



**Leading Technology of  
Transformers.**



**DONGMI ELECTRIC IND. CO.,LTD.**

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## ❖ Company Profile

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### Our Mission

To be the best transformer manufacturer

### Established

Dec. 1972

### Employees

85 ( Sep. 2011)

### Factory

Land : 10,000 m<sup>2</sup> Building : 6000 m<sup>2</sup>

### Products

Distribution & Power Transformers

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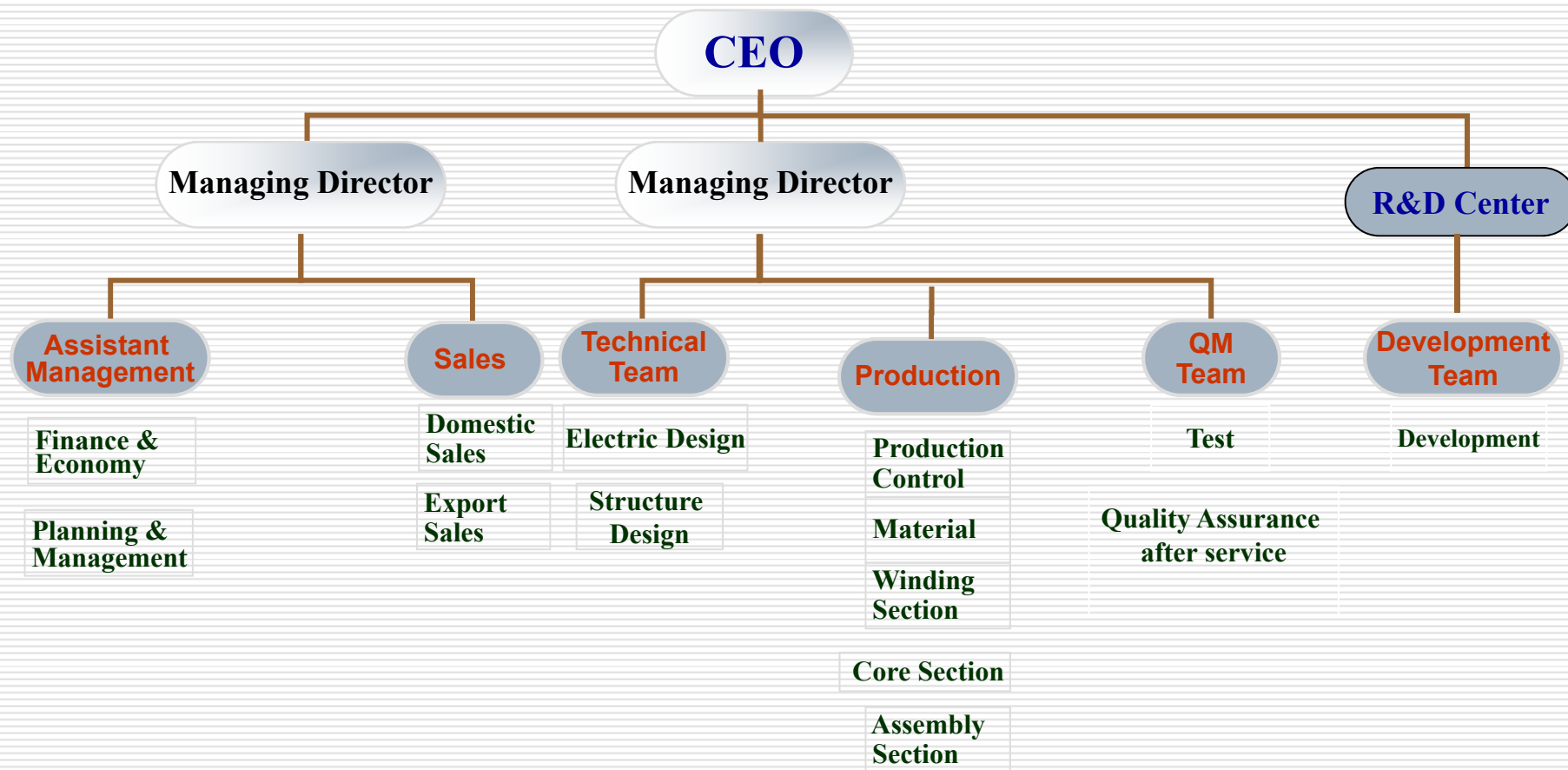
## ❖ Brief History

- Dec. 1972** Established in Seoul ( Dong Mi Enterprise Co., Ltd ).
- Jan. 1974** Appointed as a qualified military supplier to UN forces by R.O.K Government.
- Nov. 1976** Obtained the KSC Certificate for the Transformer by R.O.K Government.
- Jan. 1977** Registered a Vendor on KEPCO.
- Mar. 1992** Designated as a 1<sup>st</sup> class factory for increase of transformer production capacity.
- Mar. 1992** Changed the firm names as DONG MI ELECTRIC IND. CO., LTD.
- Dec. 1995** Certificated ISO 9001 quality management system.
- Dec. 1999** Certificated ISO environmental management system.
- Jul. 2001** Designate as a KOREA GOOG QUALITY MANAGEMENT 50's by industrial advancement administration.
- Jul. 2004** Established DONG MI KENYA LTD & RESISTERED KENYA POWER AND LIGHTING COMPANY for consulting & Suppling transformers.

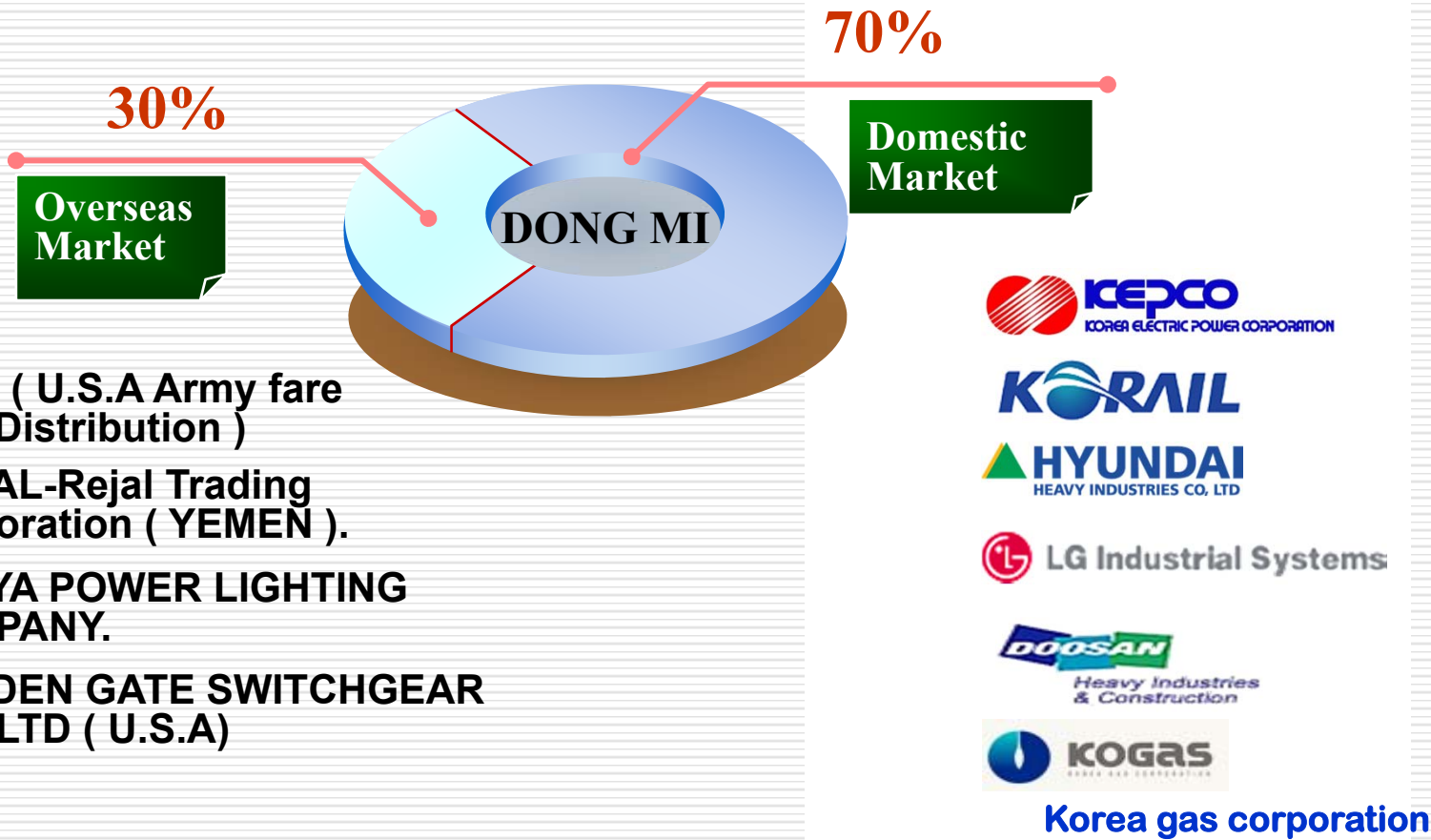
## ❖ Brief History

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- Mar. 2005** Exporting to IRAN SOUTH PAR GAS FIELD with Hyundai Heavy Ind. Co.,Ltd.
  - Jul. 2005** Exporting to AUSTRALIA for power transformers.
  - Jul. 2005** Exporting to U.S.A for Cast Resin Transformers.
  - Dec. 2005** Exporting to SAUDI ARABIA with Hyundai Heavy Ind. Co., Ltd.
  - Dec. 2006** Vendor Registration of YEMEN ELECTRIC AUTHORITY.
  - Feb. 2007** Vendor Registration of MALAYSIA ELECTRIC AUTHORITY.
  - Feb. 2007** Type test certificate of Oil type 2500kVA 33kV / 11kV,50HZ Transformer including short circuit test by IEC 60076 (KERI).
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## ❖ Organization



## ❖ Market Status and Major Customers



## ❖ Dong MI Technology

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DONG MI transformers are designed in accordance with the international standards to provide reliable and economical service for a wide variety of utility and industrial application.

Design take full advantage of improved core. Coil and insulation material, new manufacturing techniques and processes, and the latest advances in transformer technology.

DONG MI supplies the all kind of Power & Distribution transformers including specific design for, power-centers and substation, Pad-Mounted, and for Single and Three phase transformers range from 5kVA to 50MVA, with up to 72kV class.

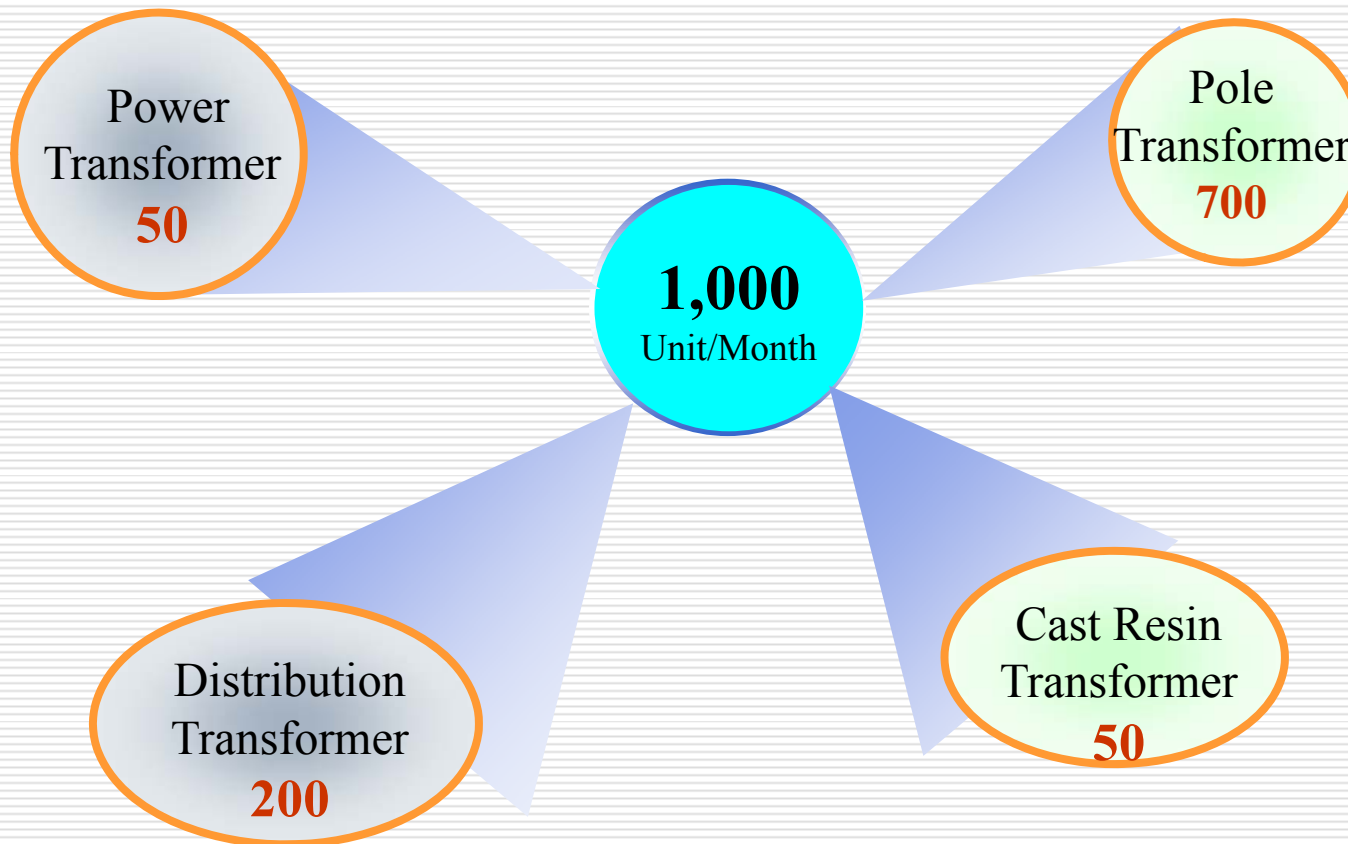
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## ❖ Product range

Product	Capacity	Voltage	Features
Power Transformers	Up to 50MVA	Up to 72kV	Used for indoor or outdoor application, can be provided with On-Load or Off Load tap changer.
Distribution Transformers	Up to 10MVA	Up to 72kV	Used for indoor or outdoor application, can be provided with On-Load or Off Load tap changer.
Pad Mounted Transformers	Up to 3MVA	Up to 36kV	Used for Pad mounted, can be provided with Radial or Loop feed system and Live front or Dead front construction.
Pole Mounted Transformers	Up to 167kVA	Up to 36kV	Used for pole mounted.

## ❖ Product Capability



## ❖ Range & Specification

### Power Transformer

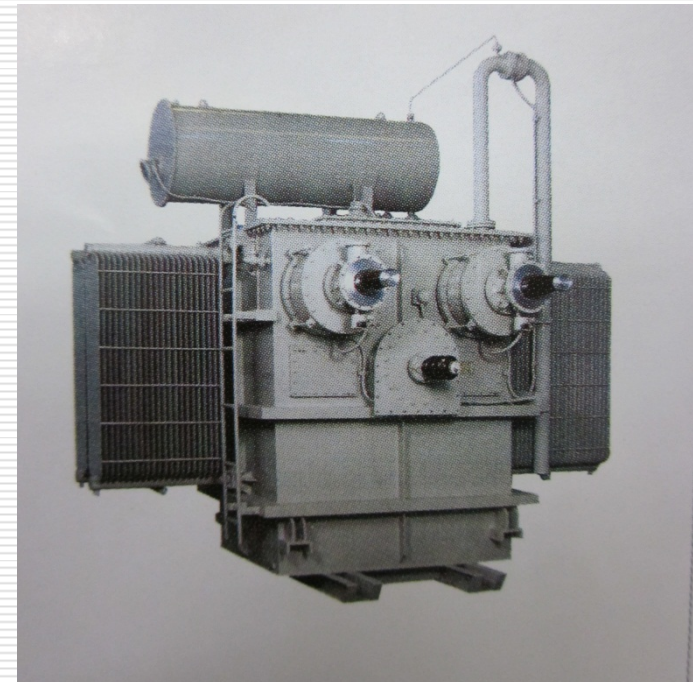
■ Capacity	Up To 50MVA
■ Voltage	Up To 72kV
■ Frequency	60Hz, 50Hz
■ Tap Changing method	NLTC , OLTC
■ Applicable Standard	IEC, ANSI, KS



## ❖ Range & Specification

### Special Transformer

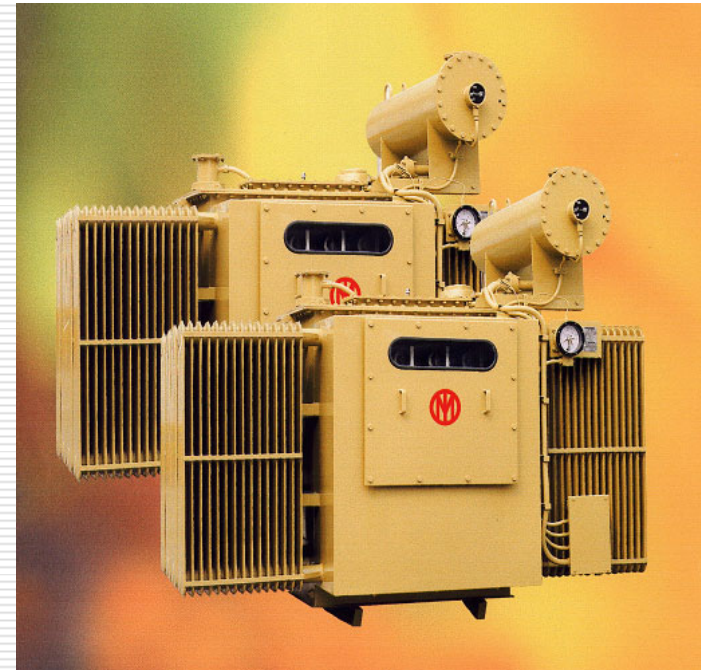
■ Capacity	Up To 15/30MVA
■ Voltage	55kV / 27.5kV
■ Frequency	60Hz, 50Hz
■ Bushing Type	Oil to Gas Bushing
■ Applicable Standard	IEC, ANSI, KS



## ❖ Range & Specification

### Distribution Transformer

■ Capacity	Up To 10MVA
■ Voltage	Up To 72kV
■ Frequency	60Hz, 50Hz
■ Tap Changing method	NLTC , OLTC



## ❖ Range & Specification

### Pole mounted Transformer

■ Capacity	Up To 167kVA
■ Voltage	Up To 33kV
■ Frequency	60Hz, 50Hz
■ Tap Changing method	NLTC



## ❖ Range & Specification

### Cast Resin Transformer

■ Capacity	50~10,000kVA
■ Voltage	Up To 33kV
■ Frequency	60Hz, 50Hz
■ Insulation Class	B or F
■ Phase	1Φ or 3Φ



## ❖ Range & Specification

### Pad Mount Transformer

■ Capacity	Up To 3000kVA
■ Voltage	Up To 33kV
■ Frequency	60Hz, 50Hz
■ Protection Method :	Two Fuse
■ Applicable standard :	ANSI





## ❖ Range & Specification

### Dry Transformer

■ Capacity	Up To 10000kVA
■ Voltage	Up To 25kV
■ Frequency	60Hz, 50Hz
■ Applicable Standard	IEC, ANSI, etc



## ❖ Quality Policy

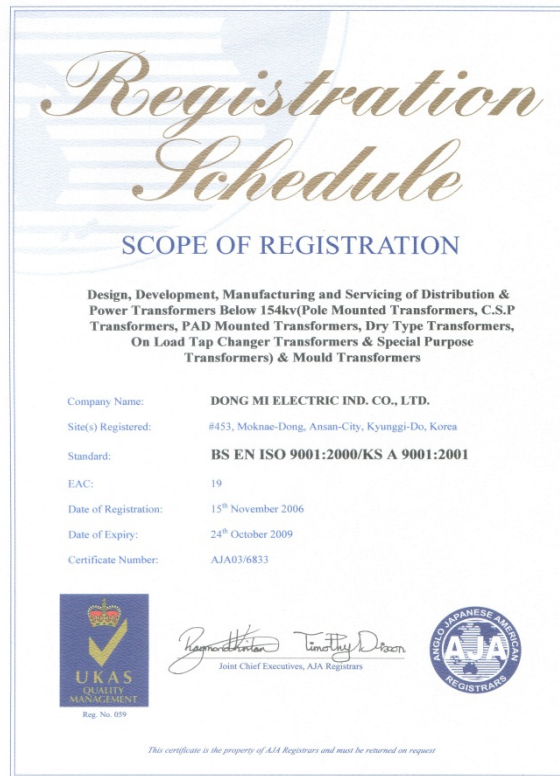
**The quality assurance of DONG MI is guaranteed to provide top-class products to customers through the on-going R&D for improvement and certified quality systems.**



## ❖ Quality Goal



## ❖ Quality System Certificates



**ISO 9001**



**ISO 14001**

## ❖ Factory Inspection and Test

Inspection & Test Item	Test Type			Participated by	
	Routine	Type	Special	Dong mi	Customer
1. Construction & Dimension Check	●			H	W
2. Winding Resistance Measurement	●			H	R
3. Ratio Check	●			H	W
4. Phase Relationship Check	●			H	R
5. Insulation Resistance Measurement	●			H	R
6. No-load Loss & Current Measurement	●			H	W
7. Impedance Voltage And Load Loss Measurement	●			H	W
8. Temperature Rise Test		●		H	W
9. Impulse Test		●		H	R
10. Separate-source Voltage Withstand Test	●			H	W
11. Induced Overvoltage Withstand Test	●			H	W
12. Sound Level Measurement			●	H	W
13. Calculation Of Efficiency And Voltage Regulation	●			H	R

**Dong Mi can carry out in-house all of routine and type test**

## ❖ Test Equipment List

No.	Test Item	Equipment Name	Specification	Maker
1	Measurements of Winding Resistance	Micro ohm meter	1mΩ~200Ω	Soken(Japan)
2	Voltage Ratio Measurement	Ratio meter	Error:±0.2%, Range:1~2000:1	Biddle(USA)
3	Measurements of Losses, Impedance and Current	<input type="checkbox"/> Auxiliary transformer <input type="checkbox"/> Power meter, CT, PT <input type="checkbox"/> IVR & M-G set <input type="checkbox"/> Capacitor bank	1100kV 6.6-3.3-1.6-0.88/0.44kV CT:10-1500A, PT:220-3300V 300kVA 220/220±100% 60Hz 6.6kV, 3.3kV, 1.65kV 5MVAR	Dongmi(Korea) YEW(Japan) Dongmil(Korea) Samwha(Korea)
4	Temperature Rise Test	<input type="checkbox"/> Auxiliary transformer <input type="checkbox"/> IVR & M-G set <input type="checkbox"/> Capacitor bank <input type="checkbox"/> Temp. recording system	1100kVA 14.4-7.2-4.32-2.16/0.44kV 300kVA 220/220±100% 60Hz 6.6kV, 3.3kV, 1.65kV 5MVAR 0~150℃	Dongmi(Korea) Dongmi(Korea) Samwha(Korea) Fluke(USA.)
5	Impulse Test	Impulse voltage test system	500kV , 25Kj	pasonibila(Italia)
6	Applied Voltage Test	Applied voltage test system	200kV	Sinjensa(Korea)
7	Induced Overvoltage Test	High frequency M-G set	83.3kVA 400Hz	Kato(Japan)
8	Sound Level Test	Sound level meter	20~130dB	YEW(Japan)
9	Insulation Resistance Measurement	Megger tester	2000V/5000MΩ	YEW(Japan)

## ❖ Type test Report

### Oil Immersed Type

TEST REPORT		2007T00226 1/10
CLASSIFICATION	Type Test	
APPARATUS	POWER TRANSFORMER	
DESIGNATION	-	
RATINGS	3φ 2500kVA 33kV/11kV 50Hz	
APPLIED STANDARD	IEC 60076-1(2000), Manufacturer's specification	
RECEIPT No.	TRD07C00091 (February 08, 2007.)	
APPLICANT	DONG MI ELECTRIC IND. CO., LTD 453 Moknae-dong, Danwon-gu, Ansan-city, Gyeonggi-do, Korea	
MANUFACTURER	DONG MI ELECTRIC IND. CO., LTD 453 Moknae-dong, Danwon-gu, Ansan-city, Gyeonggi-do, Korea	
DATE OF TESTS	March 06, 2007 ~ March 20, 2007	
DATE OF ISSUE	April 25, 2007	

The type tests have been carried out in accordance with sub-clauses 10.2 to 10.5 of IEC 60076-1(2000), IEC 60076-2(1993), 11, 12.2, 13 of IEC 60076-3(2000), IEC 60076-5(2006), IEC 60076-10(2001) and Manufacturer's specification.

The test results are presented in the records of tests with the performance of the tested apparatus and the observations made during the tests. The oscillograms are attached hereto.

The obtained values and the general performances are considered to comply with the requirements of the above standard for the performed type tests.

The test results apply only to the tested specific samples.

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No. OF PAGES records (10), photographs (3), circuit diagrams (2), oscillograms (15),  
INCORPORATED drawings & descriptions (1), attachments (8)

Test results in this report are within the scopes accredited by Korea Laboratory Accreditation Scheme, which signed the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement

Prepared by Kim, Kyoung-Woon  
Verified by Jeong, Joo-Young  
Approved by (Technical manager) La, Dae-Ryeol

High Power High Voltage Testing & Evaluation Division

**KERI** KOREA ELECTROTECHNOLOGY RESEARCH INSTITUTE  
Sungju-dong 28-1, Changwon, Korea, 641-100  
Tel : +82-55-280-1801, Fax : +82-55-280-1512, www.keri.re.kr  
KERI Laboratories are accredited by KOLAS (Korea Laboratory Accreditation Scheme)

DF-12/05

IEC 60076

### Cast Resin Type

TEST REPORT		2008T502283 1/11
CLASSIFICATION	Type Test	
APPARATUS	Dry Type Power Transformer	
DESIGNATION	-	
RATINGS	3 Phases 1 000 kVA Primary:22 900 V Secondary:380Y/220 V 60 Hz	
APPLIED STANDARD	IEC 60076-11(2004.05)	
RECEIPT No.	RRD08S00281 (November 11, 2008.)	
APPLICANT	DONG MI ELECTRIC IND. CO., LTD. 453, Moknae-Dong, Danwon-Gu, Ansan-City, Kyunki-Do, Korea	
MANUFACTURER	DONG MI ELECTRIC IND. CO., LTD. 453, Moknae-Dong, Danwon-Gu, Ansan-City, Kyunki-Do, Korea	
DATE OF TESTS	October 06, 2008 ~ November 06, 2008	
DATE OF ISSUE	December 18, 2008	

This report is the republication of test report No.2008T502057(2008.11.11) translated Korean into English.

The type tests have been carried out in accordance with IEC 60076-11(2004.05). The test results are shown in the records of tests with the performance of the apparatus tested and the observations made during the tests. The oscillograms are attached hereto.

The values obtained and the general performance are considered to comply with the requirements of the above standards for the type tests performed.

The test results apply only to the apparatus tested.

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Prepared by Kim, Sun-Ho  
Verified by Park, Byung-Rak  
Approved by (Technical manager) Park, Sung-Kyun

Power Apparatus Testing & Evaluation Division

**KERI** Korea Electrotechnology Research Institute  
Sa 1-dong 1271-19, Sangnok-gu, Ansan-si, Gyeonggi-do, Korea, 426-170  
Tel : +82-31-420-6114, Fax : +82-31-420-8029, www.keri.re.kr  
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DF-E-21/05/04

IEC 60076-11

## ❖ Facilities List for Oil Type Transformers

No	Facilities	Specification	Unit	Remarks
1	Oil Treatment Equipment	4000Lite / Hour	2	2001
2	Oil Storage Tank	Capacity : 20,000 Liter	2	2000
3	Vacuum Pressure Plant	0.5 Torr / 10HP	1	2000
4	Drying Oven	4100 X 3000 X 3200 30KW	4	2000
5	Winding Machine	Dia. 1250 X 3200 5HP	11	2000
		Dia. 500 X 1440 2.2HP	5	2000
6	Insulation Fabrication • Shearing M/C • Sliting M/C	2000 x PB 3.2	1	2000
			1	2000
7	Stack Core Cutting M/C -Auto M/C -V-Cutting M/C	W500 X 8200L	1	2000
		W500 X 6300L	3	2000
8	Wound Core . Auto Cutting M/C . Forming M/C . Annealing Furnace	Max. 450 x 2500L	1	2000
		Max. W450 X Dia. 750	1	2000
		Max. Temp. 1000 °C	4	2006



## ❖ Facilities List for Oil Type Transformers

No	Facilities	Specification	Unit	Remarks
9	Core Hole Punching M/C	W 450	1	2001
10	Over Head Crane	50Ton 30Ton 5Ton 2.8Ton	1 1 2 1	2012 1985 1985 2000
11	Core Up Hander	25Ton	1	2006
12	Welding M/C, Etc	Tig, Mig, etc	4	2006
13	Pork Lift Car	3.5Ton 7.0Ton	1 1	2000 2000

# Major Experience Lists



## Domestic

CAPACITY	Voltage	Q'ty	Delivery	Customer (Applicable)
1Φ15/30MVA	55kV / 27.5kV	31	May. 02	Korea Railroad Corporation
1Φ15/30MVA	55kV / 27.5kV	3	May. 03	Korea Railroad Corporation ( Busan )
1Φ7.5/15MVA	55kV / 27.5kV	14	Jun. 03	Korea Railroad Corporation
3Φ 10MVA	22.9kV / 4.16kV	3	Dec. 03	Dong yang Magic co., Ltd.
3Φ 10MVA	22.9kV / 6.6kV	1	Jul. 04	Air Korea Co., Ltd.
3Φ 15MVA	22.9kV / 3.3kV	1	Oct. 04	Kumho Petrochemical Co., Ltd.
1Φ10/20MVA	55kV / 27.5kV	3	Dec. 04	Korea Railroad Corporation
3Φ 15MVA	22.9kV / 6.6kV	3	Apr. 05	BUSAN Newport Co., Ltd.
3Φ 18MVA	22.9kV / 3.3kV	7	Dec. 05	POSCO
3Φ 12.5MVA	22.9kV / 6.9kV	6	Dec. 06	LG Chemical Co., Ltd.
3Φ 12MVA	22.9kV / 6.6kV	2	Aug. 07	The Office of Waterworks Seoul Metropolitan Government
3Φ 12MVA	34.5kV / 4.16kV	2	Sep. 07	Samsung Electric co., Ltd.
3Φ 15MVA	22.9kV / 6.6kV	3	Feb. 08	BUSAN Newport Co., Ltd.
3Φ 15MVA	11kV / 6.6kV	1	Apr. 08	POSCO

# Major Experience Lists



## Domestic

CAPACITY	Voltage	Q'ty	Delivery	Customer (Applicable)
3Φ18MVA	22kV / 3.3kV	3	Apr. 08	POSCO (No.2)
3Φ15MVA	22.9kV / 6.6kV	1	Jan. 09	POSCO (Mini Mill)
3Φ15MVA	22.9kV / 3.3kV	4	Feb. 09	Doosan Heavy Ind. & Construction co., Ltd.
3Φ 3MVA	6.6kV / 460V	6	Feb. 09	POSCO
3Φ 4.5MVA	22.9kV / 6.6kV	12	Feb. 09	HHI ( GUNSAN Factory)
3Φ 12/15MVA	22.9kV / 6.6kV	4	Feb. 09	BUSAN Newport Co., Ltd.
3Φ 2MVA	6.6kV / 480V	4	May. 09	KEPCO ( Samchunpo)
3Φ 15/19MVA	22kV / 3.3kV	1	Sep. 09	Koreazinc Co., Ltd.
3Φ 20MVA	22.9kV / 3.3kV	1	Oct. 09	CHOIL Aluminum Co., Ltd.
3Φ 5MVA	6.6kV / 690V	2	Dec. 09	HYUNDAI Steel Co., Ltd.
3Φ 14MVA	22.9kV / 6.6kV	3	Feb. 10	APK
3Φ 3MVA	6.6kV / 460V	12	Apr. 10	Dongyang Gangchul Co., Ltd.
3Φ 5MVA	22.9kV / 3.3kV	1	Jun. 10	Dongkuk Steel Co., Ltd.
3Φ 5MVA	22.9kV / 6.6kV	2	Sep. 10	Hynix Semiconductor Co., Ltd.

# Major Experience Lists



## Domestic

CAPACITY	Voltage	Q'ty	Delivery	Customer (Applicable)
3Φ5.5MVA	22.9kV / 3.55-3.55kV	1	Oct. 10	HYUNDAI Steel Co., Ltd.
3Φ10MVA	22.9kV / 6.6kV	2	Nov. 10	SamSung Eng. Co., Ltd.
3Φ 5MVA	22.9kV / 3.3kV	2	Nov. 10	KIA Motor co., Ltd.
3Φ 14MVA	22.9kV / 3.3kV	1	Dec. 10	OCI Co. Ltd.
3Φ 5MVA	22.9kV / 6.6kV	2	Jan. 11	KCC Corporation
3Φ 20/25MVA	6.9kV / 6.9kV	2	Jan. 11	Hyundai Oilbank Co., Ltd.
3Φ 25/30MVA	22.9kV / 6.6kV	2	Feb. 11	LG Chem. Ltd.
3Φ 1.5MVA	22kV / 380V	15	Feb. 11	DAIHAN Electric Wire Co., Ltd.
3Φ 2.5MVA	6.6kV / 0.5kV	12	Mar. 11	OCI Co., Ltd
3Φ 1.5MVA	4.16kV / 480V	1	Mar. 11	SK Energy Co., Ltd
3Φ 2.5MVA	6.6kV / 440V	4	Mar. 11	KPX Green CO., Ltd
3Φ 5MVA	22.9kV / 6.6kV	1	Mar. 11	Hynix Semiconductor Co., Ltd.
3Φ 3MVA	13.8kV / 460V	2	Apr. 11	Hyundai Heavy Ind. Co., Ltd.
3Φ 1.6MVA	13.8kV / 400V	30	Apr. 11	Doosan Heavy Ind. & Construction co., Ltd.



# Major Experience Lists



## Overseas

CAPACITY	Voltage	Q'ty	Delivery	Customer (Applicable)
3Φ 6.3MVA	33kV / 11.5kV	57	Feb. 03	IRAN South Par Gas Field.
3Φ 1.6MVA	11kV / 400V	39	Apr. 03	IRAN South Par Gas Field
3Φ 11MVA	33kV / 6.6kV	7	Jul. 07	IRAQ
3Φ 8.5MVA	13.8kV / 4.16kV	20	Aug. 08	Nicaragua
3Φ 15kVA	11kV / 433V	79	Mar. 09	KPLC (Kenya)
3Φ 2.5MVA	11kV / 433V	2	Mar. 09	Pacific Mk Co. (Malaysia)
3Φ 15MVA	33kV / 11kV	2	Mar. 09	EPE (Australia)
3Φ 1MVA	11kV / 433V	4	Jun. 09	Pacific Mk Co. (Malaysia)
3Φ 50kVA	33kV / 433V	350	Jul. 09	KPLC (Kenya)
3Φ 1.25MVA	11kV / 433V	1	Jul. 09	Pacific Mk Co. (Malaysia)
3Φ 160kVA	11kV / 400V	5	Aug. 09	Mongolia
3Φ 12.5MVA	33kV / 11kV	1	Aug. 09	EPE (Australia)
3Φ 1.6MVA	11kV / 433V	2	Oct. 09	Pacific Mk Co. (Malaysia)
3Φ 1.25MVA	11kV / 433V	2	Nov. 09	Pacific Mk Co. (Malaysia)

# Major Experience Lists



## Overseas

CAPACITY	Voltage	Q'ty	Delivery	Customer (Applicable)
3Φ 2MVA	13.8kV / 480V	6	Jan. 10	Jeddahro (Saudi Arabia)
3Φ 315kVA	11kV / 433V	190	Mar. 10	KPLC (Kenya)
3Φ 20MVA	33kV / 15kV	2	Jun. 10	Yemen
3 Φ 7MVA	6.6kV / 22.9kV	1	Sep. 10	PSPC C Pjt. (Philippine)
3Φ 20MVA	33kV / 15-11kV	2	Oct. 10	Yemen
3 Φ 30kVA	10kV / 400V	12	Oct. 10	Mongolia
3Φ 10/12.5MVA	33kV / 3.45kV	13	Jan. 11	IGD Project
3Φ 12/15MVA	11kV / 3.45kV	38	Jan. 11	UAE
3Φ 3MVA	11kV / 3.45kV	21	Mar. 11	Fertil – 2 project (UAE)
3Φ 5MVA	34.5kV / 4370V	19	Mar. 11	SAMCO Project (UAE)
3Φ 25MVA	13.8kV / 4350V	2	Apr. 11	SAMCO Project (UAE)
3Φ 15/18MVA	34.5kV / 4.16kV	6	May. 11	PETRON
3Φ 12.5/16MVA	11kV / 3.45kV	58	Aug. 11	Borouge Pjt

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# **DONG MI**

## **Providing Engineering Solutions**

# **Thank you!**

**DONG MI ELECTRIC IND. CO., LTD**  
453, Moknae-dong, Danwon-Gu, Ansan City  
Tel : 82 - 31 - 491 - 2581 ~ 5  
Fax : 82 - 31 - 491 - 2794

