

| Straight stroke actuator | | | | Motor | | | | | | | |
|--------------------------|---------------------|------------------|----------------|------------|--|---|--|-------------------------------------|-------|---------------------------------|-----------|
| 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 | SCHWARZ power class switchgears | |
| | | | | | | | | | | Contactor | Thyristor |
| SMLR03 | 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 |
| SMLR05 | 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 |
| SMLR08 | 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 |
| SMLR10 | 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 |
| SMLR16 | 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 |
| SMLR20 | 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 |
| SMLR25 | 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 |
| SMLR30 | 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_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%

Electrical data Straight stroke actuators for modulating duty with 3-phase AC motors

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

| 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/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 |
| | <p>Actuators with SC integral controls:</p> <p>required switchgears are already integrated.</p> | | | |