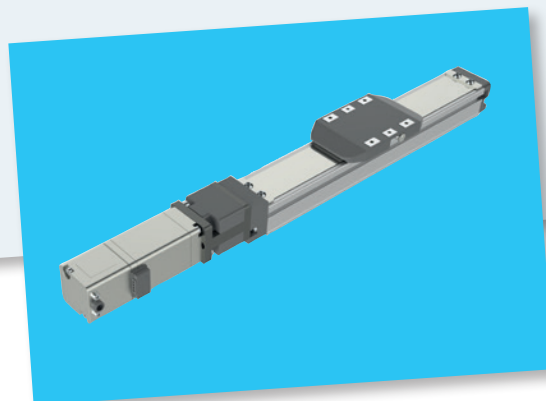
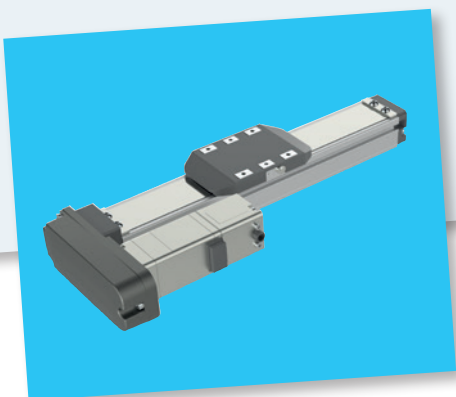
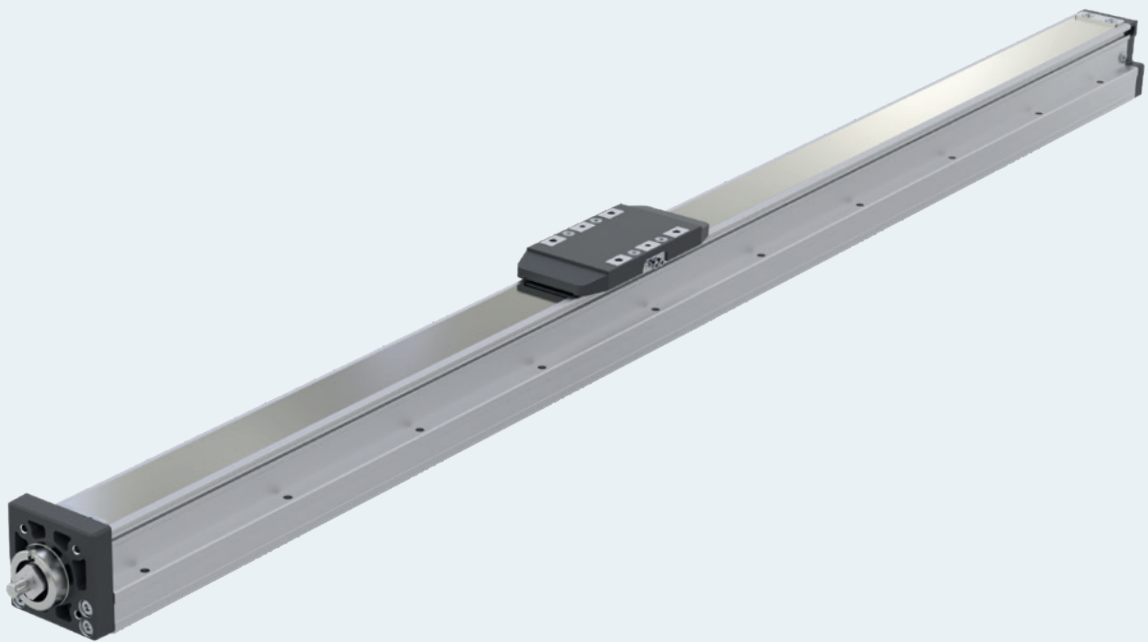


# Small Modules Screw driven – SMS



## Identification system for short product names

<b>Example</b>		<b>SM</b>	<b>S</b>	<b>040</b>	<b>P12</b>	<b>100</b>
<b>System</b>	= <b>S</b> mall <b>M</b> odules					
<b>Drive</b>	= <b>S</b> crew drive (ball screw assembly)					
<b>Size</b>	= <b>030 / 040 / 050 / 080 / 120</b>					
<b>Lead</b>	= <b>P</b> (lead <b>12</b> mm)					
<b>Maximum travel range</b>	= $s_{max}$ (maximum travel range <b>100</b> mm)					

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## Product description

### Characteristic features

Rexroth SMS systems meet the precision and load-bearing capacity requirements of numerous popular applications and complement the tried-and-tested portfolio of high-performance linear axes.

### Structural design

- ▶ Ready-to-install module configurations in predefined lengths available ex stock
- ▶ Five matched sizes based on an ultra-compact aluminum profile with integrated guideways
- ▶ Carriage driven via ball screw assembly
- ▶ Protection of the installation elements by magnetically fixed sealing strip
- ▶ In usual Rexroth quality and precision with a repeatability up to  $\pm 0.005$  mm

### Attachments (range of accessories)

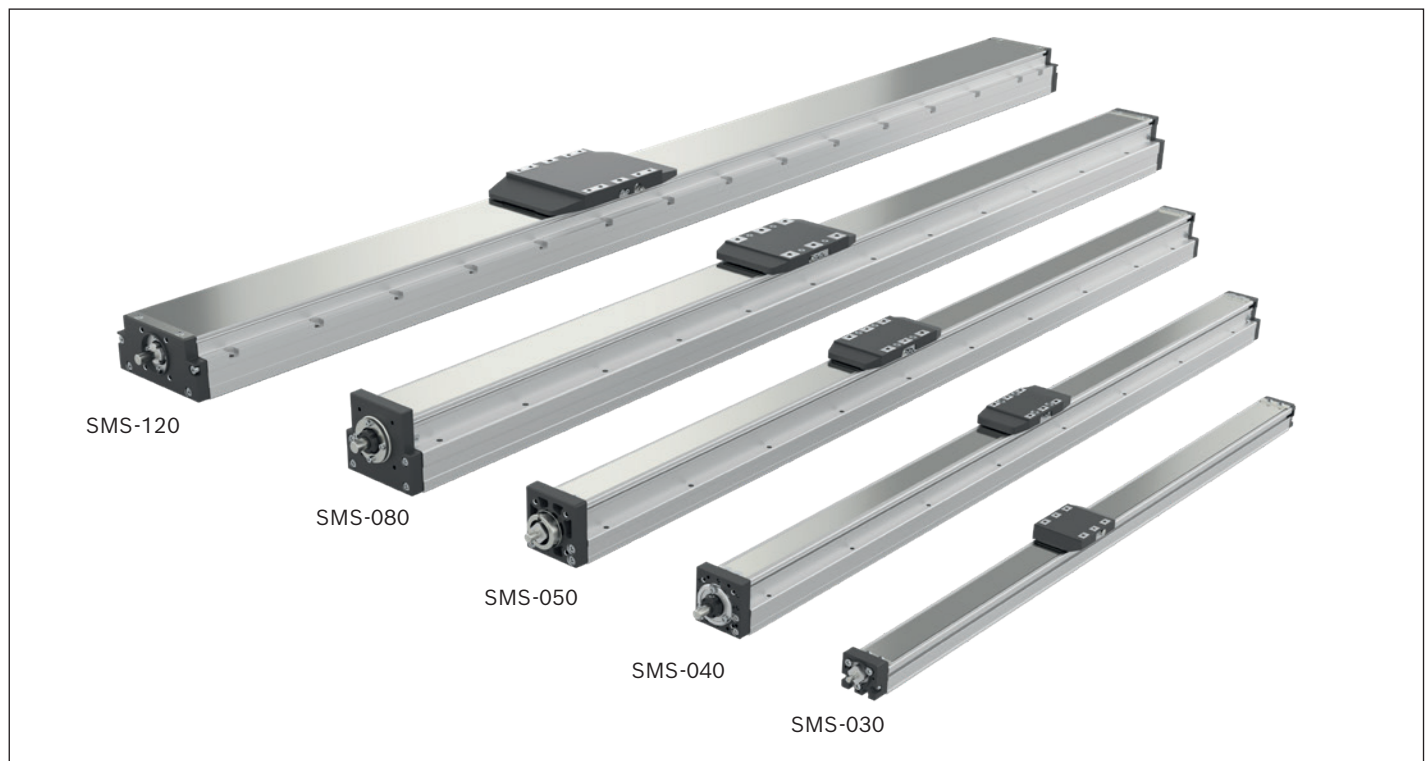
- ▶ Motor attachment either with flange and coupling or with belt side drive
- ▶ Optionally with Rexroth servo motor MSM

### Further highlights

- ▶ Simple product selection with fewer application parameters
- ▶ Online ordering via Rexroth Store and other digital marketplaces
- ▶ Exact handling with very good positioning accuracy
- ▶ Economical solution of simple positioning tasks with excellent price/performance ratio

### Application areas

- ▶ Pick and place
- ▶ Handling
- ▶ Placement systems, palletizers
- ▶ Feed units
- ▶ Motion units

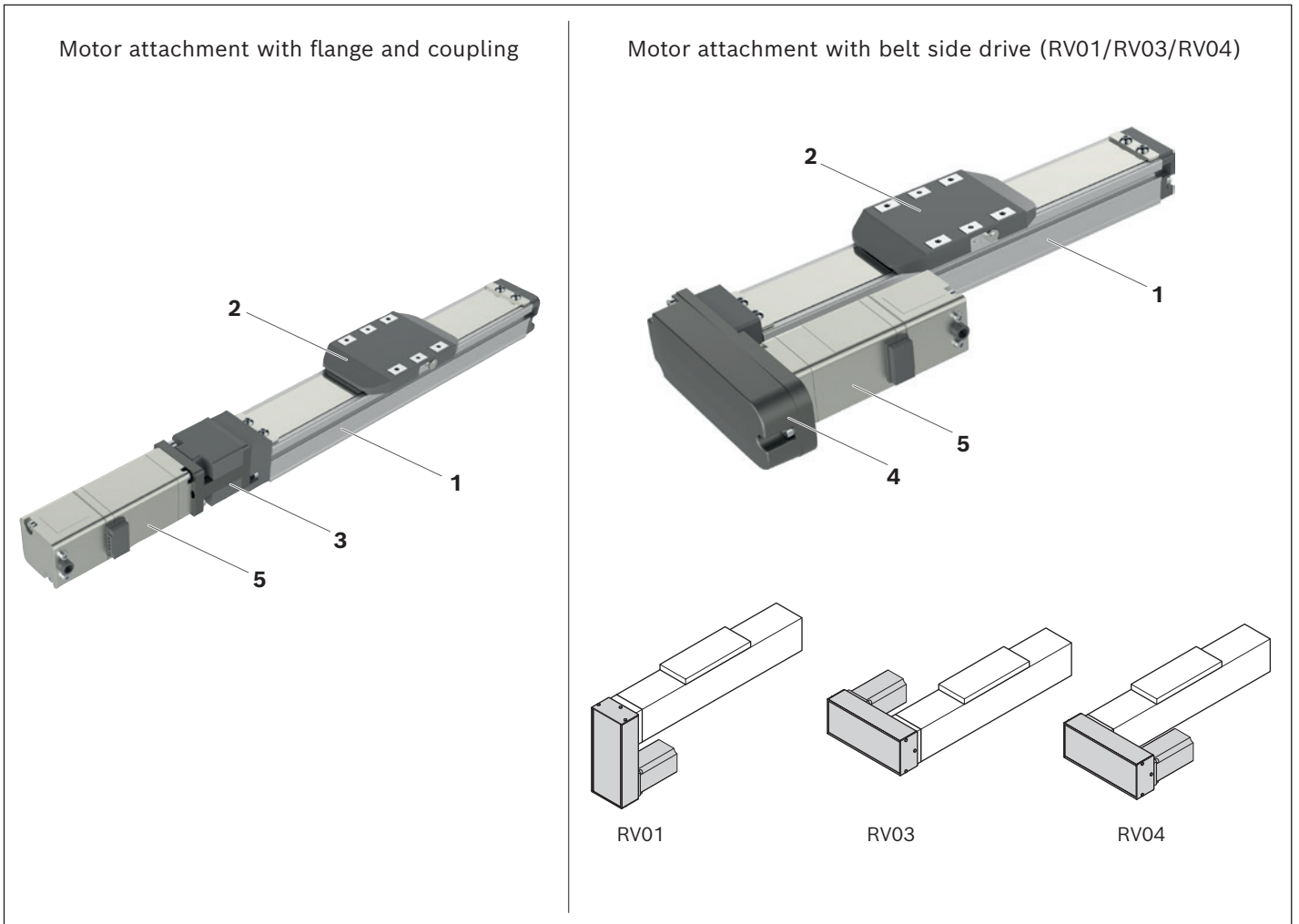


**Form of delivery**

SMS systems come fully assembled.

**Range of accessories**

Structure of flange and coupling or with belt side drive (RV01/RV03/RV04) are available in the range of accessories.



- 1 Frame SMS
- 2 Carriage
- 3 Flange and coupling
- 4 Belt side drive
- 5 Motor

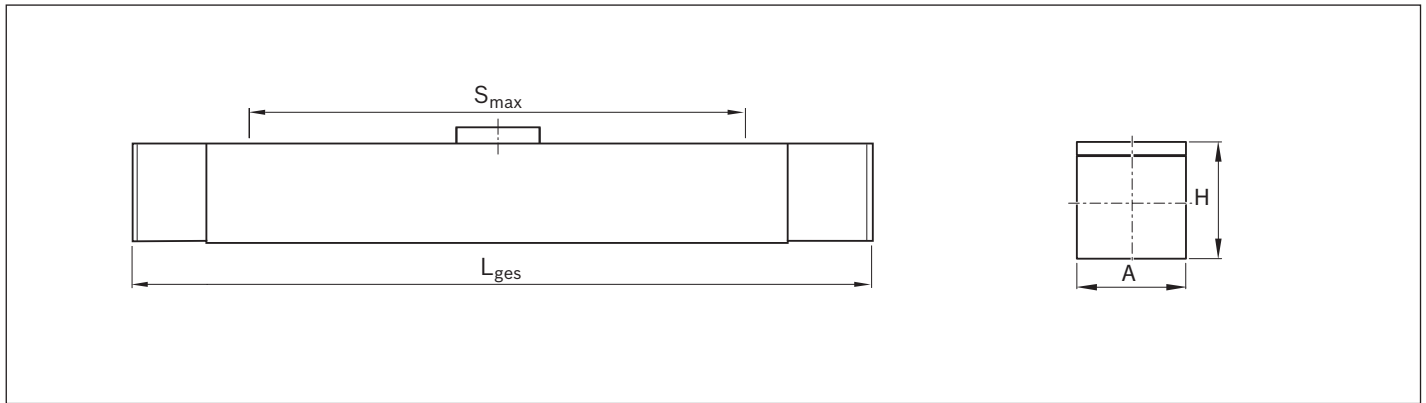
**Lubrication**

SMS systems are delivered with initial greasing.

**Documentation**

Each SMS system is supplied with the accompanying documentation.

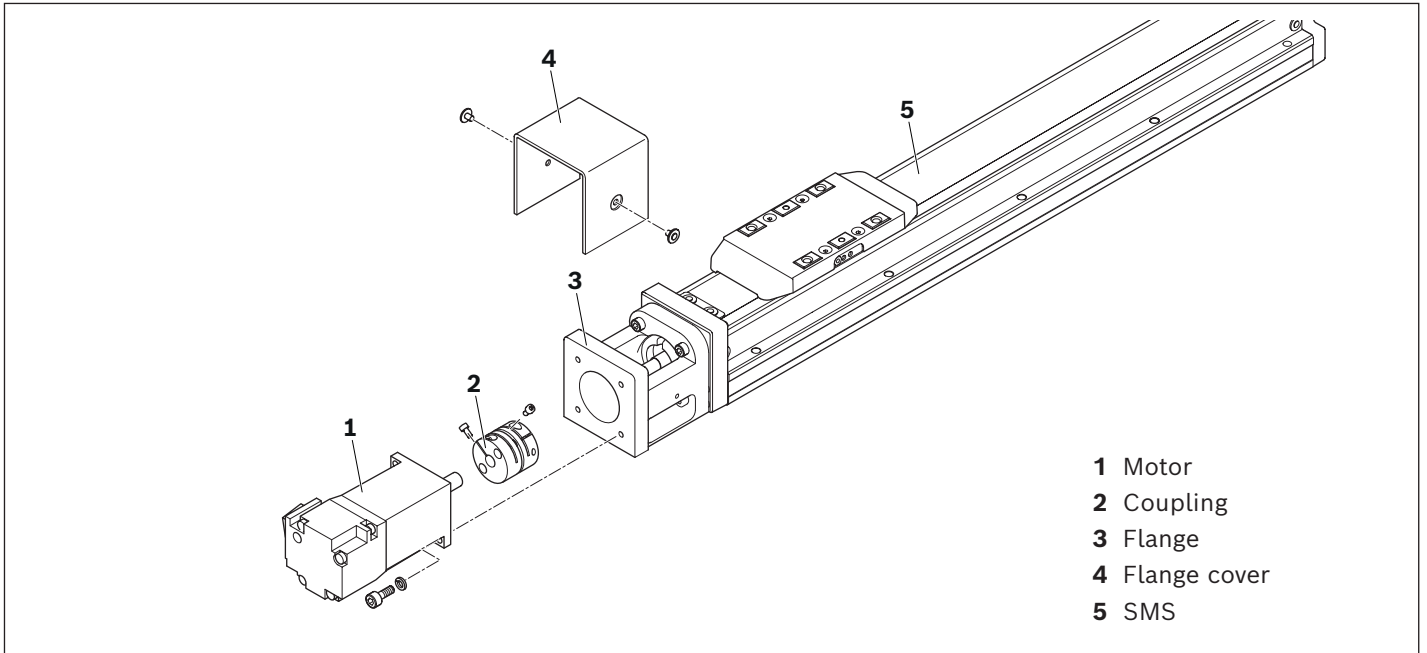
## Product overview



SMS	A	H	Dimensions (mm)								
			S <sub>max</sub>	L <sub>total</sub>							
-030	30	30	S <sub>max</sub>	50	100	150	200	300	400	500	–
			L <sub>total</sub>	165	215	265	315	415	515	615	–
-040	44	52	S <sub>max</sub>	100	200	300	400	500	600	800	1 000
			L <sub>total</sub>	261	361	461	561	661	761	961	1 161
-050	54	60	S <sub>max</sub>	100	200	300	400	500	600	800	1 000
			L <sub>total</sub>	263	363	463	563	663	763	963	1 163
-080	82	78	S <sub>max</sub>	100	200	400	600	800	1 000	1 200	–
			L <sub>total</sub>	318	418	618	818	1 018	1 218	1 418	–
-120	120	76	S <sub>max</sub>	100	200	400	600	800	1 000	1 200	–
			L <sub>total</sub>	339	439	639	839	1 039	1 239	1 439	–

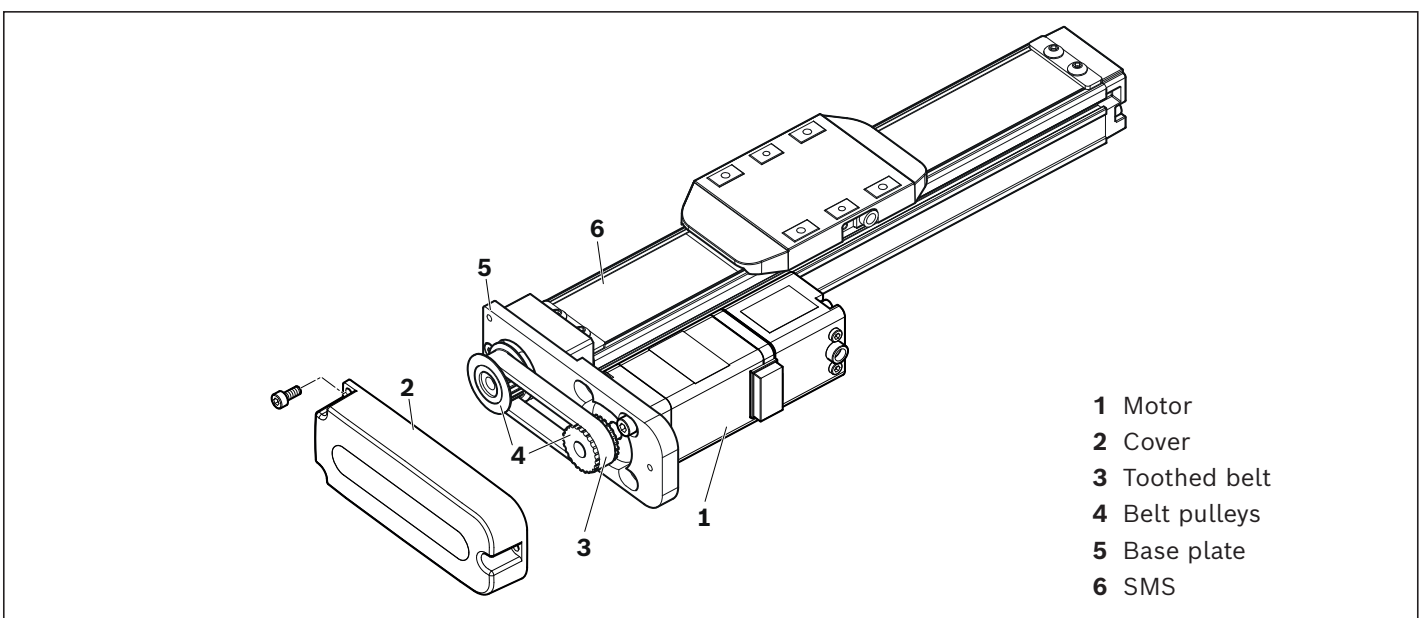
### Structure of flange and coupling

A motor with flange and coupling can be attached to all SMS systems with ball screw assembly. The flange serves to fasten the motor to the SMS system and acts as a closed housing for the coupling. The coupling transmits the motor drive torque free of distortive stresses to the drive shaft of the SMS system. Standard couplings compensate for the system's thermal expansion.

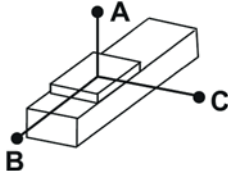


### Structure of belt side drive

A motor can be attached using a belt side drive to all SMS systems with ball screw assembly. This makes the overall system length shorter than the motor attachment with flange and coupling. The belt side drive serves as protection for the belt and as a motor bracket.



## Technical data

Size	Max. travel range	Max. speed	Weight	Max. acceleration	BASA lead	Horizontal application Moved external load <sup>1)</sup>				
	$s_{max}$ (mm)	$v_{max}$ (m/s)	(kg)	$a_{max}$ (m/s <sup>2</sup> )	P (mm)	$m_{ex max}$ (kg)	A	B	C	
-030	50	0.48	0.220	1.5	8		6	117	17	18
	100	0.48	0.270							
	150	0.48	0.330							
	200	0.43	0.370							
	300	0.32	0.480							
	400	0.24	0.600							
-040	500	0.16	0.719	3.6	12	8	250	58	71	
	100	0.72	1.000							
	200	0.72	1.350							
	300	0.72	1.710							
	400	0.72	2.070							
	500	0.66	2.430							
	600	0.54	2.790							
800	0.30	3.510								
-050	1 000	0.20	4.240	3.0	10	10	404	78	95	
	100	0.60	1.570							
	200	0.60	1.890							
	300	0.60	2.280							
	400	0.60	2.530							
	500	0.60	2.730							
	600	0.50	3.060							
	800	0.30	3.870							
-080	1 000	0.18	5.390	6.0	20	20	247	95	110	
	100	0.60	3.860							
	200	0.60	4.570							
	400	0.60	5.920							
	600	0.60	7.280							
	800	0.45	8.530							
	1 000	0.26	9.850							
	1 200	0.18	11.530							
	100	1.20	3.860							
	200	1.20	4.570							
400	1.20	5.920								
600	1.20	7.280								
800	0.90	8.530								
1 000	0.53	9.850								
1 200	0.36	11.530								
-120	100	0.60	4.820	3.0	10	30	2 321	459	591	
	200	0.60	5.520							
	400	0.60	6.920							
	600	0.60	8.320							
	800	0.50	9.720							
	1 000	0.33	11.120							
	1 200	0.25	12.520							
	100	1.92	4.820	9.6	32	15	708	448	397	
	200	1.92	5.520							
	400	1.92	6.920							
	600	1.92	8.320							
	800	1.60	9.720							
	1 000	1.06	11.120							
	1 200	0.80	12.520							

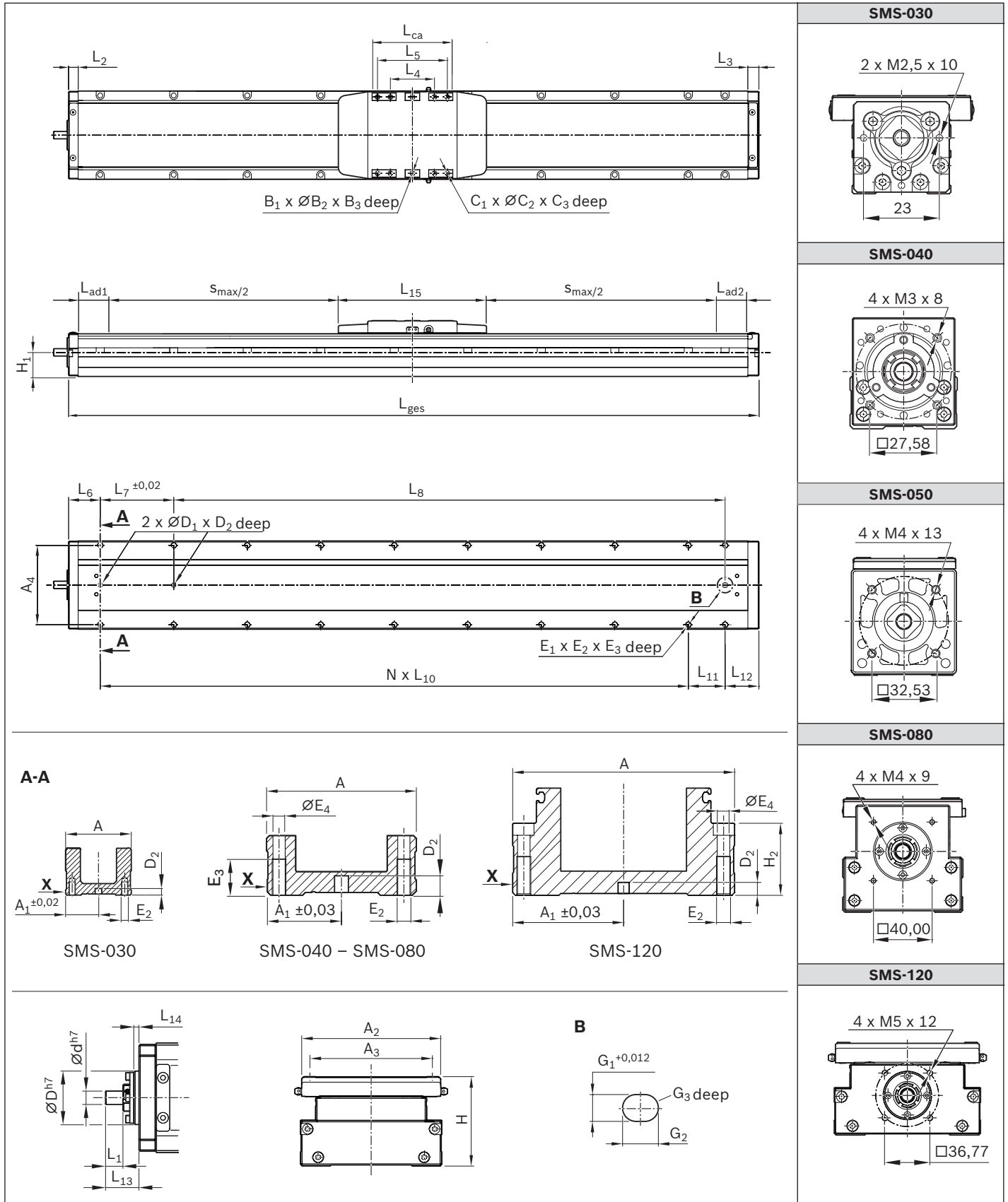
The service life of the SMS axes is 10 000 km if the product is used under the specified conditions.



	Wall mounting Moved external load <sup>1)</sup>			Vertical application Moved external load <sup>1)</sup>			Max. drive torque  $M_{mech}$ (Nm)
	Max. permissible overhang (mm)			Max. permissible overhang (mm)			
	$m_{ex\ max}$ (kg)	A	B	C	$m_{ex\ max}$ (kg)	A	C
	6	18	17	117	1	120	120
	8	12	12	84	2	60	60
	10	9	9	64	–	–	–
	8	71	58	250	2	253	253
	14	36	29	134	3.5	144	144
	20	23	18	87	–	–	–
	10	95	78	404	1	859	859
	18	47	39	209	3	286	286
	24	32	26	148	5	171	171
	40	82	58	312	8	351	351
	65	43	30	174	15	187	187
	88	27	19	115	21	133	133
	20	110	95	247	3	660	660
	30	68	58	157	5	396	396
	40	47	40	112	8	247	247
	30	634	478	2 321	10	1 546	1 546
	50	367	277	1 358	14	1 107	1 107
	88	194	146	736	22	702	702
	15	508	527	847	3	2 220	2 220
	25	296	306	496	5	1 332	1 332
	30	243	251	408	8	832	832

<sup>1)</sup> Max. permissible payload

# Dimension drawings



X = reference edge

SMS	A	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>	B <sub>1</sub>	B <sub>2</sub> <sup>H7</sup>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	D <sub>h7</sub>	d <sub>h7</sub>	D <sub>1</sub> <sup>H7</sup>	D <sub>2</sub>	E <sub>2</sub>	E <sub>3</sub>	E <sub>4</sub>	G <sub>1</sub>	G <sub>2</sub>	G <sub>3</sub>
-030	30	15	42.3	33.5	24	2	2	3.0	4	M3	7.0	19	4	2	3.0	M3	6	-	3	4	3
-040	44	22	35.0	42.6	36	2	3	4.5	4	M4	9.5	32	7	3	4.5	M4	10	3.4	4	5	5
-050	54	27	42.0	52.5	45	2	3	6.0	4	M5	11.0	30	7	3	6.0	M5	13	4.4	5	7	7
-080	82	41	81.0	65.0	68	2	5	8.0	4	M6	13.0	40	10	5	8.0	M6	15	5.4	5	7	9
-120	120	60	118.0	104.0	108	2	6	10.0	8	M6	17.0	40	10	6	10.0	M8	16	6.8	6	8	7

SMS	H	H <sub>1</sub>	H <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	L <sub>7</sub>	L <sub>10</sub>	L <sub>12</sub>	L <sub>13</sub>	L <sub>14</sub>	L <sub>15</sub> TT total	L <sub>ca</sub>	L <sub>ad1</sub>	L <sub>ad2</sub>
-030	30	17.0	-	8.0	13	8	31	-	23	100	100	18	13.0	1.5	70.2	40	11.9	11.9
-040	52	23.5	21.5	14.0	11	10	40	-	36	100	100	50	24.1	5.0	90.0	50	25.0	25.0
-050	60	27.7	21.5	11.3	13	10	52	-	38	100	100	50	26.3	4.0	116.0	65	12.5	11.5
-080	78	41.5	37.5	13.0	13	15	75	-	38	100	100	80	25.0	3.9	135.0	90	26.5	18.5
-120	76	32.5	39.0	17.9	13	15	60	95	43	100	100	46	19.9	2.0	201.5	110	5.75	3.75

-030	S <sub>max</sub>	50	100	150	200	300	400	500	-
	L <sub>total</sub>	165	215	265	315	415	515	615	-
	L <sub>8</sub>	24	74	124	174	274	374	474	-
	L <sub>11</sub>	24	74	24	74	74	74	74	-
	N	1	1	2	2	3	4	5	-
	E <sub>1</sub>	6	6	8	8	10	12	14	-

-040	S <sub>max</sub>	100	200	300	400	500	600	800	1 000
	L <sub>total</sub>	261	361	461	561	661	761	961	1 161
	L <sub>8</sub>	75	175	275	375	475	575	775	975
	L <sub>11</sub>	75	75	75	75	75	75	75	75
	N	1	2	3	4	5	6	8	10
	E <sub>1</sub>	6	8	10	12	14	16	20	24

-050	S <sub>max</sub>	100	200	300	400	500	600	800	1 000
	L <sub>total</sub>	263	363	463	563	663	763	963	1 163
	L <sub>8</sub>	75	175	275	375	475	575	775	975
	L <sub>11</sub>	75	75	75	75	75	75	75	75
	N	1	2	3	4	5	6	8	10
	E <sub>1</sub>	6	8	10	12	14	16	20	24

-080	S <sub>max</sub>	100	200	400	600	800	1 000	1 200	-
	L <sub>total</sub>	318	418	618	818	1 018	1 218	1 418	-
	L <sub>8</sub>	100	200	400	600	800	1 000	1 200	-
	L <sub>11</sub>	100	100	100	100	100	100	100	-
	N	1	2	4	6	8	10	12	-
	E <sub>1</sub>	6	8	12	16	20	24	27	-

-120	S <sub>max</sub>	100	200	400	600	800	1 000	1 200	-
	L <sub>total</sub>	339	439	639	839	1 039	1 239	1 439	-
	L <sub>8</sub>	150	250	450	650	850	1 050	1 250	-
	L <sub>11</sub>	50	50	50	50	50	50	50	-
	N	2	3	5	7	9	11	13	-
	E <sub>1</sub>	8	10	14	18	22	26	30	-

Notes: Dimensions in mm. Diagrams are in different scales.

Exact contours and dimensions can be found in the CAD model.

## Material numbers/ordering examples

SMS	Description	Material number
<b>-030</b>	SMS-030-P8-50	R02681C001
	SMS-030-P8-100	R02681C002
	SMS-030-P8-150	R02681C003
	SMS-030-P8-200	R02681C004
	SMS-030-P8-300	R02681C006
	SMS-030-P8-400	R02681C008
	SMS-030-P8-500	R02681C010
<b>-040</b>	SMS-040-P12-100	R02681D002
	SMS-040-P12-200	R02681D004
	SMS-040-P12-300	R02681D006
	SMS-040-P12-400	R02681D008
	SMS-040-P12-500	R02681D010
	SMS-040-P12-600	R02681D012
	SMS-040-P12-800	R02681D016
SMS-040-P12-1000	R02681D020	
<b>-050</b>	SMS-050-P10-100	R02681E002
	SMS-050-P10-200	R02681E004
	SMS-050-P10-300	R02681E006
	SMS-050-P10-400	R02681E008
	SMS-050-P10-500	R02681E010
	SMS-050-P10-600	R02681E012
	SMS-050-P10-800	R02681E016
SMS-050-P10-1000	R02681E020	
<b>-080</b>	SMS-080-P10-100	R02681H002
	SMS-080-P10-200	R02681H004
	SMS-080-P10-400	R02681H008
	SMS-080-P10-600	R02681H012
	SMS-080-P10-800	R02681H016
	SMS-080-P10-1000	R02681H020
	SMS-080-P10-1200	R02681H024
	SMS-080-P20-100	R02681H052
	SMS-080-P20-200	R02681H054
	SMS-080-P20-400	R02681H058
	SMS-080-P20-600	R02681H062
	SMS-080-P20-800	R02681H066
	SMS-080-P20-1000	R02681H070
SMS-080-P20-1200	R02681H074	
<b>-120</b>	SMS-120-P10-100	R02681L002
	SMS-120-P10-200	R02681L004
	SMS-120-P10-400	R02681L008
	SMS-120-P10-600	R02681L012
	SMS-120-P10-800	R02681L016
	SMS-120-P10-1000	R02681L020
	SMS-120-P10-1200	R02681L024
	SMS-120-P32-100	R02681L052
	SMS-120-P32-200	R02681L054
	SMS-120-P32-400	R02681L058
	SMS-120-P32-600	R02681L062
	SMS-120-P32-800	R02681L066
	SMS-120-P32-1000	R02681L070
	SMS-120-P32-1200	R02681L074

## Ordering example (freely selected)

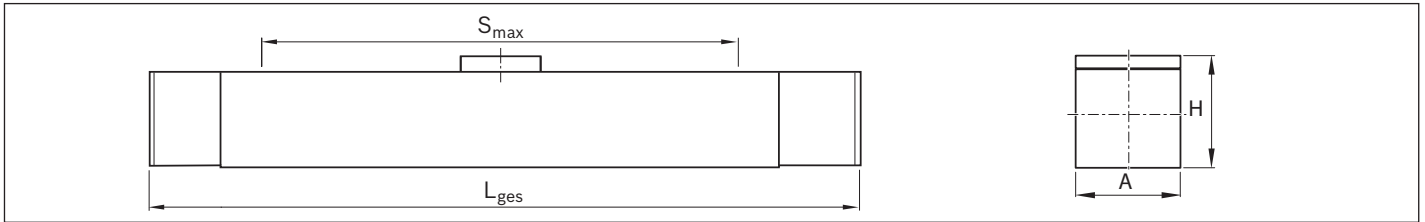
System	= Small Modules	SM	S	-	080	-	P10	-	1200
Drive	= Screw drive (ball screw assembly)								
Size	= 080								
Lead	= P (lead 10 mm)								
Maximum travel range	= $s_{max}$ (maximum travel range 1 200 mm)								

➡ **SMS-080-P10-1200** with material number: R02681H024

**Selection example via installation space; given data:**

**A:** up to 50 mm; **H:** up to 55 mm; **L<sub>total</sub>** < 1000 mm; travel range **S<sub>max</sub>** from 650 to 700 mm.

On the basis of the given data, the chapter "Product overview" results in the SMS-040 with the description **SMS-040-P12-800** and material number **R02681D016**.



SMS	A	H	Dimensions (mm)								
-030	30	30	$S_{max}$	50	100	150	200	300	400	500	-
			$L_{total}$	165	215	265	315	415	515	615	-
-040	44	52	$S_{max}$	100	200	300	400	500	600	800	1 000
			$L_{total}$	261	361	461	561	661	761	961	1 161
-050	54	60	$S_{max}$	100	200	300	400	500	600	800	1 000
			$L_{total}$	263	363	463	563	663	763	963	1 163
-080	82	78	$S_{max}$	100	200	400	600	800	1 000	1 200	-
			$L_{total}$	318	418	618	818	1 018	1 218	1 418	-
-120	120	76	$S_{max}$	100	200	400	600	800	1 000	1 200	-
			$L_{total}$	339	439	639	839	1 039	1 239	1 439	-

**Selection example via dynamic specifications; given data:**

Horizontal application; payload **m<sub>ex</sub>** = 14 kg (fastened at the carriage);

Load center of gravity **A** = 60 mm, **B** = 15 mm, **C** = 0 mm; travel range **s<sub>max</sub>** = 500 mm;

On the basis of the given data, the chapter "Technical Data" results in the SMS-040 with the description **SMS-040-P12-500** and material number **R02681D010**.

Size	Max. travel range	Max. speed	Weight	Max. acceleration	BASA lead	Horizontal application				
						Moved external load <sup>1)</sup>	Max. permissible overhang (mm)			
	$s_{max}$ (mm)	$v_{max}$ (m/s)	(kg)	$a_{max}$ (m/s <sup>2</sup> )	P (mm)	$m_{ex,max}$ (kg)	A	B	C	
-030	50	0.48	0.220	1,5	8	6	117	17	18	
	100	0.48	0.270				8	84	12	12
	150	0.48	0.330				10	64	9	9
	200	0.43	0.370							
	300	0.32	0.480							
	400	0.24	0.600							
-040	500	0.16	0.719	3,6	12	8	250	58	71	
	100	0.72	1.000				14	134	29	36
	200	0.72	1.350				20	87	18	23
	300	0.72	1.710							
	400	0.72	2.070							
	500	0.66	2.430							
	600	0.54	2.790							
	800	0.30	3.510							
1 000	0.20	4.240								

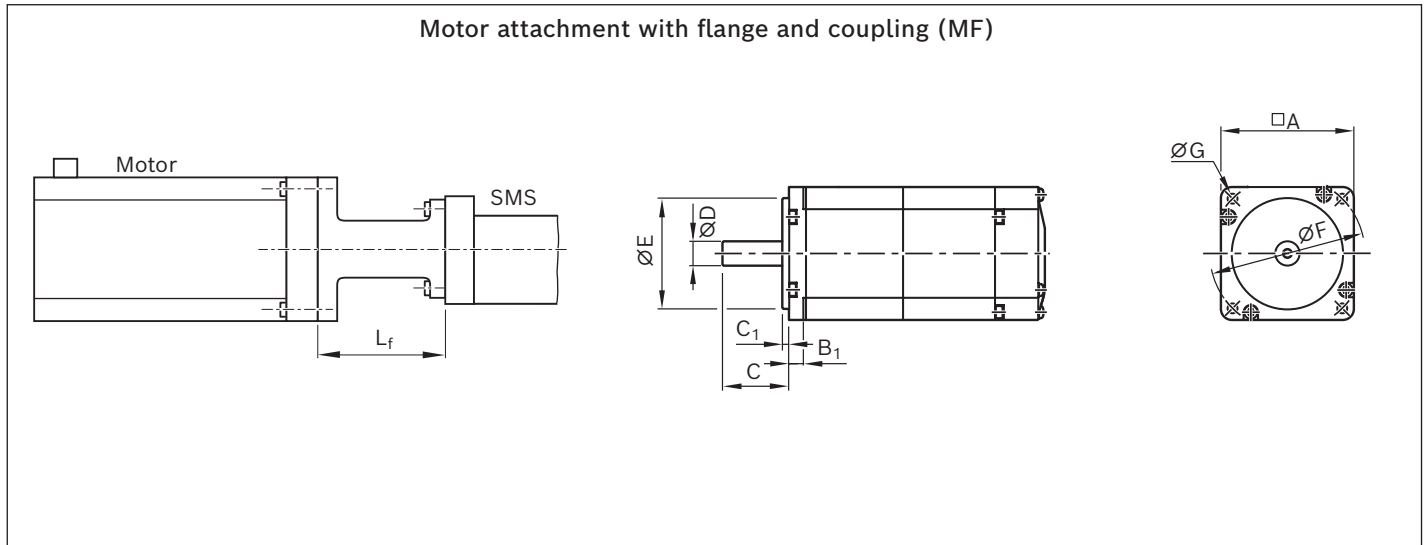
**Verifying the given speed data with the catalog data:**

$$\frac{A_{actual}}{A_{Catalog}} + \frac{B_{actual}}{B_{Catalog}} + \frac{C_{actual}}{C_{Catalog}} \leq 1 \qquad \frac{60}{134} + \frac{15}{29} + \frac{0}{36} = 0.97 \leq 1$$

The check results in a sum value of less than 1. So the overhang from the application is possible.

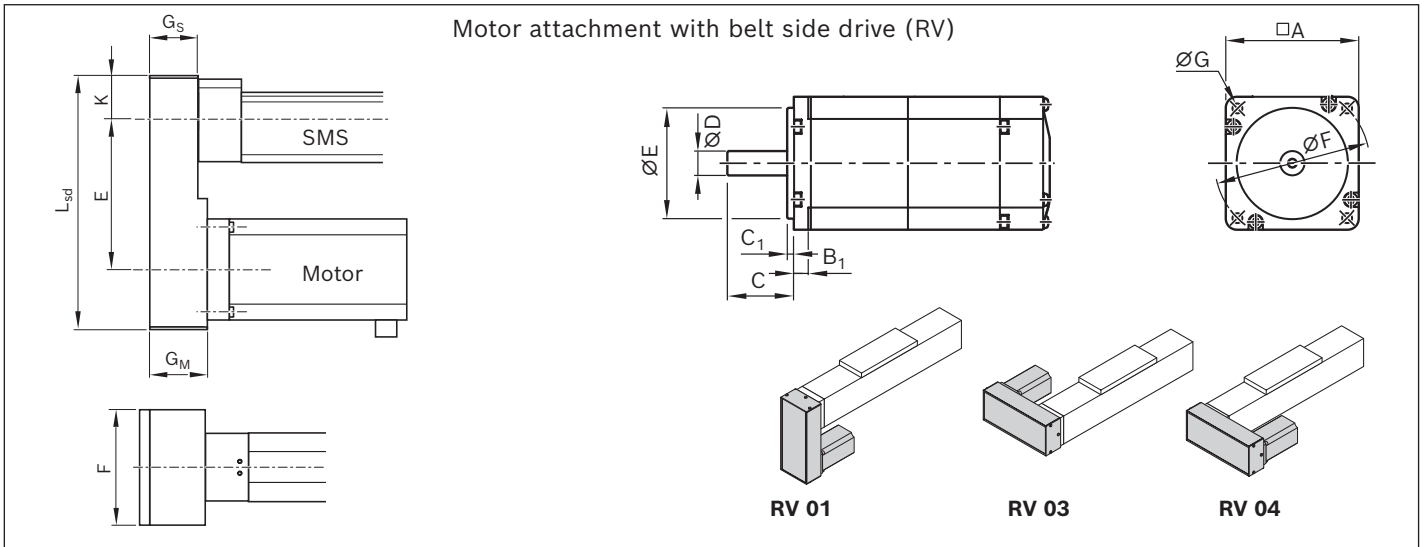
## Accessories

## Motor attachment dimension drawings



SMS	$L_f$ (mm)
-030	33.0
-040	53.0
-050	57.5
-080	60.0
-120	55.0

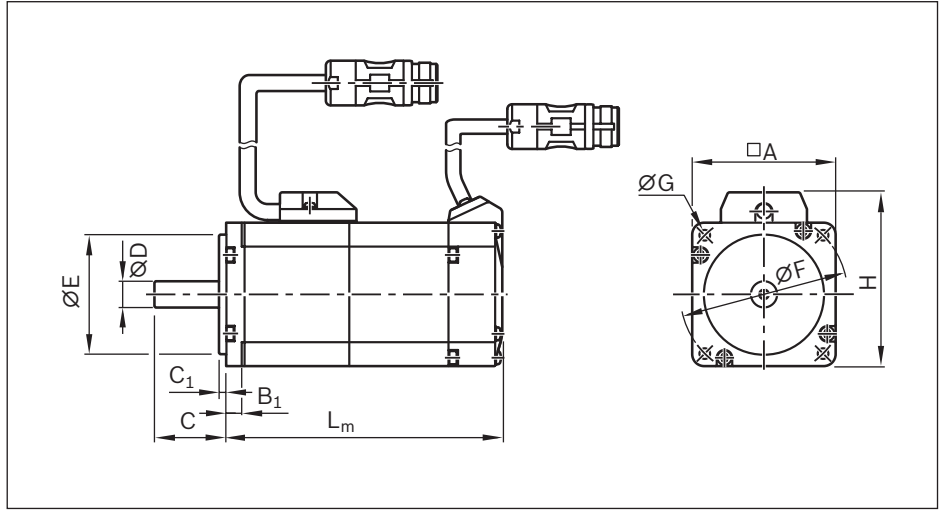
SMS	Motor attachment	Motor Rexroth	Suitable third-party motor	Dimensions (mm)								Material number of Motor attachment
				$\square A$	$B_1$	C	$C_1$	$\varnothing D_{k6}$	$\varnothing E_{j6}$	$\varnothing F$	$\varnothing G$	
-030	MF	-	Mitsubishi HG-AK0336 (30W) Yaskawa SGMMV-A3A2A2(1/C) (30W)	25	5.4	16	2.5	5	20	28	M3	R02680A001
-040	MF	-	Misubishi HG-KR053(B)(50W) Yaskawa SGMJV-A5AAA2(1/C)(50W) Delta ECMA-C1040F(E/F)S(50W) Misubishi HG-KR13(B) (100W) Yaskawa SGMJV-01AAA2(1/C) (100W) Delta ECMA-C20401(E/F) (100W)	40	5.0	25	2.5	8	30	46	4.5	R02680A002
-040	MF	MSM 019 A/B	Panasonic MSMD5A2G1U/V (50W) Panasonic MSMD012G1U/V (100W)	38	6.0	25	3.0	8	30	45	3.4	R02680A006
-050	MF	-	Misubishi HG-KR13(B) (100W) Yaskawa SGMJV-01AAA2(1/C) (100W) Delta ECMA-C20401(E/F) (100W)	40	5.0	25	2.5	8	30	46	4.5	R02680A003
-050	MF	MSM 019 A/B	Panasonic MSMD012G1U/V (100W)	38	6.0	25	3.0	8	30	45	3.4	R02680A007
-080	MF	-	Misubishi HG-KR23(B)(200W) Yaskawa SGMJV-02AAA2(1/C)(200W) Delta ECMA-C20602F(E/F)S(200W) Misubishi HK-KR43(B) (400W) Yaskawa SGMJV-04AAA2(1/C) (400W) Delta ECMA-C20604F(E/F)S (400W)	60	7.0	30	3.0	14	50	70	5.8	R02680A004
-080	MF	MSM 031B	Panasonic MHMD022G1U/V (200W)	60	6.5	30	3.0	11	50	70	4.5	R02680A008
-080	MF	MSM 031C	Panasonic MHMD042G1U/V (400W)	60	6.5	30	3.0	14	50	70	4.5	R02680A009
-120	MF	MSM 031C	Panasonic MHMD042G1U/V (400W)	60	6.5	30	3.0	14	50	70	4.5	R02680A010
-120	MF	-	Misubishi HK-KR43(B) (400W) Yaskawa SGMJV-04AAA2(1/C) (400W) Delta ECMA-C20604F(E/F)S (400W)	60	7.0	30	3.0	14	50	70	5.8	R02680A005



SMS	RV	Dimensions (mm)						
		E	F	G <sub>s</sub>	G <sub>m</sub>	K	L <sub>sd</sub>	
-030	RV01/03/04	40	30	18.0	20.0	14.50	79.50	
-040	RV01/03/04	53	43	35.0	35.0	21.50	98.50	
-050	RV01/03/04	58	52	37.0	35.0	25.00	105.00	
-080	RV01/03/04	80	62	46.5	46.5	31.00	146.00	
-120	RV01	80	62	41.5	47.0	31.00	146.00	
	RV03/04	100	62	31.5	37.0	46.75	181.75	

SMS	Motor attachment	Motor Rexroth	Suitable third-party motor	Dimensions (mm)									Material number of Motor attachment
				□A	B <sub>1</sub>	C	C <sub>1</sub>	ØD <sub>k6</sub>	ØE <sub>j6</sub>	ØF	ØG		
-030	RV01	-	Mitsubishi HG-AK0336 (30W) Yaskawa SGMMV-A3A2A2(1/C) (30W)	25	5.4	16	2.5	5	20	28	M3	R02680B002	
-030	RV03/04	-	Mitsubishi HG-AK0336 (30W) Yaskawa SGMMV-A3A2A2(1/C) (30W)	25	5.4	16	2.5	5	20	28	M3	R02680B001	
-040	RV01/02/03	-	Misubishi HG-KR053(B)(50W) Yaskawa SGMJV-A5AAA2(1/C)(50W) Delta ECMA-C1040F(E/F)S(50W) Misubishi HG-KR13(B) (100W) Yaskawa SGMJV-01AAA2(1/C) (100W) Delta ECMA-C20401(E/F) (100W)	40	5	25	2.5	8	30	46	4.5	R02680B003	
-040	RV01/02/03	MSM 019 A/B	Panasonic MSMD5A2G1U/V (50W) Panasonic MSMD012G1U/V (100W)	38	6.0	25	3.0	8	30	45	3.4	R02680B008	
-050	RV01/02/03	-	Misubishi HG-KR13(B) (100W) Yaskawa SGMJV-01AAA2(1/C) (100W) Delta ECMA-C20401(E/F) (100W)	40	5.0	25	2.5	8	30	46	4.5	R02680B004	
-050	RV01/02/03	MSM 019 A/B	Panasonic MSMD012G1U/V (100W)	38	6.0	25	3.0	8	30	45	3.4	R02680B009	
-080	RV01/02/03	-	Misubishi HG-KR23(B)(200W) Yaskawa SGMJV-02AAA2(1/C) (200W) Delta ECMA-C20602F(E/F)S (200W) Misubishi HK-KR43(B) (400W) Yaskawa SGMJV-04AAA2(1/C) (400W) Delta ECMA-C20604F(E/F)S (400W)	60	7.0	30	3.0	14	50	70	5.8	R02680B005	
-080	RV01/02/03	MSM 031B	Panasonic MHMD022G1U/V (200W)	60	6.5	30	3.0	11	50	70	4.5	R02680B010	
-080	RV01/02/03	MSM 031C	Panasonic MHMD042G1U/V (400W)	60	6.5	30	3.0	14	50	70	4.5	R02680B011	
-120	RV01	MSM 031C	Panasonic MHMD042G1U/V (400W)	60	6.5	30	3.0	14	50	70	4.5	R02680B013	
-120	RV03/04	MSM 031C	Panasonic MHMD042G1U/V (400W)	60	6.5	30	3.0	14	50	70	4.5	R02680B012	
-120	RV01	-	Misubishi HK-KR43(B) (400W) Yaskawa SGMJV-04AAA2(1/C) (400W) Delta ECMA-C20604F(E/F)S (400W)	60	7.0	30	3.0	14	50	70	5.8	R02680B007	
-120	RV03/04	-	Misubishi HK-KR43(B) (400W) Yaskawa SGMJV-04AAA2(1/C) (400W) Delta ECMA-C20604F(E/F)S (400W)	60	7.0	30	3.0	14	50	70	5.8	R02680B006	

IndraDyn S - Servo motors MSM



Motor code	Dimensions (mm)											
	□ A	B <sub>1</sub>	C	C <sub>1</sub>	Ø D	ØE	ØF	ØG	H	Brake		L <sub>m</sub>
										without	with	
<b>MSM 019A-0 300</b>	38	6.0	25	3	h6 8	h7 30	45	3.4	51	72.0	102.0	
<b>MSM 019B-0 300</b>	38	6.0	25	3	8	30	45	3.4	51	92.0	122.0	
<b>MSM 031B-0 300</b>	60	6.5	30	3	11	50	70	4.5	73	79.0	115.5	
<b>MSM 031C-0 300</b>	60	6.5	30	3	14	50	70	4.5	73	98.5	135.0	



**Version**

- ▶ Plain shaft without shaft seal
- ▶ M5 multi-turn absolute encoder (20-bit, absolute encoder function only available with backup battery)
- ▶ Cooling system: natural convection
- ▶ IP54 protection class (shaft IP40)
- ▶ With or without holding brake
- ▶ M17 metal round connector

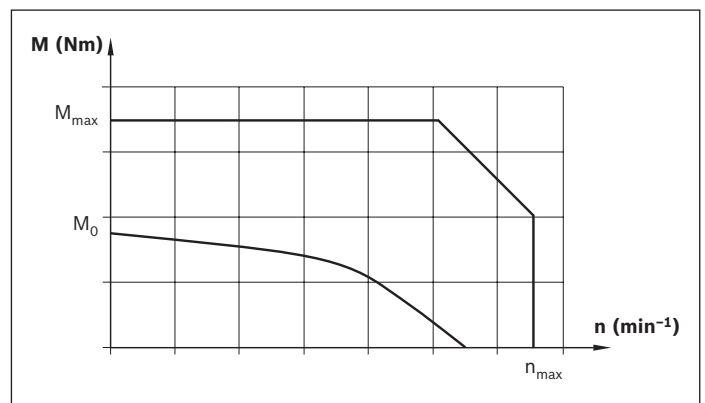
**Note**

Motors are available with control units and controllers. For more information on motors, controllers and control systems, please refer to the following Rexroth catalogs:

- ▶ Drive system Rexroth IndraDrive R999000018
- ▶ Automation Systems and Control Components, R999000026

Motor data									Motor connection Cables	Holding brake	Type code	Material number
$n_{max}$ ( $min^{-1}$ )	$M_0$ (Nm)	$M_{max}$ (Nm)	$M_{br}$ (Nm)	$J_m$ ( $kgm^2$ )	$J_{br}$ ( $kgm^2$ )	$m_m$ (kg)	$m_{br}$ (kg)					
5 000	0.16	0.48	0.29	0.0000025	0.0000002	0.32	0.21	2	N	MSM 019A-0 300-NN-M5-MH0	R911344209	
									Y	MSM 019A-0 300-NN-M5-MH1	R911344210	
5 000	0.32	0.95	0.29	0.0000051	0.0000002	0.47	0.21	2	N	MSM 019B-0 300-NN-M5-MH0	R911344211	
									Y	MSM 019B-0 300-NN-M5-MH1	R911344212	
5 000	0.64	1.91	1.27	0.0000140	0.0000018	0.82	0.48	2	N	MSM 031B-0 300-NN-M5-MH0	R911344213	
									Y	MSM 031B-0 300-NN-M5-MH1	R911344214	
5 000	1.30	3.80	1.27	0.0000260	0.0000018	1.20	0.50	2	N	MSM 031C-0 300-NN-M5-MH0	R911344215	
									Y	MSM 031C-0 300-NN-M5-MH1	R911344216	

**Motor characteristic**  
(Schematic)



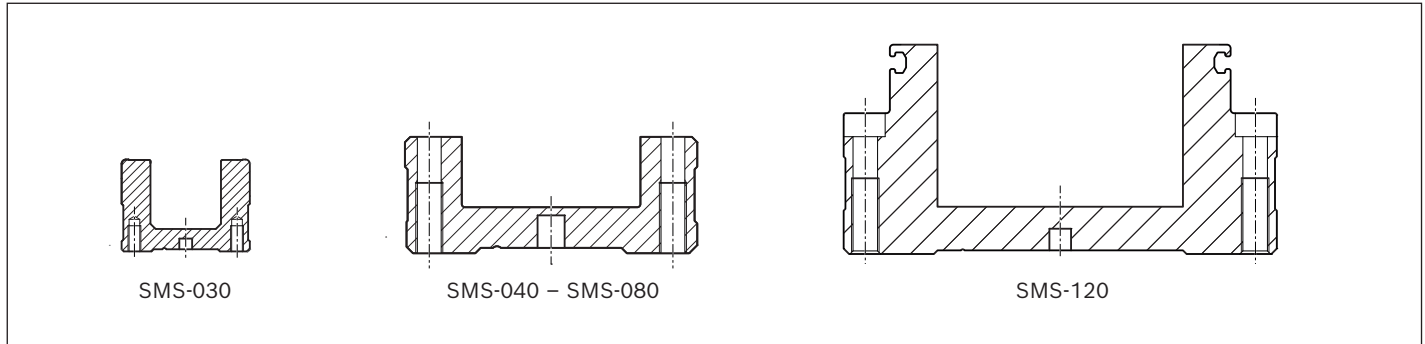
## Additional information

Fastener / operating conditions / lubrication

### Fastener

- SMS-030 from below
- SMS-040 to SMS-120 either from above or below

For further information, please refer to dimension drawings



### Operating conditions

#### Normal operating conditions

Ambient temperature	0 °C ... 40 °C
Soiling	Not permissible

#### Required and supplementary documentation

For further instructions and information, please refer to the documentation for this product.

PDF files of these documents can be found on the Internet.

If you are unsure about using this product, please contact Bosch Rexroth.

### Lubrication

#### Note on lubrication

SMS systems come with initial Tribol GR 100-2 PD greasing and are only designed for grease lubrication using a manual grease gun.

Maintenance is limited to relubrication of the integrated guideway and the ball screw drive.

**⚠ Do not use lubricants with solid particles (e.g. graphite or MoS<sub>2</sub> additives).**

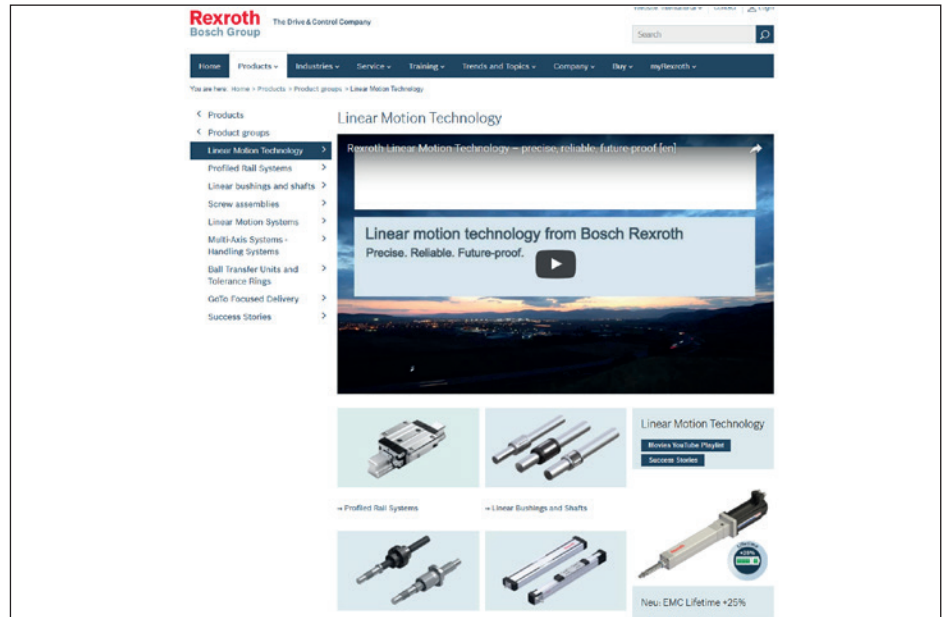
- Recommended lubricant: Tribol GR 100-2 PD

Relubrication intervals/relubrication quantities "►►►" "Instructions SMS" R320103227

Online information

**Bosch Rexroth Linear Motion Technology homepage**

<https://www.boschrexroth.com/de/de/produkte/produktgruppen/lineartechnik/>



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