

Technical sheet :

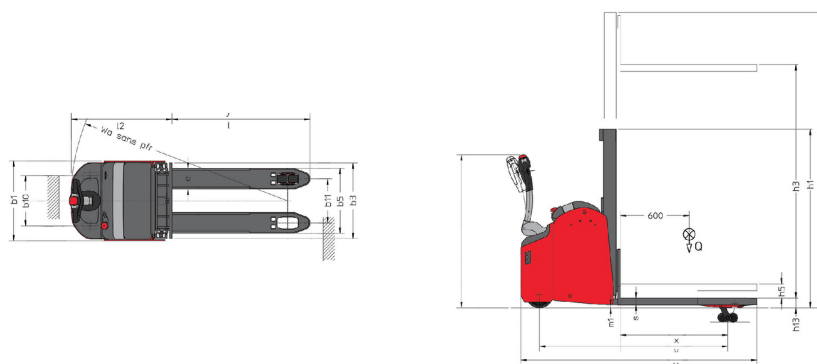
ES 420 DL PFR 9



 **MANITOU**
HANDLING YOUR WORLD

	Technical characteristics		Metric	Imperial
1.1	Manufacturer		Manitou	Manitou
1.2	Model Name		ES 420 DL PFR 9	ES 420 DL PFR 9
1.3	Power source		Electrical	Electrical
1.4	Operator type		Carried	Carried
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	997 mm	39 in
1.9	Wheelbase	y	1704 mm	67 in
	Weight			
2.1	Service weight		1060 kg	2337 lb
2.2	Weight on front axle (laden) / rear axle (laden)		1485 kg / 1590 kg	3274 lb / 3505 lb
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		765 kg / 310 kg	1687 lb / 683 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		2 / 4	2 / 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			
4.19	Overall length	l1	2140 mm	84 in
4.20	Length to face of forks	l2	950 mm	37 in
4.21	Overall width	b1	688 mm	27 in
4.22	Forks section / width / length	s / e / l	60 mm / 80 mm / 1190 mm	2 in / 3 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	2010 mm	79 in
4.9	Height tiller min. / max.	h14 / h14	1045 mm / 1275 mm	41 in / 50 in
	Performances			
5.1	Travel speed (laden / unladen)		8.50 km/h / 9 km/h	5 mph / 6 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)		9 % / 18 %	9 % / 18 %
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 PFR 9 - Dimensional drawing



Characteristics of masts and residual capacities

Free Lift Triplex (FLT)		FLT 21
h1 - Mast lowered height	in (mm)	43.3 (1100)
h3 - Mast lifting height	in (mm)	83.1 (2110)
h4 - Mast extended height	in (mm)	97.8 (2485)
Residual capacity at max height	lb (kg)	2205 (1000)



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