

Technical sheet :

# **ES 420 DL PFR 9**

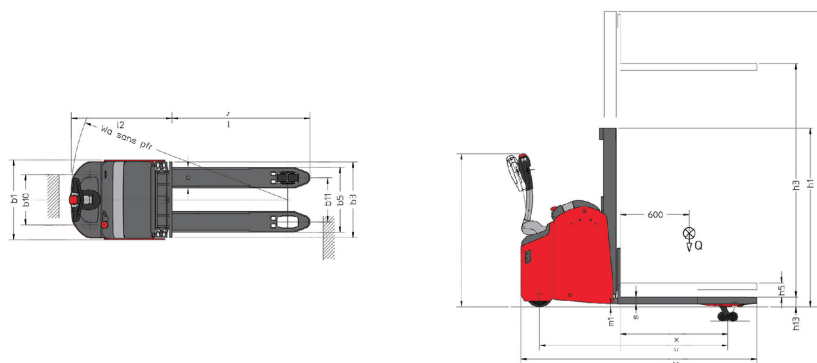
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 **MANITOU**  
HANDLING YOUR WORLD

	Technical characteristics		Metric
1.1	Manufacturer		Manitou
1.2	Model Name		ES 420 DL PFR 9
1.3	Power source		Electrical
1.4	Operator type		Carried
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 center of gravity	c	600 mm
1.8	Distance from Load backrest to center of rear axle	x	997 mm
1.9	Wheelbase	y	1704 mm
	<b>Weight</b>		
2.1	Service weight		1060 kg
2.2	Weight on front axle (laden) / rear axle (laden)		1485 kg / 1590 kg
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		765 kg / 310 kg
	<b>Wheels</b>		
3.1	Tires type		Polyurethane
3.3	Number of load wheels / Size of load wheels		4 / 82x68
3.4	Number of stabilizer wheels / Size of the stabilizer wheels		2 / 120x50
3.5	Number of front wheels / rear wheels		2 / 4
3.5.2	Number of drive wheels / Size of drive wheels		1/230x75
3.6	Front wheel gauge	b10	435 mm
3.7	Rear wheel gauge	b11	380 mm
	<b>Dimensions</b>		
4.19	Overall length	l1	2140 mm
4.20	Length to face of forks	l2	950 mm
4.21	Overall width	b1	688 mm
4.22	Forks section / width / length	s / e / l	60 mm / 80 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
4.35	Turning radius	Wa	2010 mm
4.9	Height tiller min. / max.	h14 / h14	1045 mm / 1275 mm
	<b>Performances</b>		
5.1	Travel speed (laden / unladen)		8.50 km/h / 9 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
5.8	Max Gradeability (laden / unladen)		9 % / 18 %
5.10	Service brake		Electro magnetic
	<b>Engine</b>		
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 voltage / capacity		24 V / 270 Ah
6.5	Battery weight (+/- 5%)		245 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 420 DL PFR 9 - Dimensional drawing



## Characteristics of masts and residual capacities

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



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