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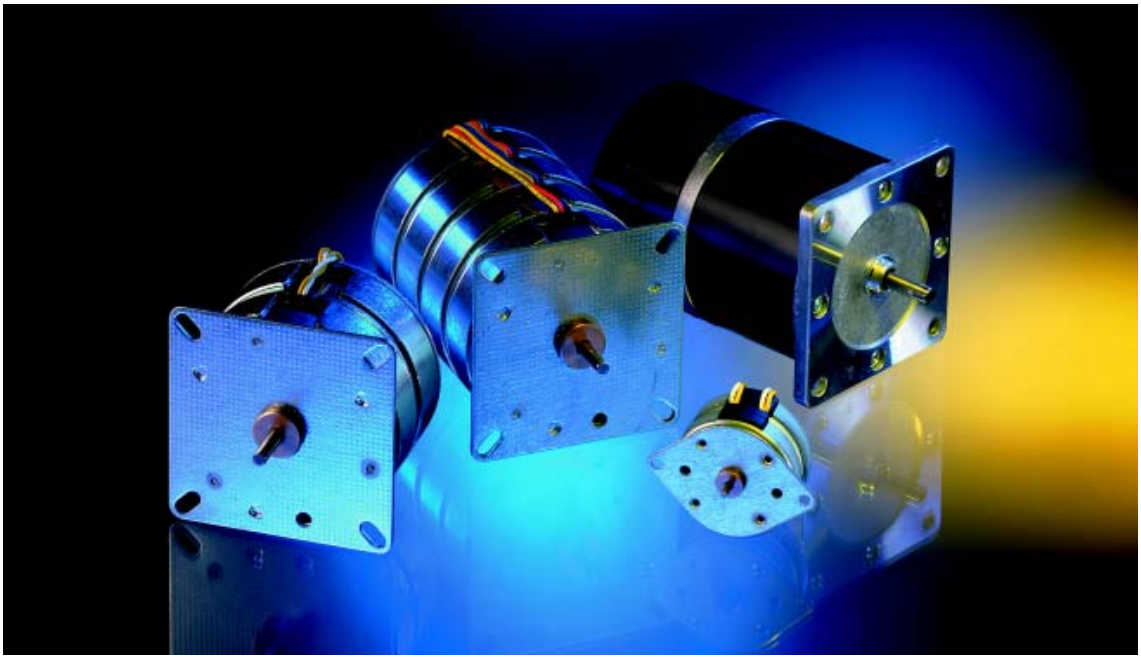
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Find the *Schneider Electric / Berger-Lahr RSM-769/3-NK* at our website: ***Click HERE***



Synchronous motors

Synchronous motors from Berger Lahr are robust and work with great precision. The motors can be operated on a 50 Hz or 60 Hz AC mains without any additional control electronics. In our well-matched range you will find the right motor to meet any requirement. Synchronous motors from Berger Lahr are small, strong and good value for money. We will be happy to tell you of further motor and gearbox options on request.

Overview of synchronous motors

	Speed [r.p.m.]		Torque [Ncm]		Described on ...
	50 Hz	60 Hz	50 Hz	60 Hz	
RSM 36/6 F	500	600	0.95	0.91	Page 77
RSM 36/8 F	375	450	0.77	0.72	Page 79
RSM 36/10 F	300	360	0.76	0.73	Page 81
RSM 36/12 F	250	300	0.75	0.74	Page 83
RSM 42/6 N	500	600	3.26	3.17	Page 85
RSM 42/8 F	375	450	3.08	2.91	Page 87
RSM 42/12 N	250	300	3.17	2.91	Page 89
RSM 51/6 F	500	600	3.8	3.25	Page 91
RSM 51/8 F	375	450	4	3.75	Page 93
RSM 51/12 F	250	300	5	4.4	Page 95
RSM 63/8 F	375	450	13	11.7	Page 97
RSM 63/10 F	300	360	13.2	10	Page 99
RSM 63/12 F	250	300	13.5	10.4	Page 101
RSM 828/3 F	1000	1200	8.4	7.8	Page 103
RSM 842/3 F	1000	1200	9.6	9	Page 105
RSM 856/3 F	1000	1200	13.2	12.6	Page 107
RSM 884/3 F	1000	1200	18.1	15.3	Page 109
RSM 884/3 S	1000	1200	33	31	Page 111

Synchronous motors

Type code for Synchronous motors

Example	**RSM 36/12 NdG 230V 50Hz - G 10:1**
Product family RSM= Reversible Synchronous Motor	**RSM** 36/12 NdG 230V 50Hz - G 10:1
Motor size (diameter) Example 36 = 36 mm diameter 42 = 42 mm diameter 51 = 51 mm diameter 63 = 63 mm diameter	RSM **36**/12 NdG 230V 50Hz - G 10:1
Number of pole pairs 6= number of pole pairs p = 6 8= number of pole pairs p = 8 10 = number of pole pairs p = 10 12= number of pole pairs p = 12	RSM 36/**12** NdG 230V 50Hz - G 10:1
Winding Layout N = Standard layout F = Frequency layout S = Special layout	RSM 36/12 **N**dG 230V 50Hz - G 10:1
Operating Capacitor d = without operating capacitor a = with operating capacitor	RSM 36/12 N**d**G 230V 50Hz - G 10:1
Bearings G = Plain bearing	RSM 36/12 Nd**G** 230V 50Hz - G 10:1
Voltage rating 024V = 24 VAC, 042V = 42 VAC 110V = 110 VAC, 230V = 230 VAC	RSM 36/12 NdG **230V** 50Hz - G 10:1
Frequency 50 Hz 60 Hz	RSM 36/12 NdG 230V **50Hz** - G 10:1
Gearbox type Gearbox type L Gearbox type T Gearbox type G Gearbox type P	RSM 36/12 NdG 230V 50Hz - **G** 10:1
Gearbox reduction Example 10 :1	RSM 36/12 NdG 230V 50Hz - G **10:1**

General technical information

Bearing designs

Synchronous motors constructed on the claw-pole principle, RSM 36/x, 42/x, 51/x and 63/x, are fitted with plain bearings, the packaged synchronous motors RSM 8xx with ball bearings.

Temperatures

The permissible ambient temperature for the synchronous motors lies in the range from -20°C to +60°C. In locations with poor heat dissipation, e.g. in closed plastic housings, a check should be made to see if the permissible winding temperature is being exceeded.

Type of connection

The synchronous motors are available with flying leads. The flying leads are hard-wired, bared, tin-plated and 200 mm in length. Packaged synchronous motors are available with terminal boxes as standard.

Voltages

Synchronous motors are available depending on the type for rated voltages of 24, 42, 110 and 230 VAC.

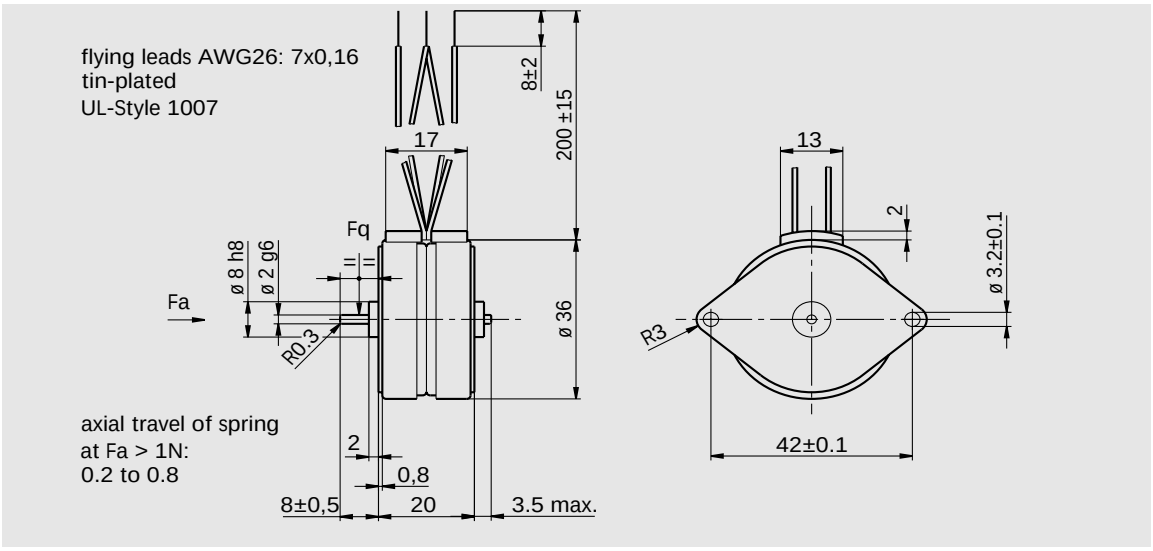
Windings

With the exception of the motors with S windings, the synchronous motors are made to VDE 0530 in operating mode S1 (continuous operation).

– Normal design N: Motors of this design have different capacitance values for 50 Hz and 60 Hz at the same operating voltage.
– Frequency design F: The same operating capacitors are used for 50 Hz and 60 Hz at the same operating voltage.

Operating capacitors for all rated voltages are available as an option. For all RSM 36 units an external device (capacitor or resistor) is required for the 230 V version. These are also available as an option.

Synchronous motors
RSM 36/6 F



Scale drawing RSM 36/6

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	500 rpm	600 rpm
Synchronous torque	0.95 Ncm	0.91 Ncm
Delivery of power	0.5 W	0.57 W
Power consumption	1.96 W	2.1 W
Rated current (110 V) with external device in series RV or CV for 230 V	17.8 mA	19.1 mA
Operating capacitor	0.25 µF	0.25 µF
Maximum externally permitted mass moment of inertia	13.5 gcm^2	8.3 gcm^2
Self-holding torque, type	0.25 Ncm	0.25 Ncm
Excess winding temperature	38 K	40 K
Permitted radial stress F_q	3 N	3 N
Permitted axial stress F_a	1 N	1 N
Weight	0.09 kg	0.09 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

Rated voltage	**230 V***		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.25 µF	0.25 µF	1.8 µF	1.8 µF	6.8 µF	6.8 µF
Rated current	17.8 mA	19.1 mA	44.3 mA	47.5 mA	87.9 mA	94.3 mA

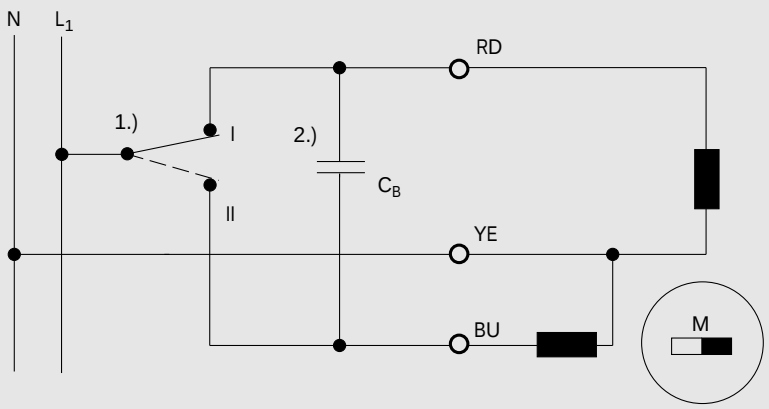
* External series devices R_V 5.6 kΩ, 3W or C_V 0.3µF, 220V~ necessary

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

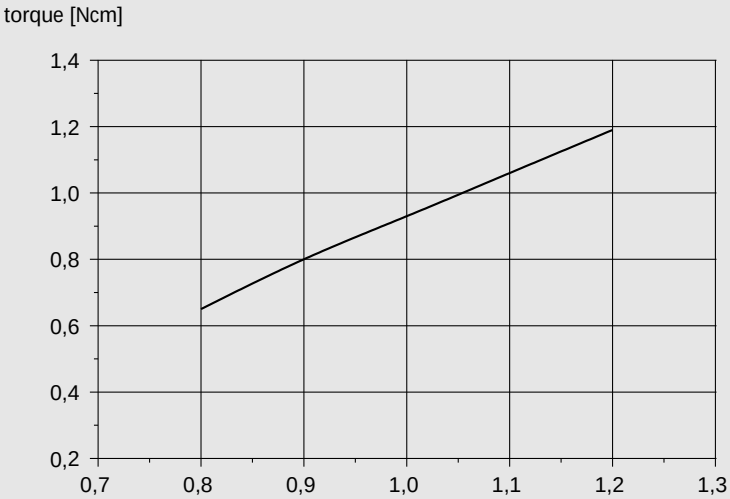
RSM 36/6 F



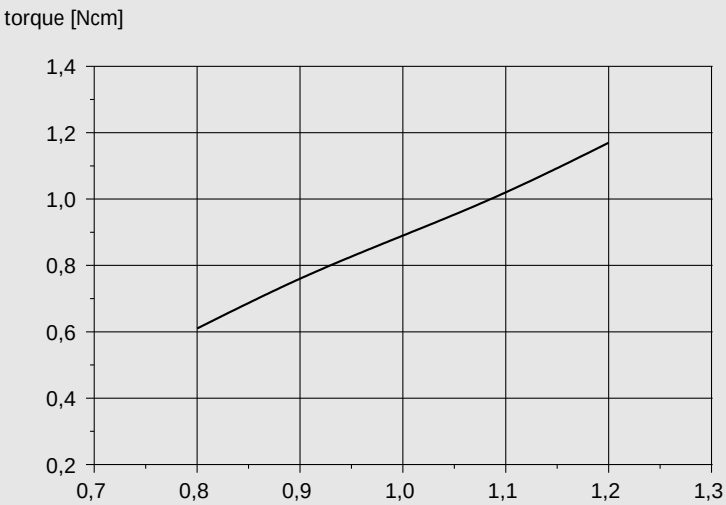
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 36/6

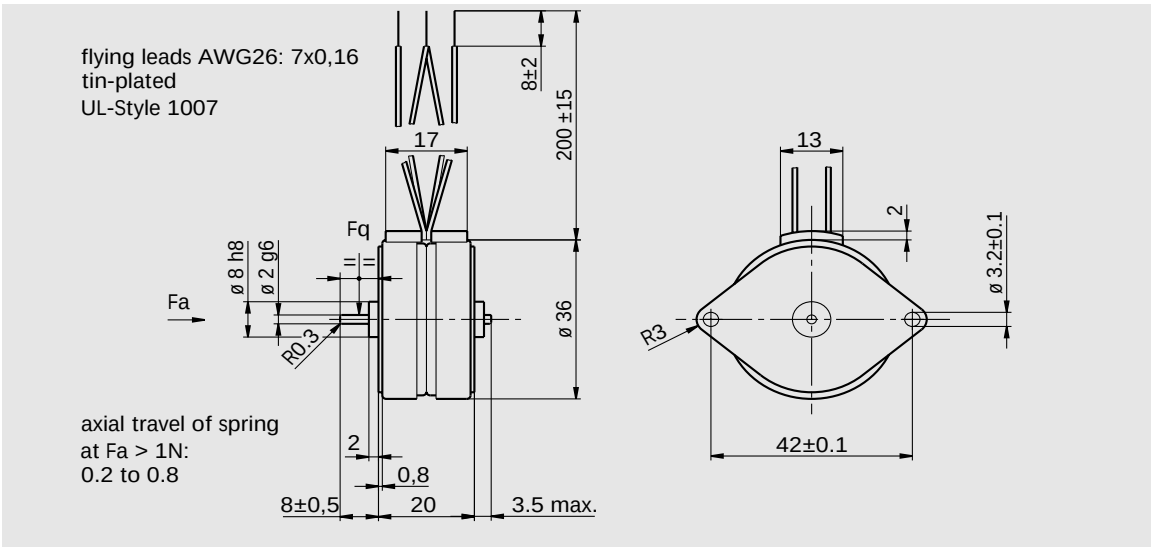


Characteristic curve RSM 36/6 at 50 Hz



Characteristic curve RSM 36/6 at 60 Hz

Synchronous motors
RSM 36/8 F



Scale drawing RSM 36/8

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	375 rpm	450 rpm
Synchronous torque	0.77 Ncm	0.72 Ncm
Delivery of power	0.3 W	0.34 W
Power consumption	1.1 W	1.2 W
Rated current (110 V) with external device in series RV or CV for 230 V	10 mA	10.6 mA
Operating capacitor	0.15 µF	0.15 µF
Maximum externally permitted mass moment of inertia	25.5 gcm^2	8.8 gcm^2
Self-holding torque, type	0.2 Ncm	0.2 Ncm
Excess winding temperature	20 K	27 K
Permitted radial stress F_q	3 N	3 N
Permitted axial stress F_a	1 N	1 N
Weight	0.09 kg	0.09 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

Rated voltage	**230 V***		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.15 µF	0.15 µF	1 µF	1 µF	3 µF	3 µF
Rated current	10 mA	10.6 mA	22.5 mA	23.9 mA	45.2 mA	47.9 mA

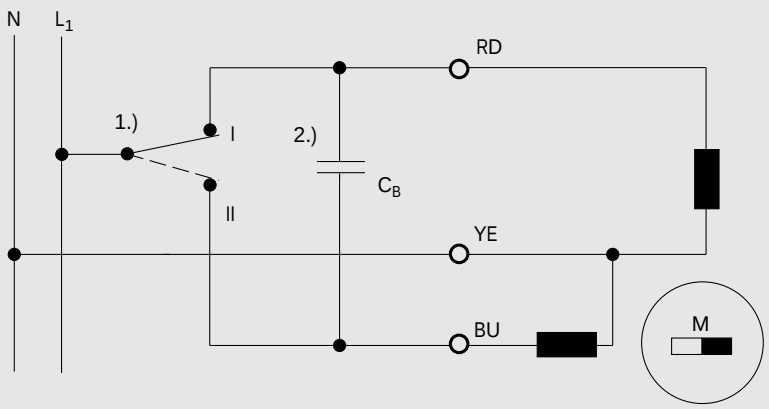
* External series devices R_V 10 kΩ, 1.5 W or C_V 0.15 µF, 220V~ necessary

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

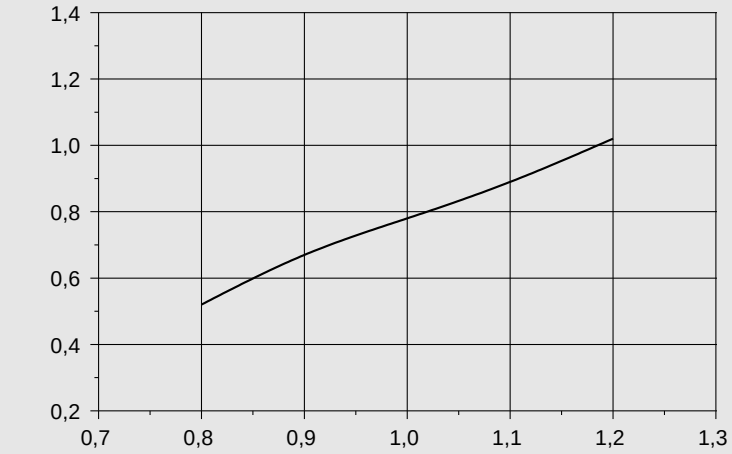
RSM 36/8 F



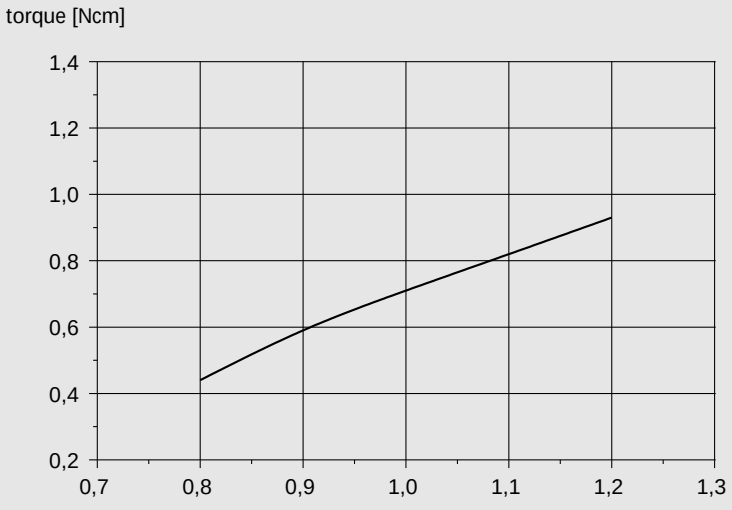
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 36/8

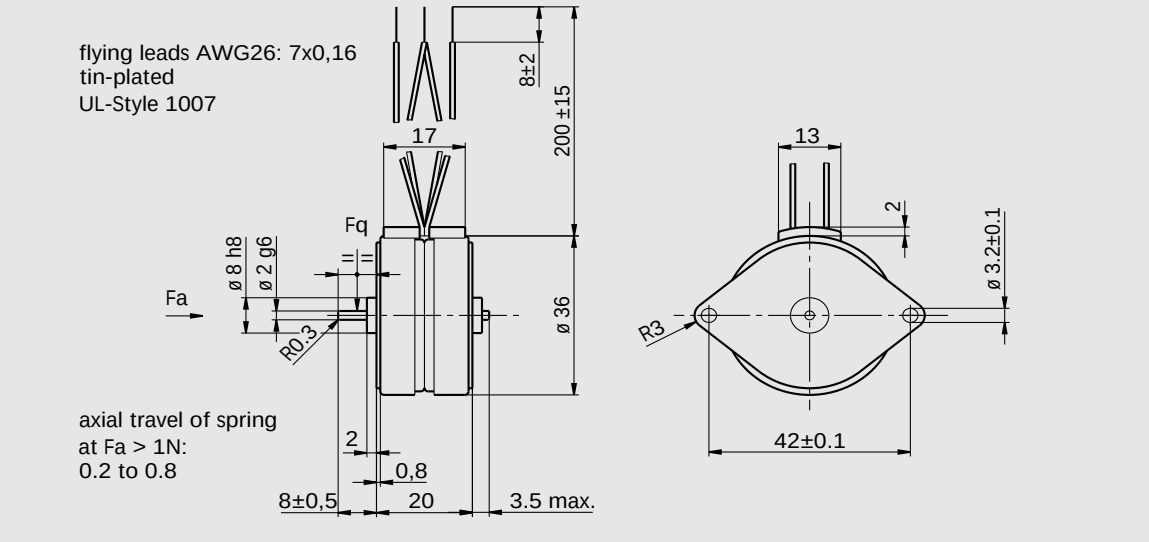


Characteristic curve RSM 36/8 at 50 Hz



Characteristic curve RSM 36/8 at 60 Hz

Synchronous motors
RSM 36/10 F



Scale drawing RSM 36/10

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	300 rpm	360 rpm
Synchronous torque	0.76 Ncm	0.73 Ncm
Delivery of power	0.24 W	0.28 W
Power consumption	1.05 W	1.1 W
Rated current (110 V) with external device in series RV or CV for 230 V	9.5 mA	10.2 mA
Operating capacitor	0.135 µF	0.135 µF
Maximum externally permitted mass moment of inertia	13.8 gcm^2	10 gcm^2
Self-holding torque, type	0.18 Ncm	0.18 Ncm
Excess winding temperature	22 K	29 K
Permitted radial stress F_q	3 N	3 N
Permitted axial stress F_a	1 N	1 N
Weight	0.09 kg	0.09 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

Rated voltage	**230 V***		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.135 µF	0.135 µF	0.68 µF	0.68 µF	2.2 µF	2.2 µF
Rated current	9.5 mA	10.2 mA	21.4 mA	23 mA	38 mA	40.8 mA

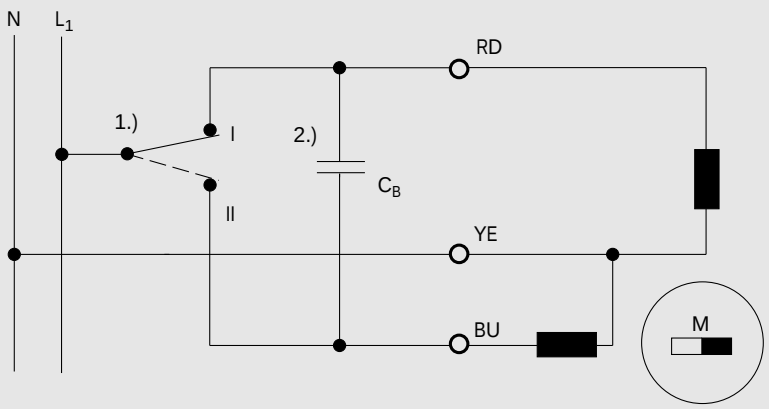
* External series devices R_V 15 kΩ, 1.5 W oder C_V 0.15 µF, 220V~ notwendig

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

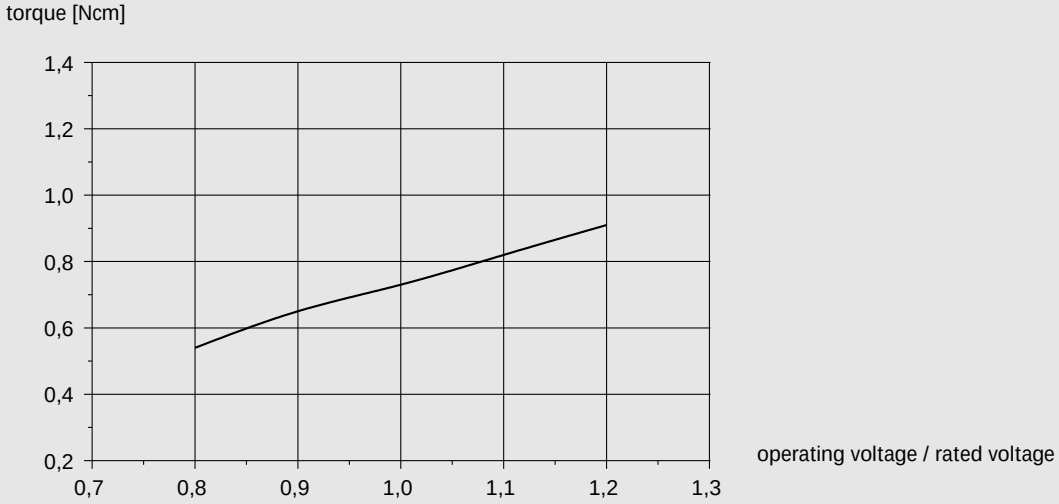
RSM 36/10 F



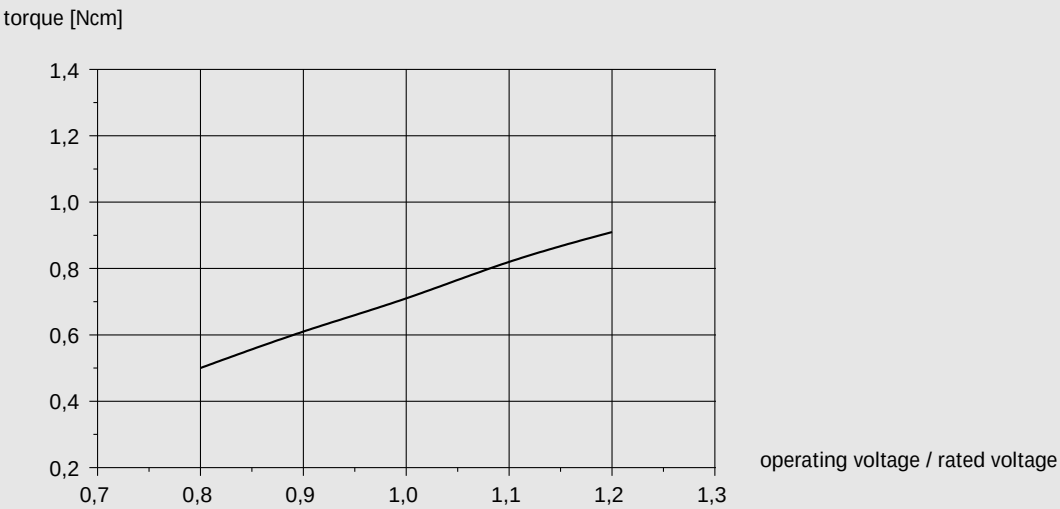
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 36/10

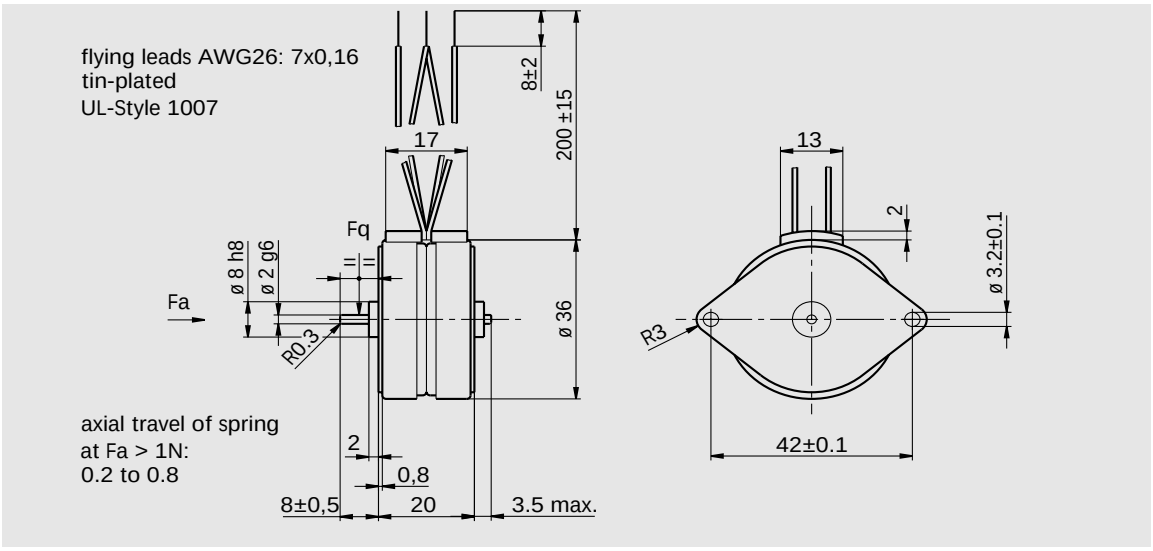


Characteristic curve RSM 36/10 at 50 Hz



Characteristic curve RSM 36/10 at 60 Hz

Synchronmotoren
RSM 36/12 F



Scale drawing RSM 36/12

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	250 rpm	300 rpm
Synchronous torque	0.75 Ncm	0.74 Ncm
Delivery of power	0.2 W	0.23 W
Power consumption	1.17 W	1.28 W
Rated current (110 V) with external device in series RV or CV for 230 V	10.6 mA	11.6 mA
Operating capacitor	0.15 µF	0.15 µF
Maximum externally permitted mass moment of inertia	13.8 gcm^2	12.5 gcm^2
Self-holding torque, type	0.1 Ncm	0.1 Ncm
Excess winding temperature	25 K	32 K
Permitted radial stress F_q	3 N	3 N
Permitted axial stress F_a	1 N	1 N
Weight	0.09 kg	0.09 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

Rated voltage	**230 V***		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.15 µF	0.15 µF	1 µF	1 µF	3 µF	3 µF
Rated current	10.6 mA	11.6 mA	26.3 mA	28.8 mA	47.9 mA	52.4 mA

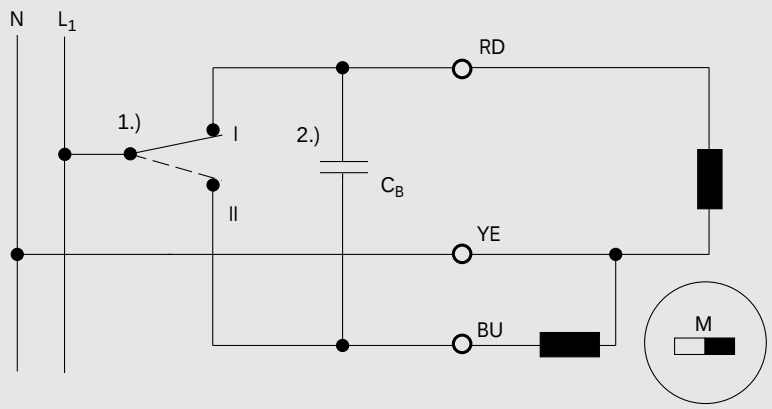
* External series devices R_V 10 kΩ, 1.5 W or C_V 0.15 µF, 250V~ necessary !

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

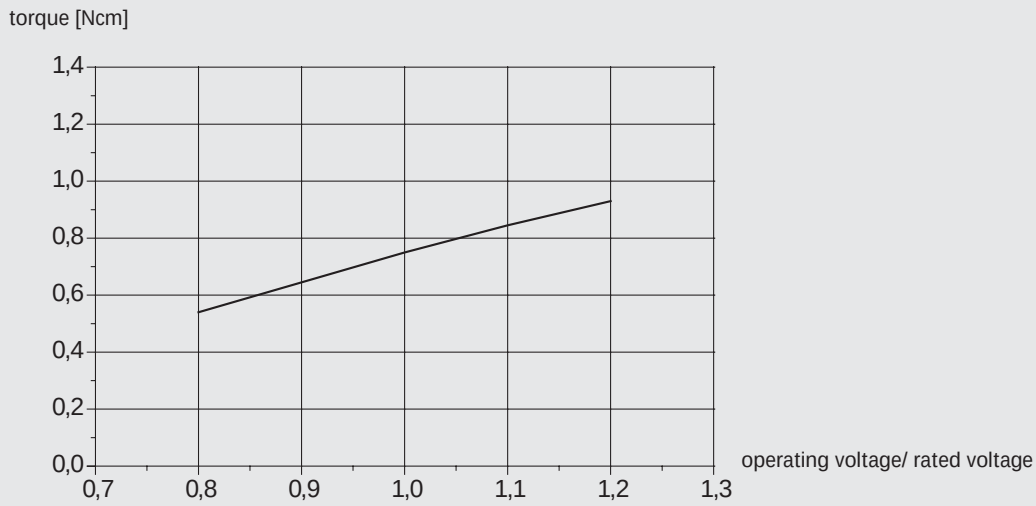
RSM 36/12 F



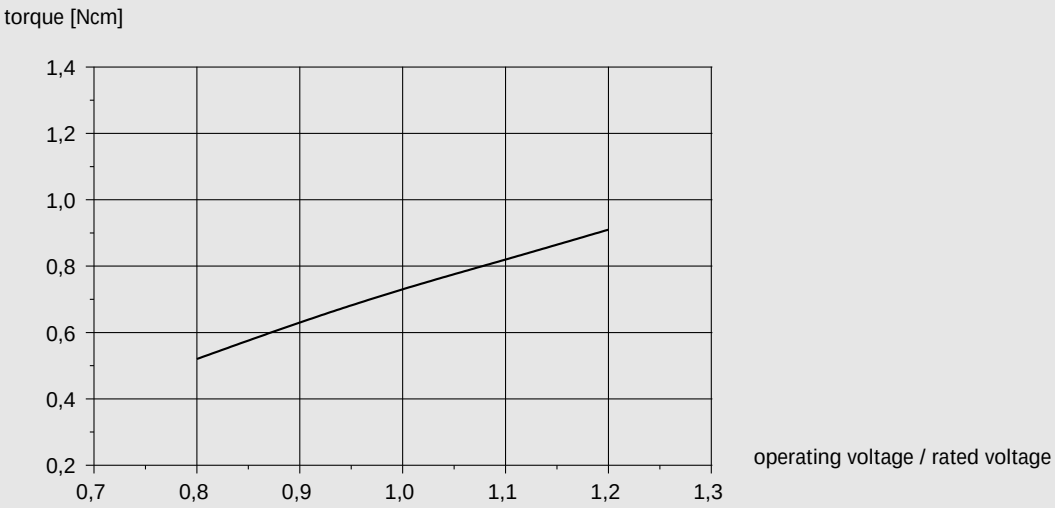
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 36/12

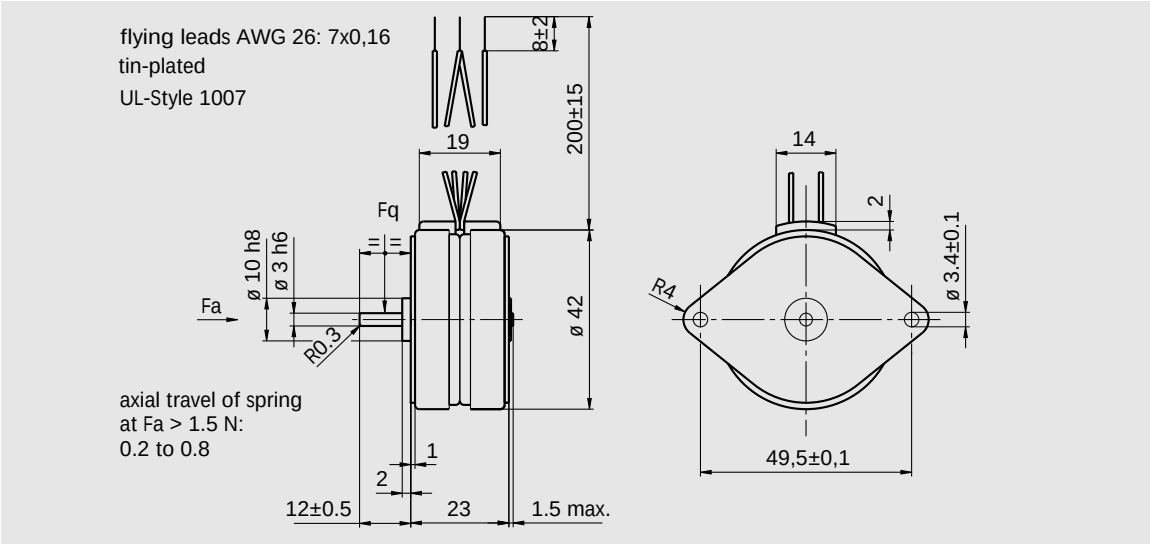


Characteristic curve RSM 36/12 at 50 Hz



Characteristic curve RSM 36/12 at 60 Hz

Synchronous motors
RSM 42/6 N



Scale drawing RSM 42/6

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	500rpm	600 rpm
Synchronous torque	3.41 Ncm	3.17 Ncm
Delivery of power	1.78 W	1.99 W
Power consumption	5.9 W	5.78 W
Rated current (230 V)	25.3 mA	24.6 mA
Operating capacitor	0.18 µF	0.15 µF
Maximum externally permitted mass moment of inertia	31 gcm^2	25 gcm^2
Self-holding torque, type	0.55 Ncm	0.55 Ncm
Excess winding temperature	74 K	72 K
Permitted radial stress F_q	5 N	5 N
Permitted axial stress F_a	1.5 N	1.5 N
Weight	0.15 kg	0.15 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

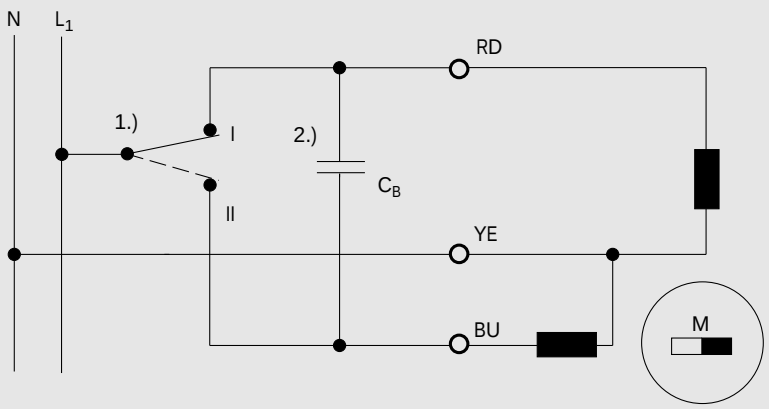
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.68 µF	0.56 µF	5.6 µF	4.7 µF	14 µF	12 µF
Rated current	51.0 mA	49.6 mA	140 mA	137 mA	210 mA	221 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

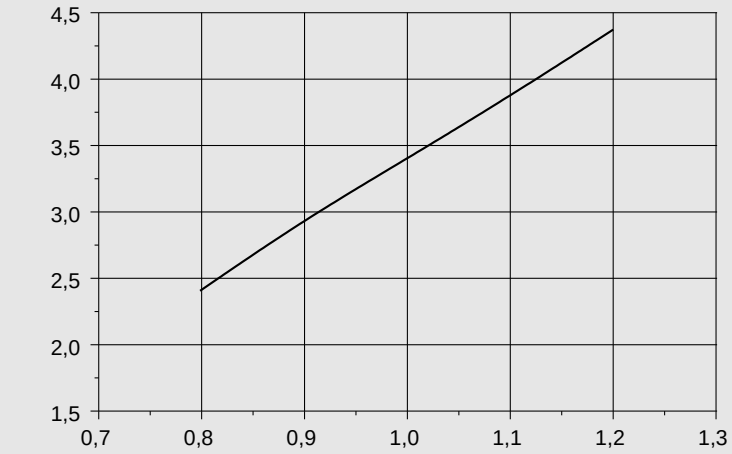
RSM 42/6 N



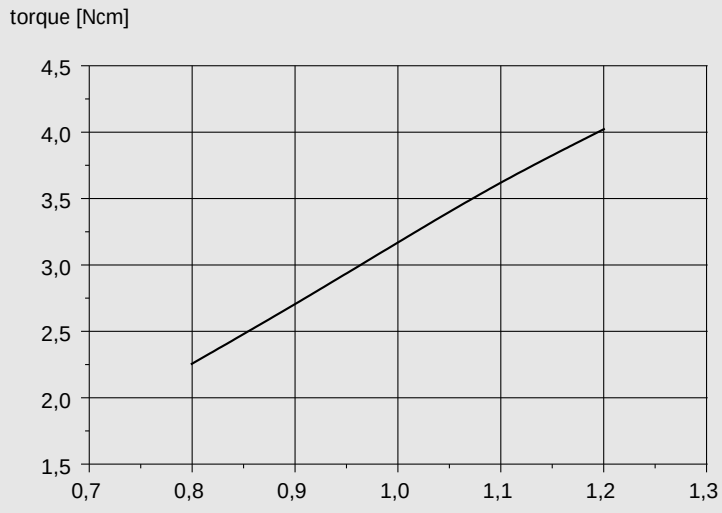
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 42/6

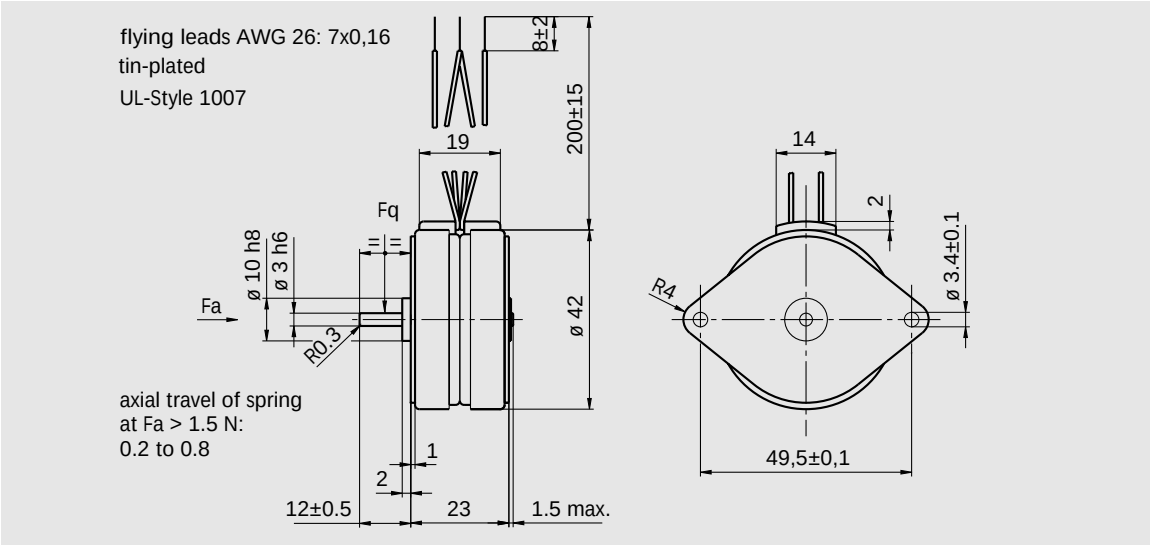


Characteristic curve RSM 42/6 at 50 Hz



Characteristic curve RSM 42/6 at 60 Hz

Synchronous motors
RSM 42/8 F



Scale drawing RSM 42/8

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	375 rpm	450 rpm
Synchronous torque	3.08 Ncm	2.91 Ncm
Delivery of power	1.21 W	1.37 W
Power consumption	3.44 W	3.81 W
Rated current (230 V)	14.4 mA	16 mA
Operating capacitor	0.1 µF	0.1 µF
Maximum externally permitted mass moment of inertia	46 gcm^2	30 gcm^2
Self-holding torque, type	0.5 Ncm	0.5 Ncm
Excess winding temperature	44 K	48 K
Permitted radial stress F_q	5 N	5 N
Permitted axial stress F_a	1.5 N	1.5 N
Weight	0.15 kg	0.15 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

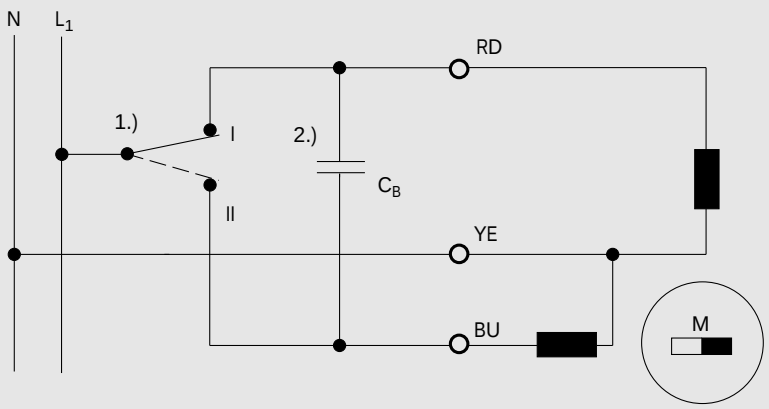
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.39 µF	0.39 µF	2.5 µF	2.5 µF	7 µF	7 µF
Rated current	29 mA	32 mA	71.1 mA	79 mA	120 mA	134 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

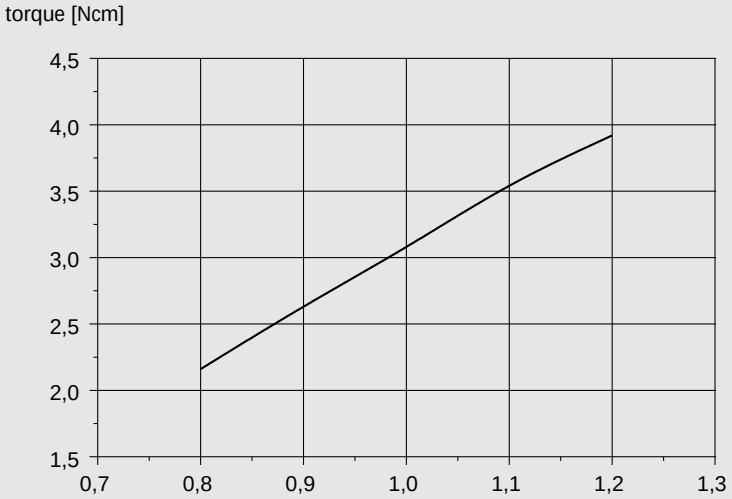
RSM 42/8 F



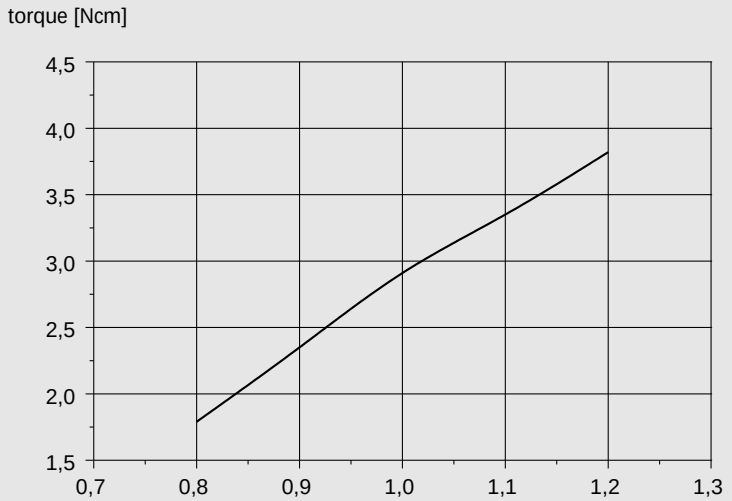
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 42/8

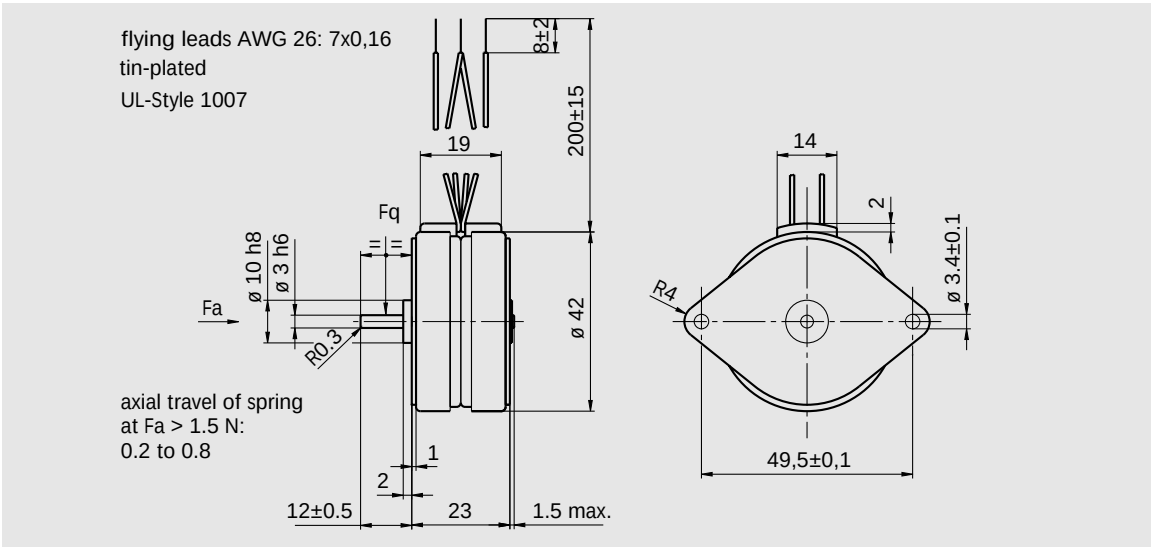


Characteristic curve RSM 42/8 at 50 Hz



Characteristic curve RSM 42/8 at 60 Hz

Synchronous motors
RSM 42/12 N



Scale drawing RSM 42/12

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	250 rpm	300 rpm
Synchronous torque	3.17 Ncm	2.91 Ncm
Delivery of power	0.83 W	0.91 W
Power consumption	2.89 W	2.5 W
Rated current (230 V)	12.2 mA	10.7 mA
Operating capacitor	0.082 µF	0.068 µF
Maximum externally permitted mass moment of inertia	50 gcm^2	45 gcm^2
Self-holding torque, type	0.5 Ncm	0.5 Ncm
Excess winding temperature	36 K	41 K
Permitted radial stress F_q	5 N	5 N
Permitted axial stress F_a	1.5 N	1.5 N
Weight	0.15 kg	0.15 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

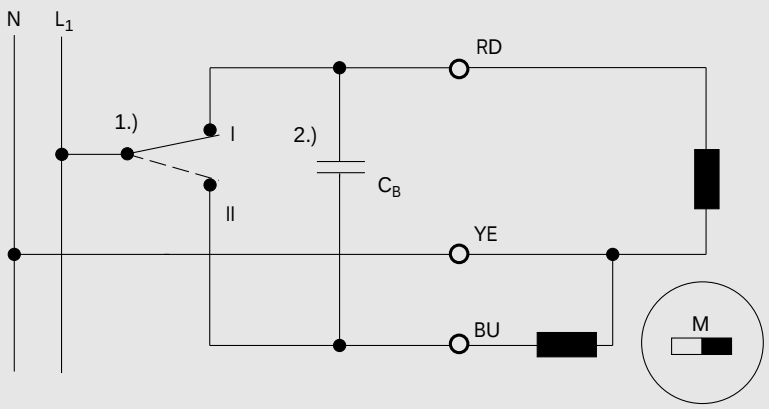
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.33 µF	0.25 µF	2.2 µF	1.8 µF	6.8 µF	5 µF
Rated current	23.9 mA	21 mA	60.3 mA	52.8 mA	103 mA	89.3 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

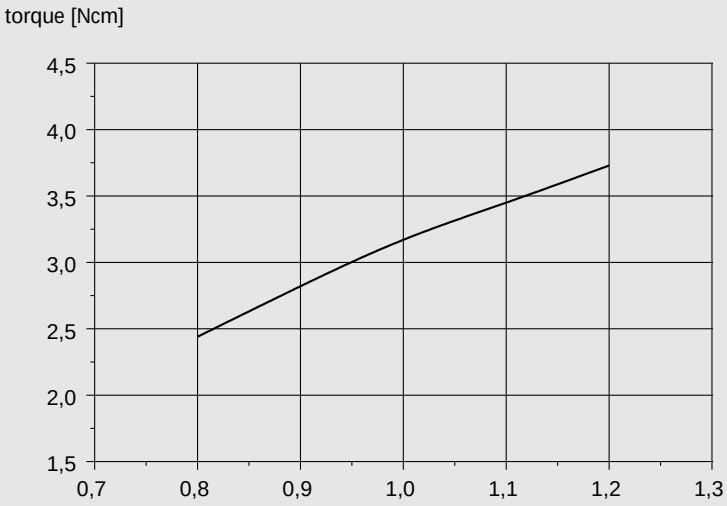
RSM 42/12 N



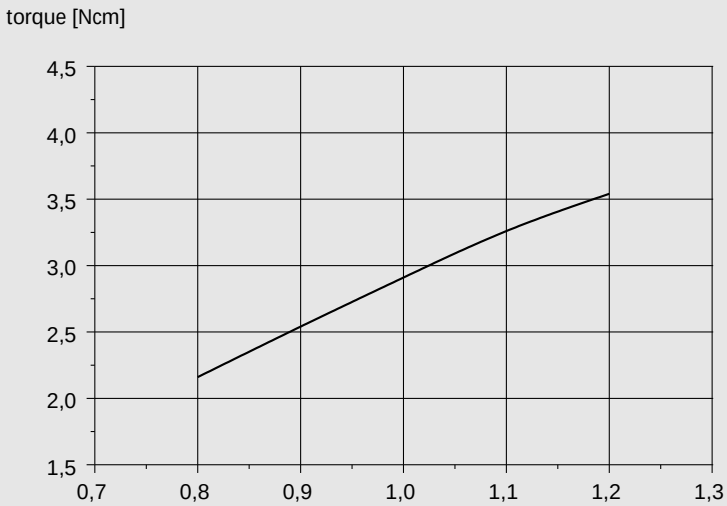
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 42/12

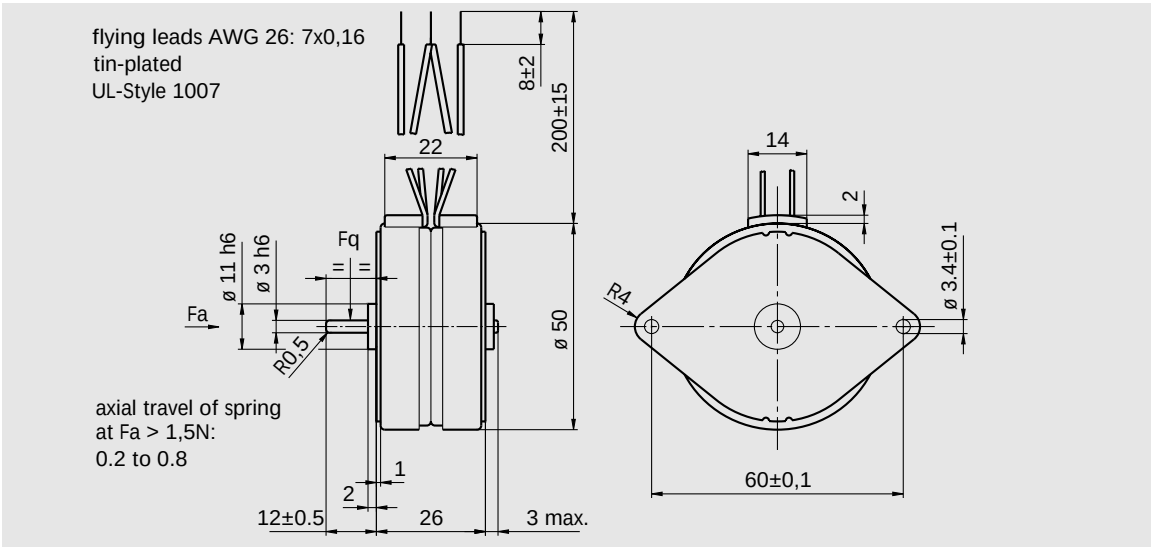


Characteristic curve RSM 42/12 at 50 Hz



Characteristic curve RSM 42/12 at 60 Hz

Synchronous motors
RSM 51/6 F



Scale drawing RSM 51/6

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	500 rpm	600 rpm
Synchronous torque	3.8 Ncm	3.25 Ncm
Delivery of power	2 W	2 W
Power consumption	4.9 W	5.4 W
Rated current (230 V)	21 mA	23 mA
Operating capacitor	0.15 µF	0.15 µF
Maximum externally permitted mass moment of inertia	60 gcm^2	40 gcm^2
Self-holding torque, type	0.8 Ncm	0.8 Ncm
Excess winding temperature	55 K	63 K
Permitted radial stress F_q	5 N	5 N
Permitted axial stress F_a	2 N	2 N
Weight	0.2 kg	0.2 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

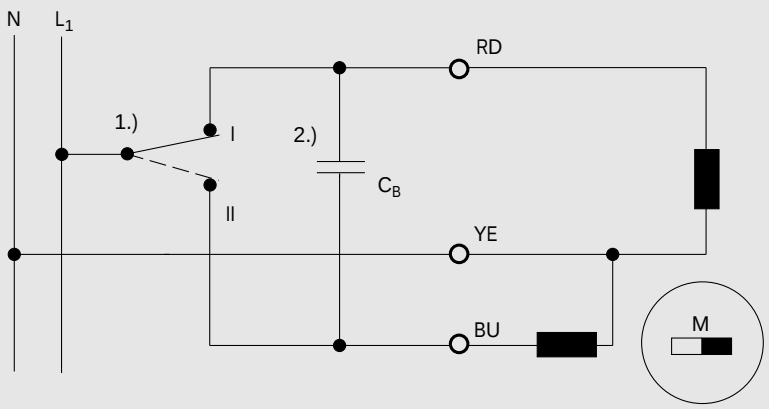
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.56 µF	0.56 µF	4.7 µF	4.7 µF	16 µF	16 µF
Rated current	42.9 mA	47 mA	117 mA	128 mA	217 mA	238 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

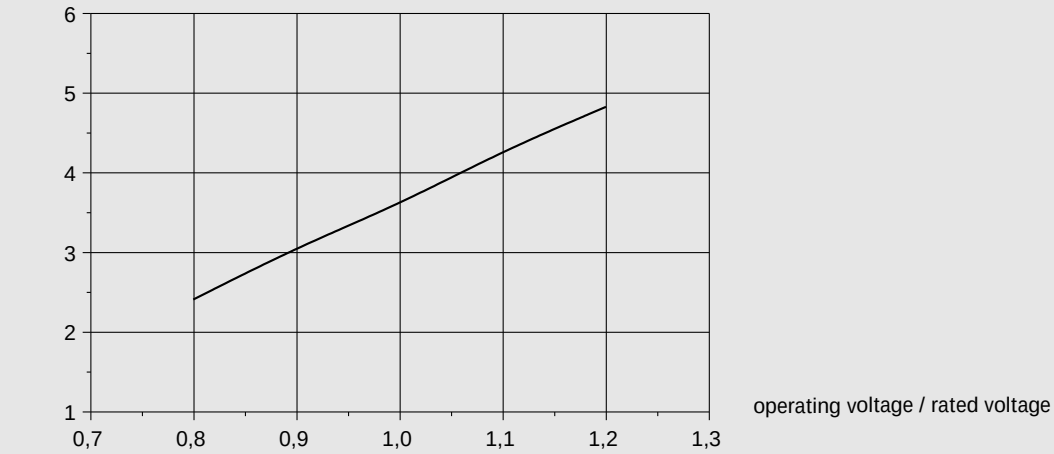
RSM 51/6 F



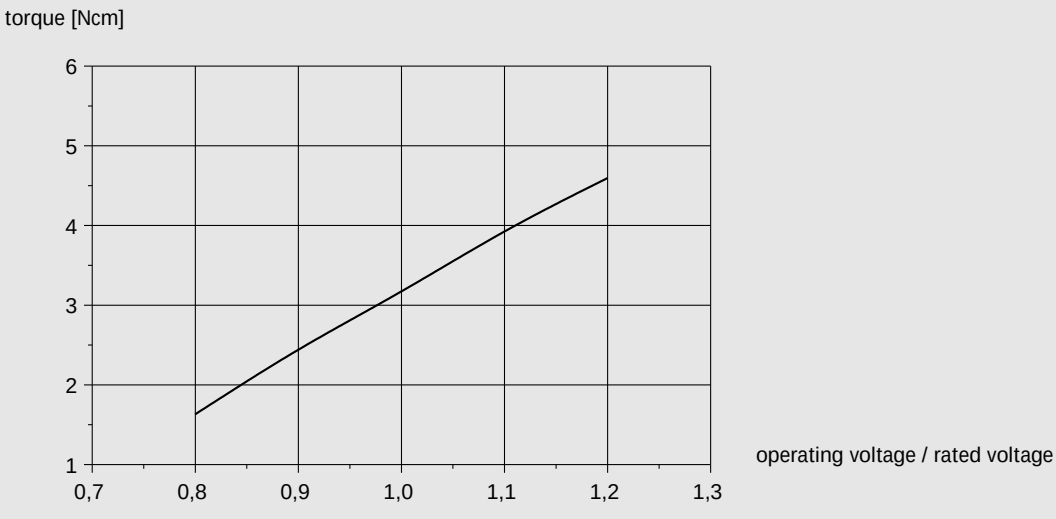
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 51/6

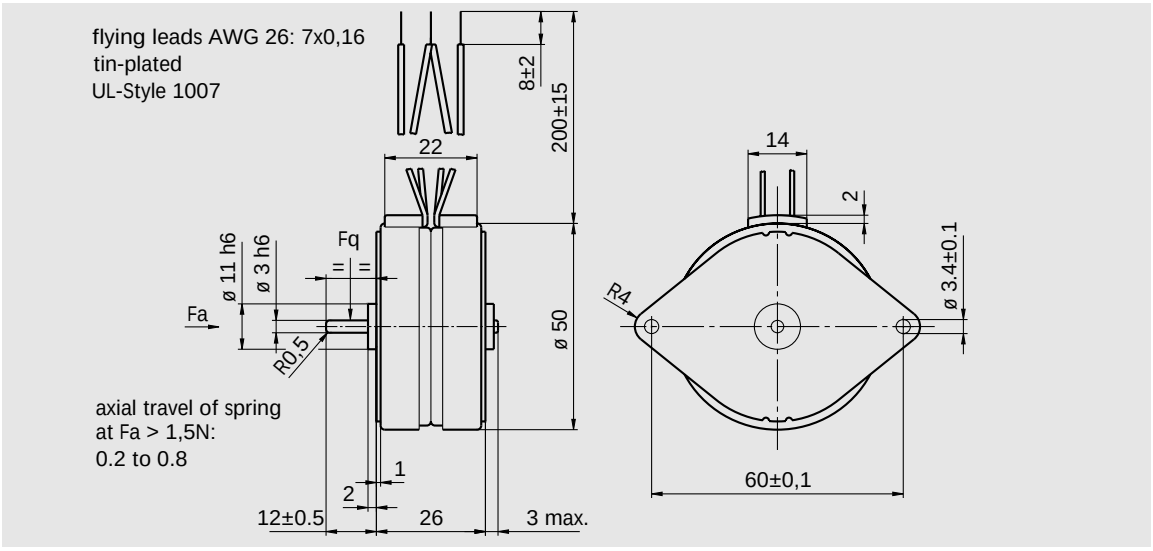


Characteristic curve RSM 51/6 at 50 Hz



Characteristic curve RSM 51/6 at 60 Hz

Synchronous motors
RSM 51/8 F



Scale drawing RSM 51/8

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	375 rpm	450 rpm
Synchronous torque	4 Ncm	3.75 Ncm
Delivery of power	1.57 W	1.77 W
Power consumption	3.9 W	4.3 W
Rated current (230 V)	17 mA	18.7 mA
Operating capacitor	0.12 µF	0.12 µF
Maximum externally permitted mass moment of inertia	90 gcm^2	58 gcm^2
Self-holding torque, type	0.5 Ncm	0.5 Ncm
Excess winding temperature	50 K	58 K
Permitted radial stress F_q	5 N	5 N
Permitted axial stress F_a	2 N	2 N
Weight	0.2 kg	0.2 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

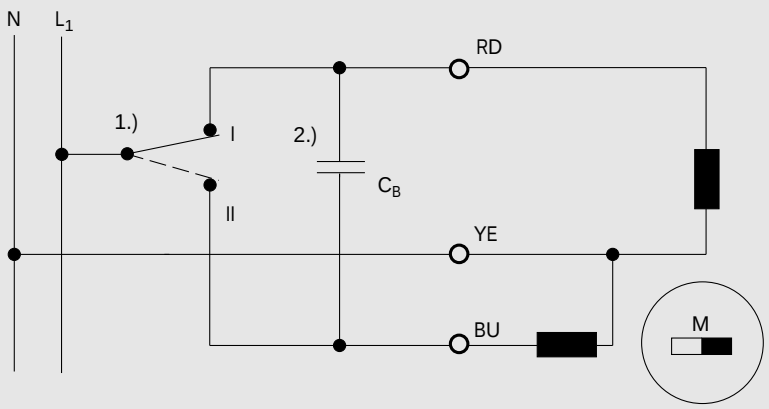
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.5 µF	0.5 µF	3.9 µF	3.9 µF	12 µF	12 µF
Rated current	34.7 mA	38.2 mA	94.5 mA	104 mA	157 mA	172 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

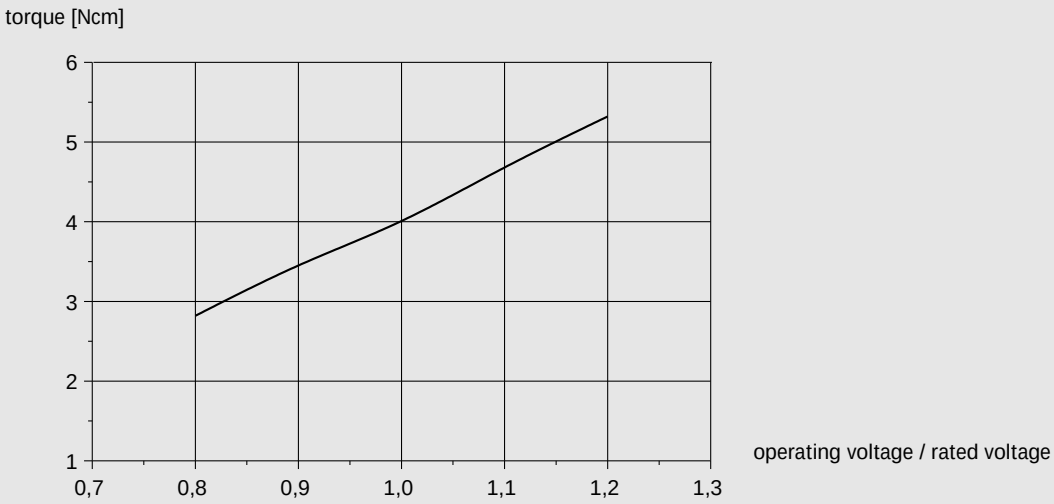
RSM 51/8 F



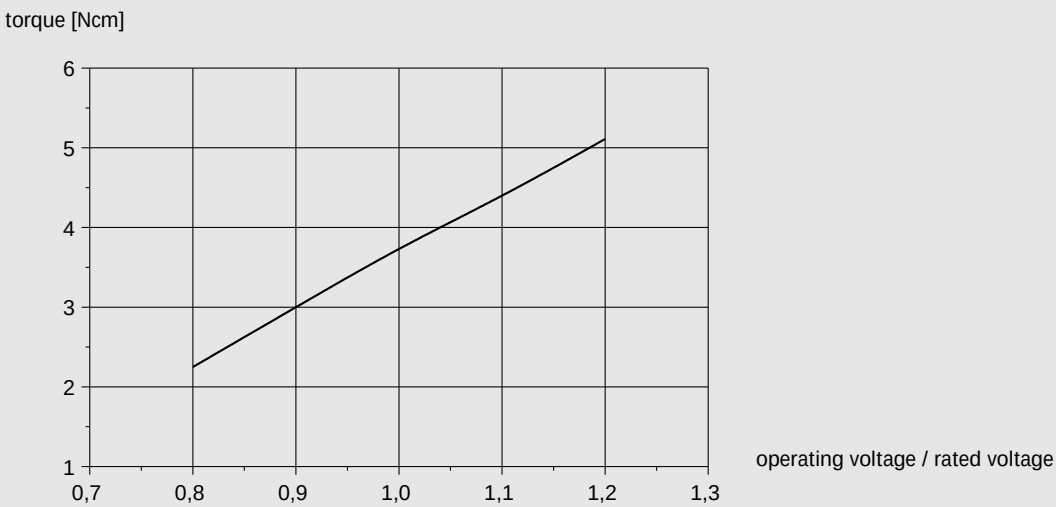
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 51/8

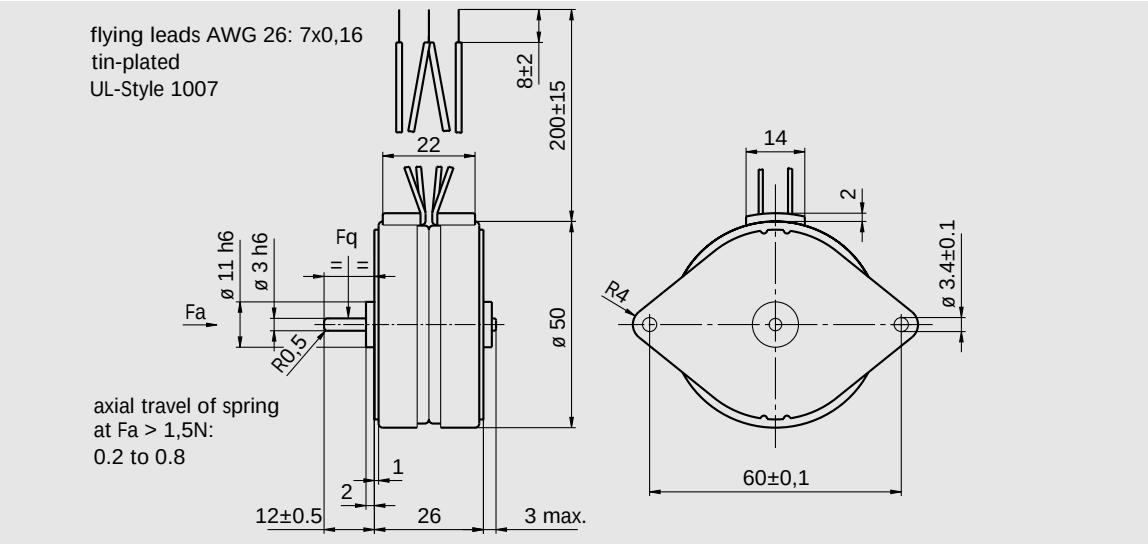


Characteristic curve RSM 51/8 at 50 Hz



Characteristic curve RSM 51/8 at 60 Hz

Synchronous motors
RSM 51/12 F



Scale drawing RSM 51/12

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	250 rpm	300 rpm
Synchronous torque	5 Ncm	4.4 Ncm
Delivery of power	1.3 W	1.4 W
Power consumption	3.7 W	3.6 W
Rated current (230 V)	16 mA	15.6 mA
Operating capacitor	0.12 µF	0.1 µF
Maximum externally permitted mass moment of inertia	120 gcm^2	80 gcm^2
Self-holding torque, type	0.75 Ncm	0.75 Ncm
Excess winding temperature	48 K	46 K
Permitted radial stress F_q	5 N	5 N
Permitted axial stress F_a	2 N	2 N
Weight	0.2 kg	0.2 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

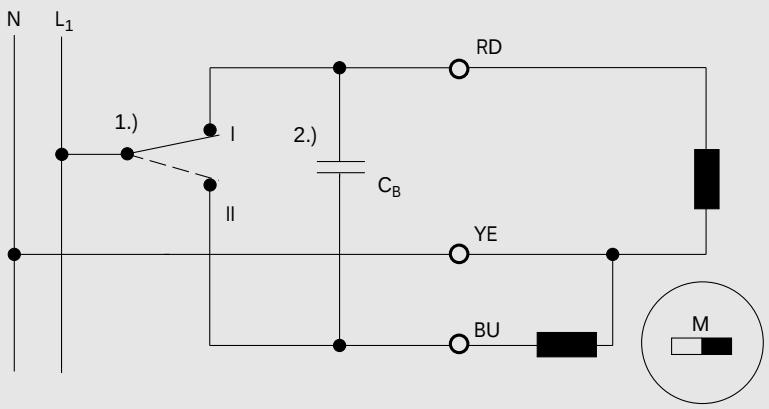
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	0.5 µF	0.43 µF	3.9 µF	3.3 µF	10 µF	8.2 µF
Rated current	33 mA	32 mA	90 mA	87 mA	150 mA	145 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

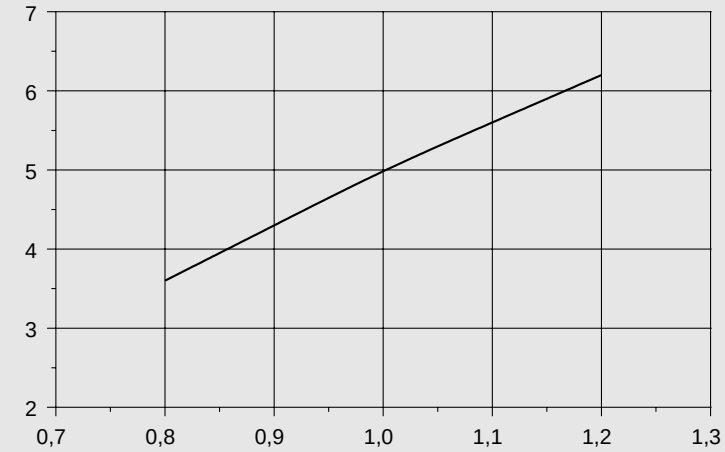
RSM 51/12 F



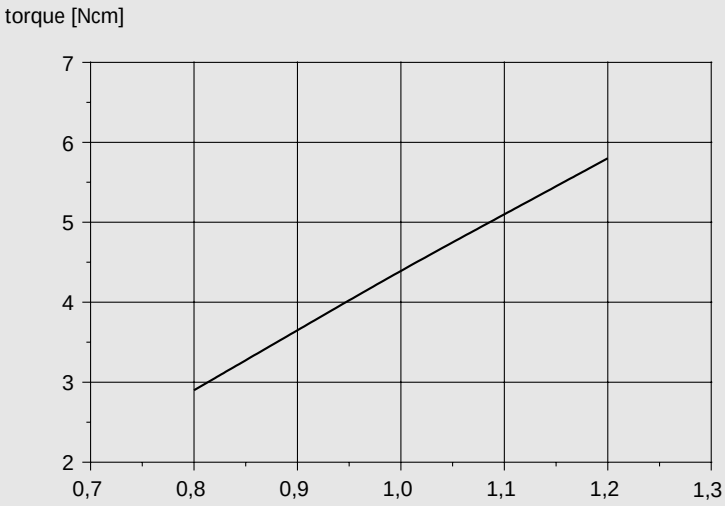
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 51/12

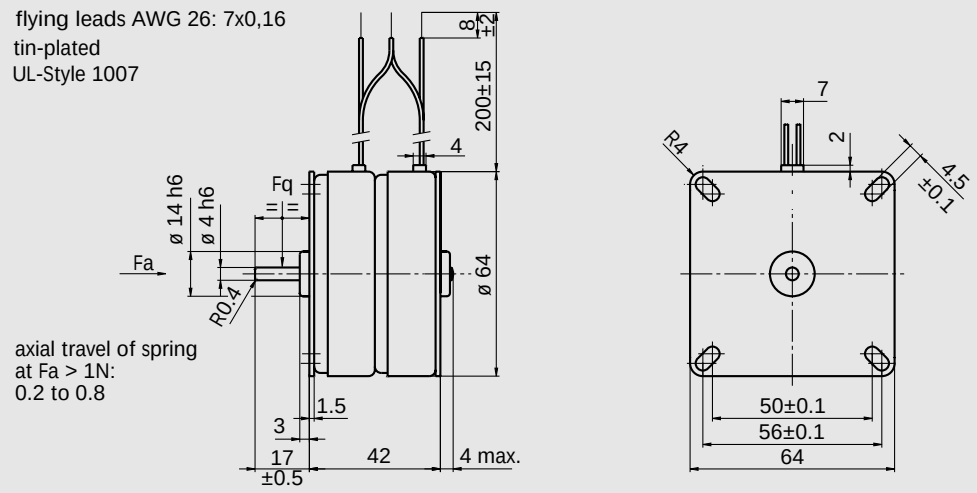


Characteristic curve RSM 51/12 at 50 Hz



Characteristic curve RSM 51/12 at 60 Hz

Synchronous motors
RSM 63/8 F



Scale drawing RSM 63/8

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	375 rpm	450 rpm
Synchronous torque	13 Ncm	11.7 Ncm
Delivery of power	5.1 W	5.5 W
Power consumption	11 W	11.7 W
Rated current (230 V)	48 mA	51 mA
Operating capacitor	0.33 µF	0.33 µF
Maximum externally permitted mass moment of inertia	250 gcm^2	180 gcm^2
Self-holding torque, type	5 Ncm	5 Ncm
Excess winding temperature	45 K	52 K
Permitted radial stress F_q	10 N	10 N
Permitted axial stress F_a	3 N	3 N
Weight	0.46 kg	0.46 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

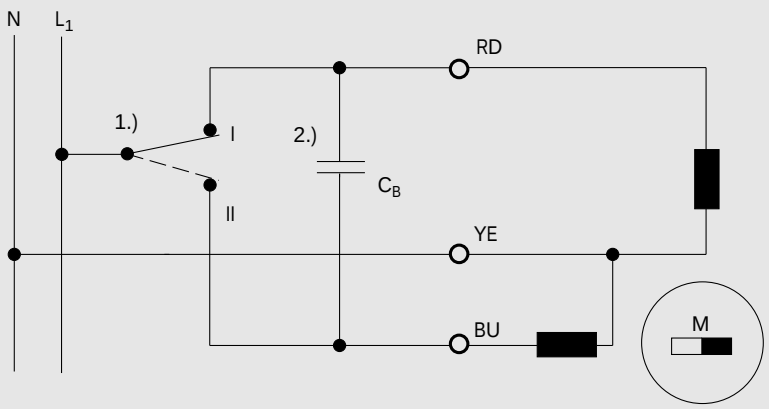
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	1.5 µF	1.5 µF	10 µF	10 µF	32 µF	32 µF
Rated current	100 mA	106 mA	266 mA	283 mA	464 mA	493 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

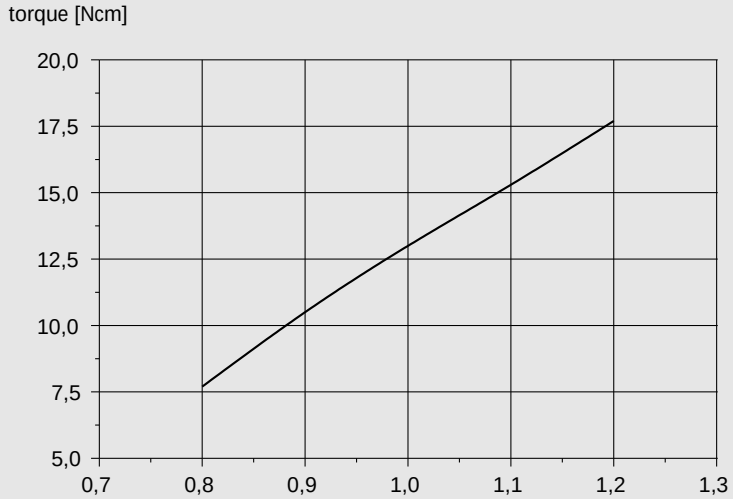
RSM 63/8 F



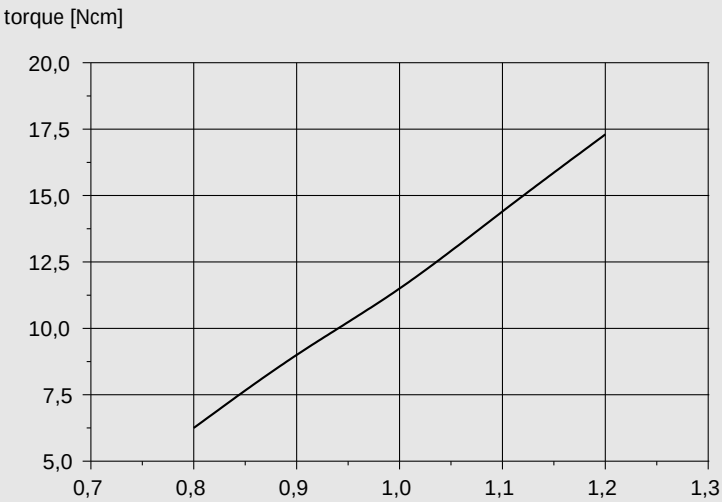
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 63/8

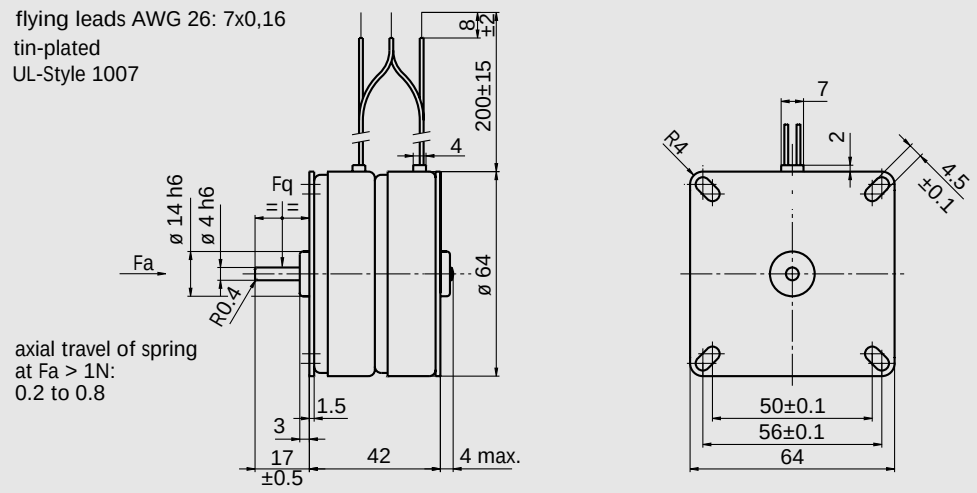


Characteristic curve RSM 63/8 at 50 Hz



Characteristic curve RSM 63/8 at 60 Hz

Synchronous motors
RSM 63/10 F



Scale drawing RSM 63/10

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	300 rpm	360 rpm
Synchronous torque	13.2 Ncm	10 Ncm
Delivery of power	4.2 W	3.8 W
Power consumption	10.2 W	10 W
Rated current (230 V)	45 mA	44 mA
Operating capacitor	0.33 µF	0.33 µF
Maximum externally permitted mass moment of inertia	230 gcm^2	160 gcm^2
Self-holding torque, type	2.1 Ncm	2.1 Ncm
Excess winding temperature	73 K	80 K
Permitted radial stress F_q	10 N	10 N
Permitted axial stress F_a	3 N	3 N
Weight	0.46 kg	0.46 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

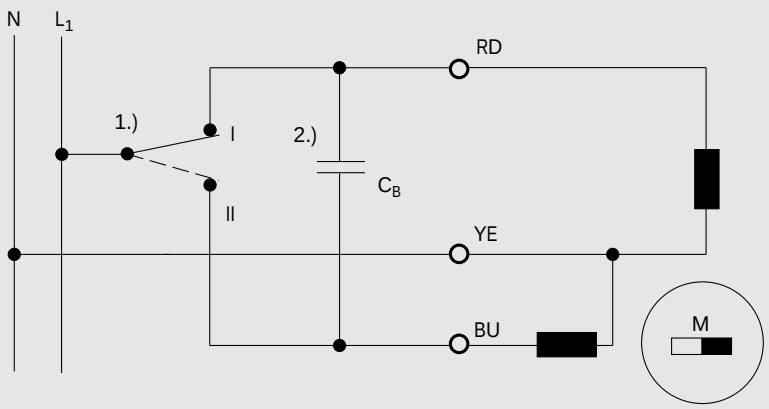
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	1.5 µF	1.5 µF	10 µF	10 µF	32 µF	32 µF
Rated current	97.9 mA	95.7 mA	254 mA	248 mA	439 mA	430 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

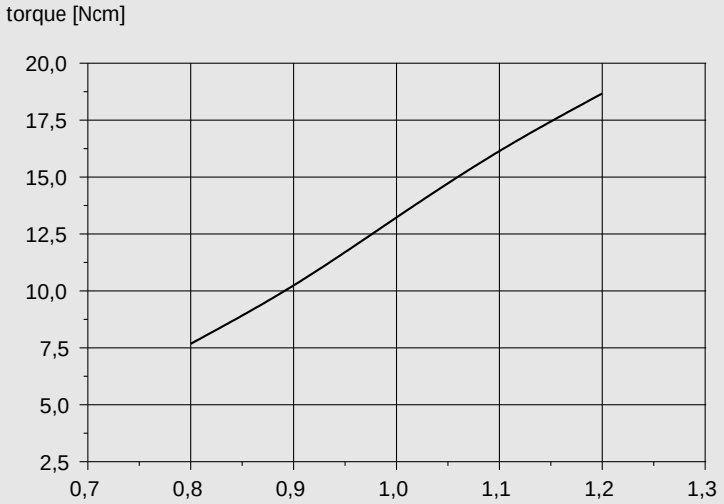
RSM 63/10 F



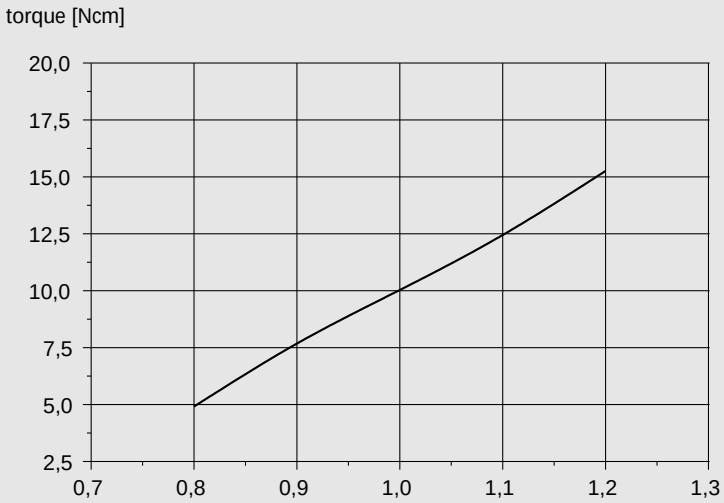
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 63/10

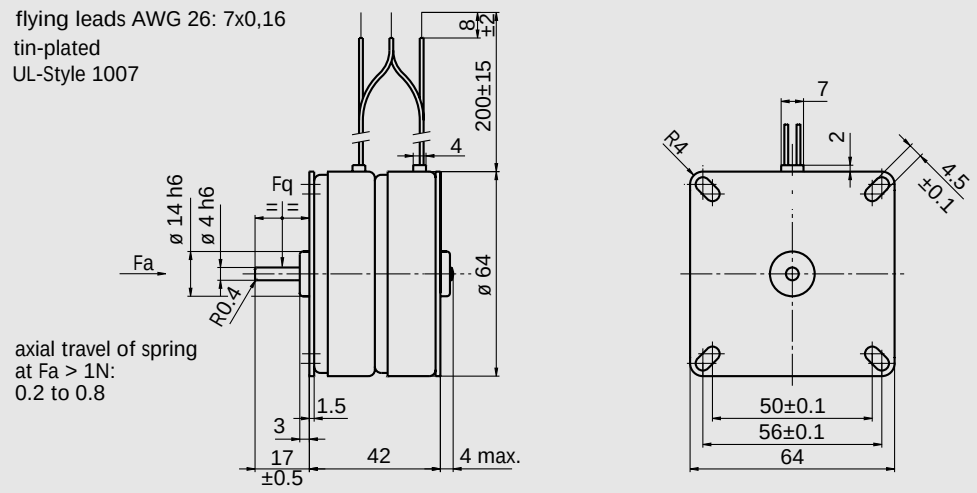


Characteristic curve RSM 63/10 at 50 Hz



Characteristic curve RSM 63/10 at 60 Hz

Synchronous motors
RSM 63/12 F



Scale drawing RSM 63/12

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	250 rpm	300 rpm
Synchronous torque	13.5 Ncm	10.4 Ncm
Delivery of power	3.5 W	3.25 W
Power consumption	8 W	7.7 W
Rated current (230 V)	36 mA	37 mA
Operating capacitor	0.25 µF	0.25 µF
Maximum externally permitted mass moment of inertia	270 gcm^2	240 gcm^2
Self-holding torque, type	1.5 Ncm	1.5 Ncm
Excess winding temperature	62 K	72 K
Permitted radial stress F_q	10 N	10 N
Permitted axial stress F_a	3 N	3 N
Weight	0.46 kg	0.46 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	E to DIN EN 60034-1	E
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

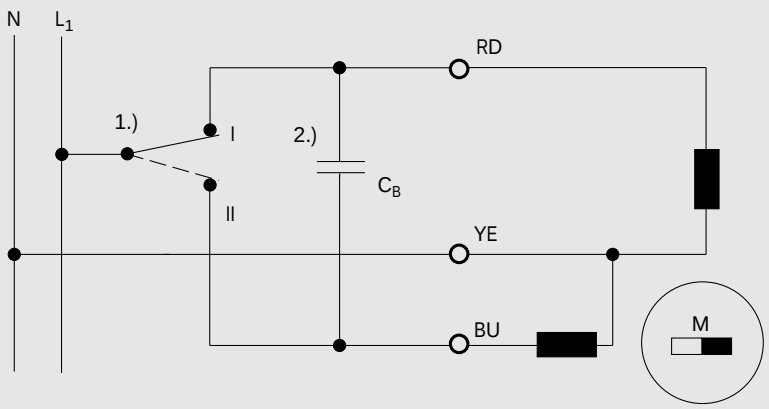
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	1.2 µF	1.2 µF	8.2 µF	8.2 µF	25 µF	25 µF
Rated current	78.3 mA	80.5 mA	203 mA	209 mA	352 mA	361 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

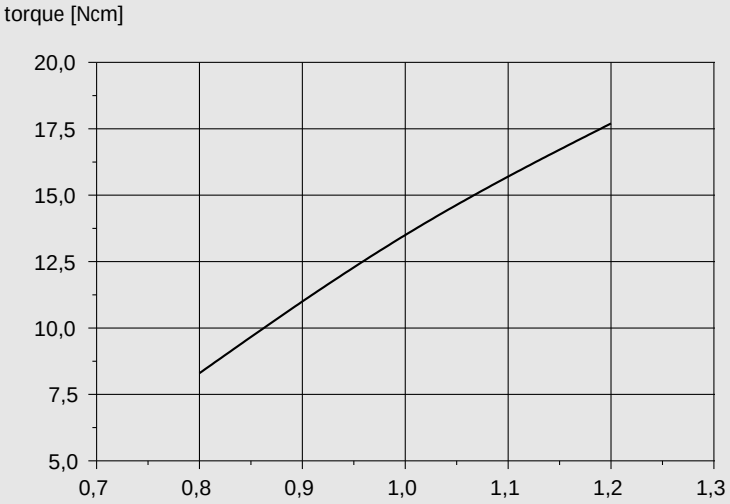
RSM 63/12 F



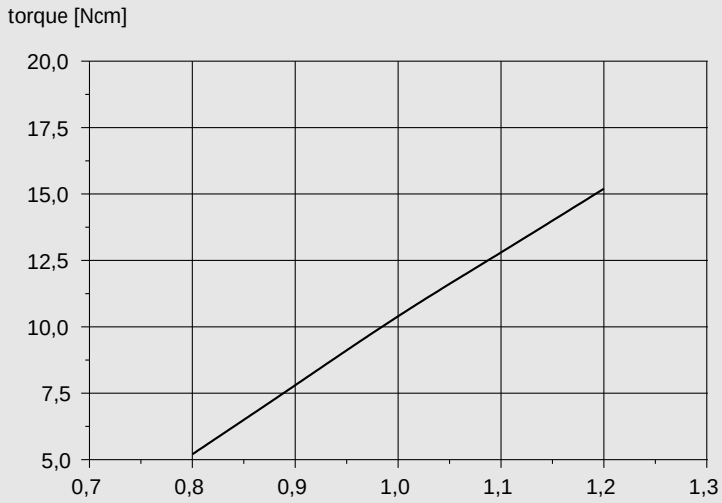
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 63/12

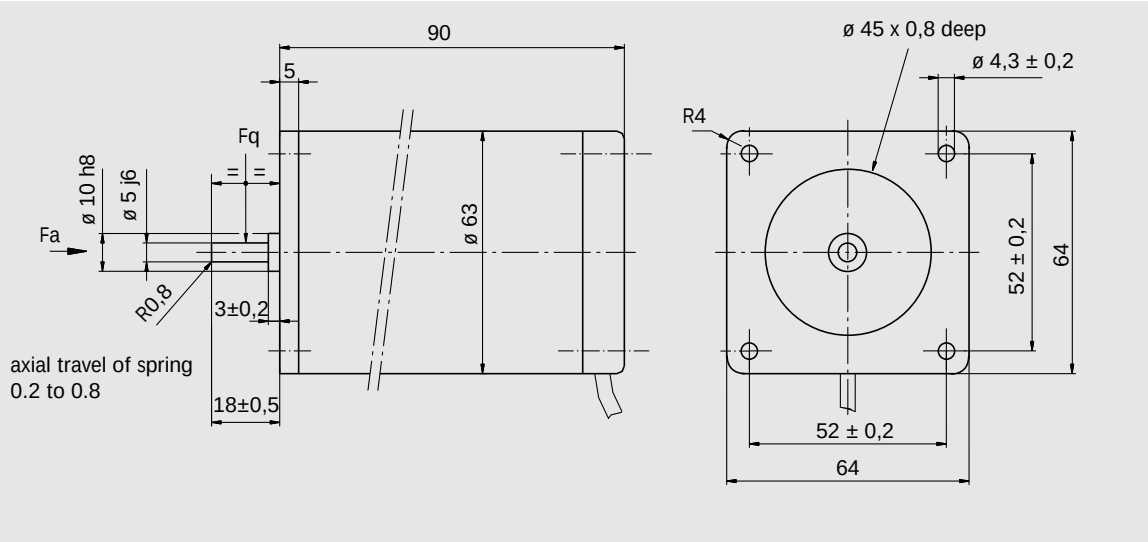


Characteristic curve RSM 63/12 at 50 Hz



Characteristic curve RSM 63/12 at 60 Hz

Synchronous motors
RSM 828/3 F



Scale drawing RSM 828/3

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	1000 rpm	1200 rpm
Synchronous torque	8.4 Ncm	7.8 Ncm
Delivery of power	8.8 W	9.9 W
Power consumption	17.1 W	19.3 W
Rated current (230 V)	75 mA	85 mA
Operating capacitor	0.5 µF	0.5 µF
Maximum externally permitted mass moment of inertia	55 gcm^2	30 gcm^2
Self-holding torque, type	2 Ncm	2 Ncm
Excess winding temperature	75 K	85 K
Permitted radial stress F_q	40 N	40 N
Permitted axial stress F_a	20 N	20 N
Weight	0.55 kg	0.55 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	B gemäß DIN EN 60034-1	B
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

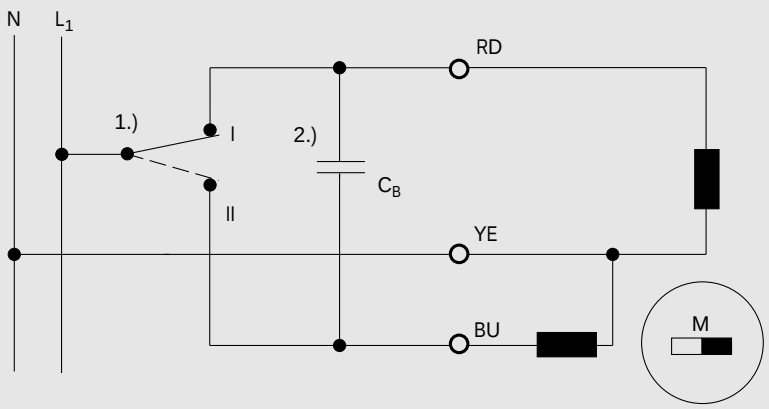
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	2 µF	2 µF	14 µF	14 µF	42 µF	42 µF
Rated current	145 mA	164 mA	370 mA	420 mA	726 mA	823 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

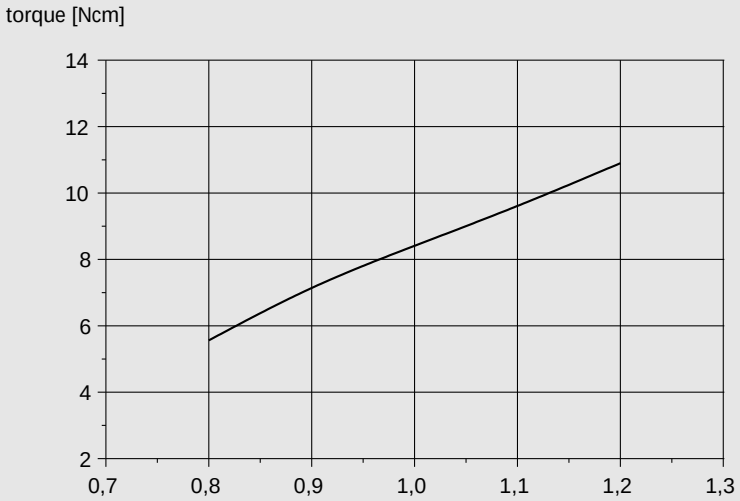
RSM 828/3 F



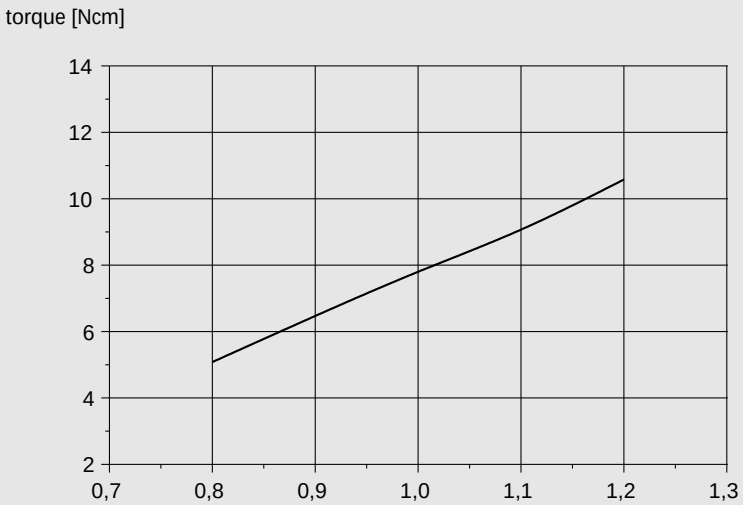
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 828/3

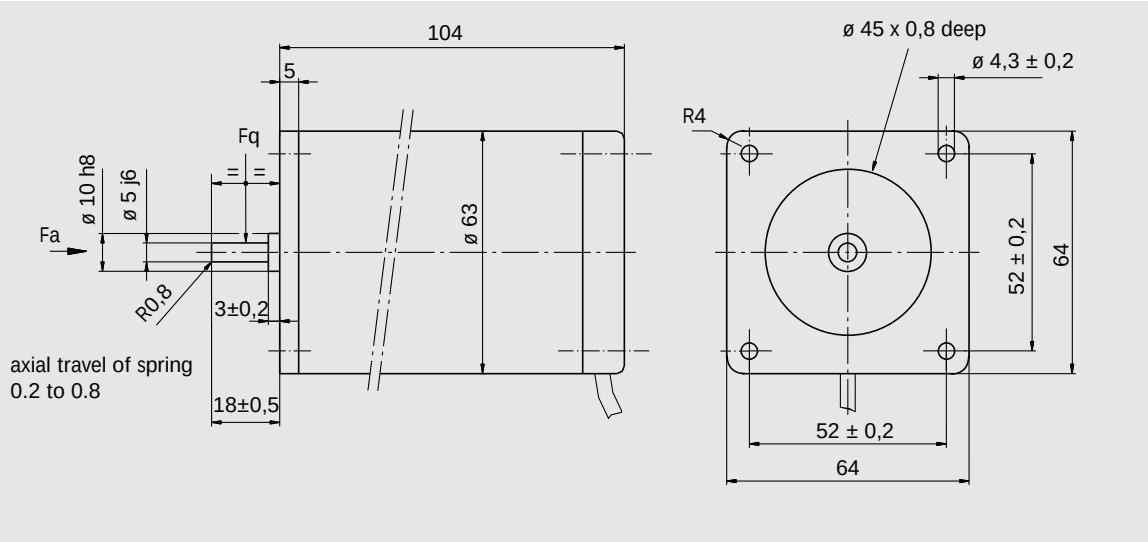


Characteristic curve RSM 828/3 at 50 Hz



Characteristic curve RSM 828/3 at 60 Hz

Synchronous motors
RSM 842/3 F



Scale drawing RSM 842/3

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	1000 rpm	1200 rpm
Synchronous torque	9.6 Ncm	9 Ncm
Delivery of power	10.1 W	11.3 W
Power consumption	20.7 W	23.7 W
Rated current (230 V)	92 mA	105 mA
Operating capacitor	0.6 µF	0.6 µF
Maximum externally permitted mass moment of inertia	80 gcm^2	40 gcm^2
Self-holding torque, type	3.4 Ncm	3.4 Ncm
Excess winding temperature	85 K	95 K
Permitted radial stress F_q	40 N	40 N
Permitted axial stress F_a	20 N	20 N
Weight	0.75 kg	0.75 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	B gemäß DIN EN 60034-1	B
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

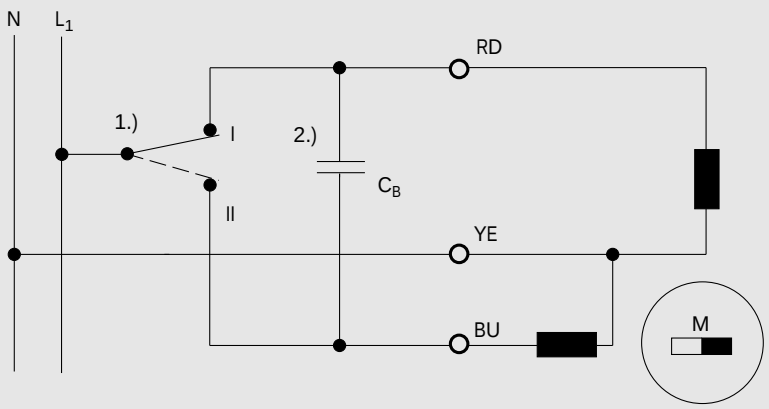
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	2.5 µF	2.5 µF	16 µF	16 µF	48 µF	48 µF
Rated current	180 mA	206 mA	462 mA	563 mA	828 mA	945 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

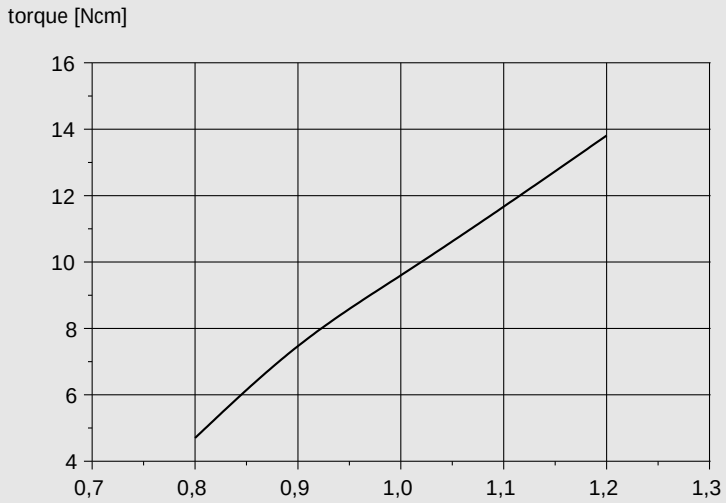
RSM 842/3 F



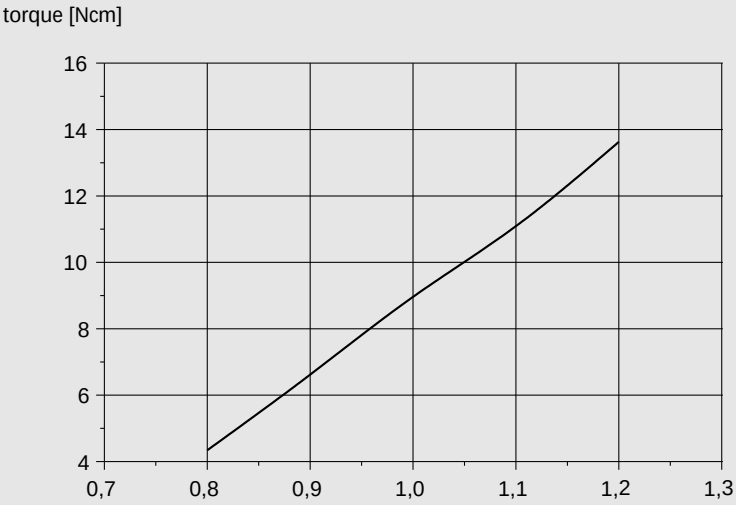
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 842/3

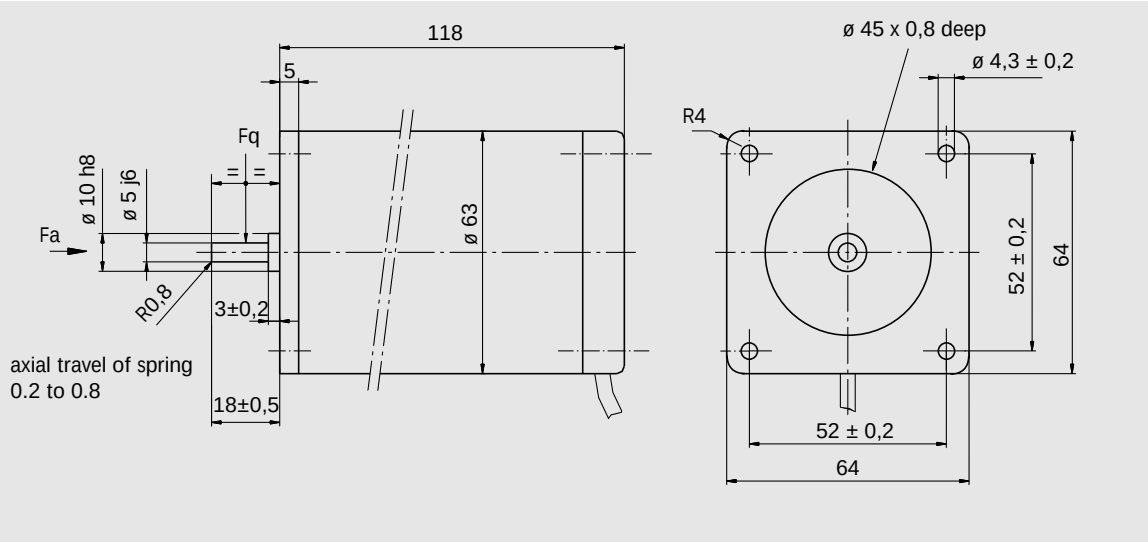


Characteristic curve RSM 842/3 at 50 Hz



Characteristic curve RSM 842/3 at 60 Hz

Synchronous motors
RSM 856/3 F



Scale drawing RSM 856/3

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	1000 rpm	1200 rpm
Synchronous torque	13.2 Ncm	12.6 Ncm
Delivery of power	13.9 W	15.8 W
Power consumption	24.6 W	27.6 W
Rated current (230 V)	109 mA	121 mA
Operating capacitor	0.68 µF	0.68 µF
Maximum externally permitted mass moment of inertia	140 gcm^2	65 gcm^2
Self-holding torque, type	4.1 Ncm	4.1 Ncm
Excess winding temperature	80 K	85 K
Permitted radial stress F_q	40 N	40 N
Permitted axial stress F_a	20 N	20 N
Weight	0.9 kg	0.9 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	B gemäß DIN EN 60034-1	B
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

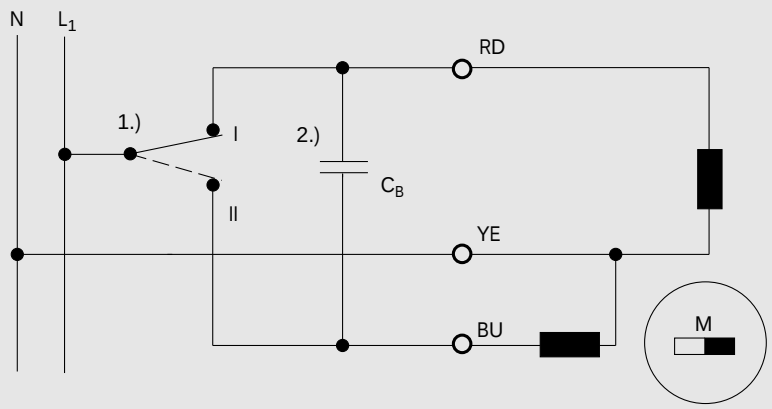
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	2.7 µF	2.7 µF	18 µF	18 µF	57 µF	57 µF
Rated current	214 mA	237 mA	545 mA	607 mA	981 mA	1089 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

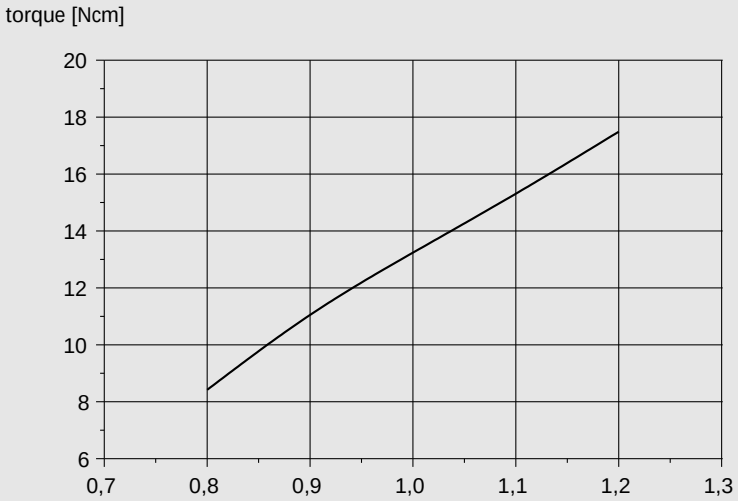
RSM 856/3 F



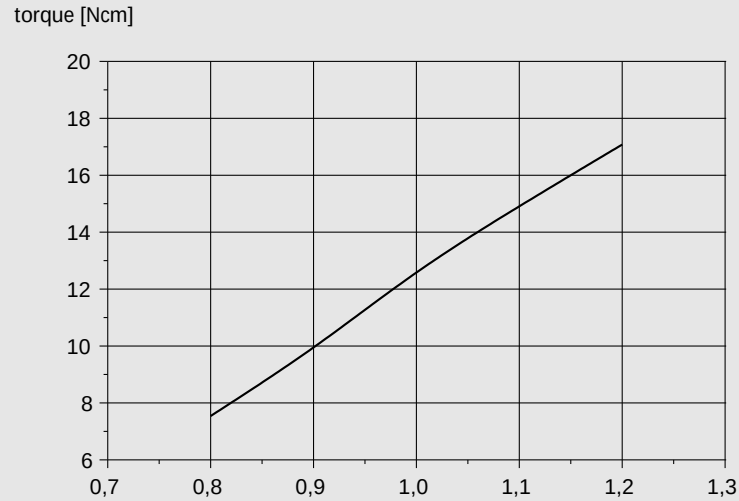
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 856/3

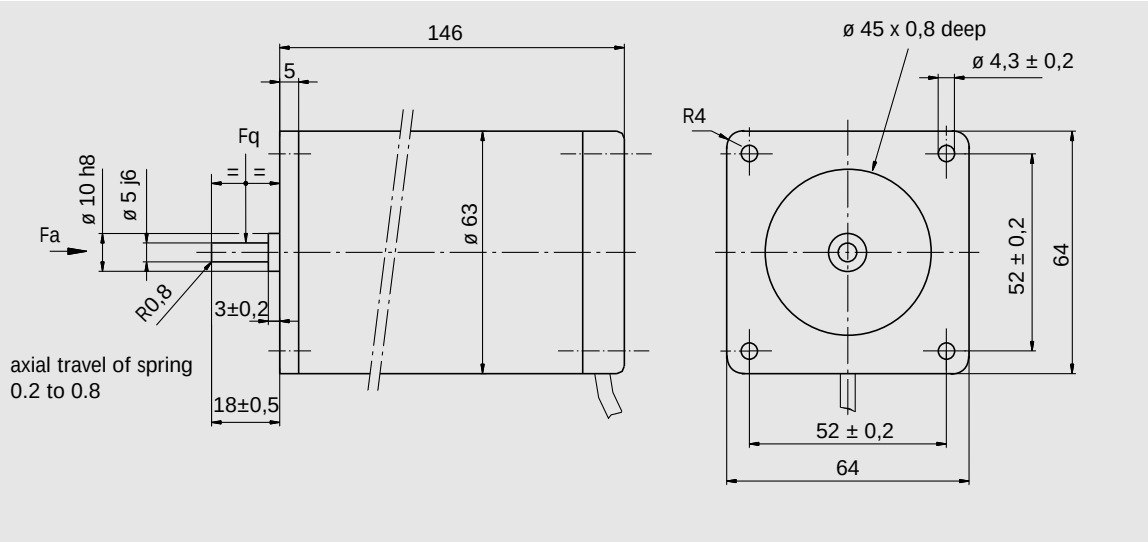


Characteristic curve RSM 856/3 at 50 Hz



Characteristic curve RSM 856/3 at 60 Hz

Synchronous motors
RSM 884/3 F



Scale drawing RSM 884/3

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	1000 rpm	1200 rpm
Synchronous torque	18.1 Ncm	15.3 Ncm
Delivery of power	18.9 W	19.2 W
Power consumption	30.1 W	33.7 W
Rated current (230 V)	134 mA	149 mA
Operating capacitor	0.82 µF	0.82 µF
Maximum externally permitted mass moment of inertia	150 gcm^2	70 gcm^2
Self-holding torque, type	6 Ncm	6 Ncm
Excess winding temperature	70 K	80 K
Permitted radial stress F_q	40 N	40 N
Permitted axial stress F_a	20 N	20 N
Weight	1.25 kg	1.25 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	B gemäß DIN EN 60034-1	B
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

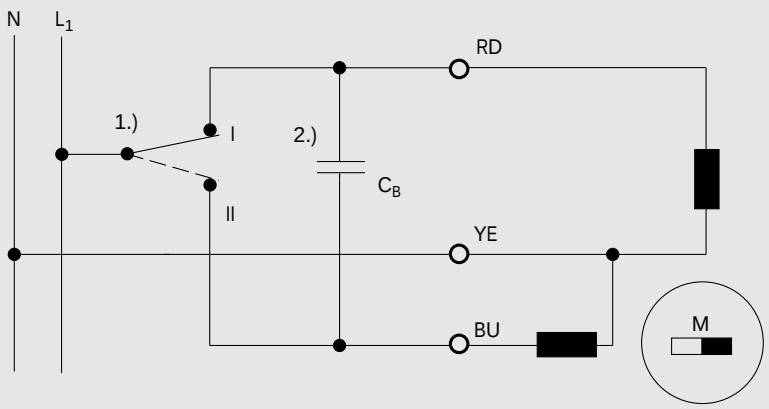
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	3.3 µF	3.3 µF	27 µF	27 µF	70 µF	70 µF
Rated current	278 mA	309 mA	763 mA	849 mA	1231 mA	1368 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

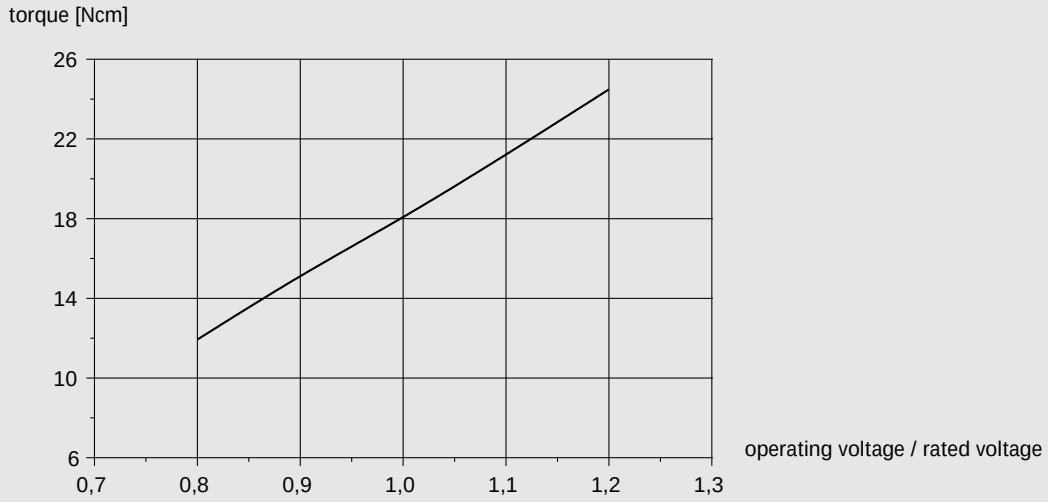
RSM 884/3 F



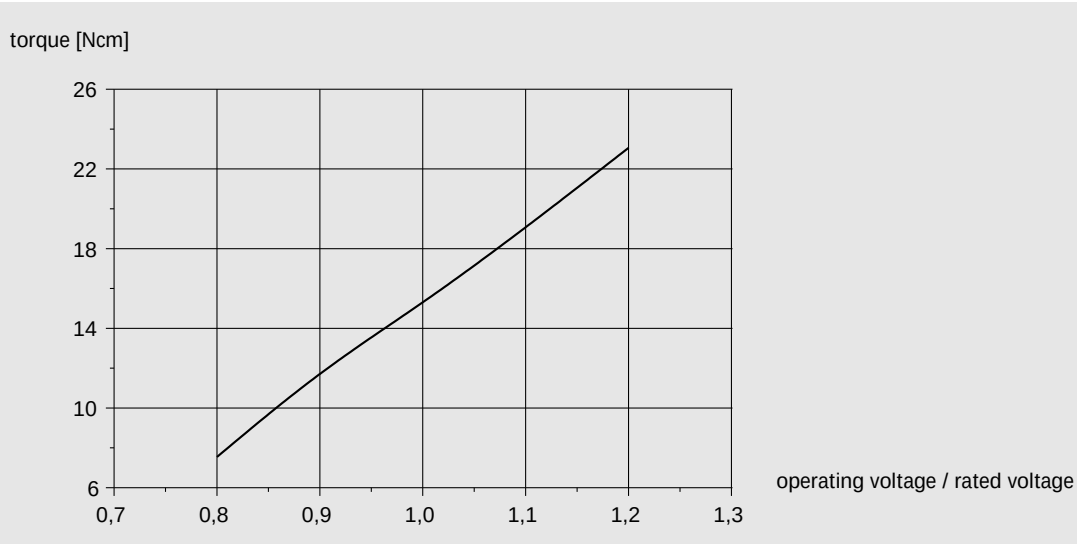
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 884/3

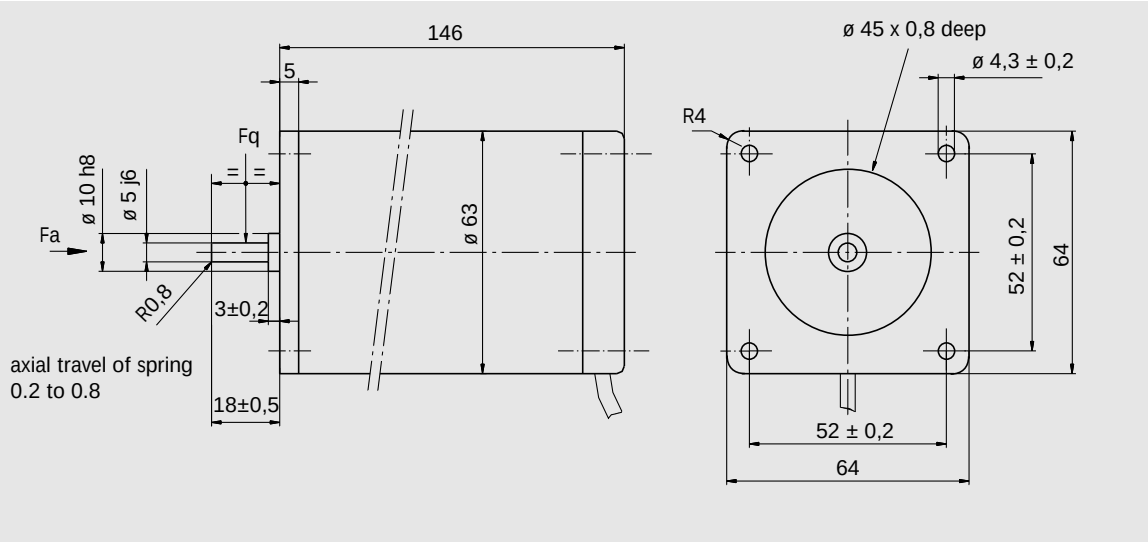


Characteristic curve RSM 884/3 at 50 Hz



Characteristic curve RSM 884/3 at 60 Hz

Synchronous motors
RSM 884/3 S



Scale drawing RSM 884/3 S

Technical Data

	Frequency	
	50 Hz	**60 Hz**
Speed	1000 rpm	1200 rpm
Synchronous torque	33 Ncm	31 Ncm
Delivery of power	35 W	32 W
Power consumption	70 W	74 W
Rated current (230 V)	308 mA	323 mA
Operating capacitor	2.2 µF	1.8 µF
Maximum externally permitted mass moment of inertia	250 gcm^2	150 gcm^2
Self-holding torque, type	6 Ncm	6 Ncm
Excess winding temperature in short-time operation	max. 85 K	max. 85 K
Permitted radial stress F_q	40 N	40 N
Permitted axial stress F_a	20 N	20 N
Weight	1.25 kg	1.25 kg
Protection grade	IP 41 to DIN EN 60529	IP 41
Insulation class	B gemäß DIN EN 60034-1	B
Dielectric strength	Momentary test, test voltage to DIN EN 60034-1	

Voltages

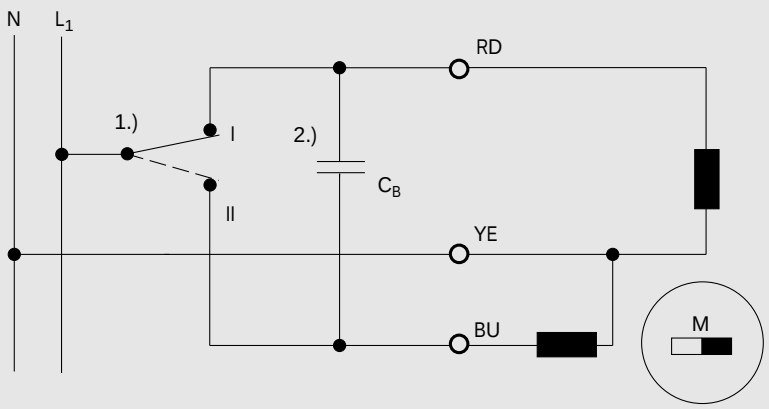
Rated voltage	**110 V**		**42 V**		**24 V**	
Frequency	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**	**50 Hz**	**60 Hz**
Operating capacitor	10 µF	8.2 µF	68 µF	56 µF	180 µF	150 µF
Rated current	670 mA	703 mA	1692 mA	1774 mA	2715 mA	2847 mA

Gearbox combinations

You will find gearbox combinations from page 113.

Synchronous motors

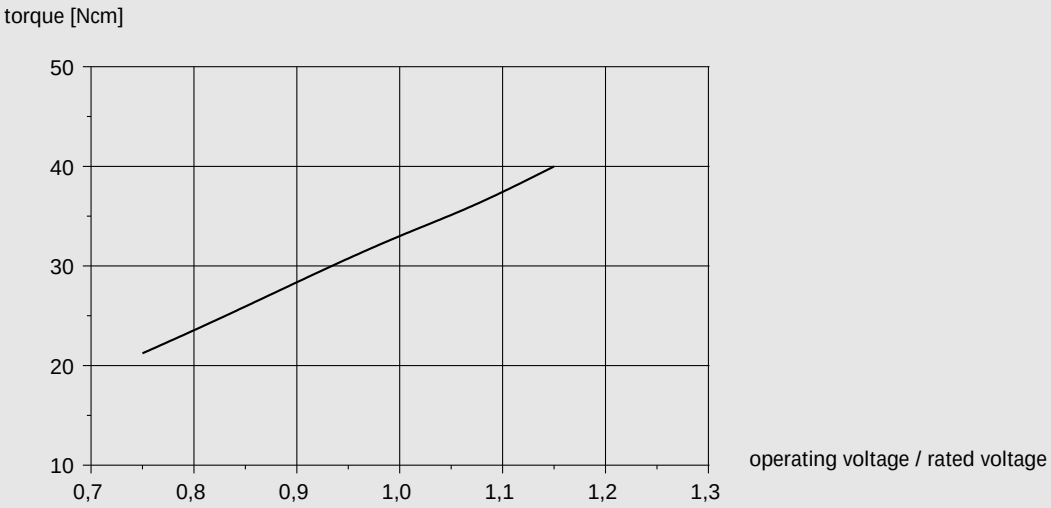
RSM 884/3 S



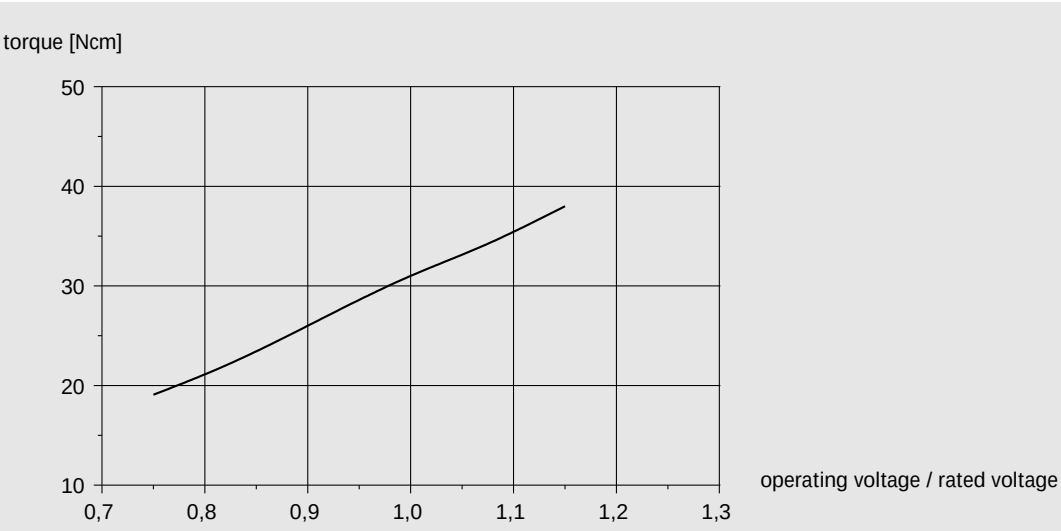
1.) switch position I = clockwise rotation
switch position II = anti-clockwise rotation

2.) C_B = operating capacitor

Connections RSM 884/3 S

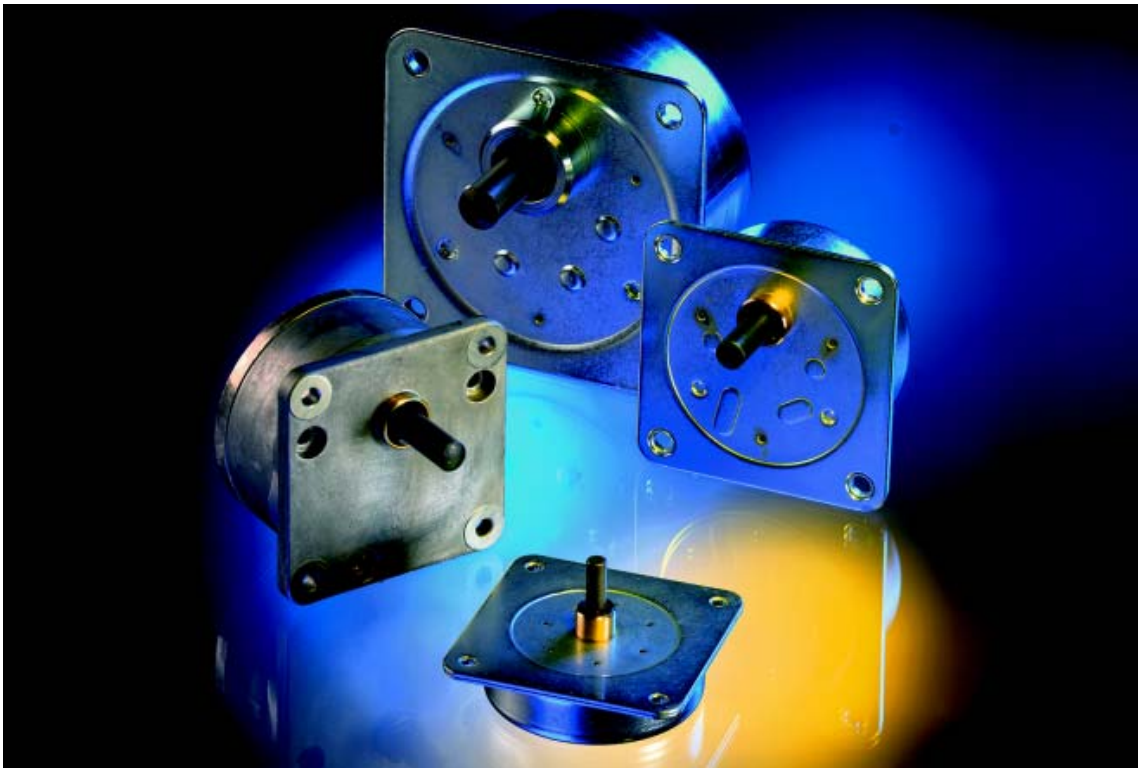


Characteristic curve RSM 884/3 S at 50 Hz



Characteristic curve RSM 884/3 S at 60 Hz

Synchronous motors
with geared motors

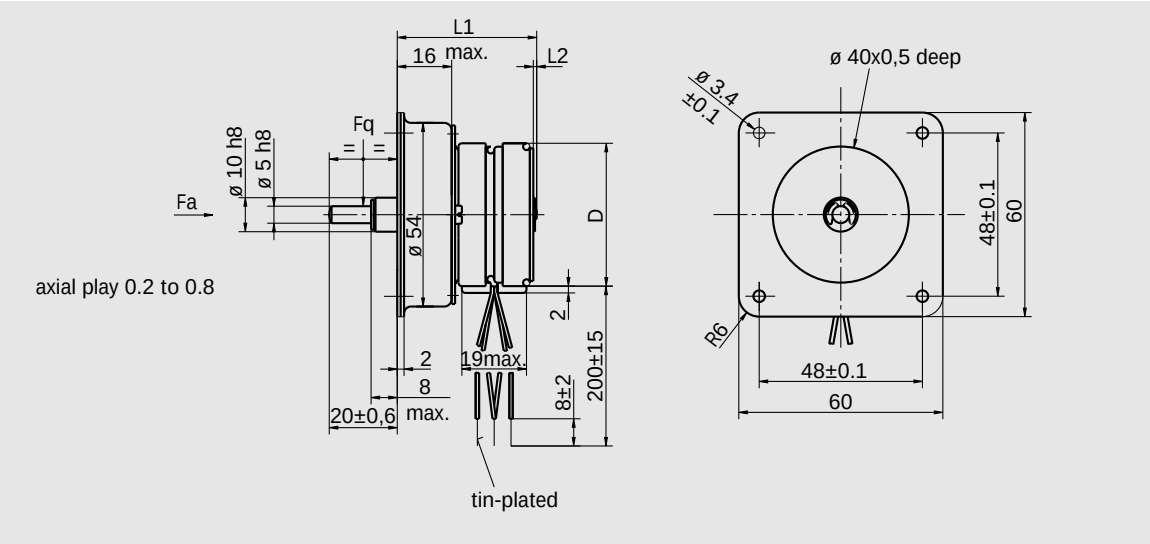


Motor-/ Gearbox combination Synchronous motors (RSM)

Motor type RSM	Gearbox type			
	L	T	G	P
36/8	✓	✓	✓	
36/10			✓	
42/8	✓	✓	✓	
51/8	✓	✓	✓	
63/8			✓	
63/10		✓	✓	
828			✓	✓
842			✓	
856			✓	
884			✓	
884 S			✓	✓

Synchronous motors

Synchronous motors
with gearbox type L



The illustration shows the combination of an RSM 42/8 with gearbox type L and stands for all following combinations of motor and gearbox.

Dimensions for combinations with RSM 36/8, 42/8 and 51/8

Motor type	D	L1	L2
RSM 36/8	36 mm	max. 40 mm	max. 3.5 mm
RSM 42/8	42 mm	max. 41 mm	max. 1.5 mm
RSM 51/8	50 mm	max. 45 mm	max. 3 mm

Gearbox type L

	Values
Max. torque M on the driven shaft	30 Ncm Danger of gear breaking if exceeded!
Permitted radial stress F_q	5 N
Permitted axial stress F_a	2 N
Corrosion protection	Housing finish zinc-plated
Driven Shaft	Nitrided
Bearings	Plain bearings
Seal at shaft exit	none

Synchronous motors

with gearbox type L

Gearbox type L withRSM 36/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V, 230 V	4 Ncm	4 Ncm	60 rpm	72 rpm	6.25
24 V	16 Ncm	15 Ncm	15.0 rpm	18.0 rpm	25
24 V	19 Ncm	18 Ncm	12.5 rpm	15.0 rpm	30
24 V	max. 30 Ncm	max. 30 Ncm	5.0 rpm	6.0 rpm	75
24 V, 230 V	max. 30 Ncm	max. 30 Ncm	1.0 rpm	1.2 rpm	375

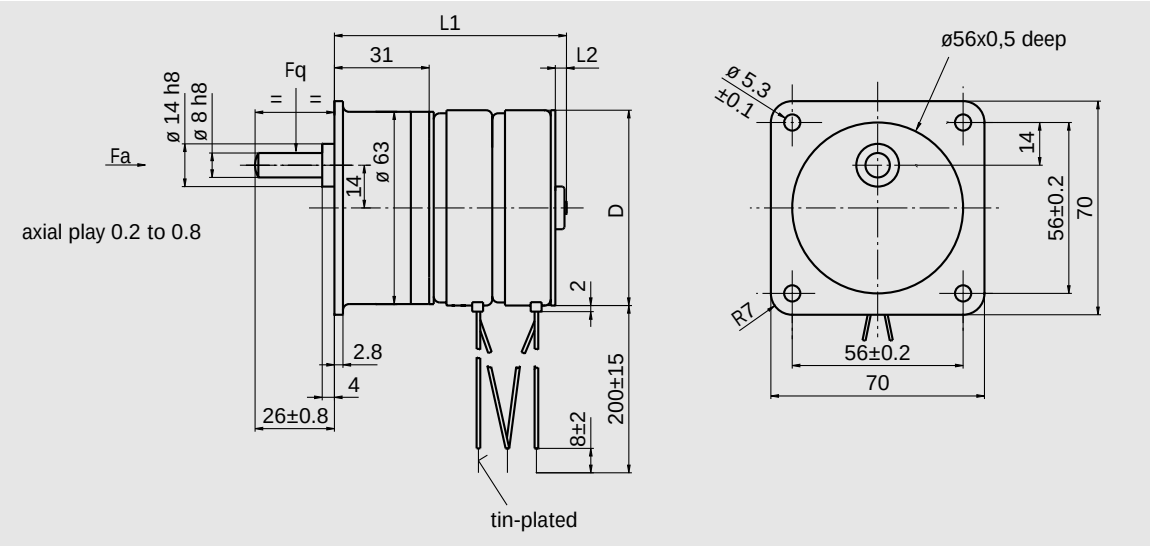
Gearbox type L with RSM 42/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
230 V	13 Ncm	12 Ncm	75.0 rpm	90.0 rpm	5
24 V, 230 V	16 Ncm	15 Ncm	60.0 rpm	72.0 rpm	6.25
24 V, 230 V	max. 30 Ncm	30 Ncm	30.0 rpm	36.0 rpm	12.5
24 V, 230 V	max. 30 Ncm	max. 30 Ncm	25.0 rpm	30.0 rpm	15
24 V, 230 V	max. 30 Ncm	max. 30 Ncm	15.0 rpm	18.0 rpm	25
24 V, 230 V	max. 30 Ncm	max. 30 Ncm	12.5 rpm	15.0 rpm	30

Gearbox type L with RSM 51/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
230 V	max. 30 Ncm	max. 30 Ncm	3.0 rpm	3.6 rpm	125

Synchronous motors
with gearbox type T



The illustration shows the combination of an RSM 63/8 with gearbox type T and stands for all following combinations of motor and gearbox.

Dimensions for combinations with RSM 36/8, 42/8, 51/8 and 63/10

Motor type	D	L1	L2
RSM 36/8	36 mm	max. 55 mm	max. 3.5 mm
RSM 42/8	42 mm	max. 56 mm	max. 1.5 mm
RSM 51/8	50 mm	max. 60 mm	max. 3 mm
RSM 63/10	63 mm	max. 77 mm	max. 4 mm

Gearbox type T

	Values
Max. torque M on the driven shaft	300 Ncm Danger of gear breaking if exceeded!
Permitted radial stress F_q	30 N
Permitted axial stress F_a	20 N
Corrosion protection	Housing finish zinc-plated
Driven shaft	Nitrided
Bearings	Plain bearings
Seal at shaft exit	Washer

Synchronous motors
with gearbox type T

Gearbox type T with RSM 36/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V	76 Ncm	71 Ncm	2.5 rpm	3.0 rpm	150
230 V	95 Ncm	89 Ncm	2.0 rpm	2.4 rpm	187.5
24 V	189 Ncm	177 Ncm	1.0 rpm	1.2 rpm	375

Gearbox type T with RSM 42/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V, 230 V	56 Ncm	53 Ncm	15.0 rpm	18.0 rpm	25
24 V, 230 V	84 Ncm	80 Ncm	10.0 rpm	12.0 rpm	37.5
230 V	112 Ncm	106 Ncm	7.5 rpm	9.0 rpm	50
24 V, 230 V	168 Ncm	159 Ncm	5.0 rpm	6.0 rpm	75
24 V, 230 V	189 Ncm	179 Ncm	4.0 rpm	4.8 rpm	93.75
230 V	max. 300 Ncm	286 Ncm	2.5 rpm	3.0 rpm	150
230 V	max. 300 Ncm	max. 300 Ncm	1.0 rpm	1.2 rpm	375

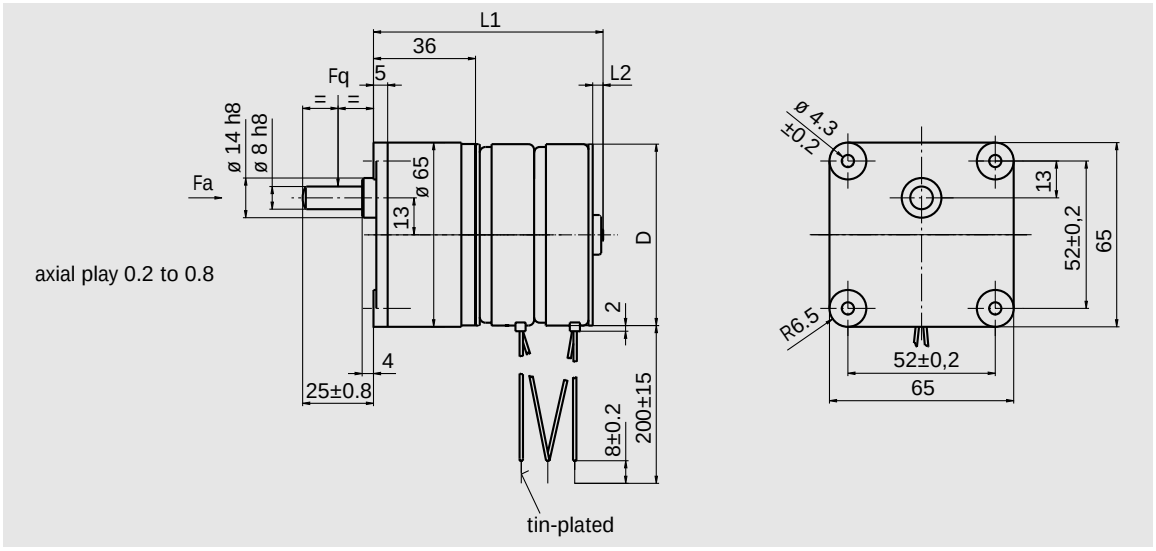
Gearbox type T with RSM 51/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
230 V	36 Ncm	34 Ncm	30.0 rpm	36.0 rpm	12.5
230 V	109 Ncm	103 Ncm	10.0 rpm	12.0 rpm	37.5
230 V	219 Ncm	205 Ncm	5.0 rpm	6.0 rpm	75
230 V	max. 300 Ncm	max. 300 Ncm	2 rpm	2.40 rpm	187.5
230 V	max. 300 Ncm	max. 300 Ncm	0.5 rpm	0.6 rpm	750

Gearbox type T with RSM 63/10

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V, 230 V	30 Ncm	23 Ncm	120.0 rpm	144.0 rpm	2.5
24 V, 230 V	67 Ncm	51 Ncm	48.0 rpm	57.6 rpm	6.25
24 V, 230 V	80 Ncm	61 Ncm	40.0 rpm	48.0 rpm	7.5
24 V, 230 V	180 Ncm	137 Ncm	16.0 rpm	19.2 rpm	18.75
24 V, 230 V	max. 300 Ncm	273 Ncm	8.0 rpm	9.6 rpm	37.5

Synchronous motors
with gearbox type G



The illustration shows the combination of an RSM 63/8 with gearbox type G and stands for all following combinations of motor and gearbox.

Dimensions for combinations with RSM 36/x, 42/8, 51/8 und 63/x

Motor type	D	L1	L2
RSM 36/x	36 mm	max. 70 mm	max. 3.5 mm
RSM 42/x	42 mm	max. 60 mm	max. 1.5 mm
RSM 63/x	63 mm	max. 88 mm	max. 4 mm

Gearbox type G

	Values
Max. torque M on the driven shaft	600 Ncm Danger of gear breaking if exceeded!
Permitted radial stress F_q	40 N
Permitted axial stress F_a	20 N
Corrosion protection	Housing finish zinc-plated
Driven shaft	Nitrided
Bearings	Plain bearings
Seal at shaft exit	Washer

Synchronous motors
with gearbox type G

Gearbox type G with RSM 36/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
230 V	max. 600 Ncm	max. 600 Ncm	7.5 h^{-1}	9.0 h^{-1}	3000

Gearbox type G with RSM 36/10

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
230 V	max. 600 Ncm	582 Ncm	12.0 h^{-1}	14.4 h^{-1}	1500
230 V	max. 600 Ncm	max. 600 Ncm	6.0 h^{-1}	7.2 h^{-1}	3000
24 V, 230 V	max. 600 Ncm	max. 600 Ncm	1.0 h^{-1}	1.2 h^{-1}	18000
230 V	max. 600 Ncm	max. 600 Ncm	0.33 h^{-1}	0.4 h^{-1}	54000
24 V	max. 600 Ncm	max. 600 Ncm	0.08 h^{-1}	0.1 h^{-1}	216000

Gearbox type G with RSM 42/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V	max. 600 Ncm	max. 600 Ncm	1.0 rpm	1.2 rpm	375
24 V	max. 600 Ncm	max. 600 Ncm	15.0 h^{-1}	18.0 h^{-1}	1500

Gearbox type G with RSM 51/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
230 V	55 Ncm	51 Ncm	20.0 rpm	24.0 rpm	18.75
230 V	73 Ncm	68 Ncm	15.0 rpm	18.0 rpm	25
230 V	146 Ncm	137 Ncm	7.5 rpm	9.0 rpm	50
230 V	164 Ncm	154 Ncm	6.0 rpm	7.2 rpm	62.5
230 V	197 Ncm	185 Ncm	5.0 rpm	6.0 rpm	75
230 V	246 Ncm	231 Ncm	4.0 rpm	4.8 rpm	93.75
230 V	354 Ncm	332 Ncm	2.5 rpm	3.0 rpm	150
230 V	max. 600 Ncm	max. 600 Ncm	1.0 rpm	1.2 rpm	375

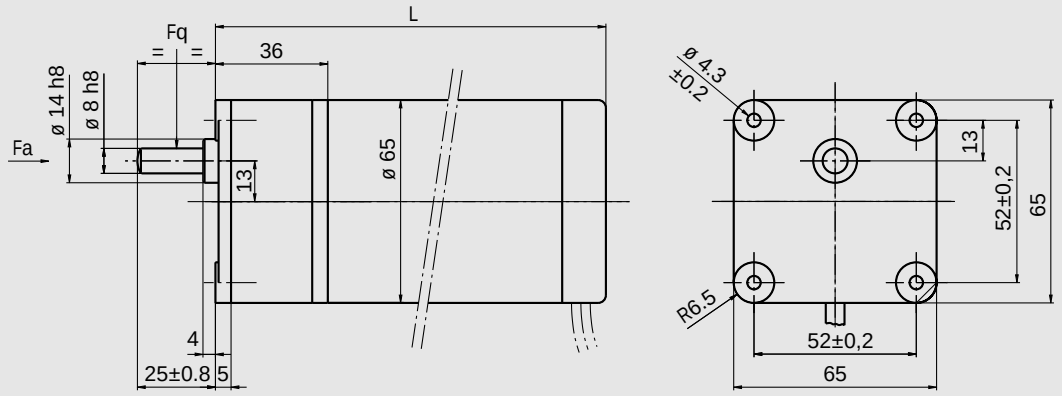
Gearbox type G with RSM 63/8

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V, 230 V	237 Ncm	213 Ncm	15.0 rpm	18.0 rpm	25
24 V, 230 V	474 Ncm	427 Ncm	7.5 rpm	9.0 rpm	50
24 V, 230 V	533 Ncm	480 Ncm	6.0 rpm	7.2 rpm	62.5

Gearbox type G with RSM 63/10

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V, 230 V	481 Ncm	365 Ncm	6.0 rpm	7.2 rpm	50
24 V, 230 V	max. 600 Ncm	max. 600 Ncm	2.0 rpm	2.4 rpm	150

Synchronous motors
with gearbox type G



axial play 0.2 to 0.8

Dimensions for combinations with RSM 8xx

Motor type	L
RSM 828	126 mm
RSM 842	140 mm
RSM 856	154 mm
RSM 884	182 mm

Gearbox type G

	Values
Max. torque M on the driven shaft	600 Ncm Danger of gear breaking if exceeded!
Permitted radial stress F_q	40 N
Permitted axial stress F_a	20 N
Corrosion protection	Housing finish zinc plated
Driven shaft	Nitrided
Bearings	Plain bearings
Seal at shaft exit	Washer

Synchronous motors
with gearbox type G

Gearbox type G with RSM 828

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V, 230 V	43 Ncm	40 Ncm	160 rpm	192 rpm	6.25
24 V, 230 V	61 Ncm	57 Ncm	100.0 rpm	120.0 rpm	10
24 V, 230 V	77 Ncm	71 Ncm	80.0 rpm	96.0 rpm	12.5
24 V, 230 V	102 Ncm	95 Ncm	60.0 rpm	72.0 rpm	16.66
24 V, 230 V	123 Ncm	114 Ncm	50.0 rpm	60.0 rpm	20
24 V, 230 V	184 Ncm	171 Ncm	30.0 rpm	36.0 rpm	33.3
24 V, 230 V	230 Ncm	213 Ncm	24.0 rpm	28.8 rpm	41.66
24 V, 230 V	367 Ncm	341 Ncm	15.0 rpm	18.0 rpm	66.66
24 V, 230 V	459 Ncm	426 Ncm	12.0 rpm	14.4 rpm	83.33
24 V, 230 V	496 Ncm	461 Ncm	10.0 rpm	12.0 rpm	100
24 V, 230 V	max. 600 Ncm	576 Ncm	8.0 rpm	9.6 rpm	125
24 V, 230 V	max. 600 Ncm	max. 600 Ncm	6.0 rpm	7.2 rpm	166.66
24 V, 230 V	max. 600 Ncm	max. 600 Ncm	5.0 rpm	6.0 rpm	200
24 V, 230 V	max. 600 Ncm	max. 600 Ncm	4.0 rpm	4.8 rpm	250
230 V	max. 600 Ncm	max. 600 Ncm	3.0 rpm	3.6 rpm	333.33

Gearbox type G with RSM 842

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V, 230 V	71 Ncm	66 Ncm	100.0 rpm	120.0 rpm	10
24 V, 230 V	117 Ncm	109 Ncm	60.0 rpm	72.0 rpm	16.66
24 V, 230 V	140 Ncm	131 Ncm	50.0 rpm	60.0 rpm	20
24 V, 230 V	175 Ncm	164 Ncm	40.0 rpm	48.0 rpm	25
24 V, 230 V	210 Ncm	197 Ncm	30.0 rpm	36.0 rpm	33.33
24 V, 230 V	262 Ncm	246 Ncm	24.0 rpm	28.8 rpm	41.66
24 V, 230 V	420 Ncm	394 Ncm	15.0 rpm	18.0 rpm	66.66
230 V	525 Ncm	492 Ncm	12.0 rpm	14.4 rpm	83.33
24 V, 230 V	567 Ncm	531 Ncm	10.0 rpm	12.0 rpm	100
230 V	max. 600 Ncm	max. 600 Ncm	8.0 rpm	9.6 rpm	125

Gearbox type G with RSM 856

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
230 V	54 Ncm	51 Ncm	200.0 rpm	240.0 rpm	5
24 V, 230 V	160 Ncm	153 Ncm	60.0 rpm	72.0 rpm	16.66
24 V, 230 V	289 Ncm	276 Ncm	30.0 rpm	36.0 rpm	33.33
24 V, 230 V	433 Ncm	413 Ncm	20.0 rpm	24.0 rpm	50
24 V, 230 V	max. 600 Ncm	max. 600 Ncm	10.0 rpm	12.0 rpm	100
230 V	max. 600 Ncm	max. 600 Ncm	8.0 rpm	9.6 rpm	125
230 V	max. 600 Ncm	max. 600 Ncm	6.0 rpm	7.2 rpm	166.66

Synchronous motors
with gearbox type G

Gearbox type G with RSM 884

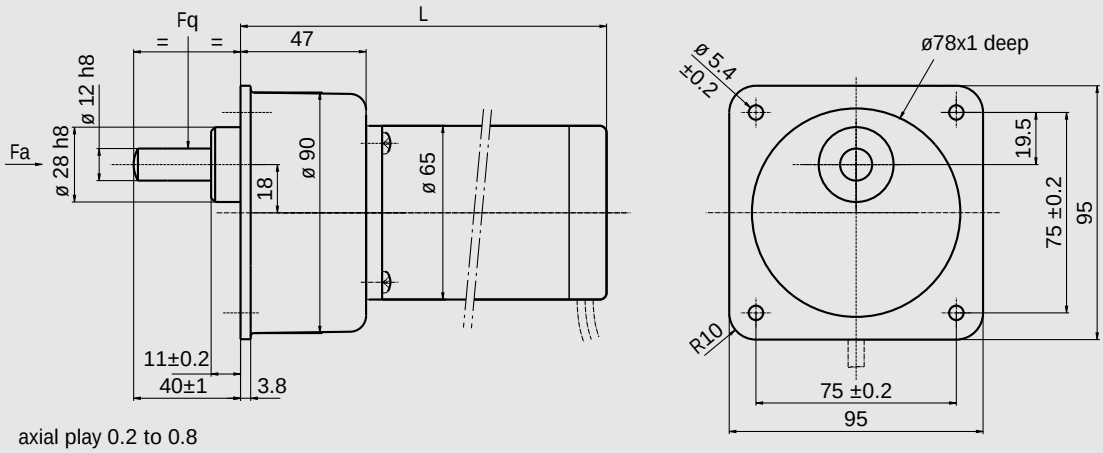
Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
230 V	132 Ncm	112 Ncm	100.0 rpm	120.0 rpm	10
24 V, 230 V	220 Ncm	186 Ncm	60.0 rpm	72.0 rpm	16.66
24 V, 230 V	264 Ncm	223 Ncm	50.0 rpm	60.0 rpm	20
24 V, 230 V	330 Ncm	279 Ncm	40.0 rpm	48.0 rpm	25
24 V, 230 V	396 Ncm	335 Ncm	30.0 rpm	36.0 rpm	33.33
230 V	495 Ncm	418 Ncm	24.0 rpm	28.8 rpm	41.66

Gearbox type G with RSM 884 S

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
230 V	134 Ncm	126 Ncm	200.0 rpm	240.0 rpm	5
230 V	167 Ncm	157 Ncm	160.0 rpm	192.0 rpm	6.25
230 V	241 Ncm	226 Ncm	100.0 rpm	120.0 rpm	10
24 V, 230 V	301 Ncm	283 Ncm	80.0 rpm	96.0 rpm	12.5
230 V	401 Ncm	377 Ncm	60.0 rpm	72.0 rpm	16.66
230 V	481 Ncm	452 Ncm	50.0 rpm	60.0 rpm	20
24 V	max. 600 Ncm	565 Ncm	40.0 rpm	48.0 rpm	25
24 V, 230 V	max. 600 Ncm	max. 600 Ncm	30.0 rpm	36.0 rpm	33.33
230 V	max. 600 Ncm	max. 600 Ncm	24.0 rpm	28.8 rpm	41.66
230 V	max. 600 Ncm	max. 600 Ncm	20.0 rpm	24.0 rpm	50
230 V	max. 600 Ncm	max. 600 Ncm	10.0 rpm	12.0 rpm	100

Synchronous motors

with gearbox type P



axial play 0.2 to 0.8

Dimensions for combinations with RSM 828 und 884 S

Motor type	L
RSM 828	137 mm
RSM 884 S	193 mm

Gearbox type P

	Values
Max. torque M on the driven shaft	1000 Ncm Danger of gear breaking if exceeded!
Permitted radial stress F_q	60 N
Permitted axial stress F_a	40 N
Corrosion protection	Housing finish zinc-plated
Driven shaft	Nitrided
Bearings	Plain bearings
Seal at shaft exit	Washer

Synchronous motors
with gearbox type P

Gearbox type P with RSM 828

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V, 230 V	345 Ncm	320 Ncm	16.0 rpm	19.2 rpm	62.5
24 V, 230 V	689 Ncm	640 Ncm	8.0 rpm	9.6 rpm	125
24 V, 230 V	max. 1000 Ncm	max. 1000 Ncm	4.0 rpm	4.8 rpm	250
24 V, 230 V	max. 1000 Ncm	max. 1000 Ncm	2.5 rpm	3.0 rpm	400
24 V, 230 V	max. 1000 Ncm	max. 1000 Ncm	2.0 rpm	2.4 rpm	500

Gearbox type P with RSM 884 S

Motor voltage	Torque M on driven shaft		Driven shaft speed n		Transmission ratio i
	50 Hz	60 Hz	50 Hz	60 Hz	
24 V, 230 V	601 Ncm	565 Ncm	40.0 rpm	48.0 rpm	25
230 V	902 Ncm	848 Ncm	26.7 rpm^{-1}	32.0 rpm	37.5
24 V, 230 V	max. 1000 Ncm	max. 1000 Ncm	20.0 rpm	24.0 rpm	50
24 V, 230 V	max. 1000 Ncm	max. 1000 Ncm	16.0 rpm	19.2 rpm	62.5
230 V	max. 1000 Ncm	max. 1000 Ncm	13.3 rpm	16.0 rpm	75
24 V, 230 V	max. 1000 Ncm	max. 1000 Ncm	10.7 rpm	12.8 rpm	93.75
24 V, 230 V	max. 1000 Ncm	max. 1000 Ncm	10.0 rpm	12.0 rpm	100
230 V	max. 1000 Ncm	max. 1000 Ncm	6.7 rpm	8.0 rpm	150

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