

9 Technical data

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9.1 Conditions of use

The hoist is designed for use in industry and for the ambient conditions usual in industry in non-hazardous areas.

Special measures are necessary for particular applications such as e.g. high degree of chemical pollution, outdoor use, offshore application, etc.

The manufacturer will be pleased to advise you.

Protection against dust and moisture to EN 60 529

IP55

Permissible ambient temperatures

see factory certificate

9.2 Hoist

9.2.1 Hoist motor data 50 Hz

50 Hz														
Type	Hoist motor type	kW	DC %	c/h	In			Ik			cos φ k	Mains fuse		
					230 V	400 V	500 V	230 V	400 V	500 V		230 V	400 V	500 V
					[A]			[A]				[A]		
ST 0501-8	2A04	0.2	40	240	2.3	1.3	1.0	5.7	3.3	2.6	0.88	6	6	6
ST 0501-8/2	2/8A04	0.2/0.05	35/15	120/240	2.3/1.9	1.3/1.1	1.0/0.9	5.7/2.1	3.3/1.2	2.6/1.0	0.88/0.83	6	6	6
ST 0501-16	2A04	0.4	40	240	2.3	1.3	1.0	5.7	3.3	2.6	0.88	6	6	6
ST 0501-16/4	2/8A04	0.4/0.1	35/15	120/240	2.3/1.9	1.3/1.1	1.0/0.9	5.7/2.1	3.3/1.2	2.6/1.0	0.88/0.83	6	6	6
ST 0502-8	2A04	0.4	40	240	2.3	1.3	1.0	5.7	3.3	2.6	0.88	6	6	6
ST 0502-8/2	2/8A04	0.4/0.	35/15	120/240	2.3/1.9	1.3/1.1	1.0/0.9	5.7/2.1	3.3/1.2	2.6/1.0	0.88/0.83	6	6	6
ST 0503-6	2A04	0.4	40	240	2.3	1.3	1.0	5.7	3.3	2.6	0.88	6	6	6
ST 0503-6/1	2/8A04	0.4/0	35/15	120/240	2.3/1.9	1.3/1.1	1.0/0.9	5.7/2.1	3.3/1.2	2.6/1.0	0.88/0.83	6	6	6
ST 1005-8	2E21	0.8	60	360	3.4	2.0	1.6	20.0	11.5	9.2	0.79	10	6	6
ST 1005-8/2	2/8E21	0.8/0.2	40/20	120/240	3.7/2.1	2.2/1.2	1.7/1.0	15.8/4	9.1/2.3	7.3/1.8	0.89/0.73	6	6	6
ST 1005-12	2E22	1.2	60	360	5.4	3.1	2.5	28.2	14.3	13.0	0.85	10	6	6
ST 1005-12/3	2/8E22	1.2/0.3	40/20	120/240	7.1/3.8	4.1/2.2	3.3/1.8	20.5/6.8	11.8/3.9	9.4/3.1	0.93/0.77	10	6	6
ST 2006-12	2E31	1.5	60	360	6.3	3.6	2.9	28.9	16.6	13.3	0.82	16	10	6
ST 2006-12/3	2/8E31	1.5/0.37	40/20	120/240	6.8/3.7	3.9/2.1	3.1/1.7	25.6/7.3	14.7/4.2	11.8/3.4	0.92/0.80	10	6	6
ST 2010-8	2E31	1.5	60	360	6.3	3.6	2.9	28.9	16.6	13.3	0.82	16	10	6
ST 2010-8/2	2/8E31	1.5/0.37	40/20	120/240	6.8/3.7	3.9/2.1	3.1/1.7	25.6/7.3	14.7/4.2	11.8/3.4	0.92/0.80	10	6	6
ST 2010-12	2E32	2.3	60	300	9.0	5.7	4.6	55.7	24.5	19.6	0.90	20	10	10
ST 2010-12/3	2/8E32	2.3/0.57	40/20	120/240	9.9/5.2	5.7/3.0	4.6/2.4	42.6/10.6	24.5/6.1	19.6/4.9	0.90/0.79	16	10	10
ST 3016-8	2E32	2.3	60	300	9.0	5.7	4.6	55.7	24.5	19.6	0.90	20	10	10
ST 3016-8	2/8E32	2.3/0.57	40/20	120/240	9.9/5.2	5.7/3.0	4.6/2.4	42.6/10.6	24.5/6.1	19.6/4.9	0.90/0.79	16	10	10
ST 3212-16/4	2/8E42	3.8/0.9	33/17	100/200	16.0/7.0	9.2/4.0	7.4/3.2	55.7/14.3	32.0/8.2	25.6/6.6	0.86/0.82	20	16	10
ST 3216-8/2	2/8E42	2.4/0.6	40/20	120/240	10.3/5.4	5.7/3.0	4.6/2.4	43.5/10.8	25.0/6.2	20.0/5.0	0.87/0.74	16	10	10
ST 3216-12/3	2/8E42	3.8/0.9	33/17	100/200	16.0/7.0	9.2/4.0	7.4/3.2	55.7/14.3	32.0/8.2	25.6/6.6	0.86/0.82	20	16	10
ST 5025-6/1	2/8E42	3.0/0.76	40/20	120/240	12.7/6.9	7.3/3.8	5.8/3.2	55.7/14.3	32.0/8.2	25.6/6.6	0.86/0.82	20	16	10
ST 5025-8/2	2/8E42	3.8/0.9	33/17	100/200	16.0/7.0	9.2/4.0	7.4/3.2	55.7/14.3	32.0/8.2	25.6/6.6	0.86/0.82	20	16	10
ST6032-6/1	2/8E42	3.8/0.9	33/17	100/200	16.0/7.0	9.2/4.0	7.4/3.2	55.7/14.3	32.0/8.2	25.6/6.6	0.86/0.82	20	16	10

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9.2.2 Hoist motor data 60 Hz

60 Hz														
Type	Hoist motor type	kW	DC %	c/h	I _n			I _k			cos φ k	Mains fuse		
					400 V	460 V	575 V	400 V	460 V	575 V		400 V	460 V	575 V
					[A]			[A]				[A]		
ST 0501-8	2A04	0.24	40	240	1.6	1.4	1.1	4.0	3.5	2.8	0.88	6	6	6
ST 0501-8/2	2/8A04	0.24/0.06	35/15	180/360	1.6/1.3	1.4/1.1	1.1/0.9	4.0/1.5	3.5/1.3	2.8/1.0	0.88/0.83	6	6	6
ST 0501-16	2A04	0.48	40	240	1.6	1.4	1.1	4.0	3.5	2.8	0.88	6	6	6
ST 0501-16/4	2/8A04	0.48/0.12	35/15	120/240	1.6/1.3	1.4/1.1	1.1/0.9	4.0/1.5	3.5/1.3	2.8/1.0	0.88/0.83	6	6	6
ST 0502-8	2A04	0.48	40	240	1.6	1.4	1.1	4.0	3.5	2.8	0.88	6	6	6
ST 0502-8/2	2/8A04	0.48/0.12	35/15	120/240	1.6/1.3	1.4/1.1	1.1/0.9	4.0/1.5	3.5/1.3	2.8/1.0	0.88/0.83	6	6	6
ST 0503-6	2A04	0.48	40	240	1.6	1.4	1.1	4.0	3.5	2.8	0.88	6	6	6
ST 0503-6/1	2/8A04	0.48/0.12	35/15	120/240	1.6/1.3	1.4/1.1	1.1/0.9	4.0/1.5	3.5/1.3	2.8/1.0	0.88/0.83	6	6	6
ST 1005-8	2E21	0.96	60	360	2.2	2.0	1.6	13.2	11.5	9.2	0.79	6	6	6
ST 1005-8/2	2/8E21	0.96/0.24	40/20	120/240	2.5/1.4	2.2/1.2	1.7/1.0	10.5/2.6	9.3/2.3	7.3/1.8	0.89/0.73	6	6	6
ST 1005-12	2E22	1.4	60	360	3.6	3.1	2.5	18.6	16.2	13.0	0.85	10	6	6
ST 1005-12/3	2/8E22	1.4/0.36	40/20	120/240	4.7/2.5	4.1/2.2	3.3/1.8	13.6/4.5	11.8/3.9	9.4/3.1	0.93/0.77	6	6	6
ST 2006-12	2E31	1.8	60	360	4.1	3.6	2.9	19.1	16.6	13.3	0.82	10	10	6
ST 2006-12/3	2/8E31	1.8/0.44	40/20	120/240	4.5/2.4	3.9/2.1	3.1/1.7	16.9/4.8	14.7/4.2	11.8/3.4	0.92/0.80	10	6	6
ST 2010-8	2E31	1.8	60	360	4.1	3.6	2.9	19.1	16.6	13.3	0.82	10	10	6
ST 2010-8/2	2/8E31	1.8/0.44	40/20	120/240	4.5/2.4	3.9/2.1	3.1/1.7	16.9/4.8	14.7/4.2	11.8/3.4	0.92/0.80	10	6	6
ST 2010-12	2E32	2.8	60	360	6.6	5.7	4.1	28.2	24.5	25.6	0.90	10	10	10
ST 2010-12/3	2/8E32	2.8/0.68	40/20	120/240	6.6/3.5	5.7/3.0	4.6/2.4	28.2/7.0	24.5/6.1	19.6/4.9	0.90/0.79	10	10	10
ST 3016-8	2E32	2.8	60	360	6.6	5.7	4.1	28.2	24.5	25.6	0.90	10	10	10
ST 3016-8	2/8E32	2.8/0.68	40/20	120/240	6.6/3.5	5.7/3.0	4.6/2.4	28.2/7.0	24.5/6.1	19.6/4.9	0.90/0.79	10	10	10
ST 3212-16/4	2/8E42	4.6/1.1	33/17	100/200	10.6/4.6	9.2/4.0	7.4/3.2	36.8/9.4	32.0/8.2	25.6/6.6	0.86/0.82	16	16	16
ST 3216-8/2	2/8E42	2.9/0.72	40/20	120/240	6.6/3.5	5.5/3.0	4.6/2.4	28.8/7.1	25.0/6.2	20.0/5.0	0.87/0.74	16	10	10
ST 3216-12/3	2/8E42	4.6/1.1	33/17	100/200	10.6/4.6	9.2/4.0	7.4/3.2	36.8/9.4	32.0/8.2	25.6/6.6	0.86/0.82	16	16	16
ST 5025-6/1	2/8E42	3.6/0.91	40/20	120/240	8.4/4.4	7.3/3.8	5.8/3.0	36.8/9.4	32.0/8.2	25.6/6.6	0.78/0.49	16	16	16
ST 5025-8/2	2/8E42	4.6/1.1	33/17	100/200	10.6/4.6	9.2/4.0	7.4/3.2	36.8/9.4	32.0/8.2	25.6/6.6	0.86/0.82	16	16	16
ST 6032-6/1	2/8E42	4.6/1.1	33/17	100/200	10.6/4.6	9.2/4.0	7.4/3.2	36.8/9.4	32.0/8.2	25.6/6.6	0.86/0.82	16	16	16

9.2.3 Hoist motor data 100 Hz

100 Hz						
Hoist motor type	[kW]	ED [%]	In		Mains fuse	
			400 V	500 V	400 V	500 V
			[A]	[A]	[A]	
4E28	0.6	80	2.8	2.4	6	6
	0.8	70	3.0	2.4		
	1.2	60	3.5	2.8		
4E38	1.6	80	4.5	3.6	10	10
	1.9	70	5.0	4.0		
	2.3	60	5.6	4.5		
4E48	2.4	80	5.3	4.2	16	16
	3.0	70	6.1	4.9		
	3.6	60	8.4	6.7		

9.2.4 Hoist motor data 120 Hz

120 Hz						
Hoist motor type	[kW]	ED [%]	In		Mains fuse	
			460 V	575 V	460 V	575 V
			[A]	[A]	[A]	
4E28	0.72	80	2.7	2.4	6	6
	0.96	70	2.9	2.4		
	1.4	60	3.4	2.7		
4E38	1.9	80	4.5	4.0	10	10
	2.3	70	5.0	4.0		
	2.8	60	5.6	4.5		
4E48	2.9	80	5.3	4.9	16	16
	3.6	70	6.1	4.9		
	4.6	60	8.4	6.7		

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9.3 Specifications for mains connection

- All poles of the mains cable must be disconnected by a lockable switch.
- The mains voltage must correspond to that stated on the rating plate.
- Fixed installed cables e.g. NYM, NYY
- Flexible cables e.g. RN-F, NGFLGöu, H07VVH2-F
- Cable cross-section min. 1.5 mm²
- Mains voltage 380-415 VAC, 50 Hz
- Other mains voltages are available as options.
- In accordance with EN 50014 a radio interference suppression module FEM1 must be installed for all motors ≤1 kW
- If a current-operated circuit-breaker is used, a fault current of approx. 17 mA must be taken into account for each FEM1.

9.3.1 Max. length of supply cable 50 Hz

Direct control

50 Hz		Max. cable length with direct control [m]											
Chain hoist		Stationary *1						With trolley along runway *2					
Cable cross-section		1.5 mm ²			2.5 mm ²			1.5 mm ²			2.5 mm ²		
		230 V	400 V	500 V	230 V	400 V	500 V	230 V	400 V	500 V	230 V	400 V	500 V
Hoist motor type *	2A04 8/2A04	57	170	269	94	283	-	29	80	120	49	-	-
	2E21 8/2E21	17	50	79	28	84	131	10	30	47	17	50	79
		18	55	87	31	92	144	11	33	52	18	55	87
	2E22 8/2E22	13	38	60	21	64	99	8	23	36	13	38	60
		14	42	65	23	70	109	8	25	39	14	42	65
	2E31 8/2E31	11	34	53	19	57	89	7	21	32	11	34	53
		11	34	53	19	57	89	7	21	32	11	34	53

Contact control

50 Hz		Max. cable length with contactor control [m]											
Chain hoist		Stationary *3						Stationary *3					
Cable cross-section		1.5 mm ²			2.5 mm ²			1.5 mm ²			2.5 mm ²		
		230 V	400 V	500 V	230 V	400 V	500 V	230 V	400 V	500 V	230 V	400 V	500 V
Hoist motor type *	2A04 8/2A04	113	340	531	-	-	-	71	214	334	118	-	-
	2E21 8/2E21	36	109	170	60	181	283	27	81	126	44	134	210
		40	122	190	67	203	317	29	89	139	49	148	231
	2E22 8/2E22	27	81	112	45	135	121	20	61	96	34	102	159
		30	90	141	50	150	234	22	67	104	37	111	174
	2E31 8/2E31	24	73	113	40	121	189	18	55	86	30	91	143
		24	73	114	40	122	190	18	55	86	30	91	142
	2E32 8/2E32	-	45	60	21	75	99	-	34	46	16	57	77
15		45	70	25	75	117	11	34	54	19	57	90	
8/2E42	-	36	56	20	60	93	-	28	43	15	46	72	

* Allocation to chain hoists see "Motor data" table

*1 Voltage drop 2.5 %

*2 Voltage drop 1.5 %

*3 Voltage drop 5.0 %

*4 Voltage drop 4.0 %

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9.3.2 Max. length of supply cable 60Hz

Direct control

60 Hz		Max. cable length with direct control [m]											
Chain hoist		Stationary *1						Stationary *1					
Cable cross-section		1.5 mm ²			2.5 mm ²			1.5 mm ²			2.5 mm ²		
		230 V	400 V	460 V	230 V	400 V	460 V	230 V	400 V	460 V	230 V	400 V	460 V
Hoist motor type *	2A04 2/8A04												
	2E21 8/2E21	14 16	44 48	58 64	24 27	73 80	97 106	9 10	26 29	35 38	14 16	44 48	58 64
	2E22 8/2E22	12 12	30 36	39 48	20 20	49 61	65 80	7 7	18 22	23 29	12 12	30 36	39 48
	2E31 8/2E31	10 10	30 30	40 40	16 16	50 50	66 66	6 6	18 18	24 24	10 10	30 30	40 40

Contact control

60 Hz		Max. cable length with contactor control [m]											
Chain hoist		Stationary *3						Stationary *3					
Cable cross-section		1.5 mm ²			2.5 mm ²			1.5 mm ²			2.5 mm ²		
		400 V	460 V	575 V	400 V	460 V	575 V	400 V	460 V	575 V	400 V	460 V	575 V
Hoist motor type *	2A04 8/2A04	113	340	531	-	-	-	71	214	334	118	-	-
	2E21 8/2E21	36 40	109 122	170 190	60 67	181 203	283 317	27 29	81 89	126 139	44 49	134 148	210 231
	2E22 8/2E22	27 30	81 90	112 141	45 50	135 150	121 234	20 22	61 67	96 104	34 37	102 111	159 174
	2E31 8/2E31	24 24	73 73	113 114	40 40	121 122	189 190	18 18	55 55	86 86	30 30	91 91	143 142
	2E32 8/2E32	- 15	45 45	60 70	21 25	75 75	99 117	- 11	34 34	46 54	16 19	57 57	77 90
	8/2E42	-	36	56	20	60	93	-	28	43	15	46	72

* Allocation to chain hoists see "Motor data" table

*1 Voltage drop 2.5 %

*2 Voltage drop 1.5 %

*3 Voltage drop 5.0 %

*4 Voltage drop 4.0 %