

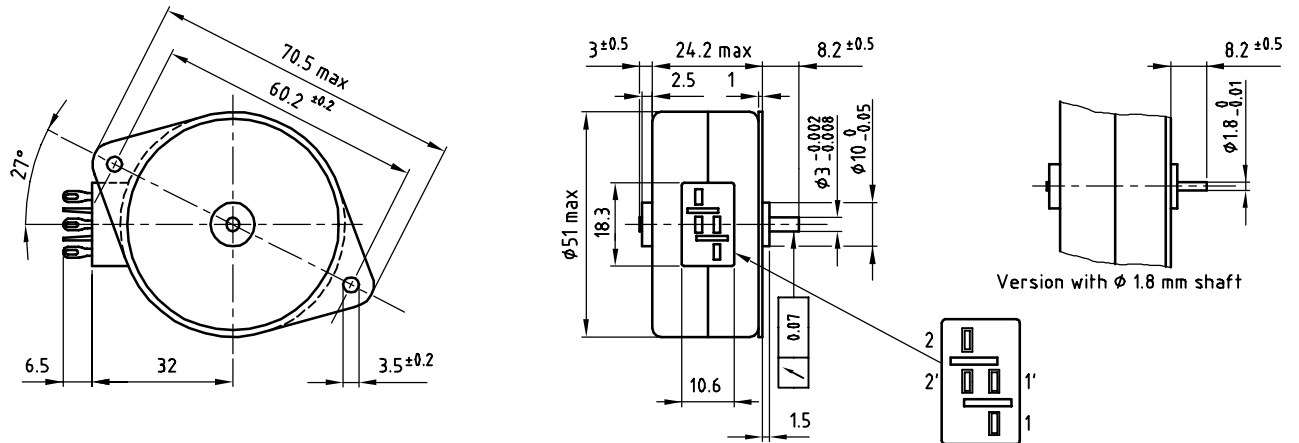
SY Serie - Synchron-Motoren



- AC - Synchronmotoren
- Klauenpol-Ausführung (Dosenmotor)
- hohe Lebensdauer
- ruhiger Lauf (Spezialausführung z.B. für hochwertige Plattenspieler)
- 3 Baugrößen mit jeweils mehreren Wicklungsoptionen
- Betriebsmoment von 4 bis 33mNm
- Wicklungen für 24 / 48 / 110/117 / 220Vac
- elektrische Anschlüsse: Stecker / flying leads (optional Stecker)
- optionales Getriebe

Motortyp	Motor Performance							Stirnrad-Getriebe	
	Wicklung	Spannung	ED	max. Betriebsmoment	Leistung	Geschwindigkeit bei 50Hz	Baugröße	Typ	Drehmoment
		Vac		mNm	W	rpm	d x h mm		Nm
SY32	parallel	24 / 48 / 110 / 117	100%	4	0,8	250	35 x 21,5	S49A / S52A / S70A	0,1 - 3
	seriell	48 / 110 / 117 / 220	100%	7	1,7	250	35 x 21,5	S49A / S52A / S70A	0,1 - 3
SY31		24 / 48 / 110 / 220	100%	20	3,5	250	51 x 24,2	S52A / S70A / S70B	0,1 - 10
SY35		24 / 48 / 110 / 220	100%	33	3,5	250	56,3 x 33,5	S70A / S70B	0,2 - 10
SY36		24 / 48 / 110 / 220	50%	33	6	500	56,3 x 33,5	S70A / S70B	0,2 - 10

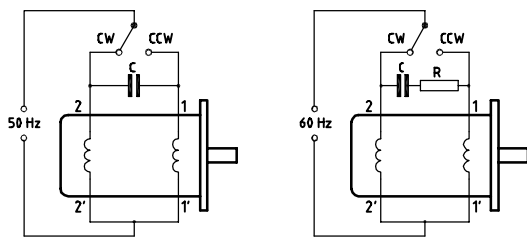
Dimensional drawing



Motor data

Motor order number	shaft ϕ 3 mm	9904 111 +	31504	31404	31304	31104
	shaft ϕ 1.8 mm	9904 111 +	31514	31414	31314	31114
Nominal Voltage	[V]	24	48	110	220	
Frequency	[Hz]	50	50	50	50	
Speed	[rpm]	250	250	250	250	
Current	[mA]	150	80	30	16	
Input Power	[W]	3.5	3.5	3.5	3.5	
Starting Torque	[mNm]	20	20	20	20	
Working Torque	[mNm]	20	20	20	20	
Torque derating	[%/K]	-0.4	-0.4	-0.4	-0.4	
Temperature rise of the motor	[°C]	60	60	60	60	
Required phasing capacitor C (MKT-type)	Capacity	[uF]	8	2.2	0.39	0.1
	Permissible a.c. voltage	[V]	≥ 63	≥ 100	≥ 250	≥ 400
For operating from 60 Hz mains voltage (resulting in a motorspeed of 300 rpm), a resistor must be connected in series with the phasing capacitor; the value of this resistor R		[ohm]	No resistor required	68 (0.5 W)	560 (0.5 W)	1800 (0.5 W)

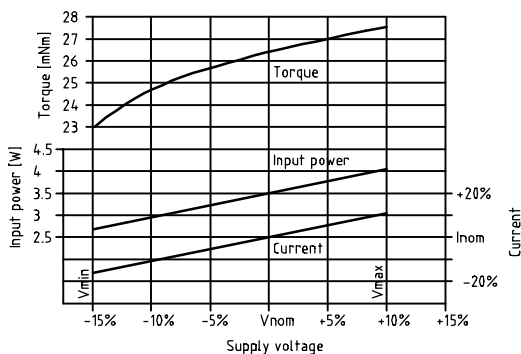
Electrical Connection



General data

x	Permissible voltage fluctuations	-15 to +10	%
x	Type of bearings	sleeve	
x	Maximum radial load	5	N
x	Maximum axial load	1.5	N
x	Ambient temp. range operating	-20/+60	°C
x	Ambient temp. range storage	-40/+100	°C
x	Mass of motor	160	g

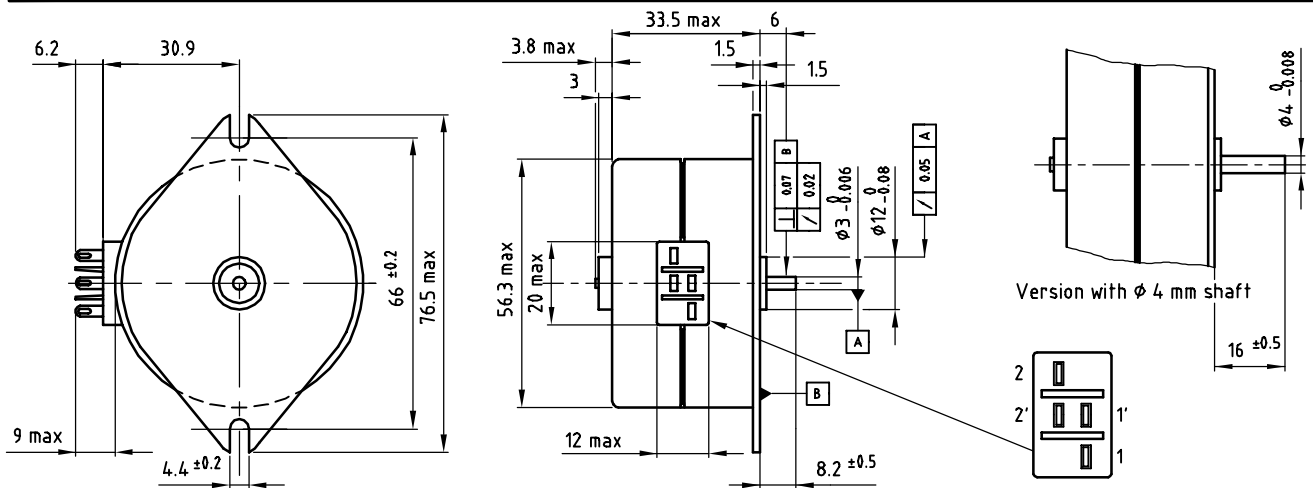
Performance curve



Product combinations

- x Gearbox S52A
- x Gearbox S70A
- x Gearbox S70B

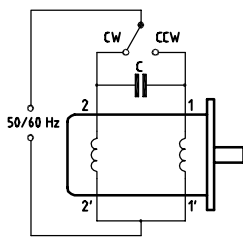
Dimensional drawing



Motor data

Motor order number	shaft ϕ 3 mm	9904 111 +	35504	35404	35304	35104
	shaft ϕ 4 mm	9904 111 +	35514	35414	35314	35114
Nominal Voltage	[V]	24	48	110	220	
Frequency	[Hz]	50 / 60	50 / 60	50 / 60	50 / 60	
Speed	[rpm]	250 / 300	250 / 300	250 / 300	250 / 300	
Current	[mA]	140	80	30	16	
Input Power	[W]	3.5	3.5	3.5	3.5	
Working Torque	[mNm]	33	33	33	33	
Torque derating	[%/K]	-0.4	-0.4	-0.4	-0.4	
Temperature rise of the motor	[°C]	55	55	55	55	
Required phasing capacitor C for 50 Hz operation (MKT-type)	Capacity	[μ F]	10	2.7	0.47	0.12
	Permissible a.c. voltage	[V]	≥ 63	≥ 100	≥ 250	≥ 400
Required phasing capacitor C for 60 Hz operation (MKT-type)	Capacity	[μ F]	8	2.2	0.39	0.1
	Permissible a.c. voltage	[V]	≥ 63	≥ 100	≥ 250	≥ 400

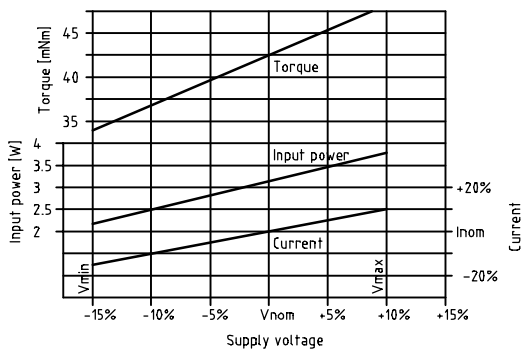
Electrical Connection



General data

x	Permissible voltage fluctuations	-15 to +10	%
x	Type of bearings	sleeve	
x	Maximum radial load	10	N
x	Maximum axial load	1.5	N
x	Ambient temp. range operating	-20/+70	°C
x	Ambient temp. range storage	-40/+100	°C
x	Mass of motor	300	g

Performance curve



Product combinations

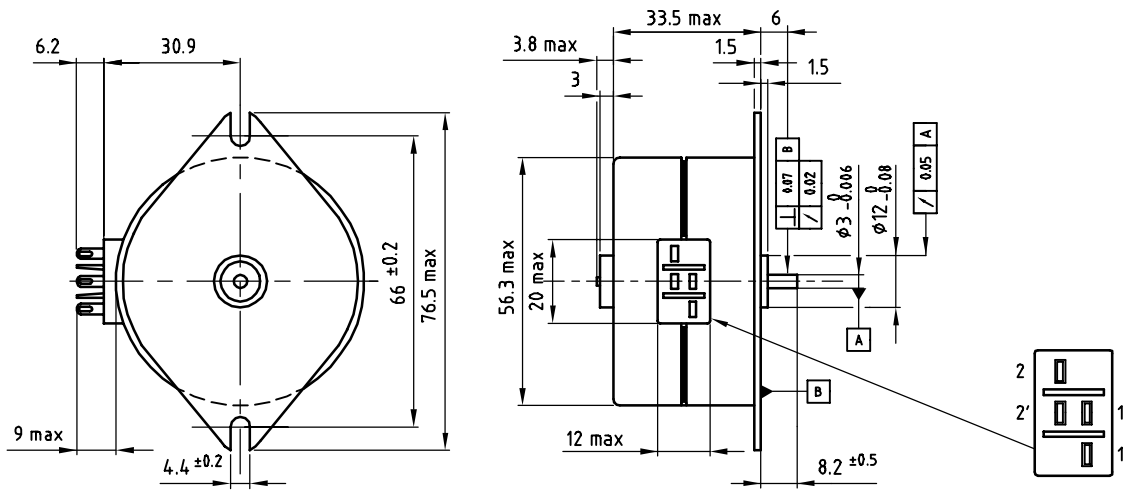
- x Gearbox S70A
- x Gearbox S70B

SY36

Synchronous motor

33 mNm

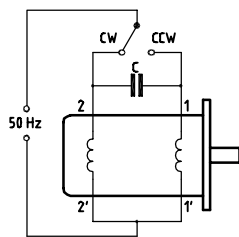
Dimensional drawing



Motor data

Motor order number		9904 111 +	36504	36404	36304	36104
Nominal Voltage	[V]	24	4.8	110	220	
Frequency	[Hz]	50	50	50	50	
Speed	[rpm]	500	500	500	500	
Current	[mA]	280	140	60	30	
Input Power	[W]	6	6	6	6	
Working Torque	[mNm]	33	33	33	33	
Torque derating	[%/K]	-0.4	-0.4	-0.4	-0.4	
Temperature rise of the motor	[°C]	55	55	55	55	
Duty factor	[%]	50	50	50	50	
Required phasing capacitor C (MKT-type)	Capacity	[μF]	18	4.7	0.82	0.22
	Permissible a.c. voltage	[V]	≥63	≥100	≥250	≥400

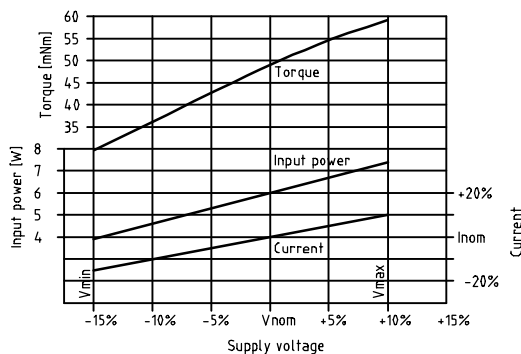
Electrical Connection



General data

x	Permissible voltage fluctuations	-15 to +10	%
x	Type of bearings	sleeve	
x	Maximum radial load	10	N
x	Maximum axial load	1.5	N
x	Ambient temp. range operating	-20/+70	°C
x	Ambient temp. range storage	-40/+100	°C
x	Mass of motor	300	g

Performance curve



Product combinations

- x Gearbox S70A
- x Gearbox S70B

