

Technical sheet :

# ES 616 LI

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	Technical characteristics		Metric
1.1	Manufacturer		Manitou
1.2	Model Name		ES 616 LI
1.3	Power source		Electrical
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	848 mm
1.9	Wheelbase	y	1492 mm
	<b>Weight</b>		
2.1	Service weight		1283 kg
2.2	Weight on front axle (laden) / rear axle (laden)		1216 kg / 1660 kg
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		1033 kg / 280 kg
	<b>Wheels</b>		
3.1	Tires type		Polyurethane
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		1 / 120 x 54
3.5	Number of front wheels / rear wheels		2 / 4
3.5.2	Number of drive wheels / Size of drive wheels		1/230x70
3.6	Front wheel gauge	b10	529 mm
3.7	Rear wheel gauge	b11	380 mm
	<b>Dimensions</b>		
4.6	Initial lift	h5	110 mm
4.15	Fork height in low position	h13	86 mm
4.19	Overall length	l1	2035 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 / 1190 mm
4.24	Fork carriage width	b3	700 mm
4.32	Ground clearance at centre of wheelbase	m2	30 mm
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	2520 mm
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	2435 mm
4.35	Turning radius	Wa	1716 mm
4.9	Height tiller min. / max.	h14 / h14	750 mm / 1250 mm
	<b>Performances</b>		
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
	<b>Engine</b>		
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
	<b>Miscellaneous</b>		
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 - 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	1506	1756
h3 - Mast lifting height	mm	1506	1756
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	2936	3436	3836
h4 - Mast extended height	mm	3390	3890	4290
Residual capacity at max height	kg	1350	1100	850

Free Lift Duplex (FLD)		FLD 29	FLD 34
h1 - Mast lowered height	mm	1953	2203
h2 - Mast free lift	mm	1506	1756
h3 - Mast lifting height	mm	2931	3431
h4 - Mast extended height	mm	3385	3885
Residual capacity at max height	kg	1350	1100

Free Lift Triplex (FLT)		FLT 42	FLT 47	FLT 54
h1 - Mast lowered height	mm	1911	2071	2315
h2 - Mast free lift	mm	1466	1626	1880
h3 - Mast lifting height	mm	4246	4726	5460
h4 - Mast extended height	mm	4723	5203	5895
Residual capacity at max height	kg	670	500	450



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