

WOONYOUNG COMPANY PROFILE

2020. 06.



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1. Overview

> WOONYOUNG CO.,LTD. HQ / Factory / R&D Center



WOONYOUNG TRADING CO.,LTD. (SEOUL)





> Direct Management Stores

WOONYOUNG HVT - HQ



- > Headquarters : WOONYOUNG HVT SEOUL
- > Establishment Date : 02.Jan.2013
- > Main Products : SSR, NOISE FILTER, Press Mold

> WOONYOUNG HVT - Factory



- > Factory : WOONYOUNG HVT CHEONAN
- > Establishment Date : 03. Nov. 2017
- > Main Products : High Voltage CT, PT , MOF

1. Overview

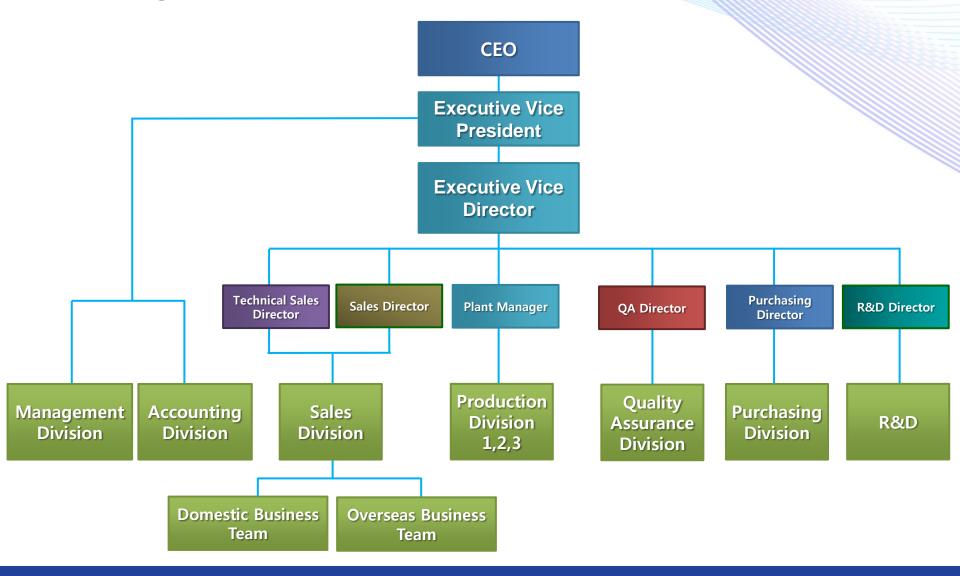
Company	WOONYOUNG CO., LTD. www.woonyoung.co					oung.com				
Establishment Date	October,10.1978				Annual Turnover			USD 30,000,000		
HQ / Factory	2122-20, Cheonan-daero, Se				eonghwan-eup, Seobuk-gu, Cheonan-si, Chungcheongnam-do					
Employees	Management	Purchasing	Manufacturing		R&D	QA	Sales Team	ETC	TOTAL	
Employees	9	8	78		11	7	17	10	<u>140</u>	
Product Transformer / Reactor			Туре							
			or	1Ø, 3Ø Double Winding Type / 1Ø, 3Ø Single Winding Type / 1Ø, 3Ø Case Type / Input,output Inverter / Low,High Voltage Motor Starting Reactor						
	Noise Cut Transformer (NCT)			Connector, Terminal, Cable, Case Type						
	Solid State Relay (SSR)			1Ø, 3Ø, DC Type, 3Ø Motor(Forward, Reverse) Type. Fan & Heat Sink Type						
	Switching Mode Power Supply (SMPS)			SINGLE, DUAL, TRIPLE (DC5, 12, 15, 24, 48V)						
	Noise Filter			1Ø(1~200A), 3Ø(5~1,000A) - Multi-Stage, High Quality, General, Standard						
Main Products Surge Protective Device (SPD)			1Phase(1~120kA), 3Phase(5~210kA)							
	Zero Harmonic Filter (ZHF)			AC380V (1.9kVA~329kVA) 3~500A						
	Thyristor Unit (TPR)			1Phase - 220V/440V, 3Phase - 220V/440V						
	Earth Leakage Detector & Alarm (ELD)			1, 2, 6, 8, 10, 12, 16CH (Digital & Analogue)						
	Digital Ground Fault Relay (GFR)			1, 8, 12 (Digital & Analogue)						
	Current/Voltage Transformer			CT - Cable through, Winding, Bus-bar through, 3Ø Type VT – Voltage, Earthed, 3Ø Type						
	Zero Current Transformer (ZCT)			Cable through, Bus-bar through, MCCB set Type						
	Panel Board Meter			A, V, W, var, PF, Hz, %, rpm [Wide angle, Square Type]						

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1978.10.10 : Establishment of WOONYOUNG Electronics (Location : Jongro-gu, Seoul)
1984.08.01 : Company Relocation (Location : 19-2, Wonhyoro 2-ga, Yongsan-gu, Seoul, Korea)
1988.07.18 : Change to Corporation
1991.01.01 : Company Relocation (Location : 628-7, Namchon-dong, Namdong-gu, Incheon, Korea)
1992.05.01 : Agency Contract with Italy ELCONTROL S. P. A. for SSR(Solid State Relay) Sale
1992.09.21 : Minister of Commerce and Industry Honor awards - Technological innovations, new
             technology products, industrial technology development
1993.12.21 : CSA(Canadian Standards Association) Certification - SSR G1C40Z4, H1C40Z4
1994.04.21 : CSA Certification - SSR 3G3C40Z4, 3H3C40Z4
1995.04.01 : The Mayor of Seoul Commendation
1995.08.30 : UL(Underwriters Laboratories) Certification - SSR
1998.03.19 : Registration of design – Power Transformer
1998.07.11 : Legal Registration of Commercial Mark "WYES"
1999.03.01 : Creating a indicating electric meter department.
1999.03.31 : CE Certification - SSR, Transformer, SMPS, Noise Filter
2001.03.23 : ISO-9002 Certificate – ICG Certification Institution
2001.10.26 : KS (Korean(Industrial) Standards) Certification (KSC1303-2 Direct acting indicating
            analogue electrical-measuring instrument.)
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2002.03.04 : CE Certification - TUV Rheinland
2002.03.23 : Registration of Design for Solid State Relay : Utility Model Registration - 'Conductor
             board lock-up of converter'
2003.05.06: Utility Model Registration - SSR having a non heating AC-Input part
2003.07.24 : Promising Company for Export from Small and Medium Enterprise Export Support
             Center(No. 2003-164)
2003.11.14 : Venture Business Confirmation
2004.03.17: The Minister of Commerce Commendation – National Development of Industry (No.55059)
2004.08.11: Launching a new Products - ELD, GFR, ZCT
2004.09.24 : Company Relocation (Address : 49 dangjeong-ro 28beon-gil, Gunpo-si, Gyeonggi-do)
2004.12.07 : CE Certification : SMPS -TUV Rheinland
2005.09.14 : Acquisition of type approval – ELD, ZCT from KFI(Korea Fire Institute)
2006.03.15 : KS Certification (CT -IEC60044~1)
2006.03.19 : Additional KS Certification for indicating electric meter (Current, Voltage, Reactive Power,
             Power factor, Frequency) - KS C1303
2006.04.25 : Certification of Company Affiliated Research and Development
2006.08.23 : CE Certification - ELD
2006.09.19 : CE Certification - Meter
2007.08.24 : CE Certification (NCT) -TUV SUD
2007.12.31 : Designation of INNO-BIZ Business
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2008.03.04 : Invention patent 2006-83128 : Terminal Type Safety Transformer with LED
2008.05.23 : CE Certification (TPR) -TUV SUD
2008.07.22 : CE Certification (NOISE FILTER) -TUV SUD
2008.12.22 : Presidential Citation Korea Technology Awards 2008 (CEO) – Industrial technology
2009.07.20 : KEPIC(Korea Electric Power Industry Code)-EN : Nuclear Equipment Qualification - KEA
2010.09.20 : KC Certification (NOISE FILTER) - KPC
2010.09.28 : CE Certification (CT) -TUV SUD
2010.11.05 : CE Certification (PT) -TUV SUD
2010.12.27 : cUL Certification (10, 30 SSR) – UL
2011.12.16 : CE Certification (isolating 3Ø 36.5kVA, 1Ø -6.9kVA) -TUV SUD
2012.06.29 : CE Certification(Isolating Transformer 3Ø 15kVA) -TUV SUD
2012.07.19 : CE Certification(Isolating Transformer 3Ø 135kVA, 1Ø -7.2kVA) -TUV SUD
2012.08.08 : CE Certification(Noise Cut Transformer 3Ø -50VA, 1Ø 4.9kVA) -TUV SUD
2014.12.07 : Company Relocation (Areas : 22,826 m²)
             (2122-20, Cheonan-daero, Seonghwan-eup, Seobuk-gu, Cheonan-si, Chungcheongnam-do)
2015.06.03 : Approved "UL" MARK to Insulation System(File No. E474918)
2015.10.06 : Approved "UL" Noise Filter(File No. E477527)
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3. Organization Chart



DNDOANOOM

• TRANSFORMER
(3P 1VA~500kW, 1P 100kW)

REACTOR

(Series / Motor Starting / For Inverter)

- 1Ø, 3Ø Double Winding Type / 1Ø, 3Ø Single Winding Type / 1Ø, 3Ø Case Type
- Insertion on board, Terminal, Lead wire Type
- Transformer UL Certificate (1Ø: 100VA ~ 5KVA / 3Ø: 500VA ~ 20KVA)
- Rectifier transformer
- Inverter Main Choke and AC Reactors (2.2kW~500kW/8~1000A)
- NOISE CUT TRANSFORMER [NCT] (300VA~30kVA)
- NOISE FILTER (1P: 1A~200A 3P: 5A~1,000A)
- < Noise Cut Transformer>
- Phase 220VAC
- Frequency: 50,60Hz
- -Noise Attenuation: Normal / Common Mode
- < Noise Filter >
- -1 Phase: 1~200A / 3Phase: 5~1,000A
- 250VAC / 500VAC
- Various Type (PCB/Wire/Bolt/Din-rail)



► Inverter Type Reactor & Choke (AC, DC)

► Noise Cut Transformer (NCT)



► Noise Filter



- ZERO SEQUENCE HARMONICS FILTER [ZHF]
- Active Harmonic Filter [AHF]
- PASSIVE Harmonic Filter [PHF]
- ZHF 3Phase 3~500A
- AHF 3Phase 50~500A
- PHF 3Phase 2.2~250kW
- SURGE PROTECTIVE DEVICE [SPD]
- Micro Surge Filter [MSF] (0.75kW~375kW)

[Surge Protective Device - SPD]

- 1phase AC125~380V (2-120kA)
- 3Phase AC220~440V (10-240kA)
- Certificate of KS C IEC 61643
- Protection from overvoltage by lightning
- -[Micro Surge Filter]
- Rating: 3Phase / Capacity: 1.5kW ~ 300kW
- Input (220,380/440V) , Output (220,380 / 440V)

Active Harmonic Filter (AHF)

Passive Harmonic Filter (PHF)

Zero Sequence Harmonics Filter (ZHF)









► Surge Protective Device(SPD)



▶ Micro Surge Filter (MSF)



- SOLID STATE RELAY [SSR] (1P 1~150A, 3P 10~150A)
- Intergrated Structure (SSR + Heatsink + Fan)
- Optimized design
- 1Ø, 3Ø: 1A~500A
- 3 Phase Forward, Reverse Rotation Control
- Easy Installation (Din-Rail)
- Metal Bonding Process * Increased Efficiency of Heat Emission (30% UP)
- Socket Type : WYGA/GB Series
- THYRISTOR POWER REGULATOR [TPR] (300VA~30kVA)
- Digital Type
- 1Phase, 3Phase (25~500A)
- Various Power Control (Cycle, Phase, Digital mode)
- CC (Constant Current), CV (Constant Voltage)
 CP (Constant Power)
- High Quality and Durability
- Digital Communication

▶ Solid State Relay (SSR)



▶ Thyristor Power Regulator (TPR)



- Switching Mode Power Supply (SMPS) (15~1500W)
- Single Output (15W, 30W, 50W, 75W, 100W, 120W, 150W, 200W, 220W, 300W, 600W, 1200W, 1500W)
- Dual Output (15W, 30W, 50W, 75W)
- -Triple Output (15W, 30W, 50W)
- Aux. Power: 85~264VAC (Free Voltage)
- DIGITAL PROTECTIVE RELAY
- EARTH LEAKAGE RELAY (ELR)
- GROUND FAULT RELAY (GFR)
- OCR & OCGR

(50/51 & 50N/51N), OV/UV/OVGR(59/27/64), DGR(67G)

- Analogue Type ELD ,ELR (16-CH,12-Ch,10-Ch,1CH)
- Digital Type GFR (12-Ch, 6-Ch)
- Analogue Type GFR (1-Ch)
- RS485 Communication

Switching Mode Power Supply (SMPS)



▶ Digital Power Protective Relay

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► Earth Leakage Detector & Relay (10ch, 12ch, 16ch)







METERS(Digital/Analog)

- Analog TYPE : Square Type (50,60,80,100mm) DIN Type (47,72,96mm), Wide Angle Type (96X96,80X80, 110X110mm)
- Digital TYPE: DIN 48×96, DIN 96×96mm
- Current Meter / Voltage Meter

▶ Analogue Type Panel Board Meter

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▶ Digital Panel Board Meter

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► Current Transformer (CT) (€ 🚱

▶ 1 Ø & 3Ø Voltage Transformer (VT) $C \in \mathcal{G}$

▶ Zero Phase Current Transformer 한국산업소방기술원형식승인품

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• CT, VT, EVT & ZCT

- CT: Cable Through(50~1500A), Bus-bar Through (100~5000A), Bus-bar & Cable Through (400~2,000A), 3Phase MCCB set Type (50~1,000A)
- VT/EVT: 110~480V(50,100VA),

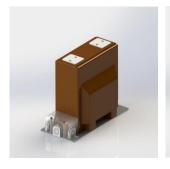
110/√3~480/√3 (50~200VA)

-ZCT: Cable Through (100~2000A) Bus-bar Through (400~600A)

4. Products (WOONYOUNG HVT)

1. CURRENT TRANSFORMER

3.6KV ~ 24KV (Winding Type)

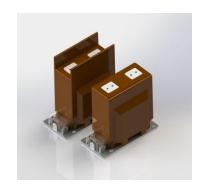




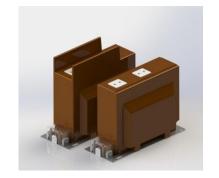


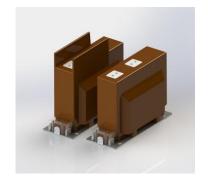












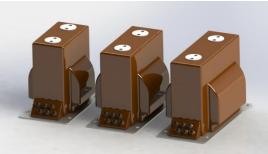
24kV DIN-TYPE Current Transformer

4. Products (WOONYOUNG HVT)

1. CURRENT TRANSFORMER

7.2KV ~ 36KV (Winding Type, Post Bus-bar Type)

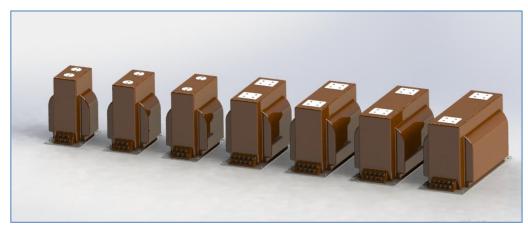






7.2 ~ 12kV Normal Type Current Transformer

7.2 ~ 36kV Post Busbar Type Current Transformer







B.C.T

4. Products (WOONYOUNG HVT)

2. VOLTAGE TRANSFORMER

3.6KV ~ 24KV (Earth or Non-earth type, Plug-in type, Metal-Case type etc.)









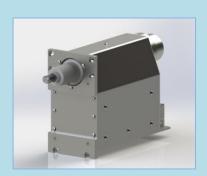
3.6 ~ 12 kV Voltage Transformer







24kV GIS - Voltage Transformer





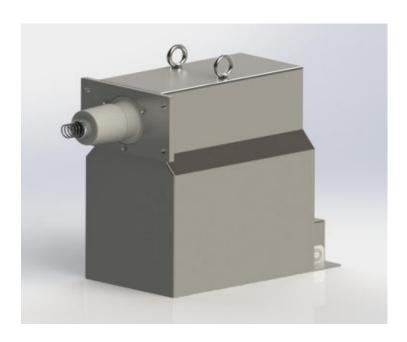


24kV Voltage Transformer

EVT Type (with Fuse)

EVT Type (Earthed Type for C-GIS)

4. Products (WOONYOUNG HVT)

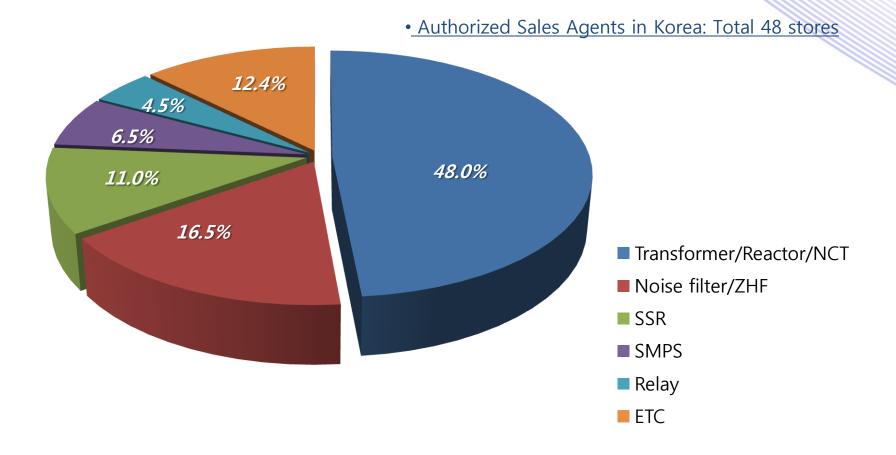


36kV Plug-in type VT



25.8kV MOF

5. Sales Chart by Product Category



6. Certification

Part	ISO9001	CE	UL	CSA	KS	KC	KFI	S-Mark
Transformer & Reactor	0	0	0	0				
Noise Cut Transformer	0	0						
SSR	0	0	0	0				0
TPR	0	0						
SMPS	0	0						
Noise Filter	0	0	0	0		0		
ELD/ELR/ZCT	0	0					0	
Protective Relay	0							
GFR	0							
Meter/CT/VT	0	0			0			
SPD		0						
Mark	KAB	CE	c SU °us	⊕ ∘	Œ		C	S)

6. Certificate - PATENT





6. Certificate - PATENT





6. Certificate - ISO 9001





6. Certificate – Inno-Biz / S mark

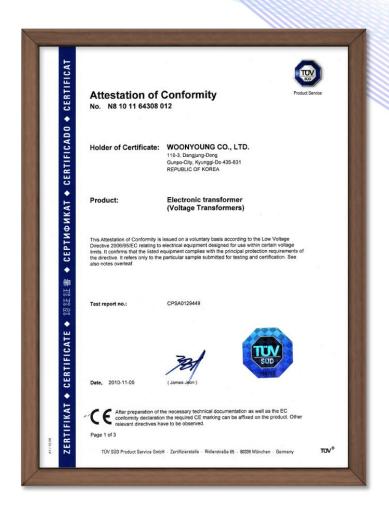








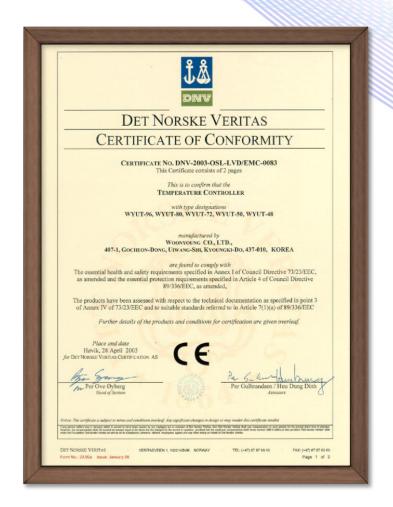












6. Certificate - UL









7. Factory Floor – Automatic Vacuum Impregnation Facility









7. Factory Floor – Production Line for TRANSFORMER



7. Factory Floor – Production Line for Electronic Device









8. WOONYOUNG HVT Facilities - Production Facilities

No	Production Process	Equipment	Q'ty
-	14.0° 15	Winding machine for CT (2 nd)	4
1	Winding	Winding machine for VT (1st)	2
2	Mold	Vacuum Casting Equipment	1 Set
3	1 st Hardening	1 st Curing Oven	8
4	Assembly	Hoist	8
5	2 nd Hardening	2 nd Curing Oven	4
6	Nature Hardening	Nature Curing Oven	2
7	Sanding	Sanding Machine	1
8	Automatic Forming Operation	APG Machine	2
9	APG hardening Operation	Drying Oven	4



Winding Equipment





Vacuum Casting Equipment

8. WOONYOUNG HVT Facilities - Production Facilities



1st Curing Oven



2nd Curing Oven



Mold the Workshop



APG Equipment

8. WOONYOUNG HVT Facilities - Test Facilities

No	Test Facilities	Specification		
1	Impulse Test Equipment	300kV(500kV)		
2	AC Power Frequency Test Equipment	200kV		
3	Induced Voltage Tester	45 ~ 400Hz/30kV		
4	Partial Discharge Test	100kV/ 1pC		
5	Accuracy Tester	±0.1		
6	Inter Turn Over Voltage Tester	30kV		
7	Resistance Tester	2000ΜΩ		
8	Temperature Recorder	12P		
9	Heat Cycle Tester	-50 ∼ 150°C		
10	CT Analyzer	IEC / IEEE		
11	VT Analyzer	IEC / IEEE		



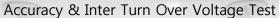
Impulse Test Equipment



AC Power Frequency Test Equipment

8. WOONYOUNG HVT Facilities - Test Facilities









Heat Cycle - Test

Thank You.



HQ / Factory / R&D Center

2122-20, Cheonan-daero, Seonghwan-eup, Seobuk-gu, Cheonan-si, Chungcheongnam-do

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