Technical sheet :







	Technical characteristics
1.1	Manufacturer
1.2	Model Name
1.3	Power source
1.4	Operator type
1.5	Max. capacity
1.6	Load center of gravity
	. ,
1.8	Distance from Load backrest to center of rear axle
1.9	Wheelbase
	Weight
2.1	Service weight
2.2	Weight on front axle (laden) / rear axle (laden)
2.3	Weight on front axle (Unladen) / rear axle (Unladen)
	Wheels
3.1	Tires type
3.3	Number of load wheels / Size of load wheels
3.4	Number of castor wheels / Dimensions of castor wheels
3.4	Number of stabilizer wheels / Size of the stabilizer wheels
3.5	Number of front wheels / rear wheels
3.5.2	Number of drive wheels / Size of drive wheels
3.6	Front wheel gauge
3.7	Rear wheel gauge
	Dimensions
4.15	Fork height in low position
4.19	Overall length
4.20	Length to face of forks
4.21	Overall width
4.22	Forks section / width / length
4.24	Fork carriage width
4.31	Ground clearance below mast
4.32	Ground clearance at centre of wheelbase
4.9	Height tiller max.
	Performances
5.1	Travel speed (laden / unladen)
5.2	Lifting speed (laden / unladen)
5.3	Lowering speed (laden / unladen)
5.8	Max Gradeability (laden / unladen)
5.10	Service brake
5.10	Engine
6.1	· ·
6.1	Drive motor rating S2 60 min
6.2	Lift motor rating at \$3 15%
6.3	Battery according to DIN 43531/35/36 A, B, C
6.4	Battery voltage / capacity
6.5	Battery weight (+/- 5%)
	Miscellaneous
8.1	Type of drive control
8.4	Sound level at the driver's ear according to DIN 12 053

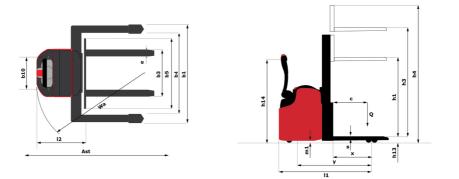
ES 412 LE Created on 5 May 2024 at 9:00:59 AM UTC				
	Metric			
	Manitou			
	ES 412 LE			
	Electrical			
	Pedestrian			
Q	1200 kg			
С	600 mm			
х	683 mm			
у	1245 mm			
	924 kg			
	743 kg / 1381 kg			
	612 kg / 262 kg			
	Polyurethane			
	2 / 82x70			
	1/1			
	2 / 125x50			
	2 / 2			
	1/230x75			
b10	517 mm			
b11	978 mm			
h13	85 mm			
1	1870 mm			
12	720 mm			
b1	1106 mm			
s / e / l	60 mm / 180 mm / 1150 mm			
b3	680 mm			
m1	35 mm			
m2	20 mm			
h14	1050 mm			
	6 km/h / 6 km/h			
	0.12 m/s / 0.24 m/s			

0.30 m/s / 0.20 m/s 8 % / 10 % Electro magnetic

> 1.20 kW 3 kW DIN 43535-B 24 V / 180 Ah 176 kg

> > AC 65 dB

## ES 412 LE - Dimensional drawing



## Characteristics of masts and residual capacities

Full Visibility Duplex (FVD)		FVD 29	FVD 34	FVD 38
h1 - Mast lowered height	mm	1940	2190	2390
h3 - Mast lifting height	mm	2940	3440	3840
h4 - Mast extended height	mm	3365	3865	4265
Residual capacity at max height	kg	1200	1200	1200

Free Lift Duplex (FLD)		FLD 29	FLD 34
h1 - Mast lowered height	mm	1940	2190
h2 - Mast free lift	mm	1510	1760
h3 - Mast lifting height	mm	2935	3435
h4 - Mast extended height	mm	3365	3865
Residual capacity at max height	kg	1200	1200
Height at max capacity	mm	2935	3435

Free Lift Triplex (FLT)		FLT 42
h1 - Mast lowered height	mm	1960
h2 - Mast free lift	mm	1470
h3 - Mast lifting height	mm	4240
h4 - Mast extended height	mm	4730
Residual capacity at max height	kg	1200
Height at max capacity	mm	4240



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