Certificate No.: 2501291143506354

TÜRK LOYDU

TYPE APPROVAL CERTIFICATE

This is to certify that the

Electrical Actuators

TL Project No	**23-2712**
Manufacturer	**NOAH ACTUATION CO. LTD.**
Address	**11 Jeongseojin-9ro, Seo-gu, Incheon, Korea(22850)**
Product Type	**MA, NA, SR, SA, SA-Ex Series**
Reference Rule	**TL Rules, Part B, Chapter 5, Electric, 01.07.2022** **TL Rules, Part B, Chapter 4, Machinery, 01.07.2023** **TSE EN ISO 22153 Electric Actuators for Industrial Valves, 06.05.2021** **IACS UR E10 Rev.9 , 09.08.2023**
Expire Date of Previous Certificate	**10.07.2023**
Place and Date	**İSTANBUL / 29.01.2025**

Subject to the conditions referred to in the following pages, this certificate is valid until 10.07.2028.

Emrah SÖĞÜTÇÜ

New Building Division Manager

132200

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- Any significant change in design or construction may render this Certificate invalid. Type Approval Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. This certificate is not valid for products without marking above mentioned. The manufacturer should notify TÜRK LOYDU of any modifications or changes to equipment in order to obtain valid certificate. This certificate shows that tested specimens as representative of the product complies of the TÜRK LOYDU rules, and revelant international instruments that apply to it.

Product	: Electrical Actuators
Type of Product	: MA, NA, SR, SA, SA-Ex Series
Type Designation	: Multi-Turn Actuator: MA Series Quarter Turn Actuator: NA, SR, SA, SA-Ex Series
Approval No / Date	: PAE-EPAS/019065/23-2712/NB/02.07.2024 PAE-EPAS/019208/23-2712/OAK/24.07.2024
Electric Motor Type	: Single Speed Cage Induction Motor 3phase IC:F (H optional)
Type Approval Certificate Number	: TO.DEB.16-0883-01
Frequency	: 50/60 Hz
EMC / EMI	: Location Bridge and Deck Zone.
Vibrostability	: 2 Hz to 200 Hz amplitude ±1mm, acceleration ±1g
Shock Resistance	: 5g (duration 6ms)
Documentation	: 1. Environmental Test Report for MA Type Act. (Damp Heat, Cold, Dry Heat, Vibration, Shock), Report No.:SGS-R24-0220-EN00, Issued By SGS Korea Co., Ltd. Dongtan Laboratory, 24.01.2024 2. EMC Test Report for MA Type Act., Report No.:E24WD-029, Issued By Standard Bank Co., Ltd., 16.02.2024 3. Environmental Test Report for NA Type Act. (Vibration, Dry Heat, Cold, Damp Heat, Power Supply Variations, External Power Supply Failure, High Voltage Test, Inclination, Salt Mist, Insulation Resistance Measurement), Report No.:DRCREL2304-0288, Issued By Dt&C Co., Ltd., 20.04.2023 4.Environmental Test Report for NA Type Act. (Vibration, Dry Heat, Cold, Damp Heat, Power Supply Variations, External Power Supply Failure, High Voltage Test, Inclination, Salt Mist, Insulation Resistance Measurement), Report No.:DRCREL2304-0290, Issued By Dt&C Co., Ltd., 20.04.2023 5. EMC Test Report for NA Type Act., Report No.:DREETC2304-0061, Issued By Dt&C Co., Ltd., 27.04.2023 6. EMC Test Report for NA Type Act., Report No.:DREETC2304-0060, Issued By Dt&C Co., Ltd., 27.04.2023 7. Environmental Test Report for SA Type Act. (Vibration, Impact, Dry Heat, Cold, Damp Heat, Power Supply Variations, Power Supply Failure, Inclination, Flame Resistance Test, Ingress Protection (IP67)), Report No.:OT-19N-RRD-036, Issued By ONETECH Corp., 28.11.2019 8. EMC Test Report for SA Type Act., Report No.:E24WD-032, Issued By Standard Bank Co., Ltd., 26.02.2024 9. EMC Test Report for SA Type Act., Report No.:E24WD-031, Issued By Standard Bank Co., Ltd., 26.02.2024 10. EMC Test Report for SR Type Act., Report No.:E24WD-033, Issued By Standard Bank Co., Ltd., 26.02.2024 11. EMC Test Report for SR Type Act., Report No.:E24WD-055, Issued By Standard Bank Co., Ltd., 14.03.2024 12. Ingress Protection IP Test Report for MA Type Act., Report No.:KOMERI-0307-22T1114(E), Issued By Korea Marine Equipment Reseach Institute, 22.07.2022 13. Ingress Protection IP Test Report (IP68) for MA Type Act., Report No.:KOMERI-0307-22T1115(E), Issued By Korea Marine Equipment Reseach Institute, 22.07.2022 14. Ingress Protection IP Test Report (IP68) for MA Type Act., Report No.:KOMERI-0307-22T1116(E), Issued By Korea Marine Equipment Reseach Institute, 22.07.2022

Surveyor Name : Abdullah DEMİRCİ

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15. Ingress Protection IP Test Report (IP68) for MA Type Act., Report No.:21-065235-01-2, Issued By KTL Permanent Test Lab Korea Testing Laboratory, 13.10.2021

16. Ingress Protection IP Test Report (IP68) for NA Type Act., Report No.:23-048129-01-2, Issued By KTL Permanent Test Lab Korea Testing Laboratory, 31.07.2023

17. Ingress Protection IP Test Report (IP68) for NA Type Act., Report No.:18-005844-03-2, Issued By KTL Permanent Test Lab Korea Testing Laboratory, 13.02.2018

18. Ingress Protection IP Test Report (IP68) for NA Type Act., Report No.:23-048130-01-2, Issued By KTL Permanent Test Lab Korea Testing Laboratory, 31.07.2023

19. Ingress Protection IP Test Report (IP68) for NA Type Act., Report No.:23-048131-01-2, Issued By KTL Permanent Test Lab Korea Testing Laboratory, 31.07.2023

20. Ingress Protection IP Test Report (IP68) for NA Type Act., Report No.:24-035710-01-2, Issued By KTL Permanent Test Lab Korea Testing Laboratory, 10.06.2024

21. Ingress Protection IP Test Report (IP68) for SR Type Act., Report No.:24-019543-01-2, Issued By KTL Permanent Test Lab Korea Testing Laboratory, 27.03.2024

22. Ingress Protection IP Test Report (IP67) for SA Type Act., Report No.:17-062415-06-2, Issued By KTL Permanent Test Lab Korea Testing Laboratory, 22.11.2017

23. Ingress Protection IP Test Report (IP68) for SA Type Act., Report No.:17-062415-01-2, Issued By KTL Permanent Test Lab Korea Testing Laboratory, 23.11.2017

24. EU Type Examination Certificate For MA Type Act., No. DEKRA 18 ATEX 0022X, Issued by DEKRA, 02.12.2021

25. EU Type Examination Certificate For NA Type Act., No. DEKRA 22 ATEX 0018X, Issued by DEKRA, 01.08.2022

26. EU Type Examination Certificate For SA Type Act., No. KEMA 10 ATEX 0107X, Issued by DEKRA, 09.03.2021

27. EU Type Examination Certificate For SR Type Act., No. DEKRA 12 ATEX 0136X, Issued by DEKRA, 12.11.2020

Performed Tests : Quality Audits
Review of Calibration and Sub-Component Certificate
- Review of ATEX Module B Certificate
Review of Following Type Test Reports;
- Review of IP Degree Test Report
- Review of Endurance Test Report
- Functional Testing During Environmental Test Sequences
- Power Supply Voltage Variation Test
- Power Supply Failure Test
- Vibration Test
- Inclination Test
- Shock Test
- Insulation Resistance Test
- Damp Heat Test
- Dry Heat Test
- Low Temperature Test

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- High Voltage Test
- High Temperature Test
- Surge Power Test

EMC/EMI Test For Location Bridge and Deck Zone as below;

- Conducted Emission
- Radiated Emission
- Electrostatic Discharge Immunity
- Radiated Electromagnetic Field Immunity
- Conducted fast Transients Immunity
- Conducted slow Transients Immunity
- Conducted high Frequency Immunity
- Conducted low Frequency Immunity

Control According to Approved Documentations

- Visual Inspection
- Dimensional Check

Function Test

Test Place : NOAH ACTUATION CO. LTD., 11 Jeongseojin-9ro, Seo-gu, Incheon, Korea(22850)

Last Inspection Date : 26.12.2024

	Product Description	Ingress Protection (IP)	Rated Voltage	Max. Output Torque	Duty Type	Operating Temperature
1	MA001	IP68	220/380/400/415/440/460/480VAC (525/600VAC opt.)	70 Nm	S2 30 min.	-20°C to +70°C
2	MA002	IP68	220/380/400/415/440/460/480VAC (525/600VAC opt.)	103 Nm	S2 30 min.	-20°C to +70°C
3	MA003	IP68	220/380/400/415/440/460/480VAC (525/600VAC opt.)	138 Nm	S2 30 min.	-20°C to +70°C
4	MA004	IP68	220/380/400/415/440/460/480VAC (525/600VAC opt.)	300 Nm	S2 30 min.	-20°C to +70°C
5	MA005	IP68	220/380/400/415/440/460/480VAC (525/600VAC opt.)	363 Nm	S2 30 min.	-20°C to +70°C
6	MA006	IP68	220/380/400/415/440/460/480VAC (525/600VAC opt.)	415 Nm	S2 30 min.	-20°C to +70°C
7	NA006	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	60 Nm	S4 50%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)

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8	NA009	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	90 Nm	S4 50%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
9	NA015	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	150 Nm	S4 50%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
10	NA019	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	190 Nm	S4 50%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
11	NA028	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	280 Nm	S4 50%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
12	NA038	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	380 Nm	S4 30%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
13	NA050	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	500 Nm	S4 25%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
14	NA060	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	600 Nm	S4 25%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
15	NA080	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	800 Nm	S4 25%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
16	NA100	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	1000 Nm	S4 25%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
17	NA150	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	1500 Nm	S4 25%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
18	NA200	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	2000 Nm	S4 25%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)

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19	NA250	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	2500 Nm	S4 25%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
20	NA300	IP68	110/220/380/440 VAC, 24 VAC/VDC Optional	3000 Nm	S4 25%	-20°C to +70°C , 150°C / 1hr (Option: -60°C, 400°C / 1hr)
21	SA003	IP67	110/220 VAC 1phase, 24 VAC/VDC	30 Nm	S2 15min.	-20°C to +70°C
22	SA005	IP68	110/230 VAC 1phase, 24 VAC/VDC	50 Nm	S2 15min.	-20°C to +70°C
23	SA005L (Manual Operation By L-wrench)	IP68	110/230 VAC 1phase, 24 VAC/VDC	50 Nm	S2 15min.	-20°C to +70°C
24	SA009	IP68	110/230 VAC 1phase, 24 VAC/VDC	90 Nm	S2 15min.	-20°C to +70°C
25	SA009L (Manual Operation By L-wrench)	IP68	110/230 VAC 1phase, 24 VAC/VDC	90 Nm	S2 15min.	-20°C to +70°C
26	SA05X (Ex d IIB T4)	IP68	110/230 VAC 1phase, 24 VAC/VDC	50 Nm	S2 15min.	-20°C to +70°C
27	SA09X (Ex d IIB T4)	IP68	110/230 VAC 1phase, 24 VAC/VDC	90 Nm	S2 15min.	-20°C to +70°C
28	SR05	IP68	110/120/220/230 VAC 1ph., 380/440VAC 3ph., 24VDC	50 Nm	S4 30%	-20°C to +80°C
29	SR10	IP68	110/120/220/230 VAC 1ph., 380/440VAC 3ph., 24VDC	100 Nm	S4 30%	-20°C to +80°C
30	SR20	IP68	110/120/220/230 VAC 1ph., 380/440VAC 3ph., 24VDC	200 Nm	S4 30%	-20°C to +80°C
31	SR30	IP68	110/120/220/230 VAC 1ph., 380/440VAC 3ph., 24VDC	300 Nm	S4 30%	-20°C to +80°C

Approval Conditions : 1. The Type Approval covers hardware listed under Product Description. When the hardware is used in applications classed by TÜRK LOYDU, documentation for the

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actual application is to be submitted for approval by the manufacturer of the application system in each case.

2. Ex installations to be approved in each case according to Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

3. Ex-certification is not covered by this certificate, which is for information only, is based on information received from the manufacturer, but not verified by TÜRK LOYDU.

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