

Technical sheet :

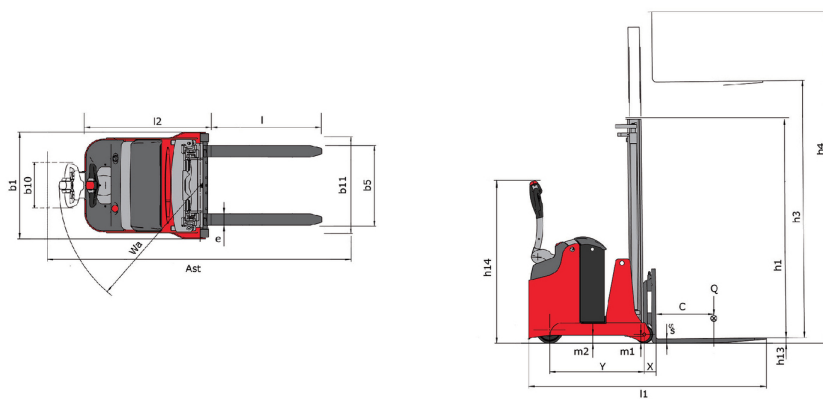
# ES-C 510



 **MANITOU**  
HANDLING YOUR WORLD

	Technical characteristics		Metric
1.1	Manufacturer		Manitou
1.2	Model Name		ES 510 GPF
1.3	Power source		Electrical
1.4	Operator type		Pedestrian
1.5	Max. capacity	Q	1000 kg
1.6	Load center of gravity	c	500 mm
1.8	Distance from Load backrest to center of rear axle	x	101 mm
1.9	Wheelbase	y	1047 mm
	Weight		
2.1	Service weight		1400 kg
	Wheels		
3.1	Tires type		Polyurethane
3.3	Number of load wheels / Size of load wheels		2 / 150x70
3.5	Number of front wheels / rear wheels		1 / 2
3.5.2	Number of drive wheels / Size of drive wheels		1/230x70
3.7	Rear wheel gauge	b11	826 mm
	Dimensions		
4.19	Overall length	l1	2285 mm
4.20	Length to face of forks	l2	1335 mm
4.21	Overall width	b1	923 mm
4.22	Forks section / width / length	s / e / l	30 mm / 90 mm / 950 mm
4.23	Fork carriage ISO 2328 (class/form) A/B		2B
4.24	Fork carriage width	b3	750 mm
4.31	Ground clearance below mast	m1	60 mm
4.32	Ground clearance at centre of wheelbase	m2	69 mm
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	2825 mm
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	2935 mm
4.35	Turning radius	Wa	1360 mm
4.9	Height tiller min. / max.	h14 / h14	830 mm / 1385 mm
	Performances		
5.1	Travel speed (laden / unladen)		6 km/h / 6 km/h
5.2	Lifting speed (laden / unladen)		0.18 m/s / 0.30 m/s
5.3	Lowering speed (laden / unladen)		0.27 m/s / 0.22 m/s
5.8	Max Gradeability (laden / unladen)		7 % / 10 %
5.10	Service brake		Electro magnetic
	Engine		
6.1	Drive motor rating S2 60 min		1.50 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%)		175 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-C 510 - Dimensional drawing



## Characteristics of masts and residual capacities

Central Cylinder Simplex (CCS)		CCS 15	CCS 17
$\alpha$ - Mast/fork carriage tilt, forward	°	4	4
$\beta$ - Mast/fork carriage tilt, backward	°	6	6
h1 - Mast lowered height	mm	1931	2181
h2 - Mast free lift	mm	1420	1670
h3 - Mast lifting height	mm	1420	1670
h4 - Mast extended height	mm	2070	2320
Residual capacity at max height	kg	1000	1000

Full Visibility Duplex (FVD)		FVD 29	FVD 34	FVD 38
$\alpha$ - Mast/fork carriage tilt, forward	°	4	4	4
$\beta$ - Mast/fork carriage tilt, backward	°	6	6	6
h1 - Mast lowered height	mm	1931	2181	2381
h3 - Mast lifting height	mm	2850	3350	3750
h4 - Mast extended height	mm	3500	4000	4400
Residual capacity at max height	kg	1000	1000	900

Free Lift Duplex (FLD)		FLD 29	FLD 34
$\alpha$ - Mast/fork carriage tilt, forward	°	4	4
$\beta$ - Mast/fork carriage tilt, backward	°	6	6
h1 - Mast lowered height	mm	1931	2181
h2 - Mast free lift	mm	1420	1670
h3 - Mast lifting height	mm	2850	3355
h4 - Mast extended height	mm	3500	4000
Residual capacity at max height	kg	1000	1000

Free Lift Triplex (FLT)		FLT 42
$\alpha$ - Mast/fork carriage tilt, forward	°	4
$\beta$ - Mast/fork carriage tilt, backward	°	6
h1 - Mast lowered height	mm	1956
h2 - Mast free lift	mm	1380
h3 - Mast lifting height	mm	4160
h4 - Mast extended height	mm	4810
Residual capacity at max height	kg	800



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