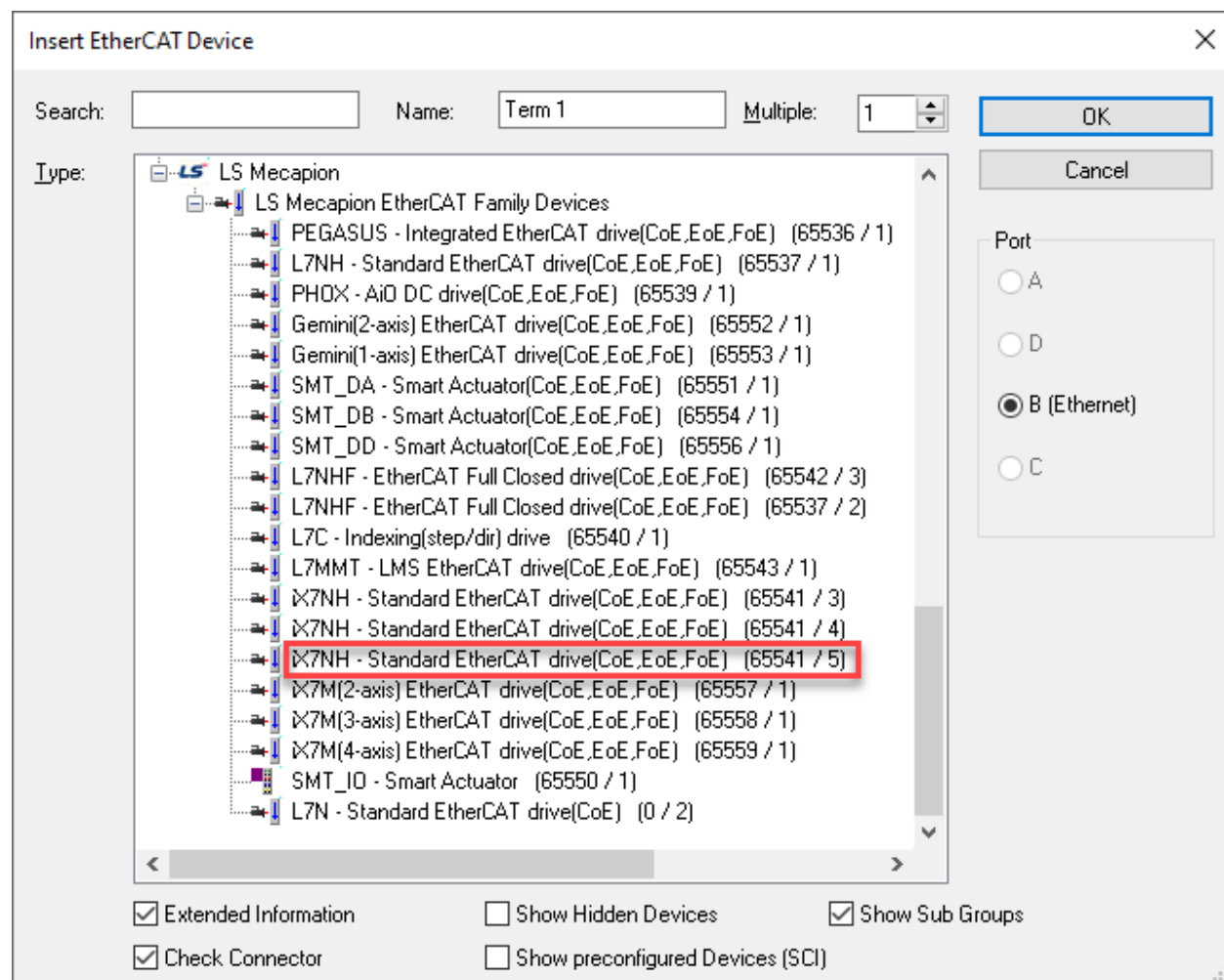


Information regarding “LS\_Mecapion\_EtherCAT\_Drive\_V0.94e\_20231219.xml” file.

The latest iX7NH ESI file for use with non-LS Electric PLCs and controllers is highlighted below. For importing iX7NH configuration into a 3rd party controller, use the latest Device Description: 65541/5.

LS Electric maintains previous versions of the iX7NH Device Descriptions in the ESI file for legacy controller use.



# Drive XML Release Note

Official release	Version	Applied date	Company	File
	0.90	2021.06.17	LSM LS ELECTRIC	LS ELECTRIC EtherCAT Drive V0.90e_20210617.xml LS ELECTRIC EtherCAT Drive V0.90k_20210617.xml LS ELECTRIC EtherCAT Drive V0.90c_20210617.xml
	Modifications			Details
	1. Parameter modification			1. L7NH/L7NHF Revision No. Restoration of all models due to EtherCAT communication issue regarding update (V0.85) 2. L7NH modifications - Deleted details reflected in Ver0.89 - Same as Ver 0.86 and reflected contents. 3. L7NHF modifications - Manage 2 types of L7NHF Product Code errors : New Product Code added (#x00010006, Rev.3) : Added L7NHF item in Ver0.85 (#x00010001, Rev.2)
	Applied model (SW Ver)			note
	1. Drive all models			

Official release	Version	Applied date	Company	File
	0.92	2023.06.21	LSM LS ELECTRIC	LS ELECTRIC EtherCAT Drive V0.92e_20230621.xml LS ELECTRIC EtherCAT Drive V0.92k_20230621.xml LS ELECTRIC EtherCAT Drive V0.92c_20230621.xml
	Modifications			Details
	1. Parameter modification			<p>1. L7NH parameter modification</p> <ul style="list-style-type: none"> <li>1) 0x2031 parameter initial value change <ul style="list-style-type: none"> <li>a. 0x2031(Operation Time at Peak Current) <ul style="list-style-type: none"> <li>- 0x03E8 (1000[DEC]) -&gt; 0x2710 (10000[DEC])</li> </ul> </li> <li>b. 0x6065(Following Error Window) <ul style="list-style-type: none"> <li>- 0x000927C0 600000[DEC]) -&gt; 0x00500000 (5282880[DEC])</li> </ul> </li> <li>c. 0x6085(Quick Stop Deceleration) <ul style="list-style-type: none"> <li>- 0x000007D0 (2000[DEC]) -&gt; 0x01900000 (26214400[DEC])</li> </ul> </li> <li>d. 0x6099.1(Speed during search for switch) <ul style="list-style-type: none"> <li>- 0x0007A120 (500000[DEC]) -&gt; 0x00280000 (2621440[DEC])</li> </ul> </li> <li>e. 0x6099.2(Speed during search for zero) <ul style="list-style-type: none"> <li>- 0x000186A0 (100000[DEC]) -&gt; 0x00080000 (524288[DEC])</li> </ul> </li> <li>f. 0x609A(Homing Acceleration) <ul style="list-style-type: none"> <li>- 0x00030D40 (200000[DEC]) -&gt; 0x03200000 (52428800[DEC])</li> </ul> </li> </ul> </li> <li>2. ESI file distribution due to ix7NH update <ul style="list-style-type: none"> <li>1) 0x2606 parameter property change <ul style="list-style-type: none"> <li>a. Add PDO Mapping parameter properties to existing SDO parameters</li> </ul> </li> <li>2) 0x2619 parameter property change <ul style="list-style-type: none"> <li>a. Add PDO Mapping parameter properties to existing SDO parameters</li> </ul> </li> <li>3) Add 0x2640 parameter <ul style="list-style-type: none"> <li>a. Added 0x2640(Current Actual Value) parameter</li> <li>b. Parameters of the relevant OS can be mapped to both SDO and PDO.</li> </ul> </li> <li>4) Change initial value of ix7NH parameters <ul style="list-style-type: none"> <li>a. 0x6085 (Quick Stop Deceleration)</li> </ul> </li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>- 0x00030D40 (200000[DEC]) -&gt; 0x01900000 (26214400[DEC])</li> <li>b. 0x6099.1(Speed during search for switch) <ul style="list-style-type: none"> <li>- 0x0007A120 (500000[DEC]) -&gt; 0x00280000 (2621440[DEC])</li> </ul> </li> <li>c. 0x6099.2(Speed during search for zero) <ul style="list-style-type: none"> <li>- 0x000186A0 (100000[DEC]) -&gt; 0x00080000 (524288[DEC])</li> </ul> </li> <li>d. 0x609A(Homing Acceleration) <ul style="list-style-type: none"> <li>- 0x00030D40 (200000[DEC]) -&gt; 0x03200000 (52428800[DEC])</li> </ul> </li> </ul>
	Applied model (SW Ver)	note
	1. Drive all models	

0.93	2023.10.23	LSM LS ELECTRIC	LS ELECTRIC EtherCAT Drive V0.93e_20230926.xml LS ELECTRIC EtherCAT Drive V0.93k_20230926.xml LS ELECTRIC EtherCAT Drive V0.93c_20230926.xml
Modifications			Details
1. Parameter modification			<p>1. L7NH parameter modification</p> <ul style="list-style-type: none"> <li>1) Accumulated Regeneration Overload[0x2606] modified to enable PDO mapping (0.92A)[23.07.21]</li> <li>2) RMS Operation Overload[0x2619] Modified to enable PDO mapping (0.92A)[23.07.21]</li> <li>3) Motor Temperature in Per Unit[0x261D] Modified to enable PDO mapping (0.92A)[23.07.21]</li> <li>4) Main Power Fail Check Mode[0x2006] maximum value modified: 0xff -&gt; 0xffff(0.92A)[23.09.12]</li> <li>5) Current Actual Value[0x2640] added (0.92A)[23.09.12]</li> </ul> <p>2. L7P parameter modification</p> <ul style="list-style-type: none"> <li>1) Main Power Fail Check Mode[0x2006] maximum value modified: 0xff -&gt; 0xffff(0.92B)[23.09.12]</li> </ul> <p>3. Add L7MMT parameter</p> <ul style="list-style-type: none"> <li>1) 0x2095(Height_Of_Mover) (0.92B)[23.09.12]</li> <li>2) 0x2096(WarnValue Range Min) (0.92B)[23.09.12]</li> <li>3) 0x2097(WarnValue Range Max) (0.92B)[23.09.12]</li> <li>4) 0x2423(General Object Monitor 1 Config) (0.92B)[23.09.12]</li> <li>5) 0x2424(General Object Monitor 2 Config) (0.92B)[23.09.12]</li> <li>6) 0x2425(General Object Monitor 3 Config) (0.92B)[23.09.12]</li> <li>7) 0x2426(General Object Monitor 4 Config) (0.92B)[23.09.12]</li> <li>8) 0x2640(General Object Monitor 1 Value) (0.92B)[23.09.12]</li> <li>9) 0x2641(General Object Monitor 2 Value) (0.92B)[23.09.12]</li> <li>10) 0x2642(General Object Monitor 3 Value) (0.92B)[23.09.12]</li> <li>11) 0x2643(General Object Monitor 4 Value) (0.92B)[23.09.12]</li> <li>12) 0x2644(Control Command Velocity) (0.92B)[23.09.12]</li> <li>13) 0x2645(LSM PLC State) (0.92B)[23.09.12]</li> <li>14) 0x2422(Amplitude_Warn_Value) (0.92C)[23.09.14] - 0x0007A120 (500000[DEC]) -&gt; 0x00280000 (2621440[DEC])</li> </ul>
Applied model (SW Ver)			note

1. Drive all models			
0.94	2023.12.19	<b>LSM</b> <b>LS ELECTRIC</b>	LS ELECTRIC EtherCAT Drive V0.94e_20230926.xml LS ELECTRIC EtherCAT Drive V0.94k_20230926.xml LS ELECTRIC EtherCAT Drive V0.94c_20230926.xml
Modifications			Details
1. Parameter modification			1. L7MMT parameter modification 1) 0x2034 (Motor Thermal Protection Enable) => Changed to 0x2034 (Amplitude Check Distance) 2. GEM Drive EterCAT Type Drive Declaration 1) Modify the invisible value from 1 to 0 - 2 modification points 3. SMT_DA / DB / DD EterCAT type drive declaration 1) Smart Actuator Drive EterCAT Type Drive Declaration 2) Modify the Invisible value from 1 to 0 4. iX7NH parameter modification 1) Modify 0x1018 type capacity to write serial number 2) FollowingErrorWindow[0x6065] - 0x500000 (5242880[DEC]) -> 0x9FBF1 (654321[DEC]) 3) Speed during search for switch[0x6099 : Sub0x2] - 0x280000 (2621440[DEC]) -> 0x7A120 (500000[DEC]) 4) Speed during search for zero[0x6099 : Sub0x3] - 0x80000 (524288[DEC]) -> 0xC350 (50000[DEC]) 5) Homing zero speed [0x609A] - 0x3200000 (52428800[DEC]) -> 0x4C4B40 (5000000[DEC]) 5. iX7NH Revision number modified from 4 to 5 1) #x00000004 -> #x00000005 2) Existing #x00000003, #x00000004 included
Applied model (SW Ver)			note
1. Drive all models			

# Drive XML Release Note

Official release	Version	Applied date	Company	File
	0.90	2021.06.17	LSM LS ELECTRIC	LS ELECTRIC EtherCAT Drive V0.90e_20210617.xml LS ELECTRIC EtherCAT Drive V0.90k_20210617.xml LS ELECTRIC EtherCAT Drive V0.90c_20210617.xml
	Modifications			Details
	1. Parameter modification			1. L7NH/L7NHF Revision No. Restoration of all models due to EtherCAT communication issue regarding update (V0.85) 2. L7NH modifications - Deleted details reflected in Ver0.89 - Same as Ver 0.86 and reflected contents. 3. L7NHF modifications - Manage 2 types of L7NHF Product Code errors : New Product Code added (#x00010006, Rev.3) : Added L7NHF item in Ver0.85 (#x00010001, Rev.2)
	Applied model (SW Ver)			note
	1. Drive all models			

Official release	Version	Applied date	Company	File
	0.92	2023.06.21	LSM LS ELECTRIC	LS ELECTRIC EtherCAT Drive V0.92e_20230621.xml LS ELECTRIC EtherCAT Drive V0.92k_20230621.xml LS ELECTRIC EtherCAT Drive V0.92c_20230621.xml
	Modifications			Details
	1. Parameter modification			<p>1. L7NH parameter modification</p> <ul style="list-style-type: none"> <li>1) 0x2031 parameter initial value change <ul style="list-style-type: none"> <li>a. 0x2031(Operation Time at Peak Current) <ul style="list-style-type: none"> <li>- 0x03E8 (1000[DEC]) -&gt; 0x2710 (10000[DEC])</li> </ul> </li> <li>b. 0x6065(Following Error Window) <ul style="list-style-type: none"> <li>- 0x000927C0 600000[DEC]) -&gt; 0x00500000 (5282880[DEC])</li> </ul> </li> <li>c. 0x6085(Quick Stop Deceleration) <ul style="list-style-type: none"> <li>- 0x000007D0 (2000[DEC]) -&gt; 0x01900000 (26214400[DEC])</li> </ul> </li> <li>d. 0x6099.1(Speed during search for switch) <ul style="list-style-type: none"> <li>- 0x0007A120 (500000[DEC]) -&gt; 0x00280000 (2621440[DEC])</li> </ul> </li> <li>e. 0x6099.2(Speed during search for zero) <ul style="list-style-type: none"> <li>- 0x000186A0 (100000[DEC]) -&gt; 0x00080000 (524288[DEC])</li> </ul> </li> <li>f. 0x609A(Homing Acceleration) <ul style="list-style-type: none"> <li>- 0x00030D40 (200000[DEC]) -&gt; 0x03200000 (52428800[DEC])</li> </ul> </li> </ul> </li> <li>2. ESI file distribution due to ix7NH update <ul style="list-style-type: none"> <li>1) 0x2606 parameter property change <ul style="list-style-type: none"> <li>a. Add PDO Mapping parameter properties to existing SDO parameters</li> </ul> </li> <li>2) 0x2619 parameter property change <ul style="list-style-type: none"> <li>a. Add PDO Mapping parameter properties to existing SDO parameters</li> </ul> </li> <li>3) Add 0x2640 parameter <ul style="list-style-type: none"> <li>a. Added 0x2640(Current Actual Value) parameter</li> <li>b. Parameters of the relevant OS can be mapped to both SDO and PDO.</li> </ul> </li> <li>4) Change initial value of ix7NH parameters <ul style="list-style-type: none"> <li>a. 0x6085 (Quick Stop Deceleration)</li> </ul> </li> </ul> </li> </ul>



		<ul style="list-style-type: none"> <li>- 0x00030D40 (200000[DEC]) -&gt; 0x01900000 (26214400[DEC])</li> <li>b. 0x6099.1(Speed during search for switch) <ul style="list-style-type: none"> <li>- 0x0007A120 (500000[DEC]) -&gt; 0x00280000 (2621440[DEC])</li> </ul> </li> <li>c. 0x6099.2(Speed during search for zero) <ul style="list-style-type: none"> <li>- 0x000186A0 (100000[DEC]) -&gt; 0x00080000 (524288[DEC])</li> </ul> </li> <li>d. 0x609A(Homing Acceleration) <ul style="list-style-type: none"> <li>- 0x00030D40 (200000[DEC]) -&gt; 0x03200000 (52428800[DEC])</li> </ul> </li> </ul>
	Applied model (SW Ver)	note
	1. Drive all models	

0.93	2023.10.23	LSM LS ELECTRIC	LS ELECTRIC EtherCAT Drive V0.93e_20230926.xml LS ELECTRIC EtherCAT Drive V0.93k_20230926.xml LS ELECTRIC EtherCAT Drive V0.93c_20230926.xml
Modifications			Details
1. Parameter modification			1. L7NH parameter modification 1) Accumulated Regeneration Overload[0x2606] modified to enable PDO mapping (0.92A)[23.07.21] 2) RMS Operation Overload[0X2619] Modified to enable PDO mapping (0.92A)[23.07.21] 3) Motor Temperature in Per Unit[0X261D] Modified to enable PDO mapping (0.92A)[23.07.21] 4) Main Power Fail Check Mode[0x2006] maximum value modified: 0xff -> 0xffff(0.92A)[23.09.12] 5) Current Actual Value[0x2640] added (0.92A)[23.09.12] 2. L7P parameter modification 1) Main Power Fail Check Mode[0x2006] maximum value modified: 0xff -> 0xffff(0.92B)[23.09.12] 3. Add L7MMT parameter 1) 0x2095(Height_Of_Mover) (0.92B)[23.09.12] 2) 0x2096(WarnValue Range Min) (0.92B)[23.09.12] 3) 0x2097(WarnValue Range Max) (0.92B)[23.09.12] 4) 0x2423(General Object Monitor 1 Config) (0.92B)[23.09.12] 5) 0x2424(General Object Monitor 2 Config) (0.92B)[23.09.12] 6) 0x2425(General Object Monitor 3 Config) (0.92B)[23.09.12] 7) 0x2426(General Object Monitor 4 Config) (0.92B)[23.09.12] 8) 0x2640(General Object Monitor 1 Value) (0.92B)[23.09.12] 9) 0x2641(General Object Monitor 2 Value) (0.92B)[23.09.12] 10) 0x2642(General Object Monitor 3 Value) (0.92B)[23.09.12] 11) 0x2643(General Object Monitor 4 Value) (0.92B)[23.09.12] 12) 0x2644(Control Command Velocity) (0.92B)[23.09.12] 13) 0x2645(LSM PLC State) (0.92B)[23.09.12] 14) 0x2422(Amplitude_Warn_Value) (0.92C)[23.09.14] - 0x0007A120 (500000[DEC]) -> 0x00280000 (2621440[DEC])
Applied model (SW Ver)			note

1. Drive all models			
0.94	2023.12.19	<b>LSM</b> <b>LS ELECTRIC</b>	LS ELECTRIC EtherCAT Drive V0.94e_20230926.xml LS ELECTRIC EtherCAT Drive V0.94k_20230926.xml LS ELECTRIC EtherCAT Drive V0.94c_20230926.xml
Modifications			Details
1. Parameter modification			1. L7MMT parameter modification 1) 0x2034 (Motor Thermal Protection Enable) => Changed to 0x2034 (Amplitude Check Distance) 2. GEM Drive EterCAT Type Drive Declaration 1) Modify the invisible value from 1 to 0 - 2 modification points 3. SMT_DA / DB / DD EterCAT type drive declaration 1) Smart Actuator Drive EterCAT Type Drive Declaration 2) Modify the Invisible value from 1 to 0 4. iX7NH parameter modification 1) Modify 0x1018 type capacity to write serial number 2) FollowingErrorWindow[0x6065] - 0x500000 (5242880[DEC]) -> 0x9FBF1 (654321[DEC]) 3) Speed during search for switch[0x6099 : Sub0x2] - 0x280000 (2621440[DEC]) -> 0x7A120 (500000[DEC]) 4) Speed during search for zero[0x6099 : Sub0x3] - 0x80000 (524288[DEC]) -> 0xC350 (50000[DEC]) 5) Homing zero speed [0x609A] - 0x3200000 (52428800[DEC]) -> 0x4C4B40 (5000000[DEC]) 5. iX7NH Revision number modified from 4 to 5 1) #x00000004 -> #x00000005 2) Existing #x00000003, #x00000004 included
Applied model (SW Ver)			note
1. Drive all models			

Official Release	Version	Applied date	Company	File
	0.95	2024.02.02	LSM LS ELECTRIC	LS ELECTRIC EtherCAT Drive V0.95e_20240202.xml LS ELECTRIC EtherCAT Drive V0.95k_20240202.xml LS ELECTRIC EtherCAT Drive V0.95c_20240202.xml
	Modifications			Details
	1. Parameter modification			1. L7NH parameter modification <ul style="list-style-type: none"> <li>1) Modify 0x1018 type capacity to write serial number</li> <li>2) FollowingErrorWindow[0x6065] <ul style="list-style-type: none"> <li>- 0x500000 (5242880[DEC]) -&gt; 0x9FBF1 (654321[DEC])</li> </ul> </li> <li>3) Speed during search for switch[0x6099 : Sub0x2] <ul style="list-style-type: none"> <li>- 0x280000 (2621440[DEC]) -&gt; 0x7A120 (500000[DEC])</li> </ul> </li> <li>4) Speed during search for zero[0x6099 : Sub0x3] <ul style="list-style-type: none"> <li>- 0x80000 (524288[DEC]) -&gt; 0xC350 (50000[DEC])</li> </ul> </li> <li>5) Homing zero speed[0x609A] <ul style="list-style-type: none"> <li>- 0x3200000 (52428800[DEC]) -&gt; 0x4C4B40 (5000000[DEC])</li> </ul> </li> <li>6) Add new parameter EtherCAT Function Bit [ 0x2428 ] <ul style="list-style-type: none"> <li>- INT16U type Default Value : 1, MIN : 0, MAX : 0xFFFF</li> </ul> </li> </ul>

Version	Date	Revision history
0.95	2024.02.02	1. L7NH parameter modification 1) Modify 0x1018 type capacity to write serial number 2) FollowingErrorWindow[0x6065] - 0x500000 (5242880[DEC]) -> 0x9FBF1 (654321[DEC]) 3) Speed during search for switch[0x6099 : Sub0x2] - 0x280000 (2621440[DEC]) -> 0x7A120 (500000[DEC]) 4) Speed during search for zero[0x6099 : Sub0x3] - 0x80000 (524288[DEC]) -> 0xC350 (50000[DEC]) 5) Homing zero speed[0x609A] - 0x320000 (52428800[DEC]) -> 0x4C4B40 (5000000[DEC]) 6) Add new parameter EtherCAT Function Bit [ 0x2428 ] - INT16U type Default Value : 1, MIN : 0, MAX : 0xFFFF
0.95A	2024.02.27	1. iX7NH 1) Add: Lost Command mode[0x2428] Add: Lost Command Time[0x2429] 2) Revise sIdentity.u32Revision = 0x00000005; -> sIdentity.u32Revision = 0x00000006;  2. iX7M TxPDO List modification 1) RxPdo list not changed 2) Modify TxPdo list - 4 axis 0x1A00, 0x1A10, 0x1A20, 0x1A30 initial value are 0x6061, 0x6861, 0x7061, Add: 0x7861[Mode of Operation Display] object - 3 axis : 0x1A00, 0x1A10, 0x1A20 list initial value are 0x6061, 0x6861, Add: 0x7061 [Mode of Operation Display] object - 2 axis : 0x1A00, 0x1A10 list initial value is 0x6061, Add: 0x6861 [Mode of Operation Display] object 추가
0.95B	2024.03.06	1. Parameter modification 1) Modify 0x1018 type capacity to write serial number - L7P applied
0.95C	2024.03.11	1. Parameter modification 1) Lost Command Time[0x2429] data type UINT -> UDINT
0.95D	2024.03.24	1. iX7NH parameter modification 1) Name : Motor Thermal Protection Enable => Functional bit settings 2) Range :0~1 => 0~65535 3) initial value : 0 => 0