

Technical sheet :

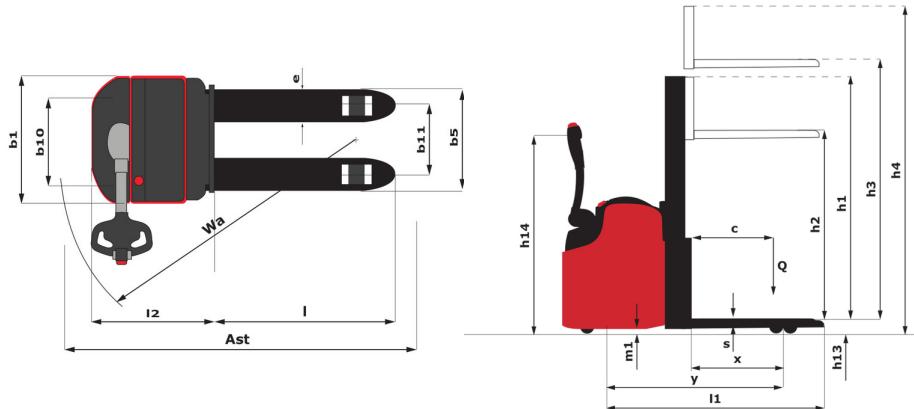
# ES 414



 **MANITOU**  
HANDLING YOUR WORLD

Technical characteristics		Metric	
1.1	Manufacturer		Manitou
1.2	Model Name		ES 414
1.3	Power source		Electrical - Lead
1.4	Operator type		Pedestrian
1.5	Max. capacity	Q	1400 kg
1.6	Load center of gravity	c	600 mm
1.8	Distance from Load backrest to center of rear axle	x	684 mm
1.9	Wheelbase	y	1245 mm
Weight			
2.1	Service weight		968 kg
2.2	Weight on front axle (laden) / rear axle (laden)		800 kg / 1624 kg
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		684 kg / 284 kg
Wheels			
3.1	Tires type		Polyurethane cushion
3.3	Number of load wheels / Size of load wheels		2 / 82x68
3.4	Number of castor wheels		1
3.4	Number of stabilizer wheels / Size of the stabilizer wheels		2 / 125x50
3.5	Number of front wheels / rear wheels		2 / 2
3.5.2	Number of drive wheels / Size of drive wheels		1/230x70
3.6	Front wheel gauge	b10	517 mm
3.7	Rear wheel gauge	b11	380 mm
Dimensions			
4.15	Fork height in low position	h13	87 mm
4.19	Overall length	l1	1875 mm
4.20	Length to face of forks	l2	724 mm
4.21	Overall width	b1	832 mm
4.22	Forks section / width / length	s / e / l	60 mm / 180 mm / 1150 mm
4.24	Fork carriage width	b3	680 mm
4.31	Ground clearance below mast	m1	35 mm
4.32	Ground clearance at centre of wheelbase	m2	30 mm
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	2581 mm
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	2490 mm
4.35	Turning radius	Wa	1400 mm
4.9	Height tiller max.	h14	1050 mm
Performances			
5.1	Travel speed (laden / unladen)		6 km/h / 6 km/h
5.2	Lifting speed (laden / unladen)		0.10 m/s / 0.24 m/s
5.3	Lowering speed (laden / unladen)		0.30 m/s / 0.20 m/s
5.8	Max Gradeability (laden / unladen)		8 % / 10 %
5.10	Service brake		Electro magnetic
Engine			
6.1	Drive motor rating S2 60 min		1.20 kW
6.2	Lift motor rating at S3 15%		3 kW
6.3	Battery according to DIN 43531/35/36 A, B, C		DIN 43535-B
6.4	Battery voltage / capacity		24 V / 180 Ah
6.5	Battery weight (+/- 5%)		183 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

## ES 414 - Dimensional drawing



## Characteristics of masts and residual capacities

Full Visibility Duplex (FVD)	
h1 - Mast lowered height	mm
h3 - Mast lifting height	mm
h4 - Mast extended height	mm
Residual capacity at max height	kg
Height at max capacity	mm

FVD 29	FVD 34	FVD 38
1940	2190	2390
2940	3440	3840
3365	3865	4265
1250	1050	850
2700	2700	2700

Free Lift Duplex (FLD)	
h1 - Mast lowered height	mm
h2 - Mast free lift	mm
h3 - Mast lifting height	mm
h4 - Mast extended height	mm
Residual capacity at max height	kg
Height at max capacity	mm

FLD 29	FLD 34
1940	2190
1420	1670
2935	3435
3365	3865
1250	1000
2700	2700

Free Lift Triplex (FLT)	
h1 - Mast lowered height	mm
h2 - Mast free lift	mm
h3 - Mast lifting height	mm
h4 - Mast extended height	mm
Residual capacity at max height	kg
Height at max capacity	mm

FLT 42
1890
1380
4240
4678
700
2700



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