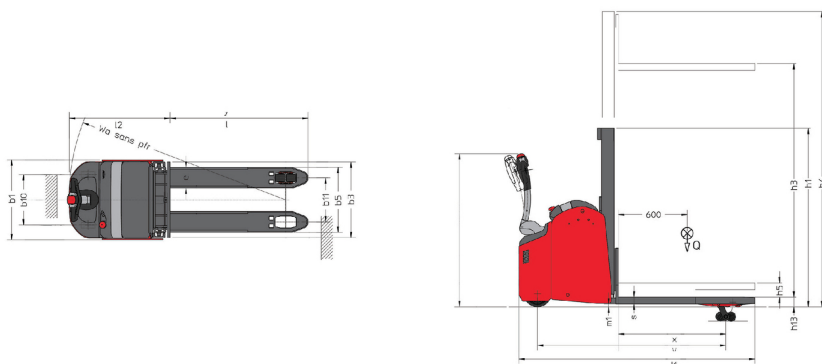
Technical sheet :

ES 410



| Technical characteristics | | | Metric | Imperial |
|---------------------------|---|-----------|--------------------------|-----------------------|
| 1.1 | Manufacturer | | Manitou | Manitou |
| 1.2 | Model Name | | ES 410 | ES 410 |
| 1.3 | Power source | | Electrical | Electrical |
| 1.4 | Operator type | | Pedestrian | Pedestrian |
| 1.5 | Max. capacity | Q | 1000 kg | 2205 lb |
| 1.6 | Load center of gravity | c | 600 mm | 24 in |
| 1.8 | Distance from Load backrest to center of rear axle | x | 723 mm | 28 in |
| 1.9 | Wheelbase | y | 1285 mm | 51 in |
| Weight | | | | |
| 2.1 | Service weight | | 870 kg | 1918 lb |
| 2.2 | Weight on front axle (laden) / rear axle (laden) | | 709 kg / 1161 kg | 1563 lb / 2560 lb |
| 2.3 | Weight on front axle (Unladen) / rear axle (Unladen) | | 609 kg / 261 kg | 1343 lb / 575 lb |
| Wheels | | | | |
| 3.1 | Tires type | | Polyurethane | Polyurethane |
| 3.3 | Number of load wheels / Size of load wheels | | 2 / 125x50 | 2 / 125x50 |
| 3.4 | Number of stabilizer wheels / Size of the stabilizer wheels | | 1 / 125x50 | 1 / 125x50 |
| 3.5 | Number of front wheels / rear wheels | | 2 / 2 | 2 / 2 |
| 3.5.2 | Number of drive wheels / Size of drive wheels | | 1/230x75 | 1/230x75 |
| 3.6 | Front wheel gauge | b10 | 517 mm | 20 in |
| 3.7 | Rear wheel gauge | b11 | 380 mm | 15 in |
| Dimensions | | | | |
| 4.15 | Fork height in low position | h13 | 85 mm | 3 in |
| 4.19 | Overall length | l1 | 1870 mm | 74 in |
| 4.20 | Length to face of forks | l2 | 720 mm | 28 in |
| 4.21 | Overall width | b1 | 800 mm | 31 in |
| 4.22 | Forks section / width / length | s / e / l | 60 mm / 180 mm / 1150 mm | 2 in / 7 in / 45 in |
| 4.24 | Fork carriage width | b3 | 680 mm | 27 in |
| 4.31 | Ground clearance below mast | m1 | 35 mm | 1 in |
| 4.32 | Ground clearance at centre of wheelbase | m2 | 20 mm | 0.79 in |
| 4.35 | Turning radius | Wa | 1465 mm | 58 in |
| 4.9 | Height tiller max. | h14 | 1050 mm | 41 in |
| Performances | | | | |
| 5.1 | Travel speed (laden / unladen) | | 6 km/h / 6 km/h | 4 mph / 4 mph |
| 5.2 | Lifting speed (laden / unladen) | | 0.11 m/s / 0.16 m/s | 0.36 ft/s / 0.52 ft/s |
| 5.3 | Lowering speed (laden / unladen) | | 0.14 m/s / 0.12 m/s | 0.46 ft/s / 0.39 ft/s |
| 5.8 | Max Gradeability (laden / unladen) | | 8 % / 10 % | 8 % / 10 % |
| 5.10 | Service brake | | Electro magnetic | Electro magnetic |
| Engine | | | | |
| 6.1 | Drive motor rating S2 60 min | | 1 kW | 1 kW |
| 6.2 | Lift motor rating at S3 15% | | 2 kW | 2 kW |
| 6.3 | Battery according to DIN 43531/35/36 A, B, C | | DIN 43535-B | DIN 43535-B |
| 6.4 | Battery voltage / capacity | | 24 V / 160 Ah | 24 V / 160 Ah |
| 6.5 | Battery weight (+/- 5%) | | 143 kg | 315 lb |
| Miscellaneous | | | | |
| 8.1 | Type of drive control | | AC | AC |
| 8.4 | Sound level at the driver's ear according to DIN 12 053 | | 65 dB | 65 dB |

ES 410 - Dimensional drawing



Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD) | | FVD 29 | FVD 34 | FVD 38 |
|---------------------------------|---------|--------------|--------------|--------------|
| h1 - Mast lowered height | in (mm) | 76.4 (1940) | 86.2 (2190) | 94.1 (2390) |
| h3 - Mast lifting height | in (mm) | 115.7 (2940) | 135.4 (3440) | 151.2 (3840) |
| h4 - Mast extended height | in (mm) | 132.5 (3365) | 152.2 (3865) | 167.9 (4265) |
| Residual capacity at max height | lb (kg) | 2205 (1000) | 1984 (900) | 1653 (750) |

| Free Lift Duplex (FLD) | | FLD 29 | FLD 34 |
|---------------------------------|---------|--------------|--------------|
| h1 - Mast lowered height | in (mm) | 76.4 (1940) | 86.2 (2190) |
| h2 - Mast free lift | in (mm) | 59.4 (1510) | 69.3 (1760) |
| h3 - Mast lifting height | in (mm) | 115.6 (2935) | 135.2 (3435) |
| h4 - Mast extended height | in (mm) | 132.5 (3365) | 152.2 (3865) |
| Residual capacity at max height | lb (kg) | 2205 (1000) | 1984 (900) |

| Free Lift Triplex (FLT) | | FLT 42 |
|---------------------------------|---------|--------------|
| h1 - Mast lowered height | in (mm) | 77.4 (1965) |
| h2 - Mast free lift | in (mm) | 57.9 (1470) |
| h3 - Mast lifting height | in (mm) | 166.9 (4240) |
| h4 - Mast extended height | in (mm) | 186.4 (4735) |
| Residual capacity at max height | lb (kg) | 1213 (550) |



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