

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, 200 V/60 Hz

Part-turn actuator			Motor									
Type	Operating time for 90° in seconds	Max. torque [Nm]	Motor type	Nominal power ¹⁾ P _N [kW]	Speed [rpm]	Nominal current ²⁾ I _N [A]	Max. current ³⁾ I _{max} [A]	Starting current I _A [A]	cos φ	Overcurrent protection device setting [A]	AUMA power class for switch-gear	
											Contact-tor	Thyristor
SQ 05.2	3	150	VD00063-2-0,06	0,06	3,360	1.4	1.4	4.6	0.57	1.4	A1	B1
	4.5					1.4	1.4	4.6	0.57	1.4	A1	B1
	6		VD00063-4-0,04	0.04	1,680	1.0	1.0	2.4	0.50	1.0	A1	B1
	9					1.0	1.0	2.4	0.50	1.0	A1	B1
	12		VD00063-4-0,02	0.02	1,680	1.0	1.0	2.4	0.40	1.0	A1	B1
	17					1.0	1.0	2.4	0.40	1.0	A1	B1
25	SD00063-4-0,01	0.01	1,680	0.7	0.7	1.7	0.38	0.7	A1	B1		
50				SD00063-8-0,01	840	1.0	1.0	1.2	0.61	1.0	A1	B1
SQ 07.2	3	300	VD00063-2-0,12	0.12	3,360	1.7	2.2	7.2	0.52	2.2	A1	B1
	4.5					1.7	2.2	7.2	0.52	2.2	A1	B1
	6		VD00063-4-0,06	0.06	1,680	1.4	1.7	3.8	0.38	1.7	A1	B1
	9					1.4	1.7	3.8	0.38	1.7	A1	B1
	12		VD00063-4-0,03	0.03	1,680	1.0	1.0	2.4	0.43	1.0	A1	B1
	17					1.0	1.0	2.4	0.43	1.0	A1	B1
25	SD00063-4-0,01	0.01	1,680	0.7	0.7	1.7	0.39	0.7	A1	B1		
50				SD00063-8-0,01	840	1.0	1.0	1.2	0.61	1.0	A1	B1
SQ 10.2	6	450	VD00063-4-0,10	0.10	1,680	1.9	2.4	4.8	0.48	2.4	A1	B1
	9					1.9	2.2	4.8	0.48	2.2	A1	B1
	12		SD00063-4-0,06	0.06	1,680	1.4	1.7	3.8	0.38	1.7	A1	B1
	17	1.4				1.7	3.8	0.38	1.7	A1	B1	
	25	SD00063-4-0,04				0.04	1,680	1.2	1.2	2.4	0.48	1.2
	35		1.2	1.2	2.4			0.48	1.2	A1	B1	
50	SD00063-4-0,02		0.02	1,680	0.7			0.7	1.7	0.43	0.7	A1
SQ 12.2	9	900	VD00063-2-0,19	0.19	3,360	2.4	2.9	8.4	0.53	2.9	A1	B1
	12					1.9	2.4	4.8	0.48	2.4	A1	B1
	17		VD00063-4-0,10	0.10	1,680	1.9	2.2	4.8	0.48	2.2	A1	B1
	25	SD00063-4-0,06	0.06	1,680	1.4	1.7	3.8	0.38	1.7	A1	B1	
	35				1.4	1.7	3.8	0.38	1.7	A1	B1	
	50				SD00063-4-0,04	0.04	1,680	1.2	1.2	2.4	0.48	1.2
75	1.2	1.2	2.4	0.48				1.2	A1	B1		
108	VD00063-4-0,02	0.02	1,680	0.7				0.7	1.7	0.43	0.7	A1
SQ 14.2	20	1,800	VD00063-2-0,19	0.19	3,360	2.4	2.9	8.4	0.53	2.9	A1	B1
	30					1.9	2.2	4.8	0.48	2.2	A1	B1
	40	VD00063-4-0,10	0.10	1,680	1.9	2.2	4.8	0.48	2.2	A1	B1	
	60				1.9	2.2	4.8	0.48	2.2	A1	B1	
	85				SD00063-4-0,06	0.06	1,680	1.4	1.7	3.8	0.38	1.7

Notes on table

1) Nominal power P _N	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 _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 (AUMA NORM): Thermoswitches or PTC thermistors have to be considered within the external controls (refer to terminal plan). Note: Failure to connect thermoswitches or PTC thermistors shall void the warranty for the motor. Rating of the thermoswitches <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> Actuators with AM or AC integral controls: 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
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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.																								
	Actuators without integral controls (AUMA NORM):																								
	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.																								
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