

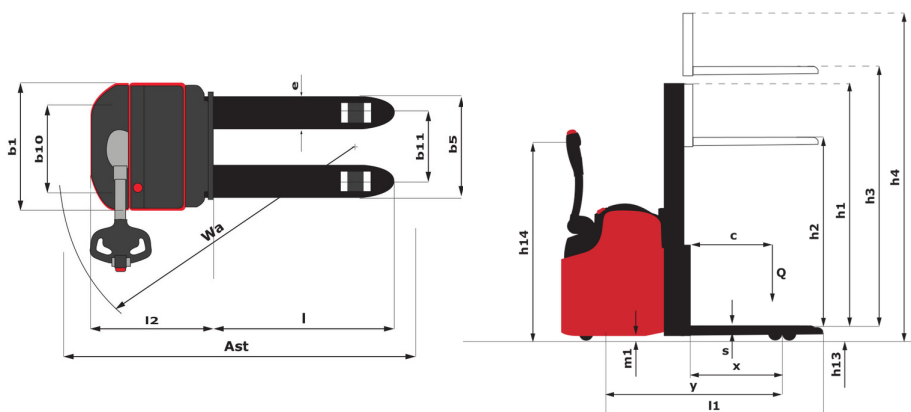
Technical sheet :

ES 412 ET



Technical characteristics			Metric	
1.1	Manufacturer			Manitou
1.2	Model Name			ES 412 ET
1.3	Power source			Electrical
1.4	Operator type			Pedestrian
1.5	Max. capacity	Q		1200 kg
1.6	Load center of gravity	c		600 mm
1.8	Distance from Load backrest to center of rear axle	x		683 mm
1.9	Wheelbase	y		1245 mm
Weight				
2.1	Service weight			874 kg
2.2	Weight on front axle (laden) / rear axle (laden)			729 kg / 1342 kg
2.3	Weight on front axle (Unladen) / rear axle (Unladen)			612 kg / 262 kg
Wheels				
3.1	Tires type			Polyurethane
3.3	Number of load wheels / Size of load wheels			2 / 82x50
3.4	Number of stabilizer wheels / Size of the stabilizer wheels			1 / 125x70
3.5	Number of front wheels / rear wheels			2 / 2
3.5.2	Number of drive wheels / Size of drive wheels			1/230x75
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		85 mm
4.19	Overall length	l1		1870 mm
4.20	Length to face of forks	l2		720 mm
4.21	Overall width	b1		800 mm
4.22	Forks section / width / length	s / e / l		180 mm / 60 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		20 mm
4.35	Turning radius	Wa		1400 mm
Performances				
5.1	Travel speed (laden / unladen)			6 km/h / 6 km/h
5.2	Lifting speed (laden / unladen)			0.10 m/s / 0.16 m/s
5.3	Lowering speed (laden / unladen)			0.14 m/s / 0.12 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 kW
6.2	Lift motor rating at S3 15%			2 kW
6.3	Battery according to DIN 43531/35/36 A, B, C			DIN 43535-B
6.4	Battery voltage / capacity			24 V / 160 Ah
6.5	Battery weight (+/- 5%)			150 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 412 ET - Dimensional drawing



Characteristics of masts and residual capacities

Central Cylinder Duplex (CCD)		CCD 26	CCD 29	CCD 34
h1 - Mast lowered height	mm	1780	1930	2180
h2 - Mast free lift	mm	140	140	140
h3 - Mast lifting height	mm	2630	2930	3430
h4 - Mast extended height	mm	3065	3365	3865
Residual capacity at max height	kg	1200	1200	1000

Central Cylinder Simplex (CCS)		CCS 15	CCS 17
h1 - Mast lowered height	mm	1930	2180
h2 - Mast free lift	mm	1500	1750
h3 - Mast lifting height	mm	1500	1750
h4 - Mast extended height	mm	1930	2180
Residual capacity at max height	kg	1200	1200

**Head Office**

B.P. 249 - 430 rue de l'Aubinière

44150 Ancenis Cedex - France

Tel: +33 (0)2 40 09 10 11 - Fax: +33 (0)2 40 09 10 97

www.manitou.com

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