

Movement by Perfection






Drive Technology

for elevators with gearbox
2023 Edition

The Royal League in ventilation, control and drive technology

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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 world-wide 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.

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.

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with gearbox

System compo-
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Elevator machines with gearbox

Product overview

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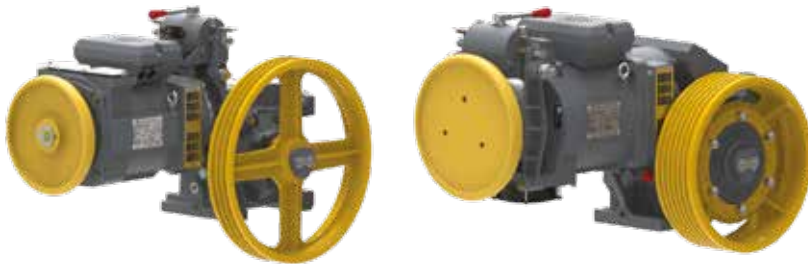
Appendix

Elevator machines with gearbox

General information

Properties

- Optimized for easy installation in the machine room
- Great elevator travelling comfort through low noise and vibration-free operation
- Travelling speeds up to 2.5 m/s
- Traction sheave diameter from 360 mm to 800 mm
- Rope diameters from 8 mm to 16 mm
- Optimum package solution with the ZIEHL-ABEGG ZAdyn frequency inverter



The exclusive combination from specially developed frequency inverters series ZAdyn for elevator technology and elevator machine with gearbox offers maximum flexibility and variability for innovative solutions in the modernization of existing elevator systems as well as for new systems

Your advantages

- Fast commissioning due to harmonized system
- Smooth running drive units
- Longer maintenance cycles due to the use of synthetic gear oil
- Large selection of suitable system components
- Selection of the drive system with calculation software ZAlift



Product portfolio elevator machines with gearbox

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

Suspension	Rated load max. kg	Traction sheave diameter mm	Axle load kg	Elevator machine with gearbox	Page
1:1	400	360...600	2200	M65 	Page 8
	480	360...700	2000 / 2700	M73 / M73H 	Page 10
	630	360...700	2000 / 2700	M75 / M75H 	Page 12
	630	360...700	3000	PENTA 	Page 14
	800	400...800	3200	M83 	Page 16
	1250	400...800	5000	M93 	Page 18
	2200	450...800	7000	M98H 	Page 20

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Elevator machine with gearbox

M65



Drive unit

- Asynchronous motor
- Worm gear
- Horizontal and vertical mounting
- Traction sheave left/right
- Temperature monitoring

Brake system

- Double shoe brake
- Mechanical hand release system

Technical data

M65

ZAdyn4C

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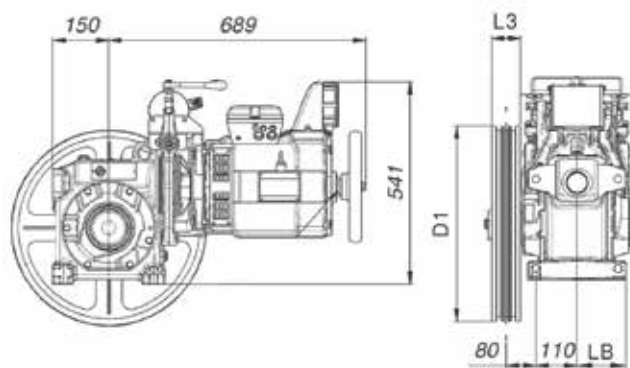
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Calculation software ZAlift

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Motor cable

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Type	Max. axle load kg	Nominal torque Nm	Rated output power kW	LB mm	D1 mm	L3 mm
M65	2200	662...838	3,0...5,5	131	360	80
				279*	400	80
					450	60
					480	80
					520	
					550	
	600					

* Version with safety brake

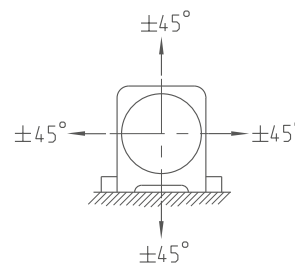


Scope of delivery and options

	Standard	Options
Motor	Asynchronous motor	-
Gearbox	Worm gear	-
Traction sheave	See D1	-
Brake system	Operating brake	Security brake*
Service brake monitoring	Proximity switches	-
Security brake monitoring	Microswitch	-
Motor cable	10 m	-
Incremental encoder	TTL	-
Rope guard	2 pieces	-
Temperature monitoring	Thermal contact	-

*Deployable as an element of the ascending car overspeed protection means as well as part of the protection against unintended car movement

Resulting rope force



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 power kW	Motor current A		
1:1	320	0,63	400	2,4	7,4		
		0,63	600	2,7	9,4		
		0,8	480	2,9	9,0		
		1,0	480	3,4	10,6		
		1,0	600	3,6	10,9		
		1,2	600	4,1	12,0		
		1,6	480	4,7	12,2		
	400	0,63	400	2,9	9,0		
		0,63	550	2,9	10,6		
		1,0	480	4,3	12,2		
		2:1	320	0,63	400	2,1	7,4
				0,63	600	2,5	7,6
				0,8	480	2,7	8,8
				1,0	580	3,4	10,5
1,0	600			3,4	10,6		
1,2	600			4,1	10,6		
400	0,63			400	2,5	8,7	
	0,63	600	3,0	9,2			
	1,0	600	4,2	12,2			

Elevator machine with gearbox

M73



Drive unit

- Asynchronous motor
- Worm gear
- Horizontal mounting
- Traction sheave left/right
- Temperature monitoring

Brake system

- Double shoe brake
- Mechanical hand release system

Technical data

M73

ZAdyn4C

ZAdynpro

Calculation software ZAlift

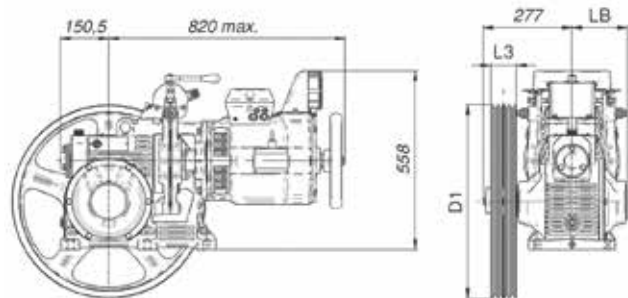
Motor cable

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Type	Max. axle load	Nominal torque	Rated output power	LB	D1	L3
	kg	Nm	kW	mm	mm	mm
M73	2000	541...1059	3,0...5,5	173	360	80 115
M73H	2700			290*	400	80 90 115
					450	60 80
					480	60
					520	80
					550	95
					580	115
					600	
					650	80
					700	90

* Version with safety brake

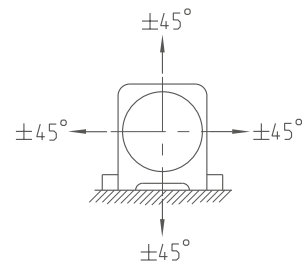


Scope of delivery and options

	Standard	Options
Motor	Asynchronous motor	-
Gearbox	Worm gear	-
Traction sheave	See D1	-
Brake system	Operating brake	Security brake*
Service brake monitoring	Proximity switches	-
Security brake monitoring	Microswitch	-
Motor cable	10 m	-
Incremental encoder	TTL	-
Rope guard	2 pieces	-
Temperature monitoring	Thermal contact	-

*Deployable as an element of the ascending car overspeed protection means as well as part of the protection against unintended car movement

Resulting rope force



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 power kW	Motor current A
1:1	400	0,63	600	2,5	9,2
		1,2	600	4,0	11,8
	480	0,8	480	3,6	11,0
		1,0	480	3,9	11,5
2:1	400	0,63	600	2,3	8,1
		1,2	600	4,7	12,5
	480	0,8	550	4,1	11,6
		1,0	480	4,5	12,0

Elevator machine with gearbox

M75



Drive unit

- Asynchronous motor
- Worm gear
- Horizontal mounting
- Traction sheave left/right
- Temperature monitoring

Brake system

- Double shoe brake
- Mechanical hand release system

Technical data

M75

ZAdyn4C

ZAdynpro

Calculation software ZAlift

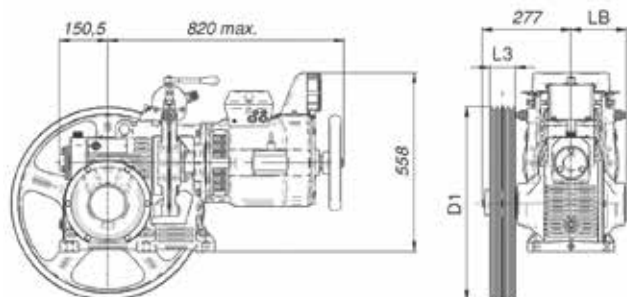
Motor cable

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Type	Max. axle load	Nominal torque	Rated output power	LB	D1	L3
	kg	Nm	kW	mm	mm	mm
M75	2000	622...1181	3,0...7,5	173	360	80
				290*		115
M75H	2700				400	80
						90
						115
					450	95
						115
					480	80
					520	95
					550	115
					580	
					600	
					650	80
					700	90

* Version with safety brake

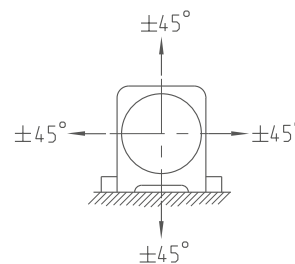


Scope of delivery and options

	Standard	Options
Motor	Asynchronous motor	-
Gearbox	Worm gear	-
Traction sheave	See D1	-
Brake system	Operating brake	Security brake*
Service brake monitoring	Proximity switches	-
Security brake monitoring	Microswitch	-
Motor cable	10 m	-
Incremental encoder	TTL	-
Rope guard	2 pieces	-
Temperature monitoring	Thermal contact	-

*Deployable as an element of the ascending car overspeed protection means as well as part of the protection against unintended car movement

Resulting rope force



with lateral form lock support

Example configurations

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Suspension	Payload kg	Speed m/s	Traction sheave mm	Motor power kW	Motor current A
1:1	630	0,63	400	3,9	11,3
		0,8	520	4,9	12,5
		1,0	480	5,0	12,7
2:1	680	0,6	450	3,9	12,0
		0,63	450	4,0	11,7
	630	0,8	580	5,1	12,8
		1,0	480	5,9	14,0
	680	0,6	450	4,2	12,3

Elevator machine with gearbox

PENTA



Drive unit

- Asynchronous motor
- Worm gear
- Horizontal and vertical mounting
- Temperature monitoring

Brake system

- Double shoe brake
- Mechanical hand release system

Technical data

PENTA

ZAdyn4C

ZAdynpro

Calculation software ZAlift

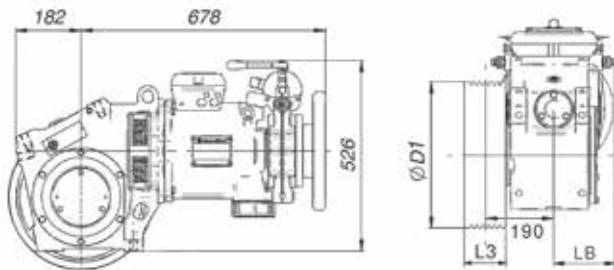
Motor cable

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Type	Max. axle load kg	Nominal torque Nm	Rated output power kW	LB mm	D1 mm	L3 mm
PENTA	3000	1022...1260	3,0...11,0	172 258*	360	80 115
					400	80 95 115
					450	60
					480	80
					520	95
					550	
					580	
					600	
					650	80 95
					700	90

* Version with safety brake

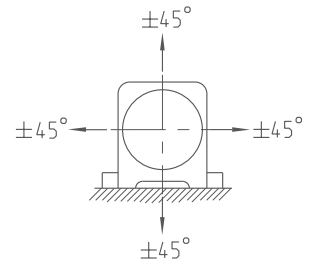


Scope of delivery and options

	Standard	Options
Motor	Asynchronous motor	-
Gearbox	Worm gear	-
Traction sheave	See D1	-
Brake system	Operating brake	Security brake*
Service brake monitoring	Proximity switches	-
Security brake monitoring	Microswitch	-
Motor cable	10 m	-
Incremental encoder	TTL	-
Rope guard	2 pieces	-
Temperature monitoring	Thermal contact	-

*Deployable as an element of the ascending car overspeed protection means as well as part of the protection against unintended car movement

Resulting rope force



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 power kW	Motor current A
1:1	400	0,63	600	2,5	7,8
		1,2	600	3,9	10,1
	480	0,8	480	3,6	9,4
		1,0	480	3,8	9,8
	630	0,63	400	3,7	8,9
		0,8	520	4,4	12,2
2:1	400	0,63	600	2,3	6,3
		1,2	600	4,5	12,9
	480	0,8	580	3,5	9,3
		1,0	400	4,4	10,7
	630	0,63	580	4,0	10,0
		0,8	580	4,6	11,6
680	1,0	480	5,7	14,6	
680	0,6	450	3,8	9,9	

Elevator machine with gearbox

M83



Drive unit

- Asynchronous motor
- Worm gear
- Horizontal mounting
- Traction sheave left/right
- Temperature monitoring

Brake system

- Double shoe brake
- Mechanical hand release system

Technical data

M83

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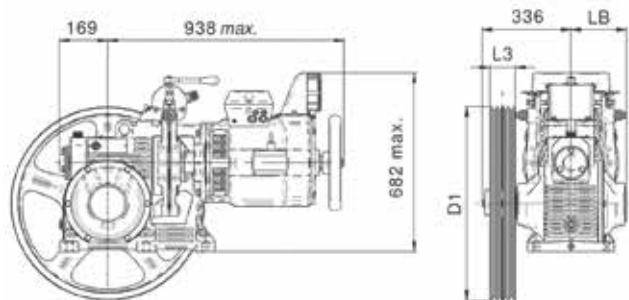
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Calculation software ZAlift

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Motor cable

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Type	Max. axle load	Nominal torque	Rated output power	LB	D1	L3
	kg	Nm	kW	mm	mm	mm
M83	3200	975...1500	3,0...11,0	191 308*	400	80
						95
						115
					450	95
						115
						150
					480	80
						95
						115
					550	
					600	
					650	80
	115					
700	95					
	115					
750	115					
800						

* Version with safety brake

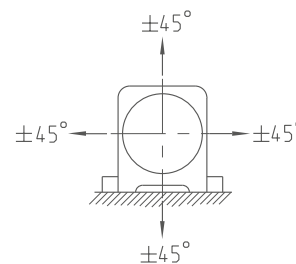


Scope of delivery and options

	Standard	Options
Motor	Asynchronous motor	-
Gearbox	Worm gear	-
Traction sheave	See D1	-
Brake system	Operating brake	Security brake*
Service brake monitoring	Proximity switches	-
Security brake monitoring	Microswitch	-
Motor cable	10 m	-
Incremental encoder	TTL	-
Rope guard	2 pieces	-
Temperature monitoring	Thermal contact	-

*Deployable as an element of the ascending car overspeed protection means as well as part of the protection against unintended car movement

Resulting rope force



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 power kW	Motor current A
1:1	400	1,6	520	5,5	13,3
		1,6	520	6,6	17,2
			2,0	550	8,0
	630	0,8	520	4,6	12,1
			580	7,1	18,3
			520	8,3	20,7
			480	6,0	16,6
2:1	400	1,6	520	6,0	14,1
		1,6	520	7,3	18,5
	630	0,8	520	4,8	12,3
		1,2	650	7,1	18,2
	800	0,8	480	6,0	16,7
		1,0	550	7,5	19,0

Elevator machine with gearbox

M93



Drive unit

- Asynchronous motor
- Worm gear
- Horizontal mounting
- Traction sheave left/right
- Temperature monitoring

Brake system

- Double shoe brake
- Mechanical hand release system

Technical data

M93

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ZAdynpro

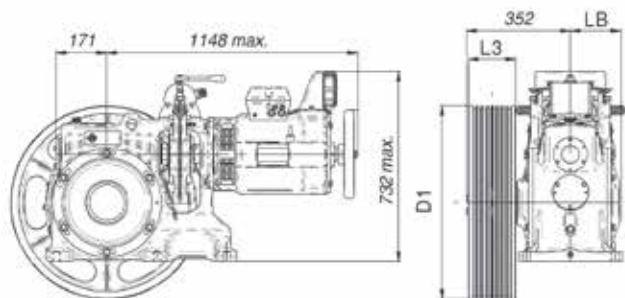
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Calculation software ZAlift

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Motor cable

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Type	Max. axle load kg	Nominal torque Nm	Rated output power kW	LB mm	D1 mm	L3 mm
M93	5000	1300...2530	5,5...22,0	171	400	90
					331*	450
				95		
				115		
				480	150	
					520	95
				550		115
					580	135
				600		190
					650	115
				700		135
					750	160
				800		95
						135
	160					
	115					
	145					

* Version with safety brake

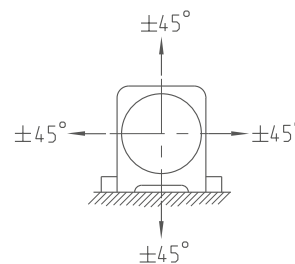


Scope of delivery and options

	Standard	Options
Motor	Asynchronous motor	-
Gearbox	Worm gear	-
Traction sheave	See D1	-
Brake system	Operating brake	Security brake*
Service brake monitoring	Proximity switches	-
Security brake monitoring	Microswitch	-
Motor cable	10 m	-
Incremental encoder	TTL	-
Rope guard	2 pieces	-
Temperature monitoring	Thermal contact	-

*Deployable as an element of the ascending car overspeed protection means as well as part of the protection against unintended car movement

Resulting rope force



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 power kW	Motor current A
1:1	630	2,0	650	10,5	23,9
		2,5	480	12,6	28,8
	800	1,0	550	7,4	18,8
		1,2	600	8,5	21,0
		1,6	520	10,9	24,5
		1,0	550	9,4	21,7
	1000	0,63	520	5,9	14,2
		0,8	550	7,5	19,8
		1,0	550	9,4	21,7
		1,2	650	11,3	25,2
2:1	630	2,0	650	11,2	24,8
		2,5	800	14,6	32,4
	800	1,0	650	7,6	19,2
		1,2	480	8,4	20,8
		1,6	520	11,7	26,0
	1000	0,63	520	6,1	18,9
		0,8	550	7,7	20,3
		1,0	650	9,7	22,5
		1,2	750	11,6	25,9
	1250	1,0	650	12,0	26,8

Elevator machine with gearbox

M98H



- Drive unit
- Asynchronous motor
 - Worm gear
 - Horizontal mounting
 - Traction sheave left/right
 - Temperature monitoring

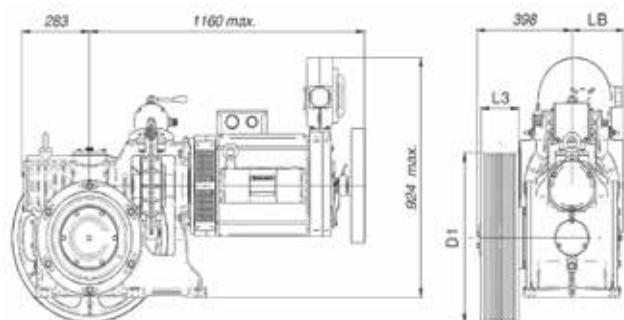
- Brake system
- Double shoe brake
 - Mechanical hand release system

Technical data

M98H

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Motor cable

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Type	Max. axle load kg	Nominal torque Nm	Rated output power kW	LB mm	D1 mm	L3 mm
M98H	7000	2141...3593	9,0...26,0	219	450	95
						115
				412*	480	130
						150
				520	95	
					115	
				550	165	
					115	
				580	130	
					180	
				600	95	
					115	
				650	135	
					180	
700	115					
	175					
750	95					
	135					
800	175					
	115					
	140					
	180					

* Version with safety brake

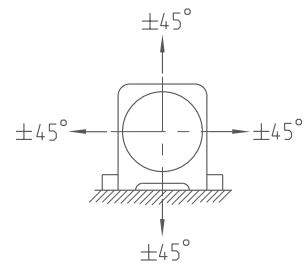


Scope of delivery and options

	Standard	Options
Motor	Asynchronous motor	-
Gearbox	Worm gear	-
Traction sheave	See D1	-
Brake system	Operating brake	Security brake*
Service brake monitoring	Proximity switches	-
Security brake monitoring	Microswitch	-
Motor cable	10 m	-
Incremental encoder	TTL	-
Rope guard	2 pieces	-
Temperature monitoring	Thermal contact	-

*Deployable as an element of the ascending car overspeed protection means as well as part of the protection against unintended car movement

Resulting rope force

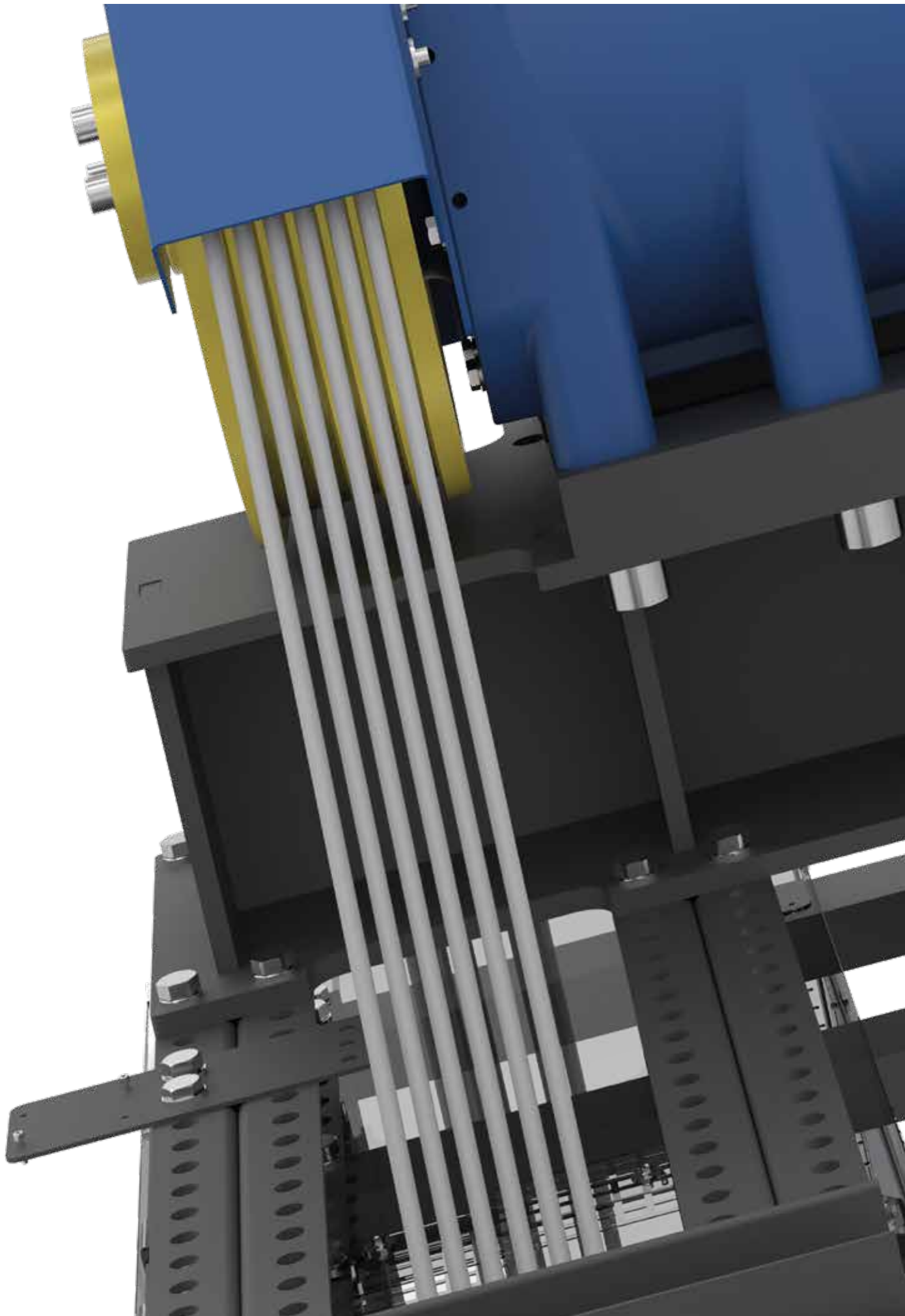


with lateral form lock support

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 power kW	Motor current A
1:1	1000	1,6	520	13,8	31,6
		2,0	650	17,3	37,0
	1250	0,63	520	8,3	20,5
		1,2	580	13,8	31,5
		1,6	520	17,5	37,3
		2,0	650	21,8	45,1
		2,0	650	21,8	45,1
	1600	0,6	550	9,8	23,3
		0,8	550	12,3	27,3
		1,0	580	15,4	33,4
2:1	1000	1,6	580	14,7	32,7
		2,0	750	18,4	38,7
	1250	0,63	520	7,5	19,6
		1,2	750	14,4	32,2
		1,6	580	18,7	39,0
		2,0	750	23,3	47,1
		2,0	750	23,3	47,1
	1600	0,6	550	9,6	21,9
		0,8	550	11,7	26,9
		1,0	650	15,5	34,2
	2000	0,63	520	11,5	26,2
		1,0	650	18,5	39,0



System components

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Machine frame

Elevated frame for M65, M73, M75, PENTA and M83



Description

- Elevated frame with one deflection pulley
- Screwed sheet metal design
- Static load: up to 3200 kg
- Typical payload: 320 kg to 800 kg
- Traction sheave: 360 mm to 600 mm
- Deflection pulley: 320 mm to 520 mm
- Version right and left

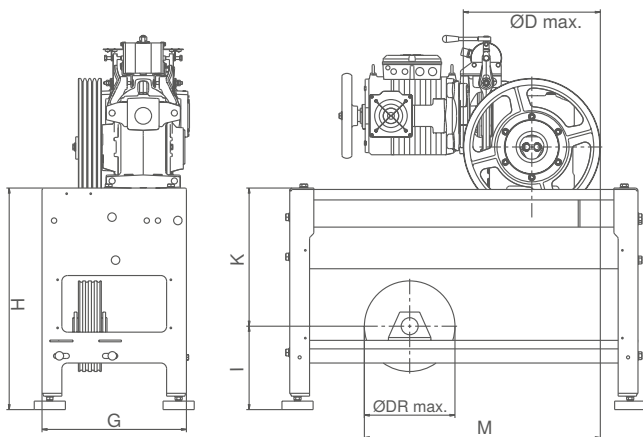
Scope of delivery

- Frame with fastening material
- Insulating elements

Options

- Different traction sheaves and deflection pulleys

Dimensions mm



Gear-box	G	H	I	K	M	Ø D max.	Ø DR max.
	mm	mm	mm	mm	mm	mm	mm
M65	510	786	298	483	1100	600	520
M73							
M75							
PENTA	510	786	298	483	1100	600	520
M83	586	854	315	539	1100	600	520

Machine frame

Elevated frame for M93



Description

- Elevated frame with one deflection pulley
- Screwed sheet metal design
- Static load: up to 5000 kg
- Typical payload: 630 kg to 1250 kg
- Traction sheave: 400 mm to 650 mm
- Deflection pulley: 320 mm to 520 mm
- Version right and left

Scope of delivery

- Frame with fastening material
- Insulating elements

Options

- Different traction sheaves and deflection pulleys

Information

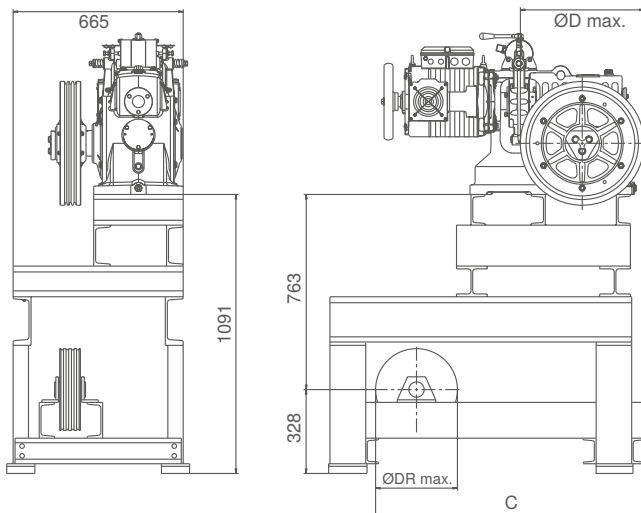
Elevator machine
with gearbox

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nents motors

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Dimensions mm



Gear- box	C max. mm	Ø D max. mm	Ø DR max.
M93	1115	650	520

Machine frame

Elevated frame for M98H



Description

- Elevated frame with one deflection pulley
- Screwed sheet metal design
- Static load: up to 7000 kg
- Typical payload: 1000 kg to 3000 kg
- Traction sheave: 450 mm to 800 mm
- Deflection pulley: 320 mm to 650 mm
- Version right and left

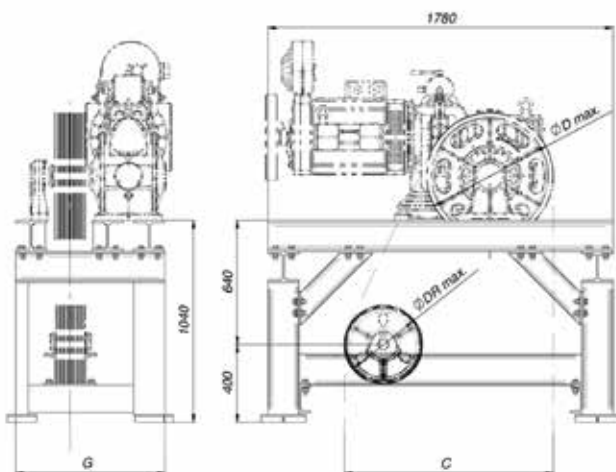
Scope of delivery

- Frame with fastening material
- Insulating elements
- Mounted machine frame with deflection pulley

Options

- Different traction sheaves and deflection pulleys

Dimensions mm



Gear-box	C	G	Ø D max.	Ø DR max.
	mm	mm	mm	mm
M98H	1250	770	800	650

Machine frame

Flat frame for M65, M73, M75, PENTA and M83



Description

- Flat frame
- Screwed sheet metal design
- Static load: up to 3200 kg
- Typical payload: 320 kg to 800 kg

Scope of delivery

- Frame with fastening material
- Insulating elements
- Mounted machine frame

Information

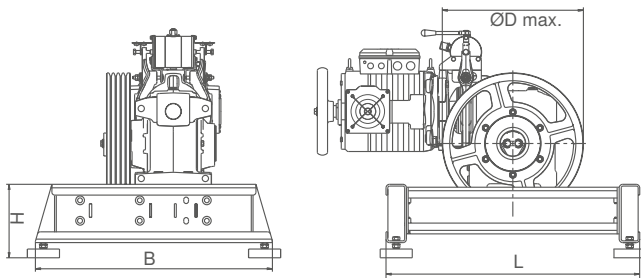
Elevator machine with gearbox

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Dimensions mm



Gear-box	B mm	H mm	L mm	Ø D max. mm
M65 M73 M75	813	252	870	700
PENTA	813	252	870	700
M83	863	252	1020	800

Machine frame

Flat frame for M93 and M98H



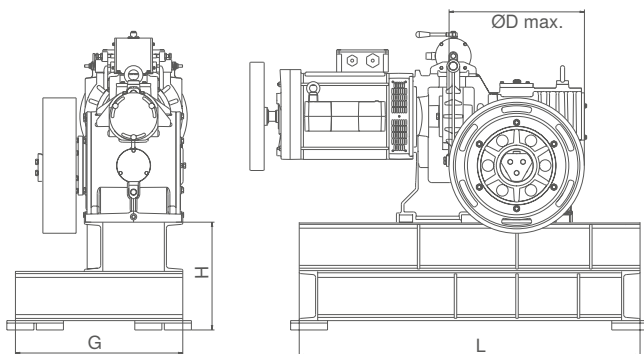
Description

- Flat frame
- Screwed sheet metal design
- Static load: up to 7500 kg
- Typical payload: 630 kg to 3000 kg

Scope of delivery

- Frame with fastening material
- Insulating elements
- Mounted machine frame

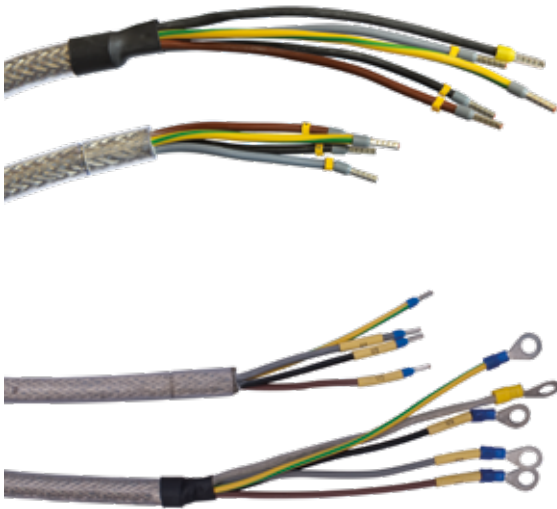
Dimensions mm



Gear-box	G	H	L	Ø D max.
	mm	mm	mm	mm
M93	670	358	1070	800
M98H	680	438	1385	800

Motor cables

Standard



For elevator machines with gearbox

- Cable for connecting the elevator machine to frequency inverter type ZAdyn
- Prefabricated:
 - Connection side motor: wire end sleeves or ring cable eye
 - Connection side ZAdyn: wire end sleeves

Rated current A	Cable cross section mm ²	Cable gland	Ring cable lug for terminal board	Elevator machine with gearbox	Cable length m	Type	Article no.
20	4 x 2,5	-	-	M65 M73/H M75/H PENTA M83 M93 M98H	10	L-ML-10-YY-2,5-MG-AE	02022356-10M
25	4 x 4	-	-	PENTA M83 M93 M98H	10	L-ML-10-YY-4-MG-AE	02022357-10M
35	4 x 6	-	-	M93 M98H	10	L-ML-10-YY-6-MG-AE	02022358-10M
50	4 x 10	-	-	M93 M98H	10	L-ML-10-YY-10-MG-AE	02022359-10M
63	4 x 16	-	M10	M98H	10	L-ML-10-YY-16-MG-AE	02022360-10M

ZAlift Calculation software

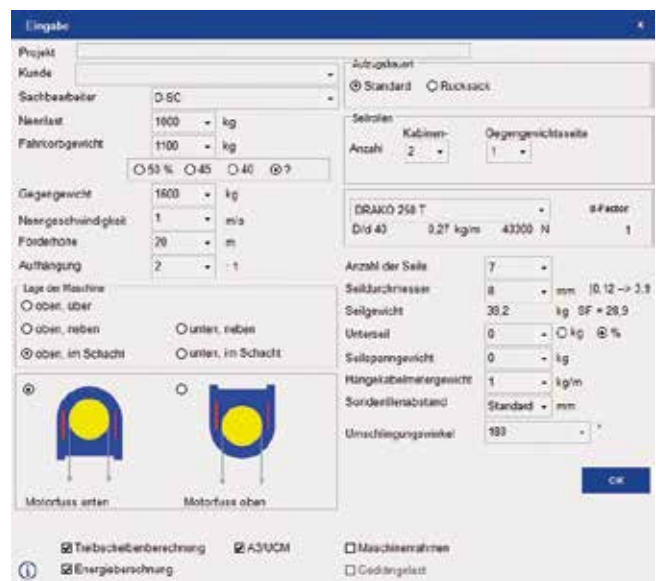
Calculation software for elevator machines from ZIEHL-ABEGG



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.

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)



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





Control technology

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ZAdyn Frequency inverter for elevator machines

4C - The solution for wall installation



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

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.	Mains voltage type	Nominal voltage VAC	Mains frequency Hz	Motor power typ. W	Nominal current A	Current max. A	Duty cycle %	Weight kg
ZAdyn4CA 011	352194	3~	400	50/60	4.6	11	20	60	11.80
ZAdyn4CS 011	352201				12.00				
ZAdyn4CA 013	352195				5.5	13	24		12.60
ZAdyn4CS 013	352202				12.80				
ZAdyn4CA 017	352196				7.5	17	31		13.00
ZAdyn4CS 017	352203				13.20				
ZAdyn4CA 023	352197				11	23	42		14.10
ZAdyn4CS 023	352204				14.30				
ZAdyn4CA 032	352198				14	32	58		16.40
ZAdyn4CS 032	352205				16.60				
ZAdyn4CA 040	352206				19	40	72		32.40
ZAdyn4CS 040	352216				32.60				
ZAdyn4CA 050	352207				24	50	90		33.30
ZAdyn4CS 050	352217				33.50				
ZAdyn4CA 062	352208				30	62	112		36.20
ZAdyn4CS 062	352218				36.40				
ZAdyn4CA 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)

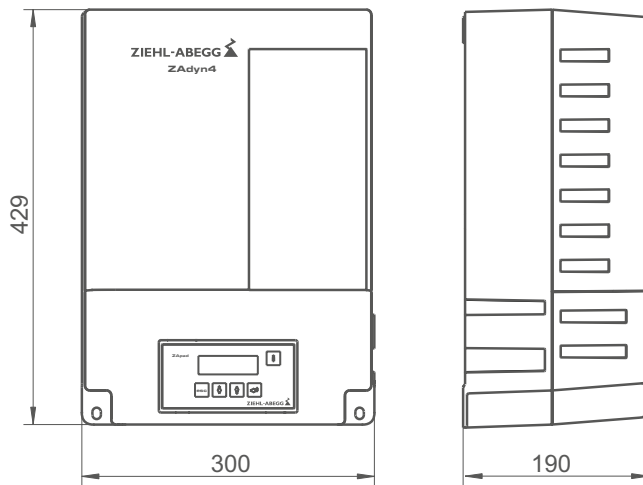
Electromagnetic compatibility

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

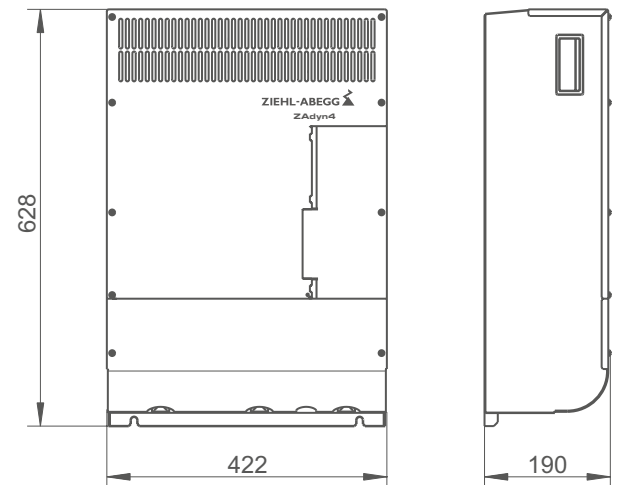
Frequency inverter	Brake resistor	Article no.
ZAdyn4C 011	BR11-A	357171
	BR14-A	357195
	BR17	357216
ZAdyn4C 013	BR14-A	357195
	BR17	357216
ZAdyn4C 017	BR17	357216
ZAdyn4C 023	BR25	357217
ZAdyn4C 032	BR25	357217
	BR50	357218
ZAdyn4C 040	BR50	357218
ZAdyn4C 050	BR50	357218
ZAdyn4C 062	BR50	357218
ZAdyn4C 074	BR50	357218
	BR100-A	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

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.	Mains voltage type	Nominal voltage VAC	Mains frequency Hz	Motor power typ. W	Nominal current A	Current max. A	Duty cycle %	Weight 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	357171
	BR14-A	357195
	BR17	357216
ZAdynpro 013	BR14-A	357195
	BR17	357216
ZAdynpro 017	BR17	357216
ZAdynpro 023	BR25	357217
ZAdynpro 032	BR25	357217
	BR50	357218

Information

Elevator machine
with gearbox

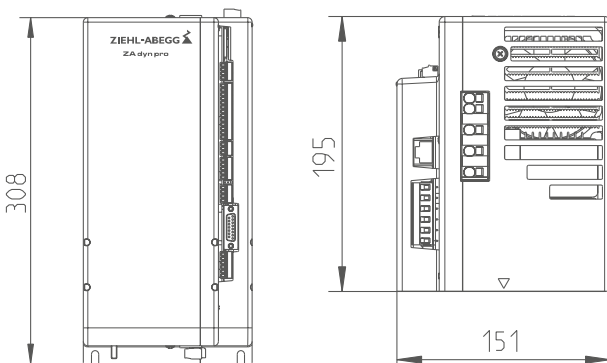
System compo-
nents motors

Control
technology

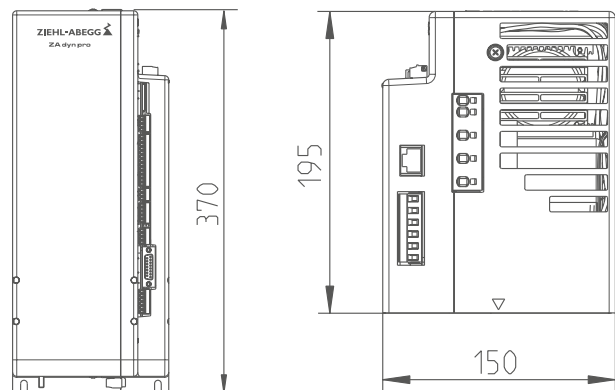
Appendix

Dimensions mm

ZAdynpro 011-017



ZAdynpro 023-032



General notes

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