



TYPE APPROVAL CERTIFICATE
No. ELE188112PU

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	MOTOR STARTERS - CONTROLLERS
<i>Type</i>	META - MEC MMS-32S MMS-32H MMS-32HI MMS-63S MMS-63H MMS-63HI MMS-100S MMS-100H MMS-100HI
<i>Applicant</i>	LSIS CO., LTD. 1 SONGJEONG-DONG, HEUNGDEOK-GU 361-720 CHEONGJU-CITY, CHUNGBUK KOREA, REPUBLIC OF
<i>Manufacturer</i>	LSIS CO., LTD.
<i>Place of manufacture</i>	1 SONGJEONG-DONG, HEUNGDEOK-GU 361-720 CHEONGJU-CITY, CHUNGBUK KOREA, REPUBLIC OF
<i>Reference standards</i>	IEC 60947-2; IEC 60947-4-1

Issued in **BUSAN** *on* **January 4, 2013.** *This Certificate is valid until* **January 4, 2018**



RINA
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This certificate consists of this page and 1 enclosure

This certificate annuls and replaces the existing certificate No. ELE108007PU issued on 10/10/2007.



RINA

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META-MEC MMS

Product Description

+ Circuit Breaker used as Motor Starter type META-MEC applicable to the marine environment with following rating :

Type	Rated Freq. [Hz]	Rated Current at 45 °C In[A]	Rated Oper. Volt. Ue[V]	Service Short-circuit Breaking Capacity Ics[kA]	Ultimate Short-circuit Breaking Capacity Icu[kA]	Rated Short-circuit Making Capacity Icm[kA]	Util. Category
MMS-32S	50/60	0.16~32	600/690 500/525 440/460 400/415 230/240	3 4 4 11 22	3 5 6 15 30	4.26 7.5 9 30 63	A
MMS-32H MMS-32HI	50/60	0.16~32	600/690 500/525 440/460 400/415 230/240	4 8 15 38 100	4 10 20 50 100	5.88 17 40 105 220	A
MMS-63S	50/60	10~63	600/690 500/525 440/460 400/415 230/240	3 5 8 19 38	4 6 10 25 50	5.88 9 17 52.5 105	A
MMS-63H MMS-63HI	50/60	10~63	600/690 500/525 440/460 400/415 230/240	5 8 27 50 100	5 10 35 50 100	7.5 17 73.5 105 220	A
MMS-100S	50/60	17~100	600/690 500/525 440/460 400/415 230/240	4 6 30 38 100	5 8 40 50 100	7.5 13.6 84 105 220	A
MMS-100H MMS-100HI	50/60	17~100	600/690 500/525 440/460 400/415 230/240	6 9 38 50 100	6 12 50 75 100	9 24 105 165 220	A

*Note : S – standard type, H – high capacity type, HI – instantaneous type

Reference Documents

+ Performance Test : KEMA Test Certificate No. NL-7836 dated 09/06/2004, KEMA Test Report No. 2038108.51~56 dated 26/05/2004

+ Environmental Test (including Vibration & Inclination Test) : PT&T Report No. R47-1575~8 dated 08/10/2007

+ Visual Inspection & Performance Test: PT&T Report No. R412-2171 dated 13/12/2012 attended and stamped by RINA Surveyor

Note/Remark

+ The product is subject to the compliance with RINA Rules and other Standards mentioned on certificate.

+ Any modification or change shall not be valid until approval is granted by RINA as a result of due assessment.

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BUSAN January 4, 2013



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