

Electrical data Multi-turn actuators for modulating duty with 3-phase AC motors Intermittent duty S4 - 25 %, 400 V/50 Hz	SAR 07.2 – SAR 16.2
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Multi-turn actuator			Motor									
Type	Speed rpm	Torque max. Nm	Type	Power ¹⁾ PN (kW)	Speed rpm	Nominal current ²⁾ In (A)	Current ³⁾ approx. Imax. (A)	Starting current Ia (A)	cos φ	Setting Overcurrent prot. device (A)	AUMA Power class	
											Contact ⁴⁾	Thyristor ⁴⁾
SAR 07.2	4	30	VDOR063-4-0.02	0.02	1,400	0.4	0.3	1.0	0.40	0.3	A1	B1
	5.6		VDOR063-4-0.02	0.02	1,400	0.4	0.4	1.0	0.40	0.4	A1	B1
	8		VDOR063-4-0.04	0.04	1,400	0.4	0.4	1.0	0.50	0.4	A1	B1
	11		VDOR063-4-0.04	0.04	1,400	0.4	0.5	1.0	0.50	0.5	A1	B1
	16		VDOR063-2-0.06	0.06	2,800	0.6	0.6	1.9	0.57	0.6	A1	B1
	22		VDOR063-2-0.06	0.06	2,800	0.6	0.7	1.9	0.57	0.7	A1	B1
	32		ADOR063-4-0.10	0.10	1,400	1.0	1.0	2.4	0.42	1.0	A1	B1
	45		ADOR063-4-0.10	0.10	1,400	1.0	1.0	2.4	0.42	1.0	A1	B1
SAR 07.6	4	60	VDOR063-4-0.03	0.03	1,400	0.4	0.4	1.0	0.43	0.4	A1	B1
	5.6		VDOR063-4-0.03	0.03	1,400	0.4	0.5	1.0	0.43	0.5	A1	B1
	8		VDOR063-4-0.06	0.06	1,400	0.6	0.7	1.6	0.38	0.7	A1	B1
	11		VDOR063-4-0.06	0.06	1,400	0.6	0.7	1.6	0.38	0.7	A1	B1
	16		VDOR063-2-0.12	0.12	2,800	0.7	0.9	3.0	0.52	0.9	A1	B1
	22		VDOR063-2-0.12	0.12	2,800	0.7	1.0	3.0	0.52	1.0	A1	B1
	32		ADOR063-4-0.20	0.20	1,400	1.6	1.9	4.6	0.42	1.9	A1	B1
	45		ADOR063-4-0.20	0.20	1,400	1.6	2.0	4.6	0.42	2.0	A1	B1
SAR 10.2	4	120	VDOR071-4-0.06	0.06	1,400	0.5	0.6	2.0	0.40	0.6	A1	B1
	5.6		VDOR071-4-0.06	0.06	1,400	0.5	0.6	2.0	0.40	0.6	A1	B1
	8		VDOR071-4-0.12	0.12	1,400	1.0	1.1	3.0	0.40	1.1	A1	B1
	11		VDOR071-4-0.12	0.12	1,400	1.0	1.2	3.0	0.40	1.2	A1	B1
	16		VDOR071-2-0.25	0.25	2,800	1.3	1.5	4.5	0.52	1.5	A1	B1
	22		VDOR071-2-0.25	0.25	2,800	1.3	1.8	4.5	0.52	1.8	A1	B1
	32		ADOR071-4-0.40	0.40	1,400	2.5	2.6	8.5	0.42	2.6	A1	B1
	45		ADOR071-4-0.40	0.40	1,400	2.5	3.0	8.5	0.42	3.0	A1	B1
SAR 14.2	4	250	VDOR090-4-0.12	0.12	1,400	0.5	0.8	2.8	0.60	0.8	A1	B1
	5.6		VDOR090-4-0.12	0.12	1,400	0.5	1.0	2.8	0.60	1.0	A1	B1
	8		VDOR090-4-0.25	0.25	1,400	1.0	1.6	5.2	0.60	1.6	A1	B1
	11		VDOR090-4-0.25	0.25	1,400	1.0	1.7	5.2	0.60	1.7	A1	B1
	16		VDOR090-2-0.45	0.45	2,800	1.5	3.0	9.0	0.64	3.0	A1	B1
	22		VDOR090-2-0.45	0.45	2,800	1.5	3.5	9.0	0.64	3.5	A1	B1
	32		ADOR090-4-0.75	0.75	1,400	2.5	4.0	16	0.62	4.0	A1	B1
	45		ADOR090-4-0.75	0.75	1,400	2.5	5.0	16	0.62	5.0	A1	B1
SAR 14.6	4	500	VDOR090-4-0.20	0.20	1,400	0.9	0.9	5.2	0.54	0.9	A1	B1
	5.6		VDOR090-4-0.20	0.20	1,400	0.9	1.0	5.2	0.54	1.0	A1	B1
	8		VDOR090-4-0.40	0.40	1,400	1.7	3.0	9.3	0.56	3.0	A1	B1
	11		VDOR090-4-0.40	0.40	1,400	1.7	3.5	9.3	0.56	3.5	A1	B1
	16		VDOR090-2-0.80	0.80	2,800	3.6	5.0	18	0.51	5.0	A1	B1
	22		VDOR090-2-0.80	0.80	2,800	3.6	5.5	18	0.51	5.5	A1	B1
	32		ADOR090-4-1.60	1.60	1,400	5.3	7.5	38	0.57	7.5	A2	B2
	45		ADOR090-4-1.60	1.60	1,400	5.3	9.0	38	0.57	9.0	A2	B2
SAR 16.2	4	1,000	VDOR112-4-0.40	0.40	1,400	1.4	2.7	10	0.65	2.7	A1	B1
	5.6		VDOR112-4-0.40	0.40	1,400	1.4	2.9	10	0.65	2.9	A1	B1
	8		VDOR112-4-0.80	0.80	1,400	2.8	5.0	22	0.57	5.0	A1	B2
	11		VDOR112-4-0.80	0.80	1,400	2.8	5.5	22	0.57	5.5	A1	B2
	16		VDOR112-2-1.50	1.50	2,800	4.8	8.7	40	0.60	8.7	A2	B2
	22		VDOR112-2-1.50	1.50	2,800	4.8	10	40	0.60	10	A2	B2
	32		ADOR112-4-3.00	3.00	1,400	8.5	13	60	0.71	13	A2	B3
	45		ADOR112-4-3.00	3.00	1,400	8.5	16	60	0.71	16	A2	B3
63	ADOR112-2-5.00	5.00	2,800	11	25	120	0.80	25	A3	-		
90	ADOR112-2-5.00	5.00	2,800	11	30	120	0.80	26	A3	-		

1) Mechanical power at the motor shaft at operating torque (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) Current at operating torque

3) Current at max. torque. We recommend to select switchgears according to these values.

4) Assignment of switchgears when using AUMA controls of types AUMA AUMA MATIC and AUMATIC. For selection of switchgears for actuators in NORM version, please refer to notes on page 2.

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

Motor data is approximate. Due to usual manufacturing tolerances, there may be deviations from the values given.

The permissible fluctuation of the nominal voltage is $\pm 10\%$. If the voltage drops below, there is a reduction of the nominal output torque.

To protect against overheating, thermostiches or PTC thermistors are embedded in the motor windings. For actuators without integral controls (AUMA NORM), these have to be connected to the external control circuit (see terminal plan). If thermostiches or PTC thermistors are not connected, this voids our warranty for the motor.

Rating of the thermostiches:

AC		DC	
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

For further details refer to “Technical data Multi-turn actuators SAR 07.2 – SAR 16.2 for modulating duty with 3-phase AC motors“.

Assigning switchgears for NORM version (without AUMA controls)

We recommend to specify switchgears according to their rated power/motor power in compliance with the assigned AUMA power class.

AUMA power class	Rated power contactor acc. to IEC AC-3 400 V AC	Motor power contactor acc. to UL/CSA for	
		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

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