ALIMAK SE & SE Ex

CAPACITY	
Payload capacities:	650 – 4400 lb
Average speed up/down at rated payload:	
Direct on line (DOL) 60 Hz:	95, 122, 140 or 150 fpm
Frequency control (VFC):	80, 120, 150 or 200 fpm
Max. lifting height with standard accessories:	825 ft [1]

1. Depending on the optional equipment chosen

DIMENSIONS	
Internal width:	2′ 6¾″ to 5′ 1⅜″
Internal length:	3′ 5″ to 9′ 9¾″
Internal height:	7′ 1½″
Bi-folding door opening width:	2′ 2″
Sliding door opening width:	2′ 3″ 3′ 1⅜″ alt. 4′ 2″ or 5′ ¼″
Door opening height:	6′ 7¼″
Headroom required above landing:	13′ 2″ to 15′ 7″
Mast section length:	4′ 11⅜″

CAR WEIGHT	
	1655 – 5620 lb

CONTROLS	
Operation:	• Single automatic. 2 – 3 landings • Semi-automatic. 3 – n landings • Collective / Selective. 2 – 16 landings
All systems can control DOL, only collective for VFC.	
Separate power voltage:	230V AC / 110V AC
Control circuit voltage:	230V AC
Motor control:	direct on line (DOL) or variable frequency control (VFC)

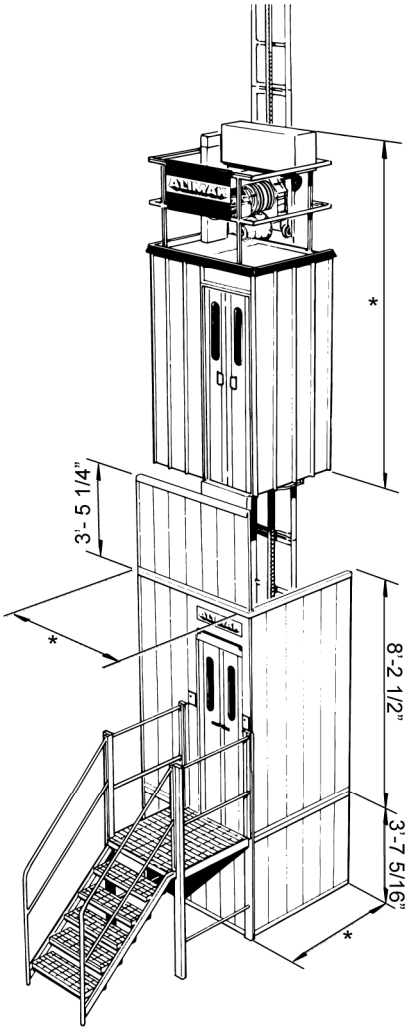

Fig B2

** Variable*

*** Height 3 ft 12¼ in for car payload exceeding 1540 lb in the US.*

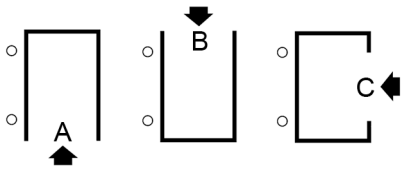

Fig B3
Car door configuration
or combinations AB/AC/BC

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Technical Data Alimak SE Lifts

Load & car size acc. to ASME 17.1

Table 1 Capacity and dimensions

Lift type	Speed at 60 Hz DOL fpm	Speed at 60 Hz VFC fpm	No. of pass. ASME	Pay-load lb	Car sizew × l	Door opening width				
						2′ 1½″	2′ 2½″	3′ 2½″	4′ 1½″	5′ 0¼″
SE 300	140	120, 150, 200	3	660	2′ 6¾″ × 3′ 5″	x	x[1]	NA	NA	NA
SE 400	140	120, 150, 200	4	880	3′ × 3′ 10″	x	x[1]	x[1]	NA	NA
SE 500	140	120, 150, 200	5	1100	3′ 5 × 3′ 10″	x	x	x[1]	NA	NA
SE 1200	95	120, 150, 200	13	2650	4′ 3″ × 6′ 10″	NA	NA	NA	x	NA
SE 2000	NA	80 alt. 120	20	4400	5′ 1⅜″ × 8′ 6⅜″	NA	NA	NA	NA	x

1. For C-door only

Table 2 Electrical data

Lift type	Motor control	Power supplyfuses A	Rated powerkW	Starting current A	Power kVA
SE 300	DOL[1]	30	8.5	93	~ 13.5[1]
SE 400	DOL[1]	30	8.5	93	~ 13.5[1]
SE 500	DOL[1]	35	10.0	104	~ 14.5[1]
SE 1200	DOL[1]	50	2 × 10.0	208	~ 21[1]
SE 300	VFC[2]	16 – 25	13/19	14 - 23	~ 10 - 16.5
SE 400	VFC[2]	20 – 30	13/19	15 - 25	~ 11 - 18
SE 500	VFC[2]	20 – 30	13/19	16 - 26	~ 11.5 - 19
SE 1200	VFC[2]	35 - 50	2 × 13/19	29 - 48	~ 21.5 - 35
SE 2000	VFC[2]	30 - 50	2 × 13/19	26 - 40	~ 19 - 29

1. 400V 50Hz
2. The higher value at maximum speed

Table 3 Weights

Lift type	Motor control	Car weighapprox.	Mast type			
			A	Amod.	FE	A-50
		lb	lb	lb	lb	lb
SE 300	DOL	1700	117	128	220	243
SE 400	DOL	1830	117	128	220	243
SE 500	DOL	1785	117	128	220	243
SE 1200	DOL	3240	NA	NA	220	243
SE 300	VFC	1940	117	128	220	243
SE 400	VFC	2006	117	128	220	243
SE 500	VFC	1985	117	128	220	243
SE 1200	VFC	3440	NA	NA	220	243
SE 2000	VFC	3925	NA	NA	220	243

Table 4 Room required

Lift type	Motor control	Headroom required above top landing in feet	
		1 motor	2 motors
SE 300	DOL	13′	NA
SE 400	DOL	13′	NA
SE 500	DOL	13′	NA
SE 1200	DOL	NA	13½′
SE 300	VFC	13½′	NA
SE 400	VFC	13½′	NA
SE 500	VFC	13½′	NA
SE 1200	VFC	NA	15′
SE 2000	VFC	NA	15′

Min. required shaft dimensions: Depends on mast choice.

Enclosure w × d: Depends on mast choice.

Alimak SE Lifts Available car sizes

Table 5 Sizes

Lift size	No.of pass.	Car size	Door opening width				
			2′ 1½″	2′ 2½″	3′ 2½″	4′ 1½″	5′ 0¼″
SE 300	4	2′ 6¾″ × 3′ 5″	x	x	NA	NA	NA
SE 400	5	2′ 6¾″ × 3′ 10″	x	x	x[1]	NA	NA
SE 400	5	2′ 6¾″ × 4′ 3″	x	x	x[1]	NA	NA
SE 400	6	2′ 6¾″ × 4′ 8¼″	x	x	x[1]	NA	NA
SE 500	6	2′ 6¾″ × 5′ 1⅜″	x	x	x[1]	NA	NA
SE 400	5	3′ × 3′ 5″	x	x	x[1]	NA	NA
SE 400	5	3′ × 3′ 10″	x	x	x[1]	NA	NA
SE 500	6	3′ × 4′ 3″	x	x	x[1]	NA	NA
SE 500	6	3′ × 4′ 8¼″	x	x	x[1]	NA	NA
SE 600	8	3′ × 5′ 1⅜″	x	x	x[1]	NA	NA
SE 400	5	3′ 5″ × 3′ 5″	x	x	x	NA	NA
SE 500	6	3′ 5″ × 3′ 10″	x	x	x	NA	NA
SE 500	8	3′ 5″ × 4′ 3″	x	x	x	NA	NA
SE 600	8	3′ 5″ × 4′ 8¼″	x	x	x	NA	NA
SE 700	9	3′ 5″ × 5′ 1⅜″	x	x	x	NA	NA
SE 900	13	4′ 3″ × 5′ 6½″	NA	NA	NA	x	NA
SE 1000	14	4′ 3″ × 5′ 11¾″	NA	NA	NA	x	NA
SE 1100	16	4′ 3″ × 6′ 4¾″	NA	NA	NA	x	NA
SE 1200	17	4′ 3″ × 6′ 10″	NA	NA	NA	x	NA
SE 1300	16	4′ 3″ × 7′ 3″	NA	NA	NA	x	NA
SE 1500	19	4′ 3″ × 8′ 1¼″	NA	NA	NA	x	NA
SE 1600	22	4′ 3″ × 8′ 11½″	NA	NA	NA	x	NA
SE 1800	14	4′ 3″ × 9′ 9¾″	NA	NA	NA	x	NA
SE 1200	16	5′ 1⅜″ × 5′ 6½″	NA	NA	NA	NA	x
SE 1400	19	5′ 1⅜″ × 6′ 4¾″	NA	NA	NA	NA	x
SE 1600	22	5′ 1⅜″ × 7′ 3″	NA	NA	NA	NA	x
SE 1800	24	5′ 1⅜″ × 8′ 1¼″	NA	NA	NA	NA	x
SE 2000	26	5′ 1⅜″ × 8′ 6⅜″	NA	NA	NA	NA	x

1. For C-door only

Table 6 Speed and power

Lift size	Car size	DOL 60Hz[1]		VFC[2]	
		Speed fpm	Power kW	Speed fpm	Power kW
SE 300	2′ 6¾″ × 3′ 5″	140	8,5	120 alt. 150	13 alt. 19
SE 400	2′ 6¾″ × 3′ 10″	140	8,5	120 alt. 150	13 alt. 19
SE 400	2′ 6¾″ × 4′ 3″	140	8,5	120 alt. 150	13 alt. 19
SE 400	2′ 6¾″ × 4′ 8¼″	140	8,5	120 alt. 150	13 alt. 19
SE 500	2′ 6¾″ × 5′ 1⅜″	140	10	120 alt. 150	13 alt. 19
SE 400	3′ × 3′ 5″	140	8,5	120 alt. 150	13 alt. 19
SE 400	3′ × 3′ 10″	140	8,5	120 alt. 150	13 alt. 19
SE 500	3′ × 4′ 3″	140	10	120 alt. 150	13 alt. 19
SE 500	3′ × 4′ 8¼″	140	10	120 alt. 150	13 alt. 19
SE 600	3′ × 5′ 1⅜″	140	10	120 alt. 150	13 alt. 19
SE 400	3′ 5″ × 3′ 5″	140	10	120 alt. 150	13 alt. 19
SE 500	3′ 5″ × 3′ 10″	140	10	120 alt. 150	13 alt. 19
SE 500	3′ 5″ × 4′ 3″	140	10	120 alt. 150	13 alt. 19
SE 600	3′ 5″ × 4′ 8¼″	140	10	120 alt. 150	13 alt. 19
SE 700	3′ 5″ × 5′ 1⅜″	140	15	120 alt. 150	13 alt. 19
SE 900	4′ 3″ × 5′ 6½″	95	2 × 10	120 alt. 150 or 200	2 × 13 alt. 19
SE 1000	4′ 3″ × 5′ 11¾″	95	2 × 10	120 alt. 150 or 200	2 × 13 alt. 19
SE 1100	4′ 3″ × 6′ 4¾″	95	2 × 10	120 alt. 150 or 200	2 × 13 alt. 19
SE 1200	4′ 3″ × 6′ 10″	95	2 × 10	120 alt. 150 or 200	2 × 13 alt. 19
SE 1300	4′ 3″ × 7′ 3″	NA	NA	80 alt. 150	2 × 13 alt. 19
SE 1500	4′ 3″ × 8′ 1¼″	NA	NA	80 alt. 150	2 × 13 alt. 19
SE 1600	4′ 3″ × 8′ 11½″	NA	NA	80 alt. 150	2 × 13 alt. 19
SE 1800	4′ 3″ × 9′ 9¾″	NA	NA	80 alt. 150	2 × 13 alt. 19
SE 1200	5′ 1⅜″ × 5′ 6½″	NA	NA	120 alt. 150 or 200	2 × 13 alt. 19
SE 1400	5′ 1⅜″ × 6′ 4¾″	NA	NA	80 alt. 150	2 × 13 alt. 19
SE 1600	5′ 1⅜″ × 7′ 3″	NA	NA	80 alt. 150	2 × 13 alt. 19
SE 1800	5′ 1⅜″ × 8′ 1¼″	NA	NA	80 alt. 150	2 × 13 alt. 19
SE 2000	5′ 1⅜″ × 8′ 6⅜″	NA	NA	80 alt. 150	2 × 13 alt. 19

1. 400V 50Hz
2. The higher value at maximum speed

Technical Data Alimak SE-Ex

Load & car size acc. to ASME 17.1

Table 7 Capacity and dimensions

Lift type	Speed at60 Hz DOLf-pm	Speed at60 Hz VFCf-pm	No. ofpass. ASME	Pay-loadlb	Car sizew × l	Door opening width				
						2′ 1½″	2′ 2½″	3′ 2½″	4′ 1½″	5′ 0¼″
SE-Ex 500	122	NA	7	1100	2′ 11 ¾″ × 4′ 3″	x	x	x[1]	NA	NA
SE-Ex 700	122	NA	10	1550	3′ 5″ × 5′ 1⅜″	x	x	x	NA	NA
SE-Ex 900	122	NA	17	1950	4′ 3″ × 6′ 10″	NA	NA	NA	x	NA
SE-Ex 1200	122	NA	17	2650	4′ 3″ × 6′ 10″	NA	NA	NA	x	NA
Car and car doors of extruded aluminium panels										
SE-Ex 1600	NA	122	16	3520	4′ 3″ × 6′ 11½″	NA	NA	NA	x	NA
Car and car doors of stainless steel										
SE-Ex 1200	NA	122	20	2640	4′ 3″ × 6′ 10″	NA	NA	NA	x	NA
SE-Ex 1500	NA	122	22	3300	4′ 3″ × 8′ 1¼″	NA	NA	NA	x	NA

1. For C-door only

Table 8 Electrical data

Lift type	Motor control	Power supply fuses[1]	Rated power[1]	Starting current[1]	Power[1]
		A	kW	A	kVA
SE-Ex 500	DOL	60	2 × 12.6	289	~ 18
SE-Ex 700	DOL	60	2 × 12.6	289	~ 21
SE-Ex 900	DOL	60	2 × 12.6	289	~ 28
SE-Ex 1200	DOL	60	2 × 12.6	289	~ 31
Car and car doors of extruded aluminium panels					
SE-Ex 1600	VFC	60	2 × 17.2	48	~ 35
Car and car doors of stainless steel					
SE-Ex 1200	VFC	50	2 × 17.2	45	~ 33
SE-Ex 1500	VFC	60	2 × 17.2	49	~ 35

1. 400V 50Hz

Table 9 Weights

Lift type	Motor control	Car weightapprox.	Mast type			
			A	A mod.	FE	A-50
		lb	lb	lb	lb	lb
SE-Ex 500	DOL	3750	NA	NA	220	243
SE-Ex 700	DOL	3970	NA	NA	220	243
SE-Ex 900	DOL	5180	NA	NA	220	243
SE-Ex 1200	DOL	5300	NA	NA	220	243
Car and car doors of extruded aluminium panels						
SE-Ex 1600	VFC	5180	NA	NA	220	243
Car and car doors of stainless steel						
SE-Ex 1200	VFC	5510	NA	NA	220	243
SE-Ex 1500	VFC	5620	NA	NA	220	243

Table 10 Room required

Lift type	Motor control	Headroom required above top landing in feet	
		1 motor	2 motors
SE-Ex 500	DOL	NA	15′ 3″
SE-Ex 700	DOL	NA	15′ 3″
SE-Ex 900	DOL	NA	15′ 7″
SE-Ex 1200	DOL	NA	15′ 7″
Car and car doors of extruded aluminium panels			
SE-Ex 1600	VFC	NA	15′ 7″
Car and car doors of stainless steel			
SE-Ex 1200	VFC	NA	15′ 7″
SE-Ex 1500	VFC	NA	15′ 7″

Minimum requiered shaft dimensions: Depends on mast choice.

Enclosure w × d: Depends on mast choice.

Guide rails / masts

GUIDE RAILS / MASTS

Type: Tubular steel with integrated rack

Section length 4′ 11⅜″

Alternative:	Type	Weight[1]	Tie-distance
	A	117 lb	each 5 ft
	A mini	128 lb	each 5 ft
	FE	220 lb	up to 40 ft
	A50	243 lb	up to 80 ft

1. tube diameter 3" × 11/64"

Electrical data

POWER SUPPLY

Voltage:	DOL	380 – 420 V, 50 Hz
		or 440 – 480 V, 60 Hz
	VFC	380 – 500 V, 50/60 Hz

ELECTRICAL MOTOR

Type AC squirrel cage motor.

Electrical motor for regular SE lifts

Alternative: (kW at 25 % intermittent duty)	DOL	1 × 7.0 kW, Star (8.5 kW at 60 Hz)
		1 × 13 kW, Star (15 kW at 60 Hz)
		1 or 2 × 8.8 kW, Delta (10 kW at 60 Hz)
	VFC	1 × 13 kW Star / 1 × 19 kW Delta
		2 × 13 kW Star / 1 × 19 kW Delta

Electrical motor for SE-Ex lifts

Alternative: (kW at continuous duty (100%))	DOL	1 or 2 × 11 kW, Delta (12.6 kW at 60 Hz)
	VFC	2 × 15 kW, Delta (17.2 kW at 60 Hz)

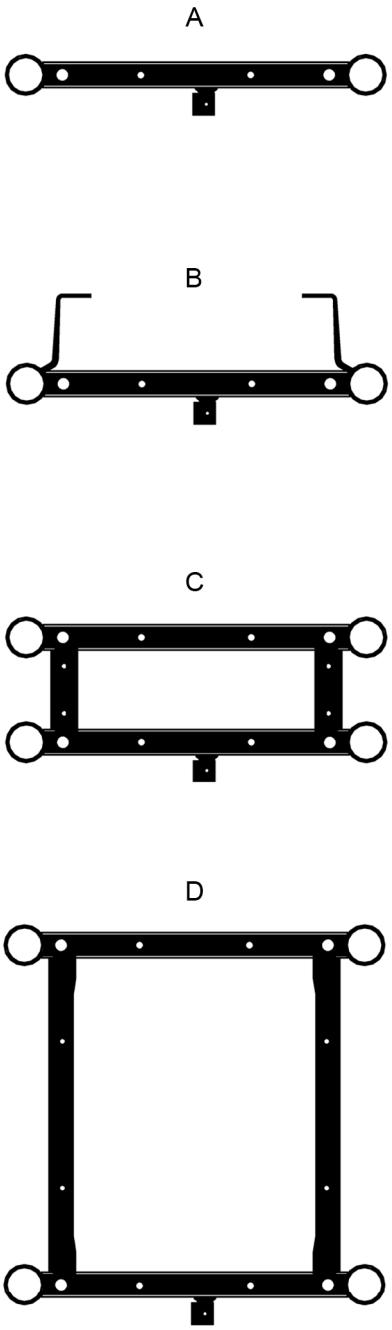

Fig B4

A. Tube guide rail type A for lifting heights up to 165 ft
B. Tube guide rail type A mini for lifting heights above 165 up to 650 ft
C. Rectangular tube mast section type FE
D. Square tube mast section type A50

ELECTRICAL MOTOR BRAKE	
Type spring applied electromagnetic disc brake:	
7.0 kW:s motor brake torque:	88.5 lbf x ft
8.8 kW:s motor brake torque:	125 lbf x ft
13.0 kW:s motor brake torque:	125 lbf x ft
for motor with EN 81 approved motor brake:	
13.0 kW:s motor brake torque:	96 lbf x ft
for motor with approved Ex. proof motor brake:	
11.0 kW:s motor brake torque:	110 lbf x ft
11.0 kW:s motor brake torque:	125 lbf x ft
15.0 kW:s motor brake torque:	125 lbf x ft
Electrical ingress protection class:	minimum IP 54
Measured noice level in car less than	≤ 80 db(A)
Operating temperature range	+104 °F / – 4 °F

SURFACE TREATMENT

Structural parts (mast, car frame):

- Hot dip galvanized

Car and enclosure panels:

- Anodized aluminium
- Stainless steel (for extreme environment)

Other parts:

- Hot dip galvanized
- Stainless steel

OPTIONAL FEATURES AMONG OTHERS

- Platforms and stairs
- Automatic rack lubricator
- Ventilation fan
- Extra ventilation
- Overload detection
- Automatic return to base, automatic alarm etc
- Windows in car
- PTC-detection in motor windings
- Heater in motor windings