

## SQ 05.2 – SQ 14.2

### Electrical data Part-turn actuators for open-close duty with 3-phase AC motors

#### Short-time duty S2 - 15 min, 220 V/50 Hz

Part-turn actuator			Motor											
Type	Operating time for 90° in seconds	Max. torque [Nm]	Motor type	Nominal power <sup>1)</sup> P <sub>N</sub> [kW]	Speed [rpm]	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	Overcurrent protection device setting [A]	AUMA power class for switch-gear			
											Contact-tor	Thyristor		
SQ 05.2	4	150	VD00063-2-0,06	0.06	2,800	1.1	1.1	3.5	0.57	1.1	A1	B1		
	5.6					1.1	1.1	3.5	0.57	1.1	A1	B1		
	8		VD00063-4-0,04	0.04	1,400	0.7	0.7	1.8	0.50	0.7	A1	B1		
	11					0.7	0.7	1.8	0.50	0.7	A1	B1		
	16		VD00063-4-0,02	0.02	1,400	0.7	0.7	1.8	0.40	0.7	A1	B1		
	22					0.7	0.7	1.8	0.40	0.7	A1	B1		
	32		SD00063-4-0,01	0.01	1,400	0.5	0.5	1.3	0.38	0.5	A1	B1		
63	0.7	0.7				0.9	0.61	0.7	A1	B1				
SQ 07.2	4	300	VD00063-2-0,12	0.12	2,800	1.3	1.6	5.5	0.52	1.6	A1	B1		
	5.6					1.3	1.6	5.5	0.52	1.6	A1	B1		
	8		VD00063-4-0,06	0.06	1,400	1.1	1.3	2.9	0.38	1.3	A1	B1		
	11					1.1	1.3	2.9	0.38	1.3	A1	B1		
	16		VD00063-4-0,03	0.03	1,400	0.7	0.7	1.8	0.43	0.7	A1	B1		
	22					0.7	0.7	1.8	0.43	0.7	A1	B1		
	32		SD00063-4-0,01	0.01	1,400	0.5	0.5	1.3	0.38	0.5	A1	B1		
63	0.7	0.7				0.9	0.61	0.7	A1	B1				
SQ 10.2	8	450	VD00063-4-0,10	0.10	1,400	1.5	1.8	3.6	0.48	1.8	A1	B1		
	11					1.5	1.6	3.6	0.48	1.6	A1	B1		
	16		SD00063-4-0,06	0.06	1,400	1.1	1.3	2.9	0.38	1.3	A1	B1		
	22	1.1				1.3	2.9	0.38	1.3	A1	B1			
	32	SD00063-4-0,04				0.04	1,400	0.9	0.9	1.8	0.48	0.9	A1	B1
	45							0.9	0.9	1.8	0.48	0.9	A1	B1
	63	SD00063-4-0,02	0.02	1,400	0.5	0.5	1.3	0.43	0.5	A1	B1			
90	0.9				0.9	1.8	0.48	0.9	A1	B1				
SQ 12.2	11	900	VD00063-2-0,19	0.19	2,800	1.8	2.2	6.4	0.53	2.2	A1	B1		
	16					1.5	1.8	3.6	0.48	1.8	A1	B1		
	22		VD00063-4-0,10	0.10	1,400	1.5	1.6	3.6	0.48	1.6	A1	B1		
	32	1.1				1.3	2.9	0.38	1.3	A1	B1			
	45	SD00063-4-0,06	0.06	1,400	1.1	1.3	2.9	0.38	1.3	A1	B1			
	63				0.9	0.9	1.8	0.48	0.9	A1	B1			
	90				0.9	0.9	1.8	0.48	0.9	A1	B1			
125	0.5				0.5	1.3	0.43	0.5	A1	B1				
SQ 14.2	24	1,800	VD00063-2-0,19	0.19	2,800	1.8	2.2	6.4	0.53	2.2	A1	B1		
	36					1.5	1.6	3.6	0.48	1.6	A1	B1		
	48	2,400	VD00063-4-0,10	0.10	1,400	1.5	1.6	3.6	0.48	1.6	A1	B1		
	72					1.1	1.3	2.9	0.38	1.3	A1	B1		
	100					1.1	1.3	2.9	0.38	1.3	A1	B1		

#### Notes on table

1) Nominal power P <sub>N</sub>	Mechanical power output at motor shaft at running torque of part-turn actuator (corresponds to approx. 35 % of maximum torque). The consumed electrical power can be calculated using the following formula: $P = U \times I \times \cos \varphi \times \sqrt{3}$
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.																
Motor protection	To protect against overheating, thermoswitches or PTC thermistors are embedded in the motor windings.  <b>Actuators without integral controls (AUMA NORM):</b> Thermoswitches or PTC thermistors have to be considered within the external controls (refer to terminal plan). <b>Note: Failure to connect thermoswitches or PTC thermistors shall void the warranty for the motor.</b> <b>Rating of the thermoswitches</b> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="2">AC current</th> <th colspan="2">DC current</th> </tr> </thead> <tbody> <tr> <td colspan="2">250 V, 50 – 60 Hz</td> <td>60 V</td> <td>1.0 A</td> </tr> <tr> <td>cos φ = 1</td> <td>2.5 A</td> <td>42 V</td> <td>1.2 A</td> </tr> <tr> <td>cos φ = 0.6</td> <td>1.6 A</td> <td>24 V</td> <td>1.5 A</td> </tr> </tbody> </table> <b>Actuators with AM or AC integral controls:</b> Thermal motor protection is already integrated.	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
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														

We reserve the right to alter data according to improvements made. Previous documents become invalid with the issue of this document.

Mains voltage, mains frequency	Permissible variation of mains voltage: $\pm 10\%$ Permissible variation of mains frequency: $\pm 5\%$		
Switchgear sizing	For motor operation, reversing contactors (mechanically, electrically and electronically locked) or thyristors (electronically locked) can be used.		
	<b>Actuators without integral controls (AUMA NORM):</b>		
	Switchgear are supplied by the customer. We recommend specification of switchgear suitable for their rated operating power/motor power in compliance with the assigned AUMA power class.		
	Switchgear assignment to AUMA power classes:		
	<b>AUMA power class</b>	<b>Reversing contactor Rated operating power acc. to EN 60947-4-1 Utilization category AC-3</b>	<b>Reversing contactor Motor power according to UL/CSA at</b>
A1	400 V AC 4.0 kW	480 V AC 5.0 hp	600 V AC 5.0 hp
<b>AUMA power class</b>	<b>Thyristor Rated operating current acc. to EN 60947-4-2 Utilization category AC-53a</b>		
B1	400 V AC 6 A		
	<b>Actuators with AM or AC integral controls:</b>		
	Required switchgear in power classes A1 or B1 are directly integrated in AM or AC controls.		