



ES 1.0-1.6 t

Stackers

ES 10-N01 ES 12-N01 ES 12-N02
ES 15-N01 ES 15-N02 ES 12-N03
ES 16-N02



1.1	Manufacturer		KION BAOLI	KION BAOLI
1.2	Manufacturer's type designation of Baoli		ES 10-N01	ES 12-N03
1.3	Power (battery,diesel, petrol, gas, manual)	—	Electric	Electric
1.4	Operator type	—	Pedestrian	Pedestrian
1.5	Load Capacity / rated load	Q (t)	1	1,2
1.6	Load centre distance	c (mm)	600	600
1.8	Load distance, centre of drive axle to fork	x (mm)	800	647
1.9	Wheelbase	Y (mm)	1281	1248
2.1	Service weight	kg	510	1007
2.2	Axle loading, laden front/rear	kg	580 / 930	684 / 1523
2.3	Axle loading, unladen front/rear	kg	385 / 125	610 / 397
3.1	Tires	—	Polyurethane	Polyurethane
3.2	Tire size, front	Φ× w (mm)	Φ 220 × 70	Φ 230×70
3.3	Tire size, rear	Φ× w (mm)	Φ 80 × 93	Φ 85×75
3.4	Additional wheels (dimensions)	Φ× w (mm)	Φ 124 × 60	Φ 150x54
3.5	Wheels, number front/rear (x=driven wheels)	—	1x+1/2	1x+1/4
3.6	Track, front	b10mm	529	522
3.7	Track, rear	b11 (mm)	420 / 535	390 / 505
4.2	Lowered mast height	h1 (mm)	1950	2308
4.3	Free Lift height	h2 (mm)	70	1760
4.4	Lift height	h3 (mm)	2840	3530
4.5	Extended mast height	h4 (mm)	3325	4088
4.9	Height of tiller in drive position min./ max.	h14 mm	785 / 1300	850 / 1385
4.15	Height, lowered	h13 mm	85	90
4.19	Overall length	l1 mm	1800	1919
4.20	Length to face of forks	l2 mm	632	769
4.21	Overall width	b1 mm	800	820
4.22	Fork dimensions	s/e/l (mm)	60 / 150 / 1150	60 / 180 / 1150
4.25	Distance between fork-arms	b5 (mm)	570 / 685	570 / 685
4.32	Ground clearance, centre of wheelbase	m2 (mm)	29	28
4.34	Aisle width for pallets 1000X1200 crossways	Ast (mm)	2318	2336
4.34	Aisle width for pallets 800X1200 lengthways	Ast (mm)	2250	2456
4.35	Turning radius	Wa (mm)	1485	1440
5.1	Travel speed, laden/ unladen	km/h	4.3 / 4.5	6.0 / 6.0
5.2	Lift speed, laden/ unladen	m/s	0,11 / 0,16	0.09 / 0.14
5.3	Lowering speed, laden/ unladen	m/s	0,13 / 0,11	0.18 / 0.12
5.8	Max. gradeability, laden/ unladen	%	5 / 10	6 / 12
5.10	Service brake	—	Electromagnetic	Electromagnetic
6.1	Drive motor rating S2 60min	kW	0,45	1,3
6.2	Lift motor rating at S3 10%	kW	2,2	1,5
6.3	Battery acc. to DIN 43531/35/36 A, B, C, no	—	no	2VBS
6.4	Battery voltage, nominal capacity K5	V/Ah	2x12 / 85	24 / 180
6.5	Battery weight	kg	2x25	175
6.6	Energy consumption acc: to VDI cycle	Kwh/h	0,73	0,95
8.1	Type of drive control	—	DC	AC
8.4	Sound level at driver's ear acc. to EN 12053	dB(A)	<70	<70

KION BAOLI	KION BAOLI	KION BAOLI	KION BAOLI	KION BAOLI	KION BAOLI
ES 16-N02	ES 12-N01	ES 12-N02	ES 15-N01	ES 15-N02 2 stage mast	ES 15-N02 3 stage mast
Electric	Electric	Electric	Electric	Electric	Electric
Pedestrian	Pedestrian	Pedestrian	Pedestrian	Pedestrian	Pedestrian
1,6	1,2	1,2	1,5	1,5	1,5
600	600	600	600	600	600
647	684	684	684	765	765
1293	1196	1196	1235	1405	1520
1340	765	960	1035	1095	1596
930 / 2010	685 / 1280	830 / 1330	880 / 1655	1165 / 1430	1345 / 1663
850 / 490	585 / 180	730 / 230	780 / 255	735 / 360	955 / 553
Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Φ 230×70	Φ 252 × 88	Φ 252 × 88	Φ 252 × 88	Φ 230 × 75	Φ 230 × 75
Φ 85×75	Φ 80 × 70	Φ 80 × 70	Φ 80 × 70	Φ 80 × 70	Φ 80 × 70
Φ 150x54	Φ 150 × 54	Φ 150 × 54	Φ 150 × 54	Φ 124 × 60	Φ 124 × 60
1x+1/4	1x+2/4	1x+2/4	1x+2/4	1x+2/4	1x+2/4
522	686	686	686	570	750
390 / 505	390 / 505	390 / 505	390 / 505	390 / 505	390 / 505
2108	1946	2096	1946	1950	2220
1520	120	120	150	150	1660
4530	2900	3200	2900	2865	4965
5088	3675	3975	3675	3370	5520
850 / 1385	985 / 1420	985 / 1420	985 / 1420	1370 / 945	1370 / 945
90	81	81	81	85	85
1964	1846	1846 / 1946	1883 / 1983	2050	2180
814	695	695 / 795	733 / 833	900	1030
820	810	910	910	795	1000
60 / 180 / 1150	60 / 180 / 1150	60 / 180 / 1150	60 / 180 / 1150	60 / 180 / 1150	60 / 180 / 1150
570 / 685	570 / 685	570 / 685	570 / 685	570 / 685	570
28	26	26	21	25	25
2406	2320	2320 / 2420	2360 / 2460	2519	2645
2393	2215	2215 / 2315	2250 / 2350	2466	2592
1510	1400	1400 / 1500	1440 / 1540	1674	1806
5.7 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0
0.13 / 0.20	0.105 / 0.15	0.105 / 0.15	0.105 / 0.15	0.082 / 0.15	0.141 / 0.212
0.25 / 0.17	0.13 / 0.11	0.13 / 0.11	0.13 / 0.11	0.095 / 0.10	0.227 / 0.178
6 / 12	6 / 12	6 / 12	6 / 12	6 / 12	6 / 12
Electromagnetic	Electromagnetic	Electromagnetic	Electromagnetic	Electromagnetic	Electromagnetic
1,3	1,3	1,3	1,3	1,3	1,3
3,2	2,2	2,2	3	2,2	3
3VBS	No, cells 3PzS	No, cells 3PzS	No, cells 3PzS	B, 2PzS	B, 3PzS
24 / 270	2x12 / 90	24 / 210	24 / 210	24 / 210	24 / 350
230	65	210	210	217	288
1,59	1,4	1,4	1,4	—	2,36
AC	AC	AC	AC	AC	AC
<70	<70	<70	<70	<70	<70

ES 10-N01

Mast	2 stages 2900mm	Single stage 1600mm	2 stages 3500mm
h1	1950	1950	2250
h2	70	1530	70
h3	2840	1530	3440
h4	3325	1950	3925

ES 12-N01

Mast	Single stage 1600mm	2 stages 2900mm
h1	1976	1946
h2	1519	120
h3	1600	2900
h4	2375 / 1976	3675 / 3296

ES 12-N02

Mast	Single stage 1600mm	2 stages 2600mm	2 stages 2900mm	2 stages w. free lift 2900mm	2 stages 3200mm	2 stages w. free lift 3200mm	2 stages 3600mm
h1	1976	1796	1946	1946	2096	2096	2296
h2	1519	120	120	1484	120	1634	120
h3	1600	2600	2900	2900	3200	3200	3600
h4	2375/ 1976	3375/ 2996	3675/3296	3675/ 3281	3975/ 3596	3975/ 3581	4375/ 3996

ES 15-N01

Mast	2 stages 2900mm	2 stages w. free lift 2900mm	3 stages 3400mm	3 stages w. free lift 3400mm
h1	1946	1946	1726	1726
h2	150	1484	—	1120
h3	2900	2900	3400	3400
h4	3675 / 3281	3675 / 3281	4175 / 3939	4175 / 3925

ES15-N02 battery 210 Ah

Mast	2 stages 2900mm	2 stages w. free lift 2900mm	2 stages 3600mm	2 stages w. free lift 3600mm	2 stages 4000mm
h1	1950	1950	2300	2300	2500
h2	150	1480	150	1830	150
h3	2865	2865	3565	3565	3965
h4	3370	3370	4070	4070	4470

ES 15-N02 battery 350 Ah

Mast	3 stages w. free lift 4300mm	3 stages w. free lift 4600mm	3 stages w. free lift 5000mm	3 stages w. free lift 5500mm	3 stages w. free lift 6000mm
h1	1980	2080	2220	2475	2740
h2	1420	1520	1660	1875	2100
h3	4265	4565	4965	5465	5965
h4	4865	5115	5520	6060	6600

	Type	ES 15-N02	
	Mast	6000 mm	
h3 (mm)	Q (kg)		
6000	450	350	
5500	600	500	
5000	750	650	
4600	850	700	
4000	1000	800	
3400	1100	900	
3200	1200	1000	
2700	1500	1200	
c (mm)	600	700	

ES 12-N03						
Mast	2 stages			2 stages w. free lift		
h1	1958	2108	2308	1958	2108	2308
h2	—	—	—	1410	1560	1760
h3	2830	3130	3530	2830	3130	3530
h4	3380	3680	4080	3380	3680	4080
h3 + h13	2920	3220	3620	2920	3220	3620

ES 16-N02											
Mast	2 stages			2 stages w. free lift			3 stages		3 stages w. free lift		
h1	1958	2108	2308	1958	2108	2308	2008	2108	2008	2108	2343
h2	—	—	—	1410	1560	1760	—	—	1420	1520	1756
h3	2830	3130	3530	2830	3130	3530	4230	4530	4230	4530	5230
h4	3380	3680	4080	3380	3680	4080	4780	5080	4780	5080	5780
h3 + h13	2920	3220	3620	2920	3220	3620	4320	4620	4320	4620	5320

Type	ES 12-N03		
Mast	2900 mm		
h3 (mm)	Q (kg)		
2900	1000	800	
2500	1200	1000	
c (mm)	600	700	

Type	ES 12-N03		
Mast	3200 mm		
h3 (mm)	Q (kg)		
3200	800	600	
2900	1000	800	
2500	1200	1000	
c (mm)	600	700	

Type	ES 12-N03		
Mast	3600 mm		
h3 (mm)	Q (kg)		
3600	600	400	
3200	800	600	
2900	1000	800	
2500	1200	1000	
c (mm)	600	700	

Type	ES 16-N02		
Mast	2900 mm		
h3 (mm)	Q (kg)		
2900	1400	1100	
2500	1600	1200	
c (mm)	600	700	

Type	ES 16-N02		
Mast	3200 mm		
h3 (mm)	Q (kg)		
3200	1200	900	
2900	1400	1100	
2500	1600	1200	
c (mm)	600	700	

Type	ES 16-N02		
Mast	3600 mm		
h3 (mm)	Q (kg)		
3600	1000	700	
3200	1200	900	
2900	1400	1100	
2500	1600	1200	
c (mm)	600	700	

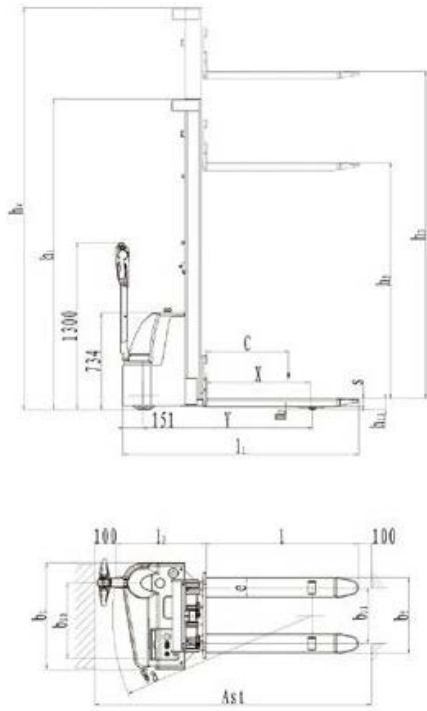
Type	ES 16-N02		
Mast	4000		
h3 (mm)	Q (kg)		
4000	950	650	
3600	1000	700	
3200	1200	900	
2900	1400	1100	
2500	1600	1200	
c (mm)	600	700	

Type	ES 16-N02		
Mast	4300		
h3 (mm)	Q (kg)		
4300	900	600	
3600	1000	700	
3200	1200	900	
2900	1400	1100	
2500	1600	1200	
c (mm)	600	700	

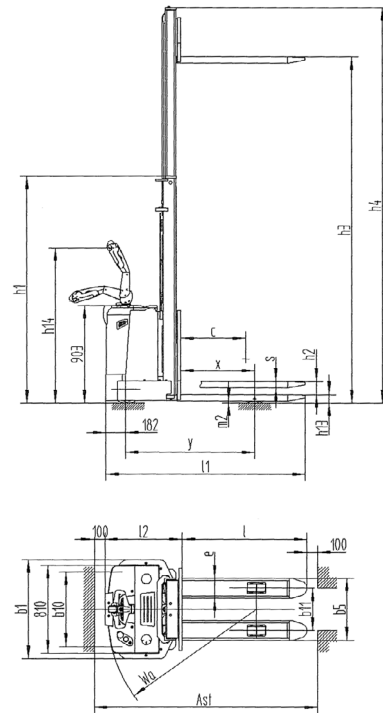
Type	ES 16-N02		
Mast	4600		
h3 (mm)	Q (kg)		
4600	800	500	
4300	900	600	
3600	1000	700	
3200	1200	900	
2900	1400	1100	
2500	1600	1200	
c (mm)	600	700	

Type	ES 16-N02		
Mast	5300		
h3 (mm)	Q (kg)		
5300	700	400	
4600	800	500	
4300	900	600	
3600	1000	700	
3200	1200	900	
2900	1400	1100	
2500	1600	1200	
c (mm)	600	700	

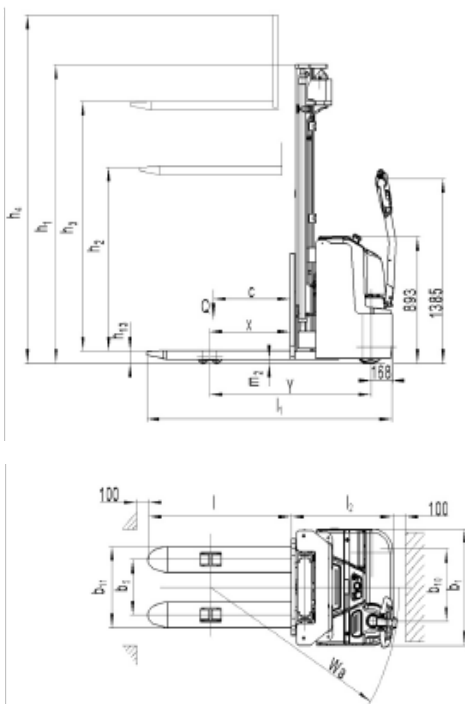
ES 10



ES 12-15



ES 12-N03 ES 16-N02



ES 10-N01



ES 15-N02



ES 12-N01 - ES 12-N02
ES 15-N01



ES 12-N03 - ES 16-N02







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