

Part-turn actuator			Motor							SCHWARZ power class switchgears	
Type	Operating time for 90° [in seconds]	Max. torque [Nm]	Motor type	Nominal power ¹ P _N [kW]	Speed [rpm]	Nominal current ² I _N [A]	Max. current ³ I _{max} [A]	Starting current I _A [A]	cos φ	Contactor	Thyristor
SMQ05	7.5	50	MB05-0.05	0.05	1400	0.25	0.25	1.1	0.67	C1	T1
	15		MB05-0.025	0.025	1400	0.25	0.25	1.1	0.67	C1	T1
	30		MB05-0.015	0.015	1400	0.19	0.25	1.1	0.60	C1	T1
SMQ10	7.5	100	MB10-0.12	0.12	1400	0.40	0.4	1.1	0.67	C1	T1
	15		MB10-0.06	0.06	1400	0.40	0.4	1.1	0.62	C1	T1
	30		MB10-0.03	0.03	1400	0.30	0.4	1.1	0.65	C1	T1
SMQ20	7.5	200	MB20-0.18	0.18	1400	0.70	0.9	3.2	0.69	C1	T1
	15		MB20-0.09	0.09	1400	0.60	0.7	1.7	0.68	C1	T1
	30		MB20-0.05	0.05	1400	0.50	0.6	1.0	0.62	C1	T1
SMQ30	7.5	300	MB30-0.24	0.24	1400	0.80	1.0	6.0	0.68	C1	T1
	15		MB30-0.12	0.12	1400	0.70	0.9	3.2	0.62	C1	T1
	30		MB30-0.06	0.06	1400	0.60	0.7	1.8	0.65	C1	T1
SMQ40	15	400	MB40-0.40	0.40	1400	1.20	1.3	3.0	0.65	C1	T1
	30		MB40-0.18	0.18	1400	1.00	1.1	2.5	0.62	C1	T1
	45		MB40-0.10	0.10	1400	0.80	0.9	2.0	0.67	C1	T1
SMQ60	15	600	MB60-0.18	0.18	1400	1.00	1.2	3.2	0.60	C1	T1
	30		MB60-0.09	0.09	1400	0.80	1.0	2.8	0.62	C1	T1
	45		MB60-0.05	0.05	1400	0.60	1.0	2.8	0.66	C1	T1
SMQ90	15	900	MB90-0.25	0.25	1400	1.30	1.6	4.7	0.62	C1	T1
	30		MB90-0.14	0.14	1400	1.15	1.3	4.0	0.65	C1	T1
	45		MB90-0.90	0.90	1400	0.97	1.0	3.6	0.67	C1	T1
SMQ120	15	1200	MB120-0.37	0.37	1400	1.70	2.0	4.8	0.62	C1	T1
	30		MB120-0.19	0.19	1400	1.49	1.6	4.2	0.62	C1	T1
	45		MB120-0.10	0.10	1400	1.27	1.4	3.8	0.61	C1	T1
SMQ150	15	1500	MB150-0.37	0.37	1400	1.70	3.2	9.2	0.64	C1	T1
	30		MB150-0.19	0.19	1400	1.49	1.6	4.2	0.62	C1	T1
	45		MB150-0.10	0.10	1400	1.27	1.4	3.8	0.61	C1	T1
SMQ200	15	2000	MB200-0.55	0.55	1400	2.40	4.2	17	0.68	C1	T1
	30		MB200-0.30	0.30	1400	1.80	3.6	14	0.63	C1	T1
	45		MB200-0.16	0.16	1400	1.20	1.8	12	0.67	C1	T1
SMQ250	15	2500	MB250-0.55	0.55	1400	2.40	5.2	17	0.69	C1	T1
	30		MB250-0.30	0.30	1400	1.80	3.6	14	0.63	C1	T1
	45		MB250-0.16	0.16	1400	1.20	1.8	12	0.67	C1	T1
SMQ350	15	3500	MB350-0.75	0.75	1400	3.00	5.9	23	0.68	C1	T1
	30		MB350-0.47	0.47	1400	2.60	4.8	20	0.61	C1	T1
	45		MB350-0.25	0.25	1400	1.50	3.1	17	0.68	C1	T1

Notes on table

- 1) Nominal power P_N Mechanical power output at motor shaft at running torque of multi-turn actuator (corresponds to approx. 35 % of maximum torque).
Consumed electrical power can be calculated using the following formula:
 $P = U \times I \times \cos \phi \times \sqrt{3}$
- 2) Nominal current I_N Current at running torque.
- 3) Max. current I_{max} Current at maximum torque

Notes on installation and sizing

Motor data Motor data is approximate. Due to usual manufacturing tolerances, there may be deviations from the values given.

Thermoswitches/PTC thermistors To protect against overheating, thermoswitches or PTC thermistors are embedded in the motor windings.

Actuators without integral controls:

Thermoswitches or PTC thermistors have to be considered within external controls (refer to terminal plan).

Note: Failure to connect thermoswitches or PTC thermistors shall void our warranty for the motor.

Rating of thermoswitches

AC current		DC current	
250 V, 50 – 60 Hz		60 V	1.0 A
cos φ = 1	2.5 A	42 V	1.2 A
cos φ = 0.6	1.6 A	24 V	1.5 A

Actuators with SC integral controls:

Thermal motor protection is already integrated.

Mains voltage, mains frequency Permissible variation of mains voltage: ±10 %

Permissible variation of mains frequency: ±5 %

Switchgear sizing	For motor operation, reversing contactors (mechanically, electrically and electronically locked) or thyristors (electronically locked) can be used.			
	<p>Actuators without integral controls:</p> <p>Switchgears are supplied by the customer. We recommend specification of switchgears suitable for their rated operating power/motor power in compliance with the assigned SCHWARZ power class.</p> <p>Switchgear assignment to SCHWARZ power classes:</p>			
	SCHWARZ power class	Reversing contactor Rated power according to EN 60947-4-1:2010 AC-3	Reversing contactor motor power according to UL/CSMQ at	
		380 V AC	480 V AC	600 V AC
	C1	4.0 kW	5.0 hp	5.0 hp
	C2	7.5 kW	10 hp	10 hp
	C3	15 kW	20 hp	25 hp
	C4	30 kW	60 hp	60 hp
	C5	55 kW	75 hp	100 hp
	<p>Actuators with SC integral controls:</p> <p>Required switchgears are already integrated.</p>			