



TYPE APPROVAL CERTIFICATE
No. **ELE109209PU/003**

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>	MOULDED CASE CIRCUIT BREAKER
<i>Type</i>	Moulded case circuit breakers type HBD UCB UBL HiBX
<i>Applicant</i>	HYUNDAI HEAVY INDUSTRIES CO., LTD. - EES : LCB DEPARTMENT 1 JEONHA-DONG, DONG-GU 682-060 ULSAN, KOREA, REPUBLIC OF
<i>Manufacturer</i>	HYUNDAI HEAVY INDUSTRIES CO., LTD. - EES : LCB
<i>Place of manufacture</i>	DEPARTMENT 1 JEONHA-DONG, DONG-GU 682-060 ULSAN, KOREA, REPUBLIC OF
<i>Reference standards</i>	IEC 60947-1; IEC 60947-4-1; IEC 60947-5-1

Issued in **BUSAN** on **June 22, 2010**. *This Certificate is valid until* **June 21, 2015**



RINA

Dominic Suk

This certificate consists of this page and 1 enclosure



RINA

TYPE APPROVAL CERTIFICATE

No. ELE109209PU/003

Enclosure – Page 1 of 1

Product Description

- Moulded case circuit breakers type HBD, UCB, UBL, HiBX applicable to the marine environment (closed area):

Type	Rated Freq. [Hz]	Rated Current at 45°C In[A]	Rated Operational Voltage Ue[V]	Rated Service Short-circuit Breaking Capacity Ics[kA]	Rated Ultimate Short-circuit Breaking Capacity Icu[kA]	Rated Short-circuit Making Capacity Icm[kA]	Util. Category
HBD52D	50/60	5~50	AC 220	5	5	7.5	A
UCB100L	50/60	15~100	AC 440	25	50	105	A
UBL100C	50/60	15~100	AC 440	25	50	105	A
UCB250L	50/60	125~225	AC 440	12.5	25	52.5	A
UBL225C	50/60	125~225	AC 440	17.5	35	73.5	A
HiBX-103NT	50/60	15~100	AC 460	100	100	220	A
HiBX-203NT	50/60	125~225	AC 460	100	100	220	A
HiBX-403NE	50/60	400	AC 460	100	100	220	A
HiBX-603NE	50/60	600	AC 460	100	100	220	A

*Note : thermal overcurrent protection for HBD, UCB, UBL, electronic overcurrent protection for HiBX

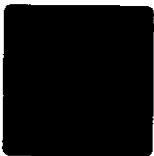
Reference Documents

- Performance Test: HHI Test Report No. CB09-086/013/014/026/027/030/031 dated 19/02/2009
KERI Test Report No. 02S1406, 02S1401, 02S1402 dated 05/11/2002
- Environmental Test: HHI Test Report No. HHI-CB-EV-100301/100305/100306/100307/100308 dated 18/03/2010
KTI Test Report No. KTI03EV02002 dated 05/02/2003, No. KTI10EV11002 dated 23/11/2010

Note/Remark

- The product is always subject to the compliance with RINA Rules and other Standards mentioned on certificate
- 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 June 22, 2010



JSK
RINA

Head Office:

Via Corsica, 12 16128 Genova - Italy

Tel. +39 010 53851

Fax +39 010 5351000

Plan Approval Centre KOREA - BUSAN OFFICE

16th Fl, Nat'l Pension Corp Bldg, 1422-8, Yeonsan 2-Dong
Yeonje-Gu, Busan, 611-705

TEL: +82 51 465 5412

FAX: +82 51 465 5535~6

E-MAIL: ConstructionServices.Pusan@rina.org