



## TYPE APPROVAL CERTIFICATE

### 형식승인증서

**Certificate No.** : TJN00429-EL028 **Date of Approval** : 31st January, 2008.  
**Product** : Air Circuit Breakers  
**Manufacturer** : LS Industrial Systems Co., Ltd. - Cheongju Plant  
1 Songjeong-dong, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do  
361-720, Korea  
**Product Description** : Type : AS-□□D/□□E/□□F/□□G (Metasol Series)  
- Frame size : 2000AF, 4000AF, 5000AF, 6300AF  
" See Appendix 1 "

**Approval Condition** : " See Appendix 1 "

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 1, Art. 803 of the Rules for Classification, Steel Ships and IEC 60947-2.

This Certificate is valid until 30th January, 2013.

Issued at Daejeon, Korea on 31st January, 2008.



한국선급  
KOREAN REGISTER OF SHIPPING

*Choi Jong-yuel*

General Manager of  
Materials and Equipment Team

**Note** : 1 : The approval will be automatically suspended and the Certificate become invalid from the expiry date of the Certificate in the event that the extension has not been granted or is not under attendance for completion of the renewal survey.  
2 : The manufacturer should notify this Society of any modification or changes that may affect the validity of this Certificate.



## Appendix 1

# Product Description and/or Approval Condition

Certificate No : TJN00429-EL028

Date of Approval : 31st January, 2008.

Product Descriptions : AS-□□D/□□E/□□F/□□G (Metasol Series)

Type	Frame	No. of Poles	Rated Operating Voltage Ue (Va. c)	Rated Current at 45°C In max (A)	Rated Breaking Capacity Icu=Ics (kA) (690/500/250V)	Rated Making Capacity Icm (kA) (690/500/250V)	Rated Short-Time Withstand Current Icw (kA/1s)
AS-06D		3, 4	690	630	65/70/70	143/154/154	65
AS-08D		3, 4	690	800	65/70/70	143/154/154	65
AS-10D	2000AF	3, 4	690	1000	65/70/70	143/154/154	65
AS-13D		3, 4	690	1250	65/70/70	143/154/154	65
AS-16D		3, 4	690	1600	65/70/70	143/154/154	65
AS-20D		3, 4	690	2000	65/70/70	143/154/154	65
AS-20E		3, 4	690	2000	85/85/85	187/187/187	85
AS-25E	4000AF	3, 4	690	2500	85/85/85	187/187/187	85
AS-32E		3, 4	690	3200	85/85/85	187/187/187	85
AS-40E		3, 4	690	4000	85/85/85	187/187/187	85
AS-40F	5000AF	3, 4	690	4000	85/100/100	187/220/220	85
AS-50F		3, 4	690	5000	85/100/100	187/220/220	85
AS-40G		3, 4	690	4000	100/120/120	220/264/264	100
AS-50G	6300AF	3, 4	690	5000	100/120/120	220/264/264	100
AS-63G		3, 4	690	6300	100/120/120	220/264/264	100

### Approval Condition :

- This approval is granted on the basis of following reports.
  - KEMA test report No. 2106131.50, 2106131.51, 2106131.52, 2106131.53,
  - KERI test report No. 2007TS01281, 2007TS01282, 2007TS01283, 2007TS01284, 2007TS01285, 2007TS01287
  - KIMM test report No. 2007292340
  - PT&T test report No. R37-0474, R47-1038, R47-1590, R47-1591
- Product Certification is not required.

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