

Straight stroke actuator				Motor							SCHWARZ power class switchgears	
Type	Output speed [mm/s]	Max. torque [kN]	Stroke Max. mm	Motor type	Nominal power <sup>1</sup> P <sub>N</sub> [kW]	Nominal current <sup>2</sup> I <sub>N</sub> [A]	Max. current <sup>3</sup> I <sub>max</sub> [A]	Starting current I <sub>A</sub> [A]	cos φ	Contactor	Thyristor	
SML03	0.75	3	25	MD03-0.015	0.015	0.09	0.12	0.36	0.51	C1	T1	
	1.0			MD03-0.03	0.03	0.11	0.14	0.42	0.82	C1	T1	
	1.5			MD03-0.03	0.03	0.11	0.16	0.48	0.82	C1	T1	
SML05	0.75	5	40	MD05-0.02	0.02	0.12	0.07	0.21	0.5	C1	T1	
	1.0			MD05-0.045	0.045	0.16	0.21	0.63	0.85	C1	T1	
	1.5			MD05-0.045	0.045	0.16	0.24	0.72	0.85	C1	T1	
SML08	0.75	8	60	MD08-0.04	0.04	0.18	0.23	0.69	0.67	C1	T1	
	1.0			MD08-0.06	0.06	0.23	0.31	0.93	0.79	C1	T1	
	1.5			MD08-0.06	0.06	0.23	0.35	1.05	0.79	C1	T1	
SML10	0.75	10	60	MD10-0.04	0.04	0.33	0.43	1.29	0.37	C1	T1	
	1.0			MD10-0.09	0.09	0.41	0.53	1.59	0.66	C1	T1	
	1.5			MD10-0.09	0.09	0.41	0.62	1.86	0.66	C1	T1	
SML16	0.75	16	60	MD16-0.06	0.06	0.36	0.47	1.41	0.51	C1	T1	
	1.0			MD16-0.09	0.09	0.45	0.49	1.47	0.61	C1	T1	
	1.5			MD16-0.09	0.09	0.45	0.59	1.77	0.61	C1	T1	
SML20	0.75	20	60	MD20-0.06	0.09	0.39	0.51	1.53	0.7	C1	T1	
	1.0			MD20-0.09	0.09	0.49	0.64	1.92	0.55	C1	T1	
	1.5			MD20-0.09	0.09	0.49	0.74	2.22	0.55	C1	T1	
SML25	0.75	25	100	MD25-0.09	0.09	0.42	0.55	1.65	0.65	C1	T1	
	1.0			MD25-0.12	0.12	0.52	0.68	2.04	0.7	C1	T1	
	1.5			MD25-0.12	0.12	0.52	0.82	2.46	0.7	C1	T1	
SML30	0.75	30	100	MD30-0.09	0.09	0.49	0.64	1.92	0.55	C1	T1	
	1.0			MD30-0.12	0.12	0.58	0.81	2.43	0.62	C1	T1	
	1.5			MD30-0.12	0.12	0.58	0.92	2.76	0.62	C1	T1	

**Notes on table**

- 1) Nominal power P<sub>N</sub> 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<sub>N</sub> Current at running torque.
- 3) Max. current I<sub>max</sub> 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.

**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/CSMRL 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.