Technical sheet :

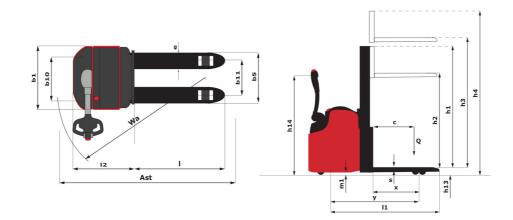




	Technical characteristics
1.1	Manufacturer
1.2	Model Name
1.3	Power source
1.4	Operator type
1.5	Max. capacity
1.6	Load center of gravity
1.8	Distance from Load backrest to center of rear axle
1.9	Wheelbase
	Weight
2.1	Service weight
2.2	Weight on front axle (laden) / rear axle (laden)
2.3	Weight on 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 stabilizer wheels / Size of the stabilizer wheels
3.5	Number of stabilizer wheels / nee of the stabilizer wheels
3.5.2	Number of trive wheels / Size of trive wheels
3.6	
3.0	Front wheel gauge
3.7	Rear wheel gauge Dimensions
4.15	
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
4.35	Turning radius
4.9	Height tiller min. / 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%)
	Miscellaneous
8.1	Type of drive control
8.4	Sound level at the driver's ear according to DIN 12 053

E3 820	
	Metric
	Manitou
	ES 820 FR
	Electrical
	Pedestrian
Q	2000 kg
c	600 mm
x	661 mm
y	1378 mm
,	
	1620 kg
	1180 kg / 2510 kg
	1125 kg / 495 kg
	1120 kg / 490 kg
	Polyurethane
	2 / 82x68
	2 / 120x50
	3/4
	1/254x100
b10	664 mm
b10	393 mm
DII	393 11111
h13	85 mm
11	2048 mm
12	898 mm
b1	890 mm
s/e/l	70 mm / 200 mm / 1150 mm
b3	700 m
m1	30 mm
m2	21 mm
Wa	1591 mm
h14 / h14	975 mm / 1375 mm
	570 mm / 1070 mm
	6 km/h / 6 km/h
	0.11 m/s / 0.20 m/s
	0.22 m/s / 0.21 m/s
	6 % / 10 %
	Electro magnetic
	2 kW
	4 kW
	Traction
	24 V / 315 Ah
	275 kg
	270 Kg
	AC
	65 dB
	56 dB

## ES 820 - Dimensional drawing



## Characteristics of masts and residual capacities

Central Cylinder Duplex (CCD)		FVD 29	FVD 34
h1 - Mast lowered height	mm	1940	2190
h3 - Mast lifting height	mm	2940	3440
h4 - Mast extended height	mm	3365	3865
Residual capacity at max height	kg	1600	1300

Central Cylinder Simplex (CCS)		CCS 15	CCS 17
h1 - Mast lowered height	mm	1940	2190
h2 - Mast free lift	mm	1510	1760
h3 - Mast lifting height	mm	1510	1760
h4 - Mast extended height	mm	1940	2190
Residual capacity at max height	kg	2000	2000

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	1600	1300

Free Lift Triplex (FLT)		FLT 42	FLT 47	FLT 54
h1 - Mast lowered height	mm	1900	2060	2300
h2 - Mast free lift	mm	1465	1625	1875
h3 - Mast lifting height	mm	4245	4725	5455
h4 - Mast extended height	mm	4710	5190	5880
Residual capacity at max height	kg	750	550	450



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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