

# TYPE APPROVAL CERTIFICATE No. ELE428210PU/002

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

scription	MOULDED	CASE	CIRCUIT	BREAKER
cripiion	MICOUPER	CASE		CIRCUII

Type METASOL

ABS103C

ABP53C/ABP103C ABH53C/ABH103C

Applicant LSIS CO., LTD.

1 SONGJEONG-DONG, HEUNGDEOK-GU 361-720 CHEONGJU-CITY, CHUNGBUK

KOREA, REPUBLIC OF

Manufacturer

LSIS CO., LTD.

Place of manufacture

1 SONGJEONG-DONG, HEUNGDEOK-GU

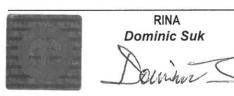
361-720 CHEONGJU-CITY, CHUNGBUK

KOREA, REPUBLIC OF

Reference standards

IEC 60947-2

Issued in BUSAN on January 24, 2011. This Certificate is valid until January 23, 2016



This certificate consists of this page and 1 enclosure

This certificate annuls and replaces existing certificate No. ELE066909PU/002 issued on 03/07/2009



# TYPE APPROVAL CERTIFICATE No. ELE428210PU/002 Enclosure – Page 1 of 1

#### **METASOL**

## **Product Description**

• Moulded case circuit breaker type METASOL applicable to the marine environment with following rating:

Туре	Rated	Rated	Rated	Service	Ultimate	Rated	Util.
30.50	Freq.	Current	Oper.	Short-circuit	Short-circuit	Short-circuit	Cate-
	[Hz]	at 45 ℃	Volt.	Breaking Capacity	Breaking Capacity	Making Capacity	gory
		In[A]	Ue[V]	Ics[kA]	Icu[kA]	Icm[kA]	
ABS103c 5	50/60	15~125	690	Ics = Icu	8	13.6	A
			480/500		26	54.6	
			415/460		37	77.7	
			220/240		85	187	
ABP53c	50/60	15~50	690	Ics = Icu	10	17	Α
			480/500	0.00	30	63	
			415/460		42	88.2	
			220/240		85	187	
АВН53с	50/60	15~50	690	Ics = Icu	10	17	A
			480/500	Transmitted that Propagation that	35	73.5	
			415/460		50	105	
			220/240		100	220	
ABP103c	50/60	15~125	690	Ics = Icu	10	17	Α
			480/500		30	63	
			415/460		42	88.2	
			220/240		85	187	
ABH103c	50/60	15~125	690	Ics = Icu	10	17	Α
			480/500		35	73.5	
			415/460		50	105	
			220/240		100	220	

<sup>\*</sup>Note) 220/240 = 220V, 240V, 250V

## **Reference Documents**

- Perfromance Test: KEMA Test Certificate No. NL-17241/A1 dated 07/01/2010, KEMA Test Report No. 2109959.51 dated 13/05/2008
- Environmental Test (including Vibration & Inclination Test): PT&T Report No. R49-0912 dated 01/06/2009

## Note/Remark

- The product is subject to the compliance with RINA Rules and Standards mentioned on the certificates
- Type Approval certifies that a representative sample of the product has been found to meet the applicable design criteria
- Any modification or change shall not be valid until approval is granted by RINA as a result of due assessment.
- Circuit Breakers with nominal current greater than 100A are subject to Final Inspection/Final Test of the Society.

# BUSAN 23 January, 2011

\* This certificate annuls and replaces existing certificate No. ELE066909PU/002 issued on 03/07/2009



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