

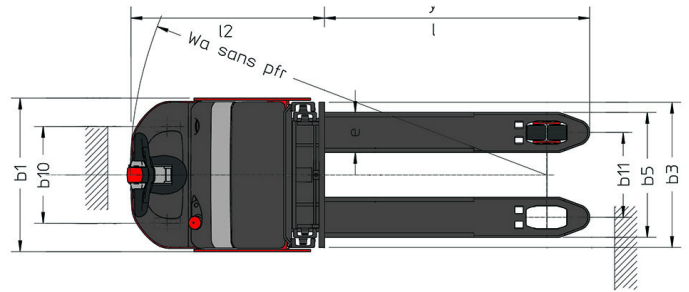
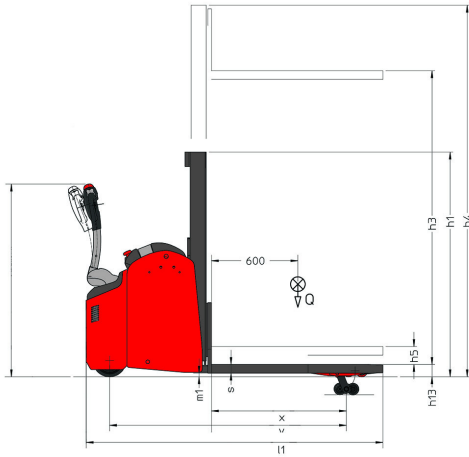
Technical sheet :

ES 420 DL



	Technical characteristics		Metric
1.1	Manufacturer		Manitou
1.2	Model Name		ES 420 DL
1.3	Power source		Battery
1.4	Operator type		Pedestrian
1.5	Max. capacity	Q	2000 kg
1.51	Nominal capacity on wrapover forks	Q	1000 kg
1.52	Nominal capacity in double stacking 1 / 2	Q / Q	1000 kg + 1000 kg
1.6	Load centre of gravity	c	600 mm
1.8	Distance from Load backrest to center of rear axle	x	937 mm
1.9	Wheelbase	y	1644 mm
	Weight		
2.1	Service weight		1020 kg
2.2	Weight on front axle (laden) / rear axle (laden)		1460 kg / 1560 kg
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		730 kg / 290 kg
	Wheels		
3.1	Tyres type		Polyurethane
3.5.2	Number of drive wheels - Size of drive wheels		1 x 230x75
3.3	Number of load wheels - Size of load wheels		4 x 82x68
3.4	Number of stabilizer wheels / Size of the stabilizer wheels		2 x 120x50
3.5	Number of front wheels / rear wheels		3 / 4
3.6	Front wheel gauge	b10	435 mm
3.7	Rear wheel gauge	b11	380 mm
	Dimensions		
4.2	Mast height lowered	h1	1725 mm
4.4	Mast lifting height *	h3	2180 mm
4.5	Mast height extended	h4	2180 mm
4.6	Initial lift	h5	125 mm
4.9	Height tiller up min. / max.	h14 / h14	866 mm / 1320 mm
4.15	Fork height in low position	h13	85 mm
4.19	Overall length	l1	2060 mm
4.20	Length to face of forks	l2	870 mm
4.21	Overall width	b1	688 mm
4.22	Forks section / width / length	s / e / l	160 mm x 180 mm / 1190 mm
4.24	Fork carriage width	b3	650 mm
4.31	Ground clearance below mast	m1	25 mm
4.32	Ground clearance at centre of wheelbase	m2	30 mm
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	2519 mm
4.35	Turning radius	Wa	1870 mm
	Performances		
5.1	Travel speed (laden / unladen)		5.50 km/h / 6 km/h
5.2	Lifting speed (laden / unladen)		0.11 m/s / 0.18 m/s
5.3	Lowering speed (laden / unladen)		0.20 m/s / 0.24 m/s
5.7	Gradeability (laden / unladen)		10 % / 20 %
5.10	Service brake		Electro magnetic
	Engine		
6.1	Drive motor rating S2 60 min		1.70 kW
6.2	Lift motor rating at S3 15%		2 kW
6.3	Battery according to DIN 43531/35/36 A, B, C		No
6.4	Battery / Batteries capacity		24 V - 270 Ah
6.5	Battery weight (+/- 5%)		245 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(A)

Dimensional drawing



Characteristics of masts and residual capacities

Central Cylinder Duplex		CCD 17	CCD 21
h1 - Height mast lowered *	mm	1365	1560
h3 - Lifting Height	mm	1725	2125
h4 - Height mast extended *	mm	2185	2580
Residual capacity without attachment (Industrial load chart)	kg	1000	1000

Central Cylinder Simplex		CCS 17
h2 - Free lift	mm	1725
h1 - Height mast lowered *	mm	2180
h3 - Lifting Height	mm	1725
h4 - Height mast extended *	mm	2180
Residual capacity without attachment (Industrial load chart)	kg	1000

Free Lift Triplex		FLT 21
h1 - Height mast lowered *	mm	1110
h3 - Lifting Height	mm	2110
h4 - Height mast extended *	mm	2475
Residual capacity without attachment (Industrial load chart)	kg	800



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