Technical sheet :

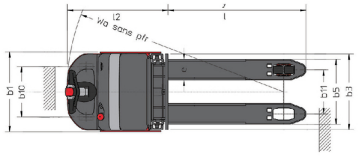
ES 420 DL

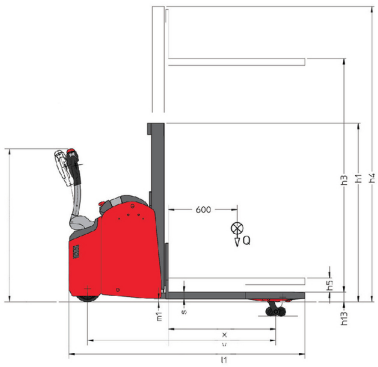


MANITOU
HANDLING YOUR WORLD

	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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