Technical sheet :



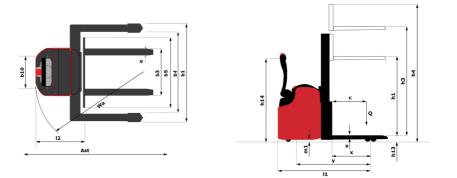




	Technical characteristics
1.1	Manufacturer
1.2	Model Name
1.3	Power source
1.4	Operator type
1.5	Max. capacity
1.6	Load center of gravity
1.8	Distance from Load backrest to center of rear axle
1.9	Wheelbase
	Weight
2.1	Service weight
2.2	Weight on front axle (laden) / rear axle (laden)
2.3	Weight on 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 castor wheels / Dimensions of castor wheels
3.4	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
	Engine
6.1	Drive motor rating S2 60 min
6.2	Lift motor rating at S3 15%
6.3	Battery according to DIN 43531/35/36 A, B, C
6.4	Battery voltage / capacity
6.5	Battery weight (+/- 5%)
0.0	Miscellaneous
8.1	Type of drive control
8.4	
8.4	Sound level at the driver's ear according to DIN 12 053

ES 412 L	Created on May 19, 2024 at 5:41:50 PM UTC
	Metric
	Manitou
	ES 412 LE
	Electrical
	Pedestrian
Q	1200 kg
С	600 mm
x	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
11	1870 mm
1  2	1870 mm 720 mm
l2 b1 s / e / l	720 mm
l2 b1	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm
l2 b1 s / e / l b3 m1	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm
l2 b1 s / e / l b3 m1	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 1050 mm
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 1050 mm 6 km/h / 6 km/h
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 1050 mm 6 km/h / 6 km/h 0.12 m/s / 0.24 m/s
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 1050 mm 6 km/h / 6 km/h 0.12 m/s / 0.24 m/s 0.30 m/s / 0.20 m/s
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 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 %
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 1050 mm 6 km/h / 6 km/h 0.12 m/s / 0.24 m/s 0.30 m/s / 0.20 m/s
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 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
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 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
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 20 mm 0.00 mm 0.00 mm 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
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 20 mm 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
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 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
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 20 mm 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
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 20 mm 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
l2 b1 s / e / l b3 m1 m2	720 mm 1106 mm 60 mm / 180 mm / 1150 mm 680 mm 35 mm 20 mm 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

## 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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