Technical sheet:

## **ER 12**



Marifacturer   Marifacturer   FR   FR   FR   FR   FR   FR   FR   F		Technical characteristics		Metric
1.4   Openstortype	1.1	Manufacturer		Manitou
1.5   Max. capacity   Q   1.200 kg	1.2	Model Name		ER 12
1.5         Max. capacity         c         600 mm           1.8         Load cistance, centre of drive axis to fook         x         307 mm           1.9         Wheelbase         y         1378 mm           2.1         Sencice weight	1.3	Power source		Electrical
1.6         Load center of gravity         x         387 mm           1.8         Load distance, center of driw axis to fook         x         387 mm           1.9         Wieelbase         y         1378 mm           1.0         Service welght         2         2580 kg           1.0         Service welght         Wikela         1           3.5         Number of form wheels - Size of driew wheels         1         1.3 555 155           3.5         Number of form wheels - Size of foad wheels         1         1.7 2           3.5         Number of form wheels - Size of foad wheels         1         1.7 2           3.5         Number of form wheels - Size of foad wheels         1         1.7 2           3.5         Number of form wheels - Size of foad wheels         1         1.7 2           3.5         Priorit wheel gauge         bit         9         0           4.6         Foot wheel supp         bit         9         1.7 2           4.8         Sea height/Stanb height         bit         9         1.0 17 mm           4.8         Sea height/Stanb height         bit         1.0 17 mm         1.0 17 mm           4.2         Orac ariages (Sea Sizedon / widb / length         5 / 41         48 mm volumen	1.4	Operator type		Seated
1.0   Wheelbase   Yes   137 mm   Yes   137 mm   Yes   137 mm   Yes   Y	1.5	Max. capacity	Q	1200 kg
1.9   Wheelbase   1.0   1.	1.6	Load center of gravity	С	600 mm
Neght   Service weight   Service weigh	1.8	Load distance, centre of drive axle to fork	X	307 mm
2.1         Service weight         2580 kg           Wides         Wides           3.1         Tires type         Vulkollan           3.2         Number of firet wheels Size of load wheels         2         2 x 200% 5           3.5         Number of front wheels / rear wheels         1         2 x 200% 5           3.5         Number of front wheels / rear wheels         1         2 x 200% 5           3.6         Front wheel gauge         b1         0 mm           0         Dimensions         0         0           4.8         Seatheight/stand height         16         200 mm           4.8         Seatheight/stand height         16         200 mm           4.9         Overall weigh         11         241 mm           4.1         Overall weigh         12         1203 mm           4.2         Overall weigh         5 / 1         40 mm v100 mm / 1150 mm           4.2         Fork cattage ISO 2328 (classiform) A/B         5 / 2         120 mm           4.2         Fork cattage ISO 2328 (classiform) A/B         5 / 2         10 mm           4.2         Fork cattage ISO 2328 (classiform) A/B         5 / 2         10 mm           4.2         Octoud cleance a cleente of wheelbase         <	1.9	Wheelbase	у	1378 mm
Nicelia   Time stype		Weight		
	2.1	Service weight		2580 kg
3.5.2         Number of drive wheels - Size of drive wheels         1 x 355 x 155           3.3         Number of load wheels - Size of load wheels         1 / 2           3.5         Number of fload wheels / rear wheels         1 / 2           3.6         Front wheel gauge         bit 0         0 mm           3.7         Rear wheel gauge         bit 0         0 mm           4.7         Height of owehead guad (cabin)         h6         2205 mm           4.7         Length or bace of looks         h7         107 mm           4.1         Overall length         h7         107 mm           4.2         Length or loce of looks         12         1283 mm           4.2         Porks section / width / length         s/ e/ 1         40 mm x 100 mm / 1150 mm           4.2         Porks section / width / length         s/ e/ 1         40 mm x 100 mm / 1150 mm           4.2         Pork cardiage ISO 2228 (class/fom) A/8         s/ e/ 1         40 mm x 100 mm / 1150 mm           4.2.5         Pork cardiage ISO 2228 (class/fom) A/8         s/ e/ 1         40 mm x 100 mm           4.2.5         Width over forks min. / max.         b5         31 6 mm / 697 mm           4.2.5         Width over forks min. / max.         270 mm         270 mm           4		Wheels		
3.3         Number of load wheels - Size of load wheels         1 / 2           3.5         Number of front wheels / lear wheels         1 / 2           3.6         Font wheel gauge         b10         0 mm           3.7         Rear wheel gauge         b11         995 mm           4.7         Height of owehead guard (cabin)         h6         2205 mm           4.8         Sea height/stand height         h7         1077 mm           4.9         Derail length         11         2413 mm           4.20         Length of face of forks         12         1233 mm           4.21         Overall width         b1         1120 mm           4.22         Fork section / width / length         5 / e / l         40 mm x 100 mm / 1150 mm           4.23         Fork carriage ISO 2328 (class/form) A/B         2         2           4.24         Distance between wheel name/loading surfaces         b4         900 mm           4.25         Ground cleannee at centre of wheelbase         m2         70 mm           4.31         A isse width for 1000 x 1200 pallet lengthways         Ast         2766 mm           4.32         Forum for 1000 x 1200 pallet lengthways         Ast         270 mm           5.1         Travel speed (laden / unladen)<	3.1	Tires type		Vulkollan
3.5         Number of front wheels / tear wheels         1 / 2           3.6         Front wheel gauge         b10         0 mm           3.7         Rear wheel gauge         b11         995 mm           4.7         Helpht of owerhead guard (cabin)         b6         2205 mm           4.8         Seat height/stand height         h7         1077 mm           4.9         Overall length         11         2413 mm           4.10         Overall width         b1         212         128 mm           4.20         Length to face of forks         12         120 mm         228 mm           4.21         Overall width         b1         1120 mm         22           4.22         Forks section / width / length         s / e / 1         40 mm x 100 mm / 1150 mm         22           4.22         Fork carriage 180 2232 (class/form) A/B         s / e / 1         40 mm x 100 mm / 1150 mm         22         2           4.25         Obtainance between wheel ama-floading surfaces         b4         900 mm         90 mm         42         2         4         2         70 mm         433         4,31 km width for 1000 x 1200 pallet lengthways         Ast         2.270 mm         2.270 mm         433         4,31 km width for 1000 x 1200 pallet lengthways </td <td>3.5.2</td> <td>Number of drive wheels - Size of drive wheels</td> <td></td> <td>1 x 355 x 155</td>	3.5.2	Number of drive wheels - Size of drive wheels		1 x 355 x 155
3.6         Front wheel gauge         b10         0 mm           3.7         Rear wheel gauge         b11         995 mm           4.7         Height of ownead guard (cabin)         66         2205 mm           4.8         Seat height/stand height         11         2241 mm           4.9         Overall leight         11         2243 mm           4.20         Length of ace of forks         12         1263 mm           4.21         Fork section / width / length         5 fe/ 1         40 mm x 100 mm / 1150 mm           4.22         Fork carriage ISO 2232 (class/form) A/B         5 fe/ 1         40 mm x 100 mm / 1150 mm           4.23         Fork carriage ISO 2232 (class/form) A/B         5 fe/ 1         40 mm x 100 mm / 1150 mm           4.24         Distance between wheel amms/loading surfaces         b4         900 mm           4.25         Distance between wheel amms/loading surfaces         m2         70 mm           4.25         Office decrease at centre of wheelbase         m2         70 mm           4.26         Ground clearance at centre of wheelbase         m2         70 mm           4.32         Aisle width for 800 x 1200 pallet lengthways         Ast         2706 mm           4.33         Aisle width for 800 x 1200 pallet lengthways	3.3	Number of load wheels - Size of load wheels		2 x 220*85
3.7         Rear wheel gauge         b11         995 mm           10         Ollmensions         Commonity           4.7         Helight of owned quard (cabin)         6         2225 mm           4.8         Seat height/stand height         h7         1077 mm           4.9         Overall length         11         2413 mm           4.90         Overall width         12         1226 mm           4.21         Overall width         b1         1120 mm           4.22         Fork saretion / width / length         5 ft         4 mm / 1100 mm           4.22         Fork saretion / width / length         5 ft         4 mm / 1100 mm           4.22         Fork saretion / width / length         5 ft         9 mm         2 mm           4.23         Fork saretion / width / length         5 ft         9 mm         900 mm         10 mm           4.24         Distance between wheel amm/loading surfaces         55         3 ft mm / 697 mm         2 mm         3 ft mm / 697 mm         3 mm         3 ft mm / 697 mm         3 mm         3 ft mm / 697 mm         3 mm	3.5	Number of front wheels / rear wheels		1 / 2
3.7         Rear wheel gauge         b11         995 mm           10         Ollmentions         Commentions           4.8         Seat height/stand height         6         2225 mm           4.8         Seat height/stand height         17         1077 mm           4.9         Overall length         11         2413 mm           4.19         Overall width         12         1263 mm           4.21         Overall width         15         1120 mm           4.22         Forks section / width / length         5 / c/         40 mm x 100 mm / 1150 mm           4.23         Fork searinge ISO 2328 (class/form) A/B         5 / c/         40 mm x 100 mm / 1150 mm           4.24         Distance between wheel ams/loading surfaces         54         900 mm           4.25         Distance between wheel ams/loading surfaces         55         316 mm / 697 mm           4.25         Distance between wheel ams/loading surfaces         55         316 mm / 697 mm           4.25         Oist carriage Isomin. / max.         65         3 f 6 mm / 697 mm           4.25         Aisle width for 1000 x 1200 pallet lengthways         Ast         2 770 mm           4.34         Aisle width for 800 x 1200 pallet lengthways         Ast         12.30 km/h 12.50 km/h	3.6	Front wheel gauge	b10	0 mm
4.7         Height of overhead guard (cabin)         h6         2205 mm           4.8         Seat height stand height         h7         1077 mm           4.9         Overall length         i1         2413 mm           4.20         Length to face of forks         i2         12 control           4.21         Overall width         b1         1120 mm           4.22         Fork section / width / length         s e / l         40 mm x 100 mm / 1150 mm           4.23         Fork carriage ISO 2228 (class/form) A/B         b4         900 mm           4.25.1         Width over forks min. / max.         b4         900 mm           4.25.1         Width over forks min. / max.         b4         900 mm           4.25.1         Width over forks min. / max.         b4         900 mm           4.27         Ground clearance at centre of wheelbase         m2         7 70 mm           4.32         Ground clearance at centre of wheelbase         m2         7 70 mm           4.33         Alsie width for 1000 x 1200 pallet lengthways         x         2 2701 mm           4.34         Alsie width for 800x 1200 pallet lengthways         x         1 1230 km/h 1250 km/h           5.2         Tarving speed (laded / unladen)         x         0.20 m/s 0.20 m/	3.7	Rear wheel gauge	b11	995 mm
4.8         Scat height/stand height         h7         1077 mm           4.19         Overall length         11         2413 mm           4.20         Length to face of forks         11         2413 mm           4.21         Overall width         b1         1120 mm           4.22         Fork section / width / length         s / e / l         40 mm x 100 mm / 1150 mm           4.23         Fork carriage ISO 2228 (class/form) A/B         5 / e / l         40 mm x 100 mm / 1150 mm           4.26         Distance between wheel amms/loading surfaces         b4         900 mm           4.25.1         Width over forks min. / max.         b5         316 mm / 697 mm           4.26         Distance between wheel amms/loading surfaces         m2         70 mm           4.27         Ground clearance at centre of wheelbase         m2         70 mm           4.32         Ground clearance at centre of wheelbase         m2         2701 mm           4.33         Alsie width for 800 x 1200 pallet lengthways         Ast         2766 mm           4.33         Alsie width for 800 x 1200 pallet lengthways         Ast         2776 mm           4.35         Tarwel speed (laden / unladen)         M3         15.20 km/h / 12.50 km/h           5.2         Lifting speed (laden /		Dimensions		
4.19         Overall length         I1         2413 mm           4.20         Length to face of foks         12         1263 mm           4.21         Overall width         bit         1120 mm           4.22         Fork section / width / length         s / e / l         40 mm x 100 mm / 1150 mm           4.23         Fork carriage ISO 2238 (class/form) A/B         b4         900 mm           4.26         Distance between wheel amms/loading surfaces         b4         900 mm           4.25.1         Width over forks min. / max.         b5         316 mm / 697 mm           4.26         Ground clearance at centre of wheelbase         m2         70 mm           4.32         A sile width for 100 x 1200 pallet lengthways         Ast         2706 mm           4.33         A sile width for 800 x 1200 pallet lengthways         Ast         2766 mm           4.34         A sile width for 800 x 1200 pallet lengthways         Ast         2766 mm           4.35         Tuming radius         Wa         1598 mm           5.1         Tavel speed (laden / unladen)         0.46 m/s / 0.54 m/s           5.2         Lifting speed (laden / unladen)         0.58 m/s / 0.60 m/s           5.4.1         Reach speed (with load / without load)         0.58 m/s / 0.60 m/s	4.7	Height of overhead guard (cabin)	h6	2205 mm
4.20         Length to face of forks         12         1263 mm           4.21         Overall width         b1         1120 mm           4.22         Fork section / width / length         s / e/         40 mm x 100 mm / 1150 mm           4.23         Fork carriage ISO 2328 (class form) A/B         2A         2A           4.26         Distance between wheel ams/loading surfaces         b4         900 mm           4.25.1         Width over forks min. / max.         b5         316 mm / 697 mm           4.28         Ground clearance at centre of wheelbase         m2         70 mm           4.31         A liste width for 1000 x 1200 pallet lengthways         Ast         2701 mm           4.32         A liste width for 900 x 1200 pallet lengthways         Ast         2766 mm           4.34         A liste width for 900 x 1200 pallet lengthways         Ast         2701 mm           4.35         Tuming radius         Ma         1598 mm           5.1         Travel speed (laden / unladen)         Ma         1598 mm           5.2         Lifting speed (laden / unladen)         0.58 m/s / 0.60 m/s         0.58 m/s / 0.60 m/s           5.3         Lowering speed (with load / without load)         0.00 m/s / 0.20 m/s         0.58 m/s / 0.00 m/s           5.1         <	4.8	Seat height/stand height	h7	1077 mm
4.21         Overall width         b1         1120 mm           4.22         Forks section / width / length         s / e / I         40 mm x 100 mm / 1150 mm           4.23         Fork carriage ISO 2328 (class/omy A/B         b4         900 mm           4.26         Distance between wheel arms/loading surfaces         b4         900 mm           4.25.1         Width over forks min. / max.         b5         316 mm / 697 mm           4.32         Ground clearance at centre of wheelbase         m2         70 mm           4.33         A sile width for 800 x 1200 pallet lengthways         Ast         276 mm           4.34         A sile width for 800 x 1200 pallet lengthways         Ast         276 mm           4.35         Tuming radius         M3         1598 mm           4.36         Tuming radius         W3         1598 mm           5.1         Tavel speed (laden / unladen)         W3         1598 mm           5.2         Lifting speed (laden / unladen)         12.30 km/h / 12.50 km/h           5.3         Lowering speed (laden / unladen)         0.58 m/s / 0.50 m/s           5.1         Reach speed (with load / without load)         0.20 m/s / 0.20 m/s           5.1         Service baxe         Electric           6.1         Diviw m	4.19	Overall length	l1	2413 mm
4.22         Forks section / width / length         \$ / e / l         40 mm x 100 mm / 1150 mm           4.23         Fork carriage ISO 2328 (class/form) A/B         b4         900 mm           4.26         Distance between wheel arms/loading surfaces         b4         900 mm           4.25.1         Width over forks min. / max.         b5         316 mm / 697 mm           4.32         Ground clearance at centre of wheelbase         m2         70 mm           4.33         Aisle width for 1000 x 1200 pallet lengthways         Ast         2776 mm           4.34         Aisle width for 800 x 1200 pallet lengthways         Wa         1598 mm           4.35         Turning radius         Wa         1598 mm           5.1         Travel speed (laden / unladen)         Wa         1598 mm           5.2         Lifting speed (laden / unladen)         0.58 m/s / 0.54 m/s         0.58 m/s / 0.50 m/s           5.3         Lowering speed (laden / unladen)         0.58 m/s / 0.60 m/s         0.58 m/s / 0.60 m/s           5.1         Reach speed (with load / without load)         0.58 m/s / 0.60 m/s         0.58 m/s / 0.60 m/s           5.1         Reach speed (with load / unladen)         0.00 m/s         0.58 m/s / 0.60 m/s           5.1         Bradjie or brake         Electric         1.00 m/s <td>4.20</td> <td>Length to face of forks</td> <td>12</td> <td>1263 mm</td>	4.20	Length to face of forks	12	1263 mm
4.23       Fork carriage ISO 2328 (class/form) A/B       2A         4.26       Distance between wheel arms/loading surfaces       b4       900 mm         4.25.1       Width over forks min. / max.       b5       316 mm / 697 mm         4.32       Ground clearance at centre of wheelbase       m2       70 mm         4.33       Aisle width for 1000 x 1200 pallet lengthways       Ast       2768 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       2768 mm         4.35       Tuming radius       Wa       1598 mm         5.1       Travel speed (laden / unladen)       Wa       12.30 km/h / 12.50 km/h         5.2       Lifting speed (laden / unladen)       0.46 m/s / 0.54 m/s       0.55 m/s / 0.50 m/s         5.4.1       Reach speed (with load / without load)       0.55 m/s / 0.20 m/s       0.55 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       7.50 k/ 11.10 k       0.20 m/s / 0.20 m/s       0.50 m/s         5.1       Peach speed (with load / without load)       9       7.50 k/ 11.10 k       0.00 m/s       0.50 m/s	4.21	Overall width	b1	1120 mm
4.26       Distance between wheel amms/loading surfaces       b4       900 mm         4.25.1       Width over forks min. / max.       b5       316 mm / 697 mm         4.32       Ground clearance at centre of wheelbase       m2       70 mm         4.33       Aisle width for 1000 x 1200 pallet lengthways       Ast       2768 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       2768 mm         4.35       Tuming radius       Wa       1598 mm         5.1       Tavel speed (laden / unladen)       Wa       12.30 km/h / 12.50 km/h         5.2       Lifting speed (laden / unladen)       0.58 m/s / 0.60 m/s       0.58 m/s / 0.60 m/s         5.3       Lowering speed (laden / unladen)       0.58 m/s / 0.60 m/s       0.58 m/s / 0.60 m/s         5.4.1       Reach speed (with load / without load)       0.20 m/s / 0.20 m/s / 0.20 m/s       0.20 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       5.00 km/s       1.11 kW         5.1       Engline       11 kW         6.1       Drive motor rating \$2.60 min       5.90 kW         6.2       Lift motor rating \$2.60 min       5.90 kW         6.3       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/-5%)       73	4.22	Forks section / width / length	s / e / l	40 mm x 100 mm / 1150 mm
4.25.1       Width over forks min. / max.       b5       316 mm / 697 mm         4.32       Ground clearance at centre of wheelbase       m2       70 mm         4.33       Alsle width for 1000 x 1200 pallet lengthways       Ast       2701 mm         4.34       Alsle width for 800 x 1200 pallet lengthways       Ast       2768 mm         4.35       Tuming radius       Wa       1598 mm         Perfomances         5.1       Travel speed (laden / unladen)       12.30 km/h / 12.50 km/h         5.2       Lifting speed (laden / unladen)       0.46 m/s / 0.54 m/s         5.3       Lowering speed (laden / without load)       0.58 m/s / 0.60 m/s         5.4.1       Reach speed (with load / without load)       0.20 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       0.20 m/s / 0.20 m/s         5.10       Service brake       Electric         Engline       11 kW         6.1       Drive motor rating \$2.60 min       5.90 kW         6.2       Lift motor rating \$2.60 min       5.90 kW         6.3       Battery voltage / capacity       48 V / 420 Ah         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/-5%)       730 kg	4.23	Fork carriage ISO 2328 (class/form) A/B		2A
4.32       Ground clearance at centre of wheelbase       m2       70 mm         4.33       Aisle width for 1000 x 1200 pallet lengthways       Ast       2701 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       2768 mm         4.35       Tuming radius       Wa       1598 mm         Performances         5.1       Travel speed (laden / unladen)       12.30 km/h / 12.50 km/h         5.2       Lifting speed (laden / unladen)       0.46 m/s / 0.54 m/s         5.3       Lowering speed (laden / unladen)       0.58 m/s / 0.60 m/s         5.4.1       Reach speed (with load / without load)       0.20 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       0.20 m/s / 0.20 m/s         5.1       Engine       1         6.1       Drive motor rating \$2.60 min       5.90 kW         6.2       Lift motor rating \$2.60 min       5.90 kW         6.3       Battery vectoriag to DIN 43531/35/36 A, B, C       5.90 kW         6.4       Battery voltage / capacity       48 V / 420 Ah         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/- 5%)       7.50 km/h         6.       Battery weight (+/- 5%)       6.90 km/h	4.26	Distance between wheel arms/loading surfaces	b4	900 mm
4.33       Aisle width for 1000 x 1200 pallet lengthways       Ast       2701 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       2768 mm         4.35       Turning radius       Wa       1598 mm         Formaring adius       Porformances       Colspan="3">Col	4.25.1	Width over forks min. / max.	b5	316 mm / 697 mm
4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       2768 mm         4.35       Tuming radius       Wa       1598 mm         Performances         5.1       Travel speed (laden / unladen)       12.30 km/h / 12.50 km/h         5.2       Lifting speed (laden / unladen)       0.46 m/s / 0.54 m/s         5.3       Lowering speed (laden / unladen)       0.58 m/s / 0.60 m/s         5.4.1       Reach speed (with load / without load)       0.20 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       7.50 % / 11.10 %         5.10       Service brake       Electric         6.1       Drive motor rating S2 60 min       5.90 kW         6.2       Lift motor rating s2 60 min       5.90 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery veight (+/- 5%)       730 kg         6.5       Battery weight (+/- 5%)       730 kg         Miscellaneous       Electronic         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min	4.32	Ground clearance at centre of wheelbase	m2	70 mm
Tuming radius       Wa       1598 mm         Performances         5.1       Travel speed (laden / unladen)       12.30 km/h / 12.50 km/h         5.2       Lifting speed (laden / unladen)       0.46 m/s / 0.54 m/s         5.3       Lowering speed (with load / without load)       0.58 m/s / 0.60 m/s         5.4.1       Reach speed (with load / without load)       0.20 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       0.20 m/s / 0.20 m/s         5.10       Service brake       Electric         6.1       Drive motor rating \$2 60 min       5.90 kW         6.2       Lift motor rating \$2 60 min       5.90 kW         6.2       Lift motor rating at \$3 15%       11 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/- 5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min	4.33	Aisle width for 1000 x 1200 pallet lengthways		2701 mm
Performances           5.1         Travel speed (laden / unladen)         12.30 km/h / 12.50 km/h           5.2         Lifting speed (laden / unladen)         0.46 m/s / 0.54 m/s           5.3         Lowering speed (with load / without load)         0.20 m/s / 0.20 m/s           5.4.1         Reach speed (with load / without load)         0.20 m/s / 0.20 m/s           5.7         Gradeability (laden / unladen)         7.50 % / 11.10 %           5.10         Service brake         Electric           6.1         Dive motor rating \$2.60 min         5.90 kW           6.2         Lift motor rating \$2.60 min         5.90 kW           6.3         Battery according to DIN 43531/35/36 A, B, C         DIN43531 B           6.4         Battery voltage / capacity         48 V / 420 Ah           6.5         Battery weight (+/- 5%)         730 kg           Miscellaneous         Electronic           8.1         Type of drive control         Electronic           8.3         Oil flow rate for attachments         25 l/min	4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	2768 mm
5.1       Travel speed (laden / unladen)       12.30 km/h / 12.50 km/h         5.2       Lifting speed (laden / unladen)       0.46 m/s / 0.54 m/s         5.3       Lowering speed (with load / without load)       0.58 m/s / 0.60 m/s         5.4.1       Reach speed (with load / without load)       0.20 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       7.50 % / 11.10 %         5.10       Service brake       Electric         6.1       Drive motor rating \$2 60 min       5.90 kW         6.2       Lift motor rating at \$3 15%       11 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/-5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min	4.35	Turning radius	Wa	1598 mm
5.2       Lifting speed (laden / unladen)       0.46 m/s / 0.54 m/s         5.3       Lowering speed (laden / unladen)       0.58 m/s / 0.60 m/s         5.4.1       Reach speed (with load / without load)       0.20 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       7.50 % / 11.10 %         5.10       Service brake       Electric         Engine         6.1       Drive motor rating \$2 60 min       5.90 kW         6.2       Lift motor rating at \$3 15%       11 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/-5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min		Performances		
5.3       Lowering speed (laden / unladen)       0.58 m/s / 0.60 m/s         5.4.1       Reach speed (with load / without load)       0.20 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       7.50 % / 11.10 %         5.10       Service brake       Electric         Engine         6.1       Drive motor rating \$2.60 min       5.90 kW         6.2       Lift motor rating at \$3.15%       11 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/-5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min	5.1	Travel speed (laden / unladen)		12.30 km/h / 12.50 km/h
5.4.1       Reach speed (with load / without load)       0.20 m/s / 0.20 m/s         5.7       Gradeability (laden / unladen)       7.50 % / 11.10 %         5.10       Service brake       Electric         Engine         6.1       Drive motor rating \$2.60 min       5.90 kW         6.2       Lift motor rating at \$3.15%       11 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/-5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min	5.2	Lifting speed (laden / unladen)		0.46 m/s / 0.54 m/s
5.7       Gradeability (laden / unladen)       7.50 % / 11.10 %         5.10       Service brake       Electric         Engine         6.1       Drive motor rating \$2.60 min       5.90 kW         6.2       Lift motor rating at \$3.15%       11 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/-5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min	5.3	Lowering speed (laden / unladen)		0.58 m/s / 0.60 m/s
Electric           Engine           6.1         Drive motor rating \$2.60 min         \$5.90 kW           6.2         Lift motor rating at \$3.15%         \$11 kW           6.3         Battery according to DIN 43531/35/36 A, B, C         DIN43531 B           6.4         Battery voltage / capacity         48 V / 420 Ah           6.5         Battery weight (+/-5%)         730 kg           Miscellaneous           8.1         Type of drive control         Electronic           8.3         Oil flow rate for attachments         25 l/min	5.4.1	Reach speed (with load / without load)		0.20 m/s / 0.20 m/s
Engine         Engine           6.1         Drive motor rating \$2.60 min         \$5.90 kW           6.2         Lift motor rating at \$3.15%         \$11 kW           6.3         Battery according to DIN 43531/35/36 A, B, C         DIN43531 B           6.4         Battery voltage / capacity         48 V / 420 Ah           6.5         Battery weight (+/- 5%)         730 kg           8.1         Type of drive control         Electronic           8.3         Oil flow rate for attachments         25 l/min	5.7	Gradeability (laden / unladen)		7.50 % / 11.10 %
6.1       Drive motor rating \$2.60 min       5.90 kW         6.2       Lift motor rating at \$3.15%       11 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/- 5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min	5.10	Service brake		Electric
6.2       Lift motor rating at S3 15%       11 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/- 5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min		Engine		
6.3       Battery according to DIN 43531/35/36 A, B, C       DIN43531 B         6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/- 5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min	6.1	Drive motor rating S2 60 min		5.90 kW
6.4       Battery voltage / capacity       48 V / 420 Ah         6.5       Battery weight (+/- 5%)       730 kg         Miscellaneous         8.1       Type of drive control       Electronic         8.3       Oil flow rate for attachments       25 l/min	6.2	Lift motor rating at S3 15%		11 kW
6.5         Battery weight (+/- 5%)         730 kg           Miscellaneous           8.1         Type of drive control         Electronic           8.3         Oil flow rate for attachments         25 l/min	6.3	Battery according to DIN 43531/35/36 A, B, C		DIN43531 B
Miscellaneous         Electronic           8.1         Type of drive control         Electronic           8.3         Oil flow rate for attachments         25 l/min	6.4	Battery voltage / capacity		48 V / 420 Ah
8.1Type of drive controlElectronic8.3Oil flow rate for attachments25 l/min	6.5	Battery weight (+/- 5%)		730 kg
8.3 Oil flow rate for attachments 25 1/min		Miscellaneous		
	8.1	Type of drive control		Electronic
8.4 Sound level at the driver's ear according to DIN 12 053 57.40 dB	8.3	Oil flow rate for attachments		25 l/min
	8.4	Sound level at the driver's ear according to DIN 12 053		57.40 dB

## ER 12 - Dimensional drawing



## Characteristics of masts and residual capacities

Full Visibility Duplex (FVD)		FVD 32	FVD 36	FVD 38	FVD 42	FVD 45	FVD 48
Mast/fork carriage tilt, forward °		4	4	4	4	4	4
Mast/fork carriage tilt, backward	۰	1	1	1	1	1	1
h1 - Mast lowered height	mm	2170	2370	2470	2670	2820	2970
h2 - Mast free lift	mm	125	125	125	125	125	125
h3 - Mast lifting height	mm	3200	3600	3800	4200	4500	4800
h4 - Mast extended height	mm	3780	4180	4380	4780	5080	5380
Residual capacity with integrated side shift at max heigth	kg	1200	1200	1200	1200	1200	1200

Free Lift Triplex (FLT)	FLT 48	FLT 54	FLT 57	FLT 63	FLT 68	
Mast/fork carriage tilt, forward °		3	3	3	3	3
Mast/fork carriage tilt, backward	۰	1	1	1	1	1
h1 - Mast lowered height	mm	2140	2340	2440	2640	2790
h2 - Mast free lift	mm	1600	1800	1900	2100	2250
h3 - Mast lifting height	mm	4800	5400	5700	6300	6800
h4 - Mast extended height	mm	5380	5980	6280	6880	7330
Residual capacity with integrated side shift at max heigth	kg	1200	1200	1200	1000	700





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