Technical sheet:

ES 414





		ES 414 Cro		eated on August 11, 2025 at 4:43 AM UTC	
1.2 Mode Name		Technical characteristics		Metric	
1.4 Operator type	1.1	Manufacturer		Manitou	
1.4	1.2	Model Name		ES 414	
1.5	1.3	Power source		Electrical	
1.0	1.4	Operator type		Pedestrian	
1.0	1.5		Q	1400 kg	
1.9 Wheelbase Y 1245 mm Y 1245 m				-	
New New					
Neght Service weight Service weigh					
Service weight on front axie (laden) / rear axie (laden)					
	2 1			968 kg	
2.3 Weight on front axis (Unladen) / rear axis (Unladen) 684 kg / 284 kg Winests Winests 3.3 Number of load wheels / Size of load wheels 2.7 82x88 3.4 Number of stabilizer wheels / Size of the stabilizer wheels 2.7 12x5x50 3.5 Number of front wheels / Size of the stabilizer wheels 2.7 12x5x50 3.5 Number of front wheels / Size of the stabilizer wheels 1.7390x70 3.6 Front wheel gauge b10 517 mm 3.7 Rear wheel gauge b10 517 mm 3.7 Rear wheel gauge b11 380 mm 4.15 Fook height in low position h13 8.7 mm 4.19 Overall length l1 1875 mm 4.20 Length to face of forks l2 724 mm 4.21 Overall length s1 832 mm 4.22 Fook section / width / length s1e 60 mm / 180 mm / 180 mm 4.24 Fook section / width / length s1e 60 mm / 180 mm 4.23 Oscowal cleasance at centre of wheelbase m2 30 mm <		•		-	
Nice					
3.1 Tires type Polyurethane 3.3 Number of load wheels / Size of load wheels 2 / 82568 3.4 Number of stabilizer wheels 1 3.5 Number of stabilizer wheels / Size of the stabilizer wheels 2 / 125x50 3.5 Number of forth wheels / Size of dire wheels 12 / 22 3.5 Number of forth wheels / Size of dire wheels bit 17230x70 3.6 Front wheel gauge bit 35 mm 4.15 Forth stabilizer wheels bit 38 mm 4.15 Forth keight in low position bit 38 mm 4.19 Overall length li 187 mm 4.20 Length to face of forks li 18 mm 4.21 Overall width bit 82 mm 4.22 Fork carriage width bit 82 mm 4.24 Fork carriage width bit 3 mm 4.24 Fork carriage width bit 3 mm 4.24 Fork carriage width bit 3 mm 4.24 Fork carriage width	2.3	- , , , , ,		004 kg / 204 kg	
3.3 Number of load wheels / Size of load wheels 2 / 82x68 3.4 Number of sabilize wheels / Size of the stabilizer wheels 2 / 125x50 3.5 Number of fathithizer wheels / Size of dive wheels 2 / 125x50 3.5 Number of front wheels / Size of dive wheels 1 / 230x70 3.5 Front wheel gauge b10 517 mm 3.7 Rear wheel gauge b11 380 mm 4.15 Fork height in low position h13 87 mm 4.19 Overall length 11 1875 mm 4.19 Overall width b1 832 mm 4.20 Overall width / length b1 832 mm 4.21 Fork section / width / length 5 / 6/1 60 mm / 180 mm / 1150 mm 4.22 Fork section / width / length 5 / 6/1 60 mm / 180 mm / 1150 mm 4.23 Ground clearance below mast m1 35 mm 4.31 Ground clearance techne of whelbase m2 30 mm 4.32 Ground clearance techne of whelbase m2 30 mm 4.34 Asize width for 800 x 1	2.1			Dolyurothono	
3.4 Number of castor wheels 1 2 / 12x x 50 3.4 Number of stabilizer wheels / Size of the stabilizer wheels 2 / 12x x 50 2 / 12x x 50 3.5.2 Number of drive wheels / Size of drive wheels 17230x 70 17230x 70 3.5.2 Font wheel gauge b10 517 mm 3.7 Rear wheel gauge b11 380 mm 4.15 Fork height in low position h13 87 mm 4.19 Overall length 11 1875 mm 4.20 Overall width 11 1875 mm 4.21 Forks section / width / length 5 / 2 60 mm / 180 mm / 1150 mm 4.22 Forks section / width / length 5 / 2 60 mm / 180 mm / 1150 mm 4.23 Forks section / width / length 5 / 2 60 mm / 180 mm / 1150 mm 4.24 Fork carriage width 8 / 2 60 mm / 180 mm / 1150 mm 4.25 Fork carriage width 8 / 2 30 mm 4.24 Fork carriage width 8 / 2 30 mm 4.25 Ground clearance tecentre of wheelbase m2 3		•		•	
3.4 Number of stabilizer wheels / Size of the stabilizer wheels 2 / 125x550 3.5 Number of front wheels / Size of drive wheels 2 / 2 3.6 Front wheel gauge b10 517 mm 3.7 Rear wheel pauge b10 517 mm 3.7 Rear wheel pauge b10 517 mm 4.15 Fork height in low position h13 8 mm 4.19 Overall length 11 1875 mm 4.19 Length to face of forks 12 724 mm 4.20 Length to face of forks 12 724 mm 4.21 Overall width 5 / 2 60 mm / 180 mm / 1150 mm 4.22 Fork section / width / length 5 / 2 60 mm / 180 mm / 1150 mm 4.24 Fork camage width 5 / 2 60 mm / 180 mm / 1150 mm 4.31 Ground clearance at centre of wheelbase m2 30 mm 4.32 Ground clearance at centre of wheelbase m2 30 mm 4.33 Alsie width for sloth x 1200 pallet lengthways Ast 2490 mm 4.35 Height t					
3.5 Number of front wheels / rear wheels 2 / 2 3.5.2 Number of drive wheels / Size of drive wheels 17/230x70 3.6 Forth wheel gauge b10 517 mm 3.7 Rear wheel gauge b11 380 mm 4.15 Fork height in low position h13 8 7 mm 4.19 Overall length l1 1875 mm 4.20 Length to face of forks l2 724 mm 4.21 Voerall width b1 832 mm 4.22 Fork section / width / length b1 832 mm 4.24 Fork carriage width b3 660 mm 4.24 Fork carriage width b3 660 mm 4.24 Fork carriage width / length b3 660 mm 4.24 Fork carriage width s / e / l 60 mm / 180 mm / 150 mm 4.24 Fork carriage width for pallet stotow x 1200 crossways Ast 2 281 mm 4.33 Alsie Width for pallets 1000 x 1200 crossways Ast 2 2490 mm 4.39 Height tiller max. b14					
3.5.2 Number of drive wheels / Size of drive wheels 1/230x70 3.6 Front wheel gauge b10 517 mm Dimensions 4.15 Fork helph in low position 11 1875 mm 4.20 Length to face of forks 11 1875 mm 4.21 Overall width 11 383 mm 4.22 Fork section / width / length 5 / e / 1 60 mm / 180 mm / 1150 mm 4.24 Fork section / width / length 5 / e / 1 60 mm / 180 mm / 1150 mm 4.24 Fork cantage width 5 / e / 1 60 mm / 180 mm / 1150 mm 4.24 Fork cantage width 5 / e / 1 60 mm / 180 mm / 1150 mm 4.31 Ground clearance at centre of wheelbase m2 30 mm 4.32 Ground clearance at centre of wheelbase m2 30 mm 4.33 Alsie width for 800x 1200 pallet lengthways Ast 2581 mm 4.34 Height tiller max. b 4 1050 mm 4.9 Height tiller max. b 6 km/h / 6 km/h 5.2 Turwing paddus b 6 km/h / 6 km/h 5.2 Tavel s					
3.6 Front wheel gauge b10 517 mm 3.7 Rear wheel gauge b11 380 mm 4.15 Fork helght in low position h13 87 mm 4.19 Overall length 11 1875 mm 4.20 Length to face of forks 12 724 mm 4.21 Overall width b1 832 mm 4.22 Fork seeton / width / length 5 / e / I 60 mm / 180 mm / 180 mm 4.24 Fork carriage width b3 680 mm / 180 mm 4.24 Fork carriage width m2 30 mm 4.24 Ground clearance below mast m1 35 mm 4.31 Ground clearance at center of wheelbase m2 30 mm 4.32 A isle width for 800 x 1200 crossways Ast 2581 mm 4.33 A isle width for 800 x 1200 crossways Ast 2490 mm 4.9 Height tiller max. h14 1050 mm 5.1 Travel speed (laden / unladen) Wa 1,00 mm 5.2 Lift motor ating speed (laden / unladen) <td< td=""><td></td><td></td><td></td><td></td></td<>					
3.7 Rear wheel gauge bill 380 mm Long Dimensions Long Mich Reight I low position h13 87 mm 4.19 Overall length I1 1875 mm 4.20 Length to face of forks I2 724 mm 4.21 Overall width Is 832 mm 1832 mm 4.22 Forks section / width / length 5 / e / I 60 mm / 150 mm 150 mm 4.21 Fork carriage width B3 680 mm 680 mm 4.22 Fork carriage width B3 680 mm 4.31 Ground clearance below mast m1 35 mm 4.32 Ground clearance at center of wheelbase m2 30 mm 4.33 Aisle width for 800 x 1200 crossways Ast 2581 mm 4.34 Aisle width for 800 x 1200 crossways Ast 2490 mm 4.35 Tuning radius Wa 1400 mm 4.35 Tuning radius Ma 1400 mm 5.1 Travel speed (laden / unladen) 5 6. Km/h / 6 km/h 5.2 Li					
4.15 Fork height in low position h13 87 mm 4.19 Overall length 11 1875 mm 4.20 Length to face of forks 12 724 mm 4.21 Overall width b1 832 mm 4.22 Fork section / width / length \$ / e/1 60 mm / 180 mm / 1150 mm 4.24 Fork carriage width b3 660 mm 4.31 Ground clearance at centre of wheelbase m2 30 mm 4.32 Ground clearance at centre of wheelbase m2 30 mm 4.33 Alsie width for solox 1200 pallet lengthways Ast 2581 mm 4.34 Alsie width for solox 1200 pallet lengthways Ast 29 mm 4.35 Tuming radius Ma 1400 mm 4.94 Height tiller max. Ma 1400 mm 5.1 Tavel speed (laden / unladen) For well speed (laden / unladen) 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) B % / 10 % 8 % / 10 % 5.2 Lifting speed (laden / unladen) B % / 10 % 8 % / 10 %	3.7		b11	380 mm	
4.19 Overall length 11 1875 mm 4.20 Length to face of foks 12 724 mm 4.21 Overall width for pall width b1 832 mm 4.22 Fork scaringe width b3 60 mm/ 180 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 center of wheelbase m2 30 mm 4.33 Asile Width for pallets 1000 x 1200 crossways Ast 2581 mm 4.34 Asile width for 800 x 1200 pallet lengthways Ast 2490 mm 4.35 Tuming radius Ast 2490 mm 4.39 Height tiller max. M8 1400 mm 4.9 Performaces 8 15 5.1 Taxel speed (laden / unladen) M8 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) M9 6 km/h / 6 km/h 5.3 Ass Gradeability (laden / unladen) M8 8 % 10 % 5.10 Engine 8 % 10 % 8 % 10 % 6.1 Drive motor rating s2 60 min					
4.20 Length to face of forks 12 724 mm 4.21 Overall width Saze mm 4.22 Forks section / width / length S / e / f 60 mm / 180 mm / 1150 mm 4.24 Fork carriage width Saze mm 4.24 Fork carriage width Saze mm 4.25 Ground clearance at centre of wheelbase Max 4.31 Ground clearance at centre of wheelbase Max 4.32 Ground clearance at centre of wheelbase Max 4.33 Aisle Width for allow x 1200 crossways Ast 2581 mm 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2490 mm 4.35 Tuming radius Max 1400 mm 4.36 Height tiller max. Hi 14 1050 mm 4.37 Tawel speed (laden / unladen) G km/h / 6 km/h 5.1 Tawel speed (laden / unladen) G km/h / 6 km/h 5.2 Lifting speed (laden / unladen) G km/h / 6 km/h 5.3 Lowering speed (laden / unladen) G km/h / 6 km/h 5.1 Service brake G km/h / 6 km/h 6.1 Dive motor rating at S3 15% G km/h / 6 km/h 6.1 Dive motor rating at S3 15% G km/h / 6 km/h 6.2 Lift motor rating at S3 15% G km/h / 6 km/h 6.3 Battery according to DIN 43531/35/36 A, B, C DIN 43535-B 6.4 Battery woltage / capacity G km/h / 5 km/h 6.5 Miscellaneous G km/h / 5 km/h 6.6 Miscellaneous G km/h / 5 km/h 6.7 Miscellaneous G km/h / 5 km/h 6.8 Miscellaneous G km/h / 5 km/h 6.9 Miscellaneous G km/h / 5 km/h 6.0 Miscellaneous G km/h / 6 km/h 6.0 Miscellaneous G km/h					
4.21 Overall width b1 832 mm 4.22 Fork section / width / length \$ / e / l 60 mm / 180 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 30 mm 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2581 mm 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2490 mm 4.35 Tuming radius Ma 1400 mm 4.9 Height tiller max. b1 1500 mm 5.1 Travel speed (laden / unladen) 5.0 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) 5.0 0.0 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 5.0 8 % / 10 % 5.1 Service brake 5.0 8 % / 10 % 5.1 Service brake 5.0 8 % / 10 % 6.1 Divie motor rating \$2.60 min \$ \$ 1.20 kW 6.2 Lift motor rating \$2.60 min \$ 3 kW 6.3 Battery voltage / capacity<		·			
4.22 Forks section / width / length s / e / l 60 mm / 180 mm / 1150 mm 4.24 Fork carriage width b3 6800 mm 4.31 Ground clearance below mast m1 35 mm 4.32 Ground clearance at centre of wheelbase m2 30 mm 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2581 mm 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2490 mm 4.35 Tuming radius Ma 1400 mm 4.9 Height tiller max. Ma 1505 mm 5.1 Tavel speed (laden / unladen) 5 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) 5 6 km/h / 6 km/h 5.3 Lowering speed (laden / unladen) 5 8 % / 10 % 5.0 Exprice brake 8 % / 10 % 8 % / 10 % 5.1 Engine 5 1 2.0 kW 6.1 Dive motor rating \$2.60 min \$ 1 2.0 kW 6.2 Lift motor rating \$2.50 min \$ 3 kW 6.3 Battery voltage / capacity \$ 3 kW 6.4 Ba		•			
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 30 mm 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2581 mm 4.34 Aisle Width for 800 x 1200 pallet lengthways Ast 2490 mm 4.35 Tuming radius Wa 1400 mm 4.9 Height tiller max. b14 1050 mm 5.1 Travel speed (laden / unladen) 6 km/h 6 km/h 010 m/s / 0.24 m/s 5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 0.30 m/s / 0.20 m/s 5.3 Lowering speed (laden / unladen) 8 % / 10 % 8 % / 10 % 5.3 Lowering speed (laden / unladen) 8 % / 10 % 8 % / 10 % 5.1 Service brake Electromagnetic 8 % / 10 % 5.2 Lift motor rating \$2.60 min 1.20 kW 6.1 Dive motor rating \$2.60 min 1.20 kW 6.2 Lift motor rating at \$3.15% 3 kW 6.4 Battery voltage / capacity 2 V / 180 Ah 6.4 Bat		Overall width	b1	832 mm	
4.31 Ground clearance below mast m1 35 mm 4.32 Ground clearance at centre of wheelbase m2 30 mm 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2581 mm 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2490 mm 4.35 Tuming radius Ma 11400 mm 4.9 Height tiller max. h14 1050 mm Performances 5.1 Travel speed (laden / unladen) 6 km/h 6 km/h 5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 8 % / 10 % 5.8 Max Gradeability (laden / unladen) 8 % / 10 % 5.10 Service brake Electro magnetic 6.1 Drive motor rating \$2.60 min 1.20 kW 6.1 Drive motor rating \$2.60 min 3 kW 6.2 Lift motor rating \$2.60 min 3 kW 6.3 Battery according to DIN 43531/35/36 A, B, C 3 kW 6.4 Battery wortage / capacity 24 V/ 180 Ah 6.5 Battery wortage / capacity 24 V/ 180 Ah		Forks section / width / length			
4.32 Ground clearance at centre of wheelbase m2 30 mm 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2581 mm 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2490 mm 4.35 Tuming radius Wa 1400 mm 4.9 Height tiller max. h14 1050 mm Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 0.30 m/s / 0.20 m/s 5.8 Max Gradeability (laden / unladen) 8 % / 10 % 5.8 Service brake Electro magnetic Engine 6.1 Drive motor rating \$2.60 min 1.20 kW 6.2 Lift motor rating \$2.50 min 3 kW 6.3 Battery voltage / capacity 24 V/ 180 Ah 6.4 Battery voltage / capacity 24 V/ 180 Ah 6.5 Battery voltage / capacity 183 kg 6.5 Battery weight (+/- 5%) 183 kg 6.5 Battery weight (expected) 180 kg	4.24	Fork carriage width	p3	680 mm	
4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2581 mm 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2490 mm 4.35 Tuming radius Wa 1400 mm 4.9 Height tiller max. h14 1050 mm Performances Travel speed (laden / unladen) 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 0.30 m/s / 0.20 m/s 5.8 Max Gradeability (laden / unladen) 8 % / 10 % 5.10 Service brake Electro magnetic 6.1 Drive motor rating \$2.60 min 1.20 kW 6.2 Lift motor rating at \$3.15% 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%) 183 kg Miscellaneous AC	4.31	Ground clearance below mast	m1	35 mm	
4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2490 mm 4.35 Tuming radius Wa 1400 mm 4.9 Height tiller max. h14 1050 mm Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 3 % / 10 % 5.8 Max Gradeability (laden / unladen) 8 % / 10 % 5.10 Service brake Electro magnetic Engine 6.1 Drive motor rating \$2 60 min 1.20 kW 6.2 Lift motor rating at \$3 15% 3 kW 6.2 Lift motor rating at \$3 15% 3 kW 6.3 Battery worltage / capacity 3 kW 6.4 Battery voltage / capacity 24 V / 180 Ah 6.5 Battery weight (+/- 5%) 183 kg Miscellaneous 8.1 Type of drive control AC	4.32	Ground clearance at centre of wheelbase	m2	30 mm	
4.35 Tuming radius Wa 1400 mm 4.9 Height tiller max. h14 1050 mm Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 8 % / 10 % 5.8 Max Gradeability (laden / unladen) 8 % / 10 % 5.10 Service brake Electro magnetic Engine 6.1 Drive motor rating \$2.50 min 1.20 kW 6.2 Lift motor rating at \$3.15% 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%) 183 kg Miscellaneous 8.1 Type of drive control AC	4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	2581 mm	
4.9 Height tiller max. h14 1050 mm Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 8 % / 10 % 5.8 Max Gradeability (laden / unladen) 8 % / 10 % 5.10 Service brake Electro magnetic 6.1 Drive motor rating \$2 60 min 1.20 kW 6.2 Lift motor rating at \$3 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%) 183 kg Miscellaneous 8.1 Type of drive control AC	4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	2490 mm	
Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 0.30 m/s / 0.20 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 1.20 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%) 183 kg Miscellaneous 8.1 Type of drive control AC	4.35	Turning radius	Wa	1400 mm	
5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 0.30 m/s / 0.20 m/s 5.8 Max Gradeability (laden / unladen) 8 % / 10 % 5.10 Service brake Electro magnetic 6.1 Drive motor rating S2 60 min 1.20 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%) 183 kg Miscellaneous 8.1 Type of drive control AC	4.9	Height tiller max.	h14	1050 mm	
5.2 Lifting speed (laden / unladen) 0.10 m/s / 0.24 m/s 5.3 Lowering speed (laden / unladen) 0.30 m/s / 0.20 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 1.20 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%) 183 kg Miscellaneous 8.1 Type of drive control AC		Performances			
5.3 Lowering speed (laden / unladen) 0.30 m/s / 0.20 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 1.20 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%) 183 kg Miscellaneous 8.1 Type of drive control AC	5.1	Travel speed (laden / unladen)		6 km/h / 6 km/h	
5.8 Max Gradeability (laden / unladen) 8 % / 10 % 5.10 Service brake Electro magnetic Engine 6.1 Drive motor rating S2 60 min 1.20 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%) 183 kg Miscellaneous 8.1 Type of drive control AC	5.2	Lifting speed (laden / unladen)		0.10 m/s / 0.24 m/s	
Engine Electro magnetic 6.1 Drive motor rating \$2.60 min 1.20 kW 6.2 Lift motor rating at \$3.15% 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%) 183 kg Miscellaneous 8.1 Type of drive control AC	5.3	Lowering speed (laden / unladen)		0.30 m/s / 0.20 m/s	
Engine Common of Pating State (Common of Pating At State (Comm	5.8	Max Gradeability (laden / unladen)		8 % / 10 %	
6.1 Drive motor rating \$2.60 min 1.20 kW 6.2 Lift motor rating at \$3.15% 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%) 183 kg Miscellaneous AC 8.1 Type of drive control AC	5.10	Service brake		Electro magnetic	
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%) 183 kg Miscellaneous 8.1 Type of drive control AC		Engine			
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%) 183 kg Miscellaneous 8.1 Type of drive control AC	6.1	Drive motor rating S2 60 min		1.20 kW	
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 DIN 43535-B 24 V / 180 Ah 183 kg AC				3 kW	
6.4 Battery voltage / capacity 24 V / 180 Ah 6.5 Battery weight (+/- 5%) 183 kg Miscellaneous 8.1 Type of drive control AC				DIN 43535-B	
6.5 Battery weight (+/- 5%) 183 kg Miscellaneous 8.1 Type of drive control AC		•			
Miscellaneous 8.1 Type of drive control AC					
8.1 Type of drive control AC					
	8.1			AC:	
		•			

ES 414 - 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	1250	1050	850
Height at max capacity	mm	2700	2700	2700

Free Lift Duplex (FLD)		FLD 29	FLD 34
h1 - Mast lowered height	mm	1940	2190
h2 - Mast free lift	mm	1420	1670
h3 - Mast lifting height	mm	2935	3435
h4 - Mast extended height	mm	3365	3865
Residual capacity at max height	kg	1250	1000
Height at max capacity	mm	2700	2700

Free Lift Triplex (FLT)		FLT 42
h1 - Mast lowered height	mm	1890
h2 - Mast free lift	mm	1380
h3 - Mast lifting height	mm	4240
h4 - Mast extended height	mm	4678
Residual capacity at max height	kg	700
Height at max capacity	mm	2700





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



This publication provides a description of the configuration versions and options for Manitou products, which may differ for equipment. The equipment presented in this brochure may be part of a series, as an option, or it may not be available, depending on the versions. Manitou reserves the right, at any time and without notice, to amend the specifications described and represented. The specifications provided do not bind the manufacturer. For more details, please contact your Manitou agent. This is not a contractually binding document. The presentation of the products is not contractually binding. List of specifications non-exhaustive. The logos as well as the visual identity of the company are owned by Manitou and cannot be used without authorisation. All rights reserved. The photos and diagrams contained in this brochure are only provided for consultation and information purposes.

MANITOU BF SA - Limited company with board of directors - Share capital: 39,668,399 euros - 857 802 508 RCS Nantes