

Straight stroke actuator				Motor							SCHWARZ power class switchgears	
Type	Output speed [mm/ s]	Max. torque [kN]	Stroke Max. mm	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	Contactor	Thyristor	
SML03	0.75	3	25	MS03-0.02	0.02	0.28	0.38	0.87	0.32	C1	T1	
	1.0			MS03-0.03	0.03	0.31	0.42	0.96	0.44	C1	T1	
	1.5			MS03-0.03	0.03	0.31	0.42	0.96	0.44	C1	T1	
SML05	0.75	5	40	MS05-0.025	0.025	0.39	0.53	1.21	0.29	C1	T1	
	1.0			MS05-0.045	0.045	0.42	0.57	1.30	0.49	C1	T1	
	1.5			MS05-0.045	0.045	0.42	0.57	1.30	0.49	C1	T1	
SML08	0.75	8	60	MS08-0.04	0.04	0.57	0.77	1.77	0.32	C1	T1	
	1.0			MS08-0.06	0.06	0.62	0.84	1.93	0.44	C1	T1	
	1.5			MS08-0.06	0.06	0.62	0.84	1.93	0.44	C1	T1	
SML10	0.75	10	60	MS10-0.06	0.06	0.73	0.99	2.27	0.37	C1	T1	
	1.0			MS10-0.09	0.09	0.82	1.11	2.55	0.50	C1	T1	
	1.5			MS10-0.09	0.09	0.82	1.11	2.55	0.50	C1	T1	
SML16	0.75	16	60	MS16-0.06	0.06	0.69	0.93	2.14	0.40	C1	T1	
	1.0			MS16-0.09	0.09	0.85	1.15	2.64	0.48	C1	T1	
	1.5			MS16-0.09	0.09	0.85	1.15	2.64	0.48	C1	T1	
SML20	0.75	20	60	MS20-0.06	0.06	0.72	0.97	2.24	0.38	C1	T1	
	1.0			MS20-0.09	0.09	0.87	1.17	2.70	0.47	C1	T1	
	1.5			MS20-0.09	0.09	0.87	1.17	2.70	0.47	C1	T1	
SML25	0.75	25	100	MS25-0.09	0.09	1.09	1.47	3.38	0.38	C1	T1	
	1.0			MS25-0.12	0.12	1.22	1.65	3.79	0.45	C1	T1	
	1.5			MS25-0.12	0.12	1.22	1.65	3.79	0.45	C1	T1	
SML30	0.75	30	100	MS30-0.09	0.09	1.16	1.57	3.6	0.35	C1	T1	
	1.0			MS30-0.12	0.12	1.28	1.73	3.97	0.43	C1	T1	
	1.5			MS30-0.12	0.12	1.28	1.73	3.97	0.43	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:
 $P = U \times I \times \cos \phi$
- 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.

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		Reversing contactor	
	Rated power according to EN 60947-4-1:2010 AC-3		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.