

Electrical data Multi-turn actuators for Modulating duty with 3-phase AC motors

Intermittent duty S4-25%, 380V/50 Hz

Multi-turn actuator			Motor								
Type	Output speed rpm	Max. torque [NM]	Approximate weight [kg]	Motor type	Nominal power ¹ P _N [kW]	Nominal current ² I _N [A]	Max. current ³ I _{max} [A]	Starting current I _A [A]	cos φ	SCHWARZ power class switchgears	
										Contactor	Thyristor
SMR04.1	11	40	14	MD08-0.04	0.04	0.18	0.23	0.69	0.67	C1	T1
	14			MD08-0.06	0.06	0.23	0.31	0.93	0.79	C1	T1
	22			MD08-0.06	0.06	0.23	0.35	1.05	0.79	C1	T1
SMR06.1	9	60	18	MD20-0.06	0.09	0.39	0.51	1.53	0.7	C1	T1
	13			MD20-0.09	0.09	0.49	0.64	1.92	0.55	C1	T1
	19			MD20-0.09	0.09	0.49	0.74	2.22	0.55	C1	T1
SMR08.1	9	80	19	MD30-0.09	0.09	0.49	0.64	1.92	0.55	C1	T1
	13			MD30-0.12	0.12	0.58	0.81	2.43	0.62	C1	T1
	19			MD30-0.12	0.12	0.58	0.92	2.76	0.62	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 %

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Switchgear sizing

For motor operation, reversing contactors (mechanically, electrically and electronically locked) or thyristors (electronically locked) can be used.

Actuators without integral controls:

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.

Switchgear assignment to SCHWARZ power classes:

SCHWARZ power class	Reversing contactor		
	Rated power according to EN 60947-4-1:2010 AC-3	Reversing contactor motor power according to UL/CSMLR 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

Actuators with SC integral controls:

required switchgears are already integrated.