

Electrical data Multi-turn actuators for open-close and modulating duty

Types of duty S2 - 15 min/S4 - 25 %, 415 V/50 Hz, with 3-phase AC motor

Multi-turn actuator			Motor									
Type	Output speed <sup>(1)</sup> [rpm]	Max. torque [Nm]	Motor type <sup>(2)</sup>	Rated power <sup>(3)</sup> P <sub>N</sub> [KW]	Speed [rpm]	Nominal current <sup>(4)</sup> I <sub>N</sub> [A]	Max. current <sup>(5)</sup> I <sub>Max</sub> [A]	Starting current I <sub>A</sub> [A]	cos φ	Overcurrent protection device setting [A]	AUMA power class for switchgear	
TR-M											Contactor	Thyristor
30X	4	30	CDX(R)063-4-0.02	0.02	1,400	0.4	0.4	0.9	0.44	0.4	A1	B1
	5.6					0.4	0.4	0.9	0.44	0.4	A1	B1
	8		CDX(R)063-4-0.04	0.04	1,400	0.4	0.4	1.0	0.46	0.4	A1	B1
	11					0.4	0.5	1.0	0.46	0.5	A1	B1
	16		CDX(R)063-2-0.06	0.06	2,800	0.5	0.6	1.6	0.42	0.6	A1	B1
	22					0.5	0.6	1.6	0.42	0.6	A1	B1
	32		BDX(R)063-4-0.10	0.10	1,400	0.9	0.9	2.3	0.42	0.9	A1	B1
	45					0.9	1.0	2.3	0.42	1.0	A1	B1
	63		BDX0063-2-0.20	0.20	2,800	0.8	1.2	4.2	0.54	1.2	A1	B1
	90					0.8	1.3	4.2	0.54	1.3	A1	B1
125	BDX0063-2-0.30	0.30	2,800	0.9	1.5	4.2	0.70	1.5	A1	B1		
180				0.9	1.6	4.2	0.70	1.6	A1	B1		
60X	4	60	CDX(R)063-4-0.03	0.03	1,400	0.4	0.5	1.0	0.43	0.5	A1	B1
	5.6					0.4	0.5	1.0	0.43	0.5	A1	B1
	8		CDX(R)063-4-0.06	0.06	1,400	0.6	0.6	1.5	0.44	0.6	A1	B1
	11					0.6	0.7	1.5	0.44	0.7	A1	B1
	16		CDX(R)063-2-0.12	0.12	2,800	0.7	0.9	2.7	0.52	0.9	A1	B1
	22					0.7	1.0	2.7	0.52	1.0	A1	B1
	32		BDX(R)063-4-0.20	0.20	1,400	1.5	1.8	4.1	0.39	1.8	A1	B1
	45					1.5	1.9	4.1	0.39	1.9	A1	B1
	63		BDX0063-2-0.40	0.40	2,800	1.7	2.2	7.2	0.50	2.2	A1	B1
	90					1.7	2.4	7.2	0.50	2.4	A1	B1
125	BDX0063-2-0.50	0.50	2,800	1.8	2.9	7.2	0.58	2.9	A1	B1		
180				1.8	3.1	7.2	0.58	3.1	A1	B1		
120X	4	120	CDX(R)071-4-0.06	0.06	1,400	0.4	0.6	1.7	0.40	0.6	A1	B1
	5.6					0.4	0.6	1.7	0.40	0.6	A1	B1
	8		CDX(R)071-4-0.12	0.12	1,400	1.0	1.1	2.9	0.40	1.1	A1	B1
	11					1.0	1.2	2.9	0.40	1.2	A1	B1
	16		CDX(R)071-2-0.25	0.25	2,800	1.3	1.4	4.1	0.52	1.4	A1	B1
	22					1.3	1.7	4.1	0.52	1.7	A1	B1
	32		BDX(R)071-4-0.40	0.40	1,400	2.4	2.5	8.2	0.42	2.5	A1	B1
	45					2.4	2.9	8.2	0.42	2.9	A1	B1
	63		BDX0071-2-0.70	0.70	2,800	3.0	3.9	15	0.48	3.9	A1	B1
	90					3.0	4.3	15	0.48	4.3	A1	B1
125	BDX0071-2-1.00	1.00	2,800	3.2	5.2	15	0.60	5.2	A1	B1		
180				3.2	5.8	15	0.60	5.8	A1	B1		
250X	4	250	CDX(R)090-4-0.12	0.12	1,400	0.5	0.9	2.7	0.63	0.9	A1	B1
	5.6					0.5	1.0	2.7	0.63	1.0	A1	B1
	8		CDX(R)090-4-0.25	0.25	1,400	1.0	1.5	4.5	0.62	1.5	A1	B1
	11					1.0	1.6	4.5	0.62	1.6	A1	B1
	16		CDX(R)090-2-0.45	0.45	2,800	1.3	2.6	8.2	0.69	2.6	A1	B1
	22					1.3	2.9	8.2	0.69	2.9	A1	B1
	32		BDX(R)090-4-0.75	0.75	1,400	2.5	4.1	15	0.62	4.1	A1	B1
	45					2.5	4.8	15	0.62	4.8	A1	B1
	63		BDX0090-2-1.40	1.40	2,800	4.5	7.3	33	0.60	7.3	A2	B2
	90					4.5	8.7	33	0.60	8.7	A2	B2
125	BDX0090-2-1.80	1.80	2,800	4.9	12	33	0.69	12	A2	B2		
180				4.9	12	33	0.69	12	A2	B2		
500X	4	500	CDX(R)090-4-0.20	0.20	1,400	0.9	1.4	4.5	0.56	1.4	A1	B1
	5.6					0.9	1.6	4.5	0.56	1.6	A1	B1
	8		CDX(R)090-4-0.40	0.40	1,400	1.7	2.9	9.0	0.52	2.9	A1	B1
	11					1.7	3.4	9.0	0.52	3.4	A1	B1
	16		CDX(R)090-2-0.80	0.80	2,800	3.3	4.8	17	0.54	4.8	A1	B1
	22					3.3	5.3	17	0.54	5.3	A1	B1
	32		BDX(R)090-4-1.60	1.60	1,400	5.1	7.2	31	0.62	7.2	A2	B2
	45					5.1	8.7	31	0.62	8.7	A2	B2
	63		BDX0090-2-3.00	3.00	2,800	8.1	13	66	0.68	13	A2	B3
	90					8.1	15	66	0.68	15	A2	B3
125	BDX0090-2-3.30	3.30	2,800	8.4	20	66	0.71	20	A2	B3		
180				8.4	20	66	0.71	20	A2	B3		

We reserve the right to alter data according to improvements made. Previous documents become invalid with the issue of this document. For further information on the product, refer to [www.auma.com](http://www.auma.com).

Multi-turn actuator			Motor									
Type	Output speed <sup>1)</sup> [rpm]	Max. torque [Nm]	Motor type <sup>2)</sup>	Rated power <sup>3)</sup> P <sub>N</sub> [KW]	Speed [rpm]	Nominal current <sup>4)</sup> I <sub>N</sub> [A]	Max. current <sup>5)</sup> I <sub>Max</sub> [A]	Starting current I <sub>A</sub> [A]	cos φ	Overcurrent protection device setting [A]	AUMA power class for switchgear	
TR-M											Contactors	Thyristor
1000X	4	1,000	CDX(R)112-4-0.40	0.40	1,400	1.3	2.6	9.6	0.65	2.6	A1	B1
	5.6					1.3	2.8	9.6	0.65	2.8	A1	B1
	8		CDX(R)112-4-0.80	0.80	1,400	2.9	5.0	21	0.57	5.0	A2	B2
	11					2.9	5.3	21	0.57	5.3	A2	B2
	16		CDX(R)112-2-1.50	1.50	2,800	4.4	8.5	39	0.68	8.5	A2	B2
	22					4.4	9.6	39	0.68	9.6	A2	B2
	32	BDX(R)112-4-3.00	3.00	1,400	8.2	14	48	0.67	14	A2	B3	
	45				8.2	16	48	0.67	16	A2	B3	
	63	BDX0112-2-5.00	5.00	2,800	12	24	110	0.80	24	A2	–	
	90				12	29	110	0.80	29	A2	–	
	125	800	BDX0112-2-6.00	6.00	2,800	13	34	110	0.80	34	A2	–
	180					13	43	110	0.80	43	A2	–

- 1) Output speeds 63 – 180 rpm for open-close duty only. Higher output speeds for modulating duty on request.
- 2) Open-close duty: Position 4 = 0, modulating duty: Position 4 = R
- 3) Mechanical power output at motor shaft at run torque of multi-turn actuator (corresponds to approx. 35 % of maximum torque). The consumed electrical power can be calculated using the following formula:  $P = U \times I \times \cos \varphi \times \sqrt{3}$ .
- 4) Current at run torque or for modulating with approx. 35 % of the maximum torque.
- 5) 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	PTC thermistors are embedded in the motor winding with thermal motor protection (TMS) to protect against overheating.
Mains voltage, mains frequency	Permissible variation of mains voltage: ±10 % Permissible variation of mains frequency: ±5 %
Switchgear	For motor operation, reversing contactors (mechanically, electrically and electronically locked) or thyristors (electronically locked) are used. Required switchgear in power classes A1 and A2 or B1 – B3 are already integrated in the multi-turn actuator.