

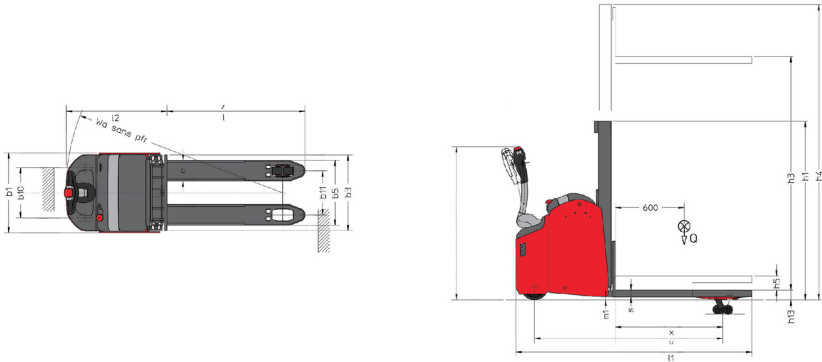
Technical sheet :

ES 420 DL



| Technical characteristics | | | Metric | Imperial |
|---------------------------|---|-----------|---------------------------|-----------------------|
| 1.1 | Manufacturer | | Manitou | Manitou |
| 1.2 | Model Name | | ES 420 DL | ES 420 DL |
| 1.3 | Power source | | Electrical | Electrical |
| 1.4 | Operator type | | Pedestrian | Pedestrian |
| 1.5 | Max. capacity | Q | 2000 kg | 4409 lb |
| 1.51 | Nominal capacity on wrapover forks | Q | 1000 kg | 2205 lb |
| 1.52 | Nominal capacity in double stacking 1 / 2 | Q / Q | 1000 kg + 1000 kg | 2205 lb + 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 | 937 mm | 37 in |
| 1.9 | Wheelbase | y | 1644 mm | 65 in |
| Weight | | | | |
| 2.1 | Service weight | | 1020 kg | 2249 lb |
| 2.2 | Weight on front axle (laden) / rear axle (laden) | | 1460 kg / 1560 kg | 3219 lb / 3439 lb |
| 2.3 | Weight on front axle (Unladen) / rear axle (Unladen) | | 730 kg / 290 kg | 1609 lb / 639 lb |
| Wheels | | | | |
| 3.1 | Tires type | | Polyurethane | Polyurethane |
| 3.3 | Number of load wheels / Size of load wheels | | 4 / 82x68 | 4 / 82x68 |
| 3.4 | Number of stabilizer wheels / Size of the stabilizer wheels | | 2 / 120x50 | 2 / 120x50 |
| 3.5 | Number of front wheels / rear wheels | | 3 / 4 | 3 / 4 |
| 3.5.2 | Number of drive wheels / Size of drive wheels | | 1/230x75 | 1/230x75 |
| 3.6 | Front wheel gauge | b10 | 435 mm | 17 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 | 2060 mm | 81 in |
| 4.20 | Length to face of forks | l2 | 870 mm | 34 in |
| 4.21 | Overall width | b1 | 688 mm | 27 in |
| 4.22 | Forks section / width / length | s / e / l | 160 mm / 180 mm / 1190 mm | 6 in / 7 in / 47 in |
| 4.24 | Fork carriage width | b3 | 650 mm | 26 in |
| 4.31 | Ground clearance below mast | m1 | 25 mm | 0.98 in |
| 4.32 | Ground clearance at centre of wheelbase | m2 | 30 mm | 1 in |
| 4.35 | Turning radius | Wa | 1870 mm | 74 in |
| 4.9 | Height tiller min. / max. | h14 / h14 | 866 mm / 1320 mm | 34 in / 52 in |
| Performances | | | | |
| 5.1 | Travel speed (laden / unladen) | | 5.50 km/h / 6 km/h | 3 mph / 4 mph |
| 5.2 | Lifting speed (laden / unladen) | | 0.11 m/s / 0.18 m/s | 0.36 ft/s / 0.59 ft/s |
| 5.3 | Lowering speed (laden / unladen) | | 0.20 m/s / 0.24 m/s | 0.66 ft/s / 0.79 ft/s |
| 5.8 | Max Gradeability (laden / unladen) | | 10 % / 20 % | 10 % / 20 % |
| 5.10 | Service brake | | Electro magnetic | Electro magnetic |
| Engine | | | | |
| 6.1 | Drive motor rating S2 60 min | | 1.70 kW | 1.70 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 | | No | No |
| 6.4 | Battery voltage / capacity | | 24 V / 270 Ah | 24 V / 270 Ah |
| 6.5 | Battery weight (+/- 5%) | | 245 kg | 540 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 420 DL - Dimensional drawing



Characteristics of masts and residual capacities

| Central Cylinder Duplex (CCD) | | CCD 17 | CCD 21 |
|---------------------------------|---------|-------------|--------------|
| h1 - Mast lowered height | in (mm) | 53.7 (1365) | 61.4 (1560) |
| h3 - Mast lifting height | in (mm) | 67.9 (1725) | 83.7 (2125) |
| h4 - Mast extended height | in (mm) | 86 (2185) | 101.6 (2580) |
| Residual capacity at max height | lb (kg) | 2205 (1000) | 2205 (1000) |

| Central Cylinder Simplex (CCS) | | CCS 17 |
|---------------------------------|---------|-------------|
| h1 - Mast lowered height | in (mm) | 85.8 (2180) |
| h2 - Mast free lift | in (mm) | 67.9 (1725) |
| h3 - Mast lifting height | in (mm) | 67.9 (1725) |
| h4 - Mast extended height | in (mm) | 85.8 (2180) |
| Residual capacity at max height | lb (kg) | 2205 (1000) |



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