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PRODUCT INTRODUCTION

International Electric
Asea E&T
Jungwon Electric Systms
Jinkwang E&C

Since 1946 국제전기(주) International Electric Co., Ltd.

ASEA E&T 아세아 이엔티

JES (주)정원전기시스템 JUNGWON ELECTRIC SYSTEMS Inc.

JinKwang E&C Corporation

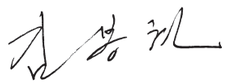
CEO Message

Harmoniously balancing a tradition of technical principle and a spirit of new development for half a century, International Electric Co., Ltd., a middle-sized total production company, began its business as Korea–first transformer manufacture in 1946. Since then, we have produced a variety of special transformers such as for 40MVA power, distributor, plant and train. In 2009, we introduced new equipment and facility for mold transformer to get started for production.

In addition, we have grafted power electronic technology on our unique technology to provide uninterrupted power supply (UPS), inverter, EP-Rectifier for dust collection, battery charger, AVR and industrial rectifier reactor, putting a strong foot on the government business project and private demand market. We are also acknowledged abroad for our technological superiority. In particular, "Q" Class inverter that we deliver to nuclear plants was chosen as the first localized product in 1994. At present, out model transformer is being well and highly spoken of in international market

I promise we will always meet customers with high-quality products.

Chairman
Kim, Bong Hyun



Contents

Power Transformers

Power Transformer

Constant : single phase, 3-phase
Frequency : 50, 60Hz
Capacity : 60MVA or lower
Voltage : 69KV or lower

Power transformer is a device to transmit power from power plant to substation. It is widely used in industrial faculties such as substations and factory.

It is manufactured in accordance with international standard and KS Standards. We customize our design of power transformer to customer's specifications to meet their satisfaction.

Distribution Transformer

Constant : single phase, 3-phase
Frequency : 50, 60Hz
Capacity : 30MVA or lower
Voltage : 69KV or lower

Distribution transformer functions to receive high voltage from distribution lines and supply necessary voltage to users.

It is divided into indoor and outdoor distribution transformer. We customize production to customers' order and needs.

Mold Transformer

Constant : single phase, 3-phase
Frequency : 50, 60Hz
Capacity : 10MVA or lower
Voltage : 36KV or lower

Since epoxy resin is molded in vacuum state, it is very resistant to humidity and environment-friendly. In addition, it uses specially treated glass for excellent mechanical strength.

It maintains optimal state of insulation thanks to the coil surface treated with special finishing work.

Since it is of superior self-extinguishability, there is no risk of fire conduction and poisonous gas during combustion.

Its partial discharging value is low due to the latest vacuum casting technology applied (lower than 10pC)

Pole Transformer

Constant : single phase, 3-phase
Frequency : 50, 60Hz
Capacity : 10-150KVA
Voltage : 36V
Suitable for all CSP and SP typed

Pole transformer is installed in the distribution lines of KEPCO. It is usually installed on electric poles to lower high voltage.

Power Transformers

Dry Type Transformer

Constant : single phase, 3-phase
Frequency : 50, 60Hz
Capacity : 3000KVA
Voltage : 25KV

Dry type transformer adopts a cooling system of natural air circulation. Therefore, there is no risk of fire or explosion from gas leakage. Naturally, it is favored in such public sites as school, hospital, movie theater and hotel where safety is far more important than other places. It is inexplosive, nontoxic and smoke-tolerant equipment and easy to maintain and repair.

PAD Transformer

Constant : single phase, 3-phase
Frequency : 50, 60Hz
Capacity : Less than 3000KVA
Voltage : Less than 36KV

On-ground transformer is designed for underground distribution facility, streetlights, place adjacent to residential area, school, building, hospital and factory. It is possible to install it near downtown load area. Since it is equipped with protection fuse and fault current limiting fuse, it can prevent damage to transformer and error expansion in case of error in transformer. External power connection unit is designed to be completely insulated. It has radian and loop type transformer. In addition, it can be structured in both open and close type.

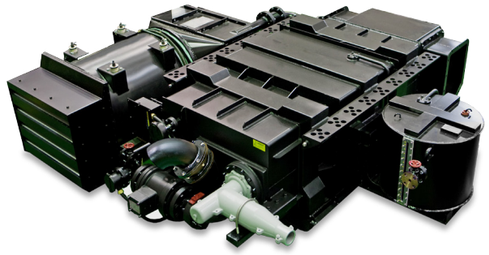
Main Transformer for Electromotive Car

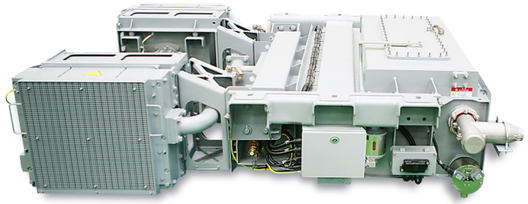
Purpose
It receives AC 25K high voltage current from wire (Catenary), changes it to necessary voltage and transmits power to main electric motor through main power converter at secondary (conventional) side or to auxiliary circuit through auxiliary power supply system at the third (tertiary) side.

Specifications
1) Rated Capacity : 20KVA – 8900KVA
2) Input/Output Voltage : 25000V-840-1548V-221V/25000V-840V-929V AC
3) Constant : single phase, 3-phase
4) Frequency : 50, 60Hz
   Capacity : Less than 3000KVA
   Voltage : Less than 36KV

Characteristics
Our company produced transformer for railway vehicle first in Korea and is currently developing next-generation train main transformer, emerging as market reader in the domestic market.

Major Client
Korean Railroad Corporation, Hyundai Rotem and others.





Power Transformers

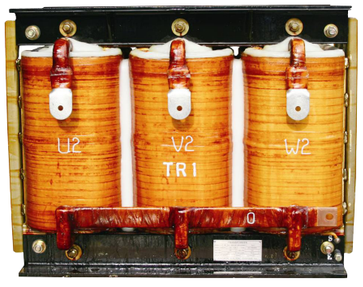
Dry Type Transformer/Reactor for SIV

Purpose
It is a dry type transformer installed in the auxiliary power supply (APS) of railway vehicle. It adopts APS circuit system: 2 level-voltage type PWM inverter.

Specifications
1) Rated Capacity : 125KVA – 160KVA
2) Input/Output Voltage : 100-700V/40-100 AC
3) Frequency : 50, 60Hz

Characteristics
- Environment-friendly
  (highly efficient, small in size, light and low noise)
- Degree of waterproof level: IPX5

Major Client
MELCO (Mitsubishi, Japan), Woojin Industrial Systems Co. and others



Dry Type Neutral Grounding Reactor

Purpose
NGR is a reactor to limit ground fault current at secondary neutron point of power transformer.
3Ø 45/60MVA 154KV/22.9KV, KEPCO
Applied standard : IEC60289, IEC60076-11

Standards
Reactance : 0.6Ω(60Hz)
Continuous current : 300A
Short Time Current : 10,000A/10 sec.
Insulating Class : H Class (dry type)
Peripheral Temperature : -25℃ - 40℃

Characteristics
- Independent air core structure supported with base insulator on ground
- Strong enough to resist to electron mechanical power in case that current flows in
- Highly efficient ventilation structure

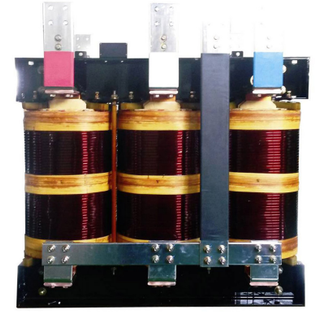
Dry Type Transformer for UPS

Purpose
It is a dry type transformer installed in power supply unit for UPS

Specifications
Rated Capacity : 100KVA – 1,000KVA
Input/Output Voltage : 480V/216V AC
Insulating Class : F & H Class
Frequency : 50, 60Hz

Characteristics
- Environment-friendly
  (highly efficient, small in size, light and low noise)
- Long life cycle and solid structure

Major Client
HYNIX, Woojin Industrial Systems Co. and others



Power Equipments

Pole Automatic Voltage Regulator (PVR)

Purpose
Based on our long-cumulated know-how and experience, PVR is the product that we succeeded in developing first in Korea under technology introduction contract with U.S. Cooper Power System.

Specifications
Constant : sing phase, 3-phase
Frequency : 50, 60Hz
Capacity : 7,000KVA
Inout : 22.9KV+-10%
Output : 22.9KV+-2(32 steps)

Characteristics
This regulator maintains phase-to-phase voltage within a certain range and helps motor, lights and machine run properly.

Picture of Installation Case
(PVR 7000KVA)

GAS INSULATED VACUUM RECLOSER

SF6 Gas Insulated Vacuum Recloser

Type		JK - REC		
Rated voltage(kV)		12(15)	24(25.8)	36(38)
Rated current(A)		630	630	630 / 800
Rated power frequency withstand voltage(kV)		50	60	70
Rated lightning impulse withstand voltage(kV)		110	150	170
Rated short-time current(kA, RMS)		12.5/16		
Rated symmetrical interrupting current(kA, RMS)		12.5/16		
Rated short circuit making current(kA, peak)		32.5/42		
Minimum operating current(A)	Phase	10(2) ~ 900(step: 1A)		
	Ground	5(2) ~ 900(step: 1A)		
Operating Mechanism		Magnetic actuator		
Mechanical endurance(times)		10,000		
Weight(kg)		160	190	280
Applied Standard		ANSI C37.60		

POLE MOUNTED EPOXY-MOLDED VACUUM RECLOSER

Pole Mounted Epoxy-Molded Vacuum Recloser

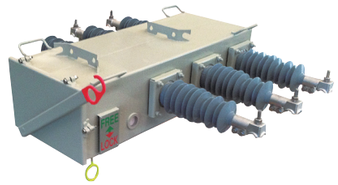
Type		JK - MREC		
Rated voltage(kV)		12(15)	24(25.8)	36(38)
Rated current(A)		630	630	630 / 800
Rated power frequency withstand voltage(kV)		50	60	70
Rated lightning impulse withstand voltage(kV)		110	150	170
Rated short-time current(kA, RMS)		12.5/16		
Rated symmetrical interrupting current(kA, RMS)		12.5/16		
Rated short circuit making current(kA, peak)		32.5/42		
Minimum operating current(A)	Phase	10(2) ~ 900(step: 1A)		
	Ground	5(2) ~ 900(step: 1A)		
Operating Mechanism		Magnetic actuator		
Mechanical endurance(times)		10,000		
Weight(kg)		160	190	250
Applied Standard		ANSI C37.60		

Power Equipments

GAS INSULATED SECTIONALIZER

SF6 Gas Insulated Sectionalizer

Type		JK - GACSBS		
Rated voltage(kV)		12(15)	24(25.8)	36(38)
Rated current(A)		200 / 400 / 630		
Rated power frequency withstand voltage(kV)		50	60	70
Rated lightning impulse withstand voltage(kV)		110	150	170
Rated short circuit making current(kA, peak)		25 / 32.5		
Rated short-time current(kA, RMS)	1s	10 / 12.5		
	10s	3.5		
Minimum actuating current(A)	Phase	16, 24, 40, 56, 80, 112, 160, 224, 256, 300, 448, 640, Bypass		
	Ground	3.5, 7, 18, 28, 40, 56, 80, 112, 160, 224, 320, Block		
Inrush restraint multiplier		1, 2, 4, 6, 8, Block		
Mechanical endurance(times)		5,000		
Weight(kg)		180	200	220
Applied Standard		ANSI C37.63 / IEC 60265-1 / IEC 60694		



Power Electronics

UNINTERRUPTIBLE POWER SYSTEM (UPS)

ESCORT-2600 Series	ESCORT-1600 Series
10~20kVA	6~10kVA
3:1phase PF:0.9	1:1phase PF:0.9

Characteristics

- N+1 parallel operation
- Online double conversion DSP control
- Input THDi: <3%
- Voltage options of storage battery: 16/19/20PCS
- Load power factor: 0.9PF
- Input voltage tolerance range: 120-276Vac
- Input frequency tolerance range: 54-66Hz
- Energy-saving ECO mode
- Self-monitoring USP start
- Angular interface (SNMP, Relay Card, Parallel Card

Control Panel

Rear Side

Relay Card

(SNMP)

Parallel Card

Battery Cabinets (Optional)

Power Electronics

Technical Specifications

Model		E1600_6kVA(S)	E1600_6kVA(H)	E1600_10kVA(S)	E1600_10kVA(H)
Capacity (VA/Watts)		6k / 5.4k		10k / 9k	
INPUT					
Nominal voltage		220/230/240Vac			
Operating voltage range		120~276Vac			
Operating frequency range		50Hz:45~55Hz;60Hz:54~66Hz(auto sensing)			
Power factor		>0.99			
Bypass voltage range		Max.voltage:220V:+25%(optional+10%,+15%,+20%) 230V:+20%(optional+10%,+15%) 240V:+15%(optional+10%) Min.voltage:-45%(optional -20%,-30%)			
ECO range		Same as the bypass			
Harmonic distortion(THDi)		<3%(100% Linear load)			
Generator input		Support			
OUT PUT					
Rated voltage		220/230/240Vac			
Power factor		0.9			
Voltage regulation		±1%			
Frequency	Line Mode	±1%/±2%/±4%/±5%/±10% of the rated frequency(optional)			
	Bat. Mode	50/60(±0.1)Hz			
Crest factor		3:1			
Harmonic distortion(THD)		<2% with Linear Load , <5% with non-linear load			
Efficiency		>93.5%			
BATTERY					
Battery voltage		±96/108/120Vdc (optional)			
Typical recharge time		6~8 hours(to 90% of full capacity)			
Charge current		1A(Standard unit);Long run unit Max.current 10A(charge current can be set according to battery capacity installed)			
SYSTEM FEATURES					
Transfer time		Mains to Battery:0ms;Mains to Bypass:0ms			
Overload	Line Mode	Load<110%:last 60min, <125%:last 10min,<150%:last 1min, >150% turn to bypass mode immediately			
	Bypass Mode	40A(Breaker)		60A(Breaker)	
Short circuit		Hold Whole System			
Overheat		Line Mode: Turn to Bypass; Backup Mode: Shut down UPS immediately			
Low battery voltage		Alarm and Switch off			
Self-diagnostics		Upon Power On and Software Control			
Battery		Advanced Battery Management			
Audible&Visual alarms		Line Failure, Battery Low, Overload, System Fault			
LED&LCD DISPLAY		Line Mode, Bat. Mode, Eco Mode, Bypass Mode, Battery Low, Battery Bad, Overload & UPS Fault			
LCD display		Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage, Inner Temperature & Remaining Battery Backup Time			
Communication interface		Dry contact, USB, SNMP card(optional), Parallel card(optional), Relay card(optional)			
ENVIRONMENTAL					
Operating temperature		0℃~40℃			
Storage temperature		-25℃~55℃			
Humidity range		0~95%(non-condensing)			
Altitude		<1500m			
Noise level		<55dB			
PHYSICAL					
Dimension DxWxH(mm)		502x250x616			
Net weight (kg)		62 / 18		64 / 20	
STANDARDS					
Safety		IEC/EN62040-1, IEC/EN60950-1			
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8			
BATTERY BANK					
Model		MP-BT Series			
Battery type&max.quantity		2x20pcs/7Ah(9Ah)			
PHYSICAL OF BATTERY BANK					
Dimensions DxWxH(mm)		597x250x616			
Net weight (kg)		122/134			

Specifications are subject to change without prior notice.

Technical Specifications

Model		E2600_10kVA S/H	E1600_15kVA	E1600_20kVA
Capacity (VA/Watts)		10k / 9k	15k / 13.5k	20k / 18k
INPUT				
Nominal voltage		380/400/415Vac;(3Ph+N+PE)		
Operating voltage range		208~478Vac		
Operating frequency range		50Hz:45~55Hz;60Hz:54~66Hz(auto sensing)		
Power factor		>0.99		
Bypass voltage range		Max.voltage:220V:+25%(optional+10%,+15%,+20%) 230V:+20%(optional+10%,+15%) 240V:+15%(optional+10%) Min.voltage:-45%(optional -20%,-30%)		
Bypass frequency range		Frequency protection range: ±10%		
ECO range		Same as the bypass		
Harmonic distortion(THDi)		<5%(100% Linear load)		
Generator input		Support		
OUT PUT				
Rated voltage		220/230/240Vac		
Power factor		0.9		
Voltage regulation		±1%		
Frequency	Line Mode	±1%/±2%/±4%/±5%/±10% of the rated frequency(optional)		
	Bat. Mode	50/60(±0.1)Hz		
Crest factor		3:1		
Harmonic distortion(THD)		<2% with Linear Load , <5% with non-linear load		
Efficiency		>93.5%	>94.5%	
BATTERY				
Battery voltage		±96/108/120Vdc (optional)		
Capacity (standard unit)		12V/7Ah		
Typical recharge time		6~8 hours(to 90% of full capacity)		
Charge current		1A(10kVA Standard unit); Max.current 10A(Long run unit)		
SYSTEM FEATURES				
Transfer time		Mains to Battery:0ms;Mains to Bypass:0ms		
Overload	Line Mode	Load<110%:last 60min, <125%:last 10min,<150%:last 1min, >150% turn to bypass mode immediately		
	Bypass Mode	63A(Breaker)	100A(Breaker)	125A(Breaker)
Short circuit		Hold Whole System		
Overheat		Line Mode: Turn to Bypass; Bat. Mode: Shut down UPS immediately		
Low battery voltage		Alarm and Switch off		
Self-diagnostics		Upon Power On and Software Control		
Battery		Advanced Battery Management		
Audible&Visual alarms		Line Failure, Battery Low, Overload, System Fault		
LED&LCD DISPLAY		Line Mode, Bat. Mode, Eco Mode, Bypass Mode, Battery Low, Battery Bad, Overload & UPS Fault		
LCD display		Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage, Inner Temperature & Remaining Battery Backup Time		
Communication interface		Dry contact, USB, SNMP card(optional), Parallel board(optional), Relay card(optional)		
ENVIRONMENTAL				
Operating temperature		0℃~40℃		
Storage temperature		-25℃~55℃		
Humidity range		0~95%(non-condensing)		
Altitude		<1500m		
Noise level		<55dB	<58dB	
PHYSICAL				
Dimension DxWxH(mm)		597x250x655(S)/502x250x616(H)	502x250x616	
Net weight (kg)		76(S)/35(H)	45	46
STANDARDS				
Safety		IEC/EN62040-1, IEC/EN60950-1		
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8		
BATTERY BANK				
Model		MP-BT Series		
Battery type&max.quantity		2x20pcs/7Ah(9Ah)		
PHYSICAL OF BATTERY BANK				
Dimensions DxWxH(mm)		597x250x616		
Net weight (kg)		122/134		

Specifications are subject to change without prior notice.

Power Electronics

UNINTERRUPTIBLE POWER SYSTEM (UPS)

	ESCORT-3000 Series (6~1560kVA)
1 : 1	E1160 / E1110
3 : 1	E3106 / E3110
3 : 3	E3310 / E3315 / E3320 / E3325 / E3330 / E3340 / E3352 / E3380 / E33104 / E33156

Characteristics

- Online high frequency switching double conversion
- Advanced PFC technology
- 3U frame, lag-mounted type
- EPO function
- High input voltage tolerance
- DSP control
- Distributed parallel control
- ABM function
- Protection from thunderbolt, surge, cut circuit and overload
- LCD and LED display in both Korean and English
- EMI/RFI noise filter
- Support RS232 and SNMP

UPS Cabinet Control Panel　　Module Control Panel

Single module(3U)

6kVA/10kVA 1:1 phase
6kVA/10kVA 3:1 phase

10kVA/15kVA/20kVA/25kVA/
30kVA/40kVA 3:3 phase

Battery Cabinets
(Optional)

3U Battery Box (Optional)

Technical Specifications

Model		E1100-30K	E1100-50K	E3100-30K	E3100-50K	E3100-100K	E3300-100K	E3300-200K
Capacity	UPS Cabinet	6~30k/4.8~24k	6~50k/4.8~40k	6~30k/4.8~24k	6~50k/4.8~40k	6~100k/4.8~80k	10~100k/9~90k	10~200k/9~180k
(VA/Watts)	Module	6k / 4.8k, 10k / 8k					10k/9k,15k/13.5k,20k/18k	
INPUT								
Rated Voltage		220/230Vac		380/400Vac(3Ph+N+PE) or 220/230Vac			380/400/415Vac,(3Ph+N+PE)	
Input Voltage Tolerances Range		120~276Vac		208~478Vac or 120VAC-276Vac			208~478Vac	
Input Frequency Tolerances Range		40~70Hz						
Input Power Factor		>0.99						
Bypass Voltage Tolerances Range		Max.voltage:220V:+25%(optional+10%,+15%,+20%) 230V:+20%(optional+10%,+15%) 240V:+15%(optional+10%) Min.voltage:-45%(optional -20%,-30%) Frequency protection range: ±10%						
Harmonic distortion(THDi)		5%(100% non-linear load)					2%(100% nonlinear load)	
Generator input		Support						
OUT PUT								
Output voltage		220/230Vac					380/400/415Vac,(3Ph+N+PE)	
Voltage regulation		±2%						
Power factor		0.8					0.9/1(Customized)	
Output frequency		1. Line Mode: ±1%, ±2%, ±4%, ±5%, ±10% of the rated frequency (optional) 2. Battery Mode: (50/60±0.1%)Hz						
Crest factor Harmonic distortion(THD)		3:1 <2% with linear Load, <5% with non-linear load						
Efficiency		93.5%					95.5%	
BATTERY								
Battery voltage		±96\±108\±120Vac;Battery quantity(optional)					±192\±204\±216\±228\±240Vdc; battery quantity(optional)	
Charge current	UPS Cabinet	30A(Max.)	60A(Max.)	30A(Max.)		60A(Max.)	30A(Max.)	60A(Max.)
	Module	6A(Max.)(charge current can be set according to battery capacity installed)						
Backup time		Depends on the capacity of external batteries						
SYSTEM FEATURES								
Transfer time		Utility to Battery: 0ms; Utility to bypass: 0ms						
Overload	Line Mode	Load<110%:last 60min, <125%:last 10min,<150%:last 1min, >150% shut down UPS immediately						
	Bat. Mode	Load<110%:last 30S,<125%:last 1S,<150%:last 200ms, >150% shut down UPS immediately					Load<110%:last 10min, <125%:last 1min, <150%:last 1S,>150% shut down UPS immediately	
	Bypass Mode	Breaker(6kVA:40A / 10kVA:60A)					Breaker(10kVA:20A/15kVA:32A/20 kVA:40A)	
Short circuit Nose suppression		Hold Whole System Complies with EN62040-2						
Communication interface		1. UPS cabinet: RS232, RS485, Dry Contact, Intelligent slot ×2(SNMP card, Relay Card optional) 2. UPS module: RS232						
ENVIRONMENTAL								
Operating temperature Storage temperature Humidity range Altitude		0℃~40℃ -25℃~55℃ 0~95%(non-condensing) <1500m						
Noise level		<55dB				<65dB		
PHYSICAL								
Dimension	UPS cabinet	840×600×1400	840×600×2000	840×600×1400		840×600×2000	840×600×1400	1100×600×2000
DxWxH(mm)	HPM module	443×580×131 (3U)						
Net weight	UPS cabinet	138	150	138	150	213	170	270
(kg)	HPM module	6kVA/23kg; 10kVA/25kg					10kVA/26;15kVA/30kg;20kVA/31kg	
STANDARDS								
Safety		IEC/EN62040-1, IEC/EN60950-1						
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4, IEC61000-4-5,IEC61000-4-6,IEC61000-4-8						

Specifications are subject to change without prior notice.

Power Electronics

Technical Specifications

Model		E3300-250K	E3300-300K	E3300-400K	E3300-520K	E3300-800K	E3300-1040K	E3300-1560K
Capacity	UPS Cabinet	250k/225k	300k/270k	400k/360k	520k/468k	800k/720k	1040k/936k	1560k/1404k
(VA/Watts)	Module	25k/22.5k	30k/27k	40k/36k				
INPUT								
Rated Voltage		380/400/415Vac,(3Ph+N+PE)						
Input Voltage Tolerances Range		208~478Vac						
Input Frequency Tolerances Range		40~70Hz						
Input Power Factor		>0.99						
Bypass Voltage Tolerances Range		Max.voltage:220V:+25%(optional+10%,+15%,+20%) 230V:+20%(optional+10%,+15%) 240V:+15%(optional+10%) Min.voltage:-45%(optional -20%,-30%) Frequency protection range: ±10%						
Harmonic distortion(THDi)		3%(100% non-linear load)						
Generator input		Support						
OUT PUT								
Output voltage		380/400/415Vac,(3Ph+N+PE)						
Voltage regulation		±1%						
Power factor		0.9						
Output frequency		1. Line Mode: ±1%, ±2%, ±4%, ±5%, ±10% of the rated frequency (optional) 2. Battery Mode: (50/60±0.1%)Hz						
Crest factor		3:1						
Harmonic distortion(THD)		<2% with linear Load, <5% with non-linear load						
Efficiency		95.0%						
BATTERY								
Battery voltage		±192\±204\±216\±228\±240Vdc; battery quantity(optional)						
Charge current	UPS Cabinet	60A(Max.)	100A(Max.)		130A(Max.)	200A(Max.)	260A(Max.)	390A(Max.)
	Module	6A(Max.)	10A(Max.)					
Backup time		Depends on the capacity of external batteries						
SYSTEM FEATURES								
Transfer time		Utility to Battery: 0ms; Utility to bypass: 0ms						
Overload	Line Mode	Load<110%:last 60min, <125%:last 10min,<150%:last 1min, >150% shut down UPS immediately						
	Bat. Mode	Load<110%:last 30S,<125%:last 1S,<150%:last 200ms, >150% shut down UPS immediately					Load<110%:last 10min, <125%:last 1min, <150%:last 1S,>150% shut down UPS immediately	
	Bypass Mode	40A	63A	100A				
Short circuit Nose suppression		Hold Whole System Complies with EN62040-2						
Communication interface		1. UPS cabinet: RS232, RS485, Dry Contact, Intelligent slot ×2(SNMP card, Relay Card optional) 2. UPS module: RS232						
ENVIRONMENTAL								
Operating temperature Storage temperature Humidity range Altitude		0℃~40℃ -25℃~55℃ 0~95%(non-condensing) <1500m						
Noise level		<70dB		<73dB				
PHYSICAL		W D H		W D H		W D H		W D H
Dimension	UPS cabinet	600×1100×2000		1200×860×2000		3000×860×2000		4800×1100×2000
DxWxH(mm)	Module	443×580×131 (3U)						
Net weight	UPS cabinet	290	310	750	860	1600	1810	2800
(kg)	Module	32	33	35				
STANDARDS								
Safety		IEC/EN62040-1, IEC/EN60950-1						
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4, IEC61000-4-5,IEC61000-4-6,IEC61000-4-8						

Specifications are subject to change without prior notice.

INDUCTION VOLTAGE REGULATOR (IVR)

high voltage IVR

low voltage IVR

Purpose	Instrument for various electric tests Variable regulator for industrial voltage and current Industrial machinery and tools and system necessary for various uninterrupted voltage
Standards	Type : motor driven voltage stabilizer Phase No : 3-phase and 3-wire / single phase Frequency : 50, 60Hz Capacity : 10KVA – 2000KVA (self-cooled type: CNAN) Voltage: 220VAC – 13,200VAC Control Range : Out Voltage +/-10% - +/- 100% Efficiency : Above 95% Ambient Temperature : -20oC - +40oC
Characteristics	On-load Stepless Voltage Variation Using high-magnetic-inductivity silicon steel Microprocessor-controlled Remote monitoring function via RS232,485,422

Power Electronics

Automatic Voltage Control (AVC)

Constant : single phase, 3-phase
Frequency : 50, 60Hz
Voltage
- Input : 220VAC – 480V+_15%
- Output : 220-480V+-2%

Capacity : 500KVA max.

It adopts tap changing regulator that has less wave distortion than existing CVT that uses the magnetic saturation and resonance phenomenon of metal pin.
It can maintain stable output voltage due to high-speed switching.

Low noise and light weight

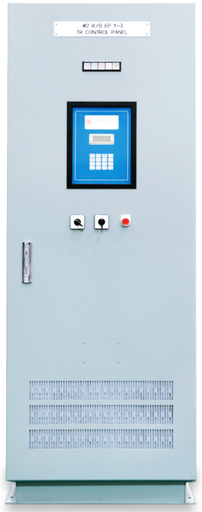
Quicker response than existing CVT method in terms of load and input change

Nuclear plant : "Q", "T", "R" Class

High Voltage Generator for Electrostatic Precipitator (EP)

Constant : single phase
Rectifying Method : single phase wave rectifying method
Input Voltage : 220 – 480V
Control Power : 110VAC
Output Voltage : DC30KV – 120KV / 100-2000mA

High voltage generator for electrostatic precipitator (EP) consists of transformer for outdoor rectifier (T/R) and indoor control panel.
Transformer for outdoor rectifier supplies high DC voltage and current necessary for electric precipitation. The output voltage of T/R should remain close to ignition point for effective work of electric precipitation. T/R consists of transformer, current limiting reactor and rectifier that is formed by single-phase half wave rectification, including high-speed switching. The parts embedded in oil tank should be completely sealed and painted for outdoor purpose. Control panel contains thyristor elements and all the electric parts necessary to protect and monitor high power units.



Recharger

Input : sing phase, 3-phase
Output : 20-1500A

Composed of diode, SCR and IGBT rectifier element, recharger receives single phase or 3-phase power and yields direct current. It is being more and more used in special power facility and safety power facility as industrial facility gets more precise and automated.

Inverter

Input DC : 125~600VDC
Output AC : 120~480VAC
Capacity : 5~400KVA

Rectifier

Input AC : sing phase, 3-phase
Output : 10-20000A

Composed of diode, SCR and IGBT rectifier element, rectifier receives single phase or 3-phase power and yields direct current. It is being more and more used in special power facility and safety power facility as industrial facility gets more precise and automated. Keeping abreast with this trend, International Electric Co., Ltd. has been manufacturing various and reliable rectifiers for customers and already acknowledged for superiority.

Contact Information

To learn more about our products or to request for a quotation, please visit below websites or send us an e-mail.
Thank you.

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PRODUCT INTRODUCTION