SAEx 25.1 – SAEx 40.1
Electrical data multi-turn actuators for open-close duty with 3-phase AC motors
Short-time duty S2 - 30 min, 440 V/60 Hz

auma®

Multi-turn actuator			Motor									
Type	Output speed [rpm]	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	Overcurr. prot. device setting [A]	Contactor	Thyristor
SAEx 25.1	4.8	1,400	ADXL 90-8/130	0.75	840	6.4	8.0	16	0.48	6.4	A1	B3
	6.7					6.4	9.0	16	0.48	6.4	A1	B3
	9.6		ADXL 90-4/130	2.2	1,680	6.0	8.0	34	0.80	6.0	A2	B3
	13					6.0	9.0	34	0.80	6.0	A2	B3
	19		ADXL 90-2/130	3.0	3,360	7.8	10	54	0.78	7.8	A2	B3
	26					7.8	14	54	0.78	7.8	A2	B3
	38		ADXL 132-4/140	5.5	1,680	18	33	110	0.70	18	A2	–
	54					18	40	110	0.70	18	A2	–
	75		ADXL 132-2/180	11	3,360	22	45	174	0.80	22	A3	–
	108					22	52	174	0.80	22	A3	–
SAEx 30.1	4.8	2,800	ADXL 112-8/140	1.5	840	9.5	12	34	0.50	9.5	A2	B3
	6.7					9.5	13	34	0.50	9.5	A2	B3
	9.6		ADXL 112-4/110	4.0	1,680	10	13	55	0.81	10	A2	–
	13					10	14	55	0.81	10	A2	–
	19		ADXL 112-2/140	5.5	3,360	12	25	110	0.73	12	A2	–
	26					12	35	110	0.73	12	A2	–
	38		ADXL 160-4/160	11	1,680	36	47	170	0.65	36	A4	–
	54					36	55	170	0.65	36	A4	–
	75		ADXL 160-2/215	22	3,360	42	85	340	0.84	42	A4	–
	108					42	97	340	0.84	42	A4	–
SAEx 35.1	4.8	5,700	ADXL 132-8/150	3.0	840	15	22	62	0.47	15	A2	–
	6.7					15	26	62	0.47	15	A2	–
	9.6		ADXL 132-4/140	5.5	1,680	18	36	110	0.70	18	A2	–
	13					18	44	110	0.70	18	A2	–
	19		ADXL 132-2/180	11	3,360	22	48	174	0.80	22	A3	–
	26					22	58	174	0.80	22	A3	–
	38		ADXL 160-2/214	14	3,360	26	52	220	0.94	26	A4	–
	54					26	62	220	0.94	26	A4	–
SAEx 40.1	4.8	11,200	ADXL 160-8/165	5.5	840	23	42	88	0.47	23	A3	–
	6.7					23	44	88	0.47	23	A3	–
	9.6		ADXL 160-4/160	11	1,680	36	55	200	0.65	36	A4	–
	13					36	65	200	0.65	36	A4	–
	19		ADXL 160-2/215	22	3,360	42	95	340	0.84	42	A4	–
	26					42	120	340	0.84	42	A4	–
	38	9,800	ADXL 160-2/215	22	3,360	42	150	340	0.84	42	A4	–

Notes on table		
1)	Nominal power P_N	Mechanical power output at motor shaft at running torque of multi-turn actuator (corresponds to approx. 50 % of maximum torque). The consumed electrical power can be calculated using the following formula: $P = U \times I \times \cos φ \times \sqrt{3}$
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.

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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. According to EN 60079-14, a thermal overcurrent protection device (e.g. motor protection switch) must be installed for explosion-proof actuators in addition to the thermoswitches. PTC thermistors additionally require a suitable tripping device in the controls.

Rating of the thermoswitches

AC current		DC current	
250 V, 50 – 60 Hz		60 V	1.0 A
$\cos \varphi = 1$	2.5 A	42 V	1.2 A
$\cos \varphi = 0.6$	1.6 A	24 V	1.5 A

Actuators with AMExC or ACExC 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 (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.

Switchgear assignment to AUMA power classes:

AUMA power class	Reversing contactor Rated operating power acc. to EN 60947-4-1 Utilization category AC-3	Reversing contactor Motor power according to UL/CSA at	
	400 V AC	480 V AC	600 V AC
A1	4.0 kW	5.0 hp	5.0 hp
A2	7.5 kW	10 hp	10 hp
A3	15 kW	20 hp	25 hp
A4	30 kW	60 hp	60 hp
A5	55 kW	75 hp	100 hp
A6	75 kW	100 hp	125 hp

AUMA power class	Thyristor Rated operating current acc. to EN 60947-4-2 Utilization category AC-53a
	400 V AC
B1	6 A
B2	8.5 A
B3	16 A

Actuators with AMExC or ACExC integral controls:

Required switchgear in power classes A1 – A3 or B1 – B3 are already integrated in AMExC or ACExC controls. For switchgear of power classes A4 – A6, a control box is additionally required.

For actuators with AMExC integral actuator controls and installed switchgear in AUMA power class A3, an optional thermal overcurrent protection device cannot be directly integrated within the AMExC. An additional control box is required. However, ACExC actuator controls can be used instead of AMExC controls. When opting for ACExC controls, the additional control box can be omitted.

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