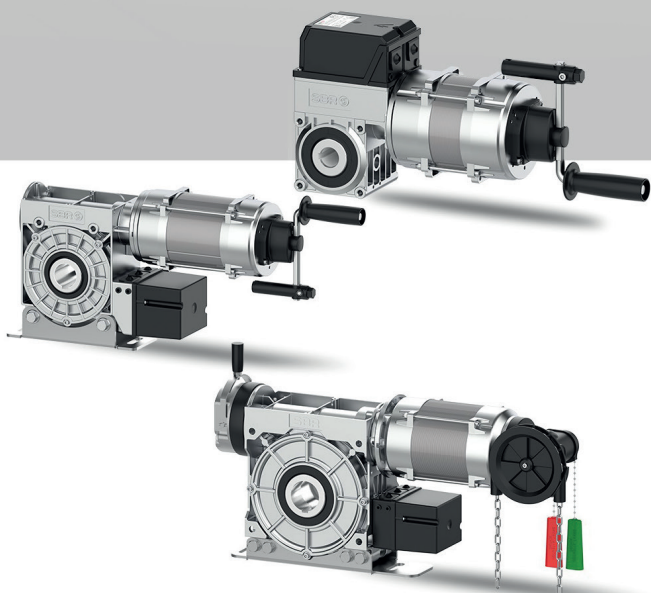
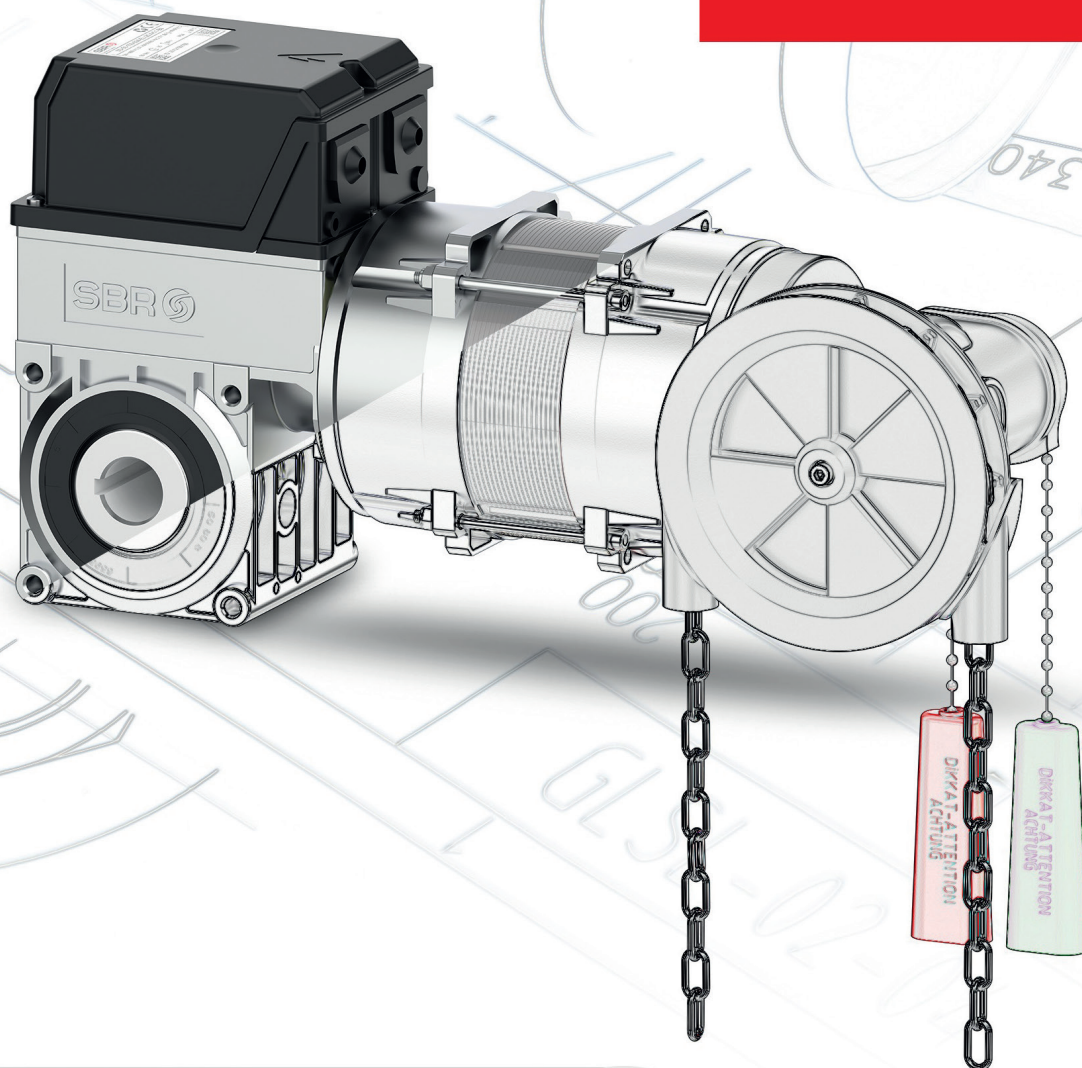


TECHNICAL PRODUCT CATALOG



SBR
— ENGINEERING

ID	ITEM DESCRIPTION	3
SD	SPRING-BALANCED SECTIONAL DOORS DRIVES	6
DS	NON BALANCED SECTIONAL DOORS DRIVES	12
RD	ROLLER SHUTTER DOORS DRIVES	24
PS	HIGH SPEED DOORS DRIVES	38
KD	CHAIN TRANSMISSION DOORS DRIVES	49
CU	CONTROL UNIT	59
AC	ACCESSORIES	70

ITEM DESCRIPTION

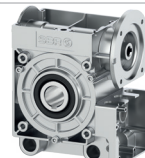
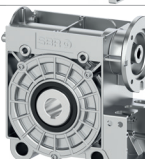
1	2	3	4	5	6																								
SD – 050 – 0100 – 048 – D25.4 – E20 - 0.75KW – 3N400 - C2 - B2 - FI																													
			OUTPUT SHAFT <table><tr><td>D25.0</td><td>Ø25.0 mm</td></tr><tr><td>D25.4</td><td>Ø25.4 mm</td></tr><tr><td>D30.0</td><td>Ø30.0 mm</td></tr><tr><td>D31.75</td><td>Ø31.75 mm</td></tr><tr><td>D40.0</td><td>Ø40.0 mm</td></tr><tr><td>D55.0</td><td>Ø55.0 mm</td></tr></table>	D25.0	Ø25.0 mm	D25.4	Ø25.4 mm	D30.0	Ø30.0 mm	D31.75	Ø31.75 mm	D40.0	Ø40.0 mm	D55.0	Ø55.0 mm	EXTRA FEATURE <table><tr><td>FI</td><td>FREQUENCY INVERTER</td></tr><tr><td>HD</td><td>REFRIGERATED BODY</td></tr></table>		FI	FREQUENCY INVERTER	HD	REFRIGERATED BODY								
D25.0	Ø25.0 mm																												
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D55.0	Ø55.0 mm																												
FI	FREQUENCY INVERTER																												
HD	REFRIGERATED BODY																												
			OUTPUT SPEED <table><tr><td>010</td><td>10 rpm</td></tr><tr><td>015</td><td>15 rpm</td></tr><tr><td>024</td><td>24 rpm</td></tr><tr><td>048</td><td>48 rpm</td></tr><tr><td>140</td><td>140 rpm</td></tr></table>	010	10 rpm	015	15 rpm	024	24 rpm	048	48 rpm	140	140 rpm	BRAKE <table><tr><td>B0</td><td>NON BRAKE</td></tr><tr><td>B1</td><td>5 Nm BRAKE</td></tr><tr><td>B2</td><td>10 Nm BRAKE</td></tr><tr><td>B3</td><td>20 Nm BRAKE</td></tr><tr><td>R1</td><td>5 Nm FRONT BRAKE</td></tr><tr><td>R2</td><td>10 Nm FRONT BRAKE</td></tr><tr><td>R3</td><td>20 Nm FRONT BRAKE</td></tr></table>		B0	NON BRAKE	B1	5 Nm BRAKE	B2	10 Nm BRAKE	B3	20 Nm BRAKE	R1	5 Nm FRONT BRAKE	R2	10 Nm FRONT BRAKE	R3	20 Nm FRONT BRAKE
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R1	5 Nm FRONT BRAKE																												
R2	10 Nm FRONT BRAKE																												
R3	20 Nm FRONT BRAKE																												
OUTPUT TORQUE <table><tr><td>0060</td><td>60 Nm</td></tr><tr><td>0080</td><td>80 Nm</td></tr><tr><td>0100</td><td>100 Nm</td></tr><tr><td>0120</td><td>120 Nm</td></tr></table>			0060	60 Nm	0080	80 Nm	0100	100 Nm	0120	120 Nm	EMERGENCY OPERATION <table><tr><td>C1</td><td>HAND CHAIN OPERATOR C1</td></tr><tr><td>C2</td><td>HAND CHAIN OPERATOR C2</td></tr><tr><td>C3</td><td>HAND CHAIN OPERATOR C3</td></tr><tr><td>MK</td><td>HAND CRANK</td></tr><tr><td>RK</td><td>RELEASE CRANK</td></tr></table>		C1	HAND CHAIN OPERATOR C1	C2	HAND CHAIN OPERATOR C2	C3	HAND CHAIN OPERATOR C3	MK	HAND CRANK	RK	RELEASE CRANK							
0060	60 Nm																												
0080	80 Nm																												
0100	100 Nm																												
0120	120 Nm																												
C1	HAND CHAIN OPERATOR C1																												
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RK	RELEASE CRANK																												
BODY SIZE <table><tr><td>050</td><td>50 TYPE BODY</td></tr><tr><td>063</td><td>63 TYPE BODY</td></tr><tr><td>085</td><td>85 TYPE BODY</td></tr><tr><td>110</td><td>110 TYPE BODY</td></tr></table>			050	50 TYPE BODY	063	63 TYPE BODY	085	85 TYPE BODY	110	110 TYPE BODY	OPERATING VOLTAGE <table><tr><td>1N230</td><td>1N~230 V</td></tr><tr><td>3N400</td><td>3N~400 V</td></tr></table>		1N230	1N~230 V	3N400	3N~400 V													
050	50 TYPE BODY																												
063	63 TYPE BODY																												
085	85 TYPE BODY																												
110	110 TYPE BODY																												
1N230	1N~230 V																												
3N400	3N~400 V																												
PRODUCT GROUP <table><tr><td>SD</td><td>SECTIONAL DOOR DRIVES</td></tr><tr><td>DS</td><td>NON BALANCED SECTIONAL DOOR DRIVES</td></tr><tr><td>RD</td><td>ROLLER SHUTTER DOOR DRIVES</td></tr><tr><td>PS</td><td>HIGH SPEED DOOR DRIVES</td></tr><tr><td>KD</td><td>CHAIN DRIVE DOOR DRIVES</td></tr></table>			SD	SECTIONAL DOOR DRIVES	DS	NON BALANCED SECTIONAL DOOR DRIVES	RD	ROLLER SHUTTER DOOR DRIVES	PS	HIGH SPEED DOOR DRIVES	KD	CHAIN DRIVE DOOR DRIVES	MOTOR POWER <table><tr><td>0.37KW</td><td>0,37 kW MOTOR</td></tr><tr><td>0.55KW</td><td>0,55 kW MOTOR</td></tr><tr><td>0.75KW</td><td>0,75 kW MOTOR</td></tr><tr><td>1.10KW</td><td>1,10 kW MOTOR</td></tr><tr><td>1.50KW</td><td>1,50 kW MOTOR</td></tr><tr><td>2.20KW</td><td>2,20 kW MOTOR</td></tr><tr><td>3.00KW</td><td>3,00 kW MOTOR</td></tr></table>		0.37KW	0,37 kW MOTOR	0.55KW	0,55 kW MOTOR	0.75KW	0,75 kW MOTOR	1.10KW	1,10 kW MOTOR	1.50KW	1,50 kW MOTOR	2.20KW	2,20 kW MOTOR	3.00KW	3,00 kW MOTOR	
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1.50KW	1,50 kW MOTOR																												
2.20KW	2,20 kW MOTOR																												
3.00KW	3,00 kW MOTOR																												
LIMIT SWITCH <table><tr><td>E15</td><td>ELECTRONIC LIMIT SWITCH</td></tr><tr><td>E20</td><td>ELECTRONIC LIMIT SWITCH</td></tr><tr><td>M15</td><td>MECHANIC LIMIT SWITCH</td></tr><tr><td>M20</td><td>MECHANIC LIMIT SWITCH</td></tr></table>			E15	ELECTRONIC LIMIT SWITCH	E20	ELECTRONIC LIMIT SWITCH	M15	MECHANIC LIMIT SWITCH	M20	MECHANIC LIMIT SWITCH																			
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E20	ELECTRONIC LIMIT SWITCH																												
M15	MECHANIC LIMIT SWITCH																												
M20	MECHANIC LIMIT SWITCH																												

ITEM DESCRIPTION

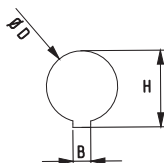
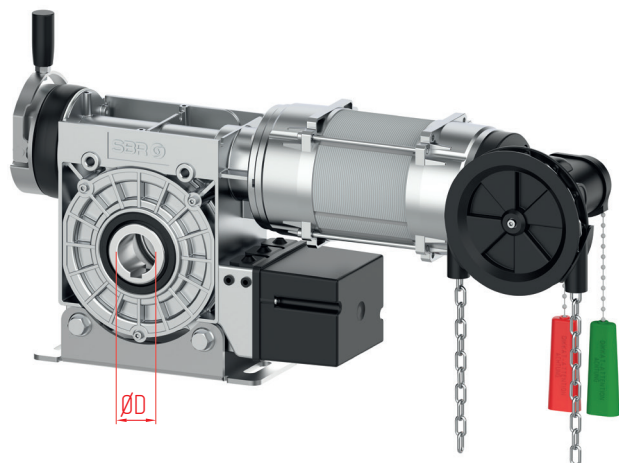
1-PRODUCT GROUP

		Output Torque (Nm)	Output Speed (rpm)
SD	SECTIONAL DOOR DRIVES	80-140	15-80
DS	NON BALANCED SECTIONAL DOOR DRIVES	140-1000	15-24
RD	ROLLER SHUTTER DOOR DRIVES	130-1800	10-15
PS	HIGH SPEED PVC DOOR DRIVES	40-250	35-140
KD	CHAIN TRANSMISSION DOOR DRIVES	100-1000	24

2- BODY SIZE

50	GEARBOX 50	
63	GEARBOX 63	
85	GEARBOX 85	
110	GEARBOX 110	

3- OUTPUT SHAFT



ØD	H	B
D25.0	28,3	8,00
D25.4	28,4	6,35
D30.0	33,3	8,00
D31.75	34,7	6,35
D40.0	43,3	12,00
D55.0	64,4	16,00

ITEM DESCRIPTION

4- LIMIT SWITCH

E15 E20	ELECTRONIC LIMIT SWITCH	
M15 M20	MECHANIC LIMIT SWITCH	

5-EMERGENCY OPERATION

C1	C1 RAPID HAND CHAIN OPERATOR	
C2	C2 HAND CHAIN OPERATOR	
C3	C3 HAND CHAIN OPERATOR	
M1	HAND CRANK	
M2	HAND CRANK	
RK	RELEASE CRANK	

SD SERIES

SPRING-BALANCED SECTIONAL DOORS DRIVES



		SD-50-100-24	SD-50-100-30	SD-50-110-24	SD-50-130-15	SD-50-120-20	SD-50-140-20	SD-50-80-30-FI	SD-50-100-48-FI
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Mechanical Properties

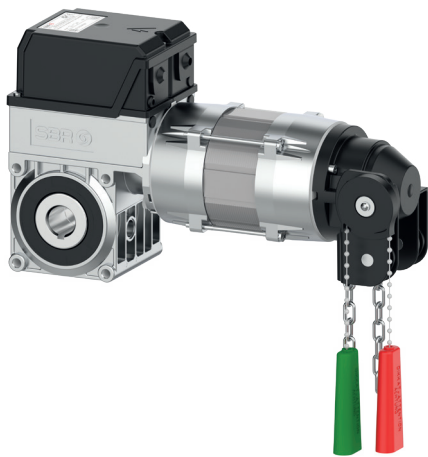
Output Torque	Nm	100	100	110	130	120	140	80	100
Output Speed	rpm	24	30	24	15	20	20	15-45	15-80
Output Shaft ¹	mm	25,4	25,4	25,4	25,4 31,75	25,4 31,75	25,4 31,75	25,4	25,4 31,75
Max. Cycles Per Hour ²	h	12	14	10	10	8	8	25	20
Limit Switch Range	rev	20	20	20	20	20	20	20	20
Max. Output Speed OPEN / CLOSE For Frequency Inverter Operation	rpm	42 / 30	52 / 30	42 / 30	26 / 20	34 / 30	34 / 30	--	--
Door Size ³	m ²	30	30	45	45	50	50	30	45

Electrical Properties

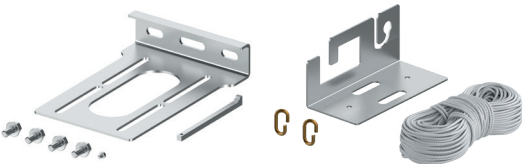
Motor Power	kW	0,37	0,55	0,55	0,37	0,37	0,55	0,55	0,75
Operating Voltage	V	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400	1N~230	1N~230
Operating Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50	50
Operating Current ⁴	A	2,7/1,6	3,8/2,2	3,8/2,2	2,3/1,3	1,8/1,1	3,9/2,3	5,0	6,0
Fuse Protection, On Site	A	10	10	10	10	10	10	10	10
Duty Types	ED	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60
IP Protection Class	IP	54	54	54	54	54	54	54	54
Temperature Range ⁵	°C	-20 40 (+60)	-20 +40 (+60)	-20 40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 40 (+60)	-20 +40 (+60)	-20 +40 (+60)
Working Noise Level	dB (A)	< 70	< 70	< 70	< 70	< 70	< 70	< 70	< 70

- ¹ - Output shafts Ø25,0-Ø25,4-Ø30,0-Ø31,75 mm etc. can be made upon request.
- ² - One cycle corresponds to two door movements (opening and closing). The specified values represent 10 revolutions of the drive shaft per movement and an even distribution is assumed. Other limit speed ranges, ambient temperature and extra friction affect the value.
- ³ - The values in the table take into account a weight of 13 kg/m² and assume full spring balance. In some cases the friction may be greater and this must be taken into account when calculating the values.
- ⁴ - The current in door drives can reach up to 4 times the rated operating current for limited times.
- ⁵ - Allowable temperature -20°C..+40°C (+60°C). When using the +40°C..+60°C temperature range, half of the maximum movements per hour should be used.
- ⚡ If frequency inverter drives are used, increasing the driving speed by 10% will cause a 5% decrease in drive torque. This should be considered when choosing a driver.
- ⚡ In gearmotors powered at a frequency of 60Hz (and at the same voltage), multipliers are used for some performance figures: Output torque: 0,83 , and rotations in output: 1,2

SD-50 WITH C1



INCLUDED



Torque Bracket

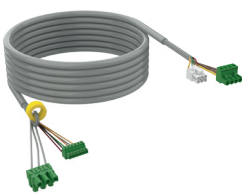
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

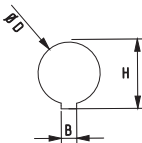
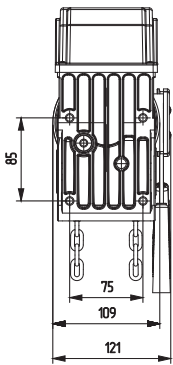
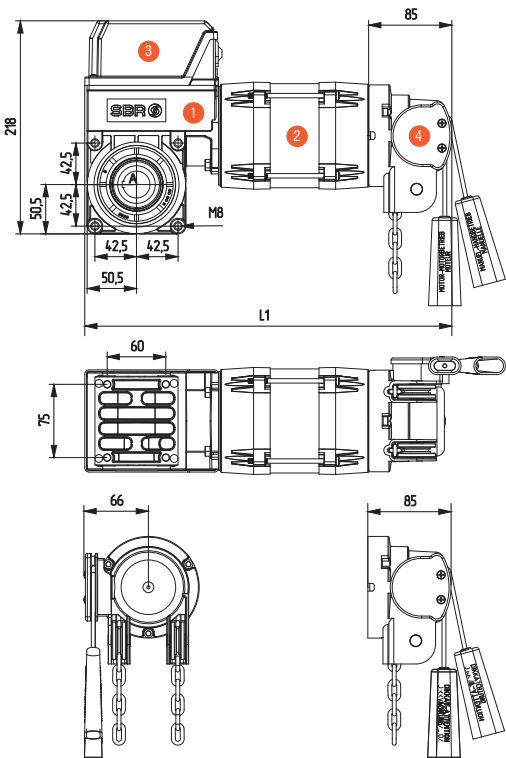
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

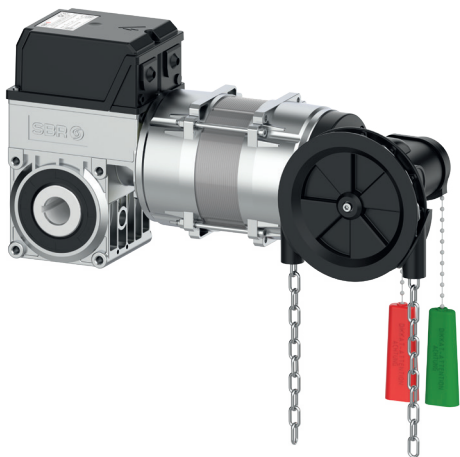


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C1

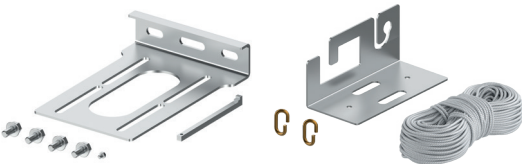
SD SERIES	L1
SD-50-100-24	376
SD-50-100-30	391
SD-50-110-24	391
SD-50-130-15	390
SD-50-140-20	410
SD-50-80-30-FI	391

ØD	H	B
D25.4	28,4	6,35
D31.75	34,7	6,35

SD-50 WITH C2



INCLUDED



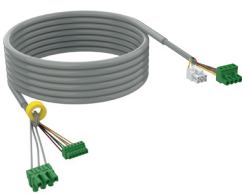
Torque Bracket

Pull Rope

ACCESSORIES



Control Unit
PAGE 59



EL-ML Special Cable
PAGE 71



380 V Cable
PAGE 72

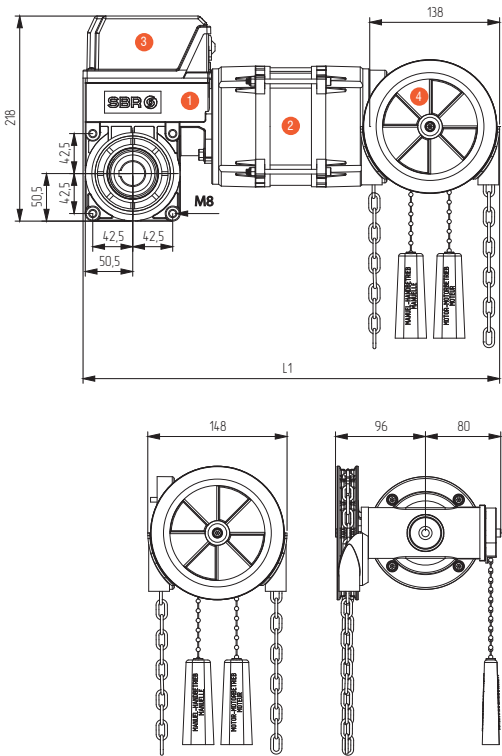


Opto-Sensor
PAGE 72



Chain
PAGE 77

DIMENSION DRAWING

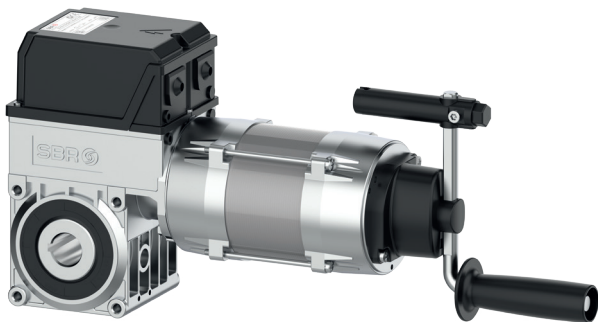


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2

SD SERIES	L1
SD-050-0130-015	443
SD-050-0140-020	463
SD-050-0100-048-FI	453

ØD	H	B
D25.4	28,4	6,35
D31.75	34,7	6,35

SD-50 WITH MK



INCLUDED



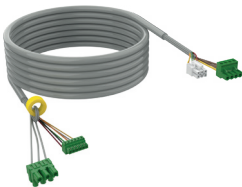
Torque Bracket

Crank

ACCESSORIES



Control Unit
PAGE 59



EL-ML Special Cable
PAGE 71

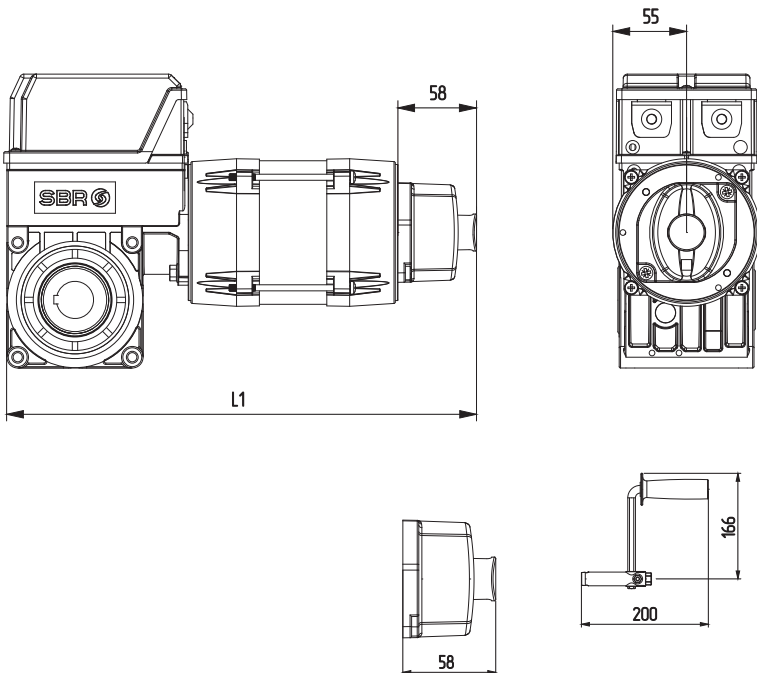


380 V Cable
PAGE 72



Opto-Sensor
PAGE 72

DIMENSION DRAWING

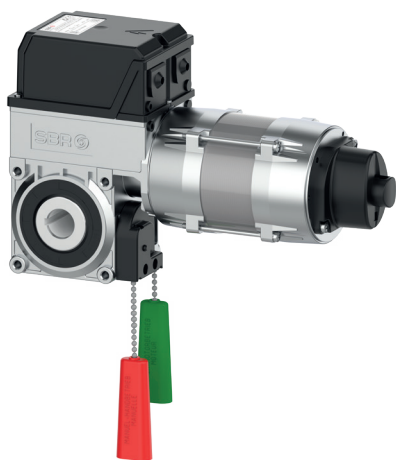


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK

SD SERIES	L1
SD-050-0130-015	443
SD-050-0140-020	463
SD-050-0100-048-FI	453

ØD	H	B
D25.4	28,4	6,35
D31.75	34,7	6,35

SD-50 WITH RK



INCLUDED



Torque Bracket

Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

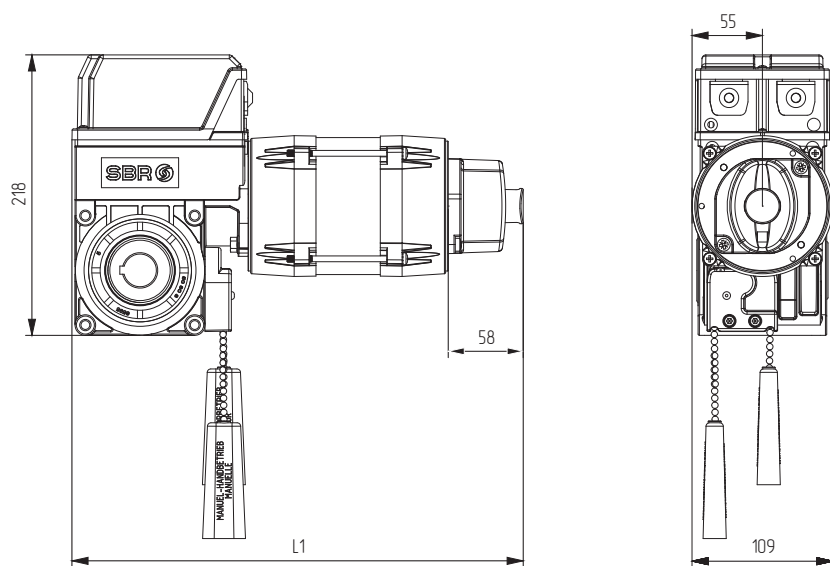
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING



1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK

SD SERIES	L1
SD-050-0130-015	443
SD-050-0140-020	463
SD-050-0100-048-FI	453

ØD	H	B
D25.4	28,4	6,35
D31.75	34,7	6,35

DS SERIES

NON BALANCED SECTIONAL DOORS DRIVES



DS-NON BALANCED SECTIONAL DOOR DRIVES

		DS-50-140-20	DS-63-170-24	DS-63-200-19	DS-85-250-24	DS-85-350-24
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Mechanical Properties

Output Torque	Nm	140	170	200	250	350
Output Speed	rpm	20	24	19	24	24
Output Shaft ¹	mm	25,4 31,75	25,0 25,4 30,0 31,75	25,0 25,4 30,0 31,75	30,0 31,75 40,0	30,0 31,75 40,0
Max. Cycles Per Hour ²	h	8	10	10	11	11
Limit Switch Range	rev	20	20	20	20	20
Max. Output Speed OPEN / CLOSE For Frequency Inverter Operation	rpm	35 / 20	42 / 24	18 / 15	42 / 30	42 / 30

Electrical Properties

Motor Power	kW	0,55	0,75	0,75	0,75	1,10
Operating Voltage	V	3N~400	3N~400	3N~400	3N~400	3N~400
Operating Frequency	Hz	50/60	50/60	50/60	50/60	50/60
Operating Current ³	A	3,9/2,3	4,4/2,6	4,6/2,7	4,6/2,7	5,6/3,3
Fuse Protection, On Site	A	10	10	10	10	10
Duty Types	ED	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60
IP Protection Class	IP	54	54	54	54	54
Temperature Range ⁴	°C	-20 40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)
Working Noise Level	dB (A)	< 70	< 70	< 70	< 70	< 70

Application

		kg	cm/sn	kg	cm/sn	kg	cm/sn	kg	cm/sn	kg	cm/sn
Sectional Doors Cable Drum [mm] ^A	FF NL 18	177	15,2	215	18,2	253	14,4	316	18,2	443	18,2
	F-160	161	16,7	195	20,1	229	15,9	287	20,1	401	20,1
	F-200	128	20,9	156	25,1	183	19,9	229	25,1	321	25,1

	mm	Maximum Suspend Weight In kg				
Roller Door Shaft / Winding Tube EN 10220 [mm] ^B	101,6	180	219	258	322	451
	108,0	172	208	245	307	429
	114,3	164	199	234	293	410
	133,0	145	175	206	258	361
	159,0	124	151	177	222	310
	177,8	--	137	161	201	281
	193,7	--	--	149	186	261
	219,1	--	--	--	167	234

DS-NON BALANCED SECTIONAL DOOR DRIVES

		DS-85-450-24	DS-85-600-15	DS-110-600-24	DS-110-800-24-HD	DS-110-1000-24-HD
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Mechanical Properties

Output Torque	Nm	450	600	600	800	1000
Output Speed	rpm	24	15	24	24	24
Output Shaft ¹	mm	30,0 31,75 40,0	40,0	55,0	55,0	55,0
Max. Cycles Per Hour ²	h	11	9	10	10	7
Limit Switch Range	rev	20	20	20	20	20
Max. Output Speed OPEN / CLOSE For Frequency Inverter Operation	rpm	42 / 30	26 / 18	42 / 30	42 / 30	34 / 24

Electrical Properties

Motor Power	kW	1,5	1,1	1,5	2,2	3,0
Operating Voltage	V	3N~400	3N~400	3N~400	3N~400	3N~400
Operating Frequency	Hz	50/60	50/60	50/60	50/60	50/60
Operating Current ³	A	7,7/4,5	7,7/4,5	7,7/4,5	12,3/7,2	15,3/9
Fuse Protection, On Site	A	10	10	10	10	10
Duty Types	ED	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60
IP Protection Class	IP	54	54	54	54	54
Temperature Range ⁴	°C	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)
Working Noise Level	dB (A)	< 70	< 70	< 70	< 70	< 70

Application

		kg	cm/sn	kg	cm/sn	kg	cm/sn	kg	cm/sn	kg	cm/sn
Sectional Doors Cable Drum [mm] ^A	F-160	516	20,1	688	12,6	688	20,1	--	--	--	--
	F-200	413	25,1	550	15,7	550	25,1	734	25,1	917	25,1

	mm	Maximum Suspend Weight In kg				
Roller Door Shaft / Winding Tube EN 10220 [mm] ^B	108,0	552	--	--	--	--
	114,3	527	703	--	--	--
	133,0	465	619	619	826	1032
	159,0	399	532	532	709	886
	177,8	362	483	483	643	804
	193,7	336	447	447	597	746
	219,1	301	401	401	535	668
	244,5	--	363	363	484	605
	273,0	--	328	328	438	547
	298,5	--	--	303	403	504

A safety brake antifall mechanism (parachute) which prevents free fall of the door just in case gear broken are built in gearbox.

1- Output shafts Ø25,0-Ø25,4-Ø30,0-Ø31,75-Ø40,0 mm etc. can be made upon request.

2- One cycle corresponds to two door movements (opening and closing). The specified values represent 10 revolutions of the drive shaft per movement and an even distribution is assumed. For other limit speed ranges or for heavily used doors, drag forces must be reduced. A motor with cooler and higher duty cycle should be selected. (Please ask)

3- Max. current in door drives can reach up to 4 times the rated operating current for limited times.

4- Allowable temperature -20°C..+40°C (+60°C). When using the +40°C..+60°C temperature range, half of the maximum movements per hour should be used.

↘ If frequency inverter drives are used, increasing the driving speed by 10% will cause a 5% decrease in drive torque. This should be considered when choosing a driver.

↘ In gearmotors powered at a frequency of 60Hz (and at the same voltage), multipliers are used for some performance figures: Output torque: 0.83 , and rotations in output: 1.2

A- Driver Selection Table For Springless Doors

Using this table, the door drive can be determined easily and reliably.

The values in the table take into account safety reserve of 10%.

In some cases, the friction may be greater and these values should be taken into account when calculating.

For VL vertically raised doors, reduce weight by 20% more.

B- Selection Of Suitable Drivers For Roller Shutters

To select the optimum drive solution, you will need the diameter of the winding shaft in mm and the suspended weight of the door in kg.

With the help of these parameters, the appropriate roller shutter drive can be determined easily and reliably using this table.

All indicated weights take into account a safety reserve of 20 % and a slat thickness of 25 mm.

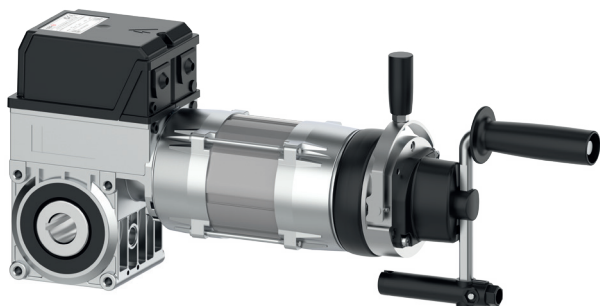
In some cases, the friction may be greater and this condition should be taken into account when calculating.

For double-walled, thick or deep-section insulated lamellas, reduce the weight in the table by 20%. The highest load normally occurs after 1-2 rotations of the shutter.

Their extra friction and possible diameter changes due to over-winding, must be taken into account when calculating these values.

Special solutions can be offered upon request. Please contact us for requests in different speeds and powers.

DS-50 WITH MK



INCLUDED



Torque Bracket



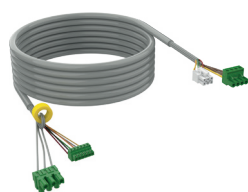
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

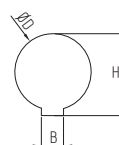
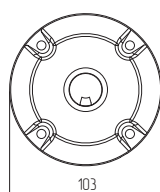
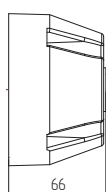
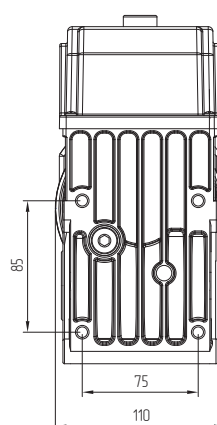
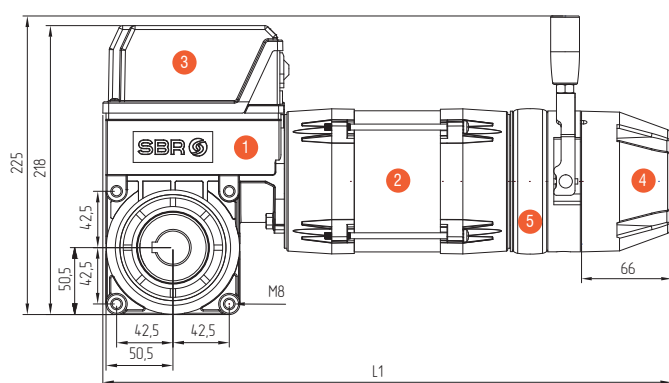
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING



1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Brake

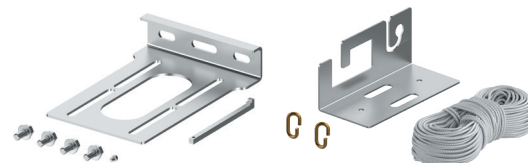
DS SERIES	L1
DS-50-140-20	410

ØD	H	B
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D30.0	33,3	8,00
D31.75	34,7	6,35

DS-50 WITH C2



INCLUDED



Torque Bracket

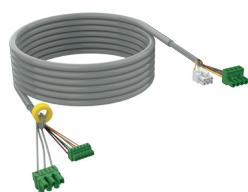
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

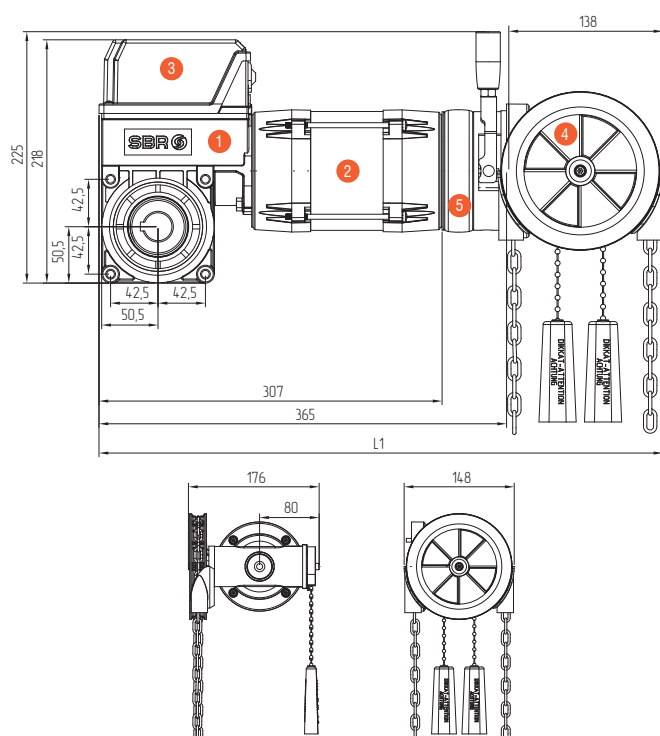
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

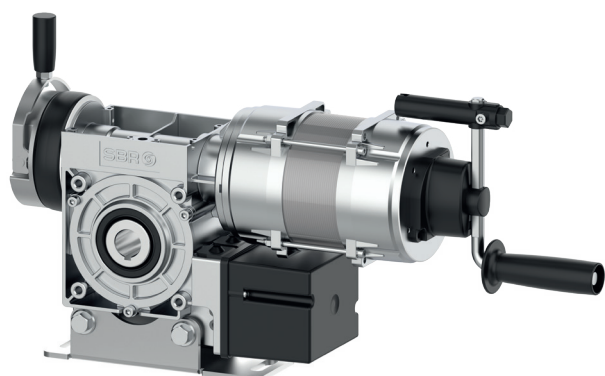


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Brake

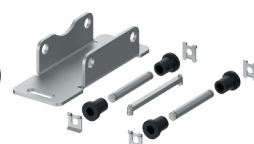
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ØD	H	B
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D30.0	33,3	8,00
D31.75	34,7	6,35

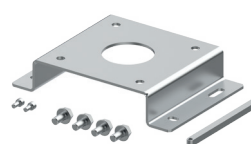
DS-63 WITH MK



INCLUDED



Torque Bracket



Torque Bracket (Optional)



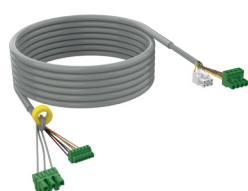
Crank

ACCESSORIES



Control Unit

PAGE 59



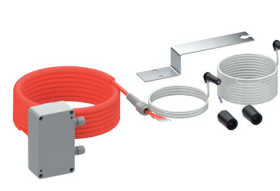
EL-ML Special Cable

PAGE 71



380 V Cable

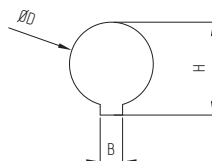
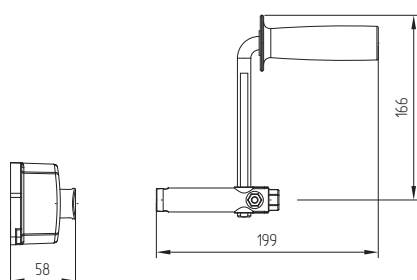
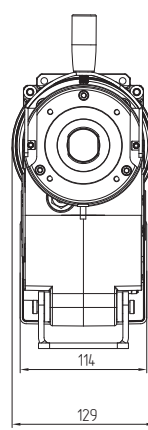
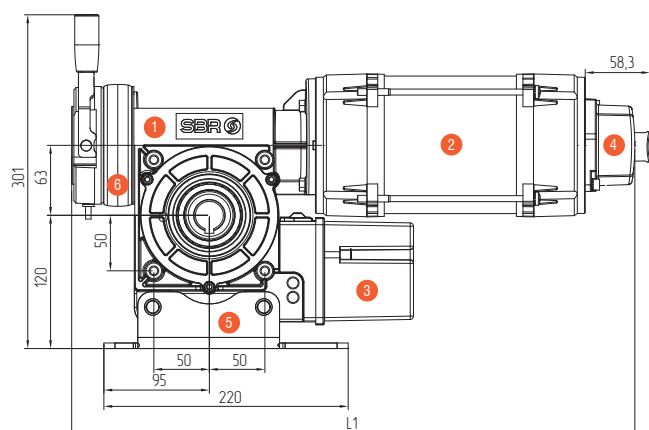
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING

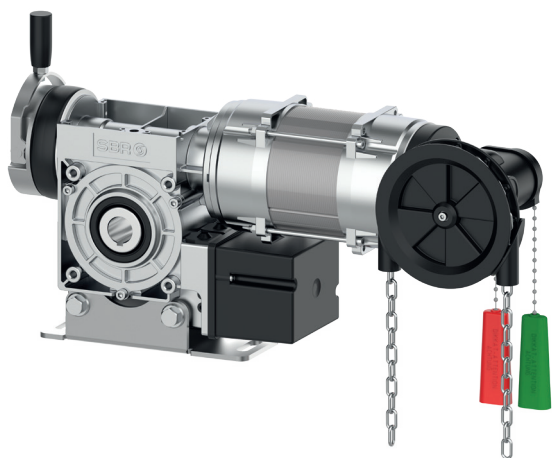


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake

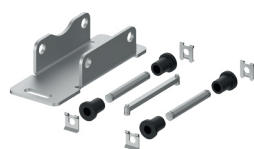
DS SERIES	L1
DS-63-170-24	455
DS-63-200-19	455

ØD	H	B
D25.0	28,3	8,00
D25.4	28,4	6,35
D30.0	33,3	8,00
D31.75	34,7	6,35

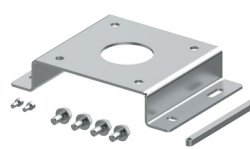
DS-63 WITH C2



INCLUDED



Torque Bracket



Torque Bracket (Optional)



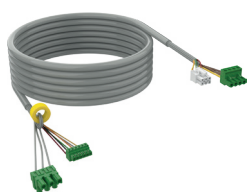
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

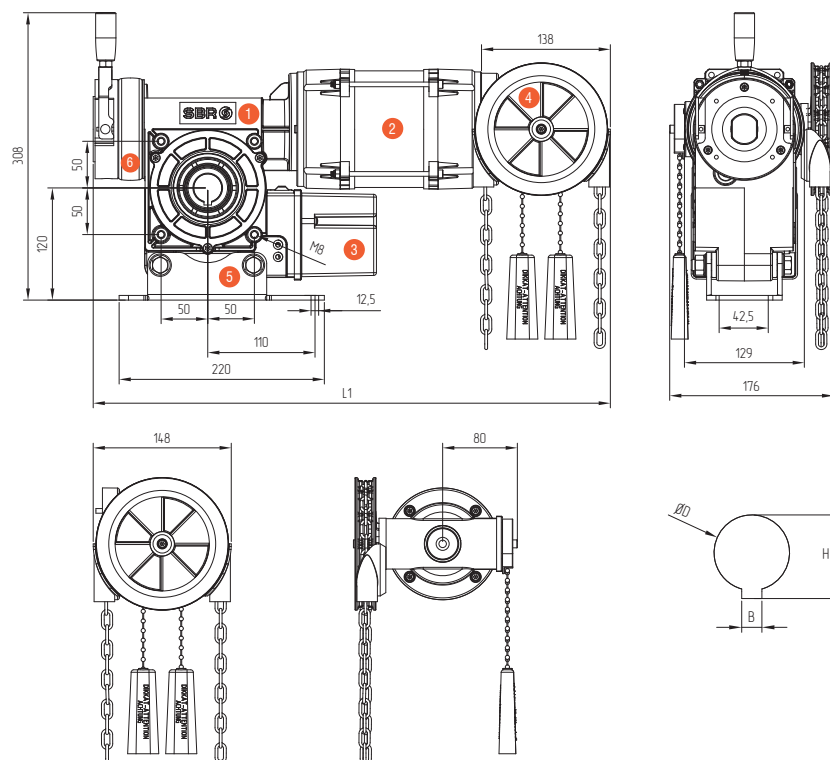
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

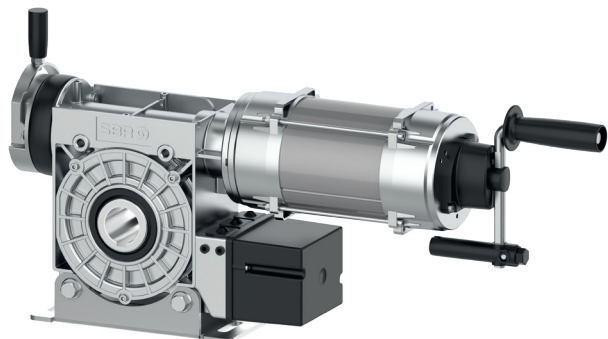


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

DS SERIES	L1
DS-63-170-24	534
DS-63-200-19	534

ØD	H	B
D25.0	28,3	8,00
D25.4	28,4	6,35
D30.0	33,3	8,00
D31.75	34,7	6,35

DS-85 WITH MK



INCLUDED



Torque Bracket

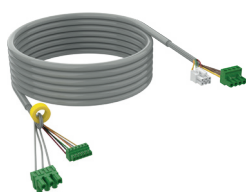
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

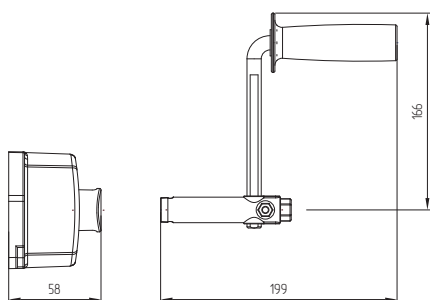
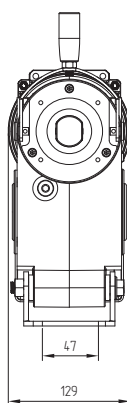
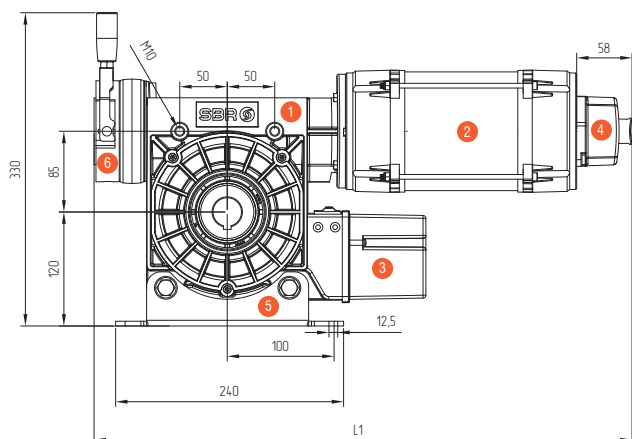
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING

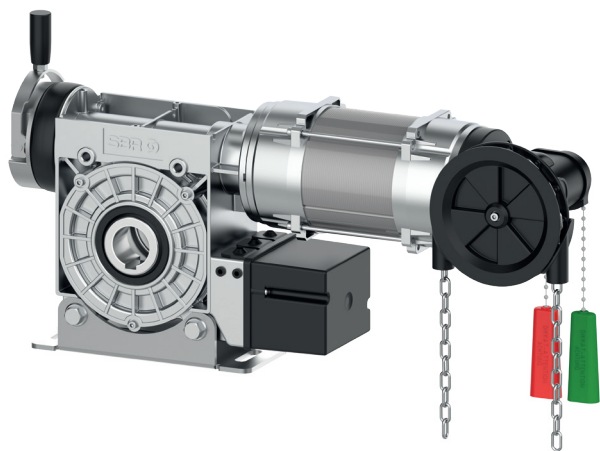


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

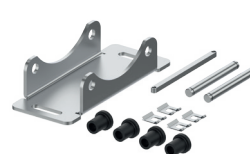
DS SERIES	L1
DS-63-170-24	534
DS-63-200-19	534

ØD	H	B
D25.0	28,3	8,00
D25.4	28,4	6,35
D30.0	33,3	8,00
D31.75	34,7	6,35

DS-85 WITH C2



INCLUDED



Torque Bracket



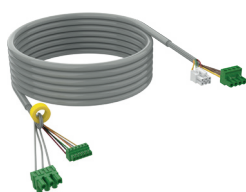
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

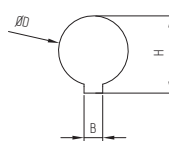
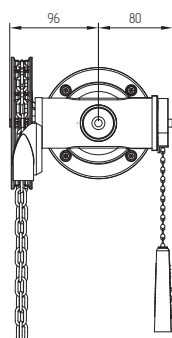
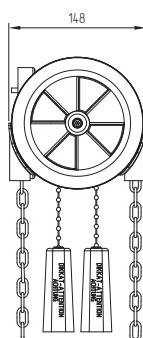
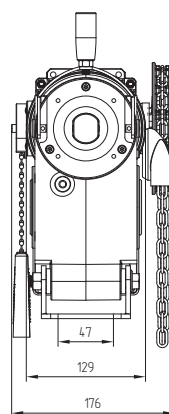
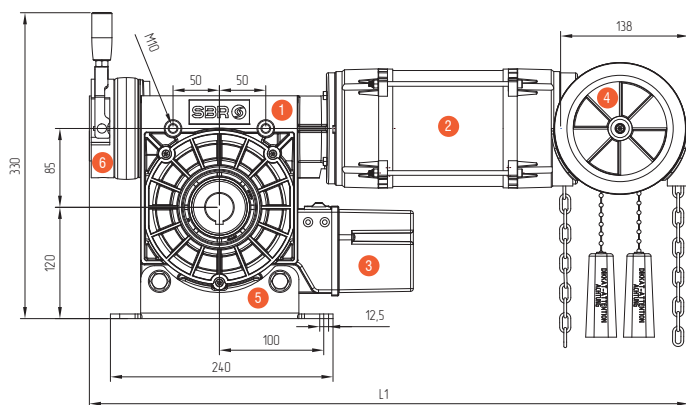
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

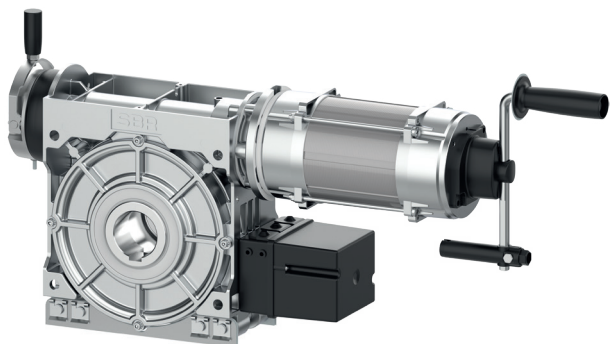


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

DS SERIES	L1
DS-63-170-24	534
DS-63-200-19	534

ØD	H	B
D25.0	28,3	8,00
D25.4	28,4	6,35
D30.0	33,3	8,00
D31.75	34,7	6,35

DS-110 WITH MK



INCLUDED



Torque Bracket



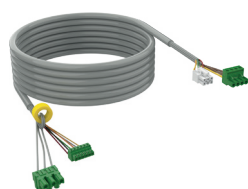
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

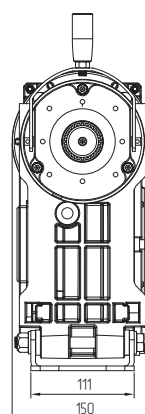
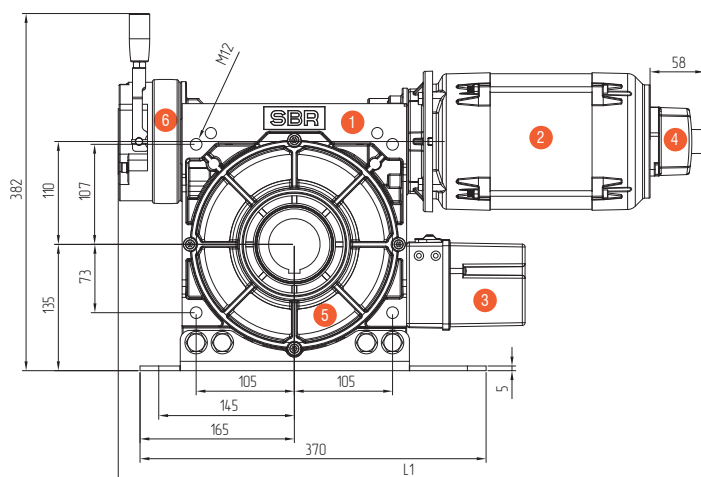
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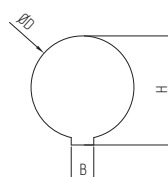
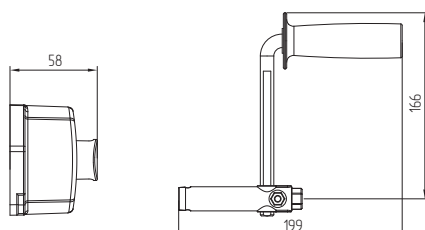
Opto-Sensor

PAGE 72

DIMENSION DRAWING



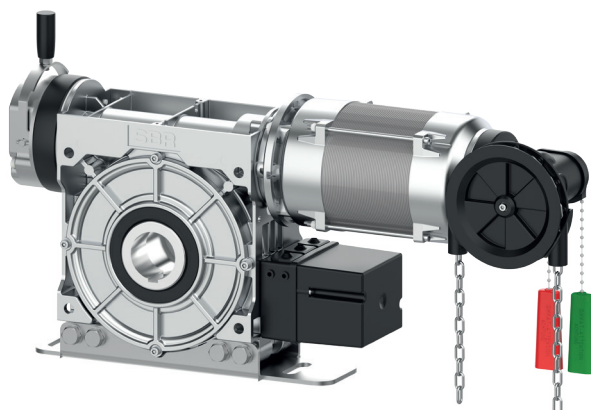
1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake



DS SERIES	L1
DS-110-600-24	624
DS-110-750-24	627
DS-110-1000-24	627

ØD	H	B
D55.0	64,4	16,00

DS-110 WITH C2



INCLUDED



Torque Bracket



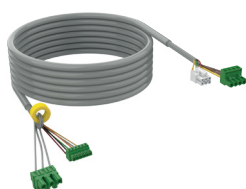
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

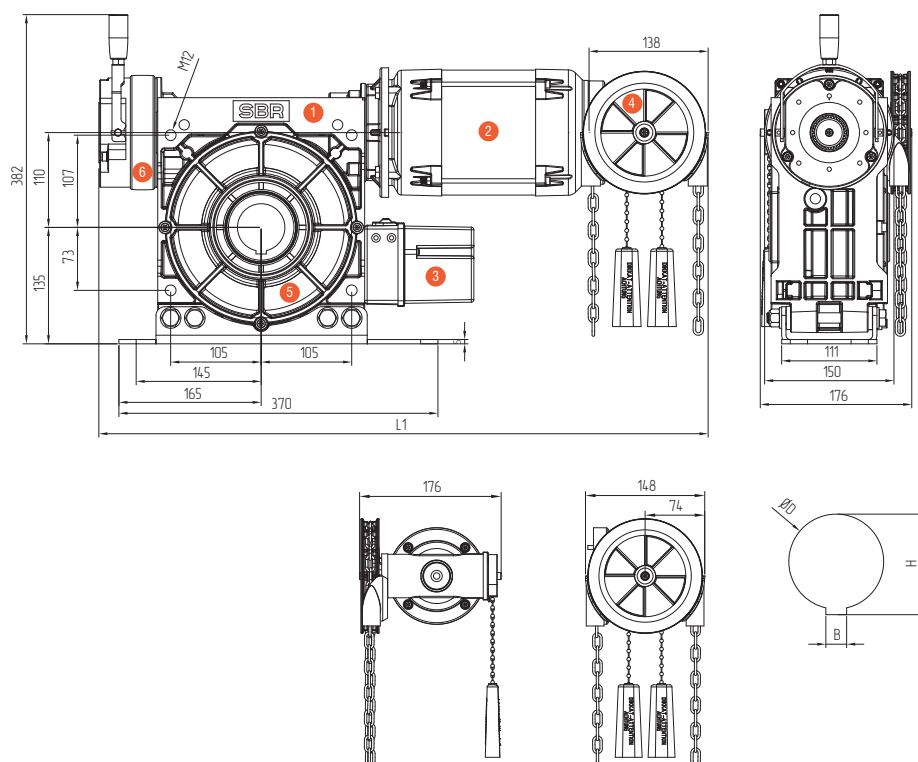
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING



1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

DS SERIES	L1
DS-110-600-24	704
DS-110-750-24	707
DS-110-1000-24	707

ØD	H	B
D55.0	64,4	16,00

RD SERIES

ROLLER SHUTTER DOORS DRIVES



RD-50-130-15	RD-63-200-12	RD-85-250-10	RD-85-250-15	RD-85-400-15
--------------	--------------	--------------	--------------	--------------

Mechanical Properties

Output Torque	Nm	130	200	250	250	400
Output Speed	rpm	15	12	10	15	15
Output Shaft ¹	mm	25,0 25,4 30	30,0	30,0 40,0	30,0 40,0	40,0
Max. Cycles Per Hour ²	h	10	8	10	10	9
Limit Switch Range	rev	20	20	20	20	20
Max. output speed OPEN / CLOSE for frequency inverter operation	rpm	26 / 20	17 / 12	18 / 15	26 / 15	26 / 15

Electrical Properties

Motor Power	KW	0,37	0,55	0,55	0,75	1,10
Operating Voltage	V	3N~400	3N~400	3N~400	3N~400	3N~400
Operating Frequency	Hz	50/60	50/60	50/60	50/60	50/60
Operating Current ³	A	2,6/1,5	3,8/2,2	3,6/2,1	4,4/2,6	6,2/3,6
Fuse Protection, On Site	A	10	10	10	10	10
Duty Types	ED	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60
IP Protection Class	IP	54	54	54	54	54
Temperature Range ⁴	°C	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)
Working Noise Level	dB (A)	< 70	< 70	< 70	< 70	< 70

Application

	mm	Maximum Suspend Weight In kg				
Roller Door Shaft / Winding Tube Tube EN 10220 [mm] ^A	101,6	167	258	322	322	515
	108,0	159	245	307	307	491
	114,3	152	234	293	293	468
	133,0	134	206	258	258	413
	159,0	115	177	222	222	355
	177,8	--	161	201	201	322
	193,7	--	--	186	186	298
	219,1	--	--	--	167	267

RD-85-400-10	RD-85-600-15	RD-110-800-15	RD-110-800-10	RD-110-1200-8	RD-110-1500-7	RD-110-1800-7
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Mechanical Properties

Output Torque	Nm	400	600	800	800	1200	1500	1800
Output Speed	rpm	10	15	15	10	8	7	7
Output Shaft ¹	mm	40	40	55	55	55	55	55
Max. Cycles Per Hour ²	h	9	9	9	7	6	5	5
Limit Switch Range	rev	20	20	20	20	20	20	20
Max. output speed OPEN / CLOSE for frequency inverter operation	rpm	18 / 15	26 / 15	26 / 26	18 / 18	20 / 20	18 / 18	18 / 18

Electrical Properties

Motor Power	kW	0,75	1,10	1,50	1,10	1,50	1,10	1,50
Operating Voltage	V	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400
Operating Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Operating Current ³	A	5,1/3,0	5,6/3,3	7,7/4,5	5,6/3,3	7,7/4,5	5,6/3,3	7,7/4,5
Fuse Protection, On Site	A	10	10	10	10	10	10	10
Duty Types	ED	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60
IP Protection Class	IP	54	54	54	54	54	54	54
Temperature Range ⁴	°C	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)
Working Noise Level	dB (A)	< 70	< 70	< 70	< 70	< 70	< 70	< 70

Application

	mm	Maximum Suspend Weight In kg						
Roller Door Shaft / Winding Tube Tube EN 10220 [mm] ^A	108,0	491	--	--	--	--	--	--
	114,3	468	703	--	--	--	--	--
	133,0	413	619	826	826	1239	--	--
	159,0	355	532	709	709	1064	1330	--
	177,8	322	483	643	643	965	1206	1448
	193,7	298	447	597	597	895	1119	1342
	219,1	267	401	535	535	802	1002	1203
	244,5	--	363	484	484	726	908	1089
	273,0	--	328	438	438	657	821	985
	298,5	--	--	403	403	605	756	908

┌ A safety brake antifall mechanism (parachute) which prevents free fall of the door just in case gear broken are built in gearbox.

1- Output shafts Ø25,0-Ø25,4-Ø30,0-Ø31,75-Ø40,0 mm etc. can be made upon request.

2- One cycle corresponds to two door movements (opening and closing). The specified values represent 10 revolutions of the drive shaft per movement and an even distribution is assumed. For other limit speed ranges or for heavily used doors, drag forces must be reduced. A motor with cooler and higher duty cycle should be selected. (Please ask)

3- Max. current in door drives can reach up to 4 times the rated operating current for limited times.

4- Allowable temperature -20°C..+40°C (+60°C). When using the +40°C..+60°C temperature range, half of the maximum movements per hour should be used.

↘ If frequency inverter drives are used, increasing the driving speed by 10% will cause a 5% decrease in drive torque. This should be considered when choosing a driver.

↘ In gearmotors powered at a frequency of 60Hz (and at the same voltage), multipliers are used for some performance figures: Output torque: 0.83 , and rotations in output: 1.2

┌ A - Selection Of Suitable Drivers For Roller Shutters

To select the optimum drive solution, you will need the diameter of the winding shaft in mm and the suspended weight of the door in kg.

With the help of these parameters, the appropriate roller shutter drive can be determined easily and reliably using this table.

All indicated weights take into account a safety reserve of 20 % and a slat thickness of 25 mm.

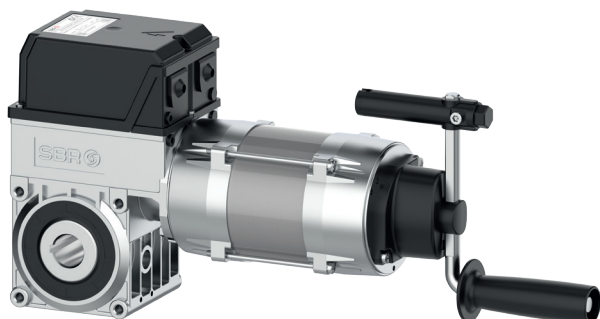
In some cases, the friction may be greater and this condition should be taken into account when calculating.

For double-walled, thick or deep-section insulated lamellas, reduce the weight in the table by 20%. The highest load normally occurs after 1-2 rotations of the shutter.

Their extra friction and possible diameter changes due to over-winding, must be taken into account when calculating these values.

Special solutions can be offered upon request. Please contact us for requests in different speeds and powers.

RD-50 WITH MK



INCLUDED



Torque Bracket



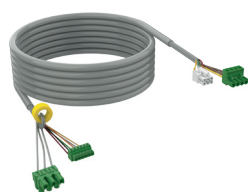
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

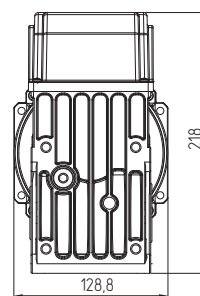
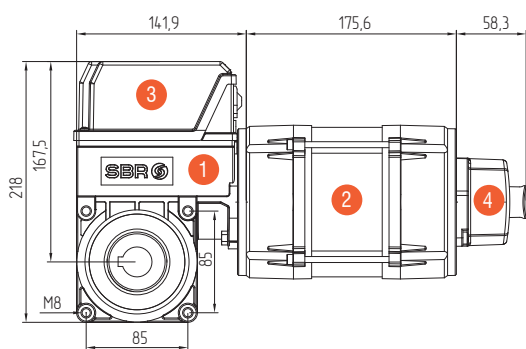
PAGE 72



Opto-Sensor

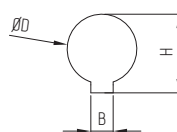
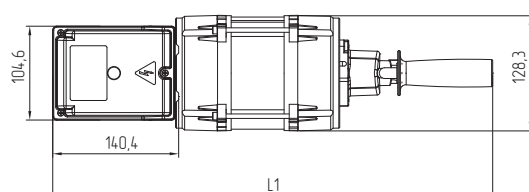
PAGE 72

DIMENSION DRAWING



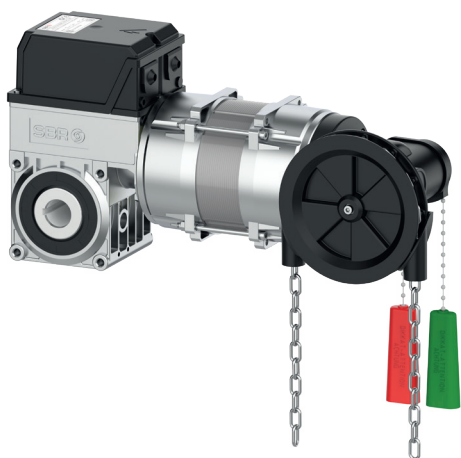
1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK

RD SERIES	L1
RD-50-130-15	363

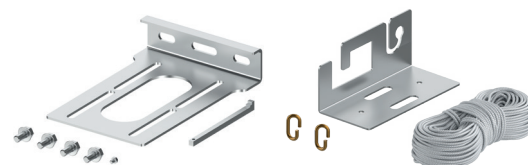


ØD	H	B
D25.0	28,3	8,00
D25.4	28,4	6,35
D30.0	33,3	8,00

RD-50 WITH C2



INCLUDED



Torque Bracket

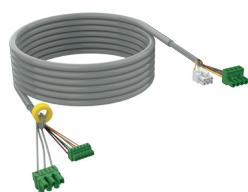
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

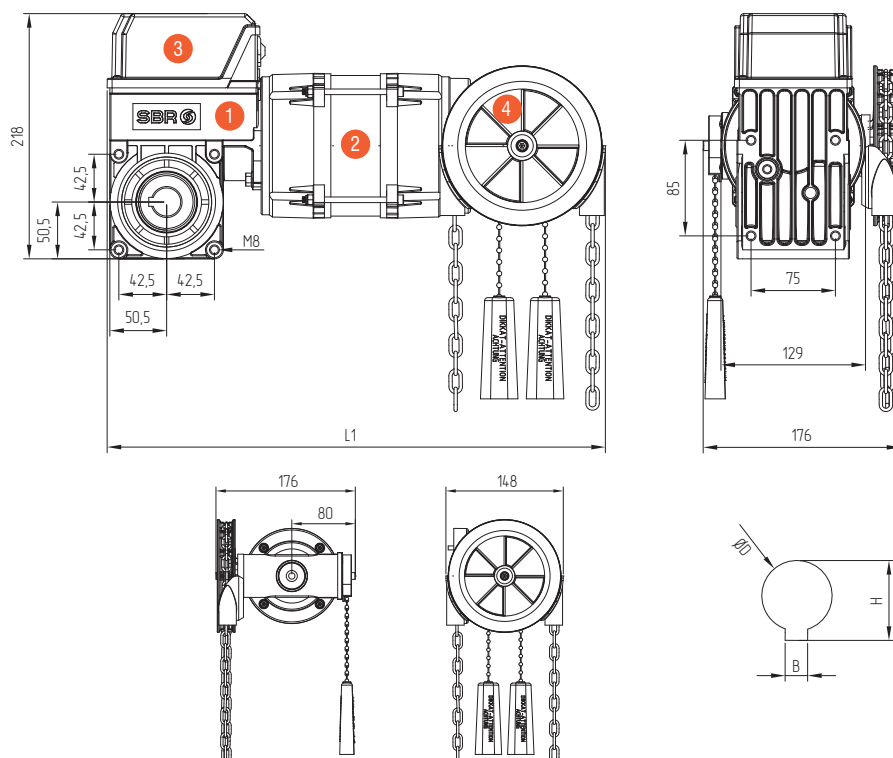
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

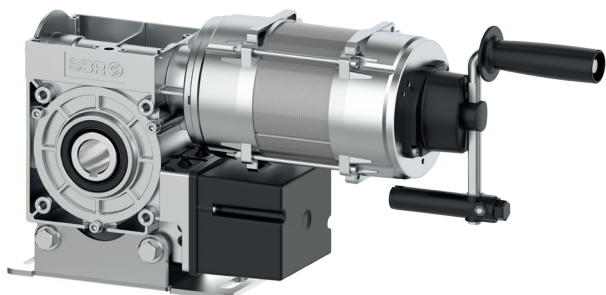


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2

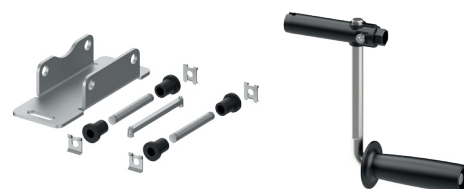
RD SERIES	L1
RD-50-130-15	443

ØD	H	B
D25.0	28,3	8,00
D25.4	28,4	6,35
D30.0	33,3	8,00

RD-63 WITH MK



INCLUDED



Torque Bracket

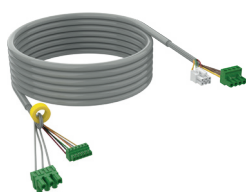
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

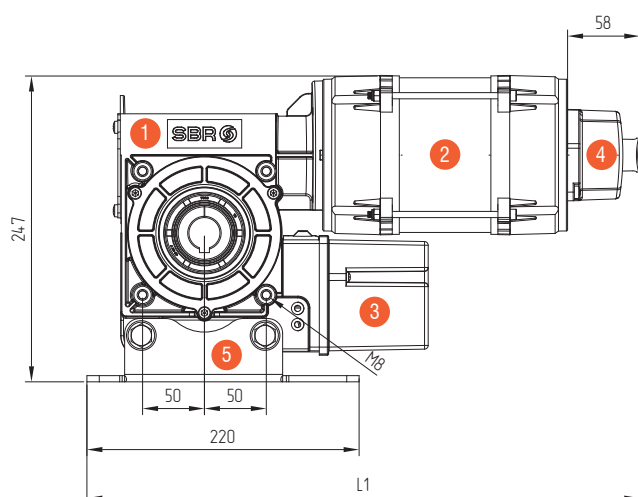
PAGE 72



Opto-Sensor

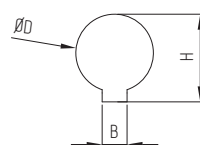
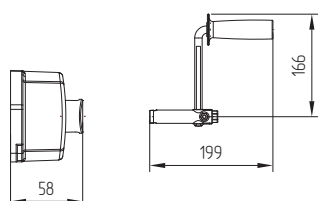
PAGE 72

DIMENSION DRAWING



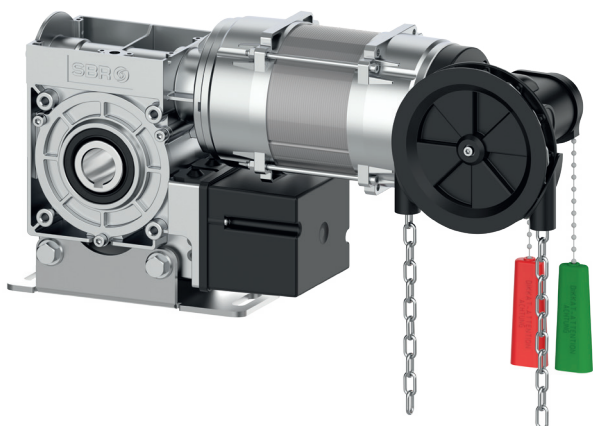
1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot

RD SERIES	L1
RD-63-200-012	447

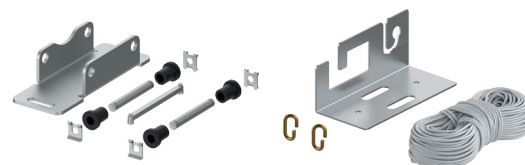


ØD	H	B
D30.0	33,3	8,00

RD-63 WITH C2



INCLUDED



Torque Bracket

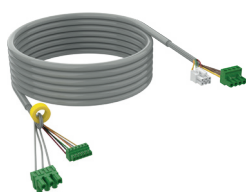
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

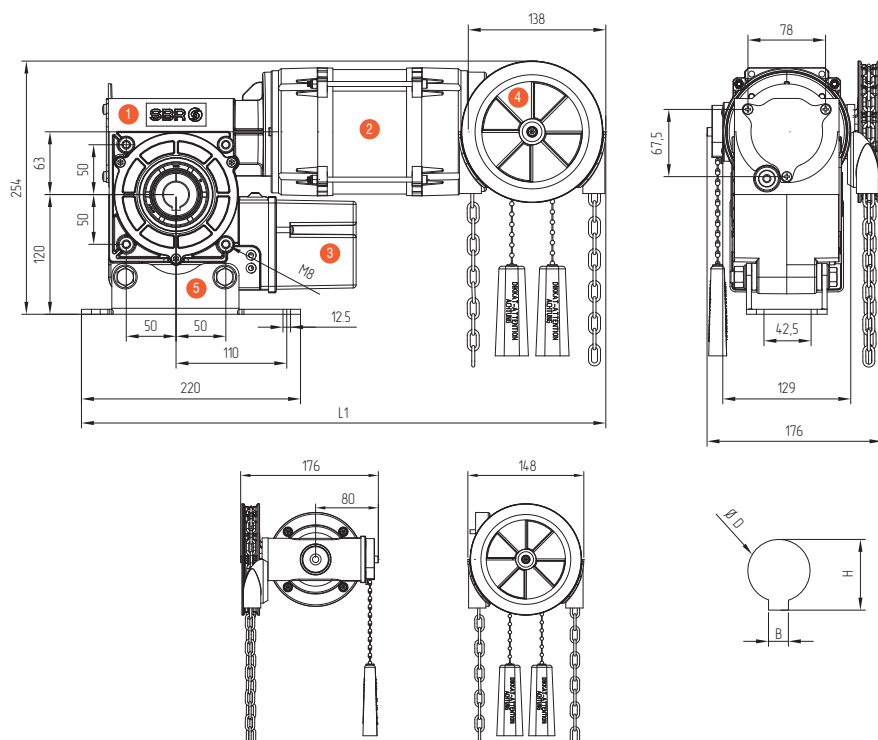
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

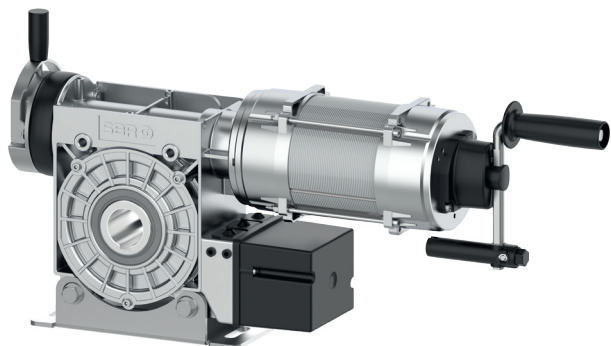


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot

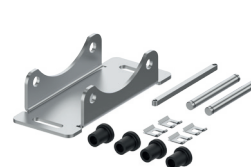
RD SERIES	L1
RD-63-200-012	527

ØD	H	B
D30.0	33,3	8,00

RD-85 WITH MK



INCLUDED



Torque Bracket



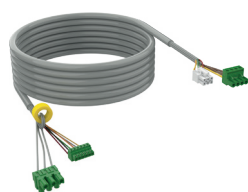
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

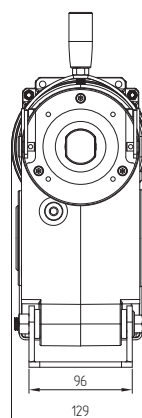
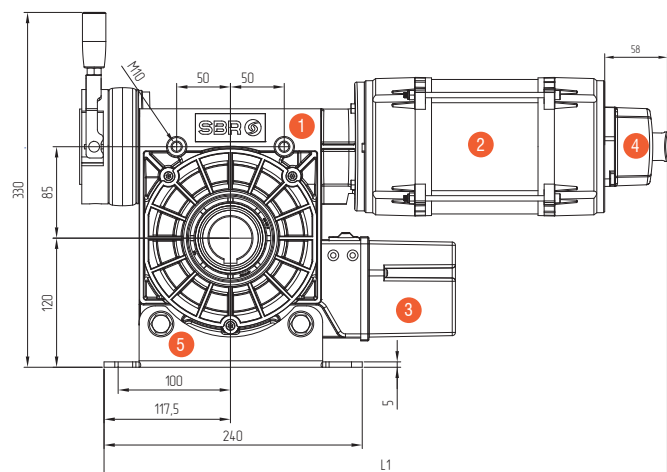
PAGE 72



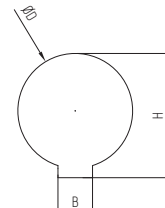
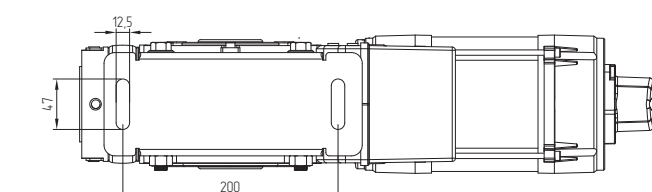
Opto-Sensor

PAGE 72

DIMENSION DRAWING



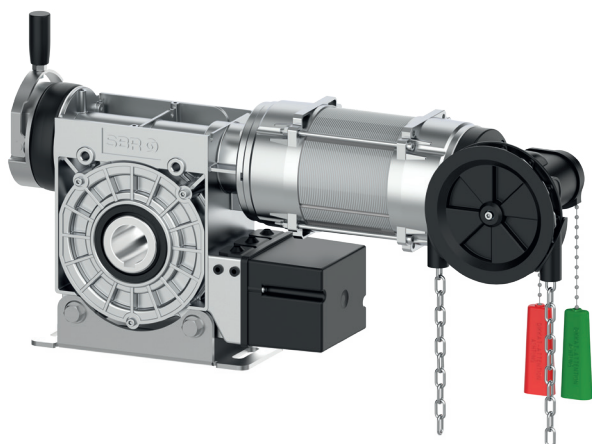
1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot



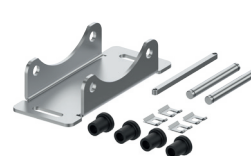
RD SERIES	L1
RD-85-250-010	499
RD-85-250-015	479
RD-85-400-015	499
RD-85-400-10	524

ØD	H	B
D30.0	33,3	8,00
D40.0	43,3	12,00

RD-85 WITH C2



INCLUDED



Torque Bracket



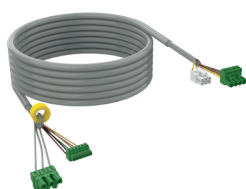
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

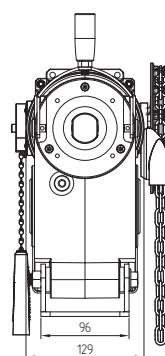
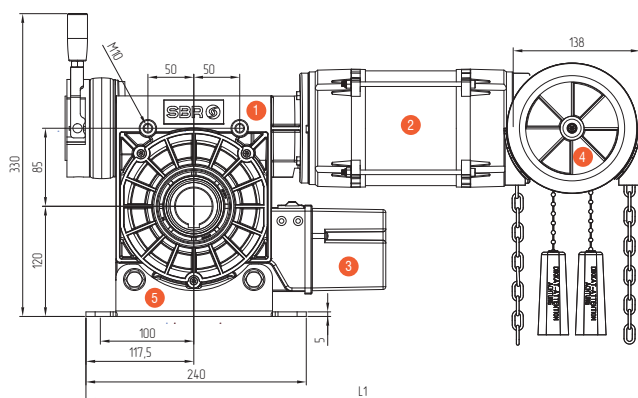
PAGE 72



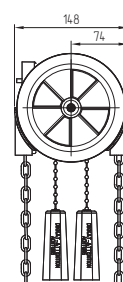
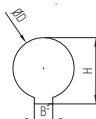
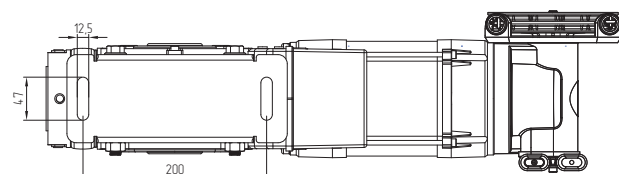
Chain

PAGE 77

DIMENSION DRAWING



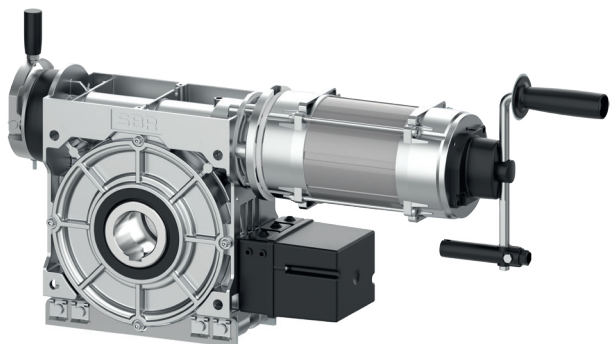
1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot



RD SERIES	L1
RD-85-250-010	579
RD-85-250-015	559
RD-85-400-015	579
RD-85-400-10	604

ØD	H	B
D30.0	33,3	8,00
D40.0	43,3	12,00

RD-110 WITH MK



INCLUDED



Torque Bracket



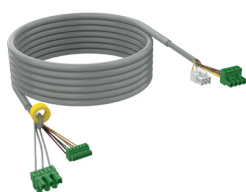
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

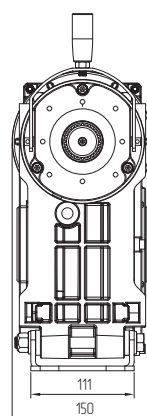
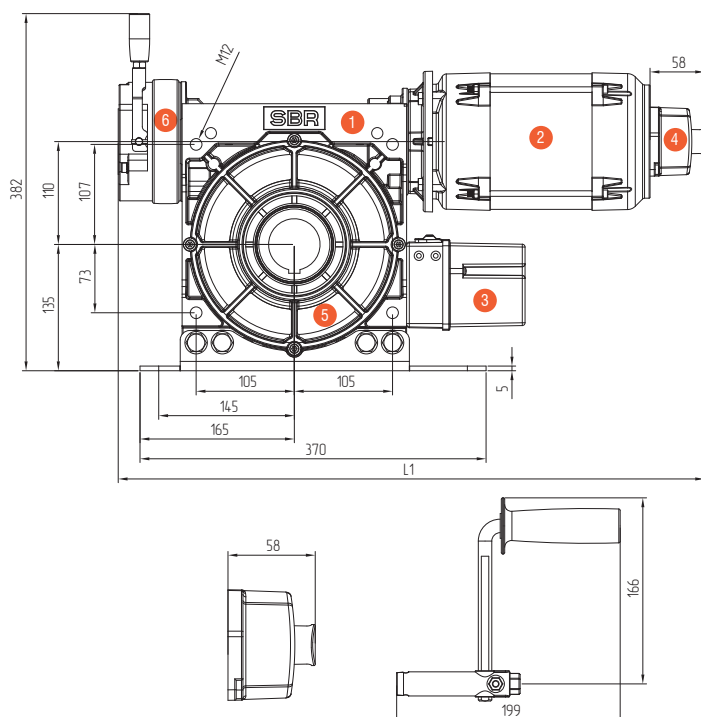
PAGE 72



Opto-Sensor

PAGE 72

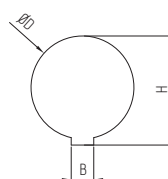
DIMENSION DRAWING



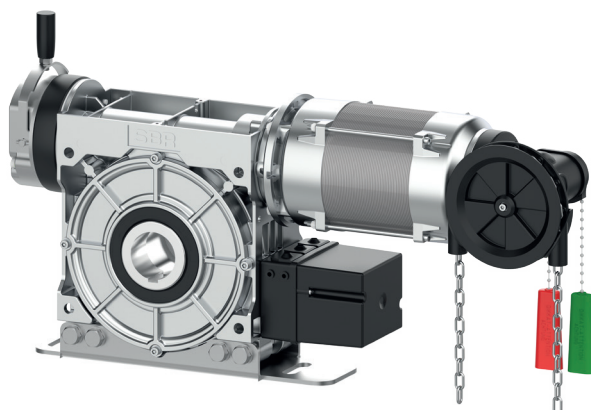
1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake

RD SERIES	L1
RD-110-800-15	695
RD-110-800-10	685

ØD	H	B
D55.0	64,4	16,00



RD-110 WITH C3



INCLUDED



Torque Bracket



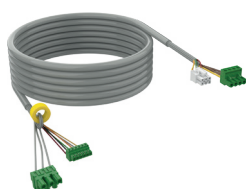
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

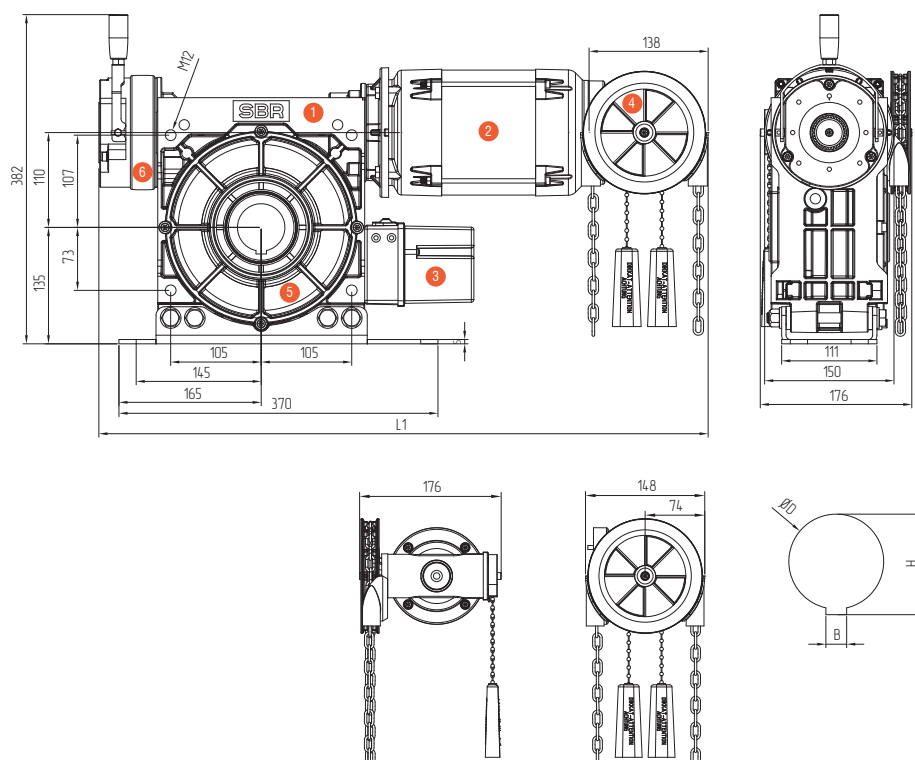
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

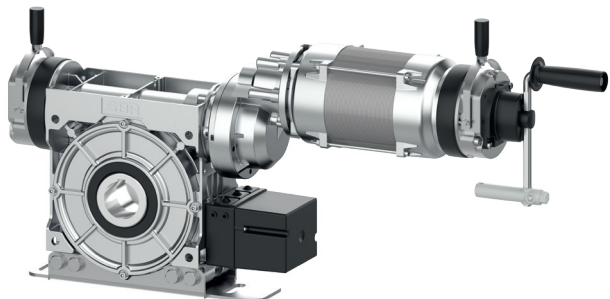


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

RD SERIES	L1
RD-110-800-15	775
RD-110-800-10	765

ØD	H	B
D55.0	64,4	16,00

RD-110 WITH MK



INCLUDED



Torque Bracket



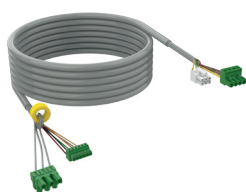
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

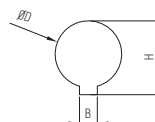
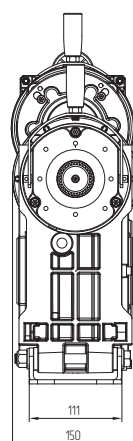
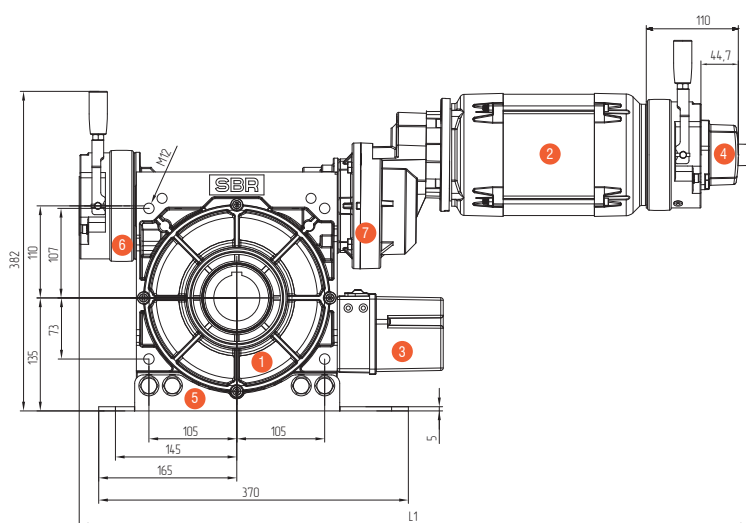
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING

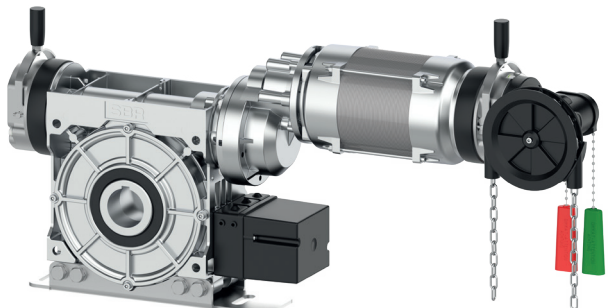


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake
7	Intermediate Gear

RD SERIES	L1
RD-110-1200-8	880
RD-110-1500-7	870
RD-110-1800-7	880

ØD	H	B
D55.0	64,4	16,00

RD-110 WITH C3



INCLUDED



Torque Bracket



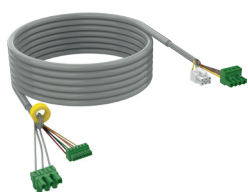
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

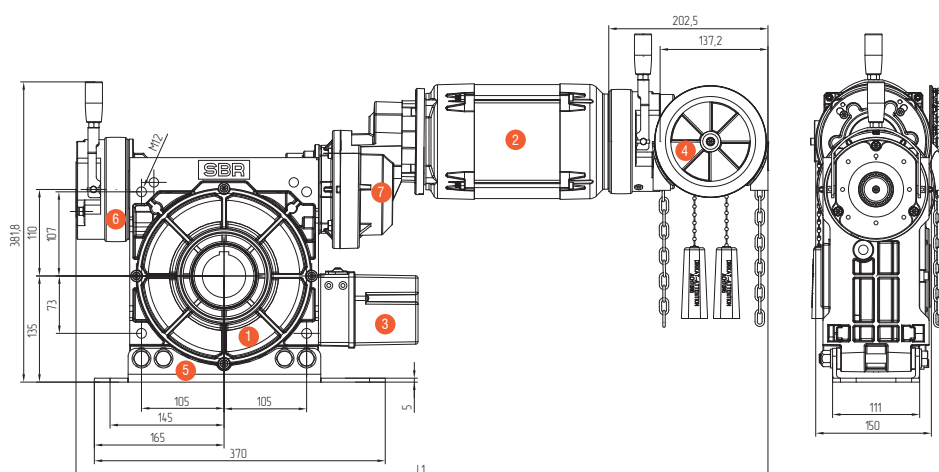
PAGE 72



Chain

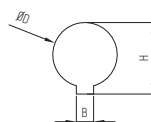
PAGE 77

DIMENSION DRAWING



1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake
7	Intermediate Gear

RD SERIES	L1
RD-110-1200-8	880
RD-110-1500-7	870
RD-110-1800-7	880



ØD	H	B
D55.0	64,4	16,00

PS SERIES

HIGH SPEED DOOR DRIVES



PS-50-100-45	PS-50-45-95	PS-50-60-95	PS-50-40-140	PS-50-60-140	PS-63-160-45	PS-63-80-90	PS-63-60-135-FI
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Mechanical Properties

Output Torque	Nm	100	45	60	40	60	160	80	60
Output Speed	rpm	45	95	95	140	140	45	90	135
Output Shaft ¹	mm	25,0 25,4 30,0 31,75	25,0 30,0	25,0 30,0	25,0 30,0	25,0 30,0	25,0 30,0	25,0 30,0	25,0 30,0
Max. Cycles Per Hour ²	h	20	30	30	45	30	20	30	45
Limit Switch Range	rev	20	20	20	20	20	20	20	20
Max. output speed OPEN / CLOSE for frequency inverter operation	rpm	78 / 50	165 / 100	166 / 100	200 / 140	200 / 140	78 / 50	155 / 100	200 / 140

Electrical Properties

Motor Power	kW	0,75	0,55	0,75	0,75	1,10	1,10	1,10	1,10
Operating Voltage	V	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400
Operating Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Operating Current ³	A	3,6/1,9	2,8/1,6	3,6/1,9	3,6/1,9	5,0/2,9	5,0/2,9	5,2/3,0	5,2/3,0
Fuse Protection, On Site	A	10	10	10	10	10	10	10	10
Duty Types	ED	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60
IP Protection Class	IP	54	54	54	54	54	54	54	54
Temperature Range ⁴	°C	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)
Working Noise Level	dB (A)	< 70	< 70	< 70	< 70	< 70	< 70	< 70	< 70

Application

	PIPE (Ø)	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz
Weights That Motors Can Lift According To Winding Diameter For PS Roll Door (Kg)	101,6	129 - (90)	58 - (41)	77 - (54)	52 - (36)	77 - (54)	206 - (144)	103 - (72)	77 - (54)
	108,0	123 - (86)	55 - (39)	74 - (52)	49 - (34)	74 - (52)	195 - (137)	98 - (69)	74 - (52)
	114,3	117 - (82)	53 - (37)	70 - (49)	47 - (33)	70 - (49)	188 - (131)	94 - (66)	70 - (49)
	133,0	103 - (72)	46 - (33)	62 - (43)	41 - (29)	62 - (43)	165 - (116)	83 - (58)	62 - (43)
	159,0	99 - (69)	44 - (31)	59 - (42)	40 - (28)	59 - (42)	158 - (111)	79 - (55)	59 - (42)
	177,8	89 - (62)	40 - (28)	53 - (37)	35 - (25)	53 - (37)	142 - (99)	71 - (50)	53 - (37)
	193,7	75 - (52)	34 - (23)	45 - (31)	30 - (21)	45 - (31)	119 - (84)	60 - (42)	45 - (31)
	219,1	67 - (47)	30 - (21)	40 - (28)	55 - (39)	37 - (26)	25 - (17)	37 - (26)	55 - (39)

Weights That Motors Can Lift According To Winding Diameter For PS Folding Door (Kg)	101,6	152 - (106)	68 - (48)	91 - (64)	61 - (42)	91 - (64)	243 - (170)	121 - (85)	91 - (64)
	108,0	143 - (100)	64 - (45)	86 - (60)	57 - (40)	86 - (60)	229 - (160)	114 - (80)	86 - (60)
	114,0	136 - (95)	61 - (43)	82 - (57)	54 - (38)	82 - (57)	217 - (152)	109 - (76)	82 - (57)
	133,0	117 - (82)	53 - (37)	70 - (49)	47 - (33)	70 - (49)	188 - (131)	94 - (66)	70 - (49)
	140,0	112 - (78)	50 - (35)	67 - (47)	45 - (31)	67 - (47)	179 - (125)	89 - (63)	67 - (47)
	159,0	99 - (69)	44 - (31)	59 - (42)	40 - (28)	59 - (42)	158 - (111)	79 - (55)	59 - (42)
	193,7	82 - (57)	37 - (26)	49 - (34)	33 - (23)	49 - (34)	131 - (91)	65 - (46)	49 - (34)
	219,1	72 - (51)	33 - (23)	43 - (30)	29 - (20)	43 - (30)	116 - (81)	58 - (41)	43 - (30)

Maximum suspended weight in kg

PS-85-300-35	PS-85-400-35	PS-85-140-90	PS-85-200-90-HD	PS-85-250-90-HD	PS-85-100-140-FI	PS-85-130-140-FI-HD
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Mechanical Properties

Output Torque	Nm	300	400	140	200	250	100	130
Output Speed	rpm	35	35	90	90	90	140	140
Output Shaft ¹	mm	30,0 40,0	30,0 40,0	30,0 40,0	30,0 40,0	30,0 40,0	30,0 40,0	30,0 40,0
Max. Cycles Per Hour ²	h	45	20	45	30	20	45	30
Limit Switch Range	rev	20	20	20	20	20	20	20
Max. output speed OPEN / CLOSE for frequency inverter operation	rpm	60 / 40	60 / 40	155 / 100	155 / 100	155 / 100	240 / 140	240 / 140

Electrical Properties

Motor Power	kW	1,10	1,50	1,50	2,20	3,00	1,50	2,20
Operating Voltage	V	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400
Operating Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Operating Current ³	A	5,2/3,0	8,8/5,1	8,8/5,1	11,0/6,5	14,5/8,4	7,5/4,3	12,3/7,2
Fuse Protection, On Site	A	10	10	10	16	16	10	16
Duty Types	ED	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60
IP Protection Class	IP	54	54	54	54	54	54	54
Temperature Range ⁴	°C	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)
Working Noise Level	dB (A)	< 70	< 70	< 70	< 70	< 70	< 70	< 70

Application

	PIPE (Ø)	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz
Weights That Motors Can Lift According To Winding Diameter For PS Roll Door (Kg)	101,6	386 - (271)	515 - (361)	180 - (126)	258 - (180)	322 - (225)	129 - (90)	167 - (117)
	114,0	352 - (246)	469 - (329)	164 - (115)	235 - (164)	293 - (205)	117 - (82)	153 - (107)
	133,0	310 - (217)	413 - (289)	145 - (101)	206 - (145)	258 - (181)	103 - (72)	134 - (94)
	159,0	266 - (186)	355 - (248)	124 - (87)	177 - (124)	222 - (155)	89 - (62)	115 - (81)
	193,7	224 - (157)	298 - (209)	104 - (73)	149 - (104)	186 - (131)	75 - (52)	97 - (68)
	219,1	200 - (140)	267 - (187)	94 - (65)	134 - (94)	167 - (117)	67 - (47)	87 - (61)

Weights That Motors Can Lift According To Winding Diameter For PS Folding Door (Kg)	101,6	455 - (318)	606 - (424)	212 - (149)	303 - (212)	379 - (265)	152 - (106)	197 - (138)
	108,0	429 - (300)	572 - (401)	200 - (140)	286 - (200)	358 - (250)	143 - (100)	186 - (130)
	114,0	408 - (285)	544 - (381)	190 - (133)	272 - (190)	340 - (238)	136 - (95)	177 - (124)
	133,0	352 - (246)	469 - (329)	164 - (115)	235 - (164)	293 - (205)	117 - (82)	153 - (107)
	140,0	335 - (235)	447 - (313)	156 - (109)	223 - (156)	279 - (195)	112 - (78)	145 - (102)
	159,0	297 - (208)	395 - (277)	138 - (97)	198 - (138)	247 - (173)	99 - (69)	129 - (90)
	193,7	245 - (172)	327 - (229)	114 - (80)	163 - (114)	204 - (143)	82 - (57)	106 - (74)
	219,1	217 - (152)	290 - (203)	101 - (71)	145 - (101)	181 - (127)	72 - (51)	94 - (66)

Maximum suspended weight in kg

PS-85-150-140-FI-HD	PS-85-80-180-FI	PS-85-100-180-FI-HD	PS-85-140-180-FI-HD	PS-110-600-30-FI-HD	PS-110-800-30-FI-HD	PS-110-1000-30-FI-HD
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Mechanical Properties

Output Torque	Nm	150	80	100	140	600	800	1000
Output Speed	rpm	140	180	180	180	30	30	30
Output Shaft ¹	mm	30,0 40,0	30,0 40,0	30,0 40,0	30,0 40,0	55,0	55,0	55,0
Max. Cycles Per Hour ²	h	20	60	60	60	25	20	15
Limit Switch Range	rev	20	20	20	20	20	20	20
Max. output speed OPEN / CLOSE for frequency inverter operation	rpm	240 / 140	300 / 180	300 / 180	300 / 180	50 / 30	50 / 30	50 / 30

Electrical Properties

Motor Power	kW	3,00	1,50	2,20	3,00	2,20	3,00	4,00
Operating Voltage	V	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400
Operating Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Operating Current ³	A	15,3/9,0	7,5/4,3	12,3/7,2	15,3/9,0	12,3/7,2	15,3/9,0	
Fuse Protection, On Site	A	16	10	16	16	16	16	16
Duty Types	ED	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60
IP Protection Class	IP	54	54	54	54	54	54	54
Temperature Range ⁴	°C	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)
Working Noise Level	dB (A)	< 70	< 70	< 70	< 70	< 70	< 70	< 70

Application

	PIPE (Ø)	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz	50 - (87) Hz
Weights That Motors Can Lift According To Winding Diameter For PS Roll Door (Kg)	101,6	193 - (135)	103 - (72)	129 - (90)	180 - (126)	773 - (541)	1031 - (721)	1288 - (902)
	114,0	176 - (123)	94 - (66)	117 - (82)	164 - (115)	704 - (493)	939 - (657)	1173 - (821)
	133,0	155 - (108)	83 - (58)	103 - (72)	145 - (101)	619 - (434)	826 - (578)	1032 - (723)
	159,0	133 - (93)	71 - (50)	89 - (62)	124 - (87)	532 - (372)	709 - (496)	886 - (620)
	193,7	112 - (78)	60 - (42)	75 - (52)	104 - (73)	447 - (313)	597 - (418)	746 - (522)
	219,1	100 - (70)	53 - (37)	67 - (47)	94 - (65)	401 - (281)	535 - (374)	668 - (468)
Weights That Motors Can Lift According To Winding Diameter For PS Folding Door (Kg)	101,6	227 - (159)	106 - (74)	152 - (106)	212 - (149)	909 - (637)	1213 - (849)	1516 - (1061)
	108,0	215 - (150)	100 - (70)	143 - (100)	200 - (140)	858 - (601)	1145 - (801)	1431 - (1001)
	114,0	204 - (143)	95 - (67)	136 - (95)	190 - (133)	815 - (571)	1087 - (761)	1359 - (951)
	133,0	176 - (123)	82 - (57)	117 - (82)	164 - (115)	704 - (493)	939 - (657)	1173 - (821)
	140,0	168 - (117)	78 - (55)	112 - (78)	156 - (109)	670 - (469)	894 - (626)	1117 - (782)
	159,0	148 - (104)	69 - (48)	99 - (69)	138 - (97)	593 - (415)	791 - (554)	998 - (692)
	193,7	123 - (86)	57 - (40)	82 - (57)	114 - (80)	490 - (343)	653 - (457)	817 - (572)
	219,1	109 - (76)	51 - (36)	72 - (51)	101 - (71)	435 - (304)	580 - (406)	725 - (507)

Maximum suspended weight in kg

A safety brake antifall mechanism (parachute) which prevents free fall of the door just in case gear broken are built in gearbox.

- 1- Output shafts Ø25,0-Ø25,4-Ø30,0-Ø31,75-Ø40,0 mm etc. can be made upon request.
- 2- One cycle corresponds to two door movements (opening and closing). The specified values represent 10 revolutions of the drive shaft per movement and an even distribution is assumed. Other limit speed ranges, ambient temperature and extra friction affect the value.
- 3- The current in door drives can reach up to 4 times the rated operating current for limited times.
- 4- Allowable temperature -20°C..+40°C (+60°C). When using the +40°C..+60°C temperature range, half of the maximum movements per hour should be used.

- ⚡ If frequency inverter drives are used, increasing the driving speed by 10% will cause a 5% decrease in drive torque. This should be considered when choosing a driver.
- ⚡ In gearmotors powered at a frequency of 60Hz (and at the same voltage), multipliers are used for some performance figures: Output torque: 0.83 , and rotations in output: 1.2
- ⚡ For drives with external electromagnetic brakes, Brake inspection should always be performed by qualified service engineers.

Selection Of Suitable Drive For Fast Pvc Door

To choose the optimal drive solution, you will need the diameter of the winding spindle in mm and the hanging weight of the door in kg.

With the help of these parameters, the appropriate door drive can be determined easily and reliably using this table.

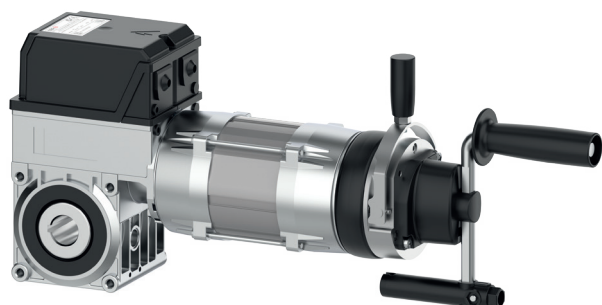
Values in the table; It takes into account a curtain thickness of 25 mm for spiral PVC doors and 6 mm for folding PVC doors and a 20% safety reserve.

Extra friction and possible diameter changes due to over-winding in the first place should be taken into account when calculating these values.

The PS -FI series is for operation with a frequency converter. PS FI series; is the maximum weights at a frequency of 87 Hz, in the second row in the weight table.

Special solutions can be offered upon request. Please contact us for requests in different speeds and powers.

PS-50 WITH MK



INCLUDED



Torque Bracket



Torque Bracket (Optional)



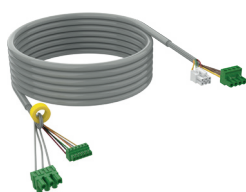
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

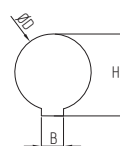
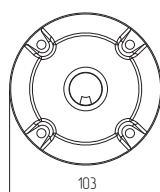
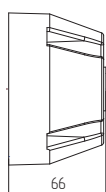
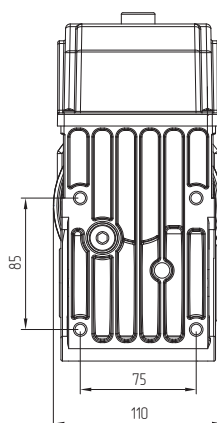
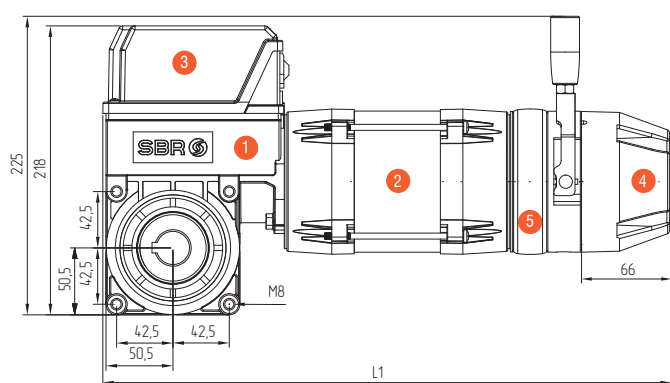
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING

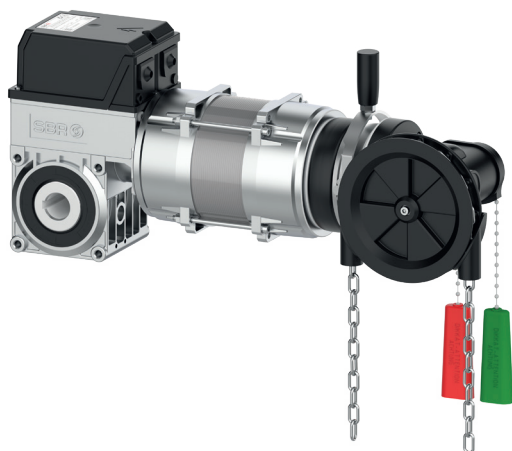


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Brake

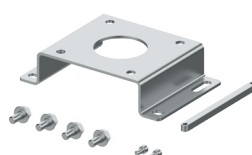
PS SERIES	L1
PS-50-100-45	410
PS-50-45-95	405
PS-50-60-95	410
PS-50-40-140-FI	410

ØD	H	B
D25.0	28,3	8,00
D25.4	28,4	6,35
D30.0	33,3	8,00
D31.75	34,7	6,35

PS-50 WITH C2



INCLUDED



Torque Bracket



Torque Bracket (Optional)



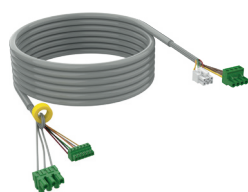
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

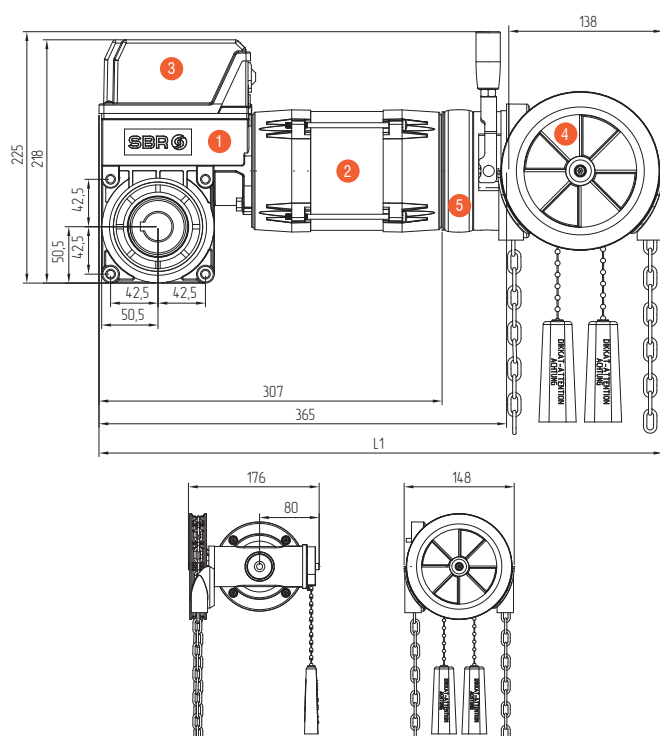
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

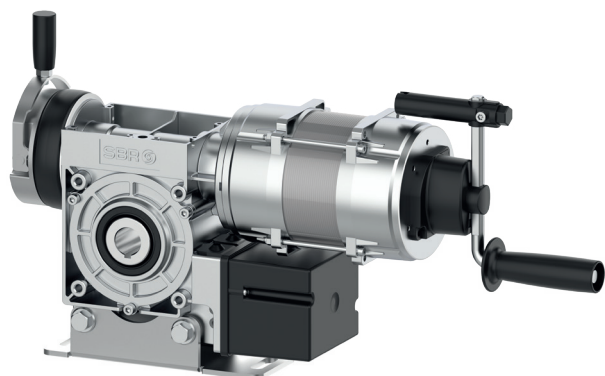


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Brake

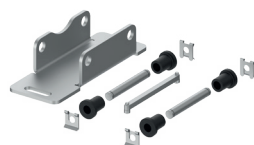
PS SERIES	L1
PS-50-100-45	490
PS-50-45-95	495
PS-50-60-95	490
PS-50-40-140-FI	490

ØD	H	B
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D25.4	28,4	6,35
D30.0	33,3	8,00
D31.75	34,7	6,35

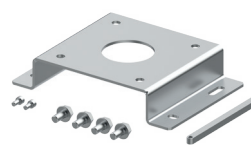
PS-63 WITH MK



INCLUDED



Torque Bracket



Torque Bracket (Optional)



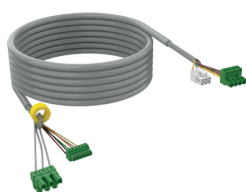
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

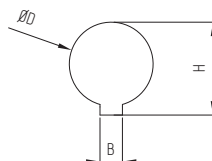
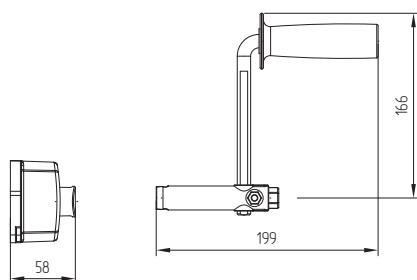
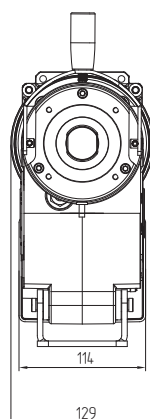
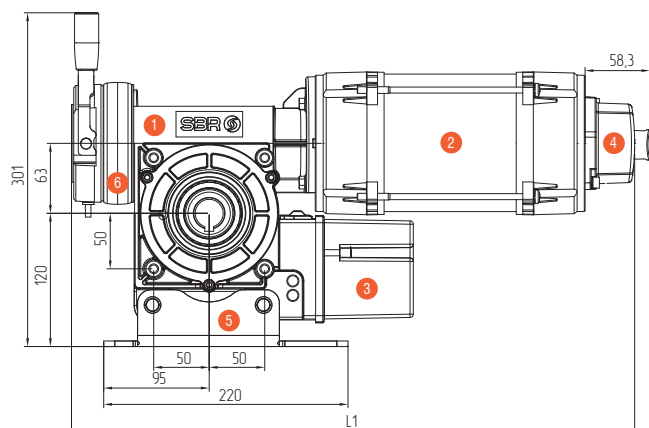
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING

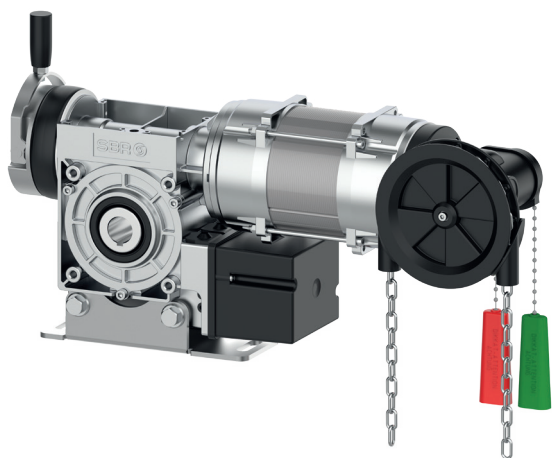


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake

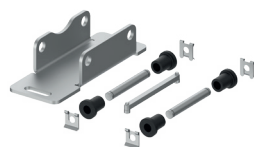
PS SERIES	L1
PS-63-160-45	455
PS-63-80-90	455
PS-63-60-135-FI	455

ØD	H	B
D25.0	28,3	8,00
D30.0	33,3	8,00

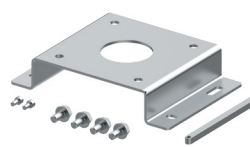
PS-63 WITH C2



INCLUDED



Torque Bracket



Torque Bracket (Optional)



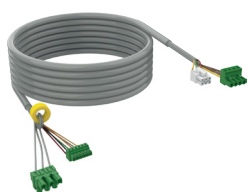
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

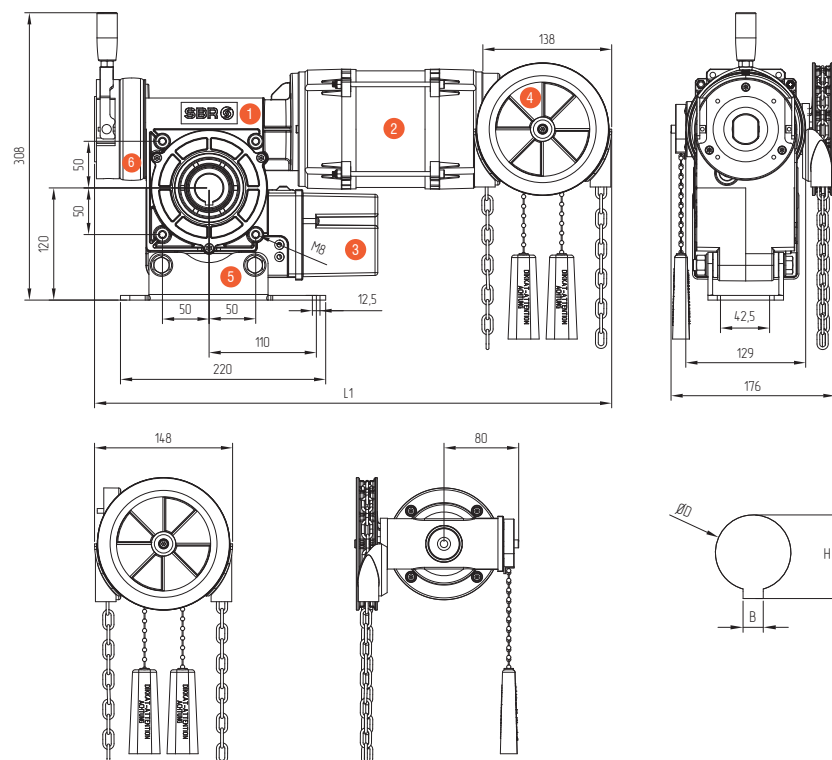
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

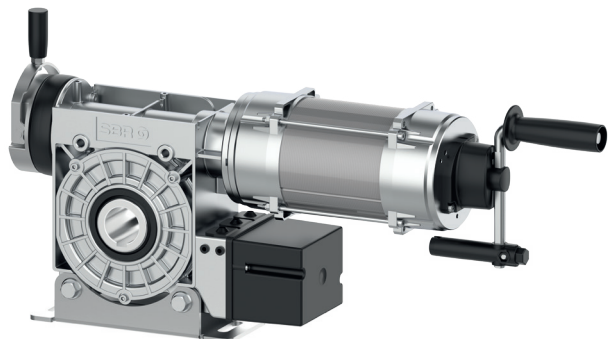


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

PS SERIES	L1
PS-63-160-45	535
PS-63-80-90	535
PS-63-60-135-FI	535

ØD	H	B
D25.0	28,3	8,00
D30.0	33,3	8,00

PS-85 WITH MK



INCLUDED



Torque Bracket

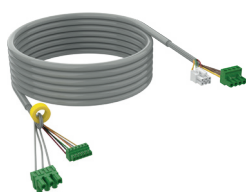
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

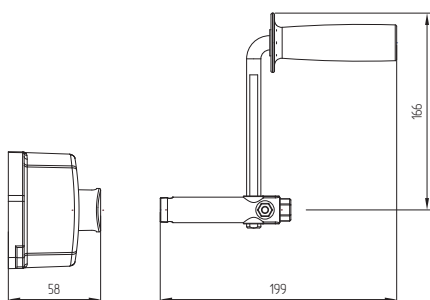
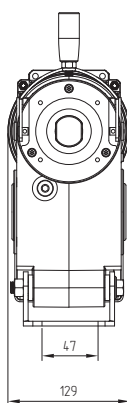
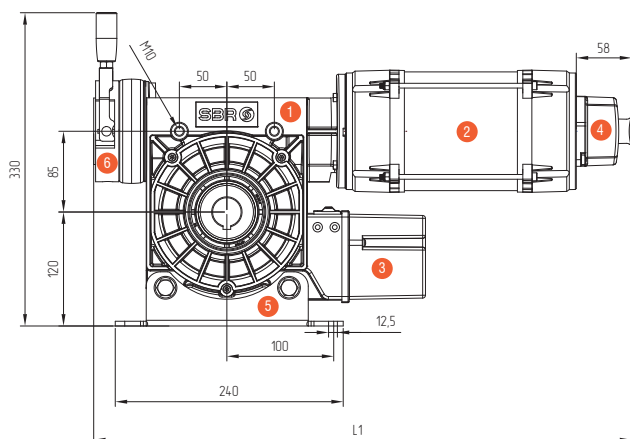
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING

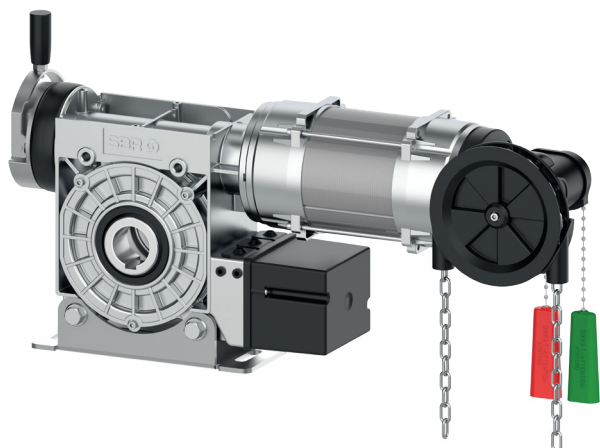


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake

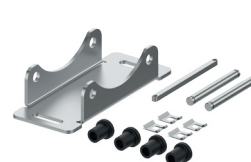
PS SERIES	L1
PS-85-300-35	520
PS-85-140-90	566
PS-85-200-90	570
PS-85-250-90	570
PS-85-100-140-FI	571
PS-85-130-140-FI	575
PS-85-150-140-FI	575

ØD	H	B
D30.0	33,3	8,00
D40.0	43,3	12,00

PS-85 WITH C2



INCLUDED



Torque Bracket



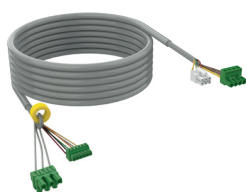
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

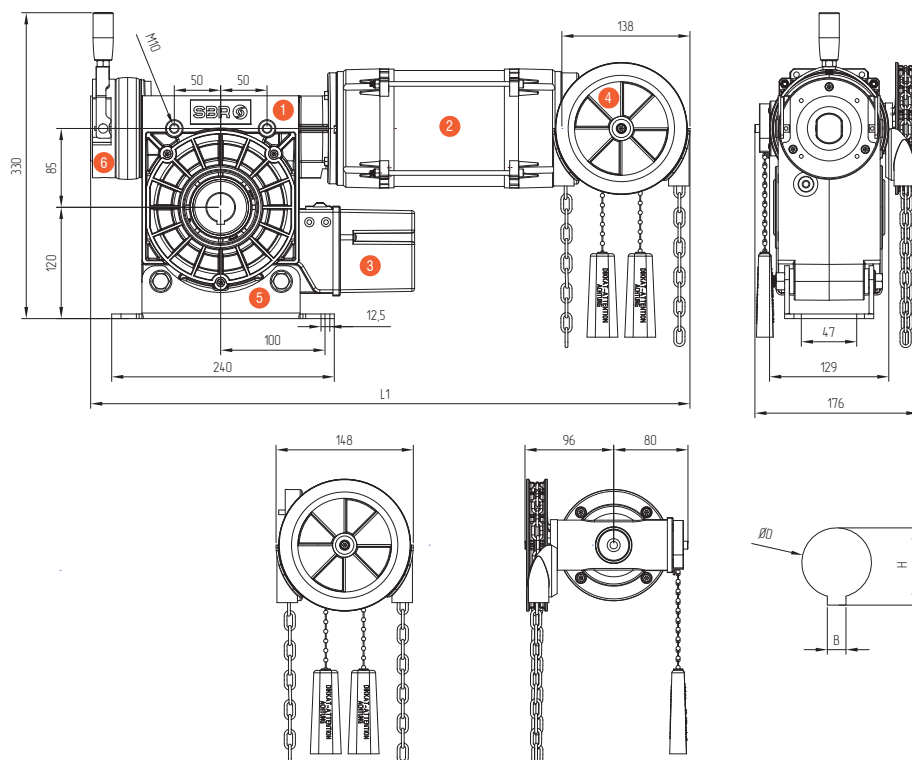
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING



1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

PS SERIES	L1
PS-85-300-35	600
PS-85-140-90	646
PS-85-200-90	650
PS-85-250-90	650
PS-85-100-140-FI	651
PS-85-130-140-FI	655
PS-85-150-140-FI	655

ØD	H	B
D30.0	33,3	8,00
D40.0	43,3	12,00

KD SERIES

**CHAIN TRANSMISSION
DOORS DRIVES**



KD-63-170-24	KD-85-250-24	KD-85-350-24	KD-85-450-24	KD-110-600-24	KD-110-800-24-HD	KD-110-1000-24-HD
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Mechanical Properties

Output Torque	Nm	170	250	350	450	600	800	1000
Output Speed	rpm	24	24	24	24	24	24	24
Output Shaft ¹	mm	30	40	40	40	40	40	40
Max. Cycles Per Hour ²	h	10	11	11	11	7	7	7
Limit Switch Range	rev	20	20	20	20	20	20	20

Electrical Properties

Motor Power	kW	0,75	0,75	1,10	1,50	1,50	2,20	3,00
Operating Voltage	V	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400	3N~400
Operating Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Operating Current ³	A	4,4/2,6	4,6/2,7	5,6/3,3	7,7/4,5	7,7/4,5	12,3/7,2	15,3/9,0
Fuse Protection, On Site	A	10	10	10	10	10	15	15
Duty Types	ED	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60	S3-%60
IP Protection Class	IP	54	54	54	54	54	54	54
Temperature Range ⁴	°C	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)	-20 +40 (+60)
Working Noise Level	dB (A)	< 70	< 70	< 70	< 70	< 70	< 70	< 70

- 1- Output shafts Ø25,0-Ø25,4-Ø30,0-Ø31,75-Ø40,0 mm etc. can be made upon request.
- 2- One cycle corresponds to two door movements (opening and closing). The specified values represent 10 revolutions of the drive shaft per movement and an even distribution is assumed. Other limit speed ranges, ambient temperature and extra friction affect the value.
- 3- The current in door drives can reach up to 4 times the rated operating current for limited times.
- 4- Allowable temperature -20°C..+40°C (+60°C). When using the +40°C..+60°C temperature range, half of the maximum movements per hour should be used.
- ⚡ If frequency inverter drives are used, increasing the driving speed by 10% will cause a 5% decrease in drive torque. This should be considered when choosing a driver.
- ⚡ In gearmotors powered at a frequency of 60Hz (and at the same voltage), multipliers are used for some performance figures: Output torque: 0.83 , and rotations in output: 1.2

DRIVES FOR SPECIAL DOORS WITH CHAIN DRIVE

				DIAMETER (Ø OUTSIDE) OF THE WINDING SHAFT (MM)											
				101,6	108,0	114,0	133,0	159,0	177,8	193,7	219,1	244,5	273,0	298,5	323,9
KD-63-170-24	Chain Drive Ratio	1:2	Kg	438	417	399	351	301	273	254	227	206	186	171	159
			V (cm/sn)	8,0	8,4	8,7	9,9	11,6	12,7	13,7	15,3	16,9	18,7	20,3	21,9
		1:3	Kg	657	625	598	526	452	410	380	341	309	279	257	238
			V (cm/sn)	5,3	5,6	5,8	6,6	7,7	8,5	9,2	10,2	11,3	12,5	13,5	14,6
		1:3,8	Kg	832	792	758	667	573	520	482	432	391	354	326	302
			V (cm/sn)	4,2	4,4	4,6	5,2	6,1	6,7	7,2	8,1	8,9	9,8	10,7	11,5
		1:4,5	Kg	986	938	898	790	678	615	571	511	463	419	386	358
			V (cm/sn)	3,5	3,7	3,9	4,4	5,1	5,7	6,1	6,8	7,5	8,3	9,0	9,7
KD-85-250-24	Chain Drive Ratio	1:2	Kg				516	443	402	373	334	303	274	252	234
			V (cm/sn)				9,9	11,6	12,7	13,7	15,3	16,9	18,7	20,3	21,9
		1:3	Kg				774	665	603	559	501	454	410	378	351
			V (cm/sn)				6,6	7,7	8,5	9,2	10,2	11,3	12,5	13,5	14,6
		1:3,8	Kg				981	842	764	708	635	575	520	479	444
			V (cm/sn)				5,2	6,1	6,7	7,2	8,1	8,9	9,8	10,7	11,5
		1:4,5	Kg				1161	997	905	839	752	681	616	567	526
			V (cm/sn)				4,4	5,1	5,7	6,1	6,8	7,5	8,3	9,0	9,7
KD-85-350-24	Chain Drive Ratio	1:2	Kg					620	563	522	468	424	383	353	327
			V (cm/sn)					11,6	12,7	13,7	15,3	16,9	18,7	20,3	21,9
		1:3	Kg					931	844	783	702	635	575	529	491
			V (cm/sn)					7,7	8,5	9,2	10,2	11,3	12,5	13,5	14,6
		1:3,8	Kg					1179	1070	992	889	805	728	671	622
			V (cm/sn)					6,1	6,7	7,2	8,1	8,9	9,8	10,7	11,5
		1:4,5	Kg					1396	1267	1175	1052	953	862	794	736
			V (cm/sn)					5,1	5,7	6,1	6,8	7,5	8,3	9,0	9,7
KD-85-450-24	Chain Drive Ratio	1:2	Kg					798	724	671	601	545	493	454	421
			V (cm/sn)					11,6	12,7	13,7	15,3	16,9	18,7	20,3	21,9
		1:3	Kg					1197	1086	1007	902	817	739	681	631
			V (cm/sn)					7,7	8,5	9,2	10,2	11,3	12,5	13,5	14,6
		1:3,8	Kg					1516	1375	1275	1143	1035	936	862	799
			V (cm/sn)					6,1	6,7	7,2	8,1	8,9	9,8	10,7	11,5
		1:4,5	Kg					1795	1629	1510	1353	1226	1108	1021	947
			V (cm/sn)					5,1	5,7	6,1	6,8	7,5	8,3	9,0	9,7

DRIVES FOR SPECIAL DOORS WITH CHAIN DRIVE

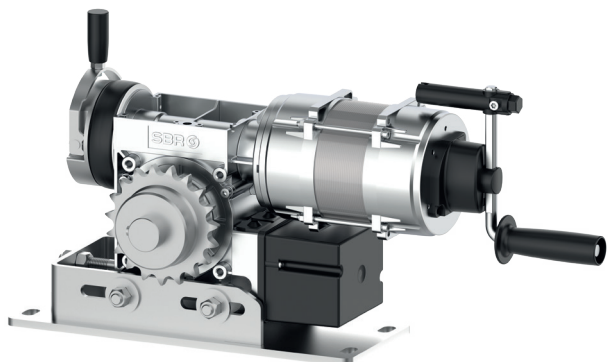
				DIAMETER (Ø OUTSIDE) OF THE WINDING SHAFT (MM)											
				101,6	108,0	114,0	133,0	159,0	177,8	193,7	219,1	244,5	273,0	298,5	323,9
KD-110-600-24	Chain Drive Ratio	1:2	Kg					1064	965	895	802	726	657	605	561
			V (cm/sn)					11,6	12,7	13,7	15,3	16,9	18,7	20,3	21,9
		1:3	Kg					1596	1448	1342	1203	1089	985	908	841
			V (cm/sn)					7,7	8,5	9,2	10,2	11,3	12,5	13,5	14,6
		1:3,8	Kg					2021	1834	1700	1523	1380	1248	1150	1066
			V (cm/sn)					6,1	6,7	7,2	8,1	8,9	9,8	10,7	11,5
		1:4,5	Kg					2393	2171	2014	1804	1634	1478	1361	1262
			V (cm/sn)					5,1	5,7	6,1	6,8	7,5	8,3	9,0	9,7
KD-110-800-24	Chain Drive Ratio	1:2	Kg						1287	1193	1069	968	876	807	748
			V (cm/sn)						12,7	13,7	15,3	16,9	18,7	20,3	21,9
		1:3	Kg						1930	1790	1604	1452	1314	1210	1122
			V (cm/sn)						8,5	9,2	10,2	11,3	12,5	13,5	14,6
		1:3,8	Kg						2445	2267	2031	1840	1664	1533	1421
			V (cm/sn)						6,7	7,2	8,1	8,9	9,8	10,7	11,5
		1:4,5	Kg						2895	2685	2405	2179	1970	1815	1683
			V (cm/sn)						5,7	6,1	6,8	7,5	8,3	9,0	9,7
KD-110-1000-24	Chain Drive Ratio	1:2	Kg						1608	1492	1336	1210	1095	1008	935
			V (cm/sn)						12,7	13,7	15,3	16,9	18,7	20,3	21,9
		1:3	Kg						2413	2237	2004	1816	1642	1513	1402
			V (cm/sn)						8,5	9,2	10,2	11,3	12,5	13,5	14,6
		1:3,8	Kg						3056	2834	2539	2300	2080	1916	1776
			V (cm/sn)						6,7	7,2	8,1	8,9	9,8	10,7	11,5
		1:4,5	Kg						3619	3356	3007	2723	2463	2269	2104
			V (cm/sn)						5,7	6,1	6,8	7,5	8,3	9,0	9,7

All indicated weights in the table take into account a safety reserve of 20 % and a slat thickness of 25 mm.
In some cases, the friction may be greater and this condition should be taken into account when calculating.
Their extra friction and possible diameter changes due to over-winding, must be taken into account when calculating these values.

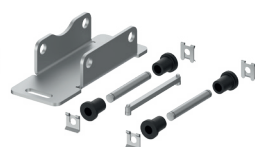
⚡ If frequency inverter drives are used, increasing the driving speed by 10% will cause a 5% decrease in drive torque. This should be considered when choosing a driver.
⚡ In gearmotors powered at a frequency of 60Hz (and at the same voltage), multipliers are used for some performance figures: Output torque: 0.83 , and rotations in output: 1.2

Special solutions can be offered upon request. Please contact us for requests in different speeds and powers.

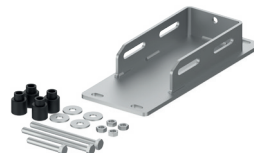
KD-63 WITH MK



INCLUDED



Torque Bracket



Torque Bracket (Optional)



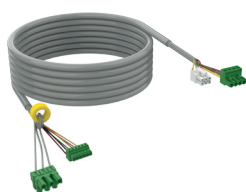
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

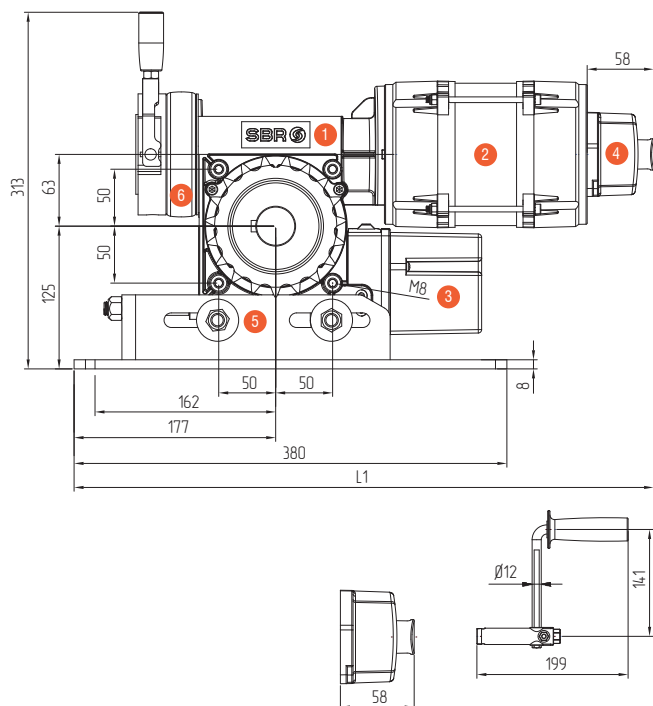
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING

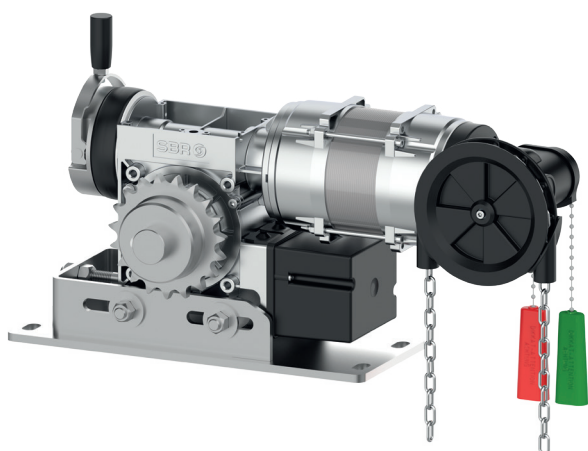


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake

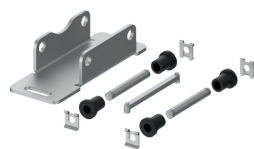
KD SERIES	L1
KD-63-170-24	455

ØD	H	B
D30.0	33,3	8,00

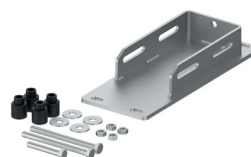
KD-63 WITH C2



INCLUDED



Torque Bracket



Torque Bracket (Optional)



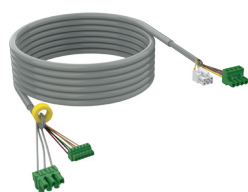
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

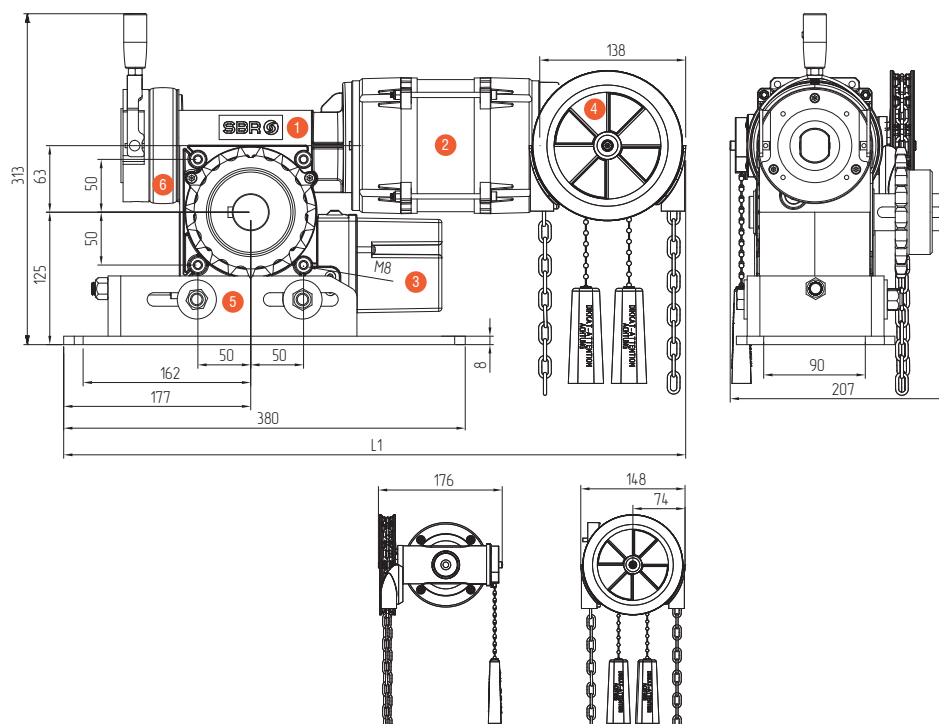
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

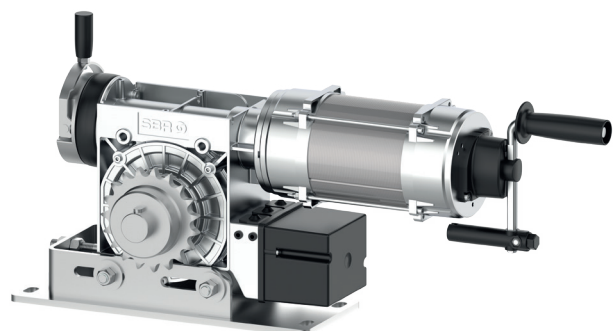


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

KD SERIES	L1
KD-63-170-24	534

ØD	H	B
D30.0	33,3	8,00

KD-85 WITH MK



INCLUDED



Torque Bracket



Torque Bracket (Optional)



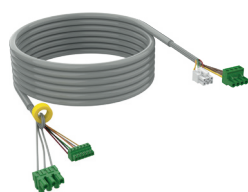
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

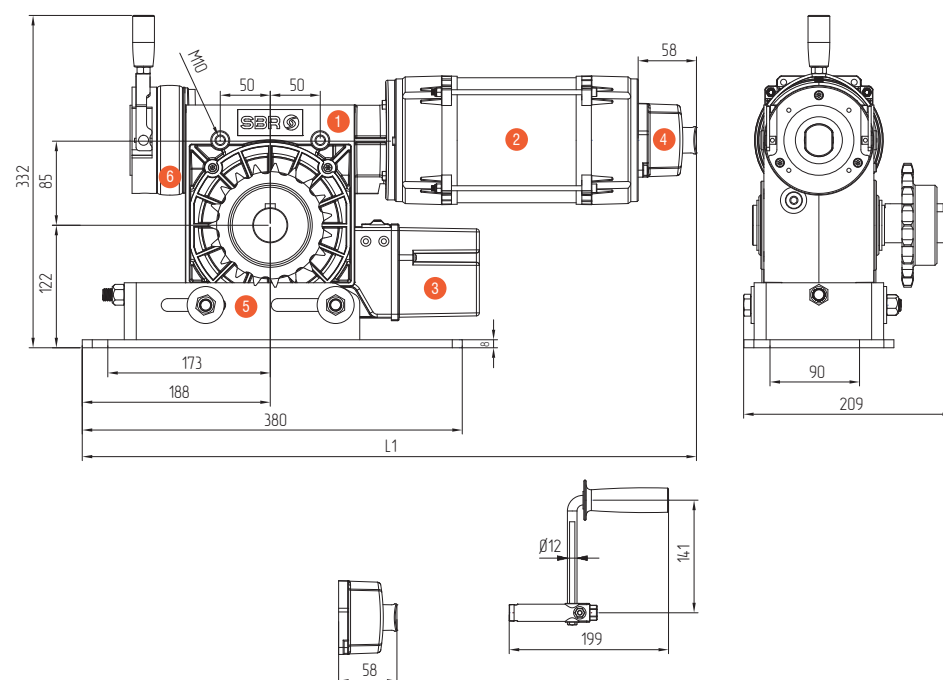
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING

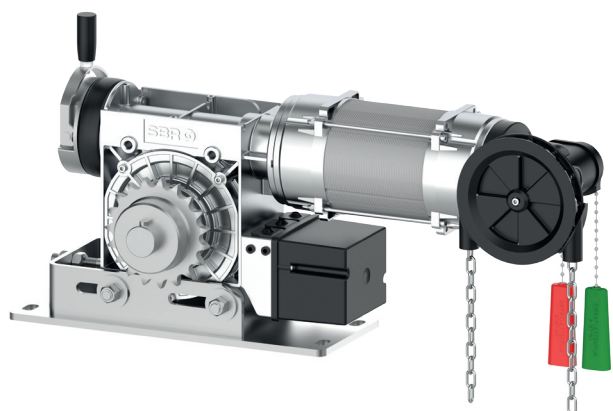


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake

KD SERIES	L1
KD-85-250-24	539
KD-85-350-24	568
KD-85-450-24	614

ØD	H	B
D40.0	43,3	12,00

KD-85 WITH C3



INCLUDED



Torque Bracket



Torque Bracket (Optional)



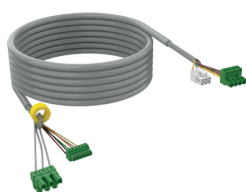
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

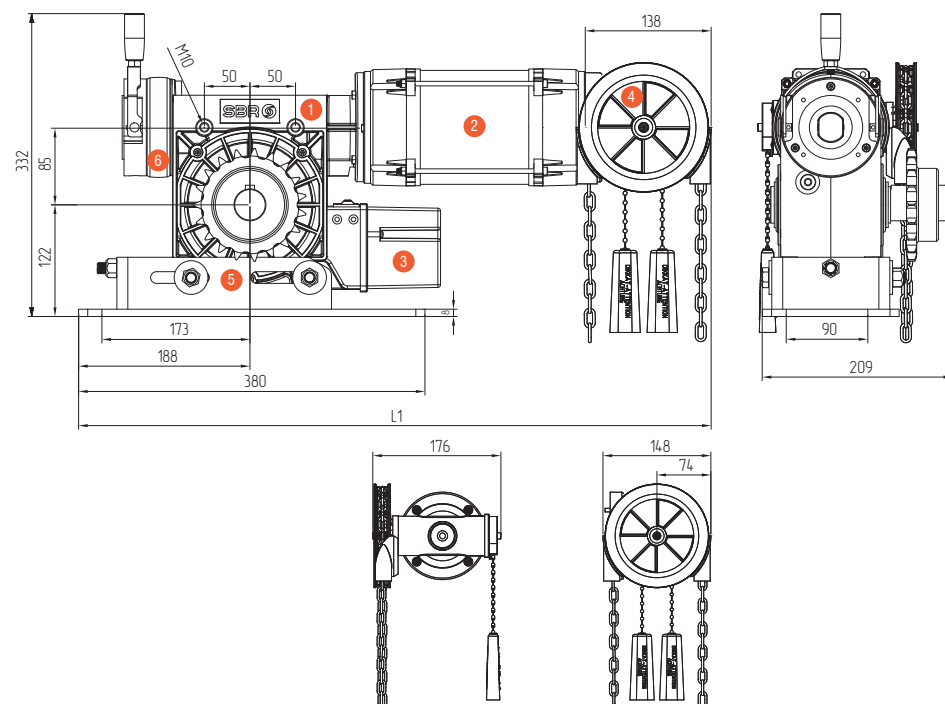
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING

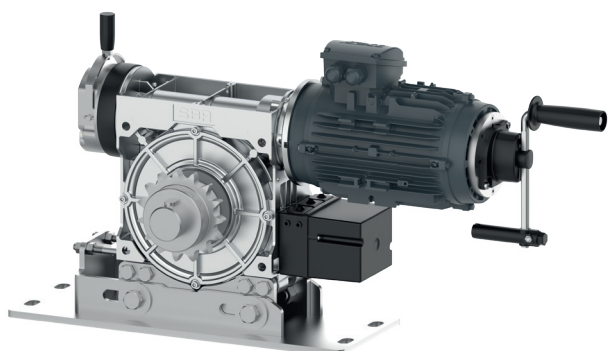


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

KD SERIES	L1
KD-85-250-24	619
KD-85-350-24	648
KD-85-450-24	694

ØD	H	B
D40.0	43,3	12,00

KD-110 WITH MK



INCLUDED



Torque Bracket



Torque Bracket (Optional)



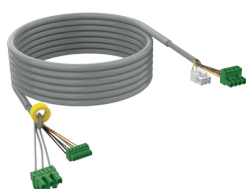
Crank

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

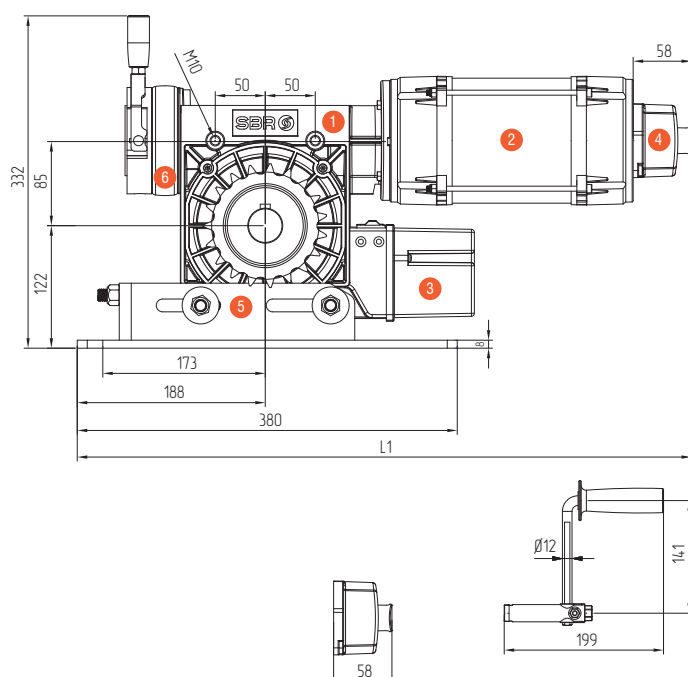
PAGE 72



Opto-Sensor

PAGE 72

DIMENSION DRAWING

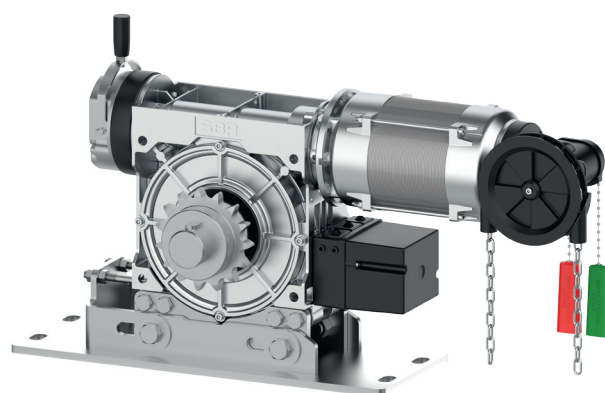


1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank MK
5	Floating Foot
6	Brake

KD SERIES	L1
KD-110-600-24	711
KD-110-750-24	715
KD-110-1000-24	715

ØD	H	B
D55.0	64,4	16,00

KD-110 WITH C3



INCLUDED



Torque Bracket



Torque Bracket (Optional)



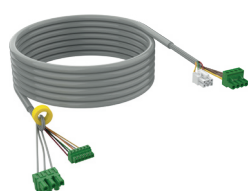
Pull Rope

ACCESSORIES



Control Unit

PAGE 59



EL-ML Special Cable

PAGE 71



380 V Cable

PAGE 72



Opto-Sensor

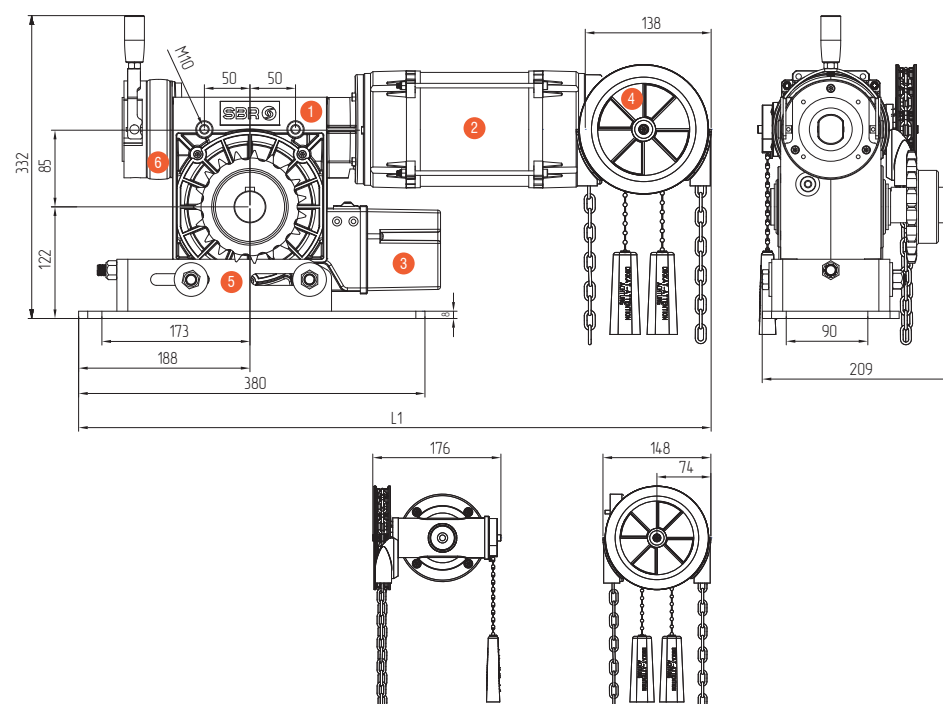
PAGE 72



Chain

PAGE 77

DIMENSION DRAWING



1	Gearbox
2	Motor
3	Limit Switch
4	Hand Crank C2
5	Floating Foot
6	Brake

KD SERIES	L1
KD-110-600-24	791
KD-110-750-24	794
KD-110-1000-24	794

ØD	H	B
D55.0	64,4	16,00

CONTROL UNIT ST - EP - FI - FE SERIES

CONTROL SYSTEMS



ST SERIES
EP SERIES
FE SERIES
FU SERIES
FI SERIES

ST 400



Technical Data

- For SBR SD/DS/RD/PS/KD operators with ENC or MEC.
(Up to 1,50 kW)
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,25 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class
- Protection against contact is provided by covers for live parts for electrical shock hazard.

Design

- Illuminated OPEN-STOP-CLOSE buttons
- LCD screen for easy adjustment
- Extension module connections

Accessories

- Extension accessories:
 - Relay module (yellow-red-green traffic lights and 3 programmable relays)
 - Receiver module (2 channel 433 MHz)

Functions

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing.
- Adjustable partial opening.
- Safety systems :
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Extension accessories:
 - Relay module (yellow-red-green traffic lights and 3 programmable relays)
 - Receiver module (2 channel 433 MHz)
- Internal error memory.

EP 400



Technical Data

- For SBR SD/DS/RD/KD operators with ENC or MEC.
(Up to 0,75 kW)
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,25 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class
- Protection against contact is provided by covers for live parts for electrical shock hazard.

Design

- Illuminated OPEN-STOP-CLOSE buttons
- LCD screen for easy adjustment
- Programmable relay output

Functions

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing. (Function can also be activated/deactivated).
 - When door reaches the open position, the door closes automatically after the set time.
 - Counter restarts after photocell activity.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Internal error memory.

EP 500



Technical Data

- For SBR SD/DS/RD/PS/KD operators with ENC or MEC. (Up to 1,50 kW)
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,30 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class

Design

- Illuminated OPEN-STOP-CLOSE buttons
- LCD screen for easy adjustment with 3 buttons
- Emergency stop button

Accessories

- Extension accessories:
 - Relay module (yellow-red-green traffic lights and 3 programmable relays)
 - Receiver module (2 channel 433 MHz)

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing.
- Adjustable partial opening.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Extension accessories:
 - Relay module (yellow-red-green traffic lights and 3 programmable relays)
 - Receiver module (2 channel 433 MHz)
- Internal error memory.

FE 500



Technical Data

- For SBR SD/DS/RD/KD operators with ENC or MEC. (Up to 2,20 kW)
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,30 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class

Design

- Illuminated OPEN-STOP-CLOSE buttons
- LCD screen for easy adjustment
- Emergency stop button

Accessories

- Extension accessories:
 - Relay module (yellow-red-green traffic lights and 3 programmable relays)
 - Receiver module (2 channel 433 MHz)

Functions

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing.
- Adjustable partial opening.
- Emergency stop button.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval:
 - Visual warning when reached to value or transition to hold to run operating mode.
- Extension accessories:
 - Relay module (yellow-red-green traffic lights and 3 programmable relays)
 - Receiver module (2 channel 433 MHz)
- Internal error memory.

EP 450 RP



Technical Data

- For SBR SD/DS/RD/PS/KD operators with ENC or MEC. (Up to 0,75 kW)
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,25 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class
- Protection against contact is provided by covers for live parts for electrical shock hazard.

Design

- Illuminated OPEN-STOP-CLOSE buttons
- LCD screen for easy adjustment with 3 buttons
- Controlling dock leveler with swing lip

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing (function can also be activated/deactivated).
 - When door reaches the open position, the door closes automatically after the set time.
 - Counter restarts after photocell activity.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Internal error memory.

EP 450 TRP



Technical Data

- For SBR SD/DS/RD/PS/KD operators with ENC or MEC. (Up to 0,75 kW)
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,25 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class
- Protection against contact is provided by covers for live parts for electrical shock hazard.

Design

- Illuminated OPEN-STOP-CLOSE buttons
- LCD screen for easy adjustment with 3 buttons
- Controlling dock leveler with swing lip

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing (function can also be activated/deactivated).
 - When door reaches the open position, the door closes automatically after the set time.
 - Counter restarts after photocell activity.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Internal error memory.

FE 5XX



Technical Data

- For SBR SD/DS/RD/PS/KD operators with ENC or MEC.
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,30 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class

Design

- Illuminated OPEN-STOP-CLOSE-PARTIAL OPEN buttons
- LCD screen for easy adjustment with 3 buttons
- Emergency stop button

Accessories

- Extension accessories:
 - Relay module (yellow-red-green traffic lights and 3 programmable relays)
 - Receiver module (2 channel 433 MHz)

Products

- FE 530 - Up to 0,75 kW
- FE 540 - Up to 1,50 kW
- FE 550 - Up to 2,20 kW
- FE 560 - Up to 4,00 kW
- FE 570 - Up to 5,50 kW

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing
- Adjustable partial opening.
- Emergency stop button.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Extension accessories:
 - Relay module (yellow-red-green traffic lights and 3 programmable relays)
 - Receiver module (2 channel 433 MHz)
- Internal error memory.

FU 750 M



Technical Data

- For SBR SD operators with ENC or MEC.
(Up to 0,75 kW)
- Supply voltage: 1N~230V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,30 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class

Design

- Illuminated OPEN-STOP-CLOSE-PARTIAL OPEN buttons
- LCD screen for easy adjustment with 3 buttons
- Emergency stop button
- Speed control

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing
- Adjustable partial opening.
- Emergency stop button.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Speed adjustment;
 - OPENING/CLOSING speed can be adjusted separately.
 - Adjustable deceleration range.
 - Soft start / soft stop.
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Internal error memory.

FI 750 M



Technical Data

- For SBR DS/RD/PS/KD operators with ENC or MEC. (Up to 0,75 kW)
- Supply voltage: 1N~230V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,30 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class

Design

- Illuminated OPEN-STOP-CLOSE-PARTIAL OPEN buttons
- LCD screen for easy adjustment with 3 buttons
- Emergency stop button
- Speed control

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing
- Adjustable partial opening.
- Emergency stop button.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Speed adjustment;
 - OPENING/CLOSING speed can be adjusted separately.
 - Adjustable deceleration range.
 - Soft start / soft stop.
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Internal error memory.

FI 1500 M



Technical Data

- For SBR DS/RD/PS/KD operators with ENC or MEC. (Up to 0,75 kW)
- Supply voltage: 1N~230V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,30 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class

Design

- Illuminated OPEN-STOP-CLOSE-PARTIAL OPEN buttons
- LCD screen for easy adjustment with 3 buttons
- Emergency stop button
- Speed control

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing
- Adjustable partial opening.
- Emergency stop button.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Speed adjustment;
 - OPENING/CLOSING speed can be adjusted separately.
 - Adjustable deceleration range.
 - Soft start / soft stop.
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Internal error memory.

FI 1500 T



Technical Data

- For SBR DS/RD/PS/KD operators with ENC or MEC. (Up to 1,50 kW)
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,30 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class

Design

- Illuminated OPEN-STOP-CLOSE-PARTIAL OPEN buttons
- LCD screen for easy adjustment with 3 buttons
- Emergency stop button
- Speed control

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing
- Adjustable partial opening.
- Emergency stop button.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Speed adjustment;
 - OPENING/CLOSING speed can be adjusted separately.
 - Adjustable deceleration range.
 - Soft start / soft stop.
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Internal error memory.

FI 2200 T



Technical Data

- For SBR DS/RD/PS/KD operators with ENC or MEC. (Up to 2,0 kW)
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,30 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class

Design

- Illuminated OPEN-STOP-CLOSE-PARTIAL OPEN buttons
- LCD screen for easy adjustment with 3 buttons
- Emergency stop button
- Speed control

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing
- Adjustable partial opening.
- Emergency stop button.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Speed adjustment;
 - OPENING/CLOSING speed can be adjusted separately.
 - Adjustable deceleration range.
 - Soft start / soft stop.
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Internal error memory.

FI 4000 T



Technical Data

- For SBR DS/RD/PS/KD operators with ENC or MEC.
(Up to 4,00 kW)
- Supply voltage: 3N~400V AC
- Operating Frequency: 50 Hz / 60 Hz
- Control Voltage: 24 V DC
- Supply voltage for external devices: 24 V DC (0,30 A)
- Operating Temperatures: -10 / +45 °C

Cover

- Dimensions W x H x D [mm]:
- IP 54 Protection class

Design

- Illuminated OPEN-STOP-CLOSE-PARTIAL OPEN buttons
- LCD screen for easy adjustment with 3 buttons
- Emergency stop button
- Speed control

Functions:

- Limit position adjustment (ENC only) and adjustment of all parameters from user level
- Selectable operating modes;
 - OPEN/CLOSE in self hold mode
 - OPEN in self hold / CLOSE in hold to run mode
 - OPEN/CLOSE in hold to run mode
- Time adjustable automatic closing
- Adjustable partial opening.
- Emergency stop button.
- Safety systems;
 - Photocell (NC)
 - Optical sensor (NC or NO)
 - Pneumatic sensor (NC or NO)
- Adjustable return time (for both direction change).
- Speed adjustment;
 - OPENING/CLOSING speed can be adjusted separately.
 - Adjustable deceleration range.
 - Soft start / soft stop.
- Strain detection.
- LCD screen for information and status monitoring.
- Door Operation-cycle counter (not resettable).
- Maintenance-cycle counter;
 - Value interval
 - Visual warning when reached to value or transition to hold to run operating mode.
- Internal error memory.

CONTROL UNIT

	ST 400	EP 400	EP 500	FE 500	EP 450 RP	EP 450 TRP
						

SUITABLE SERIES	SD DS RD KD	SD DS RD KD	SD DS RD PS KD	SD DS RD PS KD	SD DS RD PS KD	SD DS RD PS KD
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Operating Voltage	3N~400 V AC	3N~400 V AC	3N~400 V AC	3N~400 V AC	3N~400 V AC	3N~400 V AC
Operating Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max Motor Power	1,50 kW	0,75 kW	1,50 kW	2,20 kW	0,75 kW	0,75 kW
Control Voltage	24 V	24 V	24 V	24 V	24 V	24 V
24V Output Supply	24 V Dc Max 0,25 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A
Temperature Range	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45
Digital Screen	●	●	●	●	●	●
End Position Setting	E/M	E/M	E/M	E/M	E/M	E/M
Adjustable Opening/Closing Speed						
Soft Start/Stop						
Illuminated Buttons (Find In The Dark)	●	●	●	●	●	●
Emergency Stop Button			●	●	●	●
Connection For Safety Edge System (Photocell, Optical Sensor, Air Pressure)	●	●	●	●	●	●
Programmable Relay Outputs	OP	●	●	●	●	●
Remote Receiver Module Connections	●	●	●	●	●	●
Partial Opening Button						
Expansion Module Support (Relay Module, Receiver Module)	● / ●		● / ●	● / ●		
Controlling A Dock Leveller With Swing Lip					●	
Controlling A Dock Leveller With Telescoping Lip						●
Integrated Door Operation Counter	●	●	●	●	●	●
Integrated Error Memory	●	●	●	●	●	●

	FE 530	FE 540	FE 550	FE 560	FE 570
					

SUITABLE SERIES	SD DS RD PS KD	SD DS RD PS KD	SD DS RD PS KD	SD DS RD PS KD	SD DS RD PS KD
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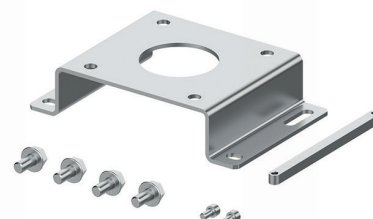
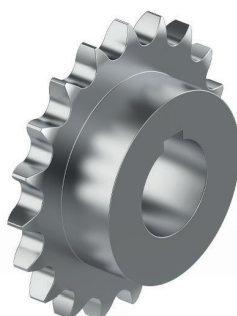
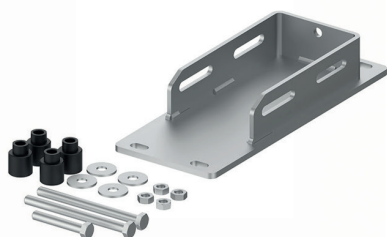
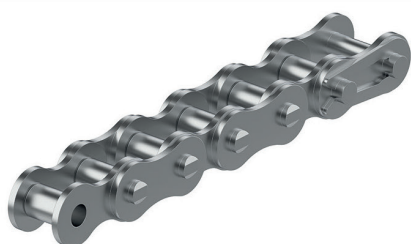
Operating Voltage	3N~400 V AC	3N~400 V AC	3N~400 V AC	3N~400 V AC	3N~400 V AC
Operating Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max Motor Power	0,75 kW	1,50 kW	2,20 kW	4,00 kW	5,50 kW
Control Voltage	24 V	24 V	24 V	24 V	24 V
24V Output Supply	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A
Temperature Range	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45
Digital Screen	●	●	●	●	●
End Position Setting	E/M	E/M	E/M	E/M	E/M
Adjustable Opening/Closing Speed					
Soft Start/Stop					
Illuminated Buttons (Find In The Dark)	●	●	●	●	●
Emergency Stop Button	●	●	●	●	●
Connection For Safety Edge System (Photocell, Optical Sensor, Air Pressure)	●	●	●	●	●
Programmable Relay Outputs	●	●	●	●	●
Remote Receiver Module Connections	●	●	●	●	●
Partial Opening Button	●	●	●	●	●
Expansion Module Support (Relay Module, Receiver Module)	● / ●	● / ●	● / ●	● / ●	● / ●
Controlling A Dock Leveller With Swing Lip					
Controlling A Dock Leveller With Telescoping Lip					
Integrated Door Operation Counter	●	●	●	●	●
Integrated Error Memory	●	●	●	●	●

	FU 750 M	FI 750 M	FI 1500 M	FI 1500 T	FI 2200 T	FI 4000 T
						

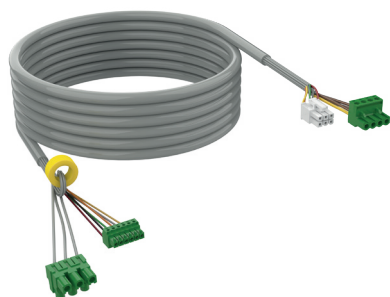
SUITABLE SERIES	SD	DS RD PS KD	DS RD PS KD	DS RD PS KD	DS RD PS KD	DS RD PS KD
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Operating Voltage	1N~230 V AC	1N~230 V AC	1N~230 V AC	3N~400 V AC	3N~400 V AC	3N~400 V AC
Operating Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max Motor Power	0,75 kW	0,75 kW	1,50 kW	1,50 kW	2,20 kW	4,00 kW
Control Voltage	24 V	24 V	24 V	24 V	24 V	24 V
24V Output Supply	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A	24 V Dc Max 0,30 A
Temperature Range	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45
Digital Screen	●	●	●	●	●	●
End Position Setting	E/M	E/M	E/M	E/M	E/M	E/M
Adjustable Opening/Closing Speed	●	●	●	●	●	●
Soft Start/Stop	●	●	●	●	●	●
Illuminated Buttons (Find In The Dark)	●	●	●	●	●	●
Emergency Stop Button	●	●	●	●	●	●
Connection For Safety Edge System (Photocell, Optical Sensor, Air Pressure)	●	●	●	●	●	●
Programmable Relay Outputs	●	●	●	●	●	●
Remote Receiver Module Connections	●	●	●	●	●	●
Partial Opening Button	●	●	●	●	●	●
Expansion Module Support (Relay Module, Receiver Module)						
Controlling A Dock Leveller With Swing Lip						
Controlling A Dock Leveller With Telescoping Lip						
Integrated Door Operation Counter	●	●	●	●	●	●
Integrated Error Memory	●	●	●	●	●	●

ACCESSORIES SD-DS-RD-PS-KD SERIES



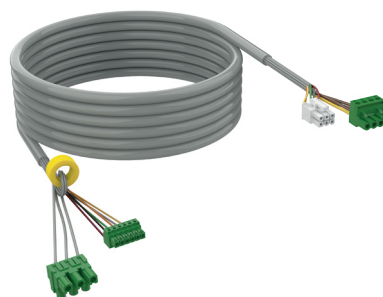
CONNECTION CABLE



ML SPECIAL CABLE

> It is used in motors with mechanical limit switches.

5310000000003	ML Special Cable 3 M
5310000000005	ML Special Cable 5 M
5310000000006	ML Special Cable 6 M
5310000000007	ML Special Cable 7 M
5310000000008	ML Special Cable 8 M
5310000000009	ML Special Cable 9 M
5310000000011	ML Special Cable 11 M
5310000000013	ML Special Cable 13 M



EL SPECIAL CABLE

> It is used in motors with encoder limit switches.

5320000000003	EL Special Cable 3 M
5320000000005	EL Special Cable 5 M
5320000000006	EL Special Cable 6 M
5320000000007	EL Special Cable 7 M
5320000000008	EL Special Cable 8 M
5320000000009	EL Special Cable 9 M
5320000000011	EL Special Cable 11 M
5320000000013	EL Special Cable 13 M



ML SET1 SPECIAL CABLE

> It is used in motors with mechanical limit switches up to 1.10 kW.

5330000000003	ML Set1 Special Cable 3 M
5330000000005	ML Set1 Special Cable 5 M
5330000000006	ML Set1 Special Cable 6 M
5330000000007	ML Set1 Special Cable 7 M
5330000000008	ML Set1 Special Cable 8 M
5330000000009	ML Set1 Special Cable 9 M
5330000000011	ML Set1 Special Cable 11 M
5330000000013	ML Set1 Special Cable 13 M



EL SET1 SPECIAL CABLE

> It is used in motors with encoder limit switches up to 1.10 kW.

5340000000003	EL Set1 Special Cable 3 M
5340000000005	EL Set1 Special Cable 5 M
5340000000006	EL Set1 Special Cable 6 M
5340000000007	EL Set1 Special Cable 7 M
5340000000008	EL Set1 Special Cable 8 M
5340000000009	EL Set1 Special Cable 9 M
5340000000011	EL Set1 Special Cable 11 M
5340000000013	EL Set1 Special Cable 13 M

CONNECTION CABLE



ML SET2 SPECIAL CABLE

> It is used in motors with mechanical limit switches up to 1.10 kW.

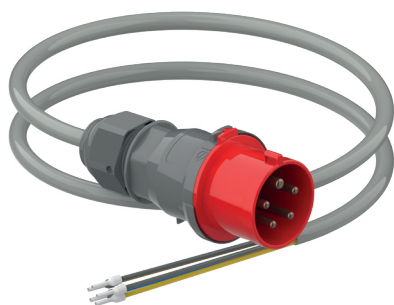
5350000000003	ML Set2 Special Cable 3 M
5350000000005	ML Set2 Special Cable 5 M
5350000000006	ML Set2 Special Cable 6 M
5350000000007	ML Set2 Special Cable 7 M
5350000000008	ML Set2 Special Cable 8 M
5350000000009	ML Set2 Special Cable 9 M
5350000000011	ML Set2 Special Cable 11 M
5350000000013	ML Set2 Special Cable 13 M



EL SET1 SPECIAL CABLE

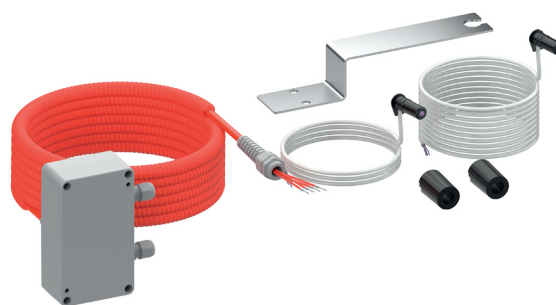
> It is used in motors with encoder limit switches up to 1.10 kW.

5360000000003	EL Set2 Special Cable 3 M
5360000000005	EL Set2 Special Cable 5 M
5360000000006	EL Set2 Special Cable 6 M
5360000000007	EL Set2 Special Cable 7 M
5360000000008	EL Set2 Special Cable 8 M
5360000000009	EL Set2 Special Cable 9 M
5360000000011	EL Set2 Special Cable 11 M
5360000000013	EL Set2 Special Cable 13 M



380 V SPECIAL CABLE

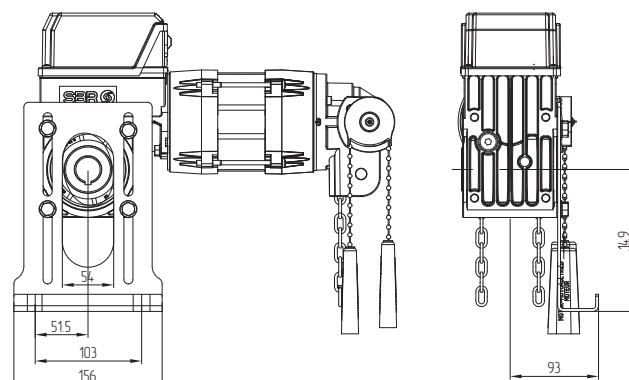
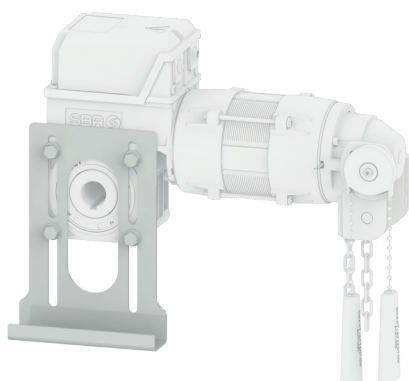
5370000000003	380 V Special Cable 1 M
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OPTO SENSOR

5410000104050	Opto Sensor (IR Receiver Trans. + 4X0.50 Spiral Cable)
5410000105050	Opto Sensor (IR Receiver Trans. + 5X0.50 Spiral Cable)

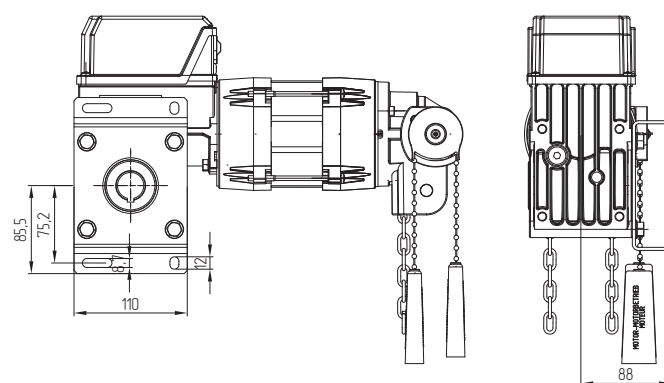
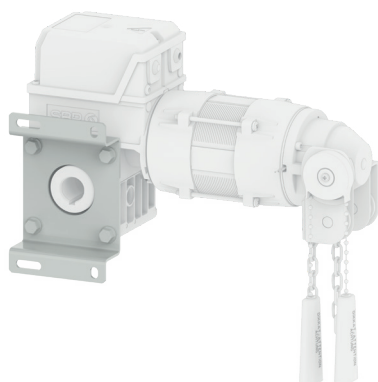
TORQUE BRACKET



Torque Bracket For 50 Series

> Steel, Electrogalvanised

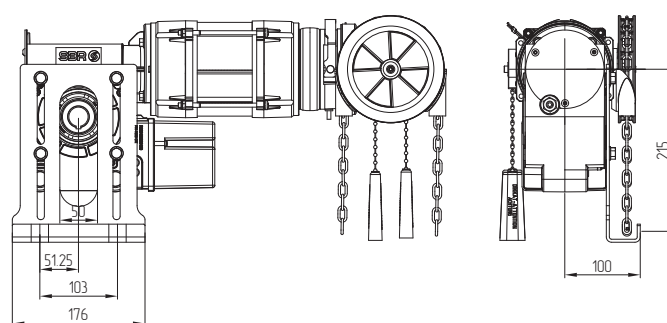
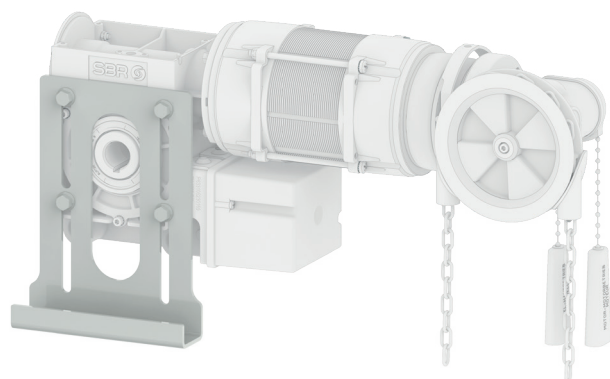
5650000500010



Torque Bracket For 50 Series

> Steel, Electrogalvanised

5650000500005

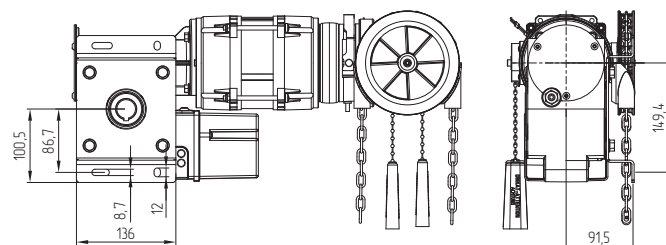
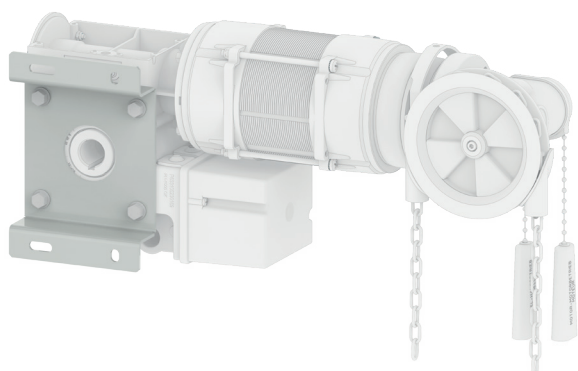


Torque Bracket For 63 Series

> Steel, Electrogalvanised

5650000630010

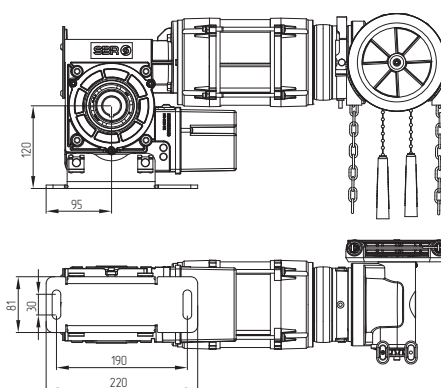
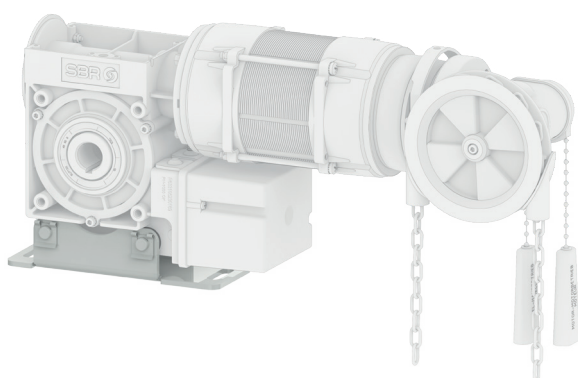
TORQUE BRACKET



Torque Bracket For 63 Series

> Steel, Electrogalvanised

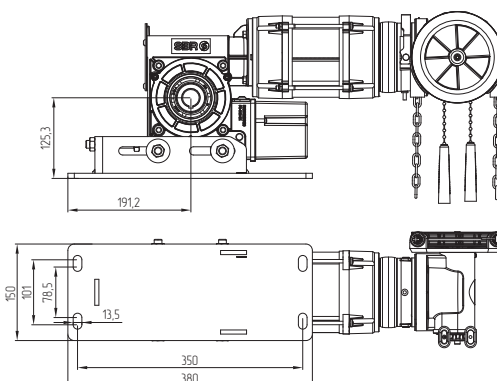
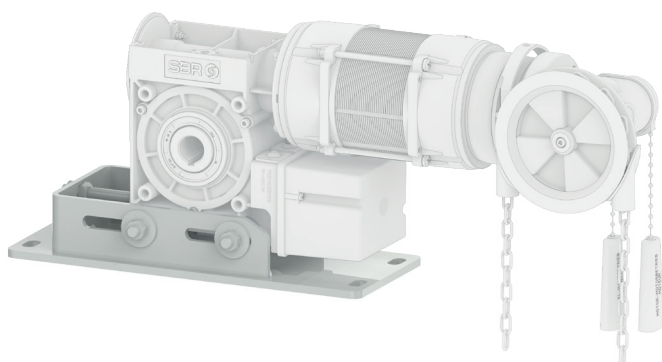
5650000630005



Torque Bracket For 63 Series

> Steel, Electrogalvanised

5650000630015

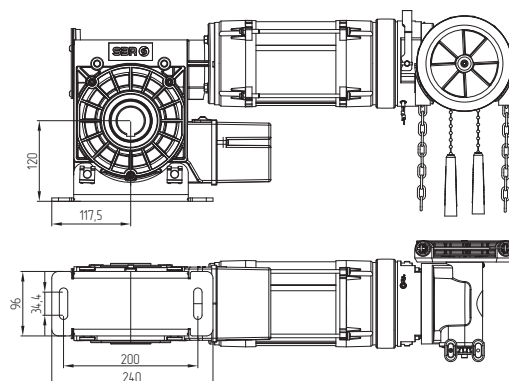
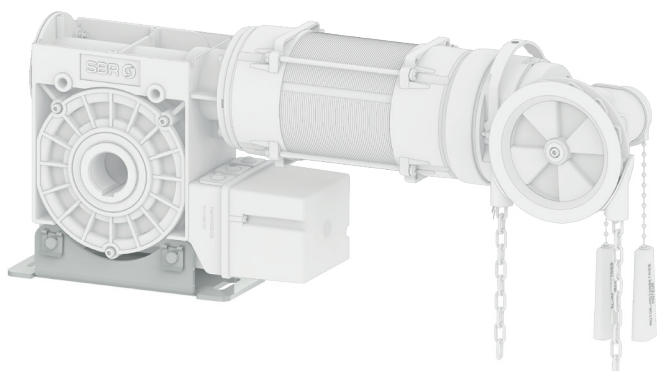


Torque Bracket For 63 Series

> Steel, Electrogalvanised

5650000630020

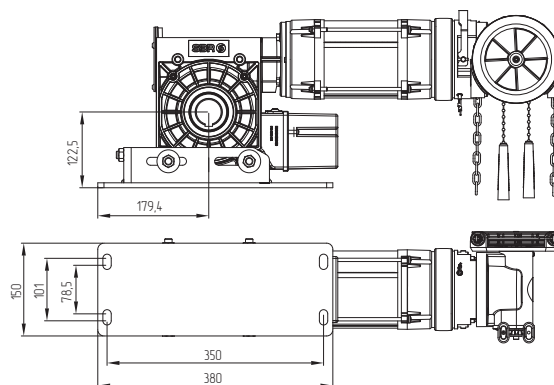
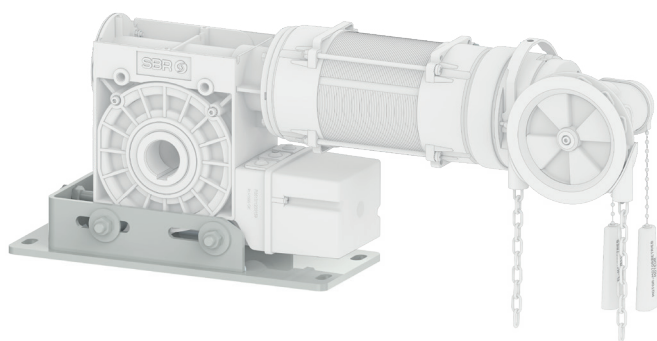
TORQUE BRACKET



Torque Bracket For 85 Series

> Steel, Electrogalvanised

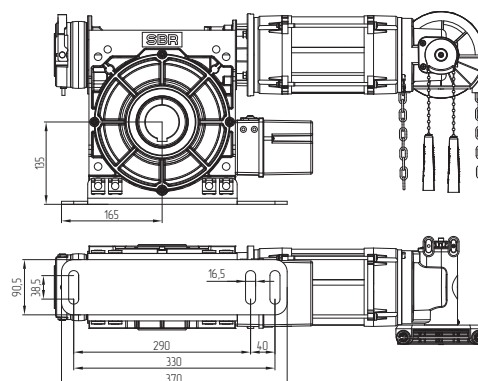
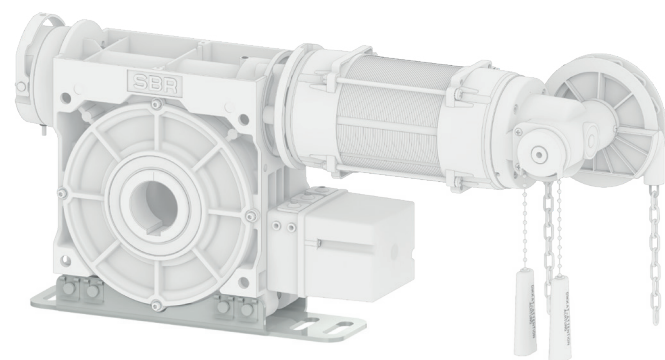
5650000850015



Torque Bracket For 85 Series

> Steel, Electrogalvanised

5650000850020

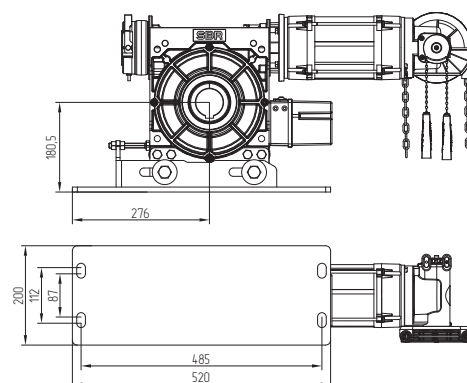
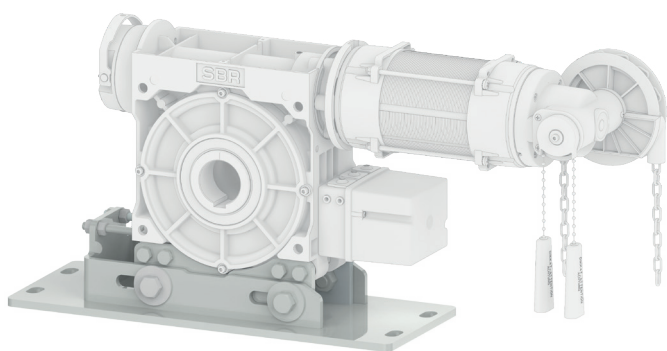


Torque Bracket For 110 Series

> Steel, Electrogalvanised

5650001100015

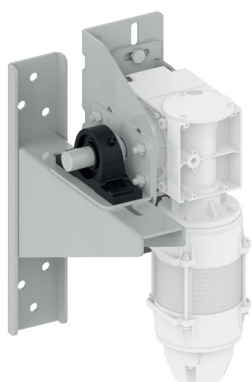
TORQUE BRACKET



Torque Bracket For 110 Series

> Steel, Electrogalvanised

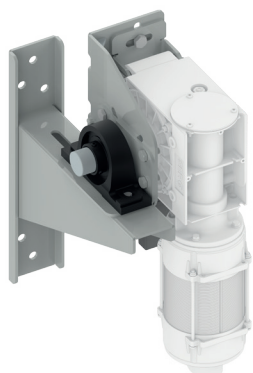
5650001100020



Torque Mount For 63 Series

> Steel, Electrogalvanised

5650000630120



Torque Mount For 85 Series

> Steel, electrogalvanised

5650000850120

CHAIN AND CHAIN DRIVE



CALIBER CHAIN

> For emergency hand chain.

55100000000006	Caliber Chain 6 Metre (H:3.0)
55100000000008	Caliber Chain 8 Metre (H:4.0)
55100000000010	Caliber Chain 10 Metre (H:5.0)
55100000000012	Caliber Chain 12 Metre (H:6.0)
55100000000014	Caliber Chain 14 Metre (H:7.0)
55100000000016	Caliber Chain 16 Metre (H:8.0)
55100000000018	Caliber Chain 18 Metre (H:9.0)



CONNECTION LINK FOR CALIBER CHAIN

> Emergency hand chain, galvanised.

55200000000001	Connection Link For Caliber Chain
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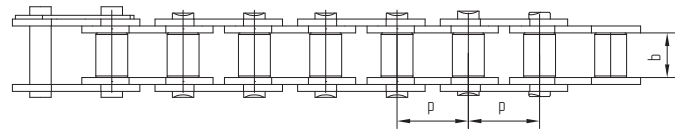
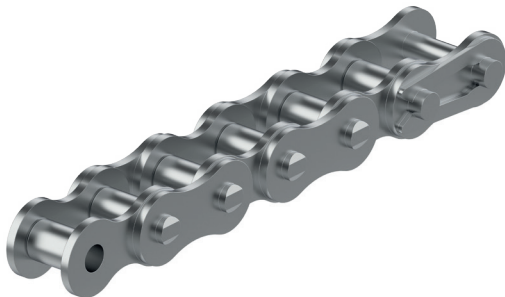


CHAIN DRIVE 1:1

- > Axial distance 555 mm
- > Reduction ratio 1:1
- > Door Ø25.4 mm
- > Operator Ø25.4 mm
- > With plug-in axle and Torque Bracket

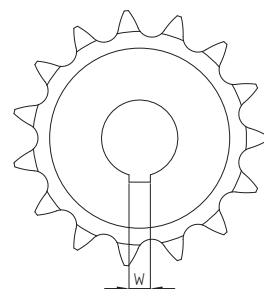
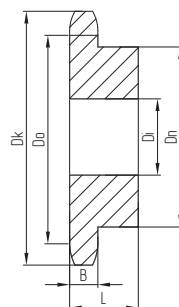
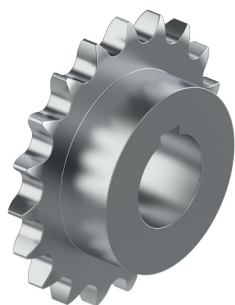
56100000000005

ROLLER CHAIN



Part No	Description	Designation	p x b [inch]	p x b [mm]	Ultimate load of chain DIN 8187 [N]	Number of teeth's
53201000080015	Roller Chain 08 B-1 1.5 M	08 B-1	1/2" x 5/16"	12,7 x 7,75	18.000	15
53201000080050	Roller Chain 08 B-1 5.0 M					19
53202000120020	Roller Chain 12 B-1 2.0 M	12 B-1	3/4" x 7/16"	19,05 x 11,68	29.000	15
53202000120050	Roller Chain 12 B-1 5.0 M					19
53203000160025	Roller Chain 16 B-1 2.5 M	16 B-1	1" x 17,02 mm	25,4 x 17,02	60.000	15
53203000160050	Roller Chain 16 B-1 5.0 M					19
53204000200020	Roller Chain 20 B-1 2.0 M	20 B-1	1 1/4" x 3/4"	31,75 x 19,56	95.000	15
53204000200020	Roller Chain 20 B-1 5.0 M					19

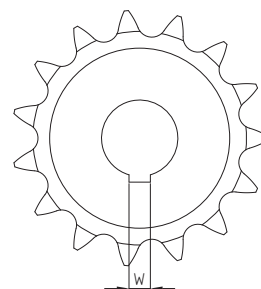
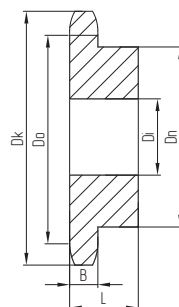
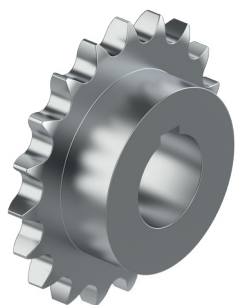
SPROCKETS



	Part No	Number Of Teeth Z	Bore Ø Di [mm]	Pitch Circle Ø Do [mm]	Ø Dk [mm]	Hub Ø Dn [mm]	Tooth Width B [mm]	Total Width L [mm]	Width Of Key W [mm]
08 B-1 (1/2" x 5/16")	53251000152500	15	25	61,1	65,5	45	7,2	28	8
	53251000192500	19	25	77,2	81,7	60	7,2	28	8
	53251000192540	19	25,4	77,2	81,7	60	7,2	28	6,35
	53251000193175	19	31,75	77,2	81,7	60	7,2	28	6,35
	53251000252540	25	25,4	101,3	105,8	60	7,2	28	6,35
	53251000253175	25	31,75	101,3	105,8	60	7,2	28	6,35
	53251000303000	30	30	121,5	126,1	80	7,2	30	8
	53251000304000	30	40	121,5	126,1	80	7,2	30	12
	53251000453000	45	30	182,1	188	70	7,2	42	8
	53251000454000	45	40	182,1	188	70	7,2	42	12
	53251000573000	57	30	230,5	236,4	70	7,2	42	8
	53251000574000	57	40	230,5	236,4	70	7,2	42	12

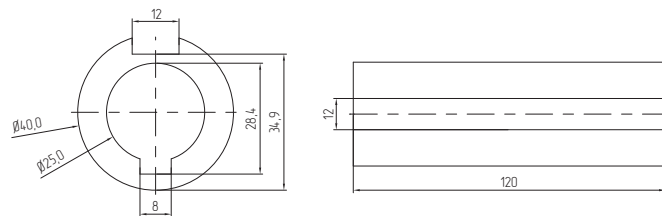
12B-1 (3/4" x 7/16")	53252000152500	15	25	91,6	99,8	70	11,1	35	8
	53252000153000	15	30	91,6	99,8	70	11,1	35	8
	53252000154000	15	40	91,6	99,8	70	11,1	35	12
	53252000192500	19	25	115,8	124,2	80	11,1	35	8
	53252000193000	19	30	115,8	124,2	80	11,1	35	8
	53252000194000	19	40	115,8	124,2	80	11,1	35	12
	53252000222500	22	25	133,9	141,8	90	11,1	40	8
	53252000304000	30	40	182,3	190,5	95	11,1	40	12
	53252000305000	30	50	182,3	190,5	95	11,1	40	14
	53252000455000	45	50	273,1	282,5	100	11,1	56	14
	53252000456000	45	60	273,1	282,5	100	11,1	56	18
	53252000575000	57	50	345,8	355,4	100	11,1	56	14

SPROCKETS



	Part No	Number Of Teeth Z	Bore Ø Di [mm]	Pitch Circle Ø Do [mm]	Ø Dk [mm]	Hub Ø Dn [mm]	Tooth Width B [mm]	Total Width L [mm]	Width Of Key W [mm]
16B-1 (1" x 17,02)	53253000154000	15	40	122,2	133	92	16,2	40	12
	53252000155500	15	55	122,2	133	92	16,2	40	16
	53252000194000	19	40	154,3	165,2	100	16,2	45	12
	53252000195000	19	50	154,3	165,2	100	16,2	45	14
	53252000195500	19	55	154,3	165,2	100	16,2	45	16
	53252000305000	30	50	243	254	120	16,2	50	14
	53252000306000	30	60	243	254	120	16,2	50	18
	53252000455000	45	50	364,1	377,9	125	16,2	70	14
	53252000456000	45	60	364,1	377,9	125	16,2	70	18
	53252000575000	57	50	461,1	474,9	125	16,2	70	14
	53252000576000	57	60	461,1	474,9	125	16,2	70	18
	53252000578000	57	80	461,1	474,9	125	16,2	70	22
20B-1 (1 1/4" x 3/4")	53254000155000	15	50	152,7	167,9	118	18,5	45	14
	53254000155500	15	55	152,7	167,9	118	18,5	45	16
	53254000195500	19	55	192,9	208,1	120	18,5	50	16
	53254000456000	45	60	455,2	470,3	150	18,5	70	18
	53254000458000	45	80	455,2	470,3	150	18,5	70	22
	53254000576000	57	60	576,4	592,3	150	18,5	80	18
	53254000578000	57	80	576,4	592,3	150	18,5	80	22

ADAPTER

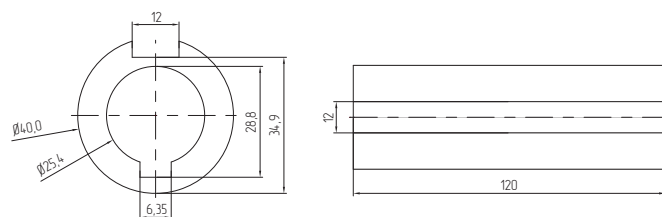


SHAFT ADAPTER REDUCER SLEEVE SET

> Door : Hollow or solid shaft Ø25.00 mm

> Operator : Hollow shaft Ø40.00 mm

53300000025040

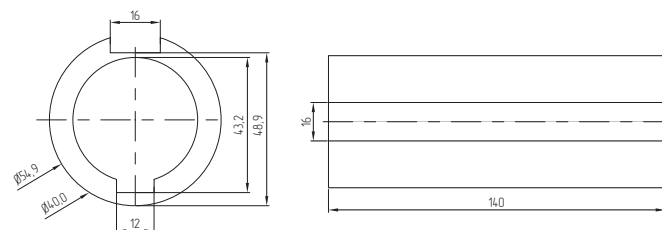


SHAFT ADAPTER REDUCER SLEEVE SET

> Door : Hollow or solid shaft Ø25.40 mm

> Operator : Hollow shaft Ø40.00 mm

53300000025440



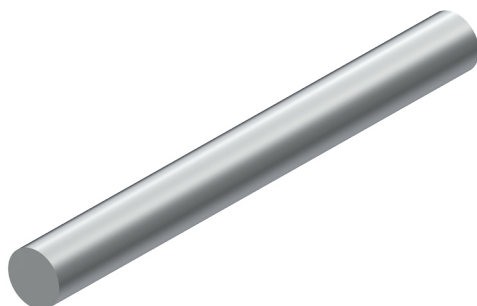
SHAFT ADAPTER REDUCER SLEEVE SET

> Door : Hollow or solid shaft Ø40.00 mm

> Operator : Hollow shaft Ø55.00 mm

53300000040055

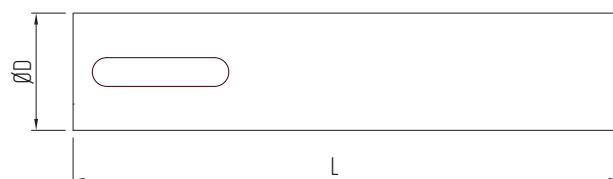
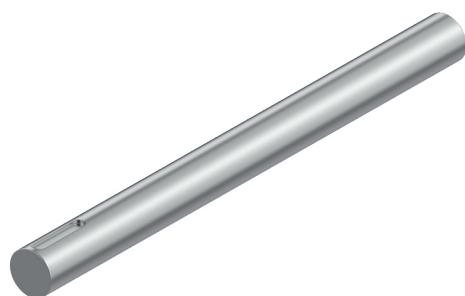
SHAFTS



SHAFT A

- Material S355J2C + C
- Without key
- For rolling doors

SBR CODE	SHAFT TYPE	Ø D	L [mm]	KEY
5810025350	SHAFT A	25	350	-
5810030600	SHAFT A	30	600	-
5810040600	SHAFT A	40	600	-
5810050600	SHAFT A	50	600	-
5810055600	SHAFT A	55	600	-
5810060600	SHAFT A	60	600	-

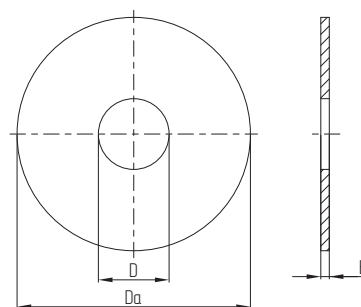
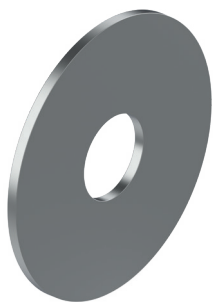


SHAFT B

- Material S355J2C + C
- With key
- For rolling doors

SBR CODE	SHAFT TYPE	Ø D	L [mm]	KEY
5820025350	SHAFT B	25	350	8x7x70
5820030600	SHAFT B	30	600	8x7x70
5820040600	SHAFT B	40	600	12x8x70
5820050600	SHAFT B	50	600	14x9x70
5820055600	SHAFT B	55	600	16x10x100
5820060600	SHAFT B	60	600	18x11x100

DISCS FOR TUBES



Part No	D	D _A	For Tube
53400000030099	30	99	108,0 x 3,6
53400000030124	30	124	133,0 x 4,0
53400000040124	40	124	133,0 x 4,0
53400000055124	55	124	133,0 x 4,0
53400000030149	30	149	159,0 x 4,5
53400000040149	40	149	159,0 x 4,5
53400000050149	50	149	159,0 x 4,5
53400000055149	55	149	159,0 x 4,5
53400000030166	30	166	177,8 x 5,0
53400000040166	40	166	177,8 x 5,0
53400000050166	50	166	177,8 x 5,0
53400000055166	55	166	177,8 x 5,0
53400000030182	30	182	193,7 x 5,4
53400000040182	40	182	193,7 x 5,4
53400000050182	50	182	193,7 x 5,4
53400000055182	55	182	193,7 x 5,4
53400000060182	60	182	193,7 x 5,4
53400000040206	40	206	219,1 x 5,9
53400000050206	50	206	219,1 x 5,9
53400000055206	55	206	219,1 x 5,9
53400000060206	60	206	219,1 x 5,9
53400000040231	40	231	244,5 x 6,3
53400000050231	50	231	244,5 x 6,3
53400000055231	55	231	244,5 x 6,3
53400000060231	60	231	244,5 x 6,3
53400000070231	70	231	244,5 x 6,3
53400000055259	55	259	273,0 x 6,3
53400000060259	60	259	273,0 x 6,3
53400000070259	70	259	273,0 x 6,3
53400000080259	80	259	273,0 x 6,3
53400000055283	55	283	298,5 x 7,1
53400000060283	60	283	298,5 x 7,1
53400000055308	55	308	323,9 x 7,1
53400000060308	60	308	323,9 x 7,1
53400000070308	70	308	323,9 x 7,1
53400000080308	80	308	323,9 x 7,1

Fevzi Çakmak Mah. Sıla Cad. No:48/O Selçuklu/KONYA/TURKIYE

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V.2.1

