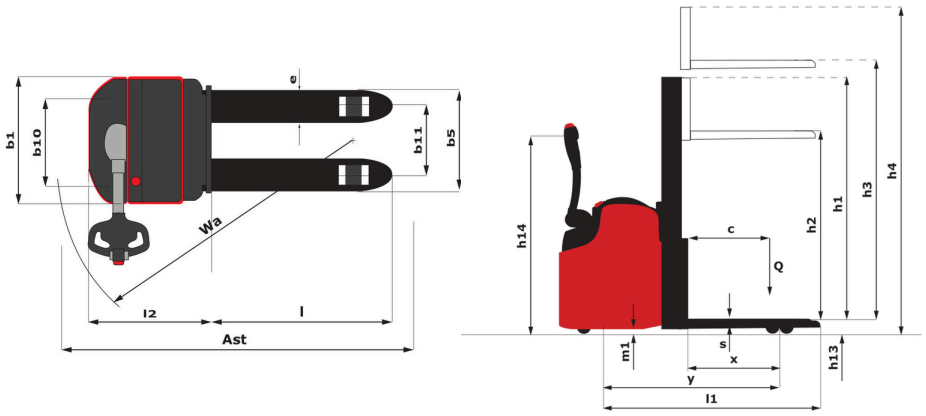
Technical sheet :

ES 820 LI

MANITOU
HANDLING YOUR WORLD

	Technical characteristics		Metric
1.1	Manufacturer		Manitou
1.2	Model Name		ES 820 LI
1.3	Power source		Electrical - Lead
1.4	Operator type		Pedestrian
1.5	Max. capacity	Q	2000 kg
1.51	Nominal capacity on wrapover forks	Q	2000 kg
1.6	Load center of gravity	c	600 mm
1.8	Distance from Load backrest to center of rear axle	x	716 mm
1.9	Wheelbase	y	1509 mm
	Weight		
2.1	Service weight		1800 kg
2.2	Weight on front axle (laden) / rear axle (laden)		1360 kg / 2500 kg
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		1250 kg / 550 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 castor wheels		1
3.4	Number of stabilizer wheels / Size of the stabilizer wheels		2 / 120 x 50
3.5	Number of front wheels / rear wheels		3 / 4
3.5.2	Number of drive wheels / Size of drive wheels		1/254x100
3.6	Front wheel gauge	b10	664 mm
3.7	Rear wheel gauge	b11	375 mm
	Dimensions		
4.15	Fork height in low position	h13	86 mm
4.19	Overall length	l1	2123 mm
4.20	Length to face of forks	l2	973 mm
4.21	Overall width	b1	890 mm
4.22	Forks section / width / length	s / e / l	70 mm / 200 mm / 1150 mm
4.24	Fork carriage width	b3	700 mm
4.31	Ground clearance below mast	m1	20 mm
4.32	Ground clearance at centre of wheelbase	m2	21 mm
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	2572 mm
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	2531 mm
4.6	Initial lift	h5	110 mm
4.35	Turning radius	Wa	1719 mm
4.9	Height tiller min. / max.	h14	900 mm / 1400 mm
	Performances		
5.1	Travel speed (laden / unladen)		6 km/h / 6 km/h
5.2	Lifting speed (laden / unladen)		0.11 m/s / 0.20 m/s
5.3	Lowering speed (laden / unladen)		0.21 m/s / 0.22 m/s
5.8	Max Gradeability (laden / unladen)		6 % / 10 %
5.10	Service brake		Electro magnetic
	Engine		
6.1	Drive motor rating S2 60 min		2 kW
6.2	Lift motor rating at S3 15%		4 kW
6.3	Battery according to DIN 43531/35/36 A, B, C		Traction
6.4	Battery voltage / capacity		24 V / 315 Ah
6.5	Battery weight (+/- 5%)		273 kg
	Miscellaneous		
8.1	Type of drive control		DC
8.4	Sound level at the driver's ear according to DIN 12 053		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	1957	2207
h3 - Mast lifting height	mm	1500	1700
h4 - Mast extended height	mm	1963	2213
Residual capacity at max height	kg	2000	2000

Full Visibility Duplex (FVD)		FVD 29	FVD 34	FVD 38
h1 - Mast lowered height	mm	1957	2207	2407
h3 - Mast lifting height	mm	2900	3400	3800
h4 - Mast extended height	mm	3393	3893	4293
Residual capacity at max height	kg	1950	1600	1300

Free Lift Duplex (FLD)		FLD 29	FLD 34
h1 - Mast lowered height	mm	1957	2207
h2 - Mast free lift	mm	1507	1757
h3 - Mast lifting height	mm	2900	3400
h4 - Mast extended height	mm	3388	3888
Residual capacity at max height	kg	1900	1550

Free Lift Triplex (FLT)		FLT 42	FLT 47	FLT 54
h1 - Mast lowered height	mm	1915	2075	2315
h2 - Mast free lift	mm	1472	1632	1882
h3 - Mast lifting height	mm	4200	4700	5400
h4 - Mast extended height	mm	4713	5193	5923
Residual capacity at max height	kg	950	750	500

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