

PRELIMINARY

TECHNICAL SPECIFICATIONS

SSO16-20(I)(S)-N2



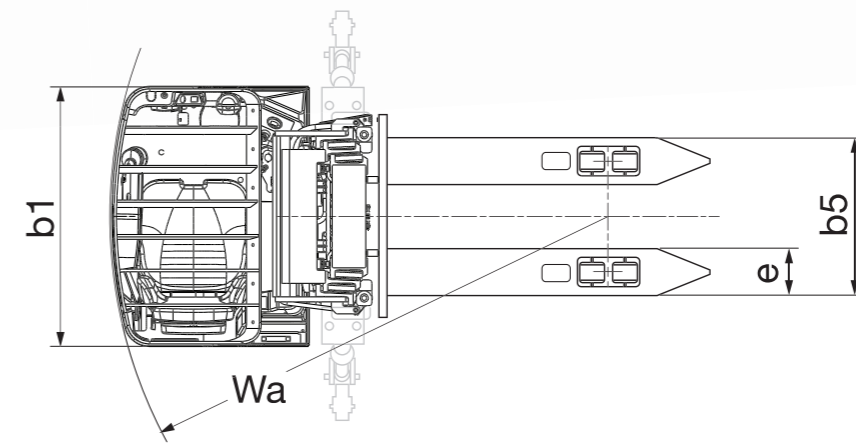
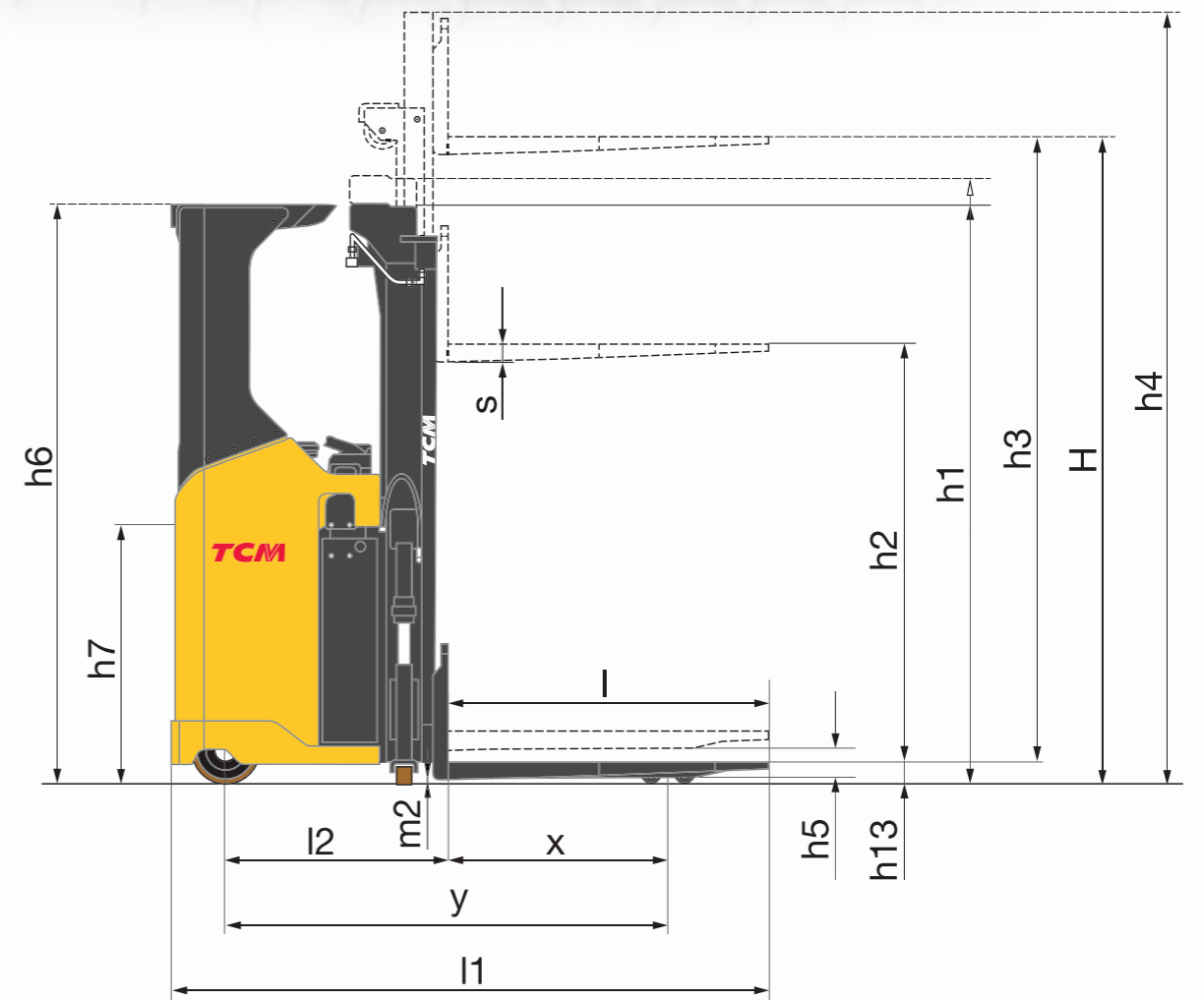
SSO16-20(I)-N2

STANDARD SPECIFICATIONS PRELIMINARY

CHARACTERISTICS			Without initial lift		With initial lift	
			TCM			
			SSO16-N2	SSO20-N2	SSO16(I)-N2	SRO20(I)-N2
1.1	Manufacturer					
1.2	Manufacturer's model designation					
1.3	Power source		Battery	Battery	Battery	Battery
1.4	Operator type		Sit-on	Sit-on	Sit-on	Sit-on
1.5	Load capacity	Q (kg)	1600	2000	1600	2000
1.6	Load center distance	c (mm)	600	600	600	600
1.8	Load wheel axle to fork face (forks lowered)	x (mm)	800	800	800	800
1.9	Wheelbase	y (mm)	1616 ¹	1665 ¹	1661 ¹	1720 ¹
WEIGHT						
2.1a	Truck weight with load, with maximum battery weight	kg				
2.1b	Truck weight without load, with maximum battery weight	kg	1866	2127	2015	2294
2.2	Axle loadings with nominal load & maximum battery weight, drive / load side	kg	1466/2000	1690/2438	1571/2045	1806/2488
2.3	Axle loadings without load & with maximum battery weight, drive / load side	kg	1306/560	1490/638	1411/605	1606/688
WHEELS, DRIVE TRAIN						
3.1	Tyres: PT = Power Thane, Vul = Vuilkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side		Vul / Vul	Vul / Vul	Vul / Vul	Vul / Vul
3.2	Tyre dimensions, drive side	(mm)	250 x 105	250 x 105	250 x 105	250 x 105
3.3	Tyre dimensions, load side	(mm)	85 x 70	85 x 70	85 x 70	85 x 70
3.4	Castor wheel dimensions (diameter x width)	(mm)	150 x 55	150 x 55	150 x 55	150 x 55
3.5	Number of wheels, load / drive side (x = driven)		4 / 1x + 2	4 / 1x + 2	4 / 1x + 2	4 / 1x + 2
3.6	Track width (centre of tyres), drive side	b10 (mm)	706	706	706	706
3.7	Track width (centre of tyres), load side	b11 (mm)	402	392	390	375
DIMENSIONS						
4.2a	Height with mast lowered	h1 (mm)	see mast chart	see mast chart	see mast chart	see mast chart
4.2b	Height	h1 (mm)	see mast chart	see mast chart	see mast chart	see mast chart
4.3	Free lift	h2 (mm)	see mast chart	see mast chart	see mast chart	see mast chart
4.4	Lift height (stroke)	h3 (mm)	see mast chart	see mast chart	see mast chart	see mast chart
4.5	Height with mast extended	h4 (mm)	see mast chart	see mast chart	see mast chart	see mast chart
4.6	Initial lift (stroke)	h5 (mm)	-	-	110	110
4.7	Height to top of overhead guard	h6 (mm)	2110	2110	2110	2110
4.8	Seat height	h7 (mm)	966	966	966	966
4.1	Height of support legs	h8 (mm)	80	83	87	87
4.15	Fork height, fully lowered	h13 (mm)	89	90	93	93
4.19	Overall length	l1 (mm)	2189 ¹	2238 ¹	2233 ¹	2293 ¹
4.2	Length to fork face	l2 (mm)	1019 ¹	1068 ¹	1063 ¹	1123 ¹
4.21	Overall width	b1 (mm)	1010	1010	1010	1010
4.22	Fork dimensions (thickness, width, length)	s / e / l (mm)	70 / 180 / 1170	70 / 195 / 1170	70 / 180 / 1170	70 / 195 / 1170
4.25	Outside width over forks	b5 (mm)	570	570	570	570
4.32	Ground clearance at center of wheelbase, (forks lowered)	m2 (mm)	25	23	20	20
4.34a	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast (mm)	2584 ²	2632 ²	2627 ²	2685 ²
4.34b	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise	Ast3 (mm)	2419	2466	2461	2520
4.35	Turning circle radius	Wa (mm)	1819 ³	1866 ³	1861 ³	1920 ³
PERFORMANCE						
5.1	Travel speed, with / without load	km / h	10 / 10	9.0 / 9.0	9.0 / 9.0	9.0 / 9.0
5.2	Lifting speed, with / without load	m / s	0.16 / 0.32	0.12 / 0.22	0.16 / 0.32	0.12 / 0.22
5.3	Lowering speed, with / without load	m / s	0.44 / 0.41	0.33 / 0.30	0.44 / 0.41	0.33 / 0.30
5.8	Maximum gradeability with / without load	%	6.7 / 6.7	5.9 / 5.9	26.6 / 26.6	25.6 / 25.6
5.9	Acceleration time (10 metres) with / without load	s				
5.1	Service brakes (mechanical / hydraulic / electric / pneumatic)		electric	electric	electric	electric
ELECTRIC MOTOR						
6.1	Drive motor capacity (60 min. short duty)	kW	2.7	2.7	2.7	2.7
6.2	Lift motor output at 15% duty factor	kW	4	4	4	4
6.4	Battery voltage/capacity at 5-hour discharge	V / Ah	24 / 375-775	24 / 375-775	24 / 375-775	24 / 375-775
6.5	Battery weight	kg	330-620	330-620	330-620	330-620
6.6a	Energy consumption according to DIN EN 16796	kWh / h	0.85 ³	0.85 ³	0.85 ³	0.85 ³
MISCELLANEOUS						
8.1	Type of drive control		AC	AC	AC	AC
10.7	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871, in work LpAZ	dB (A)	<70	<70	<70	<70
10.7.2	Whole-body vibration (EN 13 059:2002)			see instruction handbook		
10.7.3	Hand-arm vibration (EN 13 059:2002)			see instruction handbook		

- When Senior chassis add 104 mm
- Dimensions vary depending on battery carriage and mast type
- Varies according to configuration and actual usage pattern

DIMENSIONS SSO16-20(I)-N2



SSO16-20(S)-N2

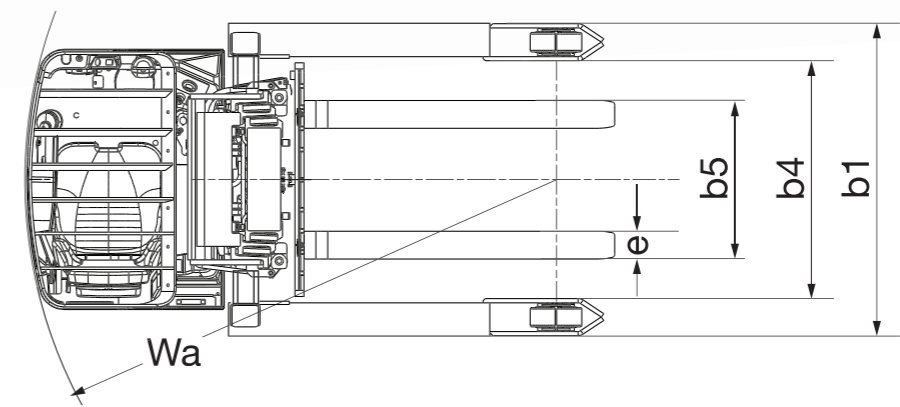
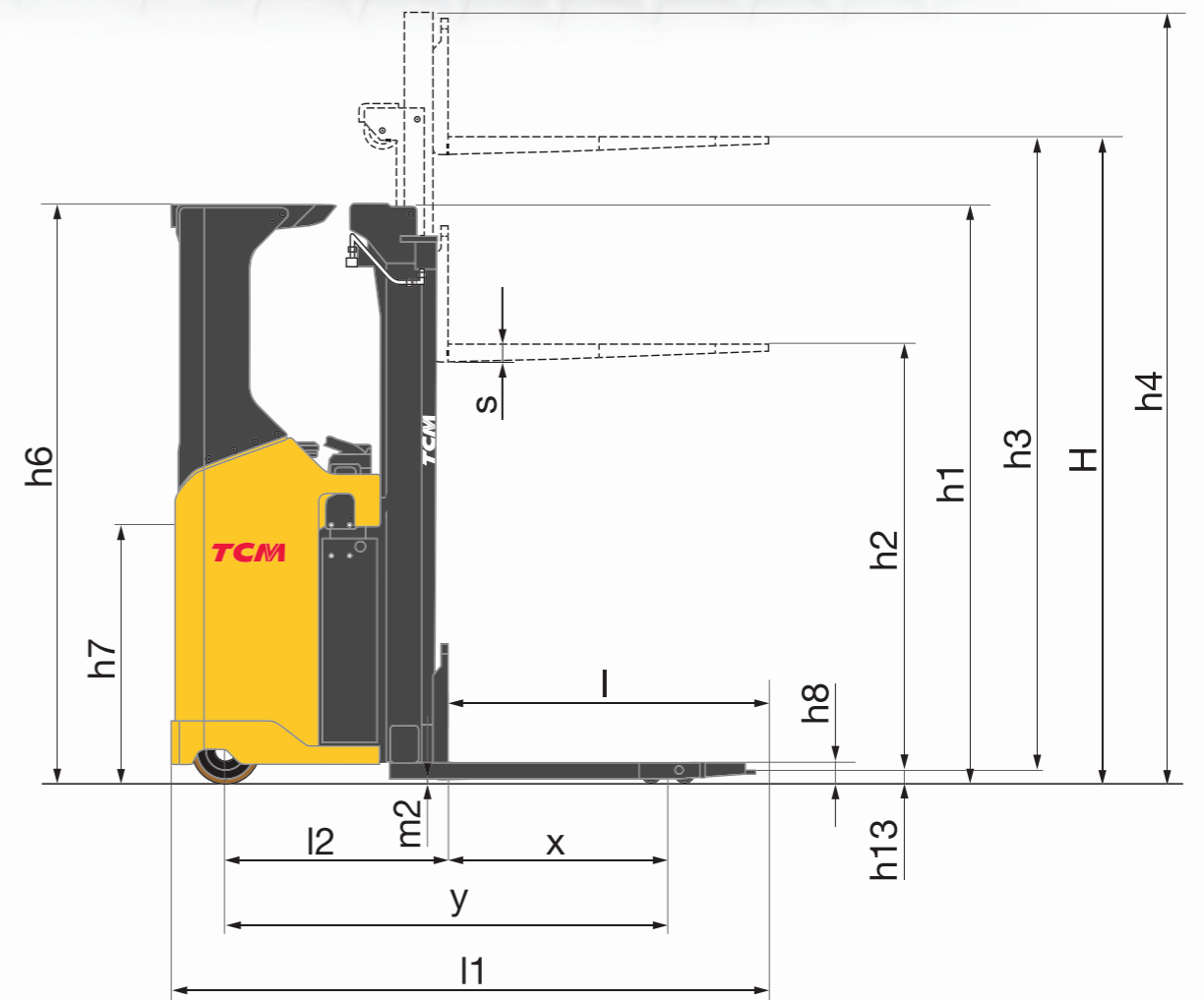
STANDARD SPECIFICATIONS PRELIMINARY

CHARACTERISTICS			Without initial lift and with wide straddle	
			TCM	
			SSO16(S)-N2	SSO20(S)-N2
1.1	Manufacturer			
1.2	Manufacturer's model designation			
1.3	Power source		Battery	Battery
1.4	Operator type		Sit-on	Sit-on
1.5	Load capacity	Q (kg)	1600	2000
1.6	Load center distance	c (mm)	600	600
1.8	Load wheel axle to fork face (forks lowered)	x (mm)	800	800
1.9	Wheelbase	y (mm)	1656 ⁶	1696 ⁶
WEIGHT				
2.1a	Truck weight with load, with maximum battery weight	kg		
2.1b	Truck weight without load, with maximum battery weight	kg	1715	2077
2.2	Axle loadings with nominal load & maximum battery weight, drive / load side	kg	1361/1955	1654/2423
2.3	Axle loadings without load & with maximum battery weight, drive / load side	kg	1201/515	1454/623
WHEELS, DRIVE TRAIN				
3.1	Tyres: PT = Power Thane, Vul = Vuilkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side		Vul / Vul	Vul / Vul
3.2	Tyre dimensions, drive side	(mm)	250 x 105	250 x 105
3.3	Tyre dimensions, load side	ø (mm)	85 x 70	85 x 70
3.4	Castor wheel dimensions (diameter x width)	(mm)	150 x 55	150 x 55
3.5	Number of wheels, load / drive side (x = driven)		4 / 1x + 2 ²	4 / 1x + 2 ²
3.6	Track width (centre of tyres), drive side	b10 (mm)	706	706
3.7	Track width (centre of tyres), load side	b11 (mm)	985/1185	985/1185
DIMENSIONS				
4.2a	Height with mast lowered	h1 (mm)	see mast chart	see mast chart
4.2b	Height	h1 (mm)	see mast chart	see mast chart
4.3	Free lift	h2 (mm)	see mast chart	see mast chart
4.4	Lift height (stroke)	h3 (mm)	see mast chart	see mast chart
4.5	Height with mast extended	h4 (mm)	see mast chart	see mast chart
4.7	Height to top of overhead guard	h6 (mm)	2110	2110
4.8	Seat height	h7 (mm)	966	966
4.1	Height of support legs	h8 (mm)	92	92
4.15	Fork height, fully lowered	h13 (mm)	50	55
4.19	Overall length	l1 (mm)	2207 ¹	2247 ¹
4.2	Length to fork face	l2 (mm)	1057 ¹	1097 ¹
4.21	Overall width	b1 (mm)	1115/1315 ⁵	1115/1315 ⁵
4.22	Fork dimensions (thickness, width, length)	s / e / l (mm)	40 / 100 / 1150	40 / 100 / 1150
4.23	Fork carriage to DIN		FEM 2/A	FEM 2/A
4.24	Fork carriage width	b3 (mm)	840	840
4.25	Outside width over forks (minimum / maximum)	b5 (mm)	316/773	316/773
4.26	Inner width of support legs	b4 (mm)	855/1055 ⁵	855/1055 ⁵
4.32	Ground clearance at center of wheelbase, (forks lowered)	m2 (mm)	35	35
4.33a	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise	Ast (mm)	2584	2623
4.34a	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast (mm)	2584	2623
4.35	Turning circle radius	Wa (mm)	1663	1702
PERFORMANCE				
5.1	Travel speed, with / without load	km / h	8.0 / 8.0	8.0 / 8.0
5.2	Lifting speed, with / without load	m / s	0.24 / 0.40 ⁴	0.19 / 0.37 ⁴
5.3	Lowering speed, with / without load	m / s	0.45 / 0.30 ⁴	0.50 / 0.42 ⁴
5.8	Maximum gradeability with / without load	%	7.2 / 7.2	7.0 / 7.0
5.9	Acceleration time (10 metres) with / without load	s	7.0 / 6.0	7.5 / 6.5
5.1	Service brakes (mechanical / hydraulic / electric / pneumatic)		electric	electric
ELECTRIC MOTOR				
6.1	Drive motor capacity (60 min. short duty)	kW	2.7	2.7
6.2	Lift motor output at 15% duty factor	kW	8.0 ⁶	8.0 ⁶
6.3	Battery to DIN		DIN-cells	DIN-cells
6.4	Battery voltage/capacity at 5-hour discharge	V / Ah	24 / 465 ⁶	24 / 465 ⁶
6.5	Battery weight	kg	330-410 ⁶	330-410 ⁶
6.6a	Energy consumption according to EN 16796 cycle	kWh / h	0.87 ⁷	0.87 ⁷
MISCELLANEOUS				
8.1	Type of drive control		AC	AC
10.7	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871, in work LpAZ	dB (A)	<70	<70
10.7.2	Whole-body vibration (EN 13 059:2002)		see instruction handbook	
10.7.3	Hand-arm vibration (EN 13 059:2002)		see instruction handbook	

* All dimensional values, weights and measures, varies according to configuration

- When Senior (BC775) chassis add +104
- 4-point design with twin assembly drive side castor wheels
- There are two standard straddle/support legs widths available to choose from
- Standard motor, not sufficiently tested with the 8.0 kW heavy-duty option yet
- With heavy-duty lift motor, standard is 4.0
- With Senior chassis, 24V / 560-775Ah and 460-620 kg
- Ref. test value with 8.0 kW lift motor, varies according to model, config and usage pattern

DIMENSIONS SSO16-20(S)-N2



SSO16-20(I)(S)-N2

MAST SPECIFICATIONS

MAST TYPE	Lift height (mm)	Lowered mast height (mm)	Raised mast height (mm)	Freelift (mm)	Lowered mast height (mm)	Raised mast height (mm)	Freelift (mm)
	h3 + h13	h1	h4	h2 + h13	h1	h4	h2 + h13

	SSO16-N2				SSO16(I)-N2			
	2 STAGE FULL FREE LIFT	3600	2350	4105	1849	2355	4112	1853
4200		2650	4705	2149	2655	4712	2153	
4500		2800	5005	2299	2805	5012	2303	
3 STAGE FULL FREE LIFT	4800	2150	5332	1669	2155	5339	1673	
	5400	2350	5932	1869	2355	5939	1873	
	5700	2450	6232	1969	2455	6239	1973	
	6300	2650	6832	2169	2655	6839	2173	
	7000	2883	7532	2402	2888	7539	2406	

	SSO20-N2				SSO20(I)-N2			
	2 STAGE FULL FREE LIFT	3600	2350	4108	1850	2355	4113	1853
4200		2650	4708	2150	2655	4713	2153	
4500		2800	5008	2300	2805	5013	2303	
3 STAGE FULL FREE LIFT	4800	2150	5335	1670	2155	5339	1673	
	5400	2350	5935	1870	2355	5939	1873	
	5700	2450	6235	1970	2455	6239	1973	
	6300	2650	6835	2170	2655	6839	2173	
	7000	2883	7535	2403	2888	7539	2406	

	SSO16-20(S)-N2			
	2 STAGE FULL FREE LIFT	3600	2350	4110
4200		2650	4710	2115
4500		2800	5010	2265
3 STAGE FULL FREE LIFT	4800	2150	5335	1635
	5400	2350	5935	1835
	5700	2450	6235	1935
	6300	2650	6835	2135
	7000	2883	7535	2368



STANDARD EQUIPMENT AND OPTIONS

GENERAL	SSO16-20-N2	SSO16-20(I)-N2	SSO16(S)-N2	SSO20(S)-N2
Regular narrow straddle legs for handling of open load carriers	●	●	-	-
Initial lift for double load handling	-	-	-	-
Wide straddle legs for handling of closed load carriers	-	-	●	-
Standard display incl. hour meter and battery discharge indicator (BDI)	●	●	●	●
Key switch entry	●	●	●	●
Electric power steering, with Mini or Midi steering wheel	●	●	●	●
Automatic straight steering at start-up	●	●	●	●
Adaptive cornering control	●	●	●	●
Speed regulated lift motor and proportional valve for lowering	●	●	●	●
Tandem load wheels Vulkollan	●	●	●	●
Overhead guard (OHG)	●	●	●	●
Adjustable armrest, right side	●	●	●	●
Adjustable steering wheel, all directions	●	●	●	●
Storage compartment under armrest and by left side of seat	●	●	●	●
Ergonomic reach truck class and fully adjustable fabric clad seat	●	●	●	●
Battery rollers	●	●	●	●
POWER SOURCE				
Li-ION batteries*	○	○	○	○
Lead acid batteries	○	○	○	○
ENVIRONMENT				
Chill store design, down to -10°C	●	●	●	●
Cold store design, 0°C to -30°C	○	○	○	○
DRIVE AND LIFT CONTROLS				
Mini steering wheel with floating armrest	●	●	●	●
Midi steering wheel	○	○	○	○
Finger tip controls for lifting/lowering	●	●	●	●
Hands-free direction control, in accelerator foot pedal	●	●	●	●
Hand operated direction control	○	○	○	○
360-degree steering	○	○	○	○
Reversed steering	○	○	○	○
WHEEL OPTIONS				
Vulkollan	●	●	●	●
Tractothan	○	○	○	○
Super grip	○	○	○	○

OTHER OPTIONS	SSO16-20-N2	SSO16-20(I)-N2	SSO16(S)-N2	SSO20(S)-N2
Side stabilisers	○	○	-	-
High performance lift motor system 8.0 kW AC	○	○	○	○
Electric adjustable floor height, 70 mm	○	○	○	○
Vinyl clad seat	○	○	○	○
Heated seat, fabric or vinyl	○	○	○	○
Interactive multifunction display incl. BDI & hour meter, PIN code login	○	○	○	○
Load backrest 1200 mm	○	○	○	○
Key switch entry (in combination with multifunction display)	○	○	○	○
Laser positioning guide	○	○	-	-
Load weight indicator	○	○	○	○
Lift height indicator	○	○	-	○
Level assistance system	○	○	-	○
Video camera and monitor	○	○	-	○
Panoramic OHG roof	○	○	○	○
12V DC Power Socket	○	○	○	○
5 V USB socket	○	○	○	○
Accessory rack	○	○	○	○
Writing desk incl. RAM C holder	○	○	○	○
Accessory rack holder RAM system size C	○	○	○	○
Accessory rack holder RAM system size C, 2 pcs	○	○	○	○
Accessory rack holder RAM size D	○	○	○	○
Working lights LED	○	○	○	○
Floor spot warning, red or blue	○	○	○	○
Increased drive speed 12 km/h, in load trailing direction	○	-	-	-
Special RAL colour	○	○	○	○

*Li-ION battery option is available in selected regions

KEY ● Standard ○ Option - Not available