



미래를 향한 힘찬 도약 -

파워맥스가 함께 합니다.

*The Creation of value for the customer,
that is the mission of **POWERMAX***

TRANSFORMER



파워맥스의 변압기의 우수성은 현장에서 확인할 수 있습니다.

The excellence of POWERMAX Transformer can be verified by use at the site.



CEO 인사말

안녕하십니까?

파워맥스(POWERMAX)를 찾아주신 고객님께 진심으로 감사의 말씀 올립니다.

이제 우리나라는 G20 정상회의를 개최하는 등 국가 브랜드 이미지 제고는 물론 국제사회에서의 리더십과 위상이 한 층 업그레이드 되었으며, 이러한 일련의 행보에 이르기까지 산업의 핵심 우리 중전산업의 역할도 한몫 하였다고 해도 과언이 아닐 것입니다.

파워맥스는 대한민국 중전기기의 역사인 이천전기(Leechun Heavy Electric)를 모태로 2000년 재탄생한 회사로서, 산업화 사회에 이은 지식기반사회 시스템을 기반으로 고객 여러분과 함께 전세계 전력 인프라 구축의 큰 역할을 담당해야 할 소명을 안고 있습니다.

급격한 사회의 변화는 우리에게 새로운 사고와 행동양식을 요구하고 있으며, 지속적으로 사업을 영위하기 위해서는 강력한 경쟁력을 갖추는 것이 무엇보다 최우선이라 하겠습니다. 파워맥스는 이러한 환경의 변화를 사업확장의 발판의 기회로 활용하여 더 많은 투자와 연구개발에 주력하고 있으며, 오랜 경험과 축적된 Know-How에 혁신적인 아이디어를 접목한 신기술로 "고객 제일주의"의 경영철학을 실천하겠습니다.

또한 파워맥스의 임직원 모두는 녹색성장정책을 기본으로 환경을 최우선시하여 연구개발에 매진, 중전산업 분야의 초 우량기업이 되어 고객님의 사업 발전에 이바지 할 수 있도록 최선의 노력을 다 할 것을 굳게 약속합니다.

고객 여러분의 끊임없는 관심과 사랑에 진심으로 감사 드립니다.

CEO/회장 **장 세 창**

● **고효율 변압기 추구**

지구 온난화 방지를 위해 당사의 변압기는 고객의 요구에 따라 저손실화를 추구하여, 에너지의 절감에 크게 공헌하여 왔습니다. 최근에는 환경문제가 글로벌 이슈로 대두되어 에너지소비에 의해 발생하는 Co2를 저감하는 목적에 대응한 최저소비효율기준 및 표준소비효율에 적합한 변압기를 제작하고 있습니다.

● **High Efficiency Transformer**

Our transformer contributed to energy conservation by pursuing low-loss, and we are trying to develop more energy-efficient equipments for the global environment.

● **다양한 기종**

많은 경험과 기술력을 바탕으로 주상변압기(Pole Transformer)를 비롯한 소형배전용에서부터 80MVA급 대용량인 전력용변압기에 이르기까지 로(Furnace)용 및 정류기용 등 특수한 용도의 변압기에 대하여 다양하게 기술을 축적하여 왔습니다.

● **Various Types**

POWERMAX manufactures various types of transformer from pole type transformer to medium voltage power transformer (up to 72kV / 80MVA), and special transformers, e.g. furnace and rectifier transformers.

● **고 신뢰성을 갖춘 권선설계 제작 기술**

변압기의 기계적 단락강도 향상 및 도체의 다중전위에 의한 Eddy Loss의 감소 및 순환전류의 감소 등 손실저감의 달성으로 변압기의 효율을 향상함으로써 고객의 요구에 만족하도록 하였습니다. 특히 60kV 이상의 고압권선의 경우 충격전압의 분포를 개선하는 권선 구조를 채택하여 신뢰성을 향상하였습니다.

● **Winding Technique with High Reliability**

We improved efficiency of transformer by improving short circuit strength and reducing loss. Applied winding structure which improves dispersion of impulse voltage, especially for high voltage winding above 60kV.

● **저손실 · 저소음화를 실현한 코어구조**

코어 적층구조를 Step Lap Laminated Core Type으로 개선함으로써 무부하손실을 저감하며 소음을 획기적으로 낮춘 저소음변압기 제작을 실현하였습니다. 또한 코어 내부에 냉각덕트를 설치함으로써 코어에서 발생하는 열을 최소화하여 내구성 향상을 도모하고 있습니다.

● **Better Core Type for Low Loss/Noise**

Realized low-loss/ low-noise transformer by applying Step Lap Laminated Core Type. Also equipped cooling duct inside core to minimize heat generated by core.

www.powermax.kr

I wish to express my deepest gratitude to all customers of POWERMAX.

Korea has succeeded in not only improving the national brand image but has also upgraded leadership and status in the international society by holding global events such as the G20 summit. It is within bounds to say that the heavy electric industry has played a significant role in the accomplishment of such achievements.

In the year 2000, POWERMAX was reborn from Leechun Electric, the company that forms the history of Korea's heavy electric industry, and POWERMAX holds the mission of taking the significant role of constructing worldwide power infra.

The rapid changes in society require new thinking and behavior forms, and it is most important to be equipped with strong competitiveness

in order to continuously manage business. POWERMAX uses such environment changes as a foothold for business expansion to concentrate on greater investment and R&D, and will practice the business philosophy of "customer first" through new technology combined with experience, accumulated know-how, and innovative ideas.

Furthermore, all employees of POWERMAX promise to concentrate on R&D and develop into a blue-chip company in the field of heavy electric industry in order to endeavor to contribute to the development of businesses of customers.

Thank you for your continuous interest in POWERMAX.
CEO/Chairman **Chang, Sechang**

MAIN PRODUCTS

As a manufacturer specializing in heavy electric equipment, POWERMAX Co., Ltd. is working hard to achieve customer satisfaction with the highest quality and service based on its superior human resources and technology that has led the electric industry for over 40 years.



- **Power/Distribution Transformer**
Up to 72kV, 80MVA
- **Special Purpose Transformer**
Thyristor Transformer
Furnace Transformer
Scott Transformer for Electric Train



- **Pole Transformer**
Low Loss Type
CSP(Self Protective) Type
Amorphous Type



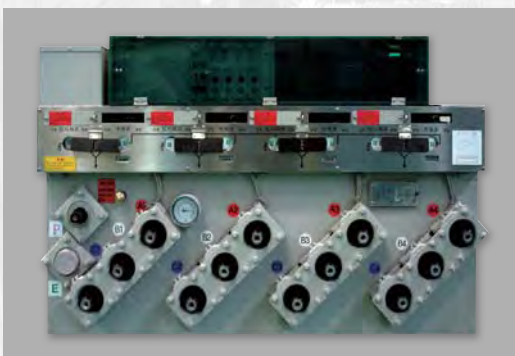
- **Pad Mounted Transformer**
With Load Break Switch
Loop or Radial Feed
Live or Dead Front
50kVA ~ 5000kVA



- Emergency Generator
- AC Generator for Land-Use
- AC Generator for Marine & Offshore use
- Motor-Generator set
(Frequency transform use, other special uses)
- Generator Control Panel & Synchronous Panel
- Small size Co-generation Apparatus



- SF6 Gas Insulated Switch Gear
25.8kV 600/2000A
Cubicle Type



- SF6 Gas Insulated Load Break Switch
25.8kV, 600A
Pad Mounted Switch(Underground Line)
3Way : Manual Operating
4Way : Manual & Auto Operating

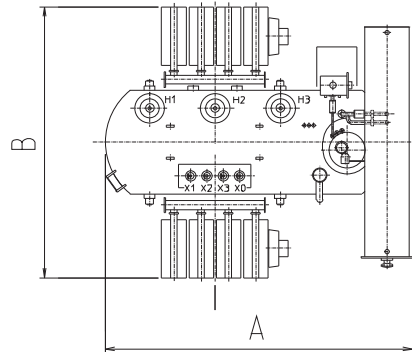
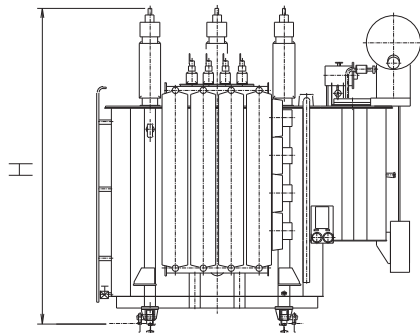
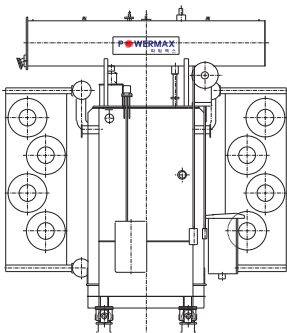
Product Introduction

POWER TRANSFORMER(with OLTC)



General Specifications

Frequency : 50/ 60Hz
High voltage : 66/ 33/ 22kV
Low voltage : 6.6/ 3.3kV



Electrical Characteristics @ Outline Dimensions(50/60Hz)

Voltage	Capacity (kVA)	Efficiency (%)	Voltage Regulation(%)	Exciting Current Io(%)	Dimensions(mm)			Oil (l)	Weight (kg)
					A	B	H		
3Φ 66/ 33/ 22kV ~ 6.6/ 3.3kV	8/10MVA	99.22	1.1	1.4	4150	3450	4500	3730	16220
	12/15MVA	99.24	1.3	1.4	4950	3450	4750	4550	20920
	15/20MVA	99.14	1.1	1.2	5540	3320	3860	7100	30000
	20/250MVA	99.54	1.2	0.8	4900	4800	4600	12000	48000
	25/30MVA	99.10	1.2	0.8	6540	3900	4200	10500	43200
	30/36MVA	99.20	1.5	0.8	5150	5400	4050	11500	45600
	36/40MVA	99.59	1.1	0.8	6220	5020	6500	24200	92500
	47MVA	99.30	1.2	0.8	7050	4650	5300	19500	79000
	60MVA	99.40	1.5	0.8	7470	5360	5000	20830	95490
	80MVA	99.50	1.4	0.8	8900	6200	5950	24750	113500

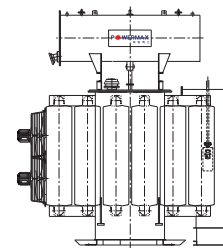
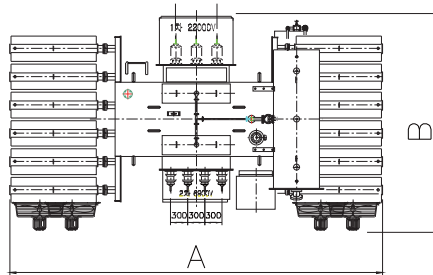
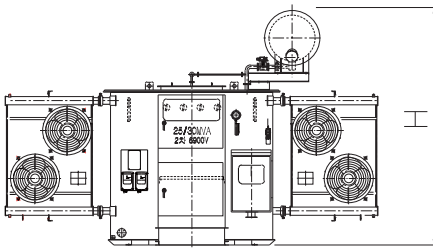


POWER TRANSFORMER(with NLTC)



General Specifications

Frequency : 50/ 60Hz
 High voltage : 22kV
 Low voltage : 6,6/ 3,3kV



Electrical Characteristics @ Outline Dimensions(50/60Hz)

Voltage	Capacity (kVA)	Efficiency (%)	Voltage Regulation(%)	Exciting Current I ₀ (%)	Dimensions(mm)			Oil (l)	Weight (kg)
					A	B	H		
3Φ 22kV ~ 6.6/ 3.3kV	200	98.2	1.7	6.0	1130	1130	1430	310	1140
	300	98.4	1.6	5.5	1140	1290	1430	360	1270
	500	98.6	1.5	5.0	1220	1550	1520	440	1820
	750	98.6	1.3	4.8	1260	1590	1650	610	2250
	1000	98.7	1.3	4.5	4150	1640	1800	750	3100
	1500	98.9	1.3	3.5	1840	2230	1990	1280	4410
	2000	99.0	1.3	3.0	1940	2320	2180	1330	4700
	3000	99.2	1.1	3.0	2320	2710	2560	1970	7520
	5000	99.2	1.1	2.8	2580	3390	2750	2740	10340
	7500	99.2	1.1	2.5	2180	3680	2940	3570	14100
15000	99.3	1.1	1.4	3200	4150	3650	6700	26000	
30000	99.4	1.1	1.0	4500	5000	3800	10000	51000	

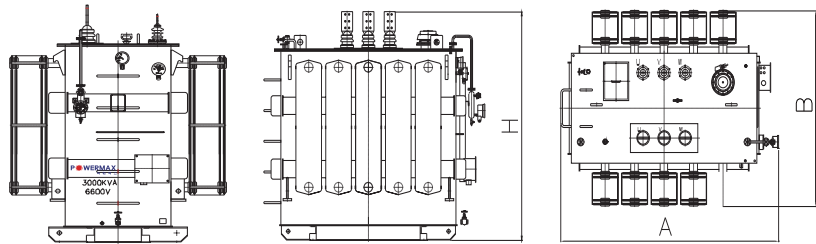
Product Introduction

DISTRIBUTION TRANSFORMER



General Specifications

Frequency : 50/ 60Hz
High voltage : 22/ 6.6/ 3.3kV
Low voltage : 600V and less

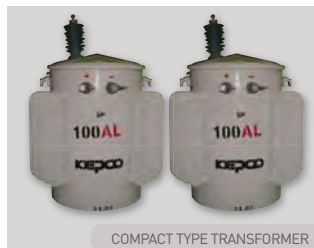


Electrical Characteristics @ Outline Dimensions(50/60Hz)

Voltage	Capacity (kVA)	Efficiency (%)	Voltage Regulation(%)	Exciting Current Io(%)	Dimensions(mm)			Oil (l)	Weight (kg)
					A	B	H		
3Φ 22kV ~ Low voltage	100	98.0	1.8	6.0	950	930	1300	230	730
	150	98.1	1.8	6.0	1020	1010	1380	260	880
	200	98.2	1.7	6.0	1100	1100	1420	300	1000
	300	98.4	1.6	5.5	1160	1410	1420	360	1300
	500	98.5	1.5	5.0	1240	1500	1500	450	1800
	750	98.6	1.3	4.8	1300	1800	1600	620	2350
	1000	98.7	1.3	4.5	1450	1740	1800	800	3100
	1500	98.8	1.3	3.5	1840	2290	2000	1330	4230
	2000	98.9	1.3	3.0	1940	2380	2180	1310	4880
	3000	99.1	1.3	3.0	2420	3200	2660	2500	7750
3Φ 6.6/ 3.3kV ~ Low voltage	100	98.0	1.8	6.0	870	940	1050	180	620
	150	98.1	1.7	6.0	970	1070	1100	220	750
	200	98.2	1.7	6.0	1070	1160	1170	250	930
	300	98.4	1.7	5.5	1100	1410	1230	330	1120
	500	98.5	1.6	5.0	1160	1640	1420	390	1500
	750	98.6	1.5	4.8	1260	1740	1520	620	2270
	1000	98.7	1.3	4.5	1410	1940	1380	710	2820
	1500	98.8	1.3	3.5	1840	2370	1900	1330	4230
	2000	98.9	1.3	3.0	2030	2470	2180	1410	4700
	3000	99.1	1.3	3.0	2420	2310	2560	2490	7600



POLE TRANSFORMER



COMPACT TYPE TRANSFORMER



CSP & AMORPHOUS TYPE TRANSFORMER

General Specifications

Frequency : 50/ 60Hz
 High voltage : 22,900V/ 13,200V
 Low voltage : 230V

Electrical Characteristics @ Outline Dimensions(50/60Hz)

Capacity (kVA)	Efficiency (%)	Voltage Regulation(%)	Exciting Current(%)	No-load loss(W)	Dimensions(mm)			Oil (l)	Weight (kg)
					A	B	H		
10	97.8	2.0	1.2	35	370	530	990	31	115
20	98.1	1.7	1.0	60	480	540	1020	40	150
30	98.3	1.5	0.8	80	590	590	1060	45	200
50	98.5	1.4	0.8	120	630	610	1120	75	260
75	98.5	1.4	0.7	170	700	640	1140	90	340
100	98.6	1.3	0.7	209	880	720	1180	115	430

PAD MOUNTED TYPE TRANSFORMER



General Specifications

Phase : Single, Three
 Frequency : 50/ 60Hz
 Capacity : 50-5000kVA
 High voltage : 22,900V/ 6,600V
 Low voltage : 230V/ 115V, 400V/ 230V

Top voltage : 23,900V-22,900V-21,900V-20,900V-19,900V-
 6,900V-6,600V-6,300V-6,000V-5,700V

Cooling Type : ONAN
 Ins. Class : A Class

Electrical Characteristics @ Outline Dimensions(50/60Hz)

Phase	Capacity (kVA)	Efficiency (%)	Voltage Regulation(%)	No-load loss(W)	Dimensions(mm)			Oil (l)	Weight (kg)
					A	B	H		
Single	50	98.3	1.5	127	1000	1000	975	195	660
	100	98.4	1.5	209	1000	1000	975	205	760
	200	98.6	1.4	409	1000	1400	1175	390	1270
Three	75	97.9	1.8	271	1500	1000	1425	385	1350
	150	98.1	1.7	431	1500	1000	1425	435	1600
	300	98.4	1.5	692	1500	1000	1425	545	1850
	500	98.6	1.4	817	1500	1000	1425	654	2000

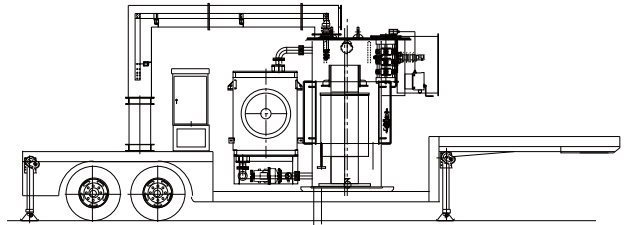
Product Introduction

MOBILE TRANSFORMER



General Specifications

Frequency : 50/ 60Hz
Voltage : Max 72kV
Capacity : Max 80MVA
Standard : IEC 60076



HIGH-EFFICIENCY TRANSFORMER



General Specifications

Frequency : 50/60Hz
Voltage : Max 36kV
Used Vegetable Oil & Magnetic Domain Refined Steel



Production Facilities



CRANE(80MT)



600kV 30kJ IMPULSE TEST SYSTEM By HAEFELY TEST AG



POWERMAX SIHEUNG FACTORY

Certification



High-efficiency TR



Industrial Award from President of Korea



KOTRA - Seal of Excellence



ISO 9001



ISO 14001



OHSAS 18001



Business Innovation



Management Innovation

POWERMAX creates new history today!

- 2011. 02 Chairman Chang elected the Chairman of Korea Electrical Manufacturers Association(KOEMA)
- 2010. 10 Installed Impulse Test System 600kV 30kJ (Haefely/Switzerland)
- 2010. 08 Selected as One-KEPCO Export Company (Korea Electric Power Corporation)
- 2010. 05 Awarded the KOTRA Seal of Excellence
- 2010. 02 Acquired High-Efficiency Energy Equipment Certification (Korea Energy Management Corporation)
- 2009. 10 Selected as Innovative Technology SME (INNO-BIZ)
- 2009. 06 Established ERP System
- 2009. 03 Extended Transformer Factory (Up to 80MVA)
- 2008. 09 Introduced Six-sigma Management
- 2006. 09 Selected as Innovative Business SME (MAIN-BIZ)
- 2006. 08 Selected as PL Outstanding Company
- 2006. 06 Standard Pole Transformer (100kVA) Performance Certification
- 2005. 04 Registered as Supplier of C-GIS (KEPCO)
- 2004. 11 Registered as 154kV Power Line Constructor
- 2003. 11 Awarded "Bronze Tower" Industrial Award at the National Quality Management Contest
- 2003. 04 Acquired Electric Work License (Gyeonggi-do)
- 2003. 01 Selected as Promising Power Venture Company (KEPCO)
- 2002. 10 Selected as Promising SME (Industrial Bank of Korea)
- 2002. 07 Designated as Export Promising SME (Gyeonggi SME export center)
- 2001. 12 Acquired ISO Certification
- 2001. 06 Selected as Promising SME (Industrial Bank of Korea)
- 2001. 02 Established POWERMAX Technology Institute
- 2000. 08 Designated as Small and Medium Business Administration Venture Company
- 2000. 03 Established POWERMAX Co., Ltd. (Merged Danam Power and Hanki Heavy Electric)
- 1996. 07 Established Hanki Heavy Electric Co., Ltd.
- 1991. 06 Establish Danam Power Co., Ltd.



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