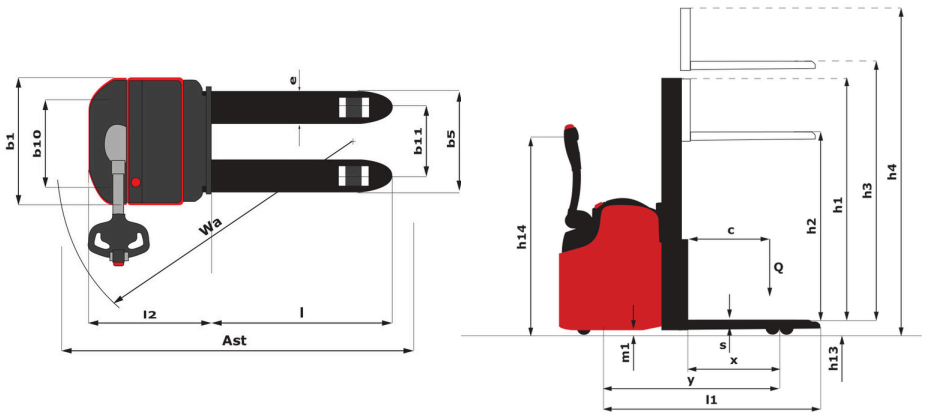
Technical sheet :

# ES 616 LI (5PTS)

MANITOU
HANDLING YOUR WORLD

| | Technical characteristics | | Metric |
|---|---|---|---|
| 1.1 | Manufacturer | | Manitou |
| 1.2 | Model Name | | ES 616 LI (5pts) |
| 1.3 | Power source | | Electrical - Lead |
| 1.4 | Operator type | | Pedestrian |
| 1.5 | Max. capacity | Q | 1600 kg |
| 1.6 | Load center of gravity | c | 600 mm |
| 1.8 | Distance from Load backrest to center of rear axle | x | 729 mm |
| 1.9 | Wheelbase | y | 1393 mm |
| | **Weight** | | |
| 2.1 | Service weight | | 1280 kg |
| 2.2 | Weight on front axle (laden) / rear axle (laden) | | 1070 kg / 1855 kg |
| 2.3 | Weight on front axle (Unladen) / rear axle (Unladen) | | 905 kg / 375 kg |
| | **Wheels** | | |
| 3.1 | Tires type | | Polyurethane cushion |
| 3.3 | Number of load wheels / Size of load wheels | | 4 / 82 x 68 |
| 3.4 | Number of stabilizer wheels / Size of the stabilizer wheels | | 2 / 120 x 54 |
| 3.5 | Number of front wheels / rear wheels | | 3 / 4 |
| 3.5.2 | Number of drive wheels / Size of drive wheels | | 1/230x70 |
| 3.6 | Front wheel gauge | b10 | 558 mm |
| 3.7 | Rear wheel gauge | b11 | 380 mm |
| | **Dimensions** | | |
| 4.15 | Fork height in low position | h13 | 86 mm |
| 4.19 | Overall length | l1 | 1995 mm |
| 4.20 | Length to face of forks | l2 | 846 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 | 700 mm |
| 4.32 | Ground clearance at centre of wheelbase | m2 | 24 mm |
| 4.33 | Aisle Width for pallets 1000 x 1200 crossways | Ast | 2399 mm |
| 4.34 | Aisle width for 800 x 1200 pallet lengthways | Ast | 2402 mm |
| 4.6 | Initial lift | h5 | 110 mm |
| 4.35 | Turning radius | Wa | 1597 mm |
| 4.9 | Height tiller min. / max. | h14 | 750 mm / 1250 mm |
| | **Performances** | | |
| 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 |
| | **Engine** | | |
| 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%) | | 220 kg |
| | **Miscellaneous** | | |
| 8.1 | Type of drive control | | AC |
| 8.4 | Sound level at the driver's ear according to DIN 12 053 | | 65 dB |

## ES 616 LI (5pts) - Dimensional drawing



# Characteristics of masts and residual capacities

| Central Cylinder Simplex (CCS) | | CCS 15 | CCS 17 |
|---|---|---|---|
| h1 - Mast lowered height | mm | 1953 | 2203 |
| h2 - Mast free lift | mm | 1420 | 1670 |
| h3 - Mast lifting height | mm | 1500 | 1700 |
| h4 - Mast extended height | mm | 1960 | 2210 |
| Residual capacity at max height | kg | 1600 | 1600 |

| Full Visibility Duplex (FVD) | | FVD 29 | FVD 34 | FVD 38 |
|---|---|---|---|---|
| h1 - Mast lowered height | mm | 1953 | 2203 | 2403 |
| h3 - Mast lifting height | mm | 2900 | 3400 | 3800 |
| h4 - Mast extended height | mm | 3390 | 3890 | 4290 |
| Residual capacity at max height | kg | 1300 | 1000 | 700 |

| Free Lift Duplex (FLD) | | FLD 29 | FLD 34 |
|---|---|---|---|
| h1 - Mast lowered height | mm | 1953 | 2203 |
| h2 - Mast free lift | mm | 1420 | 1670 |
| h3 - Mast lifting height | mm | 2900 | 3400 |
| h4 - Mast extended height | mm | 3385 | 3885 |
| Residual capacity at max height | kg | 1250 | 950 |

| Free Lift Triplex (FLT) | | FLT 42 |
|---|---|---|
| h1 - Mast lowered height | mm | 1911 |
| h2 - Mast free lift | mm | 1380 |
| h3 - Mast lifting height | mm | 4200 |
| h4 - Mast extended height | mm | 4723 |
| Residual capacity at max height | kg | 600 |

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