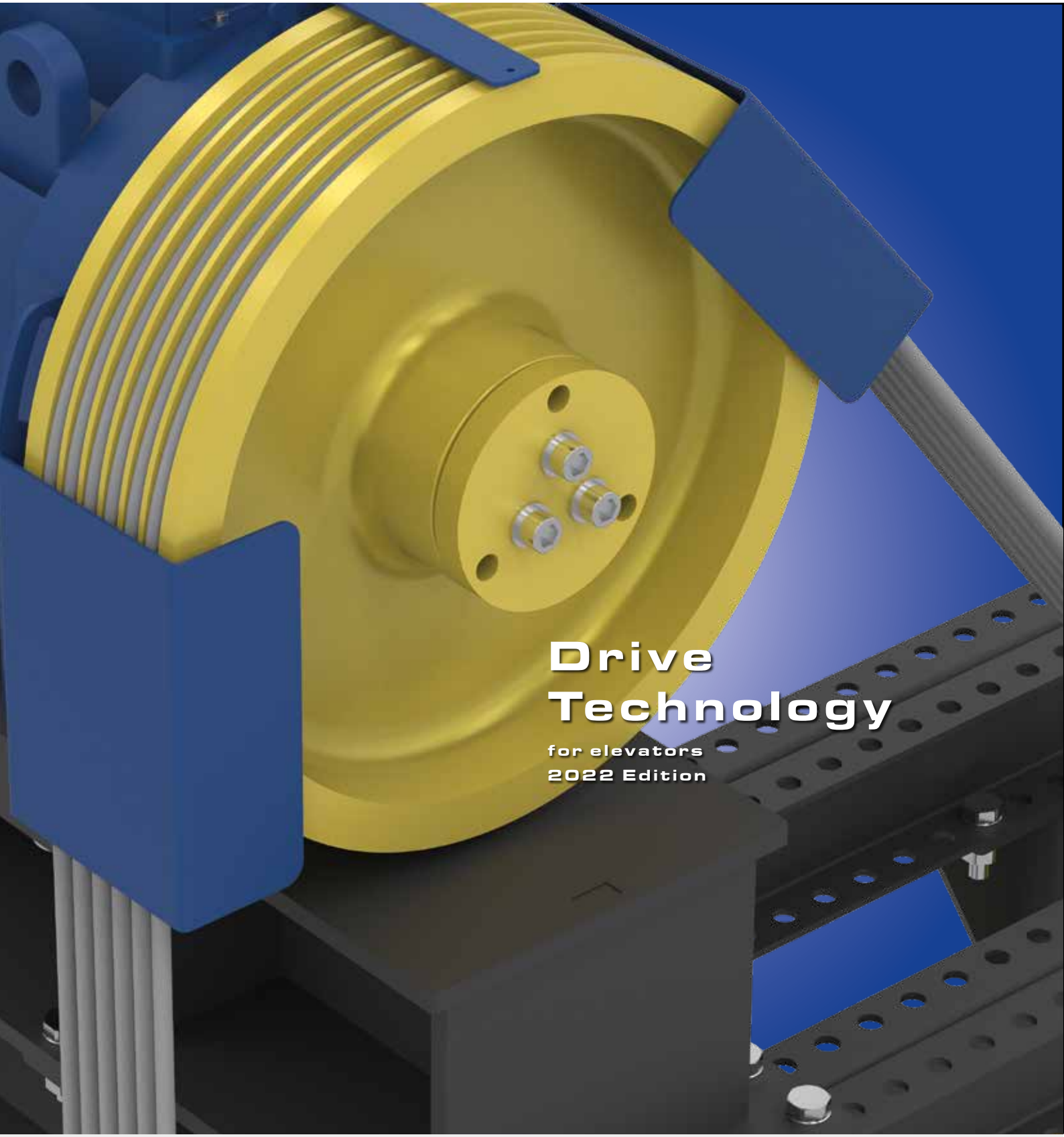
EN

Movement by Perfection



Drive Technology

for elevators
2022 Edition

The Royal League in ventilation, control and **drive technology**

ZIEHL-ABEGG

Contents


Wir entwickeln und produzieren die
effizientesten Ventilatoren für die Zukunft
ZIEHL-AB
Die König
der Lu
Regeltechnik und An
Einzigartige
Kunststoffproduktion
für bionische Hightech-
Ventilatoren

Welcome to the world of ZIEHL-ABEGG

Top technology “Made by ZIEHL-ABEGG”

A pioneering spirit and the courage of innovation were the driving forces behind Emil Ziehl’s development of his first external rotor motor over a hundred years ago. With this he laid the corner stone for the success story of ZIEHL-ABEGG in 1910. Today, the family company ZIEHL-ABEGG, with its headquarters in Künzelsau, develops, produces and sells high quality, high-tech components: Fans, special electric motors and their perfectly adapted, state-of-the-art control technology. Still today, Emil Ziehl’s pioneering spirit is the motivator for making good even better and finding new, revolutionary solutions. ZIEHL-ABEGG is based in Southern Germany but is at home all over the world. At the worldwide production and sales sites, thousands of employees develop, produce and sell technical, economical and ecological progress.

Welcome to the world of ventilation, control and drive technology.

Your contact into the world of ZIEHL-ABEGG

Would you like to learn more about the company ZIEHL-ABEGG, its products and applications? Your current direct contact partners can always be found at www.ziehl-abegg.com

Reliability
Output
Drive comfort

Elevator technology from ZIEHL-ABEGG

Millions of people ride elevators day for day all over the world. They ride quickly, safely and comfortably up to their offices, apartments or hotel rooms and back down again. They have good reason to trust this technology because many elevator manufacturers put their trust in the decisive contribution that ZIEHL-ABEGG makes to reliability and drive comfort. It is the drive and control engineering, the “heart” and “soul” of the elevator. One of the reasons for this trust is ZIEHL-ABEGG’s ability to adapt the motor and control engineering to the manufacturer’s specific requirements regardless of how far up or down the elevator is to travel and how much space is available. Another good reason is the ZIEHL-ABEGG know-how based on their 100 years of experience. It is the visions of the elevator manufacturers that become reality in the drive and control systems made by ZIEHL-ABEGG.

The Royal League of elevator machines

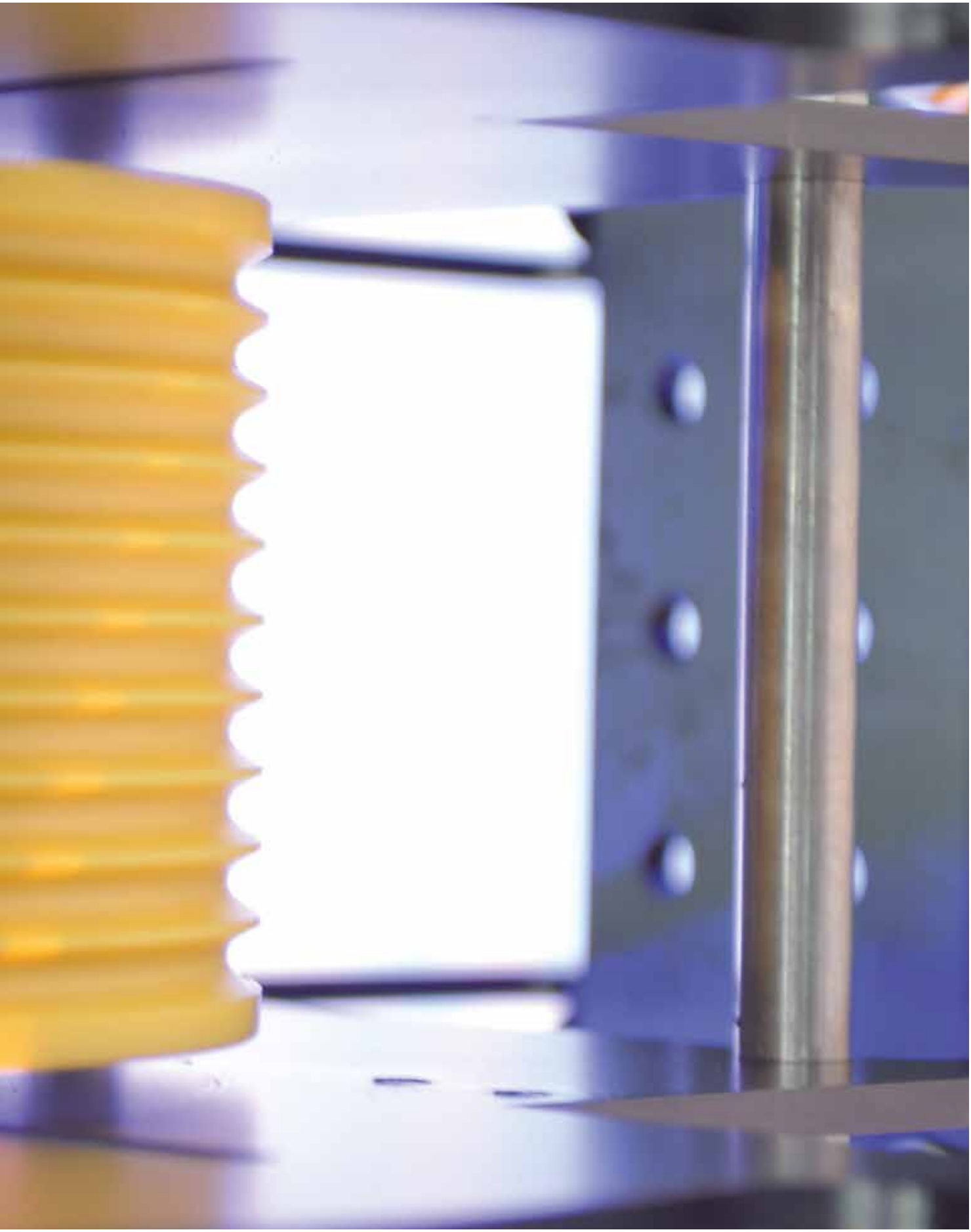
Maximum benefit for manufacturers and user

Meeting the requirements of elevator builders, owners and passengers is the decisive success factor for elevator manufacturers. As a partner to leading manufacturers, ZIEHL-ABEGG constantly strives to make the maximum contribution to satisfying these needs. This goal is reflected in many ways. For example in the cost saving and environmentally friendliness of the elevators thanks to the high efficiency of the ZIEHL-ABEGG motor technology with the precisely adapted control technology. Or in the certainty of getting the ideal drive for every architectural and constructional requirement: Low-noise, with and without gear, as a synchronous or asynchronous motor, with powerful, compact drives right down to small motors for minimal shaft volumes. ZIEHL-ABEGG also demonstrates their solution competence in highly intelligent frequency inverters and evacuation units and in user-friendly diagnostic software. But the root of all considerations is still the passenger and the fulfilment of his needs: Maximum reliability and greatest drive comfort. ZIEHL-ABEGG makes the best possible contribution to this.

The Royal League of modernisation

Obtained values - securing the future

ZIEHL-ABEGG offers maximum customer benefits quickly and simply: They turn old elevators into efficient, energy saving, comfortable and low-noise systems. Often just a few but all the more intelligent retrofits suffice. ZIEHL-ABEGG has a wide range of high-tech components ready for this. The customer gets innovating solution suggestions. The competence of ZIEHL-ABEGG and the use of the high quality and high efficiency products result in a reasonable and profitable investment. Drives with the highest standards and in different sizes as well as precisely adapted control engineering and suitable machine frames are a central part of the product portfolio.




BEGG

Gearless elevator machine ZAtop

Product overview

ZAtop Gearless elevator machine

General information

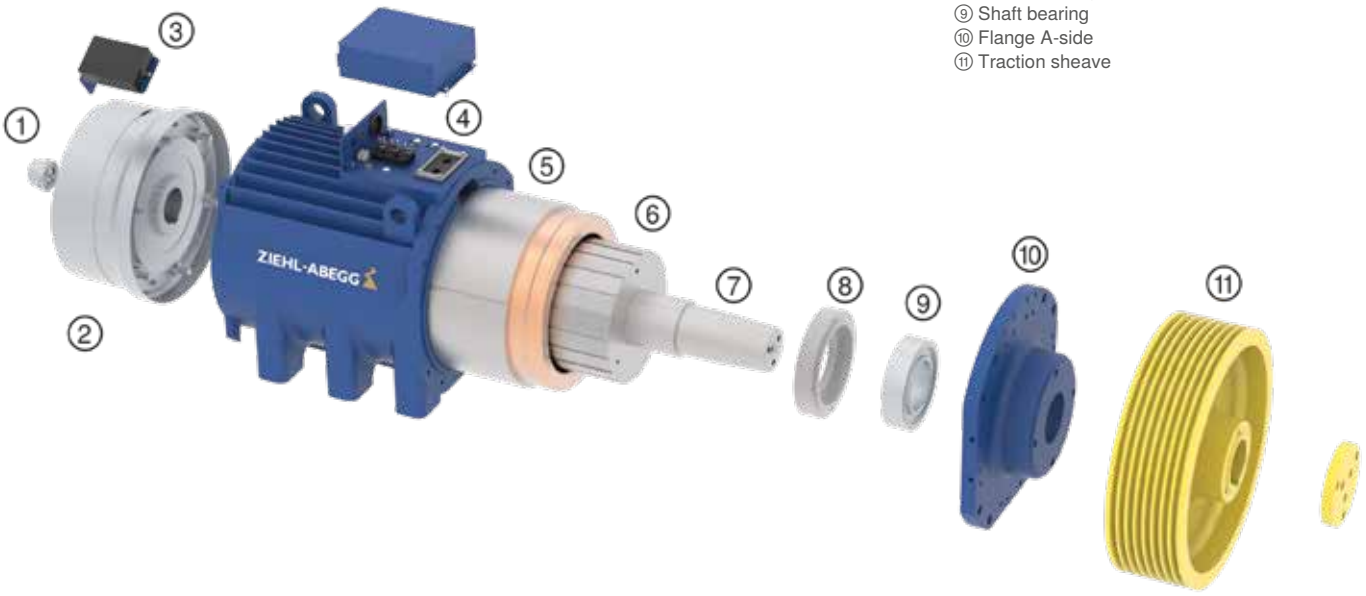
The TOP solution for elevators with and without machine rooms

Properties

- Gearless synchronous motor actuated by NdFeB permanent magnets
- Internal rotor motor
- In accordance with the provisions of the Lift Directive 2014/33/EU
- Different sizes for optimal shaft and shaft head dimensions
- High level of efficiency
- Noise emissions < 50 dB(A)
- Insulation class F (155 °C) with temperature monitoring via PTC thermistor
- Travelling speeds of up to 4.0 m/s
- Rope diameter from 4.0 mm to 16.0 mm
- Traction sheaves:
  - Diameter from 120 mm to 640 mm
  - Various groove geometries
- Motor brake:
  - Safety component in accordance with Lift Directive 2014/33/EU
  - Separately controllable brake circuits
  - Deployable as an element of the ascending car overspeed protection means
  - Deployable as part of the protection against unintended car movement
  - Mechanical hand release system (optional)
- Can be equipped with conventional encoder systems (e. B. EnDat, SSI, SinCos))
- Optimal package solution with ZIEHL-ABEGG ZAdyn frequency inverter

A glimpse inside

① Absolute encoder
② Brake
③ Electrical junction box from brake
④ Housing with electric terminal box
⑤ Stator lamination
⑥ Rotor with magnets
⑦ Motor shaft
⑧ Shaft seal ring
⑨ Shaft bearing
⑩ Flange A-side
⑪ Traction sheave



Product portfolio ZAtop

ZIEHL-ABEGG offers you the most comprehensive range of gearless elevator machines with the greatest flexibility and variability.

Suspension	Max. payload kg	Traction sheave diameter mm	Max. axle load kg	Nominal torque Nm	Motor type		
2:1	1050	120 - 160	2400	120 - 200	SM132/A		Page 16
	1050	120 - 200	2400	120 - 200	SM132/B		Page 18
	1275	160 - 240	1500 - 2500	215 - 445	SM180		Page 20
	1200	200 - 240	1850 - 2400	250 - 380	SM190		Page 22
	2000	160 - 500	1850 - 3600	250 - 710	SM200		Page 24
	2500	240 - 520	4500	850 - 1000	SM210		Page 26
	3000	320 - 640	6000 - 8000	1120 - 2500	SM250.45 SM250.60 SM250.80		Page 28
	3700	420 - 520	13000	2100 - 2650	SM250.100		Page 30

ZAtop Gearless elevator machine

SM132/A/AS

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

Drive
- NdFeB magnets
- Structural width ≤ 205 mm for the narrowest shaft dimensions
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

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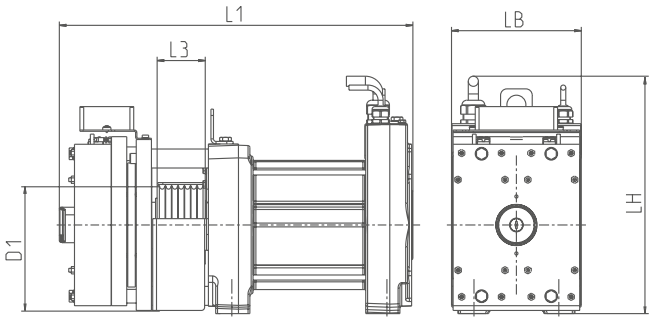
ZAlift	Page 73

Technical data

SM132/A/AS



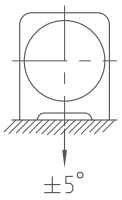
Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM132.21-14/A	120	2400	162 - 510	2.0 - 6.4	468	450	205	120	56	110
								160		114
SM132.21-14/AS			162 - 324	2.0 - 4.1			210	120		112
								160		115
SM132.35-14/A	200		162 - 510	3.4 - 10.7	558		205	120	76	133
								160		138
SM132.35-14/AS							210	120		135
								160		140

Scope of delivery and options

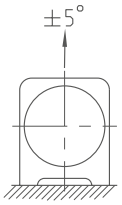
SM132/A	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	Mechanical hand release
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	5 m	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	BiSS-C / SSI / SinCos / TTL
Rope guard	2 pieces	3. Rope guard
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Surface cooling	-

Resulting rope force

ZAtop SM132/A



ZAtop SM132/AS



Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
1:1	300	1.00	120	SM132.21-14/A	5	6.5	2.0	7.0
	480	1.00	120	SM132.35-14/A	7		3.4	11.0
	525	1.60	120	SM132.35-14/A	7		5.4	15.0
2:1	450	1.00	160	SM132.21-14/A	5		3.2	10.0
	480	1.60	160	SM132.21-14/A	5		4.8	14.0
	630	1.00	120	SM132.21-14/A	5		4.1	13.0
	630	1.60	120	SM132.21-14/A	5		6.4	17.0
	800	1.60	160	SM132.35-14/A	7		8.0	21.0
	1050	1.00	120	SM132.35-14/A	7		6.8	19.0
	1050	1.60	120	SM132.35-14/A	7		10.7	30.0

ZAtop Gearless elevator machine

SM132/B/BS

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

Drive
- NdFeB magnets
- Structural width ≤ 205 mm for the narrowest shaft dimensions
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

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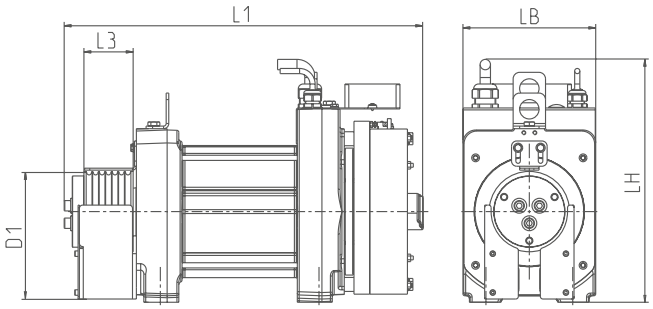
Technical data

SM132/B/BS



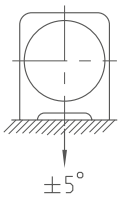
Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM132.21-14/B	120	2400	162 - 510	2.0 - 6.4	465	450	205	120	56	101
								160		105
							220	200		106
SM132.21-14/BS							210	120		103
								160		107
SM132.35-14/B	200			3.4 - 10.7	555		205	120	76	124
								160		129
							220	200		130
SM132.35-14/BS							210	120		126
								160		131

Scope of delivery and options

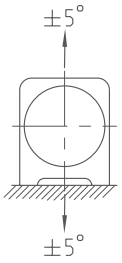
SM132/B	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	Mechanical hand release
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	5 m	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	BiSS-C / SSI / SinCos / TTL
Rope guard	2 pieces	3. Rope guard
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Surface cooling	-

Resulting rope force

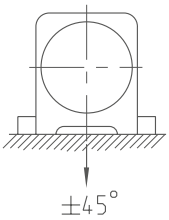
ZAtop SM132/B



ZAtop SM132/BS



ZAtop SM132/BS



with lateral form lock support

Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
1:1	300	1.00	120	SM132.21-14/B	5	6.5	2.0	7.0
	480	1.00	120	SM132.35-14/B	7		3.4	11.0
	525	1.60	120	SM132.35-14/B	7		5.4	15.0
2:1	400	1.00	200	SM132.21-14/B	5		3.2	10.0
	450	1.00	160	SM132.21-14/B	5		3.2	10.0
	480	1.60	160	SM132.21-14/B	5		4.8	14.0
	525	1.00	200	SM132.35-14/B	7		5.4	15.0
	630	1.00	120	SM132.21-14/B	5		4.1	13.0
	630	1.60	120	SM132.21-14/B	5		6.4	17.0
	800	1.60	160	SM132.35-14/B	7		8.0	21.0
	1050	1.00	120	SM132.35-14/B	7		6.8	19.0
	1050	1.60	120	SM132.35-14/B	7		10.7	30.0

ZAtop Gearless elevator machine

SM180

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

Drive
- NdFeB magnets
- Structural width ≤ 256 mm for the narrowest shaft dimensions
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

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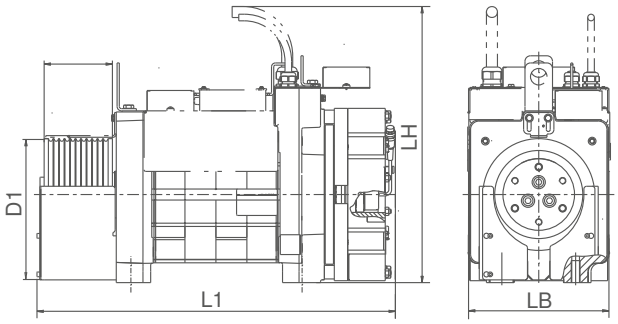
Technical data

SM180

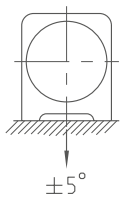


Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM180.24-14/B	215	1500	162 - 384	3.6 - 8.6	504	500	255	160	66	152
								200	76	160
								240		165
SM180.35-14/B	295	1850		5.0 - 11.9	563			160	78	174
								200	88	180
								240		185
SM180.45-14/B	385	2500	162 - 306	6.5 - 12.3	643			200	124	215
								240		220
SM180.46-14/B	445			7.5 - 13.8				200		225
								240		230
	430									

Scope of delivery and options

SM180	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	Mechanical hand release system with or without bowden cables
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	-	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	BiSS-C / SSI / SinCos / TTL
Rope guard	2 pieces	3. Rope guard
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Surface cooling	Forced ventilation

Resulting rope force



Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
2:1	480	1.00	240	SM180.24-14/B	7	6 - 6.7	3.6	10.0
	480	2.00	200	SM180.24-14/B	7		8.6	22.0
	630	1.60	200	SM180.24-14/B	7		6.9	17.0
	675	1.00	200	SM180.24-14/B	7		4.3	11.0
	675	1.00	240	SM180.35-14/B	8		5.0	13.0
	675	1.60	240	SM180.35-14/B	8		8.0	19.0
	800	1.60	200	SM180.35-14/B	8		9.5	21.0
	800	1.60	240	SM180.45-14/B	11		10.4	27.0
	1000	1.00	240	SM180.45-14/B	11		6.5	17.5
	1150	1.60	200	SM180.45-14/B	11		12.3	30.0
	1250	1.60	240	SM180.46-14/B	11		12.0	31.0
	1275	1.00	240	SM180.46-14/B	11		7.5	20.0

ZAtop Gearless elevator machine

SM190

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

Drive
- NdFeB magnets
- Structural width ≤ 320 mm for the narrowest shaft dimensions
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

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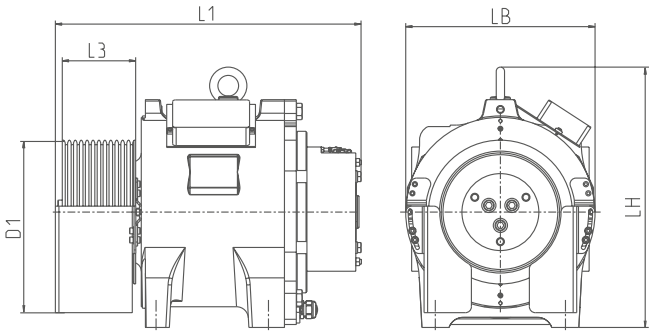
Technical data

SM190

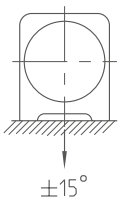


Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM190.15-20	250	1850	168 - 192	4.4 - 5.0	483	440	320	200	76	160
								240	88	166
SM190.23-20	380	2400		6.7 - 7.6	514			200	106	195
								240	124	204

Scope of delivery and options

SM190	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	-
Brake monitoring	Microswitch	-
Motor cable	10 m	-
Absolute encoder	EnDat	-
Rope guard	2 pieces	3. Rope guard
Temperature monitoring	PTC thermistor	-
Cooling	Surface cooling	-

Resulting rope force



Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diam-eter mm	Motor power kW	Rated current A
1:1	300	1.60	240	SM190.15-20	8	6 - 6.7	4.4	12.8
	450	1.00	200	SM190.23-20	10		6.7	18.5
2:1	480	1.00	240	SM190.15-20	8		4.4	12.8
	630	1.00	240	SM190.15-20	8		4.4	12.8
	675	1.00	200	SM190.15-20	7		5.0	14.3
	1000	1.00	240	SM190.23-20	11		6.7	18.5
	1050	1.00	200	SM190.23-20	10		7.6	21.0

ZAtop gearless elevator machine

SM200

SM200.15D/20D/30D

SM200.40E/45E

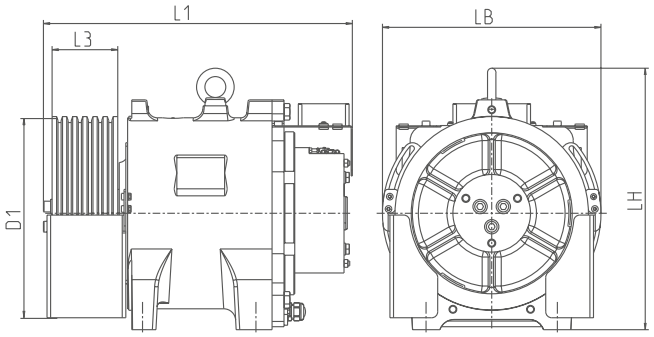
Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

Drive
- NdFeB magnets
- Structural width ≤ 320 mm for the narrowest shaft dimensions
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

Technical data

SM200



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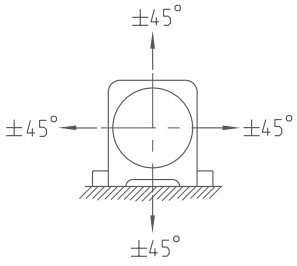
Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM200.15D-20	250	1855	96 - 306	2.5 - 8.0	491	438.0	320	160	76	150
								200	88	155
								240		162
							366	320	74	166
SM200.23D-20	380	2575 - 2850		3.8 - 12.2	513		320	160	106	175
								200	124	184
					517			240		193
					513		360	320	110	196
							422	400	92	208
							474	450		222
SM200.30D-20	450 - 475	2690 - 2850	60 - 306	3.0 - 14.4	568		320	200	106	214
									124	215
								240		224
							360	320	110	227
							422	400	92	239
							474	450		252
SM200.40E-20	600	3300 - 3600	96 - 300	6.0 - 18.8	663	451.0	322	160	143	280
					631			200	106	282
					681			240	173	303
					632				124	295
							360	320	122	307
					631		422	400	95	310
							520	500	90	329
SM200.45E-20	650 - 710		60 - 300	4.5 - 20.4	663		322	160	143	280
					631			200	106	282
					681			240	173	303
					632				124	295
							360	320	122	307
					631		422	400	95	310
							520	500	90	329

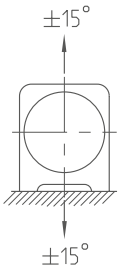
Scope of delivery and options

SM200	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	Mechanical hand release system with or without bowden cables
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	5 m (SM200.15D to SM200.30D)	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	BiSS-C / SSI / SinCos / TTL
Rope guard	2 pieces	3. Rope guard
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Surface cooling	Forced ventilation

Resulting rope force



with lateral form lock support



without lateral form lock support

Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
1:1	375	1.00	400	SM200.30D-20	5	10.0	3.0	10.5
	450	1.00	160	SM200.15D-20	6	8.1	3.1	10.7
	450	1.00	400	SM200.40E-20	5	10.0	6.0	16.5
	480	1.00	240	SM200.23D-20	11	6.0	3.8	12.0
	525	1.60	320	SM200.45E-20	7	8.0	7.1	20.0
	630	1.00	240	SM200.30D-20	11	6.0	4.8	14.5
	630	1.00	320	SM200.40E-20	7	8.0	6.0	16.5
2:1	450	1.00	400	SM200.23D-20	5	8.0	3.8	12.0
	480	1.00	320	SM200.15D-20	4	8.0	4.4	13.0
	630	1.00	450	SM200.30D-20	5	8.0	4.8	14.5
	630	1.60	240	SM200.15D-20	8	6.0	6.8	19.0
	630	1.60	320	SM200.23D-20	6	8.0	7.6	21.0
	675	1.60	200	SM200.15D-20	8	6.0	8.0	22.0
	800	1.00	500	SM200.40E-20	5	8.0	6.0	16.5
	800	1.60	320	SM200.30D-20	6	8.0	9.6	26.0
	1000	1.00	240	SM200.23D-20	10	6.0	6.7	18.5
	1000	1.00	320	SM200.40E-20	7	8.0	7.5	20.0
	1000	1.00	400	SM200.45E-20	5	10.0	7.1	20.0
	1000	1.60	240	SM200.30D-20	11	6.0	12.8	34.0
	1250	1.60	320	SM200.45E-20	8	8.0	14.3	36.0
	1275	1.00	240	SM200.30D-20	11	6.0	8.4	23.0
	1600	1.00	240	SM200.40E-20	16	6.0	10.6	26.5
	1800	1.00	200	SM200.45E-20	8	8.1	14.3	36.0
	2000	1.00	240	SM200.45E-20	16	6.0	11.6	30.0
4:1	2500	1.00	320	SM200.45E-20	7	8.0	19.2	46.0

ZAtop Gearless elevator machine

SM210

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

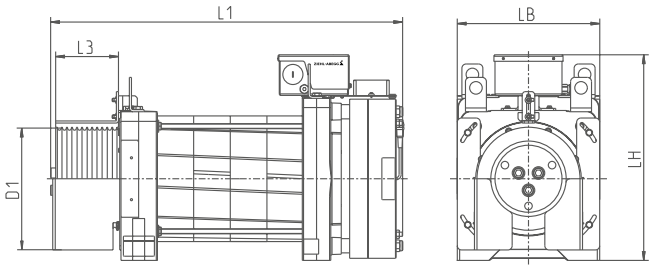
Drive
- NdFeB magnets
- Structural width ≤ 340 mm for the narrowest shaft dimensions
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

Deflection pulleys	Page 68
Forced ventilation	Page 70
ZAlift	Page 73
Motor cables	Page 108

Technical data

SM210

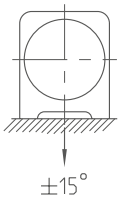


Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM210.60B-20	800 - 850	4500	60 - 258	5.3 - 21.6	806	491	340	240	150	420
								320		425
							420	400		450
							543	520		480
SM210.70B-20	950 - 1000			6.3 - 25.7	856		340	240		445
								320		450
							420	400		470
							543	520		490

Scope of delivery and options

SM210	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	Mechanical hand release
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	-	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	BiSS-C / SSI / SinCos / TTL
Rope guard	2 pieces	3. Rope guard
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Surface cooling	Forced ventilation

Resulting rope force



Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
1:1	480	1.00	520	SM210.60B-20	7	12.0	5.3	16.5
	525	1.00	520	SM210.70B-20	7	12.0	6.3	19.0
	675	1.00	400	SM210.60B-20	8	10.0	5.3	16.5
	675	1.60	400	SM210.60B-20	8	10.0	8.5	23.5
	800	1.00	320	SM210.60B-20	10	8.0	5.3	16.5
	800	1.60	320	SM210.60B-20	10	8.0	8.5	23.5
	1000	1.60	320	SM210.70B-20	10	8.0	10.1	28.0
2:1	1250	1.60	400	SM210.60B-20	8	10.0	13.9	35.5
	1600	1.00	320	SM210.60B-20	10	8.0	10.7	29.0
	1600	1.00	400	SM210.70B-20	8	10.0	10.1	28.0
	1600	1.60	400	SM210.70B-20	8	10.0	16.3	42.0
	2000	1.00	320	SM210.70B-20	10	8.0	12.6	33.0
	2500	1.00	240	SM210.60B-20	14	6.5	13.9	35.5
	2650	1.00	240	SM210.70B-20	14	6.5	16.3	42.0
4:1	2500	1.00	320	SM210.60B-20	8	8.0	21.6	54.0
	3000	1.00	400	SM210.70B-20	8	10.0	20.1	51.0

ZAtop Gearless elevator machine

SM250.45 / SM250.60 / SM250.80

SM250.45B/60B

SM250.80D

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

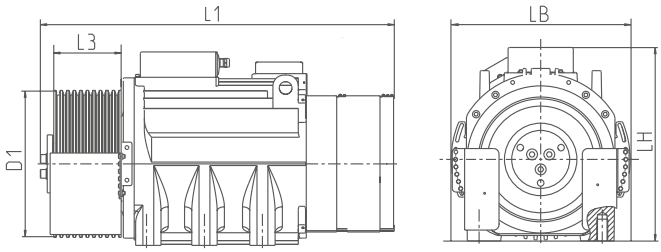
Drive
- NdFeB magnets
- For fast elevators of up to 4 m/s
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

Motor cables	Page 108
Machine frames	Page 58
Deflection pulleys	Page 68
Adapter plates	Page 67
Forced ventilation	Page 70
ZAlift	Page 73

Technical data

SM250

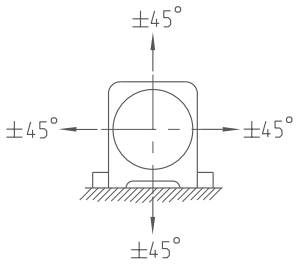


Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM250.45B-20	900 - 1120	6000	60 - 336	7.0 - 31.7	922	535	410	320	182	635
							425	400	150	640
							500		186	650
							520	500	150	670
							543	520		680
							620	600		695
							660	640		750
SM250.60B-20	1200 - 1600			10.0 - 42.0	984		410	320	182	695
							425	400	150	700
							500		186	715
							520	500	150	735
							543	520		740
							620	600		765
							660	640		810
SM250.80D-20	2000 - 2500	8000	54 - 300	12.6 - 72.3	1147	645	474	440	200	1020
							546	520		1041
							666	640		1128

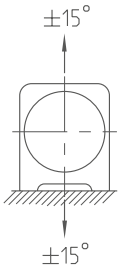
Scope of delivery and options

SM250	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	Mechanical hand release
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	-	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	BiSS-C / SSI / SinCos / TTL
Rope guard	2 pieces	3. Rope guard
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Surface cooling	Forced ventilation

Resulting rope force



with lateral form lock support



without lateral form lock support

Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
1:1	630	1.60	520	SM250.45B-20	7	12.0	7.0	22.0
	1000	1.60	520	SM250.60B-20	7	13.0	10.0	30.0
	1000	2.00	320	SM250.45B-20	10	8.0	14.1	37.0
	1000	2.00	520	SM250.80D-20	9	12.0	18.8	52.0
	1250	1.60	640	SM250.80D-20	7	16.0	14.1	50.0
	1250	2.00	400	SM250.60B-20	10	10.0	16.0	43.0
2:1	1000	1.00	640	SM250.45B-20	8	10.0	7.0	22.0
	1050	1.60	600	SM250.45B-20	7	13.0	12.7	34.0
	1250	1.60	640	SM250.60B-20	8	11.0	16.0	43.0
	1275	1.00	500	SM250.45B-20	8	8.0	11.3	31.5
	1600	1.00	320	SM250.45B-20	10	8.0	14.1	37.0
	1600	1.60	320	SM250.45B-20	10	8.0	20.1	50.0
	1600	2.50	320	SM250.45B-20	10	8.0	31.7	73.0
	1600	2.50	640	SM250.80D-20	9	13.0	36.4	94.0
	2000	1.60	320	SM250.45B-20	10	8.0	20.1	50.0
	2000	1.60	520	SM250.80D-20	11	10.0	25.1	67.0
	2000	2.50	500	SM250.60B-20	9	10.0	32.0	80.0
	2500	2.00	520	SM250.80D-20	9	13.0	40.8	120.0
	3000	1.00	440	SM250.80D-20	11	11.0	28.3	86.0
	3000	1.60	440	SM250.80D-20	11	10.0	28.9	78.0
4:1	5000	1.00	440	SM250.80D-20	11	10.0	36.4	94.0
	6300	1.00	440	SM250.80D-20	11	10.0	53.4	150.0
	6500	0.80	440	SM250.80D-20	11	10.0	40.8	120.0
6:1	6000	1.00	520	SM250.80D-20	8	10.0	46.5	118.0

ZAtop Gearless elevator machine

SM250.100C

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

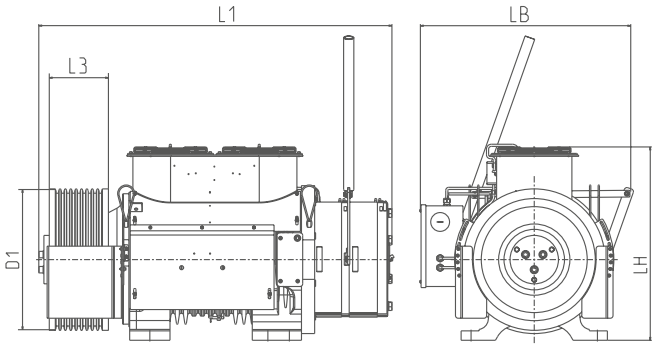
Drive
- NdFeB magnets
- For fast elevators of up to 4 m/s
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

Motor cables	Page 108
Machine frames	Page 58
Deflection pulleys	Page 68
ZAlift	Page 73

Technical data

SM250.100C

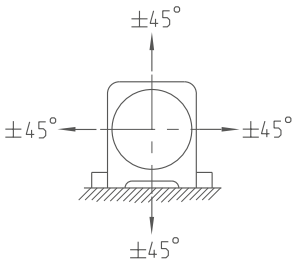


Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM250.100C-20	2100 - 2650	13000	78 - 312	22 - 69	1313	729	794	450	282	1250
								500	220	
								520		

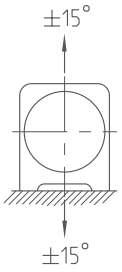
Scope of delivery and options

SM250	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	Mechanical hand release
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	-	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	BiSS-C / SSI / SinCos / TTL
Rope guard	2 pieces	3. Rope guard
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Forced ventilation	-

Resulting rope force



with lateral form lock support



without lateral form lock support

Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
1:1	1250	3.50	520	SM250.100C-20	10	11.0	33.0	77.0
	1600	1.00	500	SM250.100C-20	10	11.0	22.0	62.0
	2000	1.60	450	SM250.100C-20	10	11.0	22.0	62.0
2:1	2400	2.50	500	SM250.100C-20	8	12.0	42.0	98.0
	3000	2.00	520	SM250.100C-20	10	12.0	41.6	82.0
	3500	1.00	450	SM250.100C-20	11	11.0	30.0	82.0
	3700	1.60	450	SM250.100C-20	10	11.0	37.0	98.0
4:1	4300	1.00	520	SM250.100C-20	7	11.0	50.0	125.0
	6300	1.00	450	SM250.100C-20	10	10.0	50.0	125.0


ZIEHL-AB

ZAtopx Gearless elevator machine for belts

Product overview

ZAtopx Gearless elevator machine for belts

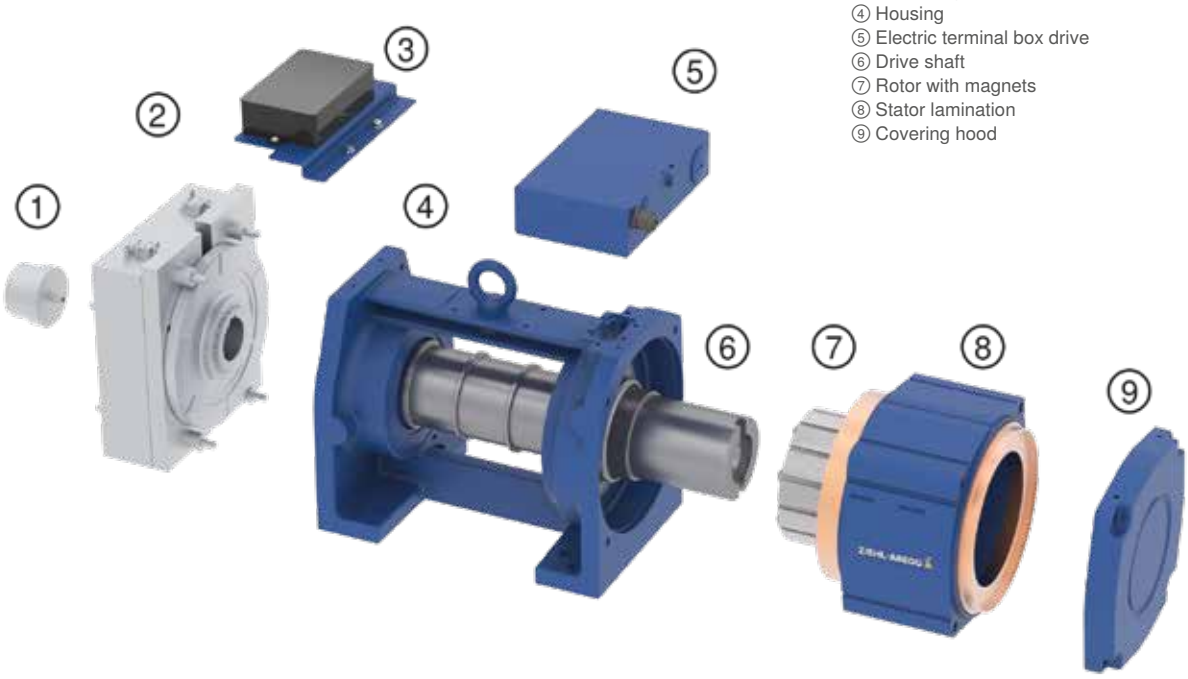
General information

The drive with flat belts as suspension means for elevators with or without machine room

Properties

- Elevator machine with belt as suspension means
- According to the provisions of the Lift Directive 2014/33/EU
- High efficiency
- Noise emissions < 50 dB(A)
- Insulation class F (155 °C) with temperature monitoring via PTC thermistor
- Travel speeds up to 1,6 m/s
- Traction shaft:
  - Diameter 100 mm
  - 2 to 5 belts
- Motor brake:
  - Safety component in accordance with Lift Directive 2014/33/EU
  - Separately actuated brake circuits
  - Deployable as an element of the ascending car overspeed protection means
  - Deployable as part of the protection against unintended car movement
  - Mechanical hand release (optional)
- Can be equipped with conventional encoder systems (e. g. EnDat, SSI)
- Optimum package solution with ZAdyn frequency inverter from ZIEHL-ABEGG

A glimpse inside



① Absolute encoder
② Brake
③ Electrical junction box from brake
④ Housing
⑤ Electric terminal box drive
⑥ Drive shaft
⑦ Rotor with magnets
⑧ Stator lamination
⑨ Covering hood

Product portfolio ZAtopx

ZIEHL-ABEGG offers you the most comprehensive range of gearless elevator machines with the greatest flexibility and variability.

Suspension	Max. payload kg	Traction shaft diameter mm	Max. axle load kg	Nominal torque Nm	Motor type	
2:1	675	100	2500	105	BD132.21A 	Page 36
	1050	100	2500	175	BD132.35A 	Page 36

ZAtopx Gearless elevator machine for belts

The drive with flat belts as suspension means in accordance to the provisions of the Lift Directive 2014/33/EU

Drive
- NdFeB magnets
- Structural width ≤ 205 mm for narrowest shaft dimensions
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately actuated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

Motor cables	Page 108
Deflection pulleys	Page 68
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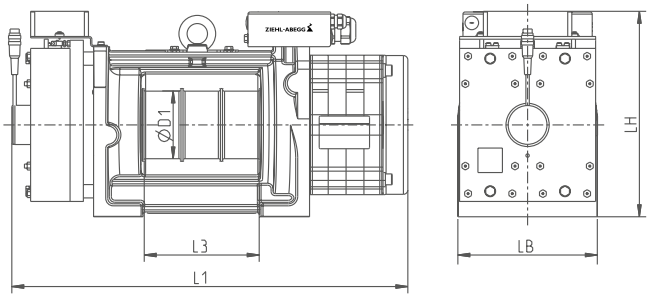
Technical data

BD132

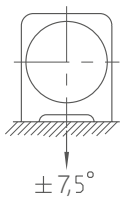


Motor type	Nominal torque	Max. axle load	Nominal speed	Rated output power	L1	LH	LB	D1	L3	Weight
	Nm	kg	rpm	kW	mm	mm	mm	mm	mm	kg
BD132.21A-14/3	105	2500	384 - 612	4.2 - 6.7	581	305	205	100	169	106
BD132.35A-14/3	175			7.0 - 11.2	651					123
BD132.35A-14/5					767				285	133

Scope of delivery and options

BD132	Standard	Options
Motor	Gearless elevator machine for belts as suspension means	-
Traction shaft	See D1	-
Brake	Certified brake system	Mechanical hand release
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	-	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	BiSS-C / SSI / SinCos / TTL
Belt guard	2 pieces	-
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Surface cooling	Forced ventilation

Resulting suspension force



Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction shaft mm	Motor type	Number of belts	Belt width mm	Motor power kW	Rated current A
2:1	675	1.00	100	BD132.21A-14/3	3	30.0	4.2	11.0
	675	1.60	100	BD132.21A-14/3	3	30.0	6.7	15.5
	1050	1.00	100	BD132.35A-14/3	3	30.0	7.0	17.0
	1050	1.00	100	BD132.35A-14/5	5	30.0	7.0	17.0
	1050	1.60	100	BD132.35A-14/3	3	30.0	11.2	25.0
	1050	1.60	100	BD132.35A-14/5	5	30.0	11.2	25.0


ZIEHL-ABEGG

Gearless elevator machine ZAsyn

Product overview

ZAsyn Gearless elevator machine

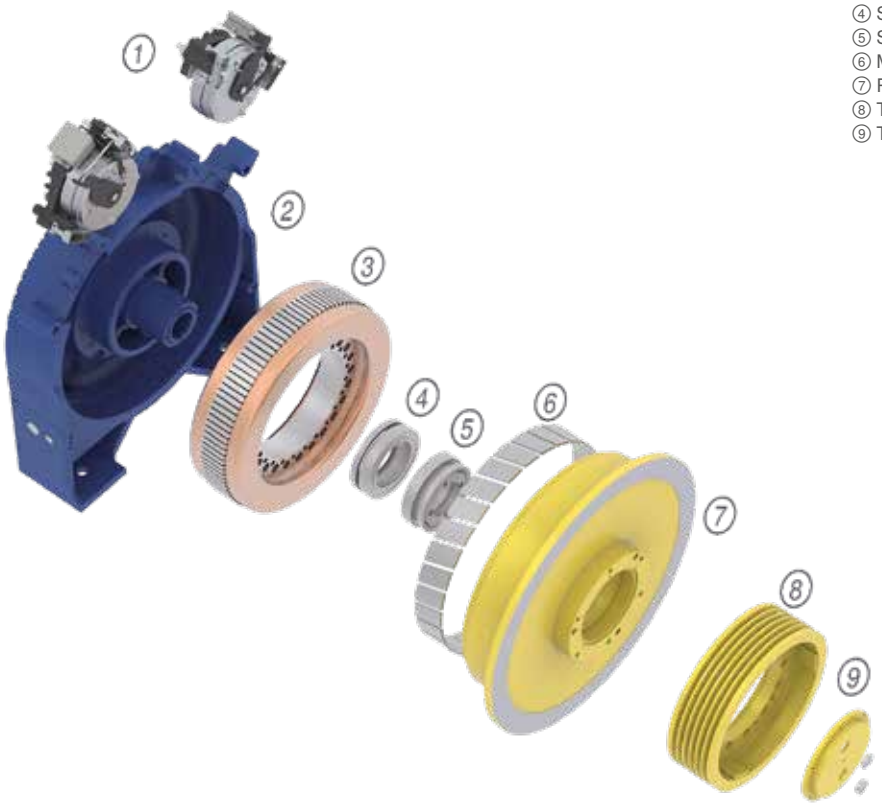
General information

The flat elevator machine for elevators with and without a machine room

Properties

- Gearless synchronous motor actuated by NdFeB permanent magnets
- External rotor motor
- According to the provisions of the Lift Directive 2014/33/EU
- Very flat design for optimum shaft dimensions
- Optimised for easy installation in the shaft
- High efficiency
- Noise emissions < 50 dB(A)
- Insulation class F (155 °C) with temperature monitoring via PTC thermistor
- Travel speeds of up to 3.0 m/s
- Rope diameter of 8.0 mm to 16.0 mm
- Traction sheaves:
  - Replaceable
  - Diameter of 400 mm to 680 mm
- Motor brake:
  - Safety component in accordance with Lift Directive 2014/33/EU
  - Separately actuated brake circuits
  - Deployable as an element of the ascending car overspeed protection means
  - Deployable as part of the protection against unintended car movement
  - Mechanical hand release (optional)
- Can be equipped with conventional encoder systems (e.g. EnDat, SSI, SinCos)
- Optimum package solution with ZAdyn frequency inverter from ZIEHL-ABEGG

A glimpse inside



① Brake
② Housing
③ Stator lamination
④ Shaft seal ring
⑤ Shaft bearing
⑥ Magnets
⑦ Rotor
⑧ Traction sheave
⑨ Traction sheave bracket

Product portfolio ZAsyn

ZIEHL-ABEGG offers you the most comprehensive range of gearless elevator machines with the greatest flexibility and variability.

Suspension	Max. payload kg	Traction sheave diameter mm	Max. axle load kg	Nominal torque Nm	Motor type	
2:1	1600	400	3000 - 3600	500 - 1150	SM700 	Page 42
	2500	480 - 680	8000	1900 - 2200	SM860 	Page 44

ZAsyn Gearless elevator machine

SM700

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

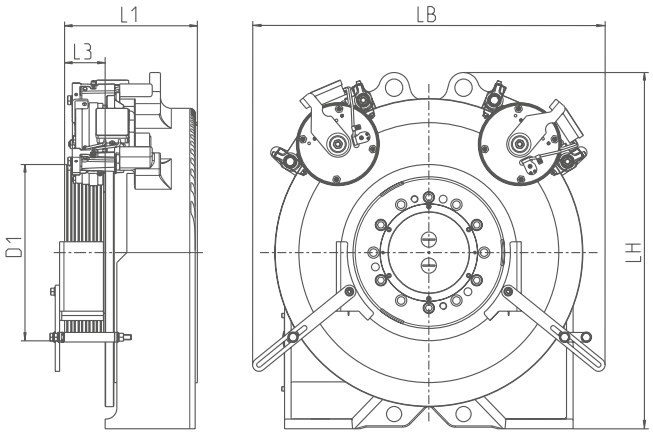
Drive
- NdFeB magnets
- Installation depth of ≤ 336 mm makes it perfect for mounting on the wall of the elevator shaft
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

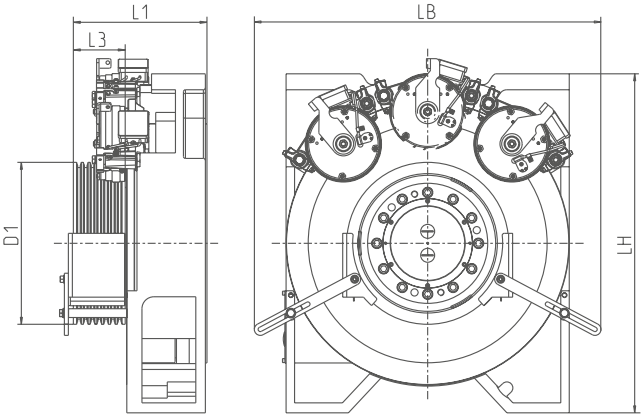
Motor cables	Page 108
Deflection pulleys	Page 68
ZAlift	Page 73

Technical data

SM700.09AL-14AL



SM700.16AL(3)

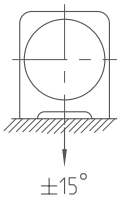


Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM700.09AL-30	500	3000	60 - 96	3.0 - 5.0	306	838	710	400	60	530
SM700.12AL-30	750		60 - 168	4.5 - 13.0	336				90	535
SM700.14AL-30	850		60 - 192	5.5 - 17.0	366				120	540
SM700.16AL3-A-30	1150	3600	96 - 156	11.6 - 18.8	326	888			90	580
					356				120	595
					366				130	605
SM700.16AL-A-30	800 - 1000		60 - 240	6.5 - 20.0	326	850			90	565
					356				120	570
					366				130	575

Scope of delivery and options

SM700	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	Mechanical hand release
Brake monitoring	Microswitch	-
Motor cable	-	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	SSI / SinCos
Rope guard	2 pieces	-
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Surface cooling	-
Mounting	-	Console for wall mounting

Resulting rope force



Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
1:1	375	1.00	400	SM700.09AL-30	3	10	3.0	7.6
	525	0.63	400	SM700.12AL-30	5		4.5	11.5
	630	1.00	400	SM700.12AL-30	5		4.5	11.5
	675	0.63	400	SM700.16AL-A-30	6		6.5	16.5
	800	2.00	400	SM700.16AL3-A-30	7		11.6	29.0
2:1	675	1.00	400	SM700.09AL-30	3		5.0	11.5
	1000	1.60	400	SM700.16AL-A-30	5		16.0	41.5
	1000	1.60	400	SM700.14AL-30	5		14.0	33.5
	1000	1.75	400	SM700.12AL-30	4		13.0	32.5
	1000	2.00	400	SM700.14AL-30	5		17.0	40.5
	1250	2.50	400	SM700.16AL-A-30	6		20.0	50.0
	1275	1.75	400	SM700.14AL-30	5		15.0	36.5
	1275	2.50	400	SM700.16AL-A-30	5		20.0	50.0
	1350	1.00	400	SM700.16AL-A-30	6		10.0	25.0
	1500	1.60	400	SM700.16AL3-A-30	7		18.8	48.0

ZAsyn Gearless elevator machine

SM860

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

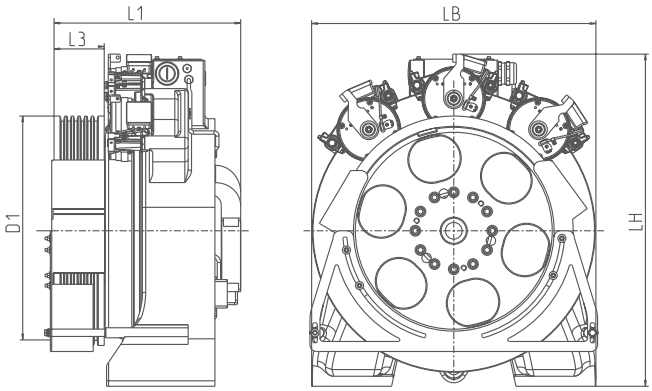
Drive
- NdFeB magnets
- Perfect for mounting in tight spaces
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

Motor cables	Page 108
Deflection pulleys	Page 68
ZAlift	Page 73

Technical data

SM860.28AL

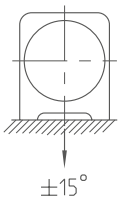


Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SM860.28AL-30	2200	8000	40 - 160	9.2 - 37.0	586	1080	850	480	150	1004
								520		1010
								600		1027
								680		1050

Scope of delivery and options

SM860	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	Mechanical hand release
Brake monitoring	Microswitch	-
Motor cable	-	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	SSI / SinCos
Rope guard	2 pieces	-
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Forced ventilation	-

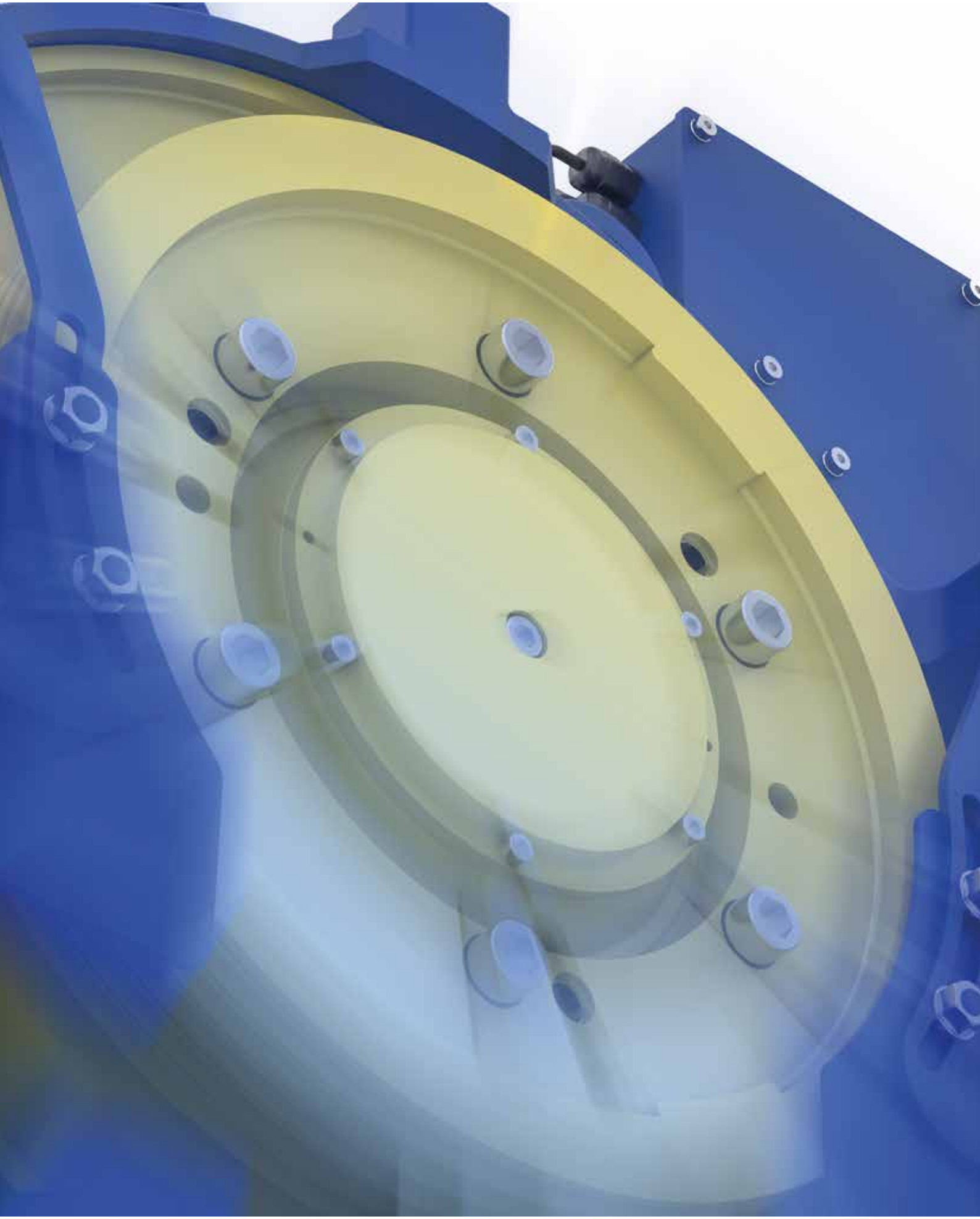
Resulting rope force



Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
1:1	1250	1.00	520	SM860.28AL-30	7	12	9.2	25.5
	1250	2.00	480	SM860.28AL-30	7		22.0	53.5
2:1	1600	2.50	600	SM860.28AL-30	6	10	37.0	80.5
	2000	1.60	680	SM860.28AL-30	6	13	22.0	53.5
	2000	2.50	680	SM860.28AL-30	6	10	37.0	80.5
	2500	1.00	520	SM860.28AL-30	7	13	17.0	43.0
	2500	1.60	520	SM860.28AL-30	7	12	30.0	68.5
	2500	2.00	480	SM860.28AL-30	7		37.0	80.5



Gearless elevator machine ZAdisc

Product overview

ZAdisc Gearless elevator machine

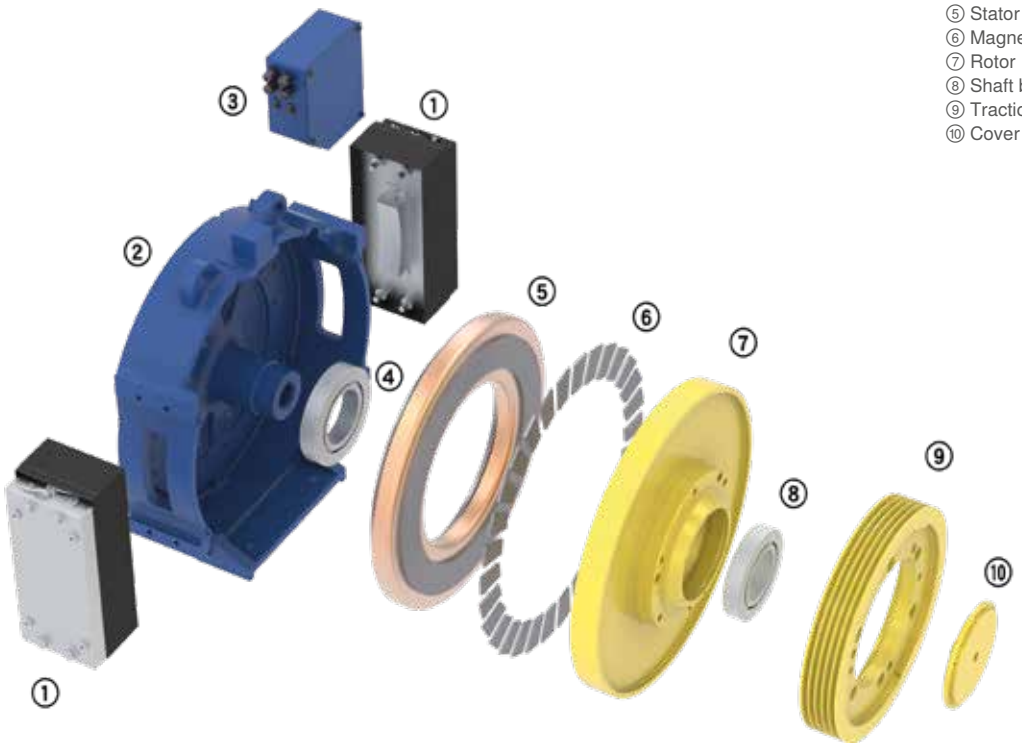
General information

The flat elevator machine for elevators with and without a machine room

Properties

- Gearless synchronous motor actuated by NdFeB permanent magnets
- Disc rotor motor
- According to the provisions of the Lift Directive 2014/33/EU
- Very flat design for optimum shaft dimensions
- Optimised for fixing at the guide rail
- High efficiency
- Noise emissions <50 dB(A)
- Insulation class F (155 °C) with temperature monitoring via PTC thermistor
- Travel speeds of up to 1.6 m/s
- Rope diameter of 8.0 mm to 12.0 mm
- Traction sheaves:
  - Replaceable
  - Diameter of 400 mm and 480 mm
- Motor brake:
  - Safety component in accordance with Lift Directive 2014/33/EU
  - Separately actuated brake circuits
  - Deployable as an element of the ascending car overspeed protection means
  - Deployable as part of the protection against unintended car movement
- Can be equipped with conventional encoder systems (e.g. EnDat, SSI, SinCos)
- Optimum package solution with ZAdyn frequency inverter from ZIEHL-ABEGG

A glimpse inside



① Brake
② Housing
③ Junction box
④ Shaft bearing
⑤ Stator lamination
⑥ Magnets
⑦ Rotor
⑧ Shaft bearing
⑨ Traction sheave
⑩ Cover plate

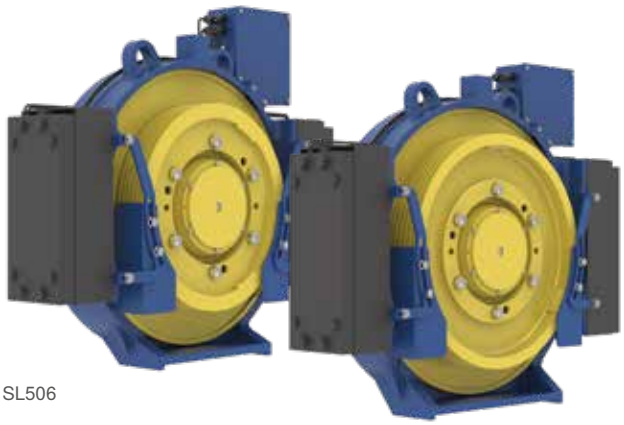
Product portfolio ZAdisc

With the gearless elevator machines ZAdisc ZIEHL-ABEGG offers you the greatest flexibility and variability.

Suspension	Max. payload kg	Traction sheave diameter mm	Max. axle load kg	Nominal torque Nm	Motor type	
2:1	675	400	1800	500	SL506 	Page 50
	1125	480	2400	870	SL510 	Page 50

ZAdisc Gearless elevator machine

SL506 / 510



SL506

SL510

Synchronous motor actuated by permanent magnets and according to the provisions of the Lift Directive 2014/33/EU

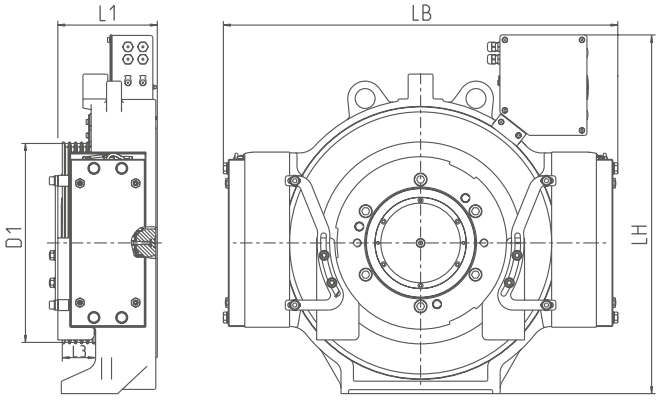
Drive
- NdFeB magnets
- Installation depth ≤ 200 mm
- Optimised for attaching to the guide rail
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system
- Safety component in accordance with Lift Directive 2014/33/EU
- Separately activated brake circuits
- Deployable as an element of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

Motor cables	Page 108
Deflection pulleys	Page 68
ZAlift	Page 73

Technical data

SL506 / SL510

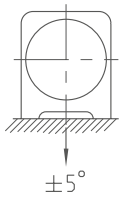


Motor type	Nominal torque Nm	Max. axle load kg	Nominal speed rpm	Rated output power kW	L1 mm	LH mm	LB mm	D1 mm	L3 mm	Weight kg
SL506.12-30	500	1800	96 - 156	5.0 - 8.2	217	721	793	400	66	310
SL510.17-28	870	2400	81 - 198	7.4 - 18.0	222	746	854	480	74	380

Scope of delivery and options

SL506 / SL510	Standard	Options
Motor	Gearless elevator machine	-
Traction sheave	See D1	-
Brake	Certified brake system	-
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	-	10 m, 15 m, 20 m, 25 m halogen free
Absolute encoder	EnDat	SSI / SinCos / TTL
Rope guard	2 pieces	3. Rope guard
Temperature monitoring	PTC thermistor	PT100-thermistor
Cooling	Surface cooling	-
Mounting	-	Mounting bracket and bracket for rail mounting

Resulting rope force



Example configurations

Other configurations, also outside of the examples listed below, are possible.
Our calculation software ZAlift is available to you for fast and convenient calculation of your elevator machine.

Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor type	Number of ropes	Rope diameter mm	Motor power kW	Rated current A
2:1	480	1.00	400	SL506.12-30	3	10	5.0	19.4
	480	1.60	400	SL506.12-30	3		8.2	30.0
	630	1.00	400	SL506.12-30	3		5.0	19.4
	675	1.00	400	SL506.12-30	3		5.0	19.4
	675	1.60	400	SL506.12-30	3		8.2	30.0
	1050	1.00	480	SL510.17-28	4		7.4	28.0
	1050	1.60	480	SL510.17-28	4		11.8	42.0
	1050	2.00	480	SL510.17-28	4		14.5	50.0
	1050	2.50	480	SL510.17-28	4		18.0	61.0
	1125	1.00	480	SL510.17-28	4		7.4	28.0

Motors VFD

Motors VFD

Frequency controlled elevator motors

Description

- Surface-cooled asynchronous motor
- Especially for elevator machines with gearbox
- High efficiency
- Frequency controllable
- Optimised for low-noise operation
- Operating voltage 360 V AC
- Design IM B3

Options

- Hand wheel with low moment of inertia
- Incremental encoder in different signal forms and resolutions

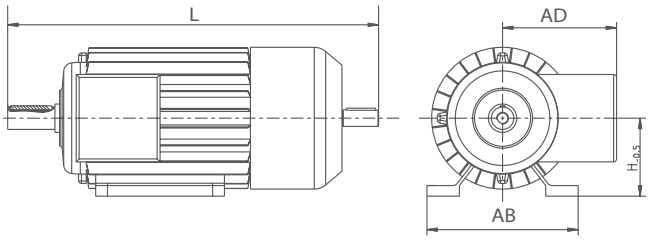
Motor cables Page 108

Technical data

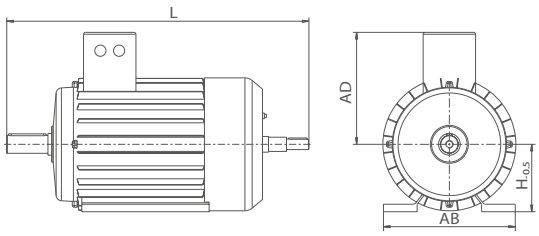
Motor type	Rated frequency Hz	Rated power kW	Rated torque Nm	Rated current A	Rated speed rpm
VFD132M-4	38 50 66	4.0 5.5 7.5	37	9.7 13.0 17.5	1090 1453 1934
VFD132MA-4	38 50 66	5.5 7.5 10.0	50	13.1 17.8 22.7	1093 1451 1933
VFD132MB-4	38 50 66	6.8 9.2 12.0	61	15.8 21.0 27.4	1089 1448 1929
VFD160LA-4	38 50 66	8.5 11.0 14.5	72	18.0 24.0 31.0	1113 1469 1953
VFD160LB-4	38 50 66	11.5 15.0 20.0	100	24.0 32.5 42.0	1113 1471 1953
VFD180L-4	38 50 66	16.5 22.0 29.0	144	34.5 46.0 60.0	1115 1476 1955
VFD200L-4	38 50 66	23.0 30.0 40.0	197	47.0 64.0 81.0	1122 1479 1962
VFD225M-4	38 50 66	28.0 37.0 50.0	242	60.0 79.0 104.0	1120 1468 1960
VFD225M-4	38 50 60	34.0 45.0 60.0	292	70.0 91.0 121.0	1119 1483 1959
VFD250M-4	38 50 66	42.0 55.0 73	357	85.0 116.0 146.0	1119 1480 1959

Dimensions mm

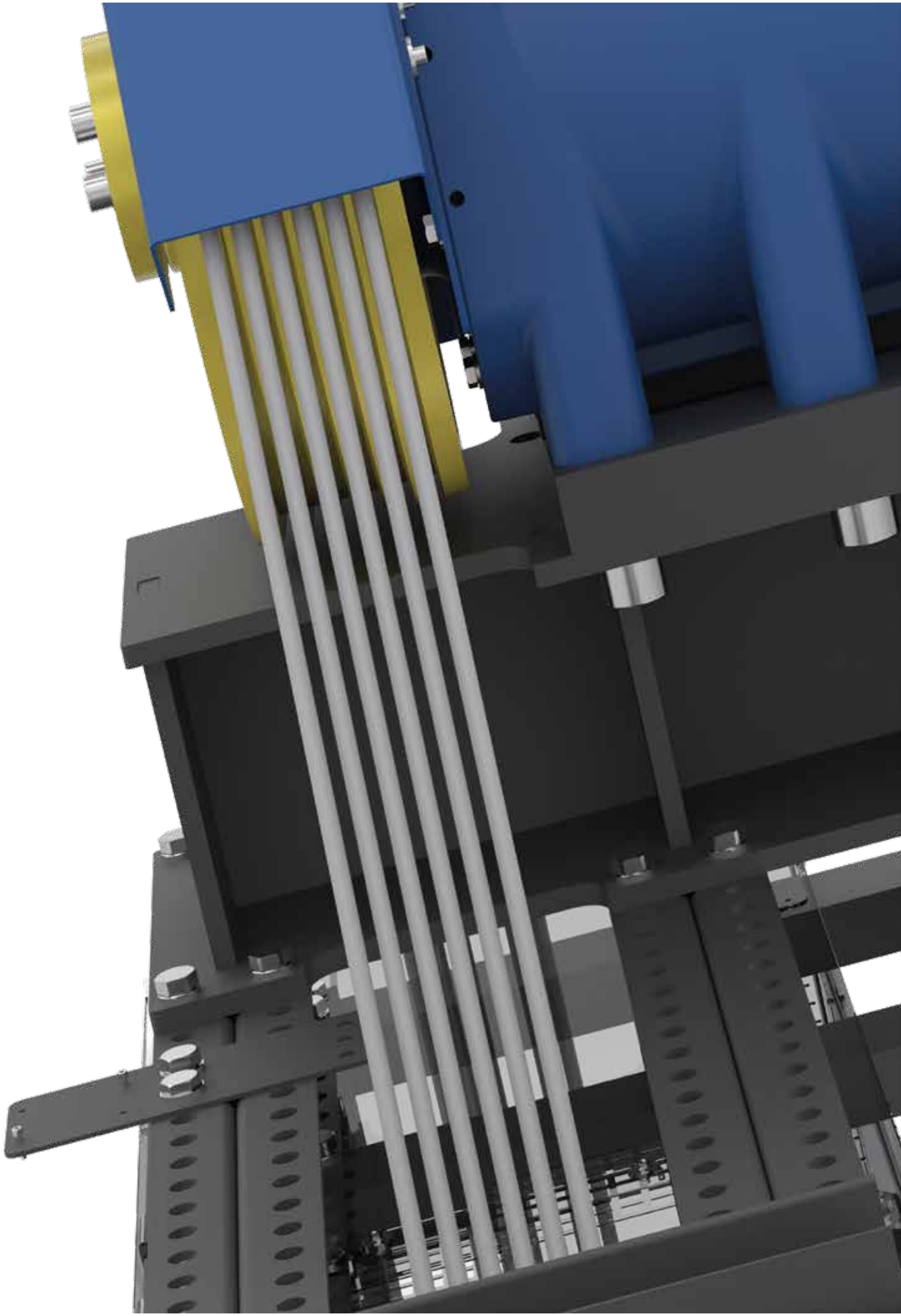
VFD132..., VFD160...



VFD180..., VFD200..., VFD225..., VFD250..., VFD280...



Motor type	D mm	L mm	AB mm	AD mm	H mm
VFD132M-4	38	613	256	193	132
VFD132MA-4					
VFD132MB-4		628			
VFD160LA-4	42	742	320	250	160
VFD160LB-4					
VFD180L-4	48	807	352	299	180
VFD200L-4	55	857	403	299	200
VFD225M-4	60	925	440	238	225
VFD250M-4	65	1004	490	361	250
VFD280S-4	75	1054	536	361	280



System components

Product overview

ZAframe MH4000

Elevated frame for ZAtop SM200.15D - SM200.45E

Description

- Elevated frame with one deflection pulley
- Bolted sheet metal construction
- Static load: up to 4000 kg
- Typical payload: 630 kg to 1600 kg
- Rope distance (ASL): 400 mm to 1330 mm, adjustable in 40 mm steps
- Traction sheave: 160 mm to 500 mm
- Deflection pulley: 160 mm to 520 mm
- Version as shown or machine rotated by 180°
- Can be delivered assembled and disassembled

Scope of delivery

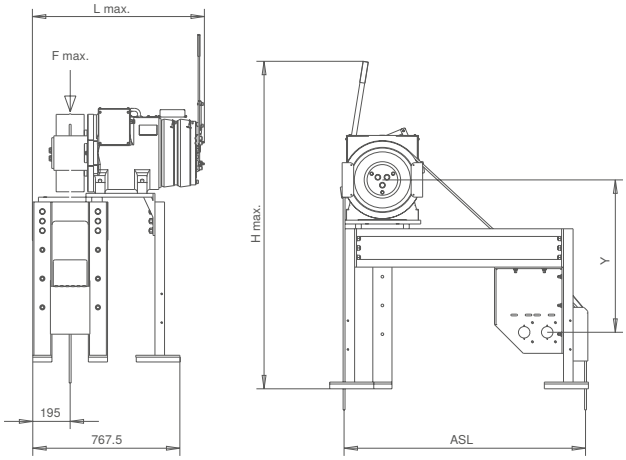
- Frame with fastening material
- Deflection pulley with fastening material
- Vibration insulation

Options

- Rope guard
- Deviating traction sheaves and deflection pulleys

MH4000				
Motor type	Traction sheave	Deflection pulley	ASL	Max. static load
	mm	mm	mm	kg
SM200.15D/23D/30D	240	240	420 - 1140	4000
SM200.15D/23D/30D	320	320	500 - 1220	
SM200.15D/23D/30D	400	400	500 - 1260	
SM200.40E/45E	160	160	420 - 1060	
SM200.40E/45E	240	240	420 - 1140	
SM200.40E/45E	320	320	500 - 1220	
SM200.40E/45E	400	400	500 - 1260	
SM200.40E/45E	500	520	500 - 1280	

Dimensions mm



Motor type	Y	H max.	L max.
	mm	mm	mm
SM200.15D/23D/30D	680	1323	763
SM200.40E/45E	797	2045	879

ZAframe MH6000B

Elevated frame for ZAtop SM210.70B - SM250.80D

Description

- Elevated frame with one deflection pulley
- Screwed sheet metal design
- Static load: up to 6000 kg
- Typical payload: 630 kg to 3000 kg
- Rope distance (ASL): 545 mm to 1080 mm
- Traction sheave: 400 mm to 640 mm
- Deflection pulley: 400 mm to 520 mm
- Version as illustrated or motor turned through 180°

Scope of delivery

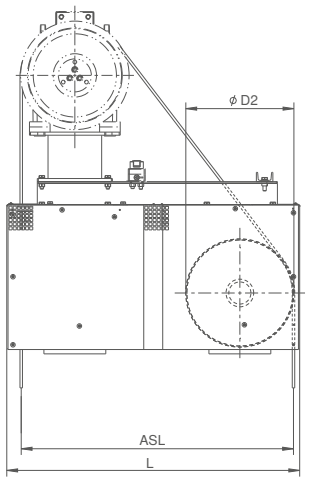
- Frame with fastening material
- Deflection pulley with fastening material
- Insulating elements

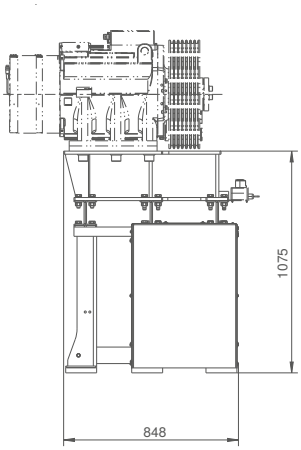
Options

- Enclosure
- Emergency stop switch retrofit kit

MH6000B					
Motor type	Traction sheave	Deflection pulley D2	L	ASL	Max. static load
	mm	mm	mm	mm	kg
SM210.70B	320	320	1260	540 - 1120	6000
	400	320	1300	540 - 1160	
	400	400	1340	620 - 1200	
	520	520	1420	740 - 1320	
SM250.45B / SM250.60B	320	320	1260	620 - 1120	
	400	320	1300	620 - 1160	
	400	400	1340	620 - 1200	
	500	520	1420	730 - 1310	
	520	520	1420	740 - 1320	
	600	520	1420	780 - 1320	
	640	520	1420	800 - 1340	
SM250.80D	440	440	1340	660 - 1240	
	520	520	1420	740 - 1320	
	640	520	1380	800 - 1260	

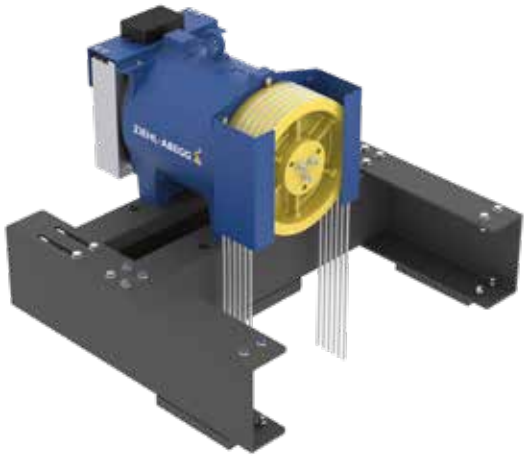
Dimensions mm





ZAframe MF2800 + MF4000

Flat frame for ZAtop SM190.15 - SM200.45E



Description

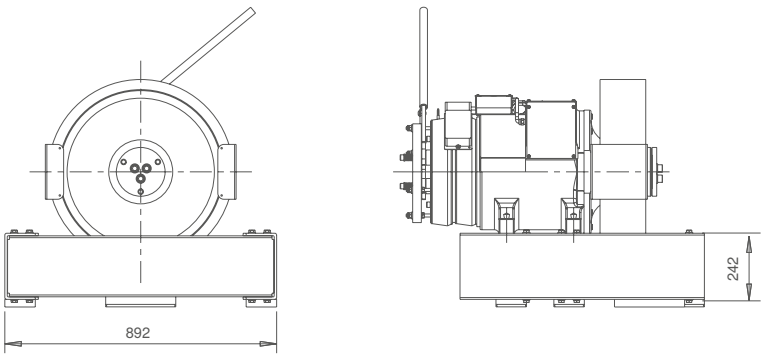
- Flat machine frame
- Bolted sheet metal construction
- Static load: up to 4000 kg
- Typical payload: 630 kg to 1600 kg
- Can be delivered assembled and disassembled

Scope of delivery

- Frame with fastening material
- Vibration insulation

MF2800 / MF4000		
Motor type	Traction sheave	Max. static load
	mm	kg
SM190.15/23	200 - 240	2800
SM200.15D/23D/30D	160 - 450	
SM200.40E/45E	160 - 500	4000

Dimensions mm



ZAframe MF6000

Flat frame for ZAtop SM250.45B - SM250.80D

Description

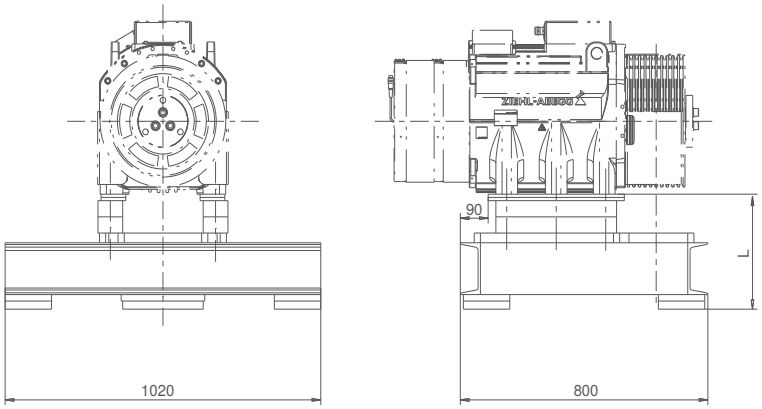
- Flat machine frame
- Welded sheet metal construction
- Static load: up to 6000 kg
- Typical payload: 1000 kg to 3600 kg
- Can be delivered assembled and disassembled

Scope of delivery

- Frame with fastening material
- Vibration insulation

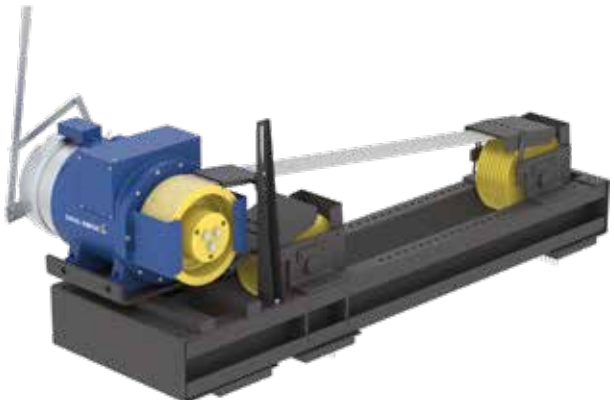
MF6000			
Motor type	Traction sheave	L	Max. static load
	mm	mm	kg
SM250.45B	320	245	6000
	400		
	500	295	
	520		
	600	355	
	640		
SM250.60B	320	245	
	400		
	500	295	
	520		
	600	355	
	640		
SM250.80D	440	235	
	520	285	
	640	335	

Dimensions mm



ZAframe MS4000

Frame S-wrap for ZAtop SM200.15D - SM200.45E



Description

- Frame with two deflection pulleys
- Bolted sheet metal construction
- Static load: up to 4000 kg
- Typical payload: 630 kg to 1600 kg
- Rope distance (ASL): 360 mm to 1200 mm, adjustable in 40 mm steps:
- Traction sheave: 200 mm to 400 mm
- Deflection pulley: 240 mm to 400 mm
- Version as shown or machine rotated by 180°
- Can be delivered assembled and disassembled

Scope of delivery

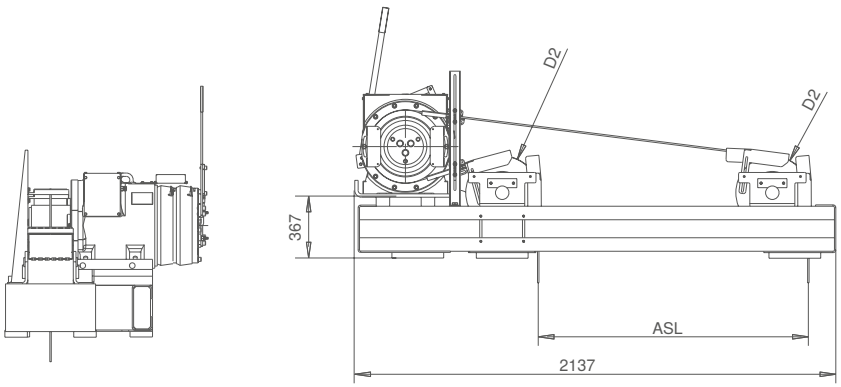
- Frame with fastening material
- Deflection pulley with fastening material
- Vibration insulation

Options

- Rope guard

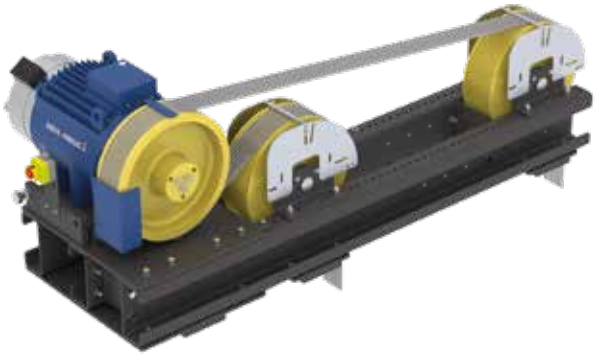
MS4000				
Motor type	Traction sheave	Deflection pulley D2	ASL	Max. static load
	mm	mm	mm	kg
SM200.15D/23D/30D	240	240	400 - 1200	4000
SM200.15D/23D/30D	320 400	240 320	440 - 1200 520 - 1200	
SM200.40E/45E	240	400	400 - 1200	
SM200.40E/45E	320 400	320 400	440 - 1200 520 - 1200	

Dimensions mm



ZAframe MS8000B

Frame S-wrap for ZAtop SM250.45B - SM250.80D



Description

- Frame with two deflection pulleys
- Bolted sheet metal construction
- Static load: up to 8000 kg
- Typical payload: 1000 kg to 3000 kg
- Rope distance (ASL): 400 mm to 1400 mm, adjustable in 40 mm steps
- Traction sheave: 320 mm to 520 mm
- Deflection pulley: 320 mm to 520 mm
- Version as shown or machine rotated by 180°
- Can be delivered assembled and disassembled

Scope of delivery

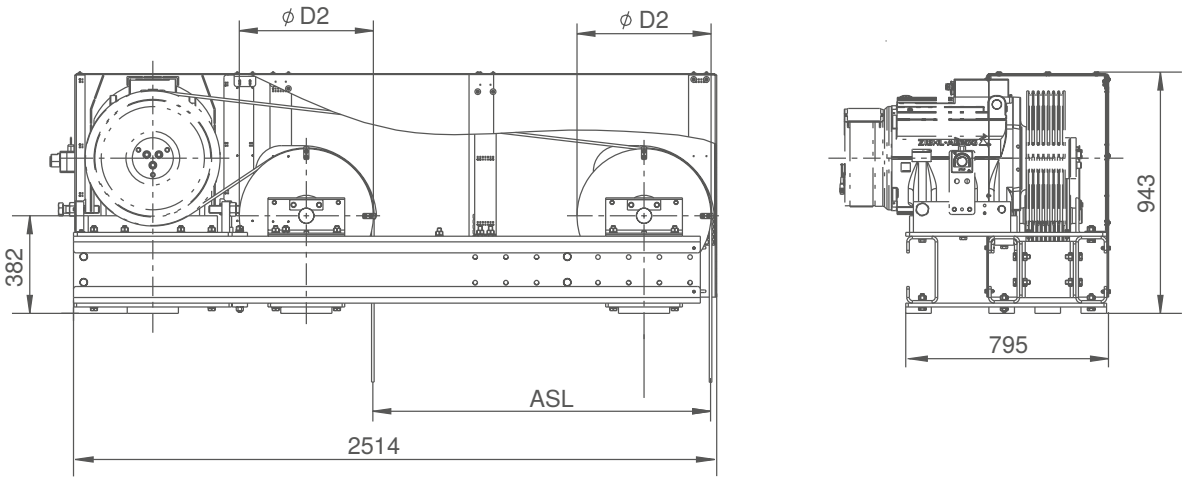
- Frame with fastening material
- Deflection pulley with fastening material
- Vibration insulation

Options

- Rope guard (complete enclosure)
- Emergency stop switch retrofit kit

MS8000B				
Motor type	Traction sheave mm	Deflection pulley D2 mm	ASL mm	Max. static load kg
SM250.45B/60B	320	320	480 - 1440	8000
SM250.45B/60B	400	400	480 - 1400	
SM250.45B/60B	520	520	560 - 1320	
SM250.80D	440	440	520 - 1360	
SM250.80D	520	520	560 - 1320	

Dimensions mm



ZAframe MD13000

Frame for double wrap for ZAtop SM250.100C

Description

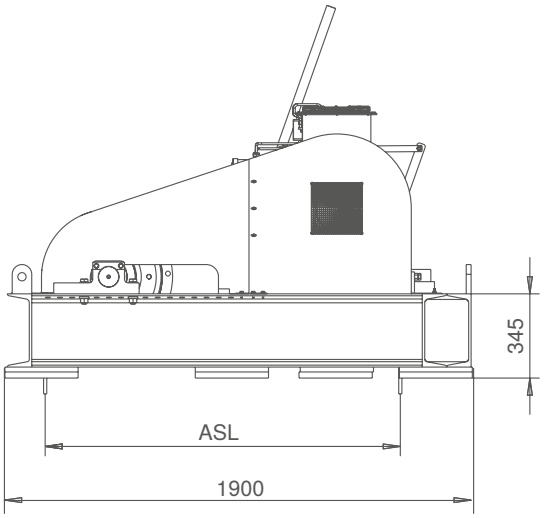
- Frame with one deflection pulley
- Welded/bolted construction
- Static load: up to 13000 kg
- Typical payload: 1000 kg to 3500 kg
- Rope distance (ASL): 1020 mm to 1455 mm, adjustable in 50 mm steps
- Traction sheave: 450 mm to 520 mm
- Deflection pulley: 520 mm
- Version as shown or machine rotated by 180°

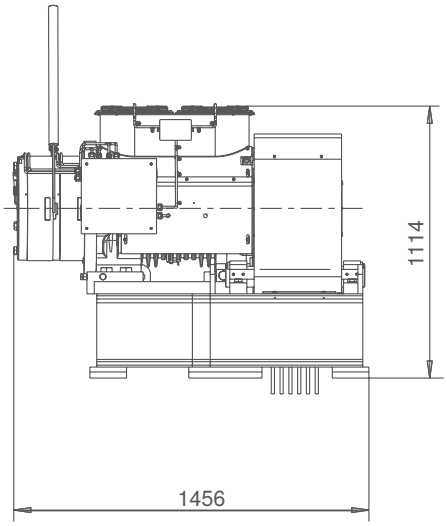
Scope of delivery

- Frame with fastening material
- Deflection pulley with fastening material
- Rope guard
- Rope retainer
- Vibration insulation

MD13000				
Motor type	Traction sheave mm	Deflection pulley mm	ASL mm	Max. static load kg
SM250.100C	450	520	1020 - 1420	13000
SM250.100C	500		1045 - 1445	
SM250.100C	520		1055 - 1455	

Dimensions mm





ZAframe MK2850B

Frame for ZAtop SM132.21/BS - SM200.30D

Description

- Frame with one deflection pulley
- Bolted sheet metal construction
- Static load: up to 2850 kg
- Typical payload: 300 kg to 1000 kg
- Rope distance (ASL): 400 mm to 1100 mm, adjustable in 50 mm steps
- Traction sheave: 120 mm to 240 mm
- Deflection pulley: 160 mm to 240 mm
- Version as shown or machine rotated by 180°
- Can be delivered assembled and disassembled

Scope of delivery

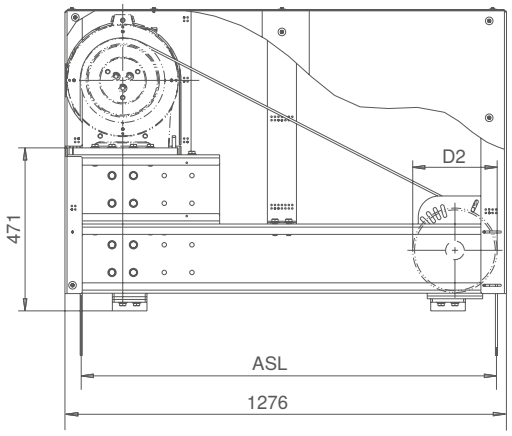
- Frame with fastening material
- Deflection pulley with fastening material
- Rope guard
- Vibration insulation

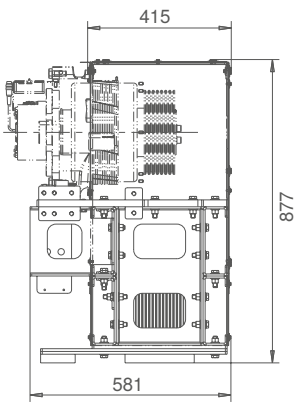
Options

- Enclosure
- Emergency stop switch retrofit kit

MK2850B				
Motor type	Traction sheave	Deflection pulley D2	ASL	Max. static load
	mm	mm	mm	kg
SM132.21/BS SM132.35/BS	120 160	160 160	420 - 1100 440 - 1120	2850
SM200.15D/23D	160 200 210 240	160 240 240 240	440 - 1100 500 - 1180 505 - 1185 520 - 1200	
SM200.30D	200 210 240	240 240 240	500 - 1180 505 - 1185 520 - 1200	

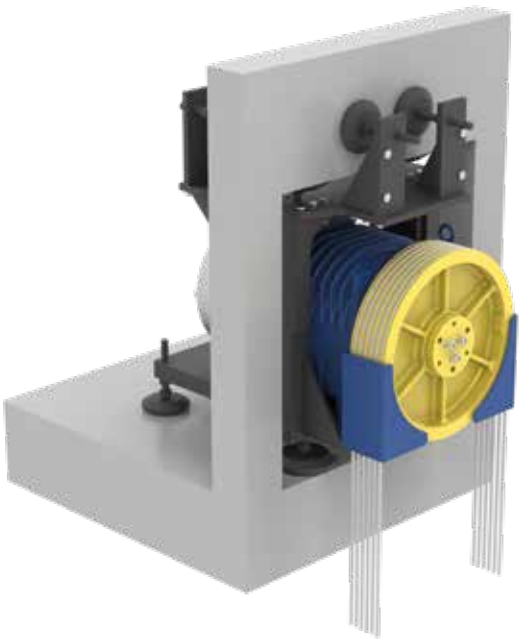
Dimensions mm





ZAframe MN3300

Maschine frame for ZAtop SM200.15D - SM200.40E



Description

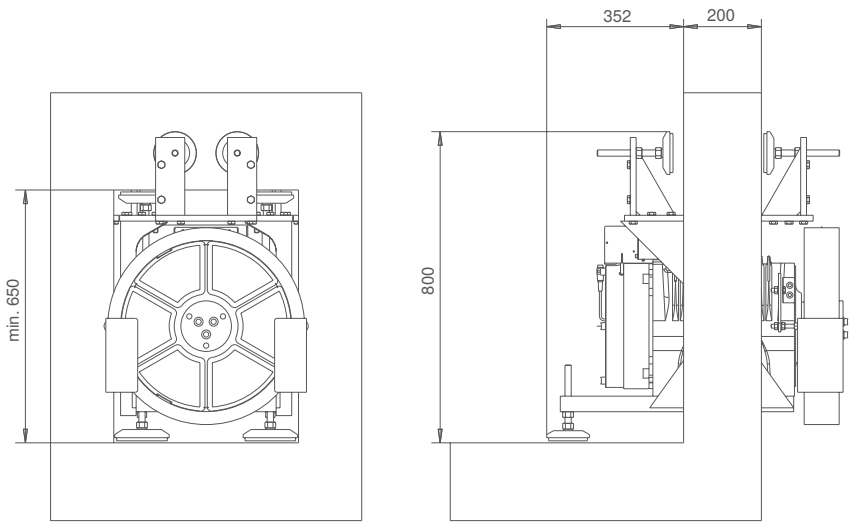
- Frame for installation position traction sheave in the shaft
- Welded / screwed construction
- Static load: up to 3300 kg
- Typical payload: 450 kg to 1600 kg

Scope of delivery

- Frame with fastening material

MN3300		
Motor type	Traction sheave	Max. static load
	mm	kg
SM200.15D/23D/30D	320	3300
SM200.40E/45E	320	
SM200.23D/30D	400	
SM200.40E/45E	400	
SM200.23D/30D	450	
SM200.40E/45E	500	

Dimensions mm



ZAframe MP350/MP500/MP3300

Mechanical adapter

Description

- Adapter for existing substructures
- For bolted/welded assembly
- Static load MP3300: up to 3300 kg

Scope of delivery

- Adapter plates or adapter rail
- Fastening material for elevator machine

MP350 / MP500

Adapter plates for ZAtop SM190.15 - SM250.80D

Motor type	Article no.	Dimensions (W x H x D) mm	Weight kg
SM190.15/23	70027344	350 x 40 x 300	32
SM200.15D/23D/30D	70027344		
SM200.40E/45E	70027345		
SM250.60B	70027376	500 x 40 x 450	65
SM250.80D			

MP3300

Adapter rail for ZAtop SM190.15 - SM200.45E longitudinal or transversal to traction sheave shaft

Motor type	Mounting	Article no.	Length mm	Weight kg
SM190.15/23	longitudinal	70028535	1000	38
	transversal	70027242		
SM200.15D/23D/30D	longitudinal	70028535		
	transversal	70027242		
SM200.40E/45E	longitudinal	70028536		
	transversal	70027243		

Deflection pulleys

Scope of delivery

- Deflection pulley (plastic) with deep groove ball bearings including axle
- Two axle keep plates
- Mounting screws
- Washers
- Spacer sleeves

Options

- Two angle brackets

Deflection pulleys with axle and axle keep plates

Deflection pulley	Number of grooves x Rope diameter	Article no.	Groove spacing	Rim width	Axle diameter	Axle length	Bearing type	Max. axle load	Weight without axle
mm	mm		mm	mm	mm	mm		kg	kg
120	6 x 6/6.5	02013468	10	70	40	132	BS2-8808-2CS	2500	1.9
160	8 x 6/6.5	02013921	10	90	55	170	6311-C3	2800	7.2
	7 x 4	02011795		80		170		1000	2.4
	12 x 4	02011793		126		190		1650	5.6
	4 x 8.1	02013234	12	54		170		2000	2.0
	6 x 8.1	02013235		84		170		2000	2.4
	8 x 8.1	02016919		111		170		1650	4.6
210	7 x 6	02013344	12	82	55	170	6211-C3	2000	4.1
	10 x 6	02013345	10	112		190		2500	5.0
	7 x 6.5/6.7	02012909	10	82		170		2000	4.1
	10 x 6.5/6.7	02012908	10	112		190		2500	5.0
240	7 x 6	02013346	10	82	55	170	6211-C3	2000	5.0
	10 x 6	02013347		112		190		2500	6.3
	12 x 6	02013425		134		190		2500	7.2
	7 x 6.5/6.7	02012910		82		170		2000	5.6
	10 x 6.5/6.7	02012911		112		190		2500	6.4
	12 x 6.5/6.7	02013217		134		190		2500	7.2
	14 x 6.5/6.7	02013186		156		230		3000	9.0
320	10 x 6.5/6.7	02013241	10	116	60	170	6212-C3	3000	7.3
	6 x 8	02007636	17	116		170		3000	8.7
	7 x 8	02011725	14	116		170		3000	8.7
	8 x 8	02016855	17	150		170		3000	12.5
	10 x 8	02008315	17	182		250		5000	17.8
	12 x 8	02010922	14	182		250		5000	14.2
400	6 x 8	02007637	17	116	60	170		3000	9.8
	7 x 8	02012270	14	116		170		3000	9.5
	10 x 8	02007638	17	182		250		5000	18.4
	12 x 8	02007509	14	182		250		5000	14.5
	5 x 10	02006714	17	116		170		3000	9.8
	7 x 10	02006715	17	138		210		5000	23.3
	10 x 10	02007604	17	182		250		5000	18.0
	10 x 10	02013188	17	182		250	BS2-2212-2CS	6000	17.8
440	10 x 11	02016067	17	188	60	250	6312-C3	5230	22.3
520	9 x 11	02013689	17	170	60	250	6312-C3	5000	24.6
	6 x 12	02006717	20	145		210			16.6

Other deflection pulleys on request

Scope of delivery

- Deflection plullyey (steel) with deep groove ball bearings including axle
- Two axle keep plates
- Mounting screws
- Washers
- Spacer sleeves

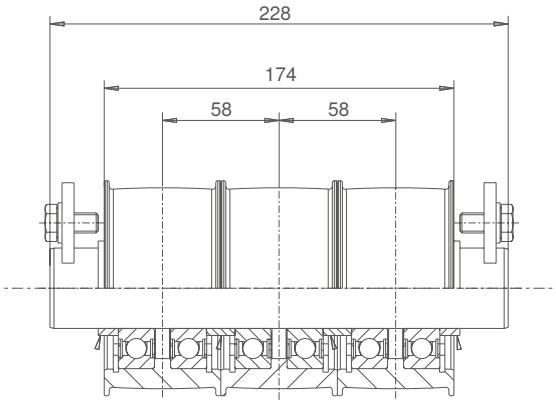
Options

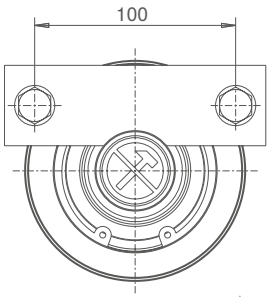
- Two angle brackets

Deflection pulley with axle and axle keep plates ZAtopx

Deflection pulley	Belt width	Number of belts	Article no.	Groove width	Rim width	Axle diameter	Axle length	Bearing type	Max. axle load	Weight without axle
mm	mm			mm	mm	mm	mm		kg	kg
100	30 - 33	2	**70029155**	58	116	40	228	6208-CO	2500	4.2
		2	**70029135**		116		344			4.2
		3	**70029156**		174		228			6.3
		3	**70029136**		174		344			3.3
		4	**70029157**		232		344			8.4
		4	**70029137**		232		414			8.4
		5	**70029158**		290		344			10.5
		5	**70029138**		290		414			10.5

Dimensions in mm (shown as example)





Forced ventilation ZAtop and ZAtopx

Example of axial forced ventilation ZAtop SM250.60B

Description

For mounting on elevator machines of the ZAtop series

Example of forced cooling ZAtop SM200.30D

Forced ventilation for ZAtop				
Elevator machine	Mounting type	**Article no.**	Comment	
SM132.21, SM132.35	On top	**70030651**	With and without hand release	
SM180.24/B, SM180.35/B	On top	**70030517**	With and without hand release	
SM180.45/B, SM180.46/B	On top	**70029824**	With and without hand release	
SM200.15D - SM200.30D	On top	**70027042**	With and without hand release	
SM200.40E, SM200.45E	On top	**70027114**	With and without hand release	
SM210.60B	On top	**70029725**	With and without hand release	
SM210.70B	On top	**70029727**	With and without hand release	
SM250.45B	Side B	**70029708**	With and without hand release	
	On top	**70029067**	With and without hand release	
SM250.60B	Side B	**70028260**	Without hand release system	
	Side B	**70028262**	With hand release	
	On top	**70027021**	With and without hand release	
SM250.80D	On top	**70027846**	With and without hand release	
SM250.100C	On top	**70026864 + 02010643**	With and without hand release	Terminal box right
	On top	**70026847 + 02010643**	With and without hand release	Terminal box left

Forced ventilation for ZAtopx			
Elevator machine	Mounting type	**Article no.**	Comment
BD132.21A	On top	**70030558**	With and without hand release
BD132.35A	On top	**70030577**	With and without hand release

Oil heating motors

The solution for oil tanks in elevator and industrial hydraulics

Description

- Short-circuit proof motor for heating up hydraulic oils
- Gently heat-up oils and prevent movement and cracking through rotation
- Nearly the entire electrically absorbed energy is converted into heat
- For hydraulic oil types HL and HLP with viscosity class 22-46

FZ023-4EA.OC.V7

- Bracket with magnetic clamps
- Temperature controller
  - Closing temperature 15 °C ± 3 °C
  - Opening temperature 23 °C ± 3 °C
- Terminal box

FZ025-4DA.4C.A6

- Terminal box

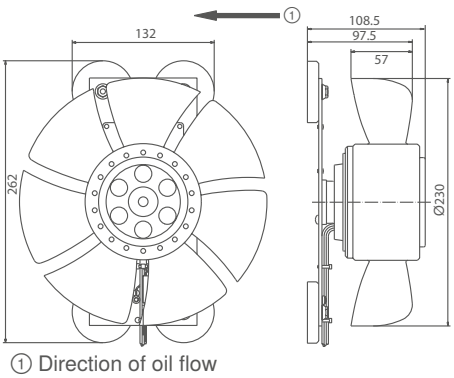
Options FZ025-4DA.4C.A6

- Temperature controller (article no. 02001138)
  - Closing temperature 15 °C ± 3 °C
  - Opening temperature 23 °C ± 3 °C

Oil heating motors			
Type		**FZ023-4EA.OC.V7**	**FZ025-4DA.4C.A6**
Article no.		**880004751**	**104873**
Thermal output at 100 rpm	kW	0.5	1.4
Current consumption at 100 rpm	A	2.2	2.8
Connection voltage		1~ 230 V / 50 Hz	3~ 400 V AC / 50 Hz
Insulation class		F	F
Weight	kg	4.0	9.0
Blade diameter	mm	230	250

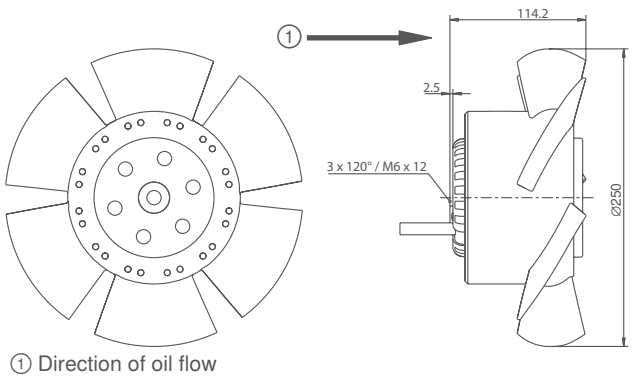
Dimensions mm

FZ023-4EA.OC.V7



① Direction of oil flow

FZ025-4DA.4C.A6



① Direction of oil flow

Tool set

Tool set for replacing the brake on ZAtop and ZAtopx

Description

Case with auxiliary equipment and tools for replacing the brakes on elevator machines in the ZAtop and ZAtopx model ranges.

- BD132
- SM132
- SM160
- SM180
- SM190
- SM200
- SM210
- SM225
- SM250

The toolbox can be used regardless of the sizes and versions of the elevator machines mentioned.

Scope of delivery

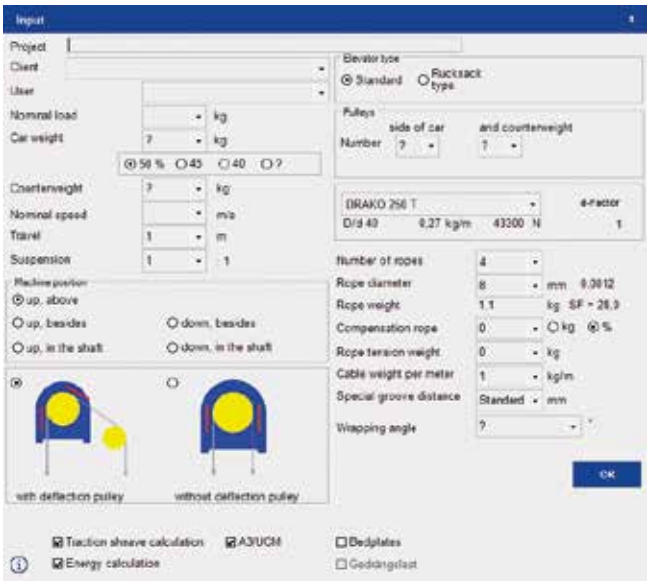
- Bolts for mounting and dismantling the brakes
- Centring tool for mounting the brakes or the clamp for the absolute encoder
- Tool for dismantling the absolute encoder

Article no. 70030741

ZAlift Calculation software

Calculation software for elevator machines from ZIEHL-ABEGG

ZAlift - the tool for selection of your elevator components. Based on the entered plant data, ZAlift calculates the matching package of machine and frequency inverter. ZAlift supports with helpful information for installation, operation and final inspection of the elevator.



ZAlift is available at www.ziehl-abegg.com.

The functions

- Selection of the drive package based on the entered plant data
  - Gearless elevator machine ZAtop, ZAtopx, ZAsyn and ZAdisc
  - Elevator machine with gear box
  - Frequency inverter ZAdyn
  - Power recuperation unit ZArec4C
- Helpful informations for the final inspection
  - Traction conditions according to EN 81
  - Stopping distance according to EN 81 (unintendent car movement)
  - Energy efficiency class of the elevator according to VDI 4707
- Helpful informations for the installation
  - Calculation of the power and current consumption of the elevator machine
- Extensive database of available suspension means
- Backup of the calculation (incl. data)


ZIEHL-ABEGG
ZA dyn pro
X-SBY
X-STO
X-ENC0
X-ENC15
X-CAN
ZA pad
ZIEHL-ABEGG
esc

Control technology

Product overview

Control technology

General information

Operators, residents and passengers have high demands when it comes to a cutting-edge elevator system. In addition to travelling comfort, the noise emissions play an especially significant role in the evaluation of the elevator. The contactorless frequency inverters from the ZAdyn4C and ZAdynpro series enable very low-noise operation of the elevator machine. In this way, they make a major contribution to the realisation of a modern elevator.

STO (Safe Torque Off) - contactor-less operation according to EN 81-20

The contactor-less operation of the elevator machine according to operating mode STO (Safe Torque Off according to IEC 61800-5-2 (SIL 3)) or EN ISO 13849 Category 3, Performance Level e meets the requirements of EN 81-20 to the separation of the power supply of the drive.

Electronic short-circuit

The short-circuiting of the motor windings of synchronous motors avoids in many cases uncontrolled acceleration of the drive and therefore ensures controllable evacuation of persons by manual opening of the motor brakes. The ZAdyn4C also has this function which was so well appreciated in its predecessors. It was implemented with consistent pursuance of the principle of the contactor-less frequency inverter and an electronic variant was developed. This is also active when no operating voltage exists!

ZAsbc4 - 100 % noiseless

The contactor-less operation of the elevator machine already makes a major contribution towards a low-noise elevator system.
The ZAsbc4 increases this to 100 %! Electronic switching of the brakes enables completely contactor-less operation of the elevator machine. This ensures minimum noise emissions and maximum comfort in the building.

Contactor-less operation - your benefit

- No switching noises
- Lower costs
- Lower power consumption
- Lower wiring costs
- No wearing components
- Reduced space requirements for the controller
- Safe operation

Specialists for elevator technology

Units for the ZAdyn series are frequency inverters solely developed for elevator technology. The various housing designs and the continuously compact construction makes them perfectly suitable for both switch cabinet mounting as well as for wall installation in the machine room or elevator shaft.

Both in rope elevators with synchronous or asynchronous motors as well as in hydraulic elevators, type ZAdyn frequency inverter provide the greatest travelling comfort and the most precise stopping accuracy.

The software, specifically matched to elevator technology, facilitates intuitive operation and fast commissioning. The high variety of various interfaces facilitate fast connection to the elevator controller.

Made by ZIEHL-ABEGG

A high degree of vertical integration means great flexibility. And an ultra-modern machine fleet is available to ensure that. From component placing in the boards up to the final test and inspection of the frequency inverter and their accessories, the entire ZAdyn series is produced in our headquarters in Künzelsau. That enables us to meet our partners' demands for flexibility and speed.

EMC-conform without any great effort

All standards which are obligatory for elevator systems are complied with through the line choke and the radio interference filter integrated in the ZAdyn4C.

EN 12015: Electromagnetic compatibility - Product family standard for lifts, escalators and moving walks - Emission
EN 12016: Electromagnetic compatibility - Product family standard for lifts, escalators and moving walks - Immunity

With the integration of the EMC components, the ZAdyn4 provides the user with even more advantages:

- No mounting and wiring effort
- Use of components specifically matched to the ZAdyn4
- No risk regarding the compliance with EMC standards
- No additional space requirement

Control technology

General information

Better energy efficiency for your system!

In a typical elevator system, the unused energy generated during travel is converted by a brake resistor into waste heat. From an environmental perspective, this approach is put into question by increasing resource scarcity, rising energy costs and the resulting increasing demands for energy efficiency and sustainability, which require ways of using the unexploited energy potential.The use of the ZArec regeneration unit takes these demands into account. The generated energy is stored and fed back into the supply network. ZArec has been developed especially for brief, highly dynamic regenerative operation, such as that which occurs in elevator systems.

More competence.
More experience.
More commitment.

In addition to excellent, easy to use products, personal customer support and fast, on-time delivery, customer-orientated service is also one of our special strengths. Competent support by specialised, experienced service staff are prerequisite for saving time and costs on site. With our comprehensive service package we therefore make an essential contribution to fast start-up of your elevator system.

- Technical design of drive systems
- Application-engineering consulting when selecting frequency inverters, elevator machines, evacuation units, recuperation units and their system components
- Preset of all parameters of the ZAdyn before delivery when ordering drive packages (machine with frequency inverter) from ZIEHL-ABEGG
- Service hotline for start-up or technical questions
- Technical service and training on-site

Smart and mobile

The ZAmon Mobile app is the ideal tool for operating ZAdyn frequency inverters with mobile devices such as smartphones or tablets.
The clearly structured user interfaces with self-explanatory icons, informative texts for each parameter and online help provide the perfect conditions for fast and independent work.

For iOS and Android

- Parametrisation online and offline
- Start-up assistance
- Data backup
- Detailed description of events and solutions
- Analysis by recording travel curves
- Direct e-mail contact to ZIEHL-ABEGG customer service

ZAdyn Frequency inverter for elevator machines

4C - The solution for wall installation

Operating terminal ZApad	Page 92
Bluetooth® wireless technology ZAmon STICK	Page 92
Brake resistors BR	Page 93
Brake control ZAsbc4	Page 94
Control and connection cables	Page 102
Encoder cables	Page 114
Evacuation unit EVAC 3C	Page 86
Power recuperation unit ZArec4C	Page 88

Contactor-less operation:

- STO (Safe Torque Off) according to IEC 61800-5-2 (SIL 3) or EN ISO 13849 category 4, Performance Level e with protection class IP20.
- Requirements of EN 81-20 to the disconnection of the power supply of the drive are met!

Description

- Wall mounting in the machine room or elevator shaft
- Mounting in the control cabinet
- Line choke, radio interference filter integrated
- Space-saving installation by compact design
- Operation of synchronous motors (ZAdyn4CS) and asynchronous motors (ZAdyn4CA)
- Open-Loop-Operation of asynchronous motors
- Standby function
- 4-line display with plain text display
- Minimal noise generation and low energy consumption through controlled ventilation
- Automatic operating-curves default
- Switching frequency: 4...16 kHz (automatic adaptation)
- Applied EMC standards: EN 12015 and EN 12016
- Protection class: IP20

Interfaces

Controller

- Programmable inputs and outputs
  - 5 x relay output (potential-free)
  - 12 x digital input (24 VDC)
- DCP
- CANopen-Lift
- All interfaces galvanic isolated

Encoder

- Incremental
  - HTL / TTL / Sine
- Absolute
  - EnDat / SSI / SinCos / Hiperface / BiSS-C
- Simulation for controller

Monitorings

- Temperature monitoring brake resistor
- Temperature monitoring motor (in accordance with EN 61800-5-1:2008-04)
- Motor contactor monitoring (with optional use of motor contactors)
- Brake monitoring in accordance with EN 81-20

Type	Article no.	Phases	Nominal voltage	Mains frequency	Motor power typ.	Nominal current	Current max.	Duty cycle	Weight
			VAC	Hz	W	A	A	%	kg
ZAdyn4CA 011	352194	3~	400	50/60	4.6	11	20	60	11.80
ZAdyn4CS 011	352201								12.00
ZAdyn4CS 013	352195				5.5	13	24		12.60
ZAdyn4CS 013	352202								12.80
ZAdyn4CS 017	352196				7.5	17	31		13.00
ZAdyn4CS 017	352203								13.20
ZAdyn4CS 023	352197				11	23	42		14.10
ZAdyn4CS 023	352204								14.30
ZAdyn4CS 032	352198				14	32	58		16.40
ZAdyn4CS 032	352205								16.60
ZAdyn4CS 040	352206				19	40	72		32.40
ZAdyn4CS 040	352216								32.60
ZAdyn4CS 050	352207				24	50	90		33.30
ZAdyn4CS 050	352217								33.50
ZAdyn4CS 062	352208				30	62	112		36.20
ZAdyn4CS 062	352218								36.40
ZAdyn4CS 074	352209				37	74	134		36.40
ZAdyn4CS 074	352219								36.60

Features
- MMC / SD card interface for data backup and exchange
- USB interface for ZAmon software (via ZApad)

Options
- External ZApad operating terminal; 4-line display with plain text display
- Electronic brake control ZAsbc4
- ZAmon (app or version for pc)
- Bluetooth® wireless technology ZAmon STICK

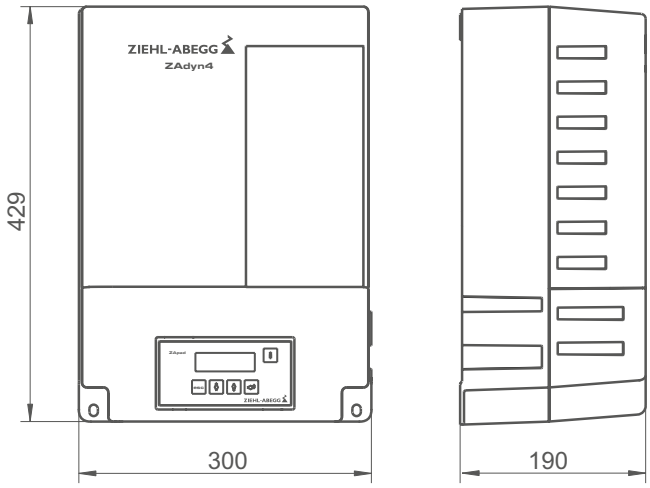
Evacuation mode
Supply during power failure through:
- EVAC 3C evacuation unit
- Uninterruptible power supply (UPS)

Electromagnetic compatibility
Compliance with EN 12015 and EN 12016 through integration of line choke and radio interference filter in the ZAdyn4C.

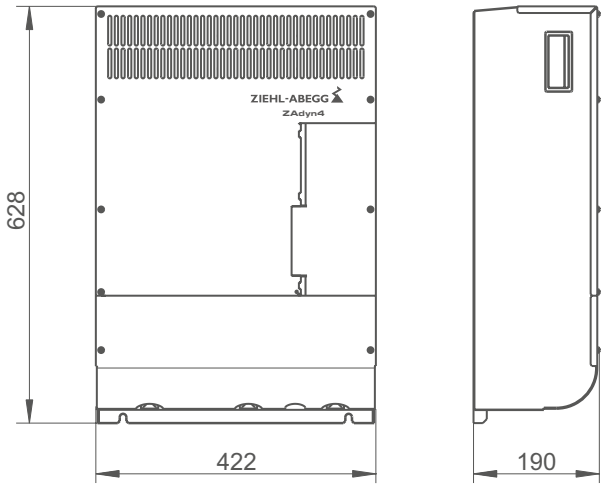
Frequency inverter	**Brake resistor**	**Article no.**
ZAdyn4C 011	**BR11-A** **BR17**	**357171** **357216**
ZAdyn4C 013	**BR17**	**357216**
ZAdyn4C 017	**BR17**	**357216**
ZAdyn4C 023	**BR25**	**357217**
ZAdyn4C 032	**BR25** **BR50**	**357217** **357218**
ZAdyn4C 040	**BR50**	**357218**
ZAdyn4C 050	**BR50**	**357218**
ZAdyn4C 062	**BR50**	**357218**
ZAdyn4C 074	**BR50** **BR100-A**	**357218** **357214**

Dimensions mm

ZAdyn4C 011-032



ZAdyn4C 040-074



ZAdyn Frequency inverter for elevator machines

Pro - the solution for control cabinet mounting

Description

- Mounting in the control cabinet
- Radio interference filter integrated
- Space-saving installation by compact design
- Operation of synchronous motors and asynchronous motors
- Open-Loop-Operation of asynchronous motors
- Standby function
- 4-line display with plain text display
- Minimal noise generation and low energy consumption through controlled ventilation
- Automatic operating-curves default
- Switching frequency: 4...16 kHz (automatic adaptation)
- Applied EMC standards: EN 12015 und EN 12016
- Protection class: IP20

Interfaces

Controller

- Inputs (24 VDC)
  - 8 x digital input, freely programmable
  - 3 x digital input monitoring of motor brakes
  - 1 x digital input monitoring of braking resistor
- Outputs
  - 3 x relay output (potential-free)
  - 2 x mini relay output (potential-free)
- CANopen-Lift
- All interfaces galvanic isolated

Encoder

- Incremental
  - TTL / Sine
- Absolute
  - EnDat / SSI / SinCos / BiSS-C
- Simulation for controller

Monitorings

- Temperature monitoring brake resistor
- Brake monitoring in accordance with EN 81-20

Operating terminal ZApadpro	Page 92
Bluetooth® wireless technology ZAmon STICK	Page 92
Line choke ND	Page 96
Brake resistors BR	Page 93
Brake control ZAsbc4	Page 94
Control and connection cables	Page 105
Encoder cables	Page 114
Evacuation unit EVAC 3C	Page 86
Power recuperation unit ZArec4C	Page 88

Contactor-less operation:

- STO (Safe Torque Off) according to IEC 61800-5-2 (SIL 3) or EN ISO 13849 category 4, Performance Level e with protection class IP20.
- Requirements of EN 81-20 to the disconnection of the power supply of the drive are met!

Type	Article no.	Phases	Nominal voltage	Mains frequency	Motor power typ.	Nominal current	Current max.	Duty cycle	Weight
			VAC	Hz	W	A	A	%	kg
ZAdynpro 011	**352250**	3~	400	50/60	4.6	11	20	40	4.70
ZAdynpro 013	**352251**				5.5	13	24		4.70
ZAdynpro 017	**352252**				7.5	17	31		4.80
ZAdynpro 023	**352253**				11	23	42		6.00
ZAdynpro 032	**352254**				14	32	58		6.30
ZAdynpro 040	**352255**				19	40	72		16.00
ZAdynpro 050	**352256**				24	50	90		16.30
ZAdynpro 062	**352257**				30	62	112		17.00
ZAdynpro 074	**352258**				37	74	134		17.00

Features

- MMC / SD card interface for data backup and exchange
- USB interface for ZAmon software (via ZApadpro)

Options

- External ZApadpro operating terminal; 4-line display with plain text display
- Electronic brake control ZAsbc4
- ZAmon (App or version for pc)
- Bluetooth® wireless technology ZAmon STICK

Evacuation mode

Supply during power failure through:

- EVAC 3C evacuation unit
- Uninterruptible power supply (UPS)

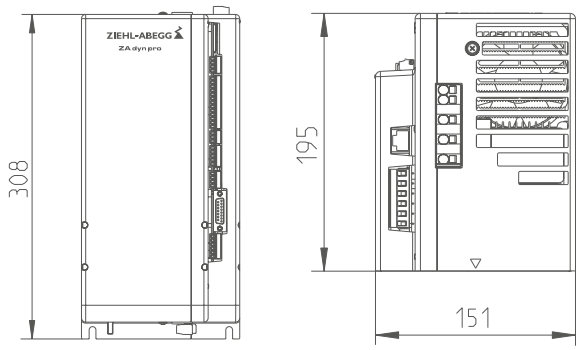
Electromagnetic compatibility

Compliance with EN 12015 and EN 12016 through integration of a line choke Typ ND... in the mains supply.

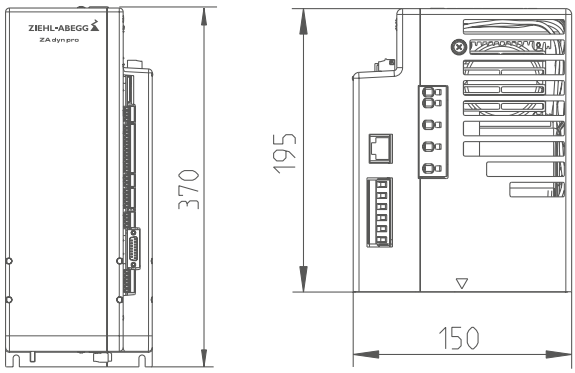
Frequency inverter	**Brake resistor**	**Article no.**
ZAdynpro 011	**BR11-A** **BR17**	**357171** **357216**
ZAdynpro 013	**BR17**	**357216**
ZAdynpro 017	**BR17**	**357216**
ZAdynpro 023	**BR25**	**357217**
ZAdynpro 032	**BR25** **BR50**	**357217** **357218**
ZAdynpro 040	**BR50**	**357218**
ZAdynpro 050	**BR50**	**357218**
ZAdynpro 062	**BR50**	**357218**
ZAdynpro 074	**BR50** **BR100-A**	**357218** **357214**

Dimensions mm

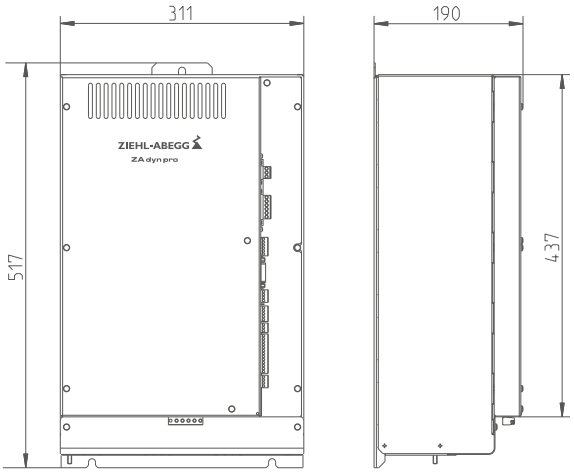
ZAdynpro 011-017



ZAdynpro 023-032



ZAdynpro 040-074



ZAdyn Frequency inverter for elevator machines

4B -The solution for high performances

Description

- Mounting in the control cabinet
- Space-saving installation through compact design
- Operation of synchronous motors (ZAdyn4BS) and asynchronous motors (ZAdyn4BA)
- Open-Loop-Operation of asynchronous motors
- Standby function
- 4-line display with plain text display
- Minimal noise development and low energy consumption by controlled ventilation
- Automatic operating-curves default
- Switching frequency: 4...16 kHz (automatic adaptation)
- Applied standards: EN 12015 and EN 12016
- Protection class: IP10

Interfaces

Control

- Programmable inputs and outputs
  - 5 x relay output (potential-free)
  - 12 x digital input (24 VDC)
- DCP
- CANopen-Lift
- All interfaces electrically isolated

Encoder

- Incremental
  - HTL / TTL / sine
- Absolute
  - EnDat / SSI / SinCos / Hiperface / BiSS-C
- Encoder simulation for controller

Monitoring

- Temperature monitoring brake resistor
- Temperature monitoring motor (according to IEC 61800-5-1:2008-04)
- Motor contactor monitoring
- Brake monitoring according to EN 81-20

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Radio interference filter FEF	Page 97
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Brake control ZAsbc4	Page 94
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Encoder cables	Page 114

Type	Article no.	Phases	Nominal voltage	Mains frequency	Motor power typ.	Nominal current	Current max.	Duty cycle	Weight
			VAC	Hz	W	A	A	%	kg
ZAdyn4BA 110	**352210**	3~	400	50/60	55	110	198	60	57.00
ZAdyn4BS 110	**352212**								
ZAdyn4BA 180	**352211**				90	180			63.00
ZAdyn4BS 180	**352213**								

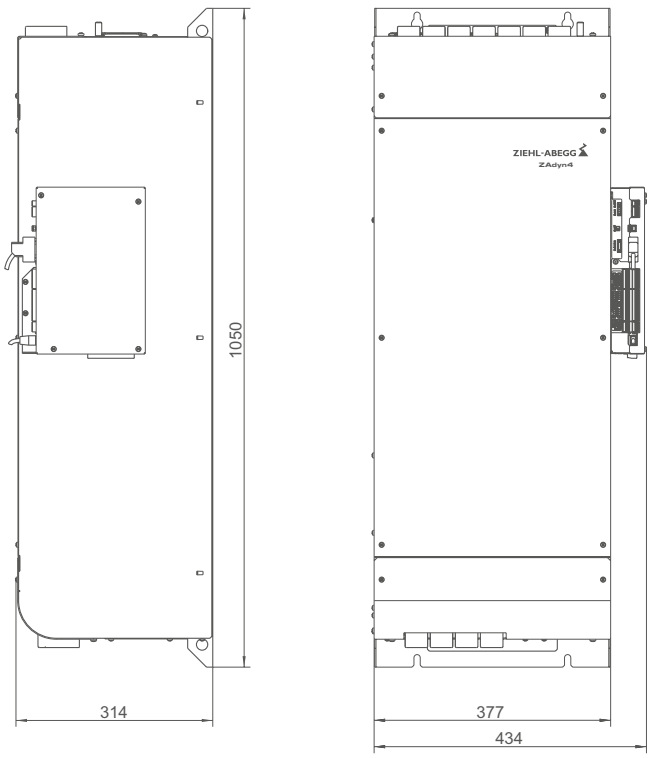
Features
- MMC / SD card interface for data backup and exchange
- USB interface for ZAmon software (by ZApad)

Options
- External operating terminal ZApad; 4-line display with plain text display
- Electronic brake control ZAsbc4
- ZAmon (app or version for pc)
- Bluetooth® wireless technology ZAmon STICK

Electromagnetic compatibility
Compliance with EN 12015 by use of:
- Line choke ND
- Radio interference filter FEF

Frequency inverter	Brake resistor	Article no.
4B 110	**BR100-B**	**357215**
4B 180	**BR100-B**	**357215**

Dimensions mm



Evacuation unit

EVAC 3C - The solution for wall installation

Monitoring of the power supply and activation of the evacuation travel

The evacuation unit EVAC 3C monitors the mains power supply of the elevator system. If one or more supply phases fail, the frequency inverter is disconnected from the supply network. The elevator control system and frequency inverter are simultaneously informed of the power failure. The battery power supply is then connected with a time delay. The frequency inverter switches to emergency mode (reduced speed) and an evacuation can be started via the elevator control system regardless of the current load ratios.

The alternative to a complex and drawn-out process of having trapped individuals freed by third-party personnel.

Operating terminal ZApad	Page 92
Frequency inverter ZAdyn4C	Page 80
Frequency inverter ZAdynpro	Page 82
EVAC Battery set and cable set	Page 107

Description

- Wall installation in machine room or elevator shaft
- For synchronous and asynchronous motors
- For frequency inverters ZAdyn
- 60 min availability (with restricted number of trips)
- Integrated mains monitoring
- Integrated charger for controlled charging of lead-gel rechargeable battery
- Operation and configuration via the ZApad operating terminal
- Monitoring of the battery temperature
- Function test via digital input
- LED display for operation / fault
- 4 x relay output
- 4 x digital input (24 VDC)
- External main switch; that permits installation in the elevator shaft
- Prefabricated cables for fast installation
- Power contactors for switching from normal to battery mode
- Integrated inverted rectifier 230 VAC / 500 W to supply:
  - Elevator controller
  - Cabin light
  - Door drive
  - Motor brake
- SD card slot for data backup

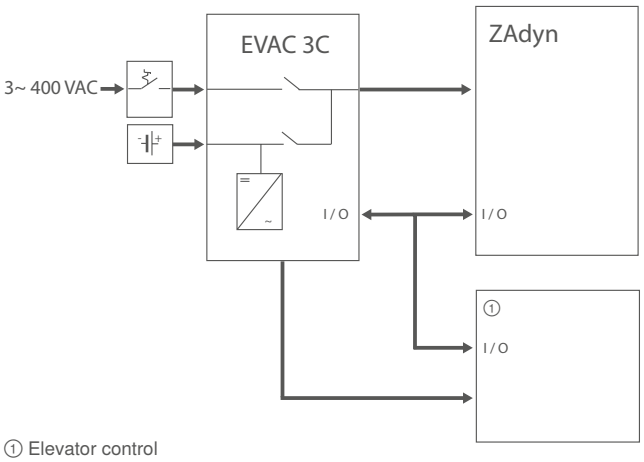
Type	Article no.	Phases	Nominal voltage	Mains frequency	Nominal current	Battery voltage	Battery type	Time limit evac.	Weight
			VAC	Hz	A	VDC		min	kg
EVAC 3C032	**357231**	3~	400	50/60	32	120-180	Blei-Gel	60	33.20
EVAC 3C050	**357232**				50				34.70
EVAC 3C074	**357233**				74				38.40

Features
- External operating terminal ZApad
- MMC/SD card interface for data backup and exchange

Options
- Cable set LS-EVAC3C-03-HX-...-ZA3/4
- Cable set LS-EVAC3C-..-HX-ST

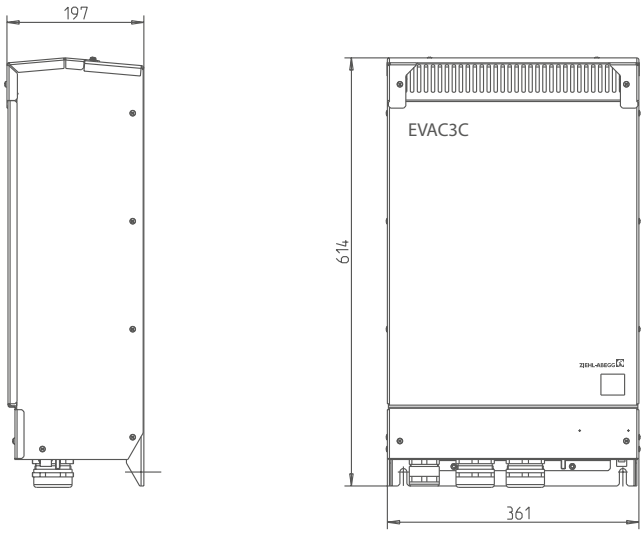
Additionally required components
- Battery set corresponding to the required output
- 4-pole main switch

Simplified diagram



① Elevator control

Dimensions mm



Power recuperation units

ZArec4C - The solution for improving energy efficiency and sustainability

With the ZArec power recuperation unit the demands for energy efficiency and sustainability of elevator systems are met. The generated energy is preprocessed and fed back into the power supply. ZArec has been developed especially for brief, highly dynamic recuperation operation, such as that occurs in elevator systems.

Description

- Extremely flat design
- Perfect for the elevator shaft
  - ZArec4C 013: Mounting above the landing door
  - ZArec4C 026 / 039: Mounting between the guiding rails
- Wall mounting in the machine room or elevator shaft
- Can be used for ZAdyn frequency inverters
- Integrated standby function for saving energy
- Prefabricated cables for fast assembly
- Applied standards: EN 12015 and EN 12016
- Protection class: IP20
- Max. on-time: 20%

Interfaces

- 2x relay output
- 2x digital input

Regeneration “Clean energy”

- Sinusoidal regenerative power through integrated EMC components
- Harmonic waves I1/I5: < 5 %
- Distortion factor THD: < 5 %
- Requirements of EN 12015 for the electromagnetic compatibility are met
- No interference with network infrastructure
- No interference with the function of other devices connected to the mains power supply, e.g. computers, medical devices or radios

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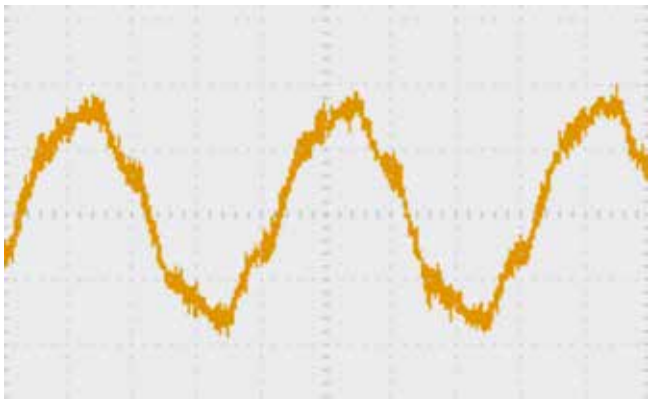
Brake resistors BR	Page 93



Sinusoidal power feed-in

Type	Article no.	Phases	Nominal voltage	Mains frequency	Recuperation power	Max. recuperation current	Power loss standby	Weight
			VAC	Hz	kW	A	W	kg
ZArec4C 013	**357269**	3~	400	50	5	7	< 10	42.50
ZArec4C 026	**357294**				10	14.4	13	61.00
ZArec4C 039	**357295**				15	21.7		78.00

No additional brake resistor for evaluations

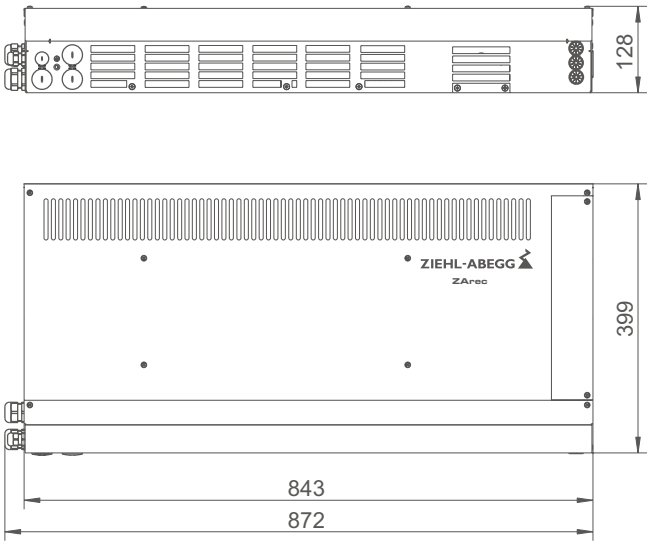
During evacuation travel, the brake resistor belonging to the ZArec converts the created energy into heat. Additional costs for an additional brake resistor are saved.

Brake resistor allocation

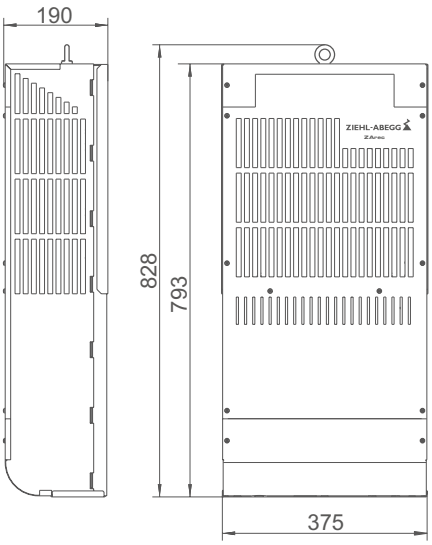
Type	Brake resistor	Article no.
ZArec4C 013	**integrated**	**-**
ZArec4C 026	**BR25-3**	**357217**
ZArec4C 039	**BR50-3**	**357218**

Dimensions mm

ZArec4C 013



ZArec4C 026-039




ZA pad
ZAdynpro
>Startup
Statistik
Memory Card
esc
ZIEHL-ABEGG

System components control technology

Product overview

ZApad

Operating terminals can be used across products.

Description

- External operating terminal
- 4-line display with plain text display

ZApad for:
- ZAdyn4C
- ZAdynpro 040-074
- ZArec4C
- EVAC 3C

Article-No. 357256

ZApadpro for:
- ZAdynpro 011-032

Article-No. 357300

ZAmon STICK

Bluetooth® wireless technology for operation by mobile device in combination with the app ZAmon

Description

- For ZAdyn and ZArec4C
- Bluetooth Low Energy
- Connection by network cable
- Optimal wireless connection due to different possibilities for installation in the machine room or elevator shaft

Article-No. 357316

BR100-BOX

For connection of two or three BR100-3B type brake resistors to ZAdyn4B 110/180.

Description

- Connection box with integrated terminals
- For parallel connection of up to three BR100-3B type brake resistors

BR100-BOX

Article no. 357261

Brake resistor BR

BR17 - BR100

BR09 - BR14

For converting the energy generated during regenerative travel into heat.

Description

- Prepared for wall installation
- Compact design
- Integrated temperature monitoring (only BR...-3)
- Integrated connection cable (only BR...-A)

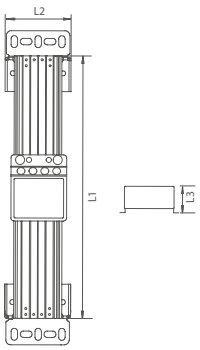
Technical data

Type	Article no.	Max. peak current	Continuous braking power	Temperature monitor trigger	Cable length	Protection class	Weight
		A	kW	°C	m		kg
BR09-1	**357120**	9.0	0.29	-	1.0*	IP50	0.8
BR11-A	**357171**	11.0	0.45	-	1.0*	IP50	1.8
BR14-A	**357195**	14.0	0.85	-	1.0*	IP50	2.9
BR17-3	**357216**	17.0	1.75	137 ± 4 K	5.0**	IP20	2.6
BR25-3	**357217**	25.0	1.75	137 ± 4 K	5.0**	IP20	2.6
BR50-3	**357218**	50.0	3.3	137 ± 4 K	5.0**	IP20	4.8
BR100-3A	**357214**	100.0	6.5	125 ± 4 K	5.0**	IP20	8.5
BR100-3B	**357215**	100.0	6.5	125 ± 4 K	5.0**	IP20	8.5

* Connection cable integrated
** Connection cable separate

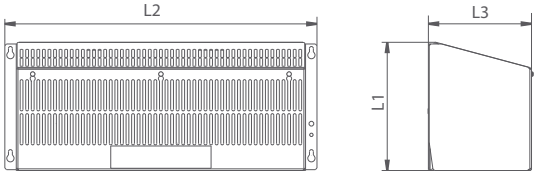
Dimensions mm

BR09 - BR14



Type	L1	L2	L3
BR09-1	317	67	75
BR011-A	225	124	120
BR014-A	426	124	120

BR17 - BR100



BR017-3	230	300	185
BR025-3	230	300	185
BR050-3	230	560	185
BR100-3A	414	560	185
BR100-3B	414	560	185

Electronic brake control

ZAsbc4

ZAsbc4C

Following conditions are necessary for comfortable travel behaviour of the elevator:
- Correctly timed switching of the brake
- Noiseless activation of the brake
- Low-noise switching of the brake

The electronic brake control ZAsbc4 meets these requirements.
The ZAsbc4 is available for mounting on to the ZAdyn4C frequency inverter and for installation in the switch cabinet.

Description

- Noiseless activation of the mechanical brake
- Correctly timed switching of the mechanical brake
- For brakes of synchronous and asynchronous motors
- Low-noise switching of the mechanical brake
- Minimum cable lengths for elevators without machine room
- Low space requirement for the controller

ZAsbc4B

Electronic brake control

- For brakes with and without overexcitation
- Operating voltage brake: 207 VDC / 103 VDC
- Evaluation of safety chain and enabling of contactor-less operation
- Retrofittable
- Prefabricated cables for connection to elevator controller

- Control inputs:
  - Activation of brake
  - Evaluation of safety chain
  - Push-buttons emergency operation and brake test

- Control outputs:
  - Activation of contactor-less operation ZAdyn
  - Status monitoring
  - Fault

Safety component according to the Lift Directive 2014/33/EU. The requirements relating to the disconnection of the energy supply to the brakes as stated in EN 81-20 are met!

Control and connection cables Page 105

Technical data

ZAsbc4C

- For mounting on ZAdyn4C
- Prefabricated cables for connection to ZAdyn4C

Type	Article no.	Voltage safety chain	Voltage supply brake U~	Motor brake output voltage	Output current
		VAC	VAC	VDC	A
ZAsbc4C 110	**357292**	110	230	0.9 x U~ 0.45 x U~	2 x 1.1
ZAsbc4C 230	**357293**	230			

ZAsbc4B

- For control cabinet installation

Type	Article no.	Voltage safety chain	Voltage supply brake U~	Motor brake output voltage	Output current
		VAC	VAC	VDC	A
ZAsbc4B 110	**357290**	110	230	0.9 x U~ 0.45 x U~	2 x 1.1
ZAsbc4B 230	**357291**	230			

Line choke ND

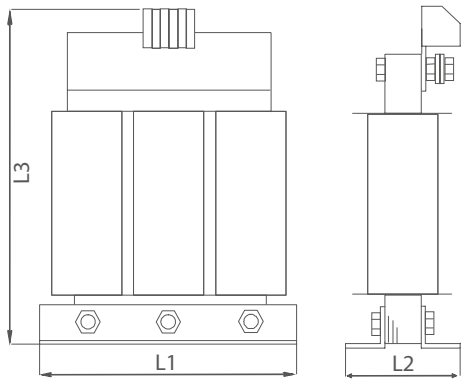
Description

- For ZAdynpro and ZAdyn4B
- For compliance with the limits required by EN 12015 (interference emission)
- Reduction of the harmonics
- Damping of commutation notches and mains feedback

Technical data

Type	Article no.	Nominal current A	Protection class	Weight kg	Frequency inverter
ND011	**357180**	11	IP00	2.40	ZAdynpro 011
ND013	**357181**	13		2.50	ZAdynpro 013
ND017	**357182**	17		3.30	ZAdynpro 017
ND023	**357183**	23		4.00	ZAdynpro 023
ND032	**357184**	32		6.70	ZAdynpro 032
ND040	**357185**	40		7.70	ZAdynpro 040
ND050	**357186**	50		8.70	ZAdynpro 050
ND062	**357187**	62		12.10	ZAdynpro 062
ND074	**357188**	74		12.30	ZAdynpro 074
ND110	**357196**	110		14.00	ZAdyn4B 110
ND180	**357197**	180		21.00	ZAdyn4B 180

Dimensions mm



Type	L1	L2	L3
ND011	125	61	135
ND013	125	71	135
ND017	125	71	135
ND023	155	80	160
ND032	155	95	170
ND040	190	85	200
ND050	190	120	200
ND062	190	120	200
ND074	190	120	200
ND110	230	150	280
ND180	230	150	305

Radio interference filter FEF

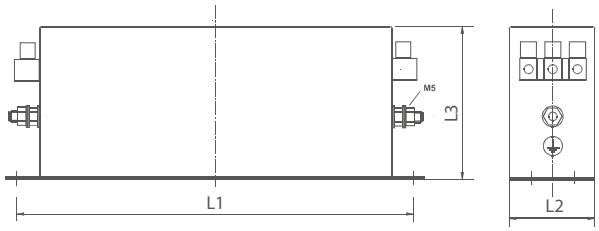
Description

- For ZAdyn4B
- For compliance with the limits required by EN 12015 (interference emission)
- Reduces high-frequency electromagnetic emission

Technical data

Type	Article no.	Nominal current A	Protection class	Weight kg	Frequency inverter
FEF180KK4D	**357199**	180	IP20	6.00	ZAdyn4B 110 ZAdyn4B 180

Dimensions mm



Type	L1	L2	L3
FEF180KK4D	450	130	180

Retrofit kits

Retrofit kit MX18

Description

- Retrofit kit for operation of permanently excited disc motors with ZAdyn4CS
- Quick frequency inverter replacement in combination with a commonly available elevator controller
- Simple attachment of the absolute encoder thanks to the mechanical attachment kit
- Fail-safe connection of the absolute encoder thanks to pre-assembled cables
- Existing brake resistor can be used furthermore

Scope of delivery

- Absolute encoder with attachment kit

Article no. 70030968

Retrofit kit SMART

Description

- Retrofit kit for replacement of the frequency inverter on Schindler Smart type elevator systems based on ZAdyn4CA
- No replacement of the controller
- With incremental encoder for improved travel comfort

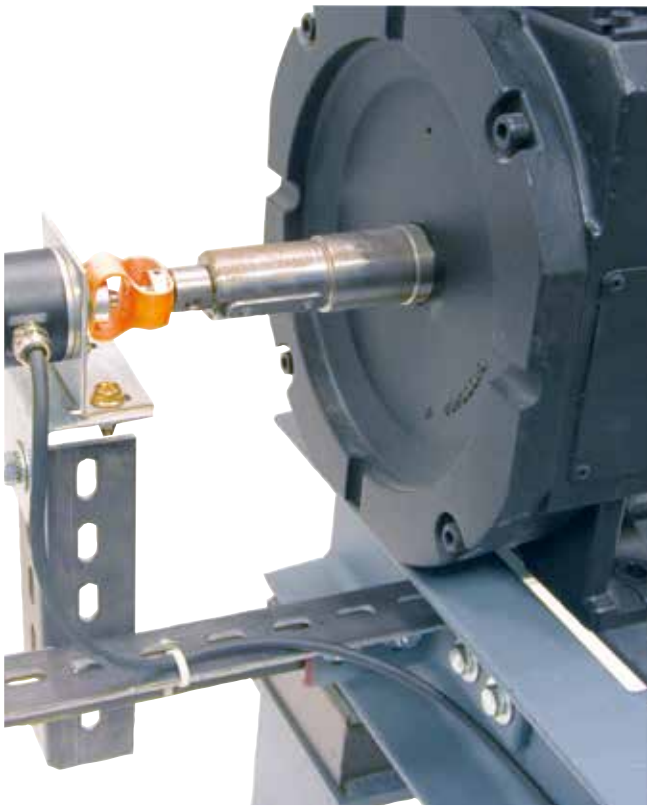
Scope of delivery

- Incremental encoder
- Adapter M16 for incremental encoder
- 3 relays (110 VAC) for signal adaptation

Article no. 357281

Retrofit kits

Retrofit kit incremental encoder with solid shaft



Description

- Retrofit kit for fast and simple mounting of an incremental encoder with solid shaft
- Mounting with and without hand wheel possible
- Prefabricated encoder cable

Scope of delivery

- Incremental encoder
  - Incl. cable with plug D-SUB 15-pin for ZAdyn4 and ZAdynpro
- Flex coupling
  - Thermoplastic compensation element for connection between incremental encoder and motor shaft
- Adaptor
  - For mounting the flex coupling on the motor shaft
- Motor add-on kit
  - Solid angles and struts for rigid connection to the machine frame or floor

Technical data

Type	Threaded nipple	Operating voltage incremental encoder VDC	Signal shape	Cable length m	Article no.
Retrofit kit Incremental encoder	M8	4.75 ... 30	RS422 Inkremental	10.0	**70028208**
	M10				**70028209**
	M12				**70028210**
	M14				**70028211**
	M16				**70028212**
	M20				**70028327**

Retrofit kits

Incremental encoder retrofit kit with hollow shaft

Description

- Adapter for quick and simple assembly of an incremental encoder with hollow shaft
- Assembly with or without handwheel

Centring thread Motor shaft	Shaft diameter Adapter mm	Article no.
M10	28	**70024258**
M12		**70024259**
M16		**70024260**
M20		**70025581**

ZAdyn4C retrofit kit

Description

- Adapter for fast and error-proof conversion of ZETADYN to ZAdyn4C
- No new control cables required
- Integrated mini contactors for activating contactor-free operation
- For 110 VAC and 230 VAC safety circuits
- Integrated outputs for existing monitoring of the motor contactors by the elevator control

Type	Article no.	Voltage safety chain VAC
ZETADYN 2 - ZAdyn4C 110	**357315**	110
ZETADYN 2 - ZAdyn4C 230	**357314**	230
ZETADYN 3C - ZAdyn4C 110	**357318**	110
ZETADYN 3C - ZAdyn4C 230	**357317**	230

Control and connection cables ZAdyn4

Brake release monitoring micro switches

- For ZAtop and ZAdisc
- Connection of the micro-switches for the brake release monitoring to the ZAdyn4C frequency inverter
- Prefabricated:
  - Connection side ZAdyn4: plug 5-pin
  - Connection side brake: wire end sleeves
- Halogen-free

Type	Article no.	Length m	Cable cross section mm²
L-BL-018-HX-ZA4-AE	00165936-018M	1.8	3 x 0.75
L-BL-03-HX-ZA4-AE	00165936-03M	3.0	
L-BL-05-HX-ZA4-AE	00165936-05M	5.0	
L-BL-10-HX-ZA4-AE	00165936-10M	10.0	
L-BL-15-HX-ZA4-AE	00165936-15M	15.0	
L-BL-20-HX-ZA4-AE	00165936-20M	20.0	
L-BL-25-HX-ZA4-AE	00165936-25M	25.0	

Brake release monitoring inductive proximity switches

- For ZAtop and ZAdisc
- Connection of the inductive proximity switches for the brake release monitoring to the ZAdyn4 frequency inverter
- Prefabricated:
  - Connection side ZAdyn4: plug 5-pin
  - Connection side brake: wire end sleeves
- Halogen-free

Type	Article no.	Length m	Cable cross sec-tion mm²
L-BL-018-HX-ZA4-AE-INI	00166085-018M	1.8	3 x 0.75
L-BL-03-HX-ZA4-AE-INI	00166085-03M	3.0	
L-BL-05-HX-ZA4-AE-INI	00166085-05M	5.0	
L-BL-10-HX-ZA4-AE-INI	00166085-10M	10.0	
L-BL-15-HX-ZA4-AE-INI	00166085-15M	15.0	
L-BL-20-HX-ZA4-AE-INI	00166085-20M	20.0	
L-BL-25-HX-ZA4-AE-INI	00166085-25M	25.0	

Control and connection cables ZAdyn4

Brake resistor cable

- Cable to connect the brake resistor BR..-3 to the ZAdyn4 frequency inverter and BR100-BOX
- Prefabricated
- Integrated conductors for temperature monitoring
- Halogen-free

L-BR-..-HX-2,5-ZA4
L-BR-..-HX-6-ZA4

L-BR-..-HX-16-ZA3/4

Frequency inverter type	Type	Article no.	Cable length m	Cable cross section mm²
ZAdyn4C 011 ZAdyn4C 013 ZAdyn4C 017 ZAdyn4C 023	**L-BR-03-HX-2,5-ZA4** **L-BR-05-HX-2,5-ZA4**	**00165932-03M** **00165932-05M**	3.0 5.0	3 x 2.5 + 2 x 0.5
ZAdyn4C 032 ZAdyn4C 040 ZAdyn4C 050 ZAdyn4C 062 ZAdyn4C 074	**L-BR-03-HX-6-ZA4** **L-BR-05-HX-6-ZA4**	**00165933-03M** **00165933-05M**	3.0 5.0	3 x 6.0 + 2 x 0.5
ZAdyn4B 110 ZAdyn4B 180	**L-BR-03-HX-16-ZA3/4** **L-BR-05-HX-16-ZA3/4**	**00165724** **00165725**	3.0 5.0	3 x 16.0 + 2 x 0.5

Cable BR100-BOX

- Cable for connecting the BR100-BOX to ZAdyn4B 110/180
- Prefabricated
- Integrated wires for temperature monitoring
- Halogen-free

Frequency inverter type	Type	Article no.	Cable length m	Cable cross section mm²
ZAdyn4B 110/180	**L-BR-03-HX-16-BR-BOX**	**00165953-03M**	3.0	3x16.0 + 2x0.5

Connection cable motor temperature monitoring PTC thermistor

- Connection of the PTC to the ZAdyn4 frequency inverter
- Prefabricated:
  - Connection side ZAdyn4: plug 4-pin
  - Connection side motor: wire end sleeves
- Halogen-free

Type	Article no.	Cable length m	Cable cross section mm²
L-KL-018-HX-ZA3/4-AE	**00165801**	1.8	2 x 0.75
L-KL-03-HX-ZA3/4-AE	**00165650**	3.0	
L-KL-05-HX-ZA3/4-AE	**00165846**	5.0	
L-KL-10-HX-ZA3/4-AE	**00165800**	10.0	
L-KL-15-HX-ZA3/4-AE	**00165847**	15.0	
L-KL-20-HX-ZA3/4-AE	**00165801-20M**	20.0	
L-KL-25-HX-ZA3/4-AE	**00165801-25M**	25.0	

Control and connection cables ZAdyn4

Control cable DCP

Standard cables

- Prefabricated:
  - Connection side ZAdyn4: plug 4-pin
  - Connection side elevator controller: wire end sleeves
- Halogen-free

Type	Article no.	Cable length m	Cable cross section mm²
L-SL-03-HX-ZA-DCP	00164123	3.0	2 x 2 x 0.25
L-SL-05-HX-ZA-DCP	00165925	5.0	
L-SL-10-HX-ZA-DCP	00164136	10.0	
L-SL-25-HX-ZA-DCP	00164137	25.0	
L-SL-50-HX-ZA-DCP	00164138	50.0	

Control-dependent special cable NEW LIFT

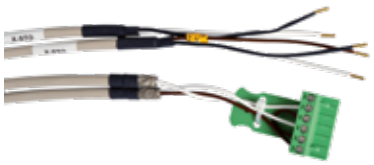
- Prefabricated:
  - Connection side ZAdyn4: plug 4-pin
  - Connection side elevator controller: D-SUB 9-pin
- Halogen-free

Type	Article no.	Cable length m	Cable cross section mm²
L-SL-03-HX-ZA-DCP-1	00164048	3.0	2 x 2 x 0.25
L-SL-05-HX-ZA-DCP-1	00165926	5.0	
L-SL-10-HX-ZA-DCP-1	00164049	10.0	
L-SL-25-HX-ZA-DCP-1	00164050	25.0	
L-SL-50-HX-ZA-DCP-1	00164051	50.0	

Control and connection cables ZAdyn4

STO control cable

- Activation of the Safe Torque Off (STO) function
- Prefabricated:
  - Connection side ZAdyn4: plug 6-pin
  - Connection side elevator controller: wire end sleeves
- Halogen-free



Type	Article no.	Cable length	Cable cross section
		m	mm²
L-SL-03-HX-ZA4-STO	00165938-03M	3.0	3 x 0.5
L-SL-05-HX-ZA4-STO	00165938-05M	5.0	
L-SL-10-HX-ZA4-STO	00165938-10M	10.0	
L-SL-25-HX-ZA4-STO	00165938-25M	25.0	
L-SL-50-HX-ZA4-STO	00165938-50M	50.0	

Control cable digital inputs

- Activation of the digital inputs through the elevator controller
- Prefabricated:
  - Connection side ZAdyn4: plug, 13-pin
  - Connection side elevator controller: wire end sleeves
- Halogen-free

Type	Article no.	Cable length	Cable cross section
		m	mm²
L-SL-03-HX-ZA4-IN	00165934-03M	3.0	12 x 0.5
L-SL-05-HX-ZA4-IN	00165934-05M	5.0	
L-SL-10-HX-ZA4-IN	00165934-10M	10.0	
L-SL-25-HX-ZA4-IN	00165934-25M	25.0	
L-SL-50-HX-ZA4-IN	00165934-50M	50.0	

Control cable digital outputs

- Evaluation of the digital outputs through the elevator controller
- Prefabricated:
  - Connection side ZAdyn4: plug, 10-pin
  - Connection side elevator controller: wire end sleeves
- Halogen-free

Type	Article no.	Cable length	Cable cross section
		m	mm²
L-SL-03-HX-ZA4-OUT	00165935-03M	3.0	10 x 0.5
L-SL-05-HX-ZA4-OUT	00165935-05M	5.0	
L-SL-10-HX-ZA4-OUT	00165935-10M	10.0	
L-SL-25-HX-ZA4-OUT	00165935-25M	25.0	
L-SL-50-HX-ZA4-OUT	00165935-50M	50.0	

Plug kit ST4C

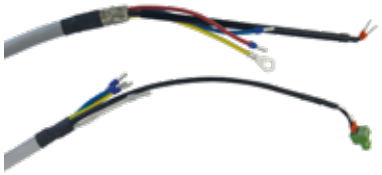
- Consisting of all connectors for connecting the ZAdyn4

Article no. 357258

Connection cables ZAdynpro

Brake resistor cable

- Cable to connect the brake resistor BR..-3 to the ZAdynpro frequency inverter
- Prefabricated
- Integrated conductors for temperature monitoring
- Halogen-free



Frequency inverter type	Type	Article no.	Cable length m	Cable cross section mm²
ZAdynpro 011-032	L-BR-03-HX-2,5-ZAp	00166112-03M	3.0	3 x 6.0 + 2 x 0.5
	L-BR-03-HX-6-ZAp	00166113-03M	3.0	3 x 6.0 + 2 x 0.5
ZAdynpro 040-74	L-BR-03-HX-6-ZAp	00166155-03M	3.0	6 x 6.0 + 2 x 0.5

Control and connection cables ZAsbc4

Brake control

- For ZAtop and ZAdisc
- Connection of the brake coils on ZAsbc4
- Prefabricated:
  - Connection side ZAsbc4: plug 4-pin
  - Connection side brake: wire end sleeves
- Halogen-free

Type	Article no.	Cable length m	Cable cross section mm²
L-BA-018-HX-SBC4-AE	00166059-018M	1.8	2 x 2 x 1.0
L-BA-03-HX-SBC4-AE	00166059-03M	3.0	
L-BA-05-HX-SBC4-AE	00166059-05M	5.0	
L-BA-10-HX-SBC4-AE	00166059-10M	10.0	
L-BA-15-HX-SBC4-AE	00166059-15M	15.0	
L-BA-20-HX-SBC4-AE	00166059-20M	20.0	
L-BA-25-HX-SBC4-AE	00166059-25M	25.0	

ZAsbc4C cable set

- 5-part prefabricated cable set for connecting the elevator controller to ZAsbc4C
  - Supply voltage
  - Monitoring safety circuit
  - Activation, emergency operation and brake test
  - Test overvoltage protection
  - Status monitoring
- Prefabricated
  - Connection side ZAsbc4: plugs
  - Connection side controller: wire end sleeves
- Halogen-free

Type	Article no.	Cable length m	Cable cross section mm²
LS-SBC4-03-HX-ST	357289-03M	3.0	3 x 1.5 (Supply) 5 x 0.75 (Monitoring, safety circuit) 3 x 0.75 (Activation, emergency operation and brake test) 2 x 0.75 (Test overvoltage protection) 2 x 0.75 (Status monitoring)
LS-SBC4-05-HX-ST	357289-05M	5.0	
LS-SBC4-10-HX-ST	357289-10M	10.0	
LS-SBC4-25-HX-ST	357289-25M	25.0	
LS-SBC4-50-HX-ST	357289-50M	50.0	

Connection cables ZApad

Data cable ZApad / ZAmon STICK

Connection of the ZApad and ZAmon STICK to
- ZAdyn4
- ZAdynpro
- ZArec4
- EVAC 3C (only ZApad)

Type	Article no.	Cable length m
L-DL-005-HX-RJ45	00159973	0.5
L-DL-10-HX-RJ45	00159967	10.0
L-DL-25-HX-RJ45	00159968	25.0
L-DL-50-HX-RJ45	00164122	50.0

Modular coupler RJ

- Coupler to connect the cable type L-DL-...-HX-RJ45
- Double jack RJ45

Article no. 00155975

ZAmon data cable

- Connection of the ZApad to a notebook or PC to be able to use the ZAmon software
- USB 2.0 connection line A/B
- Halogen-free
- Length: 1.8 m
- Type: L-DL-018-HX-USB-A-B

Article no. 00159946

ZArec cable set

LS-ZArec4C-..-HX-...-ZA3/4

- 2-part prefabricated cable set for connecting the ZArec to ZETADYN 3 and ZAdyn4:
  - Signal transmission ZArec - ZETADYN 3 / ZAdyn4
  - Connection DC-link voltage ZArec - ZETADYN 3 / ZAdyn4
  - Halogen-free

Type	Article no.	Frequency inverter	Cable length m	Cable cross section mm²
LS-ZArec4C-03-HX-023-ZA3/4	357276	ZAdyn4C 011-023 ZAdynpro 011-023	3.0	6 x 0.75 (Signals) 3 x 2.5 (DC-link)
LS-ZArec4C-05-HX-023-ZA3/4	357277		5.0	6 x 0.75 (Signals) 3 x 2.5 (DC-link)
LS-ZArec4C-03-HX-074-ZA3/4	357278	ZAdyn4C 032-074 ZAdynpro 032	3.0	6 x 0.75 (Signals) 3 x 6.0 (DC-link)
LS-ZArec4C-05-HX-074-ZA3/4	357279		5.0	6 x 0.75 (Signals) 3 x 6.0 (DC-link)

EVAC battery set and cable set

Battery set EVAC-BATT

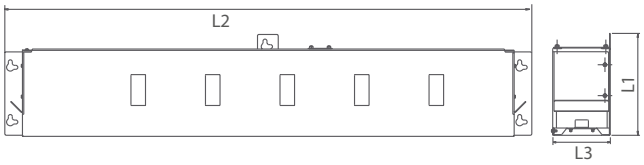
Description

- Selection is made depending on the nominal current of the motor and the duration or number of evacuations

Technical data

Type	Article no.	Rated voltage	Rated capacity	Rated current	Weight
		VDC	Ah	A	kg
032-120-24	357234	120	24.0	32	2 x 50
050-120-24	357235	120	24.0	50	2 x 50
074-120-24	357236	120	24.0	74	2 x 50
032-180-7.2	357238	180	7.2	32	24 + 26
032-180-24	357242	180	24.0	32	3 x 50
050-180-24	357243	180	24.0	50	3 x 50
074-180-24	357244	180	24.0	74	3 x 50

Dimensions mm



Type	L1	L2	L3
032-120-24	231	1195	130
050-120-24			
074-120-24			
032-180-7.2	205	948	116
032-180-24	231	1195	130
050-180-24			
074-180-24			

EVAC 3C cable set

LS-EVAC3C-..-HX-...-ZA3/4

- 3-part cable set for connecting the ZAdyn4 and the EVAC BATT to EVAC 3C:
  - Power supply of the ZAdyn4 by EVAC 3C
  - Signal transmission EVAC 3C ⇄ ZAdyn4
  - Connection battery set EVAC BATT
- Halogen-free

Type	Article no.	Cable length	Cable cross-section EVAC 3C ⇄ ZAdyn4	Cable cross-section EVAC 3C ⇄ EVAC BATT
		m	mm²	mm²
LS-EVAC3C-03-HX-032-ZA3/4	357239	3.0	4 x 6.0 (supply) 4 x 0.5 (signals)	3 x 6.0 + 2 x 0.5
LS-EVAC3C-03-HX-050-ZA3/4	357240	3.0	4 x 10.0 (supply) 4 x 0.5 (signals)	3 x 6.0 + 2 x 0.5
LS-EVAC3C-03-HX-074-ZA3/4	357241	3.0	4 x 25.0 (supply) 4 x 0.5 (signals)	4 x 10.0 + 2 x 1.0

LS-EVAC3C-..-HX-ST

- 3-part cable set for connecting the elevator controller and the main switch monitoring to EVAC 3C:
  - Control power supply through EVAC 3C
  - Signal transmission EVAC 3C ⇄ Controller
  - Main switch monitoring
- Halogen-free

Type	Article no.	Cable length	Cable cross-section EVAC 3C ⇄ Controller	Cable cross-section EVAC 3C ⇄ Main switch
		m	mm²	mm²
LS-EVAC3C-03-HX-ST	357247	3.0	3 x 1.5 (supply) 3 x 0.5 (signals)	2 x 0.75 (monitoring)
LS-EVAC3C-10-HX-ST	357248	10.0	3 x 1.5 (supply) 3 x 0.5 (signals)	2 x 0.75 (monitoring)

Motor cables

Standard

For motor type ZAtop, ZAsyn SM860 and VFD

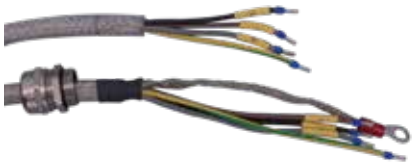
- Cable for connecting the motor to frequency inverter type ZAdyn
- Including cable gland
- Prefabricated:
  - Connection side motor: ring cable lug
  - Connection side ZAdyn: wire end sleeves

Max. Rated current A	Cable cross section mm²	Cable gland	Ring cable lug for terminal board	Fits motor	Cable length m	Type	Article no.
20	4 x 2.5	M25	M6	VFD132 BD132 SM180	5.0	L-ML-05-YY-2.5-M6-AE	356035-05M
					10.0	L-ML-10-YY-2.5-M6-AE	356035-10M
					15.0	L-ML-15-YY-2.5-M6-AE	356035-15M
					20.0	L-ML-20-YY-2.5-M6-AE	356035-20M
					25.0	L-ML-25-YY-2.5-M6-AE	356035-25M
			M8	SM200.40/45 SM210 VFD160	5.0	L-ML-05-YY-2.5-M8-AE	356038-05M
					10.0	L-ML-10-YY-2.5-M8-AE	356038-10M
					15.0	L-ML-15-YY-2.5-M8-AE	356038-15M
					20.0	L-ML-20-YY-2.5-M8-AE	356038-20M
					25.0	L-ML-25-YY-2.5-M8-AE	356038-25M
25	4 x 4.0	M32	M6	VFD132 BD132 SM180	5.0	L-ML-05-YY-4-M6-AE	356036-05M
					10.0	L-ML-10-YY-4-M6-AE	356036-10M
					15.0	L-ML-15-YY-4-M6-AE	356036-15M
					20.0	L-ML-20-YY-4-M6-AE	356036-20M
					25.0	L-ML-25-YY-4-M6-AE	356036-25M
			M8	SM200.40/45 SM210 SM860 VFD160	5.0	L-ML-05-YY-4-M8-AE	356039-05M
					10.0	L-ML-10-YY-4-M8-AE	356039-10M
					15.0	L-ML-15-YY-4-M8-AE	356039-15M
					20.0	L-ML-20-YY-4-M8-AE	356039-20M
					25.0	L-ML-25-YY-4-M8-AE	356039-25M
35	4 x 6.0	M32	M6	VFD132 BD132 SM180	5.0	L-ML-05-YY-6-M6-AE	356037-05M
					10.0	L-ML-10-YY-6-M6-AE	356037-10M
					15.0	L-ML-15-YY-6-M6-AE	356037-15M
					20.0	L-ML-20-YY-6-M6-AE	356037-20M
					25.0	L-ML-25-YY-6-M6-AE	356037-25M
			M8	SM200.40/45 SM210 SM250 SM860 VFD160-180	5.0	L-ML-05-YY-6-M8-AE	356040-05M
					10.0	L-ML-10-YY-6-M8-AE	356040-10M
					15.0	L-ML-15-YY-6-M8-AE	356040-15M
					20.0	L-ML-20-YY-6-M8-AE	356040-20M
					25.0	L-ML-25-YY-6-M8-AE	356040-25M
50	4 x 10.0	M40	M8	SM200.40/45 SM210 SM250 SM860 VFD160-225	5.0	L-ML-05-YY-10-M8-AE	356041-05M
					10.0	L-ML-10-YY-10-M8-AE	356041-10M
					15.0	L-ML-15-YY-10-M8-AE	356041-15M
					20.0	L-ML-20-YY-10-M8-AE	356041-20M
					25.0	L-ML-25-YY-10-M8-AE	356041-25M
63	4 x 16.0	M40	M8	SM200.40/45 SM210 SM250 SM860 VFD180-225	5.0	L-ML-05-YY-16-M8-AE	356042-05M
					10.0	L-ML-10-YY-16-M8-AE	356042-10M
					15.0	L-ML-15-YY-16-M8-AE	356042-15M
					20.0	L-ML-20-YY-16-M8-AE	356042-20M
					25.0	L-ML-25-YY-16-M8-AE	356042-25M

* The stated rated currents are rated according to DIN VDE 0298-4 for laying system B2 and a max. ambient temperature of 40° C.

Max. Rated current A	Cable cross section mm²	Cable gland	Ring cable lug for terminal board	Fits motor	Cable length m	**Type**	Article no.
80	4 x 25.0	M50	M8	SM250 SM860 VFD200-250	5.0	**L-ML-05-YY-25-M8-AE**	**356043-05M**
					10.0	**L-ML-10-YY-25-M8-AE**	**356043-10M**
					15.0	**L-ML-15-YY-25-M8-AE**	**356043-15M**
					20.0	**L-ML-20-YY-25-M8-AE**	**356043-20M**
					25.0	**L-ML-25-YY-25-M8-AE**	**356043-25M**
100	4 x 35.0	M50	M10	SM250 SM860 VFD200-250	5.0	**L-ML-05-YY-35-M10-AE**	**356033-05M**
					10.0	**L-ML-10-YY-35-M10-AE**	**356033-10M**
					15.0	**L-ML-15-YY-35-M10-AE**	**356033-15M**
					20.0	**L-ML-20-YY-35-M10-AE**	**356033-20M**
					25.0	**L-ML-25-YY-35-M10-AE**	**356033-25M**
125	4 x 50.0	M50	M10	SM250 VDF225-250	5.0	**L-ML-05-YY-50-M10-AE**	**356068-05M**
					10.0	**L-ML-10-YY-50-M10-AE**	**356068-10M**
					15.0	**L-ML-15-YY-50-M10-AE**	**356068-15M**
					20.0	**L-ML-20-YY-50-M10-AE**	**356068-20M**
					25.0	**L-ML-25-YY-50-M10-AE**	**356068-25M**
160	4 x 70.0	M50	M12	SM250 VFD250	5.0	**L-ML-05-YY-70-M12-AE**	**356034-05M**
					10.0	**L-ML-10-YY-70-M12-AE**	**356034-10M**
					15.0	**L-ML-15-YY-70-M12-AE**	**356034-15M**
					20.0	**L-ML-20-YY-70-M12-AE**	**356034-20M**
					25.0	**L-ML-25-YY-70-M12-AE**	**356034-25M**
200	4 x 95.0	M63	M12	SM250	5.0	**L-ML-05-YY-95-M12-AE**	**356045-05M**
					10.0	**L-ML-10-YY-95-M12-AE**	**356045-10M**
					15.0	**L-ML-15-YY-95-M12-AE**	**356045-15M**
					20.0	**L-ML-20-YY-95-M12-AE**	**356045-20M**
					25.0	**L-ML-25-YY-95-M12-AE**	**356045-25M**

* The stated rated currents are rated according to DIN VDE 0298-4 for laying system B2 and a max. ambient temperature of 40° C.



For motor type ZAsyn SM700 and externally procured motors

- Cable for connecting the motor to frequency inverter type ZAdyn
- Including cable gland
- Prefabricated:
  - Connection side motor: wire end sleeves
  - Connection side ZAdyn: wire end sleeves

Max. Rated current A	Cable cross section mm²	Cable gland	Fits motor	Cable length m	**Type**	**Article no.**
20.0	4 x 2.5	M25	SL506 SL510 SM700	10.0	**L-ML-10-YY-2.5-AE-AE**	**356016-10M**
25.0	4 x 4.0	M32	SL506 SL510 SM700	10.0	**L-ML-10-YY-4-AE-AE**	**356017-10M**
35.0	4 x 6.0	M32	SL506 SL510 SM700	10.0	**L-ML-10-YY-6-AE-AE**	**356018-10M**
50.0	4 x 10.0	M25	SL510 SM700	10.0	**L-ML-10-YY-10-AE-AE**	**356019-10M**
63.0	4 x 16.0	M40	SL510 SM700	10.0	**L-ML-10-YY-16-AE-AE**	**356020-10M**
80.0	4 x 25.0	M50	SM700	10.0	**L-ML-10-YY-25-AE-AE**	**356021-10M**

* The stated rated currents are rated according to DIN VDE 0298-4 for laying system B2 and a max. ambient temperature of 40° C.

Motor cables

Optimized shield contacting

For motor type ZAtop

- Cable for connecting the motor to the ZAdyn frequency inverter
- Large-area contacting of the shield
- Prefabricated:
  - Connection side motor: ring cable lug
  - Connection side ZAdyn: wire end sleeves

Max. Rated current A	Cable cross section mm²	Ring cable lug for terminal board	Fits motor	Cable length m	**Type**	Article no.
20	4 x 2.5	M6	BD132 SM180	5.0	**L-ML-05-YY-2.5-M6e-AE**	**02500500-05M**
				10.0	**L-ML-10-YY-2.5-M6e-AE**	**02500500-10M**
				15.0	**L-ML-15-YY-2.5-M6e-AE**	**02500500-15M**
				20.0	**L-ML-20-YY-2.5-M6e-AE**	**02500500-20M**
				25.0	**L-ML-25-YY-2.5-M6e-AE**	**02500500-25M**
		M8	SM200.40/45 SM860	5.0	**L-ML-05-YY-2.5-M8e-AE**	**02500530-05M**
				10.0	**L-ML-10-YY-2.5-M8e-AE**	**02500530-10M**
				15.0	**L-ML-15-YY-2.5-M8e-AE**	**02500530-15M**
				20.0	**L-ML-20-YY-2.5-M8e-AE**	**02500530-20M**
				25.0	**L-ML-25-YY-2.5-M8e-AE**	**02500530-25M**
25	4 x 4.0	M6	BD132 SM180	5.0	**L-ML-05-YY-4-M6e-AE**	**02500501-05M**
				10.0	**L-ML-10-YY-4-M6e-AE**	**02500501-10M**
				15.0	**L-ML-15-YY-4-M6e-AE**	**02500501-15M**
				20.0	**L-ML-20-YY-4-M6e-AE**	**02500501-20M**
				25.0	**L-ML-25-YY-4-M6e-AE**	**02500501-25M**
		M8	SM200.40/45 SM860	5.0	**L-ML-05-YY-4-M8e-AE**	**02500531-05M**
				10.0	**L-ML-10-YY-4-M8e-AE**	**02500531-10M**
				15.0	**L-ML-15-YY-4-M8e-AE**	**02500531-15M**
				20.0	**L-ML-20-YY-4-M8e-AE**	**02500531-20M**
				25.0	**L-ML-25-YY-4-M8e-AE**	**02500531-25M**
35	4 x 6.0	M6	BD132 SM180	5.0	**L-ML-05-YY-6-M6e-AE**	**02500502-05M**
				10.0	**L-ML-10-YY-6-M6e-AE**	**02500502-10M**
				15.0	**L-ML-15-YY-6-M6e-AE**	**02500502-15M**
				20.0	**L-ML-20-YY-6-M6e-AE**	**02500502-20M**
				25.0	**L-ML-25-YY-6-M6e-AE**	**02500502-25M**
		M8	SM200.40/45 SM250 SM860	5.0	**L-ML-05-YY-6-M8e-AE**	**02500532-05M**
				10.0	**L-ML-10-YY-6-M8e-AE**	**02500532-10M**
				15.0	**L-ML-15-YY-6-M8e-AE**	**02500532-15M**
				20.0	**L-ML-20-YY-6-M8e-AE**	**02500532-20M**
				25.0	**L-ML-25-YY-6-M8e-AE**	**02500532-25M**
50	4 x 10.0	M8	SM200.40/45 SM250 SM860	5.0	**L-ML-05-YY-10-M8e-AE**	**02500533-05M**
				10.0	**L-ML-10-YY-10-M8e-AE**	**02500533-10M**
				15.0	**L-ML-15-YY-10-M8e-AE**	**02500533-15M**
				20.0	**L-ML-20-YY-10-M8e-AE**	**02500533-20M**
				25.0	**L-ML-25-YY-10-M8e-AE**	**02500533-25M**

* The stated rated currents are rated according to DIN VDE 0298-4 for laying system B2 and a max. ambient temperature of 40° C.

Max. Rated current A	Cable cross section mm²	Ring cable lug for terminal board	Fits motor	Cable length m	**Type**	Article no.
63	4 x 16.0	M8	SM200.40/45 SM250 SM860	5.0	**L-ML-05-YY-16-M8e-AE**	**02500534-05M**
				10.0	**L-ML-10-YY-16-M8e-AE**	**02500534-10M**
				15.0	**L-ML-15-YY-16-M8e-AE**	**02500534-15M**
				20.0	**L-ML-20-YY-16-M8e-AE**	**02500534-20M**
				25.0	**L-ML-25-YY-16-M8e-AE**	**02500534-25M**
80	4 x 25.0	M8	SM250 SM860	5.0	**L-ML-05-YY-25-M8e-AE**	**02500535-05M**
				10.0	**L-ML-10-YY-25-M8e-AE**	**02500535-10M**
				15.0	**L-ML-15-YY-25-M8e-AE**	**02500535-15M**
				20.0	**L-ML-20-YY-25-M8e-AE**	**02500535-20M**
				25.0	**L-ML-25-YY-25-M8e-AE**	**02500535-25M**
100	4 x 35.0	M10	SM250 SM860	5.0	**L-ML-05-YY-35-M10e-AE**	**02500546-05M**
				10.0	**L-ML-10-YY-35-M10e-AE**	**02500546-10M**
				15.0	**L-ML-15-YY-35-M10e-AE**	**02500546-15M**
				20.0	**L-ML-20-YY-35-M10e-AE**	**02500546-20M**
				25.0	**L-ML-25-YY-35-M10e-AE**	**02500546-25M**
125	4 x 50.0	M10	SM250	5.0	**L-ML-05-YY-50-M10e-AE**	**02500547-05M**
				10.0	**L-ML-10-YY-50-M10e-AE**	**02500547-10M**
				15.0	**L-ML-15-YY-50-M10e-AE**	**02500547-15M**
				20.0	**L-ML-20-YY-50-M10e-AE**	**02500547-20M**
				25.0	**L-ML-25-YY-50-M10e-AE**	**02500547-25M**
160	4 x 70.0	M12	SM250	5.0	**L-ML-05-YY-70-M12e-AE**	**02500558-05M**
				10.0	**L-ML-10-YY-70-M12e-AE**	**02500558-10M**
				15.0	**L-ML-15-YY-70-M12e-AE**	**02500558-15M**
				20.0	**L-ML-20-YY-70-M12e-AE**	**02500558-20M**
				25.0	**L-ML-25-YY-70-M12e-AE**	**02500558-25M**

* The stated rated currents are rated according to DIN VDE 0298-4 for laying system B2 and a max. ambient temperature of 40° C.

Motor cables

Halogen-free

For motor type ZAtop. ZAsyn SM860 and VFD

- Cable for connecting the motor to frequency inverter type ZAdyn
- Including cable gland
- Prefabricated:
  - Connection side motor: ring cable lug
  - Connection side ZAdyn: wire end sleeves

Max. Rated current A	Cable cross section mm²	Cable gland	Ring cable lug for terminal board	Fits motor	Cable length m	**Type**	Article no.
20	4 x 2.5	M25	M8	SM200.40/45 SM210 VFD160	5.0	**L-ML-05-HX-2.5-M8-AE**	**356056-05M**
					10.0	**L-ML-10-HX-2.5-M8-AE**	**356056-10M**
					15.0	**L-ML-15-HX-2.5-M8-AE**	**356056-15M**
					20.0	**L-ML-20-HX-2.5-M8-AE**	**356056-20M**
					25.0	**L-ML-25-HX-2.5-M8-AE**	**356056-25M**
25	4 x 4.0	M32	M8	SM200.40/45 SM210 SM860 VFD160	5.0	**L-ML-05-HX-4-M8-AE**	**356057-05M**
					10.0	**L-ML-10-HX-4-M8-AE**	**356057-10M**
					15.0	**L-ML-15-HX-4-M8-AE**	**356057-15M**
					20.0	**L-ML-20-HX-4-M8-AE**	**356057-20M**
					25.0	**L-ML-25-HX-4-M8-AE**	**356057-25M**
35	4 x 6.0	M32	M8	SM200.40/45 SM210 SM250 SM860 VFD160-180	5.0	**L-ML-05-HX-6-M8-AE**	**356058-05M**
					10.0	**L-ML-10-HX-6-M8-AE**	**356058-10M**
					15.0	**L-ML-15-HX-6-M8-AE**	**356058-15M**
					20.0	**L-ML-20-HX-6-M8-AE**	**356058-20M**
					25.0	**L-ML-25-HX-6-M8-AE**	**356058-25M**
50	4 x 10.0	M40	M8	SM200.40/45 SM210 SM250 SM860 VFD160-225	5.0	**L-ML-05-HX-10-M8-AE**	**356059-05M**
					10.0	**L-ML-10-HX-10-M8-AE**	**356059-10M**
					15.0	**L-ML-15-HX-10-M8-AE**	**356059-15M**
					20.0	**L-ML-20-HX-10-M8-AE**	**356059-20M**
					25.0	**L-ML-25-HX-10-M8-AE**	**356059-25M**
63	4 x 16.0	M40	M8	SM200.40/45 SM210 SM250 SM860 VFD180-225	5.0	**L-ML-05-HX-16-M8-AE**	**356060-05M**
					10.0	**L-ML-10-HX-16-M8-AE**	**356060-10M**
					15.0	**L-ML-15-HX-16-M8-AE**	**356060-15M**
					20.0	**L-ML-20-HX-16-M8-AE**	**356060-20M**
					25.0	**L-ML-25-HX-16-M8-AE**	**356060-25M**
80	4 x 25.0	M50	M8	SM250 SM860 VFD200-250	5.0	**L-ML-05-HX-25-M8-AE**	**356061-05M**
					10.0	**L-ML-10-HX-25-M8-AE**	**356061-10M**
					15.0	**L-ML-15-HX-25-M8-AE**	**356061-15M**
					20.0	**L-ML-20-HX-25-M8-AE**	**356061-20M**
					25.0	**L-ML-25-HX-25-M8-AE**	**356061-25M**
100	4 x 35.0	M50	M10	SM250 SM860 VFD200-250	5.0	**L-ML-05-HX-35-M10-AE**	**356062-05M**
					10.0	**L-ML-10-HX-35-M10-AE**	**356062-10M**
					15.0	**L-ML-15-HX-35-M10-AE**	**356062-15M**
					20.0	**L-ML-20-HX-35-M10-AE**	**356062-20M**
					25.0	**L-ML-25-HX-35-M10-AE**	**356062-25M**

* The stated rated currents are rated according to DIN VDE 0298-4 for laying system B2 and a max. ambient temperature of 40° C.

Connection box for shielded motor cables

Description

- Simple and EMC-conform extension of ZIEHL-ABEGG motor cables
- Cable glands on both sides
- Wire cross section from 4 x 2.5 mm² to 4 x 16 mm²
- Dimensions without cable glands
  (W x H x T) in mm: 260 x 160 x 91

Article no. 70026751

EMC cable glands

Type	Article no.	EMC lock nut** Article no.	∅ Motor cable mm
M25 x 1.5	**02002881**	**02002803**	4 x 2.5
M32 x 1.5	**02002184**	**02002198**	4 x 4.0 4 x 6.0
M40 x 1.5	**02002185**	**02002199**	4 x 10 4 x 16
M50 x 1.5	**02002186**	**02002200**	4 x 25 4 x 35

* Reducing sealing ring (Article no. 02008019) required
** With cutting edge for secure contacting even on painted housings

Encoder cables

Standard

For absolute encoder (synchronous motors)

- Cable for connecting the absolute encoder to frequency inverter type ZAdyn
- For ZAtop. ZAsyn and ZAdisc type motors
- Prefabricated

Encoder type	Frequency inverter	Encoder connection	Frequency inverter connection	Cable cross section mm²	Cable length m	Type	Article no.
ECN1313	ZAdyn	Jack 12 pin	Plug D-SUB 15-pin	6 x 2 x 0.14	1.2	-	02013880-01.8M
ECN113 ECN1313	ZETADYN 3 ZAdyn	Jack M16 x 0.75 (KV120)	Plug D-SUB 15-pin	6 x 2 x 0.14	5.0	L-GL-05-YY-ZA-ECN	00159923
					10.0	L-GL-10-YY-ZA-ECN	00155050
					15.0	L-GL-15-YY-ZA-ECN	00166102
					20.0	L-GL-20-YY-ZA-ECN	00166103
					25.0	L-GL-25-YY-ZA-ECN	00159925
ERN1387	ZETADYN 3 ZAdyn	Jack M23 x 1	Plug D-SUB 15-pin	8 x 2 x 0.14	10.0	L-GL-10-YY-ZA3-ERN1387	00159964
						L-GL-10-YY-ZA4-ERN1387	00165948-10M

For incremental encoder (asynchronous motors)

- Cable to connect the incremental encoder to frequency inverter type ZAdyn
- For VFD type motors
- Prefabricated

Encoder type	Frequency inverter	Encoder connection	Frequency inverter connection	Cable cross section mm²	Cable length m	Type	Article no.
ET2S	ZETADYN 3 ZAdyn*	Jack M16 x 0.75 (KV120)	Plug D-SUB 9-pin	6 x 0.14	10.0	L-GL-10-YY-ZA-ET2S	00159927

* ZAdyn only with D-SUB 9 ⇄ D-SUB 15 adapter (article no. 00165930-004M)

Halogen-free

For absolute encoders (synchronous motors)

- Cable to connect the absolute encoder to frequency inverter type ZAdyn
- For ZAtop. ZAsyn and ZAdisc type motors
- Prefabricated
- Halogen-free

Encoder type	Frequency inverter	Encoder connection	Frequency inverter connection	Cable cross section mm²	Cable length m	Type	Article no.
ECN113 ECN1313	ZETADYN 3 ZAdyn	Jack M16 x 0.75 (KV120)	Plug D-SUB 15-pin	6 x 2 x 0.14	1.8	L-GL-018-HX-ZA-ECN	00165713
					3.0	L-GL-03-HX-ZA-ECN	00165644
					5.0	L-GL-05-HX-ZA-ECN	00166095
					10.0	L-GL-10-HX-ZA-ECN	00165615
					15.0	L-GL-15-HX-ZA-ECN	00157818
					20.0	L-GL-20-HX-ZA-ECN	00166104
					25.0	L-GL-25-HX-ZA-ECN	00165616

Encoder cables / adapter cables

Adapter

Adapter for encoder cables

- Connection of cables with D-SUB plug to ZAdyn4
- Prefabricated
- Halogen-free

Elevator machine	Encoder	Connection side encoder cable	Frequency inverter connection	Cable cross section mm²	Cable length m	Type	Article no.
ZIEHL-ABEGG	Incremental	Jack D-SUB 9-pin	Plug D-SUB 15-pin	6 x 2 x 0.14	0.4	**L-GL-004-HX-ZA-ASM-9-15**	**00165930-004M**
	Incremental	Jack D-SUB 15-pin	Plug D-SUB 9-pin			**L-GL-004-HX-ZA-ASM-15-9**	**00165931-004M**
Thyssen	Absolute (EnDat)	Jack D-SUB 15-pin	Plug D-SUB 15-pin			**L-GL-004-HX-ZA-ASM-THY**	**00166089-004M**
	Incremental	Jack D-SUB 9-pin	Plug D-SUB 15-pin			**L-GL-004-HX-ZA-SYN-THY**	**00166090-004M**

Adapter plug encoder

- Adapter plug for connecting encoder to ZAdyn
- D-SUB 15-pin to screw connection

Article no. 357320

Adapter cable encoder ⇆ encoder cable

Encoder type	Article no.	Cable length m	Encoder connection	Encoder cable connection	Cable cross section mm²
ECN 1313	**00159930**	0.245	Jack 12 pin	Plug M16 x 0.75 (SV120)	12 x 0.14
	00159953	0.560			
	00159933	0.245		Plug M23 x 1	12 x 0.14
ERN 1387	**00159931**	0.245	Jack 14 pin	Plug M16 x 0.75 (SV120)	14 x 0.14
	00159934	0.245		Plug M23 x 1	14 x 0.14
ERN 1326	**00159942**	0.245	Jack 16 pin	Plug M23 x 1	16 x 0.14

Encoder cables

Extension cables

- For incremental encoder and absolute encoder with connection D-SUB 15-pin*
- Prefabricated
- Only in combination with encoder cable

Connection side encoder cable	Frequency inverter connection	Cable cross section mm²	Cable length m	Type	Article no.
Jack D-SUB 15-pin	Plug D-SUB 15-pin	6 x 2 x 0.25	5.0	**L-GL-05-YY-ZA-SYN-EXT**	**00159952-05M**
			10.0	**L-GL-10-YY-ZA-SYN-EXT**	**00159952**
Jack M16 x 0.75 (KV120)	Plug M16 x 0.75 (SV120)	6 x 2 x 0.14	10.0	**L-GL-10-HX-ECN-EXT-KV120**	**00165665-10M**

* for incremental encoder with connection D-SUB 9-pin the adapter article no. 00165930-004M is required in addition

For frequency inverters from other manufacturers

For absolute encoders (synchronous motors)

- Cable to connect the absolute encoder to frequency inverters from other manufacturers
- For ZAtop. ZAsyn and ZAdisc type motors
- Prefabricated

Encoder type	Frequency inverter	Encoder connection	Frequency inverter connection	Cable cross section mm²	Cable length m	Type	Article no.
ECN113 ECN1313	Arkel Step	Jack M16 x 0.75 (KV120)	Plug D-SUB 15-pin	6 x 2 x 0.14	10.0	**L-GL-10-YY-AR/ST-ECN**	**00166052-10M**
	FUJI		Plug 16-pin MC1.5 / Phoenix		5.0	**L-GL-05-YY-FUJI-LM1-ENC** **L-GL-05-YY-FUJI-LM2-ENC**	**00165827-05M** **00166097-05M**
					10.0	**L-GL-10-YY-FUJI-LM1-ENC** **L-GL-10-YY-FUJI-LM2-ENC**	**00165827** **00166097-10M**
	KEB		Plug D-SUB 15-pin		5.0	**L-GL-05-YY-KEB-F5-ENC**	**00157813**
					10.0	**L-GL-10-YY-KEB-F5-ENC**	**00159734**
	Schindler		Plug D-SUB 15-pin		5.0	**L-GL-05-YY-SCH-ENC**	**00159922**
					10.0	**L-GL-10-YY-SCH-ENC**	**00159951**
					20.0	**L-GL-20-YY-SCH-ENC**	**00159954**
	independent		Wire-end sleeves		10.0	**L-GL-10-YY-ECN/ERN-AE**	**02013478-10M**
ERN1387	GEFRAN / SIEI		Plug D-SUB 15-pin		10.0	**L-GL-10-YY-SIEI-ERN1387**	**00159941**
	Monarch		Plug D-SUB 15-pin 3 rows		10.0	**L-GL-10-YY-MO-ERN1387**	**00166063-10M**
	Step		Plug D-SUB 15-pin 3 rows		10.0	**L-GL-10-YY-ST-ERN1387**	**00166063-10M**
ERN1326	OTIS	Jack M23 x 1	Jack M23 x 1	3 x 2 x 0.25	10.0	**L-GL-10-YY-OTIS-ERN1326**	**02013893-10M**
			WAGO 734-108		20.0	**L-GL-20-YY-OTIS-ERN1326**	**02013893-20M**

Incremental encoder

Hollow shaft

Description

- For motor types VFD and other asynchronous motors
- Signal shape: sine or square
- Speed: max. 3500 rpm
- Phase shift: 90°
- With prefabricated connection cable
- Protection class: IP54

Type	Article no.	Shaft diameter mm	Signal shape	Reso-lution ppr	Signal tracks	Operating voltage VDC	Frequency inverter connection	Cable length m	For frequency inverter
ET2R-1024/28/05V	**359010**	28	TTL	1024	A, B, /A, /B	5.0	Wire-end sleeves	10.0	-
ET2R-1024/28/05V-1	**359026**		TTL	1024	A, B, /A, /B, N	5.0	D-SUB 9-pin	10.0	ZETADYN / ZAdyn*
ET2S-1024/28/05V-15	**02014700**		1 V_{SS}	1024	A, B, /A, /B	5.0	D-SUB 15-pin	10.0	ZETADYN** / ZAdyn
ET2R-1024/28/30V	**359004**		HTL	1024	A, B	10…30	Wire-end sleeves	10.0	-
ET2R-1024/38/05V	**359011**	38	TTL	1024	A, B, /A, /B	5.0	Wire-end sleeves	10.0	-
ET2R-1024/38/05V-1	**359027**		TTL	1024	A, B, /A, /B, N	5.0	D-SUB 9-pin	10.0	ZETADYN / ZAdyn*
ET2S-1024/38/05V-15	**02014701**		1 V_{SS}	1024	A, B, /A, /B	5.0	D-SUB 15-pin	10.0	ZETADYN** / ZAdyn
ET2S-1024/38/05V-2	**02006794**		1 V_{SS}	1024	A, B, /A, /B	5.0	M16 x 0.75 (SV120) 12-pin	0.5	-
ET2R-1024/38/30V	**359005**		HTL	1024	A, B	10…30	Wire-end sleeves	10.0	-
ET2R-1024/42/05V	**359012**	42	TTL	1024	A, B, /A, /B	5.0	Wire-end sleeves	10.0	-
ET2R-1024/42/05V-1	**359028**		TTL	1024	A, B, /A, /B, N	5.0	D-SUB 9-pin	10.0	ZETADYN / ZAdyn*
ET2R-1024/42/30V	**359006**		HTL	1024	A, B	10…30	Wire-end sleeves	10.0	-

* ZAdyn4 and ZAdynpro only with D-SUB 9 ⇄ D-SUB 15 adapter (article no. 00165930-004M)
** ZETADYN 2 and ZETADYN 3 (older than May 2012) only with D-SUB 15 ⇄ D-SUB 9 adapter (article no. 00165931-004M)

Incremental encoder

Solid shaft

Description

- For VFD motor types and other asynchronous motors
- Signal shape: square
- Speed: max. 3500 rpm
- Phase shift: 90°
- With prefabricated connection cable
- Protection class: IP54

Type	Article no.	Shaft diameter mm	Signal shape	Resolution ppr	Signal tracks	Operating voltage VDC	Frequency inverter connection	Cable length m	For frequency inverter
ET2R-1024/10/30V	**359020**	10	HTL	1024	A, B	10...30	Wire-end sleeves	10.0	-
ET2R-1024/8/30V	**359020-M**	8	HTL	1024	A, B	10...30	Wire-end sleeves	10.0	-
ERN1321	**70030041**	9.25 Cone 1:10	TTL	4096	A, B, /A, /B	5.0	Plug M16 x 0.75 (SV120)	0.245	-

Absolute encoder

Hollow shaft

Description

- For ZAtop motor type
- Signal shape speed: sine
- Speed: max. 3500 rpm
- Phase shift: 90°
- Prefabricated connection cable
- Protection class: IP64

Type	Article no.	Shaft diameter mm	Interface absolute value	Resolution ppr	Signal tracks	Operating voltage VDC	Connection	Cable length m
ECN113 EnDat 2048 Hiatus	01009635	50	EnDat 01	2048	A, B, /A, /B	3.6...14	M16 x 0.75 (SV120) 12-pin	0.5
ECN113 EnDat 17pol.	359003					5.0	M23 17-pin	

Solid shaft

Absolute encoder set with solid shaft

- For ZAtop, ZAsyn and ZAdisc motor types
- Signal shape speed: sine
- Speed: max. 3500 rpm
- Phase shift: 90°
- Connected adapter cable
- Protection class: IP40
- Shaft diameter: 9.25 mm / Cone 1:10

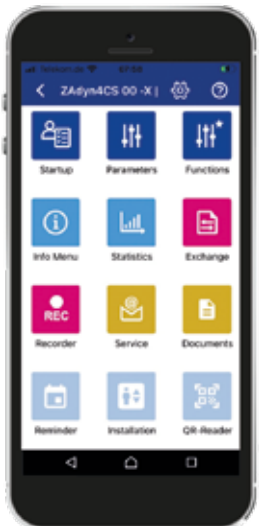
Type	Article no.	Interface absolute value	Resolution ppr	Signal tracks	Operating voltage VDC	Connection	Cable length mm
ECN1313 EnDat-M16-245mm	70030034	EnDat01	2048	A, B, /A, /B	3.6...14	Plug M16 x 0.75 (SV120)	245
ECN1313 EnDat-M16-560mm	70030035						560
ECN1313 EnDat-M23-245mm	70030036					Plug M23 x 1	245
ECN1313 EnDat-DSUB-1.8m	70030037					Plug D-SUB 15-pin	1800
ECN 1313 SSI-M16-245mm	70030038	SSI				Plug M16 x 0.75 (SV120)	245
ECN 1313 SSI-M16-560mm	70030039						560
ECN 1313 SSI-M23-245mm	70030040					Plug M23 x 1	245
ERN 1326-4096-M23-245mm	70030042	U, V, W ⊓⊔	4096		5.0	Plug M23 x 1	245
ERN 1326-8192-M23-245mm	70030043		8192			Plug M23 x 1	245
ERN 1326-8192-AMP20-7m	70030044		8192			AMP20	7000
ERN 1387-M16-245mm	70030045	Z* SinCos	2048		5.0	Plug M16 x 0.75 (SV120)	245
ERN 1387-M23-245mm	70030046					Plug M23 x 1	245
ERN 1387-DSUB15-350mm	70030047					Plug D-SUB 15-pin	350
AE-S64-BISSC-ZA-5m	70030744	BiSS-C	2048		4.0...30.0	Plug D-SUB 15-pin	5000
AE-S64-SinCos-AE-7m	70031263	SinCos	2048		5.0	Ferrules	7000
AE-S64-SinCos-ST-10m	70031264					Plug D-SUB 15-pin Step AS380	10000
AE-S64-SinCos-SCH-1.8m	70031277					Plug D-SUB 15-pin Schindler VAF	1800
AE-S64-SinCos-MO-10m	70031278					Plug D-SUB 15-pin Monarch Nice3000	10000

* 1 sine period / revolution

ZAmon Mobile

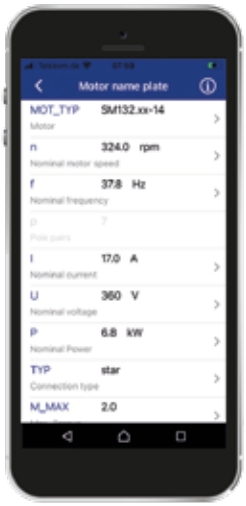
Fast - Easy - Intuitive

The ZAmon Mobile app is the ideal tool for operating ZAdyn frequency inverters with mobile devices such as smartphones or tablets.
The clearly structured user interfaces with self-explanatory icons, informative texts for each parameter and online help provide the perfect conditions for fast and independent work.



Start-up assistance

- The start-up wizard guides you through all the necessary parameters in simple steps and with explanations, right up to the optimal configuration of the terminal.
- Time for commissioning < 10 minutes



Parametrisation

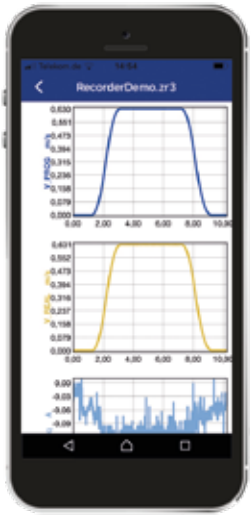
- Clear summary of menus in function blocks (e.g. function block “Travel curve”)
- Downloading, backing up and loading of parameter files
- Read-out of the technical data via the QR code on the name plates of ZIEHL-ABEGG elevator machines, frequency inverters, power feedback units and system components, including automatic transfer to the parameter file.

Offline parameterisation

- Parameter files can be created and saved in the office or workshop, for example, without needing a connection to the end device
- As soon as the Bluetooth connection is established via ZAmon STICK, the parameter transfer can be started

Analysis

- Detailed description of events and possible solutions
- Recording and evaluation of travel curves for analysis and diagnostic processes
- 4 analog measuring channels
- 1 digital measuring channel
- Recording saving function
- FFT analysis
- Mathematical analysis functions



Customer service contact

- Direct e-mail contact to ZIEHL-ABEGG customer service
- Automatic collation of all important data and preparation of the e-mail with one click
- Sending of e-mails via the local e-mail client on the mobile device

Data backup and exchange

- Parameter file
- Parameter list
- Error lists
- Assignment of individual file names

Documentation

- Access to name plate via QR code
- Operating instructions
- Declaration of conformity
- Certificates

Laden im App Store

ZAmon for iOS

JETZT BEI Google Play

ZAmon for android

Software ZAmon (PC version)

ZAmon

The perfect tool for diagnosing elevator systems and managing of parameters. ZAmon enables fast and simple access to all parameters and functions of the frequency inverters and recuperation units from ZIEHL-ABEGG.

The functions of ZAmon

- Time-optimised start-up of the frequency inverter type ZAdyn and the recuperation unit ZArec4C
- Analysis and optimisation of the travel curve
- Fast diagnosis of weak points such as rail joints, door lock interruptions or communication problems to the elevator control system
- Back-up and management of the parameters
- Creation of documents for documentation

ZAmon provides the suitable software module for every application:

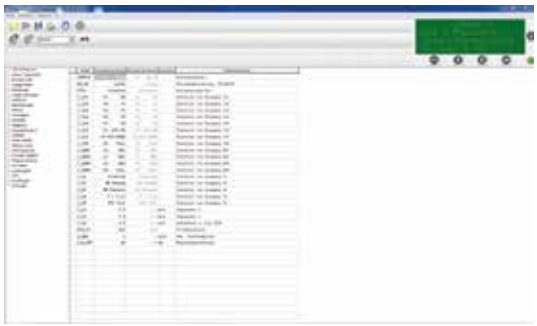
Module “Display”

- Remote control of the frequency inverter or recuperation unit via Notebook

Module “Recorder”

Recording of travel curves for diagnostic purposes

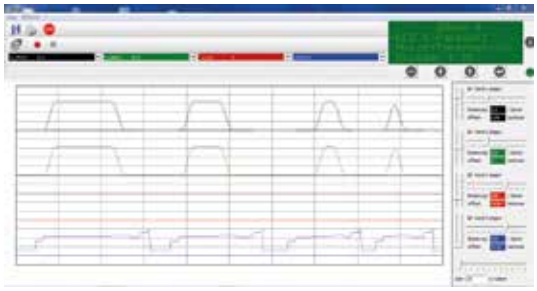
- 4 analogue measuring channels
- 1 digital measuring channel
- Free assignment of the measuring channels with measuring functions
- Back-up of recordings
- Comparison of measurements
- FFT analysis
- Mathematic analysis functions



Module “Parameters”

Management of parameter

- Clear display of menus and parameters
- Editing of parameters in real time
- Saving parameters
- Printing of parameter lists
- Printing of error lists
- Loading of saved parameter sets into the frequency inverter or into the recuperation unit
- Comparison of parameters
- Loading installation and motor data from calculations created in the ZAlift calculation software



“Oszi” module

Realtime recording of travel curves for diagnosis purposes

- 4 analogue measurement channels
- Free assignment of measurement channels with measurement functions
- Save the Oszi-recordings

ZAmon is available as a free of charge download on the ZIEHL-ABEGG homepage.

General notes

The information and data contained in this catalogue were composed to the best of our best ability and do not absolve the user from its duty to check the suitability of the products with respect to its intended application.

The customer is obligated to inform the supplier about general information concerning the intended use, the type of installation, the operating conditions and any other conditions that need to be taken into consideration if the order is not based on catalogue information.

ZIEHL-ABEGG SE reserves the right to make design changes, which are used for continuous technical improvement.

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The Royal League

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