

TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product  
Produit

Magnetic Contactor

Name and adresse of the Applicant  
Nom et adresse du demandeur

Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Name and adresse of the manufacturer  
Nom et adresse du fabricant

Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Name and adresse of the factory  
Nom et adresse de l'usine

Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Rating and principal characteristics  
Valeurs nominales et caractéristiques principales

3 poles AC 220 V / 440 V 9 A

Trademark (if any)  
Marque de fabrique (si elle existe)



Type of manufacturer's Testing Laboratories used  
Type de programme de laboratoire d'essais constructeur

Model / Type Ref.  
Ref. De type

UMC 9 + UAL65(Aux.)

Additional information (if necessary may also be reported on page 2)  
Informations complémentaires (si nécessaire, peuvent être indiqués sur la  
même page)

A sample of Product was tested and found to be in conformity with  
Un échantillon de ce produit a été essayé et été considéré conforme à la

60947-4-1(ed.2);am1;am2

As show in the Test Report Ref. No. which forms part of this certificate  
Comme indiqué dans le Rapport d'essais numéro de référence qui constitue  
partie de ce certificat

2009TS01811

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Korea Electrotechnology Research Institute (KERI)  
Sa-dong 1271-19, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Republic of Korea

Date: 2009-09-14

Signature: Mr. Ki-Taek Lee



Test Report issued under the responsibility of



**TEST REPORT**

**IEC 60947-4-1**

**Low-voltage switchgear and controlgear**

**Part 4: Contactors and motor-starters**

**Section 1: Electromechanical contactors and motor-starters**

**Report Reference No.** ..... : 2009TS01811  
**Tested by (name+ signature)**..... : AHN, Sang-Pil  
**Witnessed by (name+ signature)**..... : -  
**Supervised by (name+ signature)**..... : -  
**Approved by (name+ signature)**..... : PARK, Nam-Ok  
**Date of issue** ..... : 2009-09-03

*Ahn Sang-Pil*  
 .....  
 .....  
*Park Nam-Ok*  
 .....

**CB Testing laboratory** ..... : KERI-SEOUL  
**Address**..... : #1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do,  
 426-170, Rep. of Korea  
**Testing location/ procedure**..... : **CBTL**  **RMT**  **SMT**  **WMT**  **TMP**   
**Testing location/ address** ..... : **#1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Rep. of KOREA**

**Applicant's name** ..... : HYUNDAI HEAVY INDUSTRIES CO., LTD.  
**Address**..... : #1, Jeonha-dong, Dong-gu, Ulsan-city, 682-792, Rep. of KOREA

**Test specification**..... :  
**Standard**..... : IEC 60947-4-1:2000(2<sup>nd</sup> Ed.) + A1:2002+A2:2005  
 used in conjunction with IEC 60947-1:2004(4<sup>th</sup> Ed.)  
**Test procedure** ..... : CB  
**Non-standard test method** ..... : N/A

**Test Report Form No.** ..... : IECEN60947\_4\_1B  
**Test Report Form(s) Originator**..... : KEMA Quality B.V.  
**Master TRF** ..... : Dated 2006-06

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TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product / Produit: Magnetic contactor with the thermal overload relay

Name and adresse of the Applicant / Nom et adresse du demandeur: Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Name and adresse of the manufacturer / Nom et adresse du fabricant: Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Name and adresse of the factory / Nom et adresse de l'usine: Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Rating and principal characteristics / Valeurs nominales et caractéristiques principales: 3 poles AC 220 V / 440 V 12 A

Trademark (if any) / Marque de fabrique (si elle existe)



Type of manufacturer's Testing Laboratories used / Type de programme de laboratoire d'essais constructeur

Model / Type Ref. / Ref. De type: UMC 12 + UTH12(TOR) + UAL65(Aux.)

Additional information (if necessary may also be reported on page 2) / informations complémentaires (si nécessaire, peuvent être indiqué sur la 2ème page)

A sample of Product was tested and found to be in conformity with / Un échantillon de ce produit a été essayé et été considéré conforme à la

As show in the Test Report Ref. No. which forms part of this certificate / Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce certificat

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Korea Electrotechnology Research Institute (KERI)  
Sa-dong 1271-19, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Republic of Korea

Date: 2009-09-14

Signature: Mr. Ki-Taek Lee



Test Report issued under the responsibility of



**TEST REPORT**

**IEC 60947-4-1**

**Low-voltage switchgear and controlgear**

**Part 4: Contactors and motor-starters**

**Section 1: Electromechanical contactors and motor-starters**

**Report Reference No.** ..... : 2009TS01812

**Tested by (name+ signature)** ..... : AHN, Sang-Pil *Ahn Sang-Pil*

**Witnessed by (name+ signature)** ..... : -

**Supervised by (name+ signature)** ..... : -

**Approved by (name+ signature)** ..... : PARK, Nam-Ok *Park Nam-Ok*

**Date of issue** ..... : 2009-09-03

**CB Testing laboratory** ..... : KERI-SEOUL

**Address** ..... : #1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do,  
426-170, Rep. of Korea

**Testing location/ procedure** ..... : **CBTL**  **RMT**  **SMT**  **WMT**  **TMP**

**Testing location/ address** ..... : **#1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Rep. of KOREA**

**Applicant's name** ..... : HYUNDAI HEAVY INDUSTRIES CO., LTD.

**Address** ..... : #1, Jeonha-dong, Dong-gu, Ulsan-city, 682-792, Rep. of KOREA

**Test specification** ..... :

**Standard** ..... : IEC 60947-4-1:2000(2<sup>nd</sup> Ed.) + A1:2002+A2:2005  
used in conjunction with IEC 60947-1:2004(4<sup>th</sup> Ed.)

**Test procedure** ..... : CB

**Non-standard test method** ..... : N/A

**Test Report Form No.** ..... : IECEN60947\_4\_1B

**Test Report Form(s) Originator** ..... : KEMA Quality B.V.

**Master TRF** ..... : Dated 2006-06

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TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product  
Produit

Name and adresse of the Applicant  
Nom et adresse du demandeur

Name and adresse of the manufacturer  
Nom et adresse du fabricant

Name and adresse of the factory  
Nom et adresse de l'usine

Rating and principal characteristics  
Valeurs nominales et caractéristiques principales

Trademark (if any)  
Marque de fabrique (si elle existe)

Type of manufacturer's Testing Laboratories used  
Type de programme de laboratoire d'essais constructeur

Model / Type Ref.  
Ref. De type

Additional information (if necessary may also be reported on page 2)  
Informations complémentaires (si nécessaire, peuvent être indiqués sur la  
2<sup>e</sup>me page)

A sample of Product was tested and found to be in conformity with  
Un échantillon de ce produit a été essayé et été considéré conforme à la

As show in the Test Report Ref. No. which forms part of this certificate  
Comme indiqué dans le Rapport d'essais numéro de référence qui constitue  
partie de ce certificat

Magnetic contactor

Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

3 poles AC 220 V / 440 V 18 A



UMC 18 + UAL65(Aux.)

60947-4-1(ed.2);am1;am2

2009TS01813

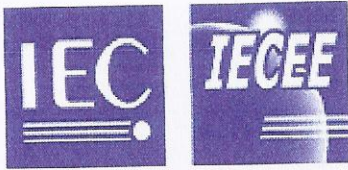
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Korea Electrotechnology Research Institute (KERI)  
Sa-dong 1271-19, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Republic of Korea

Ce Certificat d'essai OC est établi par l'Organisme National de Certification

Date: 2009-09-14

Signature: Mr. Ki-Taek Lee



Test Report issued under the responsibility of



**TEST REPORT**

**IEC 60947-4-1**

**Low-voltage switchgear and controlgear**

**Part 4: Contactors and motor-starters**

**Section 1: Electromechanical contactors and motor-starters**

**Report Reference No.** ..... : 2009TS01813

**Tested by (name+ signature)** ..... : AHN, Sang-Pil *ahn sang-pil*

**Witnessed by (name+ signature)** ..... : -

**Supervised by (name+ signature)** ..... : -

**Approved by (name+ signature)** ..... : PARK, Nam-Ok *park nam-ok*

**Date of issue** ..... : 2009-09-03

**CB Testing laboratory** ..... : KERI-SEOUL

**Address** ..... : #1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do,  
426-170, Rep. of Korea

**Testing location/ procedure** ..... : **CBTL**  **RMT**  **SMT**  **WMT**  **TMP**

**Testing location/ address** ..... : **#1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Rep. of KOREA**

**Applicant's name** ..... : HYUNDAI HEAVY INDUSTRIES CO., LTD.

**Address** ..... : #1, Jeonha-dong, Dong-gu, Ulsan-city, 682-792, Rep. of KOREA

**Test specification** ..... :

**Standard** ..... : IEC 60947-4-1:2000(2<sup>nd</sup> Ed.) + A1:2002+A2:2005  
used in conjunction with IEC 60947-1:2004(4<sup>th</sup> Ed.)

**Test procedure** ..... : CB

**Non-standard test method** ..... : N/A

**Test Report Form No.** ..... : IECEN60947\_4\_1B

**Test Report Form(s) Originator** ..... : KEMA Quality B.V.

**Master TRF** ..... : Dated 2006-06

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TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product  
Produit

Magnetic contactor

Name and adresse of the Applicant  
Nom et adresse du demandeur

Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Name and adresse of the manufacturer  
Nom et adresse du fabricant

Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Name and adresse of the factory  
Nom et adresse de l'usine

Hyundai Heavy Industries Co., Ltd.  
#1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792,  
Korea, Republic of

Rating and principal characteristics  
Valeurs nominales et caractéristiques principales

3 poles AC 220 V / 440 V 25 A

Trademark (if any)  
Marque de fabrique (si elle existe)



Type of manufacturer's Testing Laboratories used  
Type de programme de laboratoire d'essais constructeur

Model / Type Ref.  
Ref. De type

UMC 25 + UAL65(Aux.)

Additional information (if necessary may also be reported on page 2)  
Informations complémentaires (si nécessaire, peuvent être indiqués sur la  
2ème page)

A sample of Product was tested and found to be in conformity with  
Un échantillon de ce produit a été essayé et été considéré conforme à la

60947-4-1(ed.2);am1;am2

As show in the Test Report Ref. No. which forms part of this certificate  
Comme indiqué dans le Rapport d'essais numéro de référence qui constitue  
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2009TS01814

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Korea Electrotechnology Research Institute (KERI)  
Sa-dong 1271-19, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Republic of Korea

**KERI**

Date: 2009-09-14

Signature: Mr. Ki-Taek Lee



Test Report issued under the responsibility of



TEST REPORT

IEC 60947-4-1

Low-voltage switchgear and controlgear

Part 4: Contactors and motor-starters

Section 1: Electromechanical contactors and motor-starters

Report Reference No. .... : 2009TS01814

Tested by (name+ signature)..... : AHN, Sang-Pil

*Ahn Sang-Pil*

Witnessed by (name+ signature)..... : -

Supervised by (name+ signature)..... : -

Approved by (name+ signature)..... : PARK, Nam-Ok

*Park Nam-Ok*

Date of issue ..... : 2009-09-03

CB Testing laboratory ..... : KERI-SEOUL

Address ..... : #1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do,  
426-170, Rep. of Korea

Testing location/ procedure..... : CBTL  RMT  SMT  WMT  TMP

Testing location/ address ..... : #1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Rep. of KOREA

Applicant's name ..... : HYUNDAI HEAVY INDUSTRIES CO., LTD.

Address ..... : #1, Jeonha-dong, Dong-gu, Ulsan-city, 682-792, Rep. of KOREA

Test specification..... :

Standard..... : IEC 60947-4-1:2000(2<sup>nd</sup> Ed.) + A1:2002+A2:2005  
used in conjunction with IEC 60947-1:2004(4<sup>th</sup> Ed.)

Test procedure ..... : CB

Non-standard test method ..... : N/A

Test Report Form No. .... : IECEN60947\_4\_1B

Test Report Form(s) Originator..... : KEMA Quality B.V.

Master TRF ..... : Dated 2006-06

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TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product Produit	Magnetic contactor with the thermal overload relay
Name and adresse of the Applicant Nom et adresse du demandeur	Hyundai Heavy Industries Co., Ltd. #1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792, Korea, Republic of
Name and adresse of the manufacturer Nom et adresse du fabricant	Hyundai Heavy Industries Co., Ltd. #1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792, Korea, Republic of
Name and adresse of the factory Nom et adresse de l'usine	Hyundai Heavy Industries Co., Ltd. #1, Jeonha-dong, Dong-gu, Ulsan-si, 682-792, Korea, Republic of
Rating and principal characteristics Valeurs nominales et caractéristiques principales	3 poles AC 220 V / 440 V 32 A
Trademark (if any) Marque de fabrique (si elle existe)	
Type of manufacturer's Testing Laboratories used Type de programme de laboratoire d'essais constructeur	
Model / Type Ref. Ref. De type	UMC 32 + UTH32(TOR) + UAL65(Aux.)
Additional information (if neccessary may also be reported on page 2) informations complémentaires (si nécessaire, peuvent être indiqué sur la 2eme page)	
A sample of Product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et été considéré conforme à la	60947-4-1(ed.2);am1;am2
As show in the Test Report Ref. No. which forms part of this certificate Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce certificat	2009TS01815

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Sa-dong 1271-19, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Republic of Korea

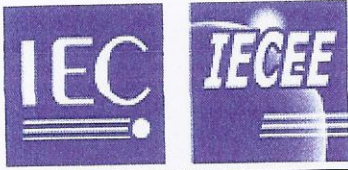
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Date: 2009-09-14

Signature: Mr. Ki-Taek Lee





Test Report issued under the responsibility of



**TEST REPORT**

**IEC 60947-4-1**

**Low-voltage switchgear and controlgear**

**Part 4: Contactors and motor-starters**

**Section 1: Electromechanical contactors and motor-starters**

Report Reference No. .... : 2009TS01815

Tested by (name+ signature)..... : AHN, Sang-Pil *ahn sang-pil*

Witnessed by (name+ signature)..... : -

Supervised by (name+ signature).... : -

Approved by (name+ signature)..... : PARK, Nam-Ok *Park Nam-Ok*

Date of issue ..... : 2009-09-03

CB Testing laboratory ..... : KERI-SEOUL

Address..... : #1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do,  
426-170, Rep. of Korea

Testing location/ procedure..... : CBTL  RMT  SMT  WMT  TMP

Testing location/ address ..... : #1271-19, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do, 426-170, Rep. of KOREA

Applicant's name ..... : HYUNDAI HEAVY INDUSTRIES CO., LTD.

Address..... : #1, Jeonha-dong, Dong-gu, Ulsan-city, 682-792, Rep. of KOREA

Test specification..... :

Standard..... : IEC 60947-4-1:2000(2<sup>nd</sup> Ed.) + A1:2002+A2:2005  
used in conjunction with IEC 60947-1:2004(4<sup>th</sup> Ed.)

Test procedure ..... : CB

Non-standard test method ..... : N/A

Test Report Form No. .... : IECEN60947\_4\_1B

Test Report Form(s) Originator..... : KEMA Quality B.V.

Master TRF ..... : Dated 2006-06

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