



Manufacturer of shut-off and control valves

TECHNICAL DATA SHEET

Multi-turn actuator

ELEPHANT MT-N-xEM-O2-x-U1



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1. GENERAL PRODUCT INFORMATION

1.1 Product name: Multi-turn actuator ELEPHANT MT-N-xEM-O2-x-U1.

1.2 Purpose: The multi-turn actuator is designed for controlling industrial shut-off valves, e.g. cast iron and steel gate valves, slide gates, ball valves, etc.

1.3 Application: the electric actuator allows the valve to be used in automatic control systems for heat and water supply to civil and industrial facilities.

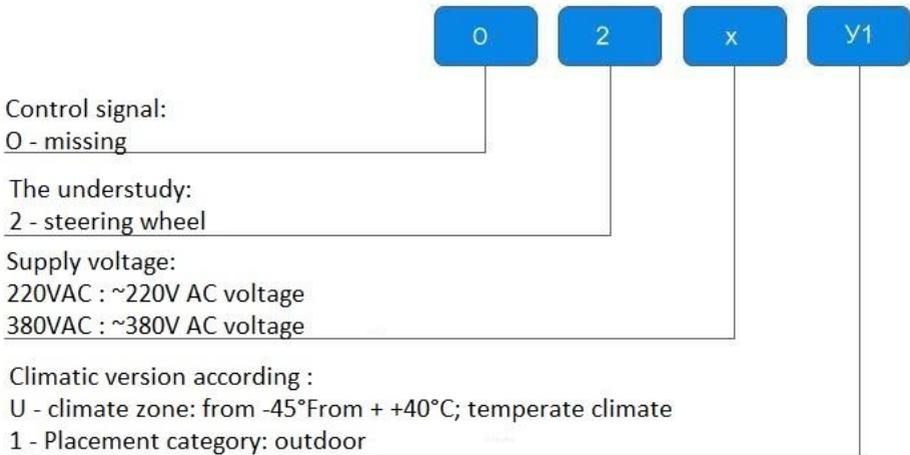
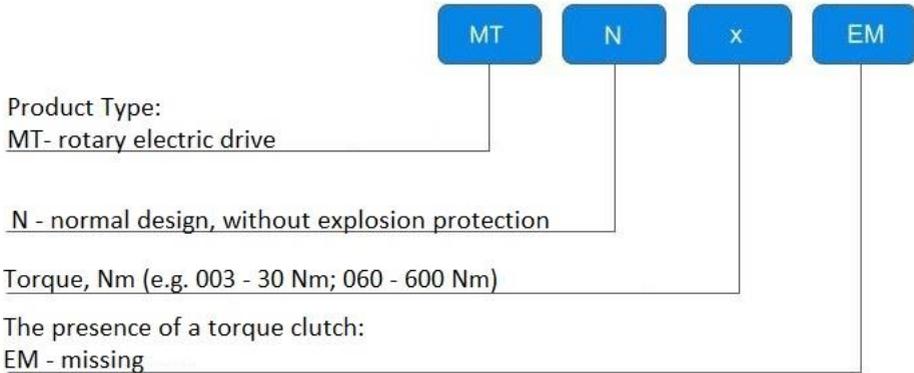
1.4 Operating principle: the actuator is used in the repeated-short-time mode S2 with a switching duration (SP) of 15%. Depending on the version, the actuators are powered from the AC network 50Hz 220V 1 phase or 380V 3 phases.

Electric multi-turn actuators allow to carry out:

- closing and opening of shut-off valves from the dispatcher control panel;
- manual operation of the shut-off valve by means of a handwheel;
- stopping of the valve shut-off valve in any intermediate position;
- on/off signaling of valve end positions (on/off) on the control panel;
- automatic shutdown by limit switches when the valve gate reaches the set position.



1.5. Deciphering of the designation:

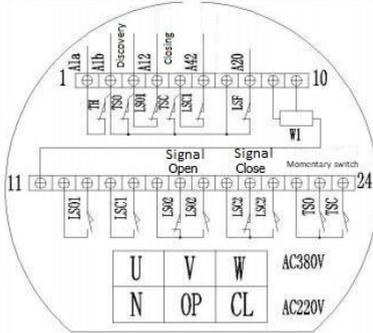
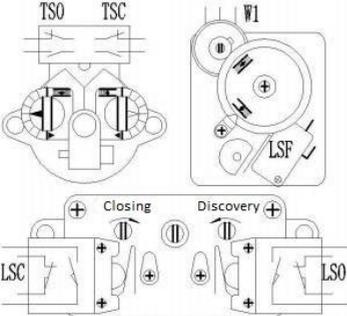
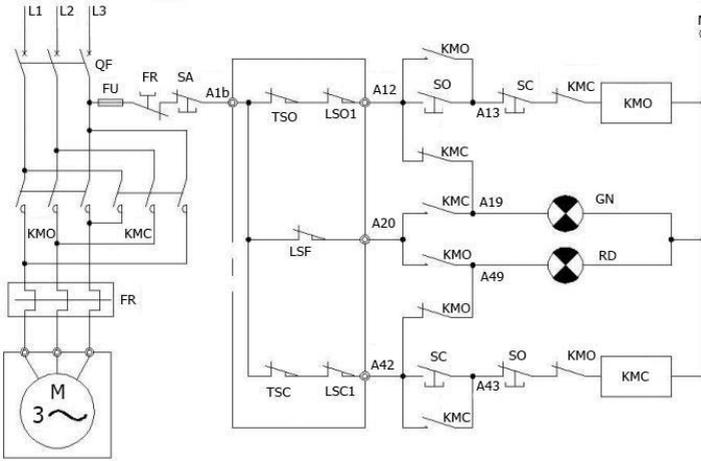


BASIC TECHNICAL DATA AND CHARACTERISTICS

	MT-N-020EM-02-x-U1	MT-N-030EM-02-x-U1	MT-N-045EM-02-x-U1	MT-N-060EM-02-x-U1
Supply voltage, V	3x380V or 220V	3x380V or 220V	3x380V or 220V	3x380V
Electric motor power, kW	0,37	0,55	1,1	1,5
Power supply to the limit switch network	220V	220V	220V	220V
Torque, Nm	200	300	450	600
Speed, rpm.	18	18	24	24
Maximum drive speed	50	50	50	50
Maximum valve stem diameter, mm	40	40	48	48
Weight, kg	15	17	110	120
Degree of enclosure protection	IP67	IP67	IP65	IP65
Ambient temperature, ° C	-28 ...+60	-28 ...+60	-28 ...+60	-28 ...+60
Internal thermal protection tripping temperature, ° C	90	90	90	90
Availability of an understudy	helm	helm	helm	helm
Availability of torque switches	have	have	have	have
Housing material	aluminum	aluminum	aluminum	aluminum
ISO flange type	F10, F14	F10, F14	F16, F25	F16, F25



WIRING DIAGRAM OF THE ACTUATOR MT-N-xEM-O2-380VAC-U1



SCHEMATIC SYMBOLS

	Decoding	Model	Quantity	Note.
FR	thermal relay		1	supplied separately
KMO KMC	contactor	GJ10	1	supplied separately
SA SO SC	push button	LA11-11D	3	supplied separately
TSO TSC	torque switch	DK3-2A	1	
LSO LSC	limit switch	HWK-22A	1	
LSF	signaling switch	V-157	1	
W1	potentiometer	WX14-12	1	
M	electric motor	YDF2-W	1	
TH	thermal protection		1	special order
RT	heater		1	special order

INSTALLATION AND OPERATION

1. When installing the actuator on the gate valve in any position other than vertical, the actuator must have its own supports.
2. Before starting the actuator it is necessary to perform several cycles of test opening-closing of the gate valve using the actuator's handwheel. If the valve opens-closes normally when opened by the manual override, the valve should be connected to the supply and control networks and several test opening-closing cycles should be performed by the actuator.



WARRANTY PERIOD

Warranty period - 12 months from the date of commissioning, but not more than 18 months from the date of sale.

The warranty does not apply:

- parts and materials of the product subject to wear and tear
- for cases of damage caused by:
 - violations of the product storage, installation, testing, operation and maintenance specifications;
 - improper transportation and handling operations;
 - the presence of traces of exposure to substances aggressive to the product materials;
 - presence of damage caused by fire, elements, force majeure circumstances;
 - damage caused by incorrect actions of the consumer;
 - traces of tampering with the design of the product.

SALES MARK

No	Product Name	Packs

Date of sale: _____

L.S.

