

ANDELI

CATALOGUE
ELECTRICAL PRODUCT

ANDELI GROUP CO.,LTD.

 www.andeligroup.com
appliance items from ANDELI
Safety electrical



About Andeli

Andeli Group Co., Ltd. was founded in 1993. It is located in the largest manufacturing hub of low-voltage electric equipment at Yueqing in China, which is called "the Electrical city of China".

Andeli is a leading Group in the electrical industry with production, scientific research, transport, import-export, trade & investment.

Andeli is one of the largest group in China. It has 12 share holding companies in ZHEJIANG, UAE, RUSSIA, Uganda and Brazil. It has over 300 cooperation companies & over 3000 employees with total assets of US\$150,000,000 in area of 235,000 square meters.

Andeli regards quality of products as life. We have achieved ISO9001:2008 Quality Management System certificates, ISO14001:2004 Environmental Management System certificates, OHSAS18001:2007 Occupational health and safety Management System certificates along with Measure Detection System, Standardization System Certification and "CCC" for all products in the market. We have also passed ROHS, CE, CB, SEMKO, KEMA, INMETRO and many other international certifications.

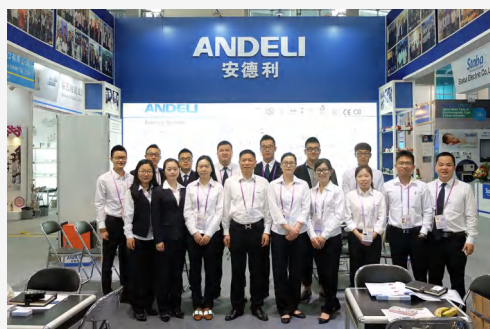
Our R&D engineers are planning and Research to innovate a concrete advantage for the users, for actual product development and advance manufacturing process. We widely produce and sell over 300 series, more than 10000 type in Low- & High-voltage electrical devices, complete equipments, power transformers, cables, instruments, meters and welding equipments which are praised by all users in home & overseas. A number of new independent intellectual property right, intelligent appliances is moving into the market from us.

We are keeping our business principles for "Approaching the first-class management, producing the first-class products, providing the first-class service". Andeli staffs are hard-working, constantly innovated and honest to all users & business partners to enjoy a better tomorrow together with us.





President of ANDELI Mr. Cheng Anlin



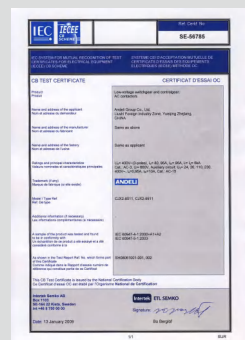
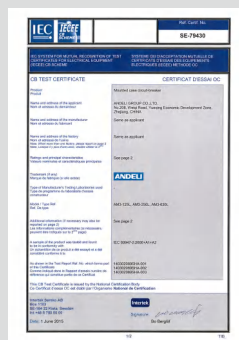
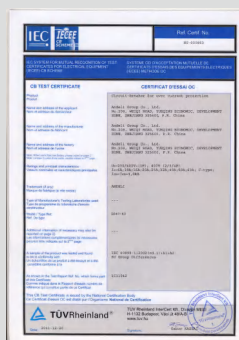
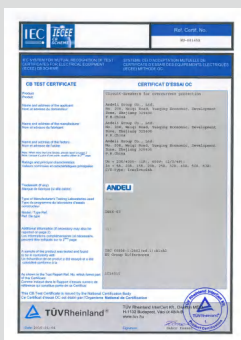
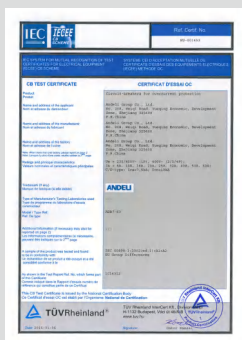
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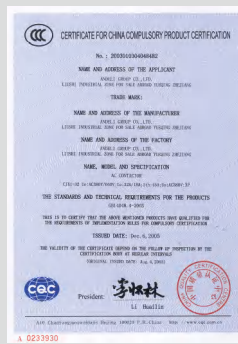
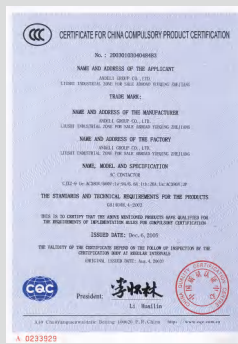
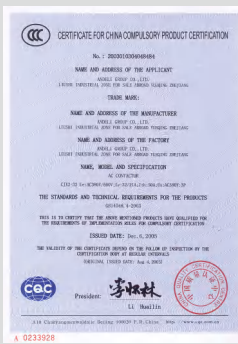
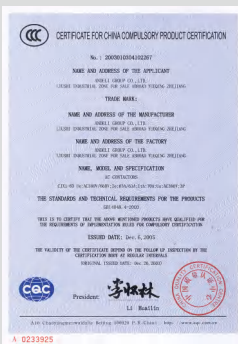
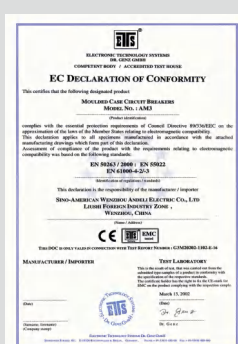
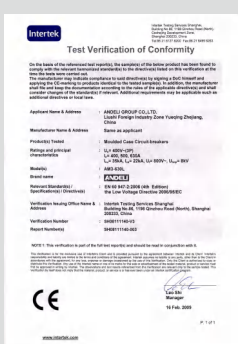
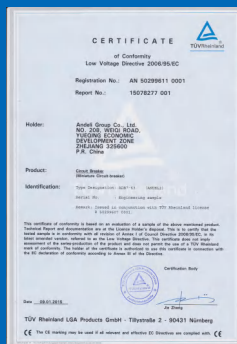
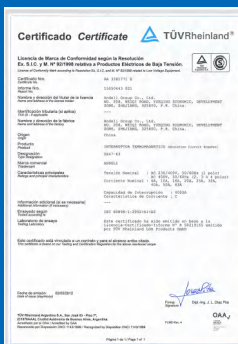
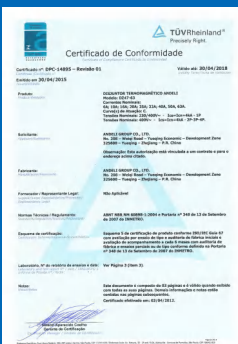
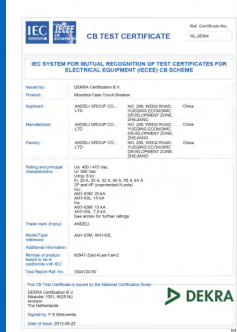
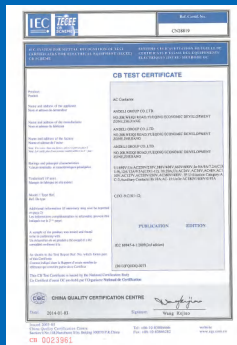
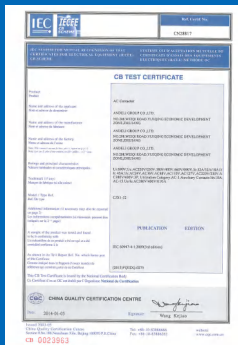
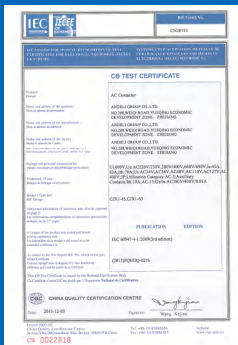


ISO9001

OHSAS18001

ISO14001





Power Equipment & Transformer & Solar & VCB



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SVC Automatic Voltage Stabilizer

1. Application

SVC automatic voltage stabilizer consists of contact voltage regulator, sampling control circuit and servomotor as well. It has excellent features, such as small waveform distortion, high efficiency, high power factor, free from the effect or frequency variation of supply. It can be widely used in most situations where the voltage stabilization is required.

2. Specification

Input voltage	150V-250V (110V-250V)
Output voltage	220V $\pm$ 3%, 110V $\pm$ 3%
Frequency	50Hz/60Hz
Response time	1sec. (against 10% input voltage deviation)
Efficiency	>90%
Ambient temperature	-10°C~ $\pm$ 40°C
Relative humidity	<90%
Waveform distortion	Non-lack fidelity waveform
Power factor cos ϕ	0.8
Insulation resistance	>5M Ω

3. Outline and Packing Information

Type	Outline(cm)			Weight(kg)	Qty/CTN
	L	W	H		
SVC-500VA	18.5	15	12.5	17	4PCS
SVC-1000VA	21	18	14.5	20	4PCS
SVC-1500VA	21	18	14.5	25	4PCS
SVC-2000VA	27.5	23.5	18.5	7.8	1PC
SVC-3000VA	29	23	22	9.8	1PC
SVC-5000VA	45	24	18.5	14	1PC
SVC-7500VA	47	26	22	19.5	1PC
SVC-5000VA	28	30	46	19	1PC (Cabinet)
SVC-7500VA	34	30	50	25	1PC (Cabinet)
SVC-10000VA	44	32	56	31	1PC (Cabinet)
SVC-15000VA	43	36	56	41	1PC (Cabinet)
SVC-20000VA	47	40	78	79	1PC (Cabinet)
SVC-30000VA	47	40	78	99.5	1PC (Cabinet)



SVC-500VA



SVC-1500VA



SVC-3000VA



SVC-10000VA



SVC-5000VA



SVC-10000VA



SVC-30000VA

SVC(LED) Automatic Voltage Stabilizer

1. Application

SVC(LCD) automatic voltage stabilizer consists of contact voltage regulator, sampling control circuit and servomotor as well. It has excellent features, such as small waveform distortion, high efficiency, high power factor, free from the effect or frequency variation of supply. It can be widely used in most situations where the voltage stabilization is required.

2. Specification

Input voltage	150V-250V
Output voltage	220V $\pm$ 3%, 110V $\pm$ 3%
Frequency	50H/60Hz
Response time	<1sec. (against 10% input voltage deviation)
Efficiency	>90%
Ambient temperature	-10°C~ $\pm$ 40°C
Relative humidity	<90%
Waveform distortion	Non-lack fidelity waveform
Power factor cos ϕ	0.8
Insulation resistance	>5M Ω

3. Outline and Packing Information

Type	Outline(cm)			Weight(kg)	Qty/CTN
	L	W	H		
SVC-D500VA	18.5	15	12.5	17	4PCS
SVC-D1000VA	21	18	14.5	20	4PCS
SVC-D1500VA	21	18	14.5	25	4PCS
SVC-D2000VA	27.5	23.5	18.5	7.8	1PC
SVC-D3000VA	29	23	22	9.8	1PC
SVC-D5000VA	45	24	18.5	14	1PC
SVC-D7500VA	47	26	22	19.5	1PC
SVC-D10000VA	47	26	22	24.5	1PC
SVC-D5000VA	28	30	46	19	1PC (Cabinet)
SVC-D7500VA	34	30	50	25	1PC (Cabinet)
SVC-D10000VA	44	32	56	31	1PC (Cabinet)
SVC-D15000VA	43	36	56	41	1PC (Cabinet)
SVC-D20000VA	47	40	78	79	1PC (Cabinet)
SVC-D30000VA	47	40	78	99.5	1PC (Cabinet)



SVC-D2000VA



SVC-D3000VA



SVC-D5000VA



SVC-D10000VA



SVC-D20000VA



SVC-D30000VA

SVC(NEW) Single-phase And Three-phase High Accuracy Full Automatic AC Voltage Stabilizer

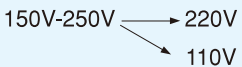
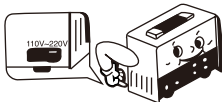
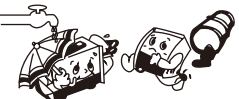


SVC-500VA



SVC-3000VA

Requirements for installation

Please check the voltage stabilizer supply voltage and input voltage range (0.5kVA-5kVA)	
(0.5kVA-5kVA)	
Please pay attention to the cable connections between input terminal and power supply, and between output terminal and load	
The output voltage of the instrument shall be the same as that of voltage stabilizer	
Please adjust the selector switch of input voltage to a voltage step that is the same as power supply	
Mustn't use the voltage stabilizer in case of overload	
Please use good cables for connecting	
If the fuse is damaged, please examine your voltage stabilizer and load	
Please use the fuses of same rated values, mustn't use the nonrated fuses or wires	
Install it in the dry places without corrosive gas and water	

SVC-D(LCD) Series Fully Automatic A.C. Voltage Regulator

1. Application

SVC-D Series AC automatic voltage regulator is the latest product studied and produced by ourselves. These products adopt 8 digits CPU control produced by the well-known MOTOROLA company, which can stabilize the precision and set up the delay time. The products also have many protection functions on delay, over-voltage invert-delay, lack voltage, over load invert-delay, lack voltage, over load, over temperature, machine malfunction and so on. They have digital display, blue-screen lightproof, dynamic panel display and it can show the working status of the machine. When the machine works abnormally, on the panel there is corresponding due and short or long warning.



SVC-D1000VA



SVC-D3000VA

Specification	500VA,1000VA,1500VA,2000VA,3000VA,5000VA
Input Voltage	AC 150V~250V AC 70V~130V
Output Voltage	AC 220 110V
Stabilization Precision	±3%
Frequency	50Hz,60HZ
Delay Time	Long:180s; Short:5s
Over-voltage Protection Value	250V/5s delay; 275V/2s delay; 295V/1s delay; 305V/0s
Lack-voltage Protection Value	180V/5s delay
Over-load Protection Value	2.8times than rated capacity
Over-temperature Protection Value	90℃
Load Capacity Factor	Cos 0.9
Regulating Time	When input varies 10%, less than 1s
Waveform Distortion	No additional waveform distortion
Reactance Strength	1500V/1min
Insulation Resistance	>5MΩ
Insulation Grade	E grade
Environment	Temperature: -10℃~+40℃ Humidity:<90%

SVC(Three) Automatic Voltage Stabilizer

1. Application

SVC automatic regulator voltage consists of contact voltage regulator, sampling control circuit and servomotor as well. It has excellent features, such as small waveform distortion, high efficiency, high power factor, free from the effect or frequency variation of supply. It can be widely used in most situations where the voltage stabilization is required.

2. Specification

Input voltage	195V-430, 280V-430V
Output voltage	380V $\pm$ 3%
Phase	Three phase
Frequency	50Hz/60Hz
Response	<1 sec. (against 10% input voltage deviation)
Efficiency	Better than 90%
Ambient temperature	-10°C~+40°C
Relative humidity	Less than 90%
Waveform	Non-lack fidelity waveform
Insulation resistance	>5M Ω

3. Outline and Packing Information

Type	Outline(cm)			Qty/CTN
	L	W	H	
SVC-1500VA-3	48.5	22.5	17	1PCS
SVC-3000VA-3	48.5	22.5	17	1PCS
SVC-4500VA-3	48.5	22.5	17	1PCS
SVC-6000VA-3	39	31.5	77	1PCS
SVC-9000VA-3	43.5	36	77	1PCS
SVC-15000VA-3	48	36	70	1PCS
SVC-20000VA-3	51.5	40.5	85	1PCS
SVC-30000VA-3	59	46	109	1PCS
SVC-40000VA-3	64.5	52.5	109	1PCS
SVC-50000VA-3	64.5	52.5	109	1PCS
SVC-60000VA-3	64.5	52.5	109	1PCS
SVC-75000VA-3	67	56.5	130	1PCS
SVC-100000VA-3	67	56.5	130	1PCS



SVC-6000VA-3



SVC-9000VA-3



SVC-15000VA-3



SVC-30000VA-3



SVC-40000VA-3

SVC(LED)(Three) Automatic Voltage Stabilizer

1. Application

SVC(LCD)(Three) automatic regulator voltage consists of contact voltage regulator, sampling control circuit and servomotor as well. It has excellent features, such as small waveform distortion, high efficiency, high power factor, free from the effect or frequency variation of supply. It can be widely used in most situations where the voltage stabilization is required.

2. Specification

Input voltage	195V-430, 280V-430V
Output voltage	380V $\pm$ 3%
Phase	Three phase
Frequency	50Hz/60Hz
Response	<1 sec. (against 10% input voltage deviation)
Efficiency	Better than 90%
Ambient temperature	-10°C~+40°C
Relative humidity	Less than 90%
Waveform	Non-lack fidelity waveform
Insulation resistance	>5M Ω

3. Outline and Packing Information

Type	Outline(cm)			Qty/CTN
	L	W	H	
SVC-D1500VA-3	48.5	22.5	17	1PCS
SVC-D3000VA-3	48.5	22.5	17	1PCS
SVC-D4500VA-3	48.5	22.5	17	1PCS
SVC-D6000VA-3	39	31.5	77	1PCS
SVC-D9000VA-3	43.5	36	77	1PCS
SVC-D15000VA-3	48	36	70	1PCS
SVC-D20000VA-3	51.5	40.5	85	1PCS
SVC-D30000VA-3	59	46	109	1PCS
SVC-D40000VA-3	64.5	52.5	109	1PCS
SVC-D50000VA-3	64.5	52.5	109	1PCS
SVC-D60000VA-3	64.5	52.5	109	1PCS
SVC-D75000VA-3	67	56.5	130	1PCS



SVC-D6000VA-3



SVC-D9000VA-3



SVC-D15000VA-3



SVC-D30000VA-3



SVC-D75000VA-3

SAR Series Fully Automatic A.C. Voltage Regulator

1. Application

These special products of SAR series Voltage Regulator have advanced equipment, abundant technology, reliable quality and distinguished credit. SAR series are designed at JS3717-84 request, these products conform to fully automatic control of integrated circuit. They are of quick speed, good reliable of sensitive action, convenient use and assure the stable result. They are suitable for families, schools, enterprises, hotels and diets etc., where need a stable civil power. They can make the illumination lamp, TV set, air-conditioner, refrigerator, computer and copy machine etc. work at a normal condition and have a long using time.



SAR-2000VA

2. Technical specification

Frequency	Regulating Time	Temperature Rise	Withstand Voltage	Low Voltage Protection	Over Voltage Protection
50-60Hz	Less Than 0.5	<60°C	Accord With Ministry Issued Standard	Output 100V/160V	Output 270V/260V



SAR-5000VA

Model	Range	Input Civil Power Voltage(V)	Output Precision of Stabling Voltage
500VA To 5000VA	Current	160-260	220V±5%
	Over-Low Voltage	130-270	220V±8%
	Special Over-Low Voltage	100-270	220V±10%
	High Precision of Stabling Voltage	160-270	220V±3%

SVR Series Fully Automatic Voltage Regulator



SVR-1000VA



SVR-1500VA



SVR-3000VA



SVR-5000VA



SVR-10000VA

1. Application

SVR Series voltage regulators have advanced equipment, abundant technology, reliable quality and distinguished credit, AVR, AR series are designed at JB3717-84 request. These products conform to fully automatic control of integrated circuit. They are of quick speed, good reliable of sensitive action, convenient use and assure the stable result. They are suitable for families, schools, enterprises, hotels and diets etc., where need a stable civil power. They can make the illumination lamp, TV set, refrigerator, air-conditioner, computer and copy machine etc. work at a normal condition and have a long using time.

2. Technical Specification

Frequency	Regulating Time	Temperature Rise	Withstand Voltage	Low Voltage Protection	Over Voltage Protection
50-60Hz	Less Than 0.5	<60°C	Accord With Ministry Issued Standard	Output 160V	Output 260V

Model	Range	Input Civil Power Voltage(V)	Output Precision of Stabilizing Voltage
500VA To 5000VA	Current	160-260	220V±3%
	Over-Low Voltage	130-260	220V±8%
	Special Over-Low Voltage	115-265	220V±10%
	High Precision of Stabilizing Voltage	160-265	220V±5%

TSD III Series Wall Mount Automatic Voltage Regulator

1.TSD III series

Wall Mount Servo Motor Automatic Voltage Regulator

- Input Range:125V~270V(4 relays),100V~270V(5 relays),80V~270V(6 relays)
- Over voltage & Under voltage protection
- Over temperature protection
- Reaction time(voltage stabilization time) $\leq 200\text{ms}$
- Short delay(3~6s)&Long delay(3~6m)



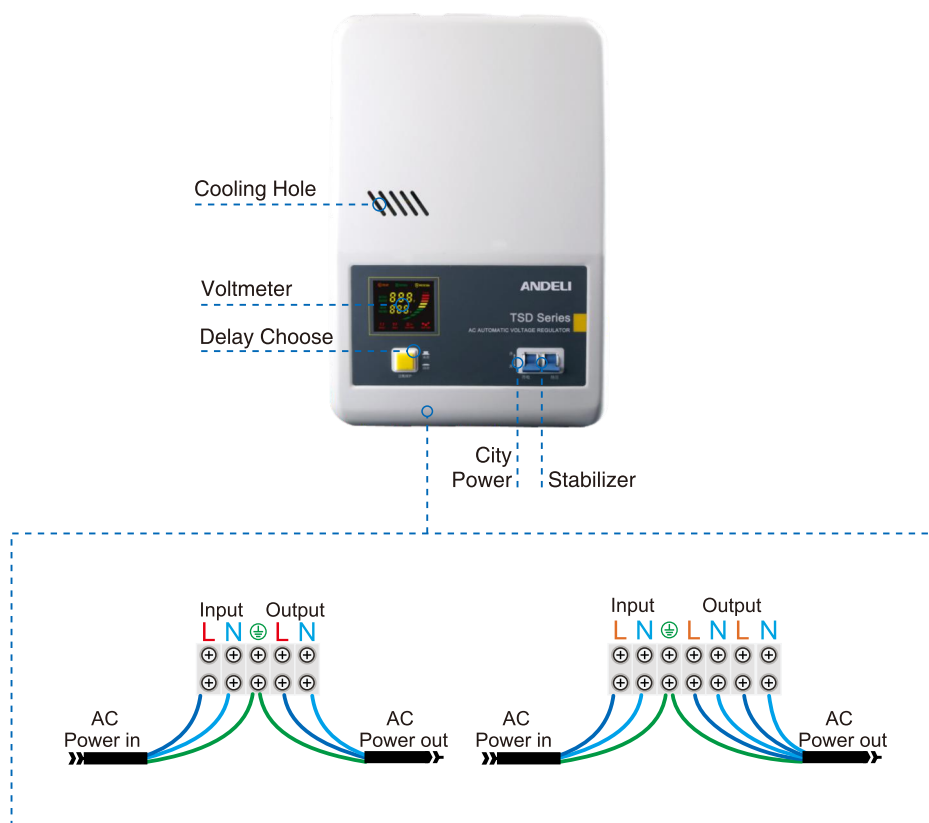
2. Product Description

TSDIII Single Phase AC Stabilizer

TSDIII series servo type AC voltage stabilizer, which is an improved design of SVC series products, which comes with superior quality, enhanced functions and modern design. It is capable of being mounted on wall, saving space significantly.

It mainly features in a modern design and various protections against, over-voltage, under-voltage, overload, over temperature and time delay, enjoying a great popularity for residential, hospital, commercial applications etc.

3. Product Dominance



4. Technical Parameter

Specification		500VA	1000VA	1500VA	2000VA	3000VA
Input	Phase	Single phase				
	Voltage	AC 150V-250V/70V-150V				
	Frequency	50Hz / 60Hz				
Output	Voltage	220V/230V/240V $\pm$ 3% or 110V/120V/130V $\pm$ 3%(Optional)				
	Capacity	400W	800W	1200W	1600W	2400W
	Frequency	50Hz 60Hz				
Protection	Low voltage	AC 184V $\pm$ 4V				
	Over voltage	AC 246 $\pm$ 4V				
	Time Delay	3-7sec/3-7min Selectable				
	Overload/ short circuit	YES				
Packaging	Pcs per Carton	4			1	
	Shipping Wt.(Kg)	16.6	21.35	23.15	7.9	11.45
	Packing dimensions(mm)	245 $\times$ 340 $\times$ 425	495 $\times$ 285 $\times$ 390	355 $\times$ 295 $\times$ 240	365 $\times$ 275 $\times$ 380	540 $\times$ 325 $\times$ 270
Efficiency	AC-AC	> 95%				
Acoustic	Noise level	$\leq$ 50dB				
Environment	Temperature	-5 $^{\circ}$ C to 40 $^{\circ}$ C				
	Humidity	20% to 90%				
QTY(pcs)	20FT	3200	2100	2100	1120	1120

Specification		5000VA	7500VA	10000VA
Input	Phase	Single phase		
	Voltage	AC 150V-250V/70V-150V		
	Frequency	50Hz/60Hz		
Output	Voltage	220V/230V/240V $\pm$ 3% or 110V/120V/130V $\pm$ 3%(Optional)		
	Capacity	4000W	6000W	8000W
	Frequency	50Hz / 60Hz		
Protection	Low voltage	AC 184V $\pm$ 4V		
	Over voltage	AC 246 $\pm$ 4V		
	Time Delay	3-7sec/3-7min Selectable		
	Overload/ short circuit	YES		
Packaging	Pcs per Carton	1		
	Shipping Wt.(Kg)	20.8	27.65	30.5
	Packing dimensions(mm)	540 $\times$ 325 $\times$ 270	610 $\times$ 360 $\times$ 305	370 $\times$ 330 $\times$ 580
Efficiency	AC-AC	> 95%		
Acoustic	Noise level	$\leq$ 50dB		
Environment	Temperature	-5 $^{\circ}$ C to 40 $^{\circ}$ C		
	Humidity	20% to 90%		
QTY(pcs)	20FT	600	420	420

AVR III Single Phase Relay Type Automatic Voltage Regulator



1. AVR III Series

Single Phase Automatic Voltage Regulator

- Over voltage protection
- Over current protection
- Over temperature protection
- Component Damage Protection
- Delay protection
- Over load protection
- Under voltage protection

2. Product Description

AVR III Single Phase AC Stabilizer

AVR III high-accuracy intelligent AC regulator is a new type of update product which is researched and developed our R&D. Compared with old model, it has low loss, instant overload protection, low noise and long lifetime.

Features of AVR III High-Accuracy Intelligent AC Regulator(AVR:500VA-10KVA)

- 1.SMT(Surface Mount Technology)PCB, auto diagnose, lower defective rate
- 2.Advanced Micro control Unit delivers more stable performance
- 3.Wide input voltage range(from 80-270V)
- 4.High precision output up to $\pm 8\%$ ($\pm 6\%$ available with normal input voltage range 140-260V)
- 5.Protection against brownout/over voltage/short circuit/over load/over temperature computer stabilizer

3. Product Instruction



Adopt American
"Freescale CPU"



Digital signal
processor



Shorter relay
action time

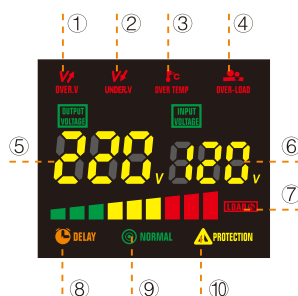


Relay failure
detection



Improved reliability in
high temp and overload

Input	Output	Precision
80~270V	220V	10%
100~270V	220V	10%
125~270V	220V	8%
140~280V	220V	10%
140~260V	220V	5%
176~269V	220V	5%
According to the requirements	110V	10%



1.O/P Voltage Above high limit	6.Input Voltage
2.O/P Voltage Under low limit	7.Load
3.Over Temperature	8.Delay Voltage
4.Overload	9.Normal
5.Output Voltage	10.Protection(Fault Mode)

4. Technical Parameter

Specification		500VA	1000VA	1500VA	2000VA
Input	Phase	Single phase			
	Voltage	AC 80-260V/AC100V-280V/AC150V-270V/ 140V-260V/176V-264V(optional)			
	Frequency	50Hz / 60Hz			
Output	Voltage	220V/±10%/220V±8%/220V±5%/220V±5% { 110V±8%(±5%Optional) }			
	Capacity	400W	800W	1200W	1600W
	Frequency	50Hz 60Hz			
Protection	Low voltage	AC 186V±4V			
	Over voltage	AC 246±4V			
	Time Delay	6s/180s			
	Overload/ short circuit	YES			
Packaging	Pcs per Carton	4			
	Shipping Wt.(Kg)	26.8	18.5	20.4	25
	Packing dimensions(mm)	470×185×245		560×275×265	

Specification		3000VA	5000VA	7500VA	10000VA
Input	Phase	Single phase			
	Voltage	AC 80-260V/AC100V-280V/AC150V-270V/ 140V-260V/176V-264V(optional)			
	Frequency	50Hz/60Hz			
Output	Voltage	220V/230V/240V±3% or 110V/120V/130V±3%(Optional)			
	Capacity	2400W	4000W	6000W	8000W
	Frequency	50Hz / 60Hz			
Protection	Low voltage	AC 186V±4V			
	Over voltage	AC 246±4V			
	Time Delay	6s/180s			
	Overload/ short circuit	YES			
Packaging	Pcs per Carton	1			
	Shipping Wt.(Kg)	11.45	20.8	27.65	30.5
	Packing dimensions(mm)	640×380×350		470×260×290	

PR II Series Colourful Display Portable Automatic Voltage Regulator



1.PR II Series

LED Display Portable Automatic Voltage Regulator 7 kinds of protections

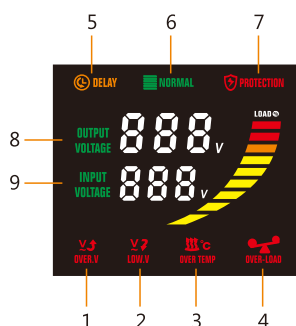
- Over voltage protection
- Over current protection
- Over temperature protection
- Component damage Protection
- Short delay(3~6s)& Long delay(3~6m)
- Over load protection
- Under-voltage protection



2.Product Description

PRII Single Phase AC Stabilizer

- Over-voltage protection
- Over-current protection
We have double protection functions: Fuse and PCB.
- Over-temperature protection
Though 120°C is our temperature setting, our metal of transformer can stand 180°C.
- Component-Damage Protection
Any component damage will not occur equipment burned, it will not affect other components. When abnormality happens, AVR can be protected with 0.065s.
- Delay Protection
If city power is suddenly off and return at once, it may lead appliances damaged. There is 5s delay before the AC resume.
- Over-load protection
After 5 times testing current over 1.2 times of rated current, AVR will shut down and alarm.
- Under-voltage protection
Please note that our AVR voltage range is 125-270V, 176-264V, if voltage is less than 110V, our stabilizer is not workable.



1.O/P Voltage Above high limit	6.Normal
2.O/P Voltage Under low limit	7.Protection(Fault Mode)
3.Over Temperature	8.Output Voltage
4.Overload	9.Protection(Fault Mode)
5.Output Voltage	10.Fault Mode
Short Delay Mode	Sounding each 1 Secs
Long Delay Mode	Sounding each 5 Secs
Overload Mode	Sounding each 0.5 Secs
Over/Under Voltage Mode	Sounding each 3 Secs
Under Frequency Mode	Sounding each 2 Secs
Over Temperture	Sounding each 4 Secs
Fauit Mode	Sounding Continuous

3. Technical Parmeter

Specification		500VA	1000VA	1500VA	2000VA	3000VA
Input	Phase	Single phase				
	Voltage	AC125V-270V/140V-260V/176V-264V (Optional)				
	Frequency	50Hz/60Hz				
Output	Capacity	500VA	1000VA	1500VA	2000VA	3600VA
		250W	500W	750W	1000W	1800W
	Frequency (inverter mode)	50Hz/60Hz				
Protection	Spiles&surge suppression	Yes				
	Over voltage	Yes				
	Overload/short circuit	Yes				
Efficiency	AC-AC	0.5-0.7				
Acoustic	Noise level	≤50dB				
Environment	Temperature	-5°C to 60°C				
	Humidity	20% to 90%				
Mechanical	Net Wt(kg)	1.3	1.6	1.75	1.8	2.8
	Shipping Wt(kg)	11.9	14.3	15.5	16.8	23.5
	QTY/carton	8				
	Dimensions(mm)	528×320×360				

DBW SBW Compensated Voltage Stabilizer

1. Application

DBW SBW compensated voltage stabilizer is a contact adjustable automatic voltage compensation high-power regulating power device. When voltage from supply network is varied or due to loading current effect, it automatically regulates the output voltage to ensure the normal function of the varied of electric equipments.



DBW-100KVA



SBW-150KVA



SBW-300KVA

2. Specification

Input voltage	Single phase: 220V $\pm$ 20% or 220V $\pm$ 30% Three phases four-line: 380V $\pm$ 20% or 380V $\pm$ 30%
Output voltage	Single phase: 220V $\pm$ 2%; Three phases: 380V $\pm$ 2%
Phase	Single phase; Three phases four-line
Frequency	50Hz/60Hz
Response	within 1 sec.(against 10% input voltage deviation)
Efficiency	Better than 95%
Ambient temperature	-10°C~+40°C
Waveform	Non-lack fidelity waveform
Insulation restoration	Better than 5M Ω
Overload	Double rated current, one min
Protection	Overvoltage, overcurrent, feed phases

3. Outline and Packing

Type	Outpower(kVA)	Outline(cm)	Weight(Kg)	Cabinet
DBW-20kVA	20	70 x 50 x 135	283	1
DBW-30kVA	30	70 x 50 x 135	310	1
DBW-40kVA	40	70 x 50 x 135	330	1
DBW-50kVA	50	80 x 60 x 150	360	1
DBW-60kVA	60	80 x 60 x 150	380	1
DBW-70kVA	70	80 x 60 x 150	100	1
DBW-80kVA	80	90 x 70 x 170	430	1
DBW-100kVA	100	90 x 70 x 170	480	1
SBW-50kVA	50	80 x 62 x 135	350	1
SBW-60kVA	60	80 x 62 x 135	370	1
SBW-100kVA	110	85 x 52 x 150	420	1
SBW-150kVA	150	100 x 72 x 170	550	1
SBW-180kVA	180	100 x 72 x 170	570	1
SBW-200kVA	200	100 x 72 x 170	630	1
SBW-225kVA	225	110 x 80 x 180	660	1
SBW-250kVA	250	110 x 80 x 200	700	1
SBW-300kVA	300	110 x 80 x 210	740	1
SBW-320kVA	320	110 x 80 x 210	760	1
SBW-400kVA	400	110 x 80 x 210 ₂	1100	2
SBW-500kVA	500	110 x 80 x 210 ₂	1500	2
SBW-600kVA	600	110 x 80 x 210 ₂	2200	2
SBW-800kVA	800	85 x 100 x 220 ₃	2800	3
SBW-1000kVA	1000	85 x 100 x 220 ₃	3500	3
SBW-1200kVA	1200	85 x 100 x 220 ₃	4100	3
SBW-1600kVA	1600	110 x 110 x 220 ₄	5560	4
SBW-2000kVA	2000	110 x 110 x 220 ₄	7100	4

JJW SJW A.C. Precision Purity Regulated Power Supply



JJW-1000VA



JJW-2000VA



JJW-3000VA

1. JJW SJW A.C. Precision Purity Regulated Power Supply Feature

A.C. Precision purity regulated power supply is our new, high characteristic electronic A.C. regulated equipment as KUPA doctor's theory, combining Asymmetrical Digital Subscriber Loop colander net, which integrates multi-functions such as purity regulation and anti-disturbance. They are of wide range in regulation, fast speed in response, high precision in regulation etc., to refrain all kinds of noise from power net and disturbance from peak. They are your first choice among of A.C. regulated power supply at present, which are 614 series electronic A.C. regulated power supply and ideal substitution regulated power supply.

It often happens that the electrical equipment are damaged because of lack of power. The experts of power point out most 80% malfunctions of computer are caused by A.C. power supply directly or indirectly. So as to ensure the safe operation of electrical equipment, the power supply must be improved. Our products fulfill the requirements in such places for his spurious characteristic. Our products are suitable for the following fields: science department, university, corporation, hospital, broadcasting station, communication equipment, traffic system, test equipment and all automatic production equipment.

2. JJW/2 A.C. Intelligence Percision Purity Regulated Power Supply Feature

JJW/2 A.C. intelligence precision purity regulated power supply is new high characteristic electronic A.C. regulated power supply, which is one of advanced characteristic A.C. regulated power supply at present, and widely suitable for high precision electrical equipment and general electrical power equipment. In America, the products have been used into military and aviation etc. A.C. intelligence precision purity regulated power supply adopt advanced technology, integration purity, regulation, anti-disturbance and automatic protection etc. With the advantages such as wide range in regulation, fast speed in response, high precision, anti-disturbance, low distortion, strong capacity in anti-load impact, long life, low noise and so on.

3. Capability index

Range of output voltage

Single phase:170-270V Three phases:310-450V

Range of input regulation: Single phase:185-250V, output:220±5%

Three phases:330-450V, output:380±0.5%

Input frequency:50Hz±5%

Alarm value of output voltage

Single phase:output higher than 242V or lower than 198V

Three phases:output higher than 418V or lower than 342V

Value of protection of over voltage(output loop cut down)

Single phase:output voltage more than 247V

Three phases:output voltage more than 427V

Value of protection of short voltage(output loop cut down)

Single phase:output lower than 193V

Value of protection of over current:1.2 times larger than rated current

Response time of instant voltage change: advantage over two weeks of power

Single pulse restraint of instant high power

Single phase input 3000V, while 75us single pulse, the remained output voltage <30V

Output wave distortion:<3%

Working ambient temperature:-100C±400C

Waste power:≤1.5%

Switching Power Supply

15W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-15-5	5V,0~3.0A	± 2%	50mV	65%
S-15-12	12V,0~1.3A	± 1%	50mV	68%
S-15-24	24V,0~0.7A	± 1%	50mV	73%



S-15-12

25W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-25-5	5V,0~5.0A	± 2%	50mV	72%
S-25-12	12V,0~2.1A	± 1%	100mV	76%
S-25-15	15V,0~1.7A	± 1%	100mV	77%
S-25-24	24V,0~1.1A	± 1%	100mV	80%

35W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-35-5	5V,0~7.0A	± 2%	75mV	70%
S-35-12	12V,0~3.0A	± 1%	100mV	76%
S-35-15	15V,0~2.4A	± 1%	100mV	78%
S-35-24	24V,0~1.5A	± 1%	100mV	78%

40W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-40-5	5V,0~8.0A	± 2%	75mV	72%
S-40-12	12V,0~3.5A	± 1%	100mV	76%
S-40-15	15V,0~2.8A	± 1%	100mV	76%
S-40-24	24V,0~1.8A	± 1%	100mV	78%



S-40-12

50W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-50-5	5V,0~10A	± 2%	75mV	71%
S-50-12	12V,0~4.2A	± 1%	100mV	78%
S-50-15	15V,0~3.4A	± 1%	100mV	78%
S-50-24	24V,0~2.1A	± 1%	100mV	82%

60W Single Output Switching Power Supply

Model No	Ouput	Tol.	R & N	Effi.
S-60-5	5V,0~12A	± 2%	120mV	73%
S-60-12	12V,0~5.0A	± 1%	120mV	76%
S-60-15	15V,0~4.0A	± 1%	150mV	77%
S-60-24	24V,0~2.5A	± 1%	150mV	79%

70W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-75-5	5V,0~15A	± 2%	80mV	72%
S-75-12	12V,0~6.3A	± 2%	80mV	77%
S-75-15	15V,0~5.0A	± 2%	80mV	79%
S-75-24	24V,0~3.2A	± 1%	100mV	80%



S-75-12

75W PFC Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
SP-75-5	5V,0~15A	± 2%	80mV	72%
SP-75-12	12V,0~6.3A	± 2%	80mV	77%
SP-75-15	15V,0~5.0A	± 2%	80mV	79%
SP-75-24	24V,0~3.2A	± 1%	100mV	80%



S-100-12

100W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-100-3	3V,0~20A	± 2%	100mV	70%
S-100-5	5V,0~20A	± 2%	100mV	78%
S-100-7.5	7.5V,0~13.6A	± 1%	100mV	80%
S-100-10	10V,0~10A	± 1%	100mV	80%
S-100-12	12V,0~8.5A	± 1%	100mV	81%
S-100-15	15V,0~6.7A	± 1%	100mV	81%
S-100-18	18V,0~5.6A	± 1%	100mV	82%
S-100-24	24V,0~4.5A	± 1%	100mV	84%
S-100-27	27V,0~3.7A	± 1%	100mV	84%
S-100-48	48V,0~2.0A	± 1%	100mV	84%
S-100F-5	5V,0~20A	± 2%	100mA	76%
S-100F-7.5	7.5V,0~13.5A	± 1%	125mA	78%
S-100F-12	12V,0~8.5A	± 1%	125mA	80%
S-100F-15	15V,0~6.7A	± 1%	125mA	81%
S-100F-24	24V,0~4.5A	± 1%	125mA	83%
S-100F-48	48V,0~2.2A	± 1%	125mA	84%



S-120-12

120W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-120-3	3V,0~24A	± 2%	100mV	70%
S-120-5	5V,0~24A	± 2%	100mV	78%
S-120-7.5	7.5V,0~16A	± 1%	100mV	80%
S-120-10	10V,0~12A	± 1%	100mV	80%
S-120-12	12V,0~10A	± 1%	100mV	81%
S-120-15	15V,0~8A	± 1%	100mV	81%
S-120-18	18V,0~6.6A	± 1%	180mV	82%
S-120-24	24V,0~5A	± 1%	240mV	84%
S-120-27	27V,0~4.5A	± 1%	240mV	84%
S-120-48	48V,0~2.5A	± 1%	240mV	84%

145W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-145-5	5V,0~25A	± 2%	120mA	72%
S-145-7.5	7.5V,0~18A	± 2%	120mA	74%
S-145-12	12V,0~12A	± 2%	120mA	77%
S-145-13.5	13.5V,0~10.7A	± 2%	120mA	78%
S-145-15	15V,0~9.6A	± 2%	80mA	79%
S-145-24	24V,0~6.0A	± 1%	150mA	80%
S-145-27	27V,0~5.4A	± 1%	150mA	80%
S-145-48	48V,0~3.0A	± 1%	150mA	80%



S-150-12

150W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-150-7	5V,0~30A	± 2%	150mV	78%
S-150-7.5	7.5V,0~20.0A	± 1%	150mV	80%
S-150-9	9V,0~16.7A	± 1%	180mV	80%
S-150-12	12V,0~12.5A	± 1%	180mV	82%
S-150-15	15V,0~10.0A	± 1%	180mV	84%
S-150-24	24V,0~6.5A	± 1%	240mV	85%
S-150-48	48V,0~3.2A	± 1%	240mV	87%
S-150-13.5	13.5V,0~11.2A	± 1%	180mV	83%
S-150-27	27V,0~5.6A	± 1%	240mV	86%



S-200-12

200W PFC Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
SP-200-3.3	3.3V,0~40.0A	± 2%	100mA	72%
SP-200-5	5V,0~40.0A	± 2%	100mA	77%
SP-200-12	12V,0~16.7A	± 2%	100mA	85%
SP-200-15	15V,0~13.4A	± 2%	100mA	84%
SP-200-24	24V,0~8.40A	± 2%	125mA	87%
SP-200-48	48V,0~4.20A	± 2%	250mA	86%

200W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-200-3.3	3.3V,0~40.0A	± 2%	100mV	65%
S-200-5	5V,0~40.0A	± 2%	100mV	71%
S-200-7.5	7.5V,0~26.7A	± 2%	100mV	76%
S-200-12	12V,0~16.7A	± 2%	100mV	79%
S-200-13.5	13.5V,0~14.9A	± 2%	100mV	80%
S-200-15	15,0~14.3A	± 2%	100mV	81%
S-200-24	24V,0~8.40A	± 1%	150mV	83%
S-200-27	27V,0~7.5A	± 1%	150mV	83%
S-200-48	48V,0~4.2A	± 1%	250mV	84%



S-201-12

201W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-201-5	5V,0~40.0A	± 2%	150mA	73%
S-201-7.5	7.5V,0~26.5A	± 2%	150mA	76%
S-201-12	12V,0~16.5A	± 1%	150mA	79%
S-201-13.5	13.5V,0~14.7A	± 1%	150mA	79%
S-201-15	15V,0~13.0A	± 1%	150mA	80%
S-201-24	24V,0~8.3A	± 1%	150mA	81%
S-201-27	27V,0~7.4A	± 1%	200mA	82%
S-201-48	48V,0~4.2A	± 1%	240mA	83%

240W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	PP
S-240-5	5V,0~40A	± 2%	150mA	135
S-240-7.5	7.5V,0~30.0A	± 2%	200mA	135
S-240-12	12V,0~18.0A	± 1%	150mA	135
S-240-15	15V,0~15.0A	± 1%	150mA	135
S-240-24	24V,0~10.0A	± 1%	180mA	135
S-240-30	30V,0~8.0A	± 1%	180mA	135
S-240-48	48V,0~5.0A	± 1%	200mA	135

250W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-250-5	5V,0~40.0A	± 2%	80mA	74%
S-250-12	12V,0~18A	± 1%	120mA	79%
S-250-15	15V,0~15A	± 1%	120mA	80%
S-250-24	24V,0~10.0A	± 1%	120mA	81%
S-250-27	27V,0~9.4A	± 1%	150mA	82%
S-250-48	48V,0~5.2A	± 1%	200mA	82%



S-250-12

300W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-300-5	5V,0~45.0A	± 2%	150mA	73%
S-300-12	12V,0~25.0A	± 1%	200mA	82%
S-300-13.5	13.5V,0~22.0A	± 1%	200mA	82%
S-300-24	24V,0~12.5A	± 1%	200mA	84%
S-300-27	27V,0~11.0A	± 1%	200mA	84%
S-300-48	28V,0~6.5A	± 1%	240mA	86%



S-320-12

320W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-320-5	5V,0~50.0A	± 2%	150mA	77%
S-320-7.5	7.5V,0~36.0A	± 2%	150mA	80%
S-320-12	12V,0~25A	± 1%	150mA	82%
S-320-13.5	13.5V,0~22.0A	± 1%	150mA	83%
S-320-15	15V,0~20.0A	± 1%	150mA	84%
S-320-24	24V,0~12.5A	± 1%	150mA	86%
S-320-27	27V,0~11.0A	± 1%	200mA	86%
S-320-48	48V,0~6.5A	± 1%	240mA	87%



S-350-12

320W PEC Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
SP-320-5	5V,0~50.0A	± 2%	150mA	79%
SP-320-7.5	7.5V,0~40.0A	± 2%	150mA	83%
SP-320-12	12V,0~25.0A	± 1%	150mA	86%
SP-320-13.5	13.5V,0~22.0A	± 1%	150mA	86%
SP-320-15	15V,0~20.0A	± 1%	150mA	86%
SP-320-24	24V,0~13.0A	± 1%	150mA	87%
SP-320-27	27V,0~11.7A	± 1%	200mA	88%
SP-320-48	48V,0~6.7A	± 1%	240mA	89%

350W PEC Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
SP-350-5	5V,0~50A	± 2%	150mA	73%
SP-350-7.5	7.5V,0~46.0A	± 1%	150mA	76%
SP-350-12	12V,0~30.0A	± 1%	150mA	79%
SP-350-13.5	13.5V,0~25.8A	± 1%	150mA	79%
SP-350-15	15V,0~23.2A	± 1%	150mA	80%
SP-350-24	24V,0~14.6A	± 1%	150mA	81%
SP-350-27	27V,0~13.0A	± 1%	200mA	82%
SP-350-48	48V,0~7.3A	± 1%	240mA	83%

350W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-350-5	5V,0~50A	± 2%	150mA	73%
S-350-7.5	7.5V,0~46.0A	± 1%	150mA	76%
S-350-12	12V,0~30.0A	± 1%	150mA	79%
S-350-13.5	13.5V,0~25.8A	± 1%	150mA	79%
S-350-15	15V,0~23.2A	± 1%	150mA	80%
S-350-24	24V,0~14.6A	± 1%	150mA	81%
S-350-27	27V,0~13.0A	± 1%	200mA	82%
S-350-48	48V,0~7.3A	± 1%	240mA	83%



S-400-12

400W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-400-5	5V,0~55.0A	± 2%	80mA	72%
S-400-9	9V,0~43.0A	± 2%	80mA	76%
S-400-12	12V,0~33.0A	± 1%	120mA	82%
S-400-15	15V,0~26.0A	± 1%	150mA	84%
S-400-24	24V,0~17.0A	± 1%	150mA	86%
S-400-48	48V,0~8.3A	± 1%	240mA	88%

- High efficiency and high reliability
- Protections: Short circuit/Over load
- Air cooling
- 2 years warranty



MS-15-12

Model NO.	MS-15-5	MS-15-12	MS-15-15	MS-15-24	MS-15-48
DC voltage	5V	12V	15V	24V	48V
Voltage tolerance	± 2%	± 1%	± 1%	± 1%	± 1%
Rated current	3A	1.25A	1A	0.7A	0.32A
Current range	0~3A	0~1.25A	0~1.0A	0~0.7A	0~0.32A
Rated power	15W	15W	15W	16.8W	15.36W
Ripple&noise	50mVP-P	50mVP-P	100mVP-P	100mVP-P	120mVP-P
DC voltage adj.range	± 10%	± 10%	± 10%	± 10%	± 10%
Setup, rise time	200ms, 100ms, 20ms at full load				
Voltage adj.range	170~265VAC auto switch 254~375VDC 47~63Hz				
AC current	0.25A/230VAC				
Efficiency	74%	80%	81%	83%	83%
Inrush current	30A/230VAC				
Leakage current	<0.5mA/240VAC				
Over load	± 110%~ ± 150%				
Working temp. Humidity	(-10°C~+60°C):20%~90%RH				
Protect temp. Humidity	(-20°C~+85°C):10%~95%RH				
Aseismicity	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
Withstand voltage	I/P-FG:1.5KVAC O/P-FG:0.5KVAC				
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100m 0hms/500VDC				
Safety standards	Compliance to UL 1012				
Emc standards	Compliance to EN55022 CLASSA				
Weight	0.2Kg				
Dimension	120×50×31mm (L×W×H)				



MS-35-12

Model NO.	MS-35-5	MS-35-12	MS-35-15	MS-35-24	MS-35-48
DC voltage	5V	12V	15V	24V	48V
Voltage tolerance	± 1%	± 1%	± 1%	± 1%	± 1%
Rated current	7.0A	3.0A	2.4A	1.5A	0.8A
Current range	0~7A	0~3.0A	0~2.4A	0~1.5A	0~0.8A
Rated power	36W	36W	36W	36W	38.4W
Ripple&noise	75mVP-P	100mVP-P	100mVP-P	100mVP-P	150mVP-P
DC voltage adj.range	± 10%	± 10%	± 10%	± 10%	± 10%
Setup, rise time	200ms, 100ms, 20ms at full load				
Voltage adj.range	170VAC~265VAC auto switch 254~375VDC				
AC current	0.65A/230VAC				
Efficiency	74%	81%	81%	83%	83%
Inrush current	cold start 36A 230VAC				
Leakage current	<0.6mA/240VAC				
Over load	± 110%~ ± 150%				
Working temp. Humidity	(-10°C~+60°C):20%~90%RH				
Protect temp. Humidity	(-20°C~+85°C):10%~95%RH				
Aseismicity	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
Withstand voltage	I/P-FG:1.5KVAC O/P-FG:0.5KVAC				
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100m 0hms/500VDC				
Safety standards	Compliance to UL 1012				
Emc standards	Compliance to EN55022 CLASSA				
Weight	0.2Kg				
Dimension	85×58×38mm (L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.

- High efficiency and high reliability
- Protections: Short circuit/Over load

- Air cooling
- 2 years warranty



MS-50-12

Model NO.	MS-50-5	MS-50-12	MS-50-15	MS-50-24	MS-50-48
DC voltage	5V	12V	15V	24V	48V
Voltage tolerance	±2%	±1%	±1%	±1%	±1%
Rated current	10A	4.2A	3.4A	2.1A	0.8A
Current range	0~10A	0~4.2A	0~3.4A	0~2.1A	0~1A
Rated power	50W	50.4W	51W	50.4W	50.4W
Ripple&noise	75mVP-P	100mVP-P	120mVP-P	120mVP-P	150mVP-P
DC voltage adj.range	±10%	±10%	±10%	±10%	±10%
Setup, rise time	200ms, 100ms, 20ms at full load				
Voltage adj.range	170~265VAC auto switch 254~375VDC 47~63Hz				
AC current	0.65A/230VAC				
Efficiency	74%	81%	81%	83%	83%
Inrush current	36A/230VAC				
Leakage current	<0.5mA/240VAC				
Over load	±110%~±150%				
Working temp. Humidity	(-10°C~+60°C):20%~90%RH				
Protect temp. Humidity	(-20°C~+85°C):10%~95%RH				
Aseismicity	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
Withstand voltage	I/P-FG:1.5KVAC O/P-FG:0.5KVAC				
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100m 0hms/500VDC				
Safety standards	Compliance to UL 1012				
Emc standards	Compliance to EN55022 CLASSA				
Weight	0.33Kg				
Dimension	99×97×36mm (L×W×H)				



MS-60-12

Model NO.	MS-60-5	MS-60-12	MS-60-15	MS-60-24	MS-60-48
DC voltage	5V	12V	15V	24V	48V
Voltage tolerance	±2%	±1%	±1%	±1%	±1%
Rated current	12A	5A	4A	2.5A	1.25A
Current range	0~12A	0~5A	0~4A	0~2.5A	0~1.25A
Rated power	50W	50.4W	51W	50.4W	50.4W
Ripple&noise	100mVP-P	120mVP-P	120mVP-P	150mVP-P	150mVP-P
DC voltage adj.range	±10%	±10%	±10%	±10%	±10%
Setup, rise time	200ms, 100ms, 20ms at full load				
Voltage adj.range	170~265VAC auto switch 254~375VDC 47~63Hz				
AC current	0.65A/230VAC				
Efficiency	74%	81%	81%	83%	83%
Inrush current	36A/230VAC				
Leakage current	<0.5mA/240VAC				
Over load	±110%~±150%				
Working temp. Humidity	(-10°C~+60°C):20%~90%RH				
Protect temp. Humidity	(-20°C~+85°C):10%~95%RH				
Aseismicity	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
Withstand voltage	I/P-FG:1.5KVAC O/P-FG:0.5KVAC				
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100m 0hms/500VDC				
Safety standards	Compliance to UL 1012				
Emc standards	Compliance to EN55022 CLASSA				
Weight	0.33Kg				
Dimension	99×97×36mm (L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.

- High efficiency and high reliability
- Protections: Short circuit/Over load
- Air cooling
- 2 years warranty



RS-60-12

Model NO.	RS-60-5	RS-60-12	RS-60-15	RS-60-24	RS-60-48
DC voltage	5V	12V	15V	24V	48V
Voltage tolerance	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
Rated current	12A	5A	4A	2.5A	1.25A
Current range	0~12A	0~5A	0~4A	0~2.5A	0~1.25A
Rated power	60W	60W	60W	60W	60W
Ripple&noise	75mVP-P	100mVP-P	100mVP-P	100mVp-p	120mVp-p
DC voltage adj.range	± 10%	± 10%	± 10%	± 10%	± 10%
Setup, rise time	200ms, 100ms, 30ms at full load				
Voltage adj.range	110~265VAC auto switch 254~375VDC 47~63Hz				
AC current	0.8A/110VAC 0.45A/230VAC				
Efficiency	74%	80%	81%	83%	83%
Inrush current	45A/165VAC 45A/230VAC				
Leakage current	<3.5mA/240VAC				
Over load	± 110%~ ± 150%				
Working temp. Humidity	(-10°C~+60°C):20%~90%RH				
Protect temp. Humidity	(-20°C~+85°C):10%~95%RH				
Aseismicity	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
Withstand voltage	I/P-FG:1.5KVAC O/P-FG:0.5KVAC				
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100m 0hms/500VDC				
Safety standards	Compliance to UL 1012				
Emc standards	Compliance to EN55022 CLASSA				
Weight	0.57Kg				
Dimension	129×98×38mm (L×W×H)				



RS-100-12

Model NO.	RS-100-5	RS-100-12	RS-100-15	RS-100-24	RS-100-48
DC voltage	5V	12V	15V	24V	48V
Voltage tolerance	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
Rated current	20A	8.3A	6.7A	4.2A	2.1A
Current range	0~20A	0~8.3A	0~6.7A	0~4.2A	0~2.1A
Rated power	100W	100W	100W	100W	100W
Ripple&noise	100mVP-P	120mVP-P	120mVP-P	150mVP-P	240mVP-P
DC voltage adj.range	± 10%	± 10%	± 10%	± 10%	± 10%
Setup, rise time	200ms, 100ms, 30ms at full load				
Voltage adj.range	110~265VAC auto switch 254~375VDC 47~63Hz				
AC current	2A/110VAC 1A/230VAC				
Efficiency	74%	80%	81%	83%	83%
Inrush current	45A/165VAC 45A/230VAC				
Leakage current	<3.5mA/240VAC				
Over load	± 110%~ ± 150%				
Working temp. Humidity	(-10°C~+60°C):20%~90%RH				
Protect temp. Humidity	(-20°C~+85°C):10%~95%RH				
Aseismicity	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
Withstand voltage	I/P-FG:1.5KVAC O/P-FG:0.5KVC				
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100m 0hms/500VDAC				
Safety standards	Compliance to UL 1012				
Emc standards	Compliance to EN55022 CLASSA				
Weight	0.57Kg				
Dimension	159×97×38mm (L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.



RS-120-12

- High efficiency and high reliability
- Protections: Short circuit/Over load
- Air cooling
- 2 years warranty

Model NO.	RS-120-5	RS-120-12	RS-120-15	RS-120-24	RS-120-48
DC voltage	5V	12V	15V	24V	48V
Voltage tolerance	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
Rated current	20A	10A	8A	5A	3.2A
Current range	0~20A	0~10A	0~8A	0~5A	0~2.5A
Rated power	100W	100W	100W	100W	120W
Ripple&noise	100mVP-P	120mVP-P	120mVP-P	150mVP-P	240mVP-P
DC voltage adj.range	± 10%	± 10%	± 10%	± 10%	± 10%
Setup, rise time	200ms, 100ms at full load				
Voltage adj.range	110~265VAC auto switch 254~375VDC 47~63Hz				
AC current	2A/110VAC 1A/230VAC				
Efficiency	74%	80%	81%	83%	83%
Inrush current	45A/110VAC 45A/230VAC				
Leakage current	<3.5mA/240VAC				
Over load	± 110%~ ± 150%				
Working temp. Humidity	(-10°C~+60°C):20%~90%RH				
Protect temp. Humidity	(-20°C~+85°C):10%~95%RH				
Aseismicity	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
Withstand voltage	I/P-FG:1.5KVAC O/P-FG:0.5KVAC				
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100m 0hms/500VDC				
Safety standards	Compliance to UL 1012				
Emc standards	Compliance to EN55022 CLASSA				
Weight	0.6Kg				
Dimension	199×98×38mm (L×W×H)				



RS-150-12

Model NO.	RS-150-5	RS-150-12	RS-150-15	RS-150-24	RS-150-48
DC voltage	5V	12V	15V	24V	48V
Voltage tolerance	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
Rated current	25A	12.5A	10A	6.25A	3.2A
Current range	0~25A	0~12.5A	0~10A	0~6.25A	0~3.2A
Rated power	125W	150W	150W	150W	153.6W
Ripple&noise	120mVP-P	150mVP-P	150mVP-P	150mVP-P	240mVP-P
DC voltage adj.range	± 10%	± 10%	± 10%	± 10%	± 10%
Setup, rise time	200ms, 100ms, 30ms at full load				
Voltage adj.range	110~265VAC auto switch 254~375VDC 47~63Hz				
AC current	3A/110VAC 1.6A/230VAC				
Efficiency	74%	80%	81%	83%	83%
Inrush current	45A/165VAC 45A/230VAC				
Leakage current	<3.5mA/240VAC				
Over load	± 110%~ ± 150%				
Working temp. Humidity	(-10°C~+60°C):20%~90%RH				
Protect temp. Humidity	(-20°C~+85°C):10%~95%RH				
Aseismicity	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
Withstand voltage	I/P-FG:1.5KVAC O/P-FG:0.5KVAC				
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100m 0hms/500VDC				
Safety standards	Compliance to UL 1012				
Emc standards	Compliance to EN55022 CLASSA				
Weight	0.6Kg				
Dimension	199×98×38mm (L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.



RS-200-12

- High efficiency and high reliability
- Protections: Short circuit/Over load
- Air cooling
- 2 years warranty

Model NO.	RS-200-5	RS-200-12	RS-200-15	RS-200-24	RS-200-48
DC voltage	5V	12V	15V	24V	48V
Voltage tolerance	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
Rated current	35A	16.5A	13A	8.3A	4.2A
Current range	0~35A	0~16.5A	0~13A	0~8.3A	0~4.2A
Rated power	200W	198W	198W	199.2W	201.6W
Ripple&noise	120mVP-P	150mVP-P	150mVP-P	150mVP-P	240mVP-P
DC voltage adj.range	± 10%	± 10%	± 10%	± 10%	± 10%
Setup, rise time	200ms, 100ms at full load				
Voltage adj.range	165~265VAC auto switch 254~375VDC 47~63Hz				
AC current	3A/165VAC 2A/230VAC				
Efficiency	74%	80%	81%	83%	83%
Inrush current	45A/165VAC 45A/230VAC				
Leakage current	<3.5mA/240VAC				
Over load	± 110%~± 150%				
Working temp. Humidity	(-10°C~+60°C):20%~90%RH				
Protect temp. Humidity	(-20°C~+85°C):10%~95%RH				
Aseismicity	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
Withstand voltage	I/P-FG:1.5KVAC O/P-FG:0.5KVC				
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100m 0hms/500VDAC				
Safety standards	Compliance to UL 1012				
Emc standards	Compliance to EN55022 CLASSA				
Weight	0.5Kg				
Dimension	165×99×45mm (L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.

Single Output LED Switching Power Supply (Size: 167×28.5×21mm)



LV-30-12

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line request
LV-15-12	Aluminum	110-250V AC	15W	12V±0.5V	1.25A	-20°C ~40°C	170g	The wire of VDE (200mm)
LV-15-24		110-250V AC	15W	24V±0.5V	0.625A		170g	
LV-18-12		110-250V AC	18W	12V±0.5V	1.5A		170g	
LV-18-24		110-250V AC	18W	24V±0.5V	0.75A		170g	

Single Output LED Switching Power Supply (Size: 200×30.5×20.5mm)

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line request
LV-30-12	Aluminum	170-250V AC	30W	12V±0.5V	2.5A	-20°C ~40°C	250g	The wire of VDE (200mm)
LV-30-24		170-250V AC	30W	24V±0.5V	1.25A		250g	
LV-36-12		170-250V AC	36W	12V±0.5V	3A		250g	
LV-36-24		170-250V AC	36W	24V±0.5V	1.5A		250g	

Single Output LED Switching Power Supply (Size: 178×70×50mm)

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line request
LV-60-12	Aluminum	90-130V AC	60W	12V±0.5V	5A	-20℃ ~40℃	850g	The wire of VDE (200mm)
LV-60-24		90-130V AC	60W	24V±0.5V	2.5A		850g	
LV-60-12		170-250V AC	60W	12V±0.5V	5A		850g	
LV-60-24		170-250V AC	60W	24V±0.5V	2.5A		850g	



LV-60-12

Single Output LED Switching Power Supply (Size: 178×70×50mm)

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line request
LV-100-12	Aluminum	90-130V AC	100W	12V±0.5V	8.33A	-20℃ ~40℃	1200g	The wire of VDE (200mm)
LV-100-24		90-130V AC	100W	24V±0.5V	4.17A		1200g	
LV-100-12		170-250V AC	100W	12V±0.5V	8.33A		1200g	
LV-100-24		170-250V AC	100W	24V±0.5V	4.17A		1200g	

Single Output LED Switching Power Supply (Size: 228×120×63mm)

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line request
LV-150-12	Aluminum	170-250V AC	150W	12V±0.5V	12.5A	-20℃ ~40℃	2500g	The wire of VDE (200mm)
LV-150-24		170-250V AC	150W	24V±0.5V	6.25A		2500g	
LV-200-12		170-250V AC	200W	12V±0.5V	16.7A		2500g	
LV-200-24		170-250V AC	200W	24V±0.5V	8.33A		2500g	



BK-50VA

BK Machine Tool Control Transformer

1. Application

BK series machine tool control transformer is suitable for circuit of 50~60Hz, voltage up to 500V, usually applied as power supply for machine tool electrical appliances, local lightings and indicator lamps.

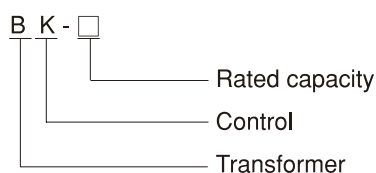
2. Structure character

According to different structures, BK transformer belongs to shell type, and according to the installation mode, it belongs to vertical type.



BK-300VA

3. Type and Meaning



4. Working environment

1. Ambient air temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, the highest monthly mean temperature should not exceed $+30^{\circ}\text{C}$;
2. Altitude for installing place should not exceed 1000m;
3. When the ambient air temperature is $+40$, the relative humidity should not exceed 50%, and it allows higher relative humidity under lower temperature. Max average humidity in the dampest month is 90%, meanwhile the lowest average temperature of this month is $+25^{\circ}\text{C}$, and condensation on the product surface caused by temperature change should be taken into consideration.

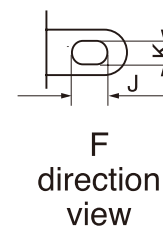
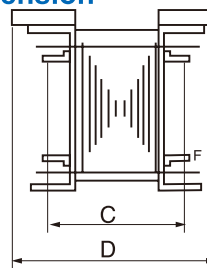
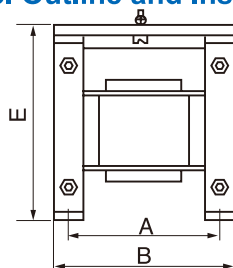


BK-500VA



BK-1000VA

5. Outline and Installation Dimension



Type	Outline dimension (mm)	Mounting size (mm)	Primary voltage	Secondary voltage	QTY/CTN
BK-25VA	76 × 80 × 75	63 × 44	220V 380V	380V, 220V, 110V, 36V, 24V, 12V, 6V (to be chosen)	16
BK-50VA	85 × 90 × 80	71 × 61			16
BK-100VA	103 × 92 × 95	87 × 69			12
BK-150VA	103 × 100 × 95	87 × 76			8
BK-200VA	103 × 106 × 95	87 × 81			8
BK-250VA	115 × 110 × 130	95 × 84			6
BK-300VA	115 × 115 × 130	95 × 86			6
BK-400VA	134 × 132 × 150	107 × 93			4
BK-500VA	134 × 137 × 150	107 × 98			4
BK-1000VA	153 × 149 × 168	128 × 115			2
BK-1500VA	175 × 185 × 185	140 × 135			1
BK-2000VA	175 × 195 × 185	140 × 145			1
BK-2500VA	207 × 250 × 230	168 × 163			1
BK-3000VA	207 × 250 × 230	168 × 173			1
BK-4000VA	240 × 240 × 250	200 × 160			1
BK-5000VA	240 × 250 × 250	200 × 170			1

JBK3 Machine Tool Control Transformer

1. Application

JBK3 series machine tool control transformer is kind of new product, it accords with standards like VDE0550, IEC204-1, IEC439,GB5226, etc. It is suitable for AC50/60Hz, output rated voltage lower than 220V,input rated voltage lower than 500V, worked as control power supply for mechanical equipment and general electrical appliance and as power supply for work lighting and signal lamp.



JBK3-63VA



JBK3-160VA

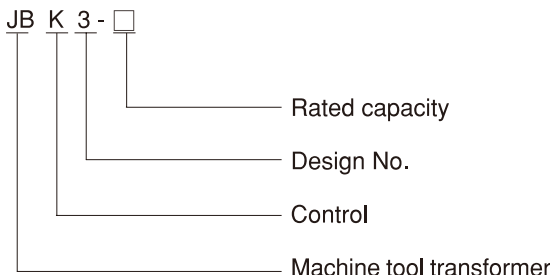


JBK3-250VA



JBK3-1000VA

2. Type and Meaning

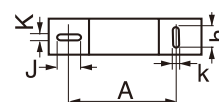
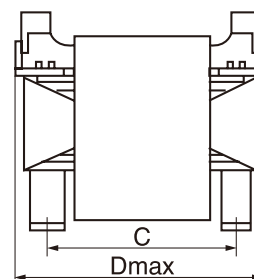
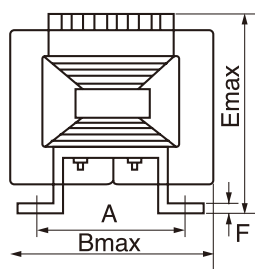
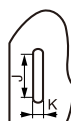
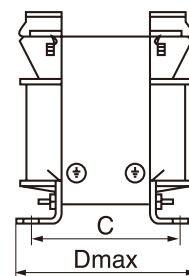
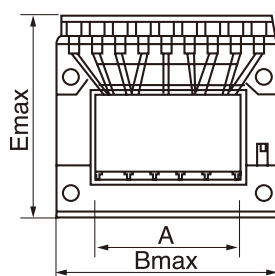


3. Technical Parameter

Type	Rated capacity (VA)	Ue rated input voltage (V)	Rated output voltage		
			Control	Illumination	Indication
JBK3-40VA	40	220±5% 380±5%	110 (127)	24 (36)	6 (12)
JBK3-63VA	63				
JBK3-100VA	100				
JBK3-160VA	160				
JBK3-250VA	250				
JBK3-400VA	400				
JBK3-630VA	630				
JBK3-1000VA	1000				
JBK3-1600VA	1600				
JBK3-2500VA	2500				
			Distribution of capacity for different winding may be according to the user's request.		

4. Outline and Installation Dimension

Type	Outline Dimension (mm)			Hole dimension for installation (mm)		Installation hole K or K x J(mm)	Fmax (mm)
	Bmax	Dmax	Emax	A	C		
JBK3-40,60VA	78	72	89	56±0.4	51±2	4.8 × 9	12
JBK3-100VA	85	85	94	64±0.4	66±2	4.8 × 9	12
JBK3-160VA	96	91	109	84±0.4	73±2	5.8 × 11	14
JBK3-250VA	96	105	109	84±0.4	87±2	5.8 × 11	14
JBK3-400VA	120	109	123	90±0.4	90±2	7 × 12	18
JBK3-630VA	150	112	150	122±0.5	90±2	7 × 12	22
JBK3-1000VA	160	195	151	126±2	152±2	7 × 12	18
JBK3-1600VA	184	220	163	140±2	176±2	7 × 12	18
JBK3-2500VA	200	250	171	172±2	200±2	7 × 12	18



TDGC₂ TSGC₂ TDGC₂J Voltage Regulator

1. Application

The product is special auto transformer which is connected in different forms. Its output voltage can be regulated smoothly and continuously from zero to the maximum value. The provision of an indicating meter is made for the models TDGC₂ TDGC₂J 0.2, 0.25, 0.5/0.5(M). All the models find popular applications in industries, agriculture and scientific researches, and are particularly suited to serve as ancillary facilities for such equipment as various machine tools, transistor curve tracers, projecting TV sets, and analytical instruments in petroleum industry, etc.

2. Specification

Type	Capacity (kVA)	Phase	Frequency (Hz)	Input voltage (V)	Output voltage (V)	Max. output current (A)
TDGC ₂ J TDGC ₂ TDGC-0.5(C)	0.5	1	50/60	110/220	0-250	0.88/2
TDGC ₂ J TDGC ₂ TDGC-1/0.5	1					1.6/4
TDGC ₂ J TDGC ₂ TDGC-2	2					3.2/8
TDGC ₂ J TDGC ₂ TDGC-3/0.5	3					4.8/12
TDGC ₂ J TDGC ₂ TDGC-5/0.5	5					8/12
TDGC ₂ J TDGC ₂ TDGC-10/0.5	10					16/40
TDGC ₂ J TDGC ₂ TDGC-15/0.5	15					24/60
TDGC ₂ J TDGC ₂ TDGC-20/0.5	20	3	50/60	220/380	0-430	80
TSGC ₂ J TSGC ₂ TSGC-3/0.5	3					1.6/4
TSGC ₂ J TSGC ₂ TSGC-6/0.5	6					3.2/8
TSGC ₂ J TSGC ₂ TSGC-10/0.5	10					5.4/13.4
TSGC ₂ J TSGC ₂ TSGC-15/0.5	15					20
TSGC ₂ J TSGC ₂ TSGC-20/0.5	20					28
TSGC ₂ J TSGC ₂ TSGC-30/0.5	30					40



TDGC₂J-1.5KVA



TDGC₂-5KVA



TSGC₂-15KVA



UPS-500VA



UPS-1000VA

Uninterruptable Power Supply(UPS)

1. Application

Back-up UPS is a technically-modified new product of the company on the basis of the previous UPS-500VA one and has multifunction as automatic voltage regulation of local electricity, synchronous switches for users load, protections of over-voltage, overvoltage, overcurrent, overcharge of battery, feed and so on.

2. Specification

Input voltage / Output voltage	220V±20% / 220V±10%
Frequency	50Hz/60Hz
Efficiency	more than 80%
Ambient temperature	-10°C~+40°C
Charger time	8 hours/time
Inverter supply time	(Rating power 80%) 3-4mins (rating power 50%)8-10mins
Inverter charge time	<10ms
Output waveform	Square wave
Yawp	<50dB

3. Outline & Packing

Type	Time	Outline(cm)			Weight(kg)
		L	W	H	
UPS-350VA	3-7min	26	10	14	4.3
UPS-500VA	5-15min	36	11	16	7.2
UPS-1000VA	5-15min	36	15	23	11.5

Technical Specification



Product Series	High Frequency On Line UPS (1~3kVA)						
Model		G1K	G2K	G3K	G1KS	G2KS	G3KS
Capacity	VA/W	1kVA/0.7kW	2kVA/1.4kW	3kVA/2.1kW	1kVA/0.7kW	2kVA/1.4kW	3kVA/2.1kW
Input	Nominal Voltage	110/115/120VAC or 220/230/240VAC					
	Voltage Range	180~300VAC					
	Frequency Range	50Hz: 46~54Hz; 60Hz: 56~64Hz					
	Phase	Single phase					
	Power Factor	> 0.98					
	Connection	IEC320-10A inlet	IEC320-10A inlet	IEC320-16A inlet	IEC320-10A inlet	IEC320-10A inlet	IEC320-16A inlet
Output	Voltage	110/115/120 x (1 ± 2%)VAC or 220/230/240 x (1 ± 2%)VAC					
	Frequency	Synchronization range (line mode); 50 or 60 x (1 ± 0.2%)Hz (Battery mode)					
	Phase	Single phase					
	Wave Form	Sine Wave					
	Power Factor	0.7 or 0.8 optional					
	Voltage Distortion	3%					
	Overload Capability	110%~150% for 30 sec., ≥150% for 200 ms					
	Current Crest Ratio	3:1					
	Connections	IEC320 *4	IEC320 *6	IEC320*3 & terminal block	IEC320 *4	IEC320 *6	IEC320*3 & terminal block
Battery	Type	Sealed, Maintenance free, Lead-acid					
	Nominal DC Voltage				36VDC	96VDC	96VDC
	Quantity	3 pieces	8 pieces	8 pieces	Depends on the requested back-up time		
	Back-up Time(full load)	5 min	9 min	5 min	Depends on the capacity of the external battery bank		
	Recharge Time	5 hrs to 90% of capacity			Depends on the capacity of the external battery bank		
Bypass	Automatic Transfer	On overload and UPS failure					
	Before UPS Power-on	Default “ON” user adjustable to “YES”					
	Voltage Range	40~132VAC (Default), user adjustable within 40~143VAC or 80~264VAC (Default), user adjustable within 80~286VAC					
Transfer Time	AC to DC Zero	Inverter to Bypass 4ms(Typical)					
Indicators	LED display	Load level / Battery level, Battery, Utility power, Inverter, Bypass, Overload, Fault					
Audible Alarm		Bypass, On battery mode, Battery low, Overload, Fault					
Acoustic noise	At 1 meter distance	<45 dB	<50 dB	<50 dB	<45 dB	<50 dB	<50 dB
Communications	DB-9 Port	RS-232 serial interface					
	Intelligent Slot	Options: SMNP Card, AS400 Card or Winpower CMC / (USB Port)					
Environmental	Operating Temperature	0~40°C					
	Operating Humidity	20~90% non-condensing					
Physical Feature	Weight(Kg)	13	31.5	32	7	13.5	14
	Dimensons(WxDxH)mm	145x400x220	195x455x350		145x400x220	195x455x350	

Technical Specification



Product Series		On Line UPS with LCD Display (1~3kVA)						
Model		G1KN	G1KNS	G2KN	G2KNS	G3KN	G3KNS	
		G1KD	G1KDS	G2KD	G2KDS	G3KD	G3KDS	
Capacity	VA/W	1000VA/700W		2000VA/1400W		3000VA/2100W		
Input		Base on load percentage (100%-80% / 80%-70% / 70%-80% / 60%-0%)						
	Low Line Transfer	160VAC/140VAC/120VAC/110VAC ± 5VAC						
	Low Line Comeback	175VAC ± 5VAC						
	High Line Transfer	300VAC ± 5VAC						
	High Line Comeback	285VAC ± 5VAC						
	Frequency Range	50Hz: 46~54Hz; 60Hz: 56~64Hz						
	Phase	Single phase with ground						
	Power Factor	≥0.98						
Output	Voltage	220VAC/230VAC/240VAC						
	Voltage Regulation	± 2%						
	Frequency	Synchronization range (line mode); 50 or 60 x (1 ± 0.2%)Hz (Battery mode)						
	Current Crest Ratio	3:1						
	Voltage Distortion	≤3% THD (Linear Load)		≤4% THD (Linear Load)				
		≤6% THD (Non-Linear Load)		≤7% THD (Non-Linear Load)				
	Output Waveform	Pure Sinewave						
Battery	Battery Type	12V/7Ah	Depending on the capacity of external batteries	12V/7Ah	Depending on the capacity of external batteries	12V/7Ah	Depending on the capacity of external batteries	
	Numbers of Batteries	3		8		8		
	Backup Time(Full Load)	> 5 minutes		> 9 minutes		> 5 minutes		
	Recharge Time	5 hours to 90%		5 hours to 90%		5 hours to 90%		
	Charging Current(Max.)	1.0A		8A		1.0A		8A
	Charging Voltage	41.1Vdc ± 0.6V				110Vdc ± 0.4V		
Transfer Time	AC to DC	Zero						
	Inverter to Bypass	2.5ms(Typical)						
Indicators	Status	Load Level / Battery Level / Battery Mode / AC Mode / Bypass Mode / Fault						
Audible Alarm	Battery Mode	Sounding every 4 seconds						
	Low Battery	Sounding every second						
	Overload	Sounding twice every second						
	Fault	Continuously Sounding						
Interface	Smart RS232	Software supports Windows family, Linux, Sun Solaris, IBM Aix, Compaq True64, SGI IRIX, FreeBSD, HP-UX and MAC						
	SNMP(optional)	Power management from SNMP manager and web browse						
	USB(optional)	Windows family and Mac OS						
Environmental	Operating Temperature	0~40℃						
	Relative Humidity	20-90%(NON-CONDENSING)						
	Noise Level	<45dB@1 Meter			<50dB@1 Meter			
Physical Feature	Weight	13kgs	7kgs	32kgs	15kgs	33kgs	16kgs	
	Dimensions(WxDxH) mm	145x400x220			195x450x350			

Technical Specification



Product Series		On Line UPS Parallel Redundancy (6~10kVA 1Ph/1Ph)				On Line UPS Parallel Redundancy (10~20kVA 3Ph/1Ph)		
Model		G6KN	G6KNS	G10KN	G10KNS	3G10KNS	3G15KNS	3G20KNS
		G6KD	G6KDS	G10KD	G10KDS	3G10KDS	3G15KDS	3G20KDS
Capacity	VA/W	6kVA/4.2kW		10kVA/7kW		10kVA/7kW	15kVA/10.5kW	20kVA/14kW
Input	Low Line Transfer	176VAC ± 3VAC				304VAC ± 3VAC		
	Low Line Comeback	185VAC ± 3VAC				322VAC ± 3VAC		
	High Line Transfer	276VAC ± 3VAC				478VAC ± 3VAC		
	High Line Comeback	266VAC ± 3VAC				461VAC ± 3VAC		
	Frequency Range	50Hz: 46Hz~54Hz; 60Hz: 56Hz~64Hz						
	Phase	Single phase with ground				Three phase with ground		
	Power Factor	≥ 0.98				≥ 0.95		
Output	Voltage	220VAC/230VAC/240VAC						
	Voltage Regulation	± 1%						
	Frequency	Synchronization range (line mode); 50 or 60 x (1 ± 0.05%)Hz (Battery mode)						
	Current Crest Ratio	3:1						
	Voltage Distortion	≤ 2% THD(Linear Load)		≤ 6% THD(Non-Linear Load)				
	Output Waveform	Pure Sinewave						
Battery	Battery Type	12V/7Ah		12V/7Ah				
	Numbers of Batteries	20	Depending on the capacity of external batteries	20	Depending on the capacity of external batteries			
	Backup Time(Full Load)	8 minutes		5 minutes				
	Recharge Time	7 hours to90%		8 hours to90%				
	Charging Current(Max.)	2A	4.2A	2A	4.2A	4.2A	4.2A	4.2A
	Charging Voltage	274Vdc ± 1V						
Transfer Time	AC to DC	Zero						
	Inverter to Bypass	2.5ms (Typical)						
Indicators	Status	Load Level / Battery Level / Battery Mode / AC Mode / Bypass Mode / Fault						
Audible Alarm	Battery Mode	Sounding every 4 seconds						
	Low Battery	Sounding every second						
	Overload	Sounding twice every second						
	Fault	Continuously Sounding						
Interface	Smart RS232	Software supports Windows family, Linux, Sun Solaris, IBM Aix, Compaq True64, SGI IRIX, FreeBSD, HP-UX and MAC						
	SNMP(option)	Power management from SNMP manager and web browse						
	USB(option)	Windows family and Mac OS						
Environmental	Operating Temperature	0~40°C						
	Relative Humidity	20-90%(NON-CONDENSING)						
	Noise Level	<55dB@1 Meter					<60dB@1 Meter	
Physical Feature	Weight	90kgs	35kgs	93kgs	38kgs	39kgs	55kgs	55kgs
	Dimensions(WxDxH) mm	260x570x717						

Technical Specification



Product Series		6~20KVA(1PH/1PH)				10~30KVA(3PH/1PH)				
Model		GP1106	GP1110	GP1115	GP1120	GP3110	GP3115	GP3120	GP3130	
Capacity		6kVA	10kVA	15kVA	20kVA	10kVA	15kVA	20kVA	30kVA	
Input	Voltage	220 x (1 ± 25%) VAC(single phase 2 wire+G)				220/380 x (1 ± 20%)VAC (three phase 4 wire+G)				
	Frequency	50 x (1 ± 10%)Hz								
	Power Factor	0.8(0.95 if UPS with filter)								
Output	Voltage	220 x (1 ± 1%)VAC (steady state)				220 x (1 ± 2%)VAC (steady state)				
	Frequency	Free synchronized to the main power(line mode); 50x(1+5%)HZ; (0 ⇌ 100% abrupt change)								
	Power Factor	0.8(lagging)								
	Wave Form	Sine wave								
	Distortion	≤ 3% (linear load), ≤ 5% (non linear load)								
	Crest Factor	3:1								
	Transitory Recover	220 x (1 ± 4%)VAC (0 ⇌100% Abrupt change)				220 x (1 ± 5%)VAC (0 ⇌100% Abrupt change)				
	Efficiency	≥ 90%								
	Battery	Type	12VDC sealed lead acid battery, maintenance free							
Nominal Voltage		192VDC (16PCS)						384VDC(32PCS)		
Backup Time		As per the request of customer								
Recharge Time		7~10 hours up to 90% capacity								
Charge Current		10~25A (adjustable)								
Transfer Time		0 ms (AC to DC or DC to AC); < 4 ms (Bypass to Inverter or Inverter to Bypass)								
LCD Display		UPS work situation, AC power situation, Battery situation, Automatic turn to bypass, Overload								
Protection		Over Voltage, Under Voltage, Over Load, Over Temperature, Short Circuit, Lighting Stroke etc.								
Alarm		Over Temperature, Battery, Bypass, AC Power Abnormal, Over Load, Over Voltage								
Noise(1m distance)		≤50dB								
Communicate Interface		RS232 (or RS422), SNMP card (optional), RJ45								
Cooling way		FAN								
EMC		EN50091-2, GB9254								
Ability of Antijamming		IEC61000-4								
Protection D-egree		IP20								
Environmental		Temperature	0~40°C							
		Humidity	10%~90% (no dewfall)							
		Elevation	< 2000m							
Physical Feature	Weight	95	140	175	225	181	235	285	320	
	Dimensions(WxDxH)mm	230x580x712	306x585x866	415x750x1300		305x585x860	416x747x1115		423x772x1190	

Technical Specification



Product Series		10~400KVA(3PH/3PH)							
Model			GP3310	GP3315	GP3320	GP3330	GP3340	GP3360	GP3380
Capacity			10kVA	15kVA	20kVA	30kVA	40kVA	60kVA	80kVA
Input	Bypass	Voltage	220/380 x (1 ± 20%)VAC (three phases+N+G)						
		Frequency	50 x (1 ± 10%)Hz						
		Power Factor	0.8(0.95 if UPS with filter)						
		Phase	Three phase 4 wires+G						
		Voltage	380 x (1 ± 15%)VAC						
		Frequency	50 x (1 ± 2%)Hz						
Output	Voltage	380 x (1 ± 1%)VAC (steady state)							
	Frequency	50 x (1 ± 5%)Hz (AC power mode); 50 x (1 ± 0.1%)Hz (battery mode)							
	Power Factor	0.8(lagging)							
	Wave Form	Sine wave							
	Distortion	≤ 3% (linear load), ≤ 5% (non linear load)							
	Transitory Voltage of Dynamic Load	± 5%(0⇌100% Abrupt change)							
	Transitory Recover Time	< 10ms(± 5%)							
	Unbalance Voltage	< 3%, < 1%(balanced load)							
	Overload Capability	150% for 1 minute, 125% for 10 minutes, more than 150% for 200ms							
	Crest Factor	3:1							
	Efficiency	≥ 90%, 95%(ECO mode)							
Battery	Type	12VDC sealed lead acid battery, maintenance free							
	Nominal Voltage	384VDC (32PCS)							
	Recharge Time	< 10 hours up to 90% capacity							
	Charge Current	10~25A (adjustable)							
Transfer Time			0 ms (AC to DC or DC to AC); < 4 ms (Bypass to Inverter or Inverter to Bypass)						
LCD Display			UPS work situation, AC power situation, Battery situation, Automatic turn to bypass, Overload						
Protection			Over Voltage, Under Voltage, Over Load, Over Temperature, Short Circuit, Lighting Stroke etc.						
Alarm			Over Temperature, Battery, Bypass, AC Power Abnormal, Over Load, Over Voltage						
Noise(1m distance)			< 50dB		<55dB		< 65dB		
Communicate Interface			RS232 (or RS422), SNMP card (optional), RJ45						
Cooling way			Fan						
EMC			EN50091-2, GB9254						
Ability of Antijamming			IEC61000-4						
Protection D-egree			IP20						
Environmental	Temperature		0~40°C						
	Humidity		10%~90% (no dewfall)						
	Elevation		< 2000m						
Physical Feature	Weight		210	220	240	282	330	450	570
	Dimensions(WxDxH)mm		700x520x1100		800x600x1200		900x600x1500		1250x900x1600

Technical Specification



Product Series		10~400KVA(3PH/3PH)							
Model			GP33100	GP33120	GP33160	GP33200	GP33250	GP33300	GP33400
Capacity			100kVA	120kVA	160kVA	200kVA	250kVA	300kVA	400kVA
Input	Bypass	Voltage	220/380 x (1 ± 20%)VAC (three phases+N+G)						
		Frequency	50 x (1 ± 10%)Hz						
		Power Factor	0.8(0.95 if UPS with filter)						
		Phase	Three phase 4 wires+G						
		Voltage	380 x (1 ± 15%)VAC						
		Frequency	50 x (1 ± 2%)Hz						
Output	Voltage	380 x (1 ± 1%)VAC (steady state)							
	Frequency	50 x (1 ± 5%)Hz (AC power mode); 50 x (1 ± 0.1%)Hz (battery mode)							
	Power Factor	0.8(lagging)							
	Wave Form	Sine wave							
	Distortion	≤ 3% (linear load), ≤ 5% (non linear load)							
	Transitory Voltage of Dynamic Load	± 5%(0 ⇌ 100% Abrupt change)							
	Transitory Recover Time	< 10ms(± 5%)							
	Unbalance Voltage	< 3%, < 1%(balanced load)							
	Overload Capability	150% for 1 minute, 125% for 10 minutes, more than 150% for 200ms							
	Crest Factor	3:1							
	Efficiency	≥ 90%, 95%(ECO mode)							
Battery	Type	12VDC sealed lead acid battery, maintenance free							
	Nominal Voltage	396VDC (33PCS)							
	Recharge Time	< 10 hours up to 90% capacity							
	Charge Current	10~25A (adjustable)							
Transfer Time			0 ms (AC to DC or DC to AC); < 4 ms (Bypass to Inverter or Inverter to Bypass)						
LCD Display			UPS work situation, AC power situation, Battery situation, Automatic turn to bypass, Overload						
Protection			Over Voltage, Under Voltage, Over Load, Over Temperature, Short Circuit, Lighting Stroke etc.						
Alarm			Over Temperature, Battery, Bypass, AC Power Abnormal, Over Load, Over Voltage						
Noise(1m distance)			< 65dB			<68dB			
Communicate Interface			RS232 (or RS422), SNMP card (optional), RJ45						
Cooling way			Fan						
EMC			EN50091-2, GB9254						
Ability of Antijamming			IEC61000-4						
Protection D-egree			IP20						
Environmental	Temperature		0~40℃						
	Humidity		10%~90% (no dewfall)						
	Elevation		< 2000m						
Physical Feature	Weight		700	780	970	1150	1250	1450	1450
	Dimensions(WxDxH)mm		1250x900x1600			2000x900x1800		2400x900x1800	

DC/AC Inverter

1. Application

DC/AC inverter is designed for switching DC24V to AC110-220V. They can be used outdoors or on home appliance as emergency power. Usually, cord with AC power socket and the DC power cord with DC battery. When the load connects to the DC power cord with DC power, if the commercial power falls, the inverter will convert the battery voltage to AC voltage and go on supplying. When the commercial power restall, the inverter will switch to charge the battery by itself. When the battery is fully charged, it will stop automatically.

2. Feature

AC voltage available for AC 100V, 110V, 120V, 220V, 230V or 240V at request.

Each unit contains two AC sockets available for two pin plugs.

Automatic function change for inverter or battery charge.

Selective 4 AC voltage for each unit, such as when AC 110V, it will be available for AC 110V, 120V, 130V and 140V.

Different led indicator for function of inverter and charger.

Each unit contain a AC cord for AC input voltage besides.

Model ZUP-300 and ZUP-300A contains an extra power cord for DC battery.

Products applicable for:

- A. Personal computer.
- B. Various video/audio equipment. (TV, casset, tape record, etc.)
- C. Small motor equipment.
- D. Various lighting equipment.

Protection:

- a. Protection for short circuit and polarity reverse of battery.
- b. Overload fuse protection for charging current, input voltage and output voltage.

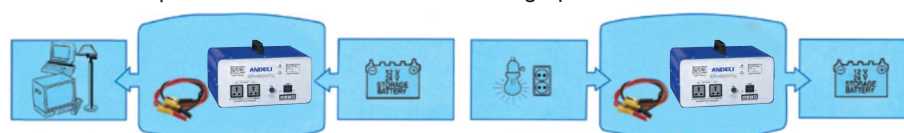
3. Specification

Type	DC Voltage	Capacity	Charging Current
ZUP-300VA	DC12V, 24V	max.300W	max.25A
ZUP-500VA	DC12V, 24V	max.500W	max.35A
ZUP-1000VA	DC12V, 24V	max.1000W	max.35A
ZUP-1500VA	DC12V, 24V	max.1500W	max.45A
ZUP-2000VA	DC12V, 24V	max.2000W	max.60A
ZUP-3000VA	DC24V,48V	max. 3000W	max. 90A
ZUP-5000VA	DC24V,48V	max. 5000W	max. 150A

Two outlets are incorporated for the simultaneous use of both the 110V and 220V outlets.

The sockets are of a type that is capable of accepting two different types of plugs prongs and blades of two different forms.

Built-in overload protection circuit and over discharge protection circuit.



Batteries can be easily charged using home AC power source.

Battery charging will be made safer than using automatic charging voltage control system.



ZUP-500VA



ZUP-1000VA



ZUP-2000VA

Car Inverter 70W-200W



8030U

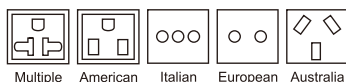


8162U



8023U

Model No.	8030U	8162U	8023U	8023U-B	8081U	8200U
Input Voltage	DC 12V (DC 11-15V)					
AC Output	AC 100V ± 10%, AC 110V ± 10%, AC 220 - 240V					
Output Frequency	55 ± 3Hz, 60 ± 3Hz, 50 ± 3Hz					
USB Output	DC 5V, 500mA (Optional: 1000mA)					
Max Output Power	75W(10min)	150W	150W	150W	150W	200W
Continuous Power	60W	150W	150W	150W	150W	200W
Peak Power	150W	300W	300W	300W	300W	400W
Output Wave	Modified Sine Wave					
Efficiency	≥ 85%					
No Load Current	<0.35A					
Input Under Voltage Shut Down	DC 10.5V ± 0.3V					
Input Over Voltage Shut Down	DC 15V - 16V					
Over Current Protection	9A - 11A	18A - 22A	18A - 22A	18A - 22A	18A - 22A	18A - 22A
Over Heating Protection	Yes					
Ambient Temperature	5 - 35 Centigrade					
FUSE	1×10A	1×25A				
Cooling Method	×	By Fan	By Fan	By Fan	By Fan	By Fan
G.W.(kgs)	11.6	13.2	9.6	12.0	15.5	15.5
N.W.(kgs)	9.6	12.2	8.0	10.0	13.5	13.5
Size(mm)	120×60×39	196×59×43	130×73×48	90×75×48	107×67×45	107×67×45
Packing(ctn)	50pcs	30pcs	40pcs	40pcs	40pcs	40pcs
Meas(cm)	47.5×29×57	51.5×57×32	95.5×32×29.5	59.5×38.5×37.5	47.5×29×57	47.5×29×57



8023U-B



8081U



8200U

Modified Sine Wave Power Inverter



8030U



8034U



8035U



8036U

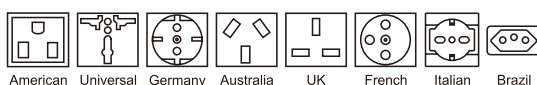


8800



81000

Model No.		8033U	8034U	8035U	8036U	8800	81000
Input Voltage		DC 12V (DC 11-15V)					
		DC 24V (DC 22-30V)					
Output Voltage		AC 100V ± 10%, AC 110V ± 10%, AC 220 - 240V					
Output Frequency		55 ± 3Hz, 60 ± 3Hz, 50 ± 3Hz					
USB Output (If have)		DC 5V, 500mA (Optional: 1000mA, 2100mA)					
Continuous Power		300W	400W	500W	600W	800W	1000W
Peak Power		600W	800W	1000W	1200W	1600W	2000W
Output Wave		Modified Sine Wave					
Efficiency		≥85%					
Input Under Voltage Alarm	DC 12V Input	DC 10.2 – 10.8V					
	DC 24V Input	DC 20.4 – 21.6V					
Input Under Voltage Shut Down	DC 12V Input	DC 9.2 – 9.8V					
	DC 24V Input	DC 18.4 – 19.6V					
Input Over Voltage Shut Down	DC 12V Input	DC 15 – 16V					
	DC 24V Input	DC 30 – 32V					
Ambient Temperature		5 - 35°C					
Cooling Method		Fan					
Input Protection		Reverse Polarity (Fuse), Under Voltage, Over Voltage					
Output Protection		Short Circuit, Overload, Over Temperature					
G.W.(kgs)		19	26.0	26.0	26.5	21.5	22
N.W.(kgs)		18	24	24	24.5	20.5	21
Size(mm)		180x102x60	180x102x60	230x102x60	230x102x60	230x130x65	250x130x65
Packing(ctn)		20pcs	20pcs	20pcs	20pcs	10pcs	10pcs
Meas(cm)		57.5x34x45	57.5x34x45	57.5x34x45	57.5x34x45	56x30.5x35	56x30.5x35



Modified Sine Wave Power Inverter

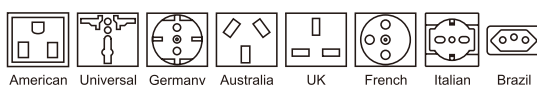


81200



81500

Model No.		81200	81500	82000	82500	83000
Input Voltage		DC 12V (DC 11-15V)				
		DC 24V (DC 22-30V)				
Output Voltage		AC 100V $\pm$ 10%, AC 110V $\pm$ 10%, AC 220 - 240V				
Output Frequency		55 $\pm$ 3Hz, 60 $\pm$ 3Hz, 50 $\pm$ 3Hz				
USB Output (If have)		DC 5V, 500mA (Optional: 1000mA, 2100mA)				
Continuous Power		1200W	1500W	2000W	2500W	3000W
Peak Power		2400W	3000W	4000W	5000W	6000W
Output Wave		Modified Sine Wave				
Efficiency		$\geq$ 85%				
Input Under Voltage Alarm	DC 12V Input	DC 10.2 – 10.8V				
	DC 24V Input	DC 20.4 – 21.6V				
Input Under Voltage Shut Down	DC 12V Input	DC 9.2 – 9.8V				
	DC 24V Input	DC 18.4 – 19.6V				
Input Over Voltage Shut Down	DC 12V Input	DC 15 – 16V				
	DC 24V Input	DC 30 – 32V				
Ambient Temperature		5 - 35°C				
Cooling Method		Fan				
Input Protection		Reverse Polarity (Fuse), Under Voltage, Over Voltage				
Output Protection		Short Circuit, Overload, Over Temperature				
G.W.(kgs)		23	21	17.7	19.3	19.5
N.W.(kgs)		22	20	16.7	18.3	18.5
Size(mm)		250×130×65	280×130×65	420×200×102	420×200×102	420×200×102
Packing(ctn)		10pcs	8pcs	3pcs	3pcs	3pcs
Meas(cm)		56×30.5×35	45.5×33.5×35	49×42.5×25	49×42.5×25	49×42.5×25



82000



82500



83000

Pure Sine Wave Power Inverter



PSW8300



PSW8600



PSW81200



PSW81500



PSW82000



PSW83000

Model No.		PSW8300	PSW8600	PSW81200	PSW81500	PSW82000	PSW83000
Input Voltage		DC 12V (DC 11-15V)					
		DC 24V (DC 22-30V)					
Output Voltage		AC 100V ± 10%, AC 110V ± 10%, AC 220 - 240V					
Output Frequency		55 ± 3Hz, 60 ± 3Hz, 50 ± 3Hz					
USB Output		DC 5V, 500mA (Optional: 1000mA, 2100mA)					
Continuous Power		300W	600W	1200W	1500W	2000W	3000W
Peak Power		600W	1200W	2400W	3000W	4000W	6000W
Output Wave		Pure Sine Wave					
THD		≤5%					
Efficiency		≥85%					
Input Under Voltage Alarm	DC 12V Input	DC 10.2 – 10.8V					
	DC 24V Input	DC 20.4 – 21.6V					
Input Under Voltage Shut Down	DC 12V Input	DC 9.2 – 9.8V					
	DC 24V Input	DC 18.4 – 19.6V					
Input Over Voltage Shut Down	DC 12V Input	DC 15 – 16V					
	DC 24V Input	DC 30 – 32V					
Ambient Temperature		5 - 35°C					
Cooling Method		Fan					
Input Protection		Reverse Polarity (Fuse), Under Voltage, Over Voltage					
Output Protection		Short Circuit, Overload, Over Temperature					
G.W.(kgs)		9.6	11.3	12.1	12.2	8	10
N.W.(kgs)		9.0	10.8	11.6	11.7	7.5	9.5
Size(mm)		205×203×78	237×203×78	335×203×78	335×203×78	335×250×180	335×250×180
Packing(ctn)		5pcs	5pcs	3pcs	3pcs	1pc	1pc
Meas(cm)		66×26×24.5	66×29×24.5	40×39.5×24.5	40×39.5×24.5	39×31.5×25	39×31.5×25



Pure Sine Wave Inverter With Charger



PIC-6021U



PIC-6022U



PIC-6023U



PIC-6024U

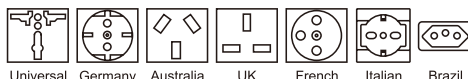


PIC-6026U



PIC-6028U

Model No.		PIC-6021U	PIC-6022U	PIC-6023U	PIC-6024U	PIC-6026U	PIC-6028U
Input Voltage		DC 12V (DC 11-15V)					
		DC 24V (DC 22-30V)					
Output Voltage		AC 100V ± 10%, AC 110V ± 10%, AC 220 - 240V					
Output Frequency		55 ± 3Hz, 60 ± 3Hz, 50 ± 3Hz					
USB Output		DC 5V, 500mA (Optional: 1000mA, 2100mA)					
Continuous Power		300W	600W	1200W	1500W	2000W	3000W
Peak Power		600W	1200W	2400W	3000W	4000W	6000W
Output Wave		Pure Sine Wave					
Efficiency		≥85%					
Input Under Voltage Alarm	DC 12V Input	DC 10.2 – 10.8V					
	DC 24V Input	DC 20.4 – 21.6V					
Input Under Voltage Shut Down	DC 12V Input	DC 9.2 – 9.8V					
	DC 24V Input	DC 18.4 – 19.6V					
Input Over Voltage Shut Down	DC 12V Input	DC 15 – 16V					
	DC 24V Input	DC 30 – 32V					
Ambient Temperature		5 - 35°C					
Cooling Method		Fan					
Input Protection		Reverse Polarity (Fuse), Under Voltage, Over Voltage					
Output Protection		Short Circuit, Overload, Over Temperature					
Charge Mode	Input Voltage	AC 100V - 125V, AC 200V - 250V					
	Charging Current	12V: 10A, 24V: 5A		12V: 20A, 24V: 10A		12V: 25A, 24V: 15A	
	Transition time	≤20 ms					
Size(mm)		355x214x73	355x214x73	460x214x73	460x214x73	355x250x180	355x250x180
Packing(ctn)		5pcs	5pcs	2pcs	2pcs	1pc	1pc
Meas(cm)		42.5x39x25	42.5x39x25	55x26.5x25	55x26.5x25	46x31.5x25	48x31.5x25



Universal Germany Australia UK French Italian Brazil

Modified Sine Wave Inverter With Charger



PIC-300



PIC-600



PIC-1000

Model No.		PIC-300	PIC-600	PIC-1000	PIC-1600	PIC-2000	PIC-2500	PIC-3000
Input Voltage		DC 12V (DC 11-15V)						
		DC 24V (DC 22-30V)						
Output Voltage		AC 100V ± 10%, AC 110V ± 10%, AC 220 - 240V						
Output Frequency		55 ± 3Hz, 60 ± 3Hz, 50 ± 3Hz						
USB Output		DC 5V, 500mA (Optional: 1000mA, 2100mA)						
Continuous Power		300W	600W	1000W	1600W	2000W	2500W	3000W
Peak Power		600W	1200W	2000W	3200W	4000W	5000W	6000W
Output Wave		Modified Sine Wave						
Efficiency		≥ 85%						
Input Under Voltage Alarm	DC 12V Input	DC 10.2 – 10.8V						
	DC 24V Input	DC 20.4 – 21.6V						
Input Under Voltage Shut Down	DC 12V Input	DC 9.2 – 9.8V						
	DC 24V Input	DC 18.4 – 19.6V						
Input Over Voltage Shut Down	DC 12V Input	DC 15 – 16V						
	DC 24V Input	DC 30 – 32V						
Ambient Temperature		5 - 35°C						
Cooling Method		Fan						
Input Protection		Reverse Polarity (Fuse), Under Voltage, Over Voltage						
Output Protection		Short Circuit, Overload, Over Temperature						
Charge Mode	Input Voltage	AC 100V - 125V, AC 200V - 250V						
	Charging Current	12V: 5A		12V: 15A, 24V: 10A		12V: 20A, 24V: 10A		
	Transition time	2 - 3 s						
G.W.(kgs)		14.8	18	17	18	15.2	15.8	15.8
N.W.(kgs)		13.8	17	16	17	14.4	15	15
Size(mm)		235x132x62	280x132x62	240x200x100	49x46x25.5	57.5x30.5x25	57.5x30.5x25	57.5x30.5x25
Packing(ctn)		10pcs	10pcs	3pcs	2pcs	2pcs	2pcs	2pcs
Meas(cm)		56x28.5x35	56x31.5x35	49x46x25.5	49x46x25.5	57.5x30.5x25	57.5x30.5x25	57.5x30.5x25



PIC-1600



PIC-2000



PIC-2500



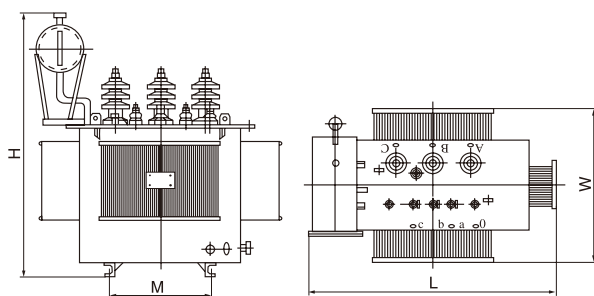
PIC-3000

S9 Series Distribution Transformer

1. Application

This kind of product feature has high efficiency and low consumption. It can save a lot of power consumption and operating costs. The new S9 Series transformer is impoldered on the basis of the 10 kV Distribution transformer. It accords with the GB1094-96,GB/T6451-99,IEC76 standard.

2. Outline and Installation Dimension



3. Technical Specification

Rated Capacity (kVA)	Voltage Schedule			Connecting Group	Consumption(W)		No-load current (%)	Short circuit impedance(%)	Weight (kg)			Outline dimension (mm±10%)			Gauging Distance
	HV	Tapping	LV		N0-load (kW)	load (kW)			Body	oil	Total	Length	Width	Height	
10	6	±5% (±2×2.5%)	0.4	Yyn0, Dyn11	65	330	3.5	4	90	35	150	760	400	950	350 × 350
20					105	480	3.0		135	60	225	885	400	955	350 × 350
30					130	600	2.1		180	70	285	985	380	1015	400 × 400
50					170	870	2.0		230	75	350	985	510	1035	400 × 450
63					200	1040	1.9		285	90	430	1060	465	1135	400 × 450
80					250	1250	1.8		295	95	475	1010	775	1070	400 × 450
100					290	1500	1.6		330	100	520	1010	740	1095	400 × 450
125					340	1800	1.5		380	110	600	1040	770	1135	400 × 550
160					400	2200	1.4		440	120	685	1235	735	1165	550 × 550
200					480	2600	1.6		515	135	800	1280	765	1210	550 × 550
250					560	3050	1.2	4.5	610	160	940	1345	800	1315	550 × 550
315					670	3650	1.1		715	180	1105	1395	850	1375	660 × 660
400					800	4300	1.0		880	205	1310	1435	820	1460	660 × 660
500					960	5150	1.0		1005	230	1515	1525	965	1450	660 × 660
630					1200	6200	0.9		1155	265	1770	1615	1080	1615	660 × 660
800					1400	7500	0.8		1420	315	2160	1700	1120	1705	820 × 820
1000					1700	10300	0.7		1580	425	2520	1750	1140	1880	820 × 820
1250					1950	12000	0.6		1940	495	3040	1850	1245	1835	820 × 820
1600					2400	14500	0.6		2355	560	3800	1865	1285	2020	820 × 820
2000					2600	17000	0.5	5	3165	755	4950	2300	1165	2305	1070 × 1070
2500					3000	20700	0.5		3880	1300	6580	2440	1315	2490	1070 × 1070

SZ9 ON-load Tap-changer Power Transformer



1. Application

The SZ9 on-load tap-changer power transformer is widely applies to urban and rural electric network construction. The iron core is in ladder shape and changes the traditional piling way of iron core as well as the inner distribution of magnetic way. It also decrease the no-load consumption, no-load current consumption and noise pollution all by 20%. The new product applies CAD tool and marked with advanced design, reasonable structure, high quality material. It accords with GB1094-1996 and GB/T6451-1999.

2. Technical Specification

Rated Capacity (kVA)	Voltage Schedule			Connecting Group	Consumption(W)		NO-load current (%)	Short circuit impedance(%)	Weight(kg)			Outline dimension (mm±10%)			Gauging Distance
	HV	Tapping	LV		No-load (kW)	load (kW)			Body	oil	Total	Length	Width	Height	
200	6 6.3 10 10.5 11	±4 × 2.5%	0.4	Yyn0, Dyn11	430	3060	1.6	4	610	450	1430	950	950	1600	550 × 550
250					510	3600	1.5		760	500	1700	1100	1100	1640	550 × 550
315					610	4320	1.5		1060	550	2120	1200	1200	1750	660 × 660
400					740	5220	1.4		1100	660	2160	1250	1250	1800	660 × 660
500					870	6210	1.4		1330	700	2850	1300	1300	1950	660 × 660
630					1120	7650	1.3		1850	740	3410	1300	1300	2110	820 × 820
800					1330	9360	1.3	4.5	1980	780	3830	1480	1480	2330	820 × 820
1000					1550	10980	1.3		2300	1020	4800	1500	1500	2525	820 × 820
1250					1880	13040	1.2		2870	1460	5950	1530	1530	2730	820 × 820
1600					2400	15570	1.1		3450	1730	6950	1550	1550	3000	820 × 820

S9-M.R, S11-M-M.R Ribbon-wound Core Oil Complete Transformer

1. Application

This type of transformer adopts high-permeability cool-rolling si-steel piece as iron core. It is processed with big fill factor and there is no spacing inside the magnetic path. The HV and LV coil is continuously wound around the core with good concentricity and compact winding. The product is of low consumption and slight noise pollution by combining new generation of technology good performance and energy saving. It is widely used in power distribution system.



2. Technical Specification

S11-M.R Series three-phase ribbon-wound core oil complete sealed distribution transformer

Capacity (kVA)	Voltage schedule		Connecting group	Consumption		Short-circuit impedance (%)	No load current (%)	Outline dimension mm(± 10%)			Weight(kg) (± 10%)		Gauging distance (mm)
	HV(kV)	LV(kV)		No load(W)	load(W)			Length	Width	Height	Oil	Total	
30	6 6.3 11	0.4	Dy11 Yyn0	90	600	4	0.6	1020	600	1090	95	370	400 x 550
50				120	870		0.6	1050	620	1120	110	450	400 x 400
63				140	1040		0.57	1120	650	1150	120	520	550 x 550
80				175	1250		0.54	1160	670	1170	130	570	550 x 550
100				200	1500		0.48	1200	700	1210	150	640	550 x 550
125				235	1800		0.45	1250	730	1250	170	750	550 x 550
160				280	2200		0.39	1290	750	1300	200	860	550 x 550
200				335	2600		0.36	1330	780	1345	245	990	550 x 550
250				390	3050	4.5	0.33	1370	780	1410	270	1230	660 x 660
315				465	3650		0.3	1420	800	1470	290	1380	660 x 660
400				560	4300		0.3	1460	800	1530	320	1760	660 x 660
500				670	5100		0.27	1505	805	1590	350	1960	660 x 660
630				840	6200		0.27	1590	850	1650	400	2400	660 x 660
800				980	7500		0.27	1655	935	1690	550	2530	820 x 820
1000				1150	10300		0.27	1755	1035	1750	630	2840	820 x 820
1250				1360	12800		0.27	1895	1125	1820	710	3300	820 x 820
1600				1640	14500		0.27	1970	1240	1950	830	3640	820 x 820

S9-M.R Series three-phase ribbon-wound core oil complete sealed power distribution transformer

Capacity (kVA)	Voltage schedule		Connecting group	Consumption		Short-circuit impedance (%)	No load current (%)	Outline dimension mm(± 10%)			Weight(kg) (± 10%)		Gauging distance (mm)
	HV(kV)	LV(kV)		No load(W)	load(W)			Length	Width	Height	Oil	Total	
30	6 6.3 11 ± 2x 2.5% or 5%	0.4	Dy11 Yyn0	130	600	4	0.6	1000	590	980	80	320	400 x 400
50				170	870		0.6	1100	610	1035	90	400	400 x 400
63				200	1040		0.57	1050	630	1055	100	460	550 x 550
80				240	1250		0.54	1080	650	1120	110	510	550 x 550
100				290	1500		0.48	1090	680	1160	120	570	550 x 550
125				340	1800		0.45	1130	710	1210	130	670	550 x 550
160				400	2200		0.39	1240	730	1280	160	780	550 x 550
200				480	2600	4.5	0.36	1290	760	1320	175	920	550 x 550
250				560	3050		0.33	1320	770	1380	205	1120	660 x 660
315				670	3650		0.3	1335	780	1440	235	1250	660 x 660
400				800	4300		0.3	1430	790	1500	285	1500	660 x 660
500				960	5100		0.27	1480	800	1520	330	1750	660 x 660
630				1200	6200		0.27	1520	830	1580	380	2210	660 x 660
800				1400	7500		0.27	1620	900	1630	430	2320	660 x 660
1000				1700	10300		0.27	1680	920	1710	550	2580	660 x 660
1250				1950	12800		0.27	1740	1060	1790	670	2730	820 x 820
1600				2400	14500		0.27	1870	1130	1860	780	2910	820 x 820

S9-35kV Series Transformers

1. Application

The product conforms to the technical parameters and requirements of IEC60076 and China Standard GB1094 & GB/T6451, and a series of significant innovation is applied in aspects of material, design and structure. It has the features of high efficiency and low loss. It can save a lot of operation cost, and the social benefits are very significant. In conclusion, it is a nationally promoted new product and it is deeply favored by customers.

Installation type: indoor/outdoor type

Altitude: $\leq 1000\text{m}$

Installation site: in places without corrosive gases and obvious dusts.



2. Applicable Standards

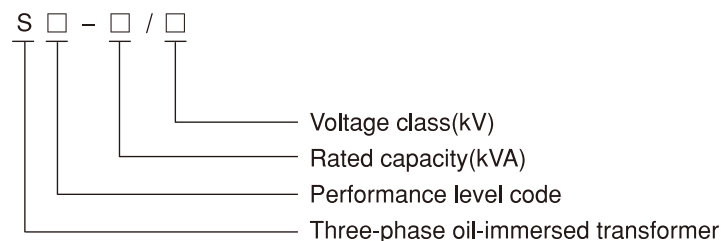
IEC 60076 -1-2-3 2000 Power Transformer

GB1094.1-2-1996 Power Transformer

GB1094.3-5-2003 Power Transformer

GB/T6451-1999 Technical parameters and requirements for three-phase oil-immersed power transformer

3. Model Designation



4. Performance Characteristics

1. The features of this product are high efficiency and low loss. It can save a lot of operation cost, and the social benefits are very significant.
2. The iron cores are made of the imported high-conduction magnetism, cold-roll, and grain-oriented silicon-steel sheets. The iron cores and windings adopt the vacuum drying and vacuum oil-filling processes, which make the internal moisture down to the very low level.
3. The conservator is hermetically sealed, which make the internal running oil to insulate with oxygen and moisture efficiently.
4. The above features guarantee the transformer does not need do replace the oil during the normal operation, greatly decrease the maintenance cost, and prolong the service life.

5. Main Technical Parameters of S9-M-50~2500/35 Series of Transformers

Rated capacity (kVA)	Voltage combination(kV)			Connecting group	No-load lossess (W)	Load-loss (W)(75°C)	Short circuit impedance (%)	No-load current (%)	Weight(kg)			Overall dimension (mm) Lengthxwidthxheight	Gauge (mm)
	High voltage (kV)	Tapping (%)	Low voltage (kV)						Body	Oil	Gross weight		
50	35	± 5	0.4	Yyno	215	1210	6.5	2.00	230	320	650	1150x720x1200	550x550
100					305	2020		1.80	380	400	980	1200x740x1300	550x550
125					340	2380		1.75	440	430	1100	1250x780x1380	550x550
160					360	2830		1.65	510	460	1200	1300x800x1400	660x660
200					430	3300		1.55	600	500	1400	1400x840x1500	660x660
250					510	3950		1.40	690	530	1500	1530x860x1580	660x660
315					610	4750		1.40	800	570	1670	1600x890x1630	660x660
400					735	5750		1.30	930	650	1950	1730x50x1700	660x660
500					870	6900		1.30	1070	710	2300	1800x980x1800	820x820
630					1040	8250		1.25	1300	830	2650	1900x1000x1850	820x820
800					1250	9900		1.05	1600	900	3100	1950x1060x1900	820x820
1000					1480	12150		1.00	1800	1080	3700	1980x1100x1950	820x820
1250					1760	14600		0.90	2100	1150	4000	2010x1160x1980	820x820
1600					2130	17500		0.85	2550	1250	4730	2040x1310x2000	820x820
2000					2500	20680		0.75	3100	1400	5600	2170x1380x2700	1070x1070
2500					2975	24500		0.75	3650	1500	6300	2300x1450x2900	1070x1070

6. Main Technical Parameters of S9-M-800~20000/35 Series of Transformers

Rated capacity (kVA)	Voltage combination(kV)			Connect- ing group	No-load lossess (W)	Load-loss (W)(75°C)	Short circuit impedance (%)	No-load current (%)	Weight(kg)			Overall dimension (mm)	Gauge (mm)
	High voltage (kV)	Tapping (%)	Low voltage (kV)						Body	Oil	Gross weight	Lengthxwidthxheight	
800	35	± 5	3.15 6.3 10.5	Yd11	1250	9900	6.5	1.05	1680	970	3200	2000x1100x1950	820x820
1000					1480	12150		1.00	1800	1100	3570	2100x1200x2100	820x820
1250					1760	14650		0.90	2060	1200	4040	2150x1250x2150	820x820
1600					2130	17500		0.85	2400	1250	4550	2200x1340x2180	820x820
2000					2600	19350		0.75	2820	1420	5720	2250x1380x2210	1070x1070
2500					3150	20700		0.75	3330	1550	6000	2300x1400x2300	1070x1070
3150	35	± 5	3.15 6.3 10.5		3860	24300	7.0	0.70	3800	1670	7060	2480x1900x2450	1070x1070
4000					4630	28800		0.70	4500	1830	8200	2800x2250x2500	1070x1070
5000					5480	33000		0.60	5300	2000	9500	3000x2370x2800	1070x1070
6300					6570	36900	7.5	0.60	6550	2300	11280	3200x2520x2900	1070x1070
8000		± 2x2.5	3.15 6.3 10.5		9000	40500		0.55	8150	2700	14000	3300x2700x3200	1475x1475
10000					10600	47700		0.55	9600	3050	16250	3400x2800x3400	1475x820
12500					12600	56700	8	0.50	11000	3660	18800	3500x2930x3500	1475x1070
16000					15300	69300		0.50	13650	430	22250	3620x3040x3600	1475x1070
20000					18090	83500		0.50	15500	5530	25000	3700x3100x3700	1475x1475

ZGS11 Series Combined Transformer

1. Application

ZGS11 Combined transformer is one of the high-tech product developed by our company on the basis of pad-mounted Transformer. Range of capacity:200-1000 kVA . The product is suitable for the neutral-point distribution system or small-resistance earthing system in a 10kV distribution network, or the neutral-point solid grounding system of a three-phase four-wire system in a 400V distribution network, well-integrated, reliable in power supply, compact, light in weight, low noise, etc; It has two types of cable outlet net type and terminal type. The product can be placed directly into the load center of 10kV network, thus the line loss is reduced and power distribution reliability is increased.



2. Technical Specification

Type	Rated Capacity (kVA)	Voltage Schedule			Vector Group	Consumption(w)		No-load current (%)
		HV(kV)	Tapping	LV(kV)		No-load (kW)	load (kW)	
ZGS9-H(Z)-100/10	100		±5% (±2×2.5%)	0.4	Dyn11	0.29	1.50	1.6
ZGS9-H(Z)-125/10	125					0.34	1.80	1.5
ZGS9-H(Z)-160/10	160					0.40	2.20	1.4
ZGS9-H(Z)-200/10	200					0.48	2.60	1.3
ZGS9-H(Z)-250/10	250					0.56	3.05	1.2
ZGS9-H(Z)-315/10	315					0.67	3.65	1.1
ZGS9-H(Z)-400/10	400					0.80	4.30	1
ZGS9-H(Z)-500/10	500					0.96	5.10	1
ZGS9-H(Z)-630/10	630					1.20	6.20	0.9
ZGS9-H(Z)-800/10	800					1.40	7.50	0.8
ZGS9-H(Z)-1000/10	1000					1.70	10.30	0.7

Dry-Type Power Transformer

1. Application

SC(B) 10 resin-insulated dry-type transformer is designed basing on the Dupont(the USA) NOMEX paper insulation system. the other key components are made from imported materials (such as German MKM copper foil). with advanced manufacturing equipment and technology, the product have high performance, low energy loss, safety and reliability, its especially suitable for high buildings, airports, substations and commercial centers, and any other anti-fire, anti-explode, anti-moisture places etc



2. Specification

Type	Rated current (A)	Voltage combination(kV)		Connection group	No-load current(%)	Loss(W)		Impe- dance (%)
		HV	LV			No-load	load	
SC10-30	1.73/43.3	6 ± 2.5% 6 ± 5% 10 ± 2.5% 10 ± 5% 10.5 ± 2.5% 10.5 ± 5% 11 ± 2.5% 11 ± 5%	0.4	Dyn11 Yyn0	2.5	190	700	4
SC10-50	2.89/72.2				2.2	270	990	
SC10-80	4.62/115.5				2.1	370	1380	
SC10-100	5.77/144.3				1.9	400	1570	
SC10-125	7.22/180.4				1.7	470	1840	
SC10-160	9.24/230.9				1.7	540	2120	
SC10-200	11.6/288.7				1.5	620	2520	
SC10-250	14.43/360.8				1.5	720	2750	
SC10-315	18.19/454.7				1.3	880	3470	
SC10-400	23.09/577.4				1.3	980	3990	
SC10-500	28.9/721.7				1.3	1160	4880	
SC10-630	36.4/909				1.2	1340	5870	
SC10-630	36.4/909				1.2	1300	5960	
SC10-800	46.2/1154.7				1.2	1520	6950	6
SC10-1000	57.7/1443.4				1	1770	8130	
SC10-1250	72.2/1804.3				1	2090	9690	
SC10-1600	92.4/2309				1	2450	11730	
SC10-2000	115.5/2886.7				0.9	3320	14450	
SC10-2500	144.3/3608.4				0.9	4000	17170	

110kV Power Transformer

1. Application



110KV oil immersed on-load regulation power transformer has a series of big changes in material, technical and construction with the characters of small size, light weight, high efficiency with low loss and low noise, stable operation which cutting down large number of loss from energy GRID and minimising operation charge, improving the industrial economic benefit, it is used in power plant, transformer substation, big-sized and chemistry factory and etc. the product is according to national and IEC standards.

Installation: outdoor

Ambient temperature: -30°C~+40°C

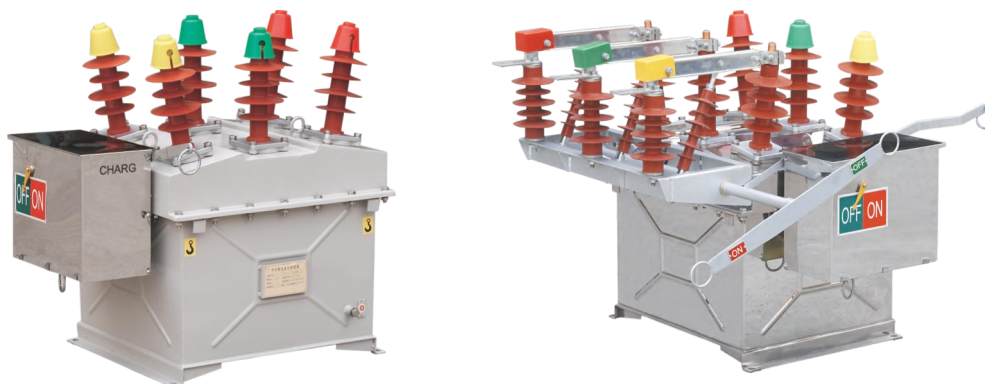
Altitude: 1000m

Relative humidity: 90%(25°C)

2. Specification

Rated capacity (kVA)	Voltage combination and tap range (kV)		Vector group	S9 series		S10 series		No-load current (%)	Short- circuit inpedance (%)
	HV	LV		No-load loss	load loss	No-load loss	load loss		
6300	110 ± 2*2.5% 121 ± 2*2.5%	6.3 6.6 10.5 11	Ynd11	9.3	36	8.4	34	0.77	10.5
8000				11.2	45	10.1	43	0.77	
10000				13.2	53	11.9	50	0.72	
12500				15.6	63	14.0	60	0.72	
16000				18.8	77	17.0	73	0.67	
20000				22.0	93	19.8	88	0.67	
25000				26.0	110	23.4	105	0.62	
31500				30.8	133	27.7	126	0.60	
40000				36.8	156	33.1	148	0.56	
50000				44.0	194	39.6	184	0.52	
63000				52.0	234	46.8	222	0.48	
75000		13.8 15.75 18 20		59.0	278	53.1	264	0.42	12-14
90000				68.0	320	61.2	304	0.38	
120000				84.8	397	76.3	377	0.34	
150000				100.2	472	90.2	448	0.30	
180000				112.5	532	101.3	505	0.25	

ZW8-12 Series High-voltage Vacuum Circuit Breaker



1. Application

ZW8-12 series high-voltage vacuum circuit breaker is a kind of outdoor high-voltage switch equipment with 50Hz three-phase alternating current 12Kv rated voltage. It mainly apply to break and close the load current, overload and short-circuit in country power net, city power net and mini-type power system. The general framework of this product adopts the form of three-phase using same box, i.e. put the three-phase arc-extinguishing chamber inside of the metal box. For the SMG material has the advantage of space insulation and grounding insulation, the breaker has perfect performance and high insulation strength.

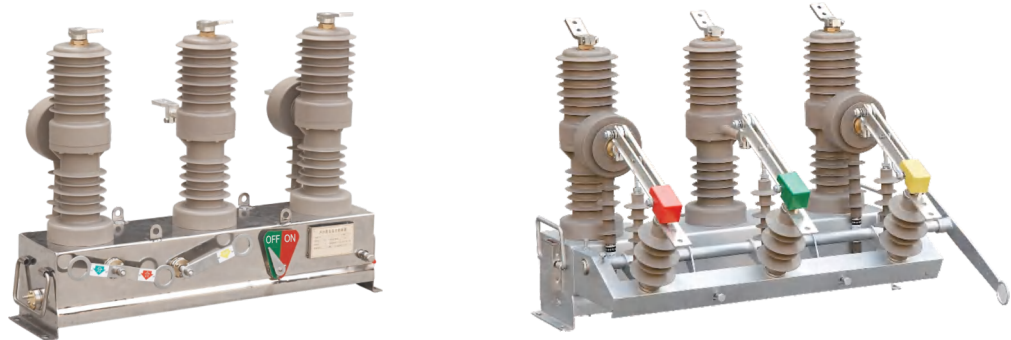
ZW8-12G is made of ZW8-12 circuit breaker and isolating switch, called the combination of circuit breakers, use for disconnect switches and self-prepare power supply. There are built-in PT and outer PT.

This series of operating mechanism for the CT23-type spring operating mechanism energy storage can be divided into two kinds of electric and manual.

2. Technical Parameter

No.	Item	Unit	Data		
			6.3kA	12.5kA	20kA
1	Rated voltage	kV	12		
2	Maximum working voltage	kV	12		
3	Rated current	A	630		
4	Rated short circuit load dropout current	kA	6.3	12.5	20
5	Rated short-circuit making current	kA	16	31.5	50
6	Rated peak withstand current	kA	16	31.5	50
7	Rated short time 1 min tolerance current	kA	6.3	12.5	20
8	Rated insulation level	kV	42		
	Lightning shock pressure		75		
9	Rated operating sequence		Part-0.3S- Joint points -180S- Joint points		
10	Institutions life	time	10000		
11	Rated short open circuit current switch frequency	time	30		
12	Operating mechanism rated switching voltage	V	110,220		
13	Operating mechanism rated points brake current	V	110,220		
14	Contact clearance	mm	11±1		
15	Super stroke (contact spring compression length)	mm	3		
16	Three phase points, closing not synchronism	ms	≤2		
17	Contact switching bounce time	ms	≤2		
18	Average opening speed	m/s	1.0±0.2		
19	Average closing speed	m/s	0.7±0.15		
20	Opening time	s	0.015-0.05		
	The minimum operating voltage		0.03-0.06		
21	Closing time	s	0.025-0.05		
22	Each phase main loop resistance	μΩ	≤120(≤200)		
23	Action contact allowed to wear accumulative thickness	mm	3		

ZW32-12 Type Outdoor High Voltage Vacuum Circuit Breaker



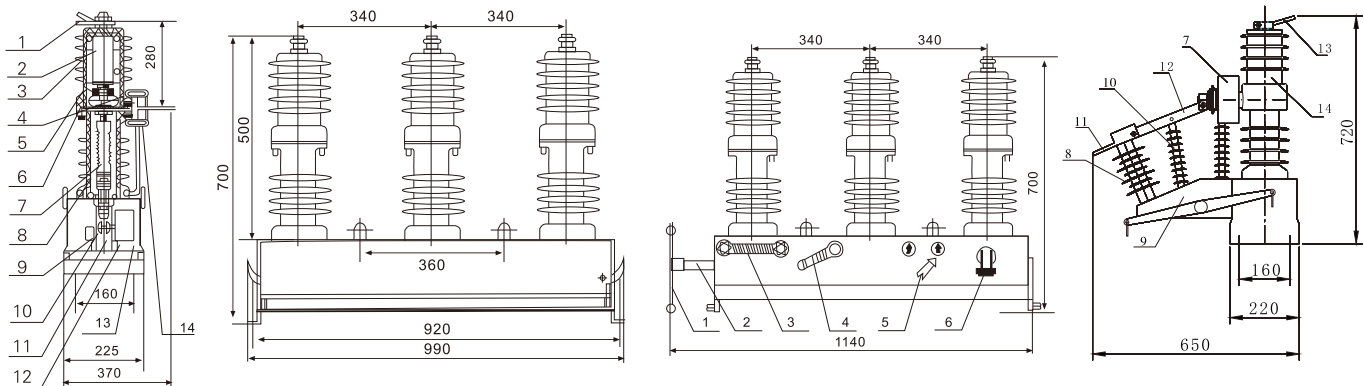
1. Application

ZW32-12 type outdoor high voltage vacuum circuit breaker is 3-phase AC50/60Hz outdoor power distribution equipment with the rated voltage of 12kV. It is mainly used to break and close the load current, over load current, and short circuit current in the electric power system. It fits to be used to protect and control the circuit in substation, mining and industrial enterprises. and the frequently operation places such as the rural power network. It can also be the section switch of power grid, after adding controller, distribution network automation is available.

2. Technical Parameter

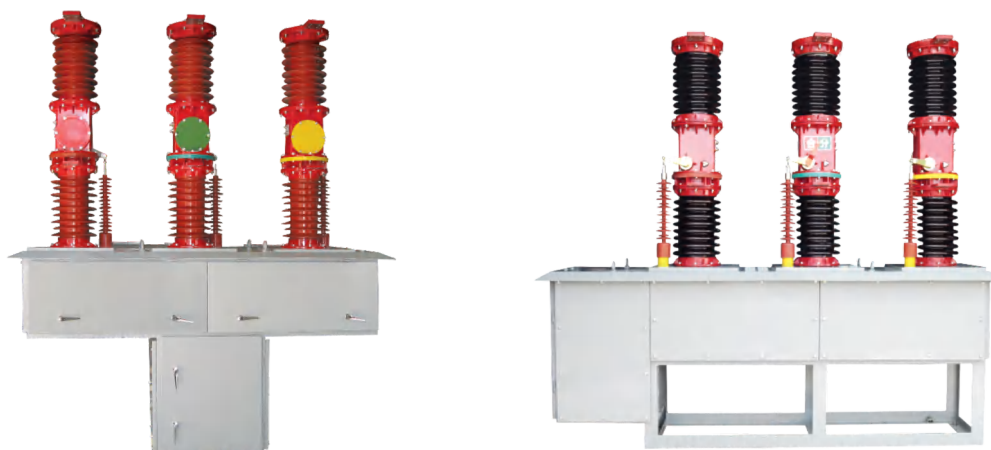
No.	Item	Unit	Value
1	Rated voltage	kV	12
2	Rated frequency	Hz	50
3	Rated current	A	630
4	Rated short-circuit breaking current	kA	20
5	Rated peak withstand current	kA	50
6	Rated short-time withstand current (4 s)	kA	20
7	Rated short circuit close current (peak)	kA	50
8	Mechanical life	times	10000
9	Rated short open circuit current switching frequency	times	30
10	1 min power frequency withstand voltage (wet) (dry) alternate with, on/fracture	kV	42/48
11	Lightning impulse withstand voltage (peak) relative to ground/fracture	kV	75/85
12	Secondary loop 1 min power frequency withstand voltage	kV	2

3. Outline and Installing Dimensions(mm)



- | | | | | | |
|--------------------|----------------------------|-----------------------|--|-------------------------|--|
| 1. the outlet | 2. interrupter | 3. insulation tube | 1. Operating handle | 2. Isolation spindle | 3. manual cut-off circuit breaker handle |
| 4. next outlet | 5. conductive clip | 6. soft link | 4. story energy circuit breaker handle | 5. cut-off instructions | 6. wring plug |
| 7. insulation rod | 8. contact pressure spring | | 7. CT | 8. insulators | 9. insulation rack |
| 9. tripping spring | 10. driver board | 11. body output shaft | 11. wring board(inlet side) | 12. isolated blade | 13. wring board(outlet side) |
| 12. actuator | 13. body box | 14. CT | 14. circuit breaker | | |

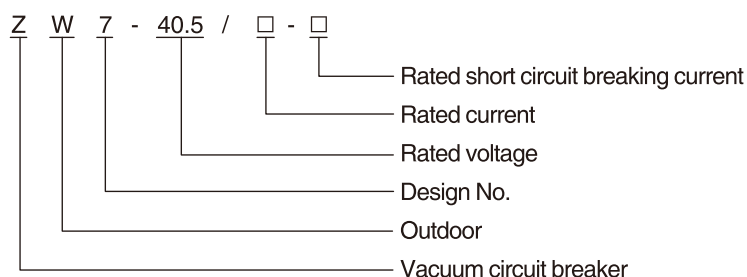
ZW7-40.5 Series Outdoor High Voltage Vacuum Circuit Breaker



1. Application

ZW7-40.5 series outdoor high voltage vacuum circuit breaker is used at three phase AC 50Hz, rated voltage is 40.5kV outdoor high-voltage electrical equipment, attached the spring operator or electromagnetic actuator can be well controlled electric opening and closing can also be Manual storage, manually open and close. Design performance meet GB1984-89 <AC high voltage circuit breakers>; national standards, and meet the IEC-56 <high voltage AC circuit breakers> ; International Electro-technical Commission standards. ZW7-40.5 series vacuum circuit breaker is mainly used for outdoor 35kV power transmission system control and protection also applies to urban and rural power distribution networks and industrial and mining enterprises in the normal operation and short circuit protection purposes. The overall structure of the insulator pillar product type; built vacuum interrupter type on the case, porcelain vase for the next pillar case. For frequent operation place. And has good sealing, anti-aging, high pressure, no burning, no explosion, long life, convenient installation and maintenance features.

2. Type and Meaning



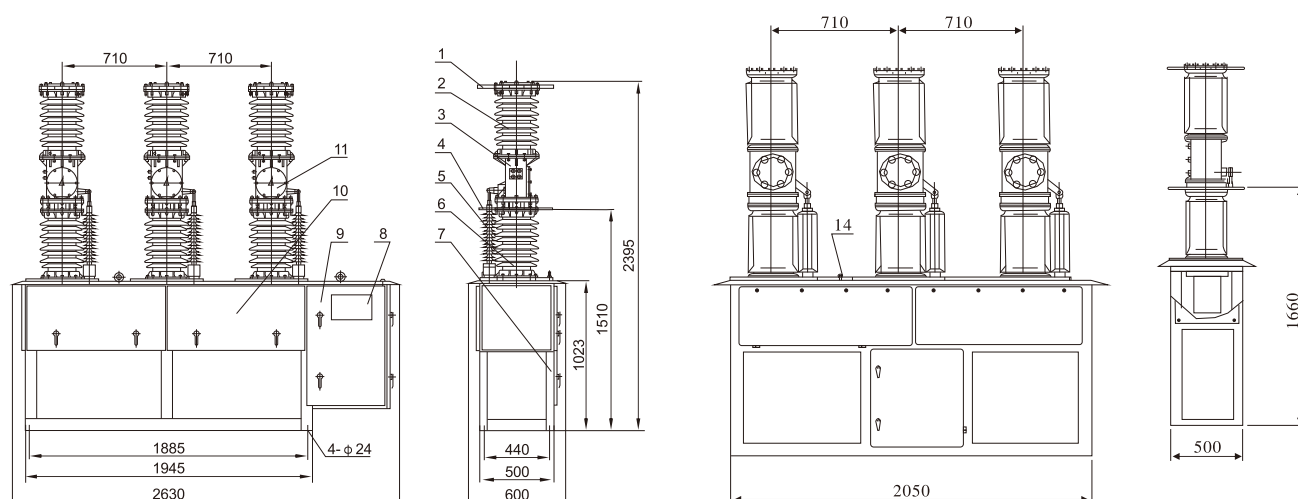
3. Technical Parameter

No.	Item	Unit	Value		
1	Rated voltage	KV	40.5		
2	Rated current	A	1600		
3	Rated frequency	Hz	50		
4	Rated short-circuit breaking current(valid)	kA	20	25	31.5
5	Rated short-circuit making current(peak)	kA	50	63	80
6	Rated peak withstand current	kA	50	63	80
7	4S Rated short time tolerance current	kA	20	25	31.5
8	1 min power frequency withstand voltage(valid)	kV	dry-type:95 (wet-type:80)		
9	Lightning shock pressure(peak)	kV	185		
10	Rated operating sequence		Part-0.3S- Joint points -180S- Joint points		
11	Rated short open circuit current switch frequency	times	20		
12	Operating mechanism rated switching voltage	times	10000		
13	weight	kg	1000		

4. Main Mechanical Parameters

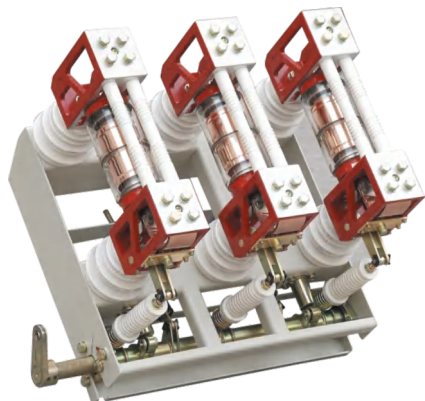
No.	Item	Unit	Value
1	Arcing chamber contact clearance	mm	22±2
2	Arcing chamber Super stroke	mm	5±1
3	Phases center distance	mm	710
4	Arcing chamber Contact switching bounce time	ms	≤5
5	Three phase points, closing not synchronism	ms	≤2
6	Average closing speed	m/s	0.75±0.2
7	Average opening speed	m/s	1.7±0.2
8	Closing time	ms	30~100
9	Opening time	ms	15~60
10	Each phase main loop resistance(without CT)	μΩ	≤100
11	Action contact allowed to wear accumulative thickness	mm	3

5. Outline and Installation Dimension (mm)



- | | |
|---|---------------------------|
| 1. Upper terminal | 7. Chassis |
| 2. Vacuum arcing chamber porcelain sets | 8. Nameplate |
| 3. Holder | 9. CT19BW framework box |
| 4. Under against terminal | 10. CT |
| 5. Insulating tension pole | 11. Hand hole cover board |
| 6. Strut porcelain | |

ZN28(A)-12 Series Vacuum Circuit Breaker



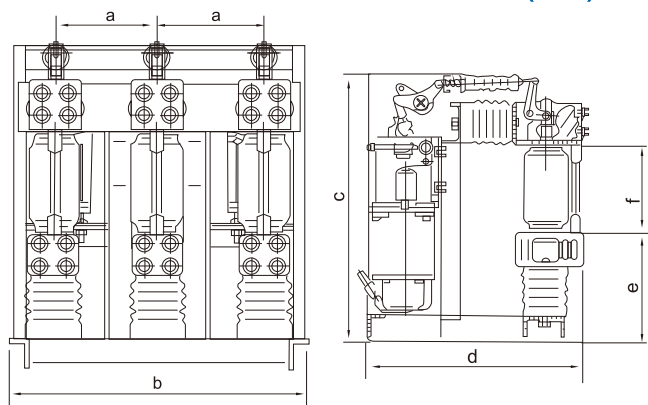
1. Application

ZN28(A)-12 series vacuum circuit breakers are a kind of indoor high voltage switch device which is used in the AC three-phase power system of frequency 50Hz, rated voltage 12kV. This device is conformed to the standard GB1984-89. This device adopts unibody installation of operating mechanism and circuit breaker technology, which has two styles, respectively, ZN28-12 unibody structure and ZN28(A)-12 separable structure. It is suitable for various fixed switchgears, such as GG1A, XGN2A-10, etc. This product can match with CD17 DC electromagnetic operating mechanism and CT19I, CD19II spring energy storage type operating mechanism.

2. Technical Parameter

Item	Unit	Value			
Rated voltage	kV	12			
Rated current	A	630,1000,1250	1250,1600	1250,1600,2000,2500	1600,2500,3150
Rated short-circuit breaking current	kA	20	25	31.5	40
Rated short-circuit switch off current (virtual value)	kA	50	63	80	100
Rated peak withstand current (peak)	kA	50	63	80	100
Rated thermo stability current (valid)	kA	20	25	31.5	40
Rated thermo stability time	s	4			
Rated operations of short-circuit breaking current interruption	times	30(50)			
Breaking time CD10 magnetic control mechanism	ms	<80			
Rated operation sequence		0.3			
Power frequency withstand voltage (1 min)	kV	42(fracture 48)			
Impulse withstand voltage	kV	75(fracture 85)			
Mechanical life	times	10000			

3. Outline and Installation Dimension (mm)



Data Code	Model	20kA 25kA 31.5kA	40kA
		230	275±1
a		600	690
b		707	842
c		560	652
d		293 ^{±3}	342 ^{±3}
e		227±1	227±1
f			

ZN63(VS1)-12 High Voltage Vacuum Circuit Breaker

1. Application

ZN63(VS1)-12 indoor high voltage vacuum circuit breaker is used in the three-phase AC power system of frequency 50Hz, rated voltage 12kV. It is applied in the grid equipment, the power distribution system of industrial and mining enterprises as well as the places where requires repeated opening short-circuit current and frequent operation.

This circuit breaker adopts unibody design of operating mechanism and circuit breaker technology, which can not only be used as fixed installation unit, but also can constitute the handcart unit with dedicated advanced mechanism.

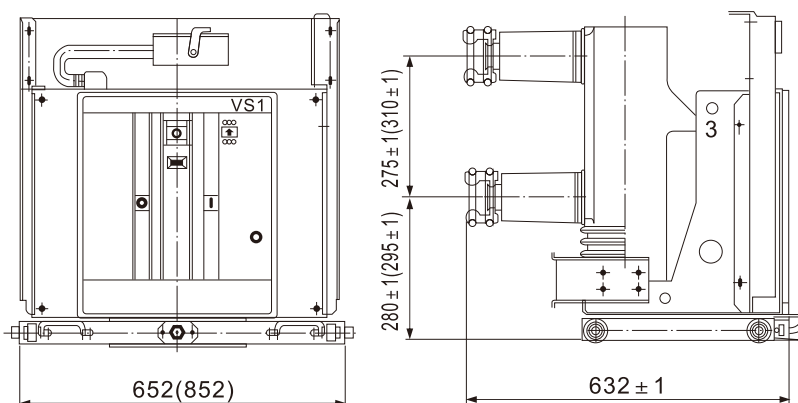
ZN63(VS1)-12 is indoor medium-voltage solid type seal vacuum circuit breaker, ZN63(VS1)-12 vacuum breaker suitable for the insulation in the indoor air switch for 50Hz, rated voltage 12kV and below the grid from the control and protection, ZN63(VS1)-12 vacuum circuit breaker and the frequent need for short-circuit breaking current of occasions with very good performance, fully meet the requirements of automatic re-closing and have higher reliability and service life.

2. Technical Parameter

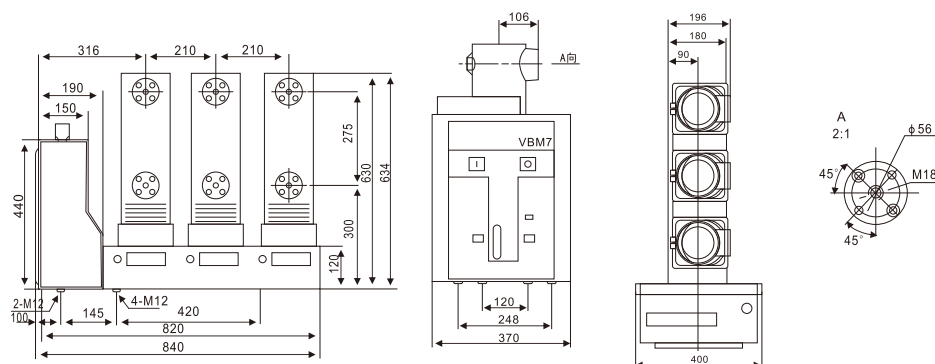
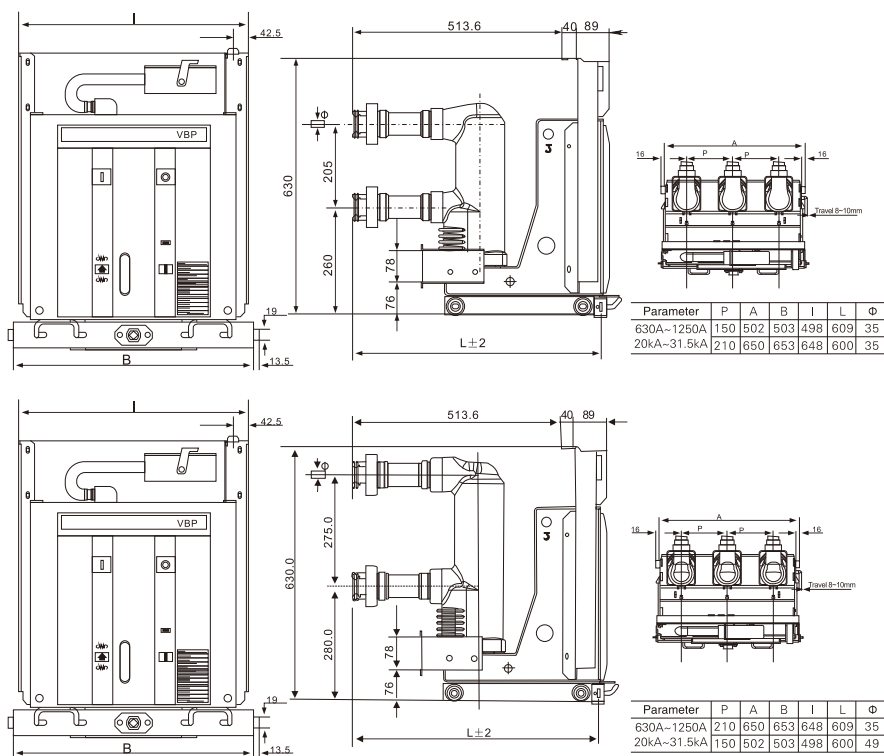
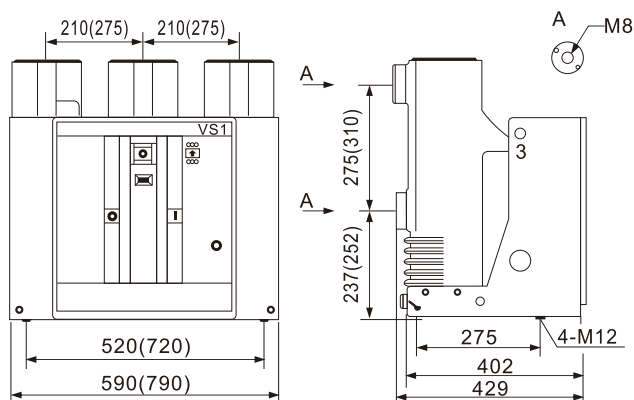
No.	Item		Unit	Value		
1	Rated voltage		kV	12		
2	High test operating voltage		kV	12		
3	Rated current		A	630	630	1250
4	Rated short-circuit breaking current		kA	20	25	31.5
5	Rated short-circuit closing current		kA	50	63	80
6	Rated peak withstand current		kA	50	63	80
7	4Srated short time withstand current		kA	20	25	31.5
8	Rated insulation level	P.F.withstand voltage(Before and after the rated breaking)	kV	42(Fracture48)		
		Impulse witstand voltage(Before and after the rated breaking)	kV	75(Fracture84)		
9	Rated operating order			O-0.3S-CO-180S-CO		
10	Mechanical life		times	3000		
11	Rated short-circuit breaking current breaking times		times	50		
12	Actuator Rated closing voltage(DC)		V	110,220		
13	Actuator Rated opening voltage(DC)		V	110,220		
14	Clearance between opencontacts		mm	11±1		
15	Supper Travel(Compressed length of contact springs)		mm	3.5±0.5		
16	Non corresponding time period between tri-phase opening and closing		ms	≤2		
17	Bounce time of closing contacts		ms	≤2		
18	Average time of opening		s	0.9~0.12		
19	Average time of closing		s	0.4~0.8		
20	Opening time		ms	50		
21	Closing time		ms	100		
22	Main loop resistance of each phase		μΩ	60	50	
23	Allowed acumination thickness between moving contact and static contact		mm	3		

3. Outline and Installation Dimension (mm)

Vacuum circuit breaker with chassis



Vacuum circuit breaker without chassis



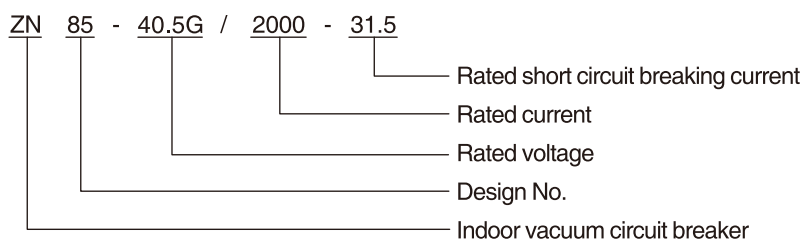
ZN85-40.5G(3AV3) Indoor AC HV Vacuum Circuit Breaker



1. Application

ZN85-40.5G(3AV3) indoor AC HV Vacuum circuit breaker is applicable for power system with three-phase AC50Hz,40.5kV, used for industrial and mining enterprises, power plants and transformer substations to protect and control equipments, also, it can be used in the location where with frequent operating.

2. Type and Meaning



3. Service Environment

Environmental temperature is from:-15~40°C;

Environmental humidity:

Daily average relative humidity ≤ 95%

Monthly average relative humidity ≤ 90%

Earthquake intensity ≤ 8

Keep away from such environment as subject to dust, dirt, smog, corrosive or flammable gas, vapor and salt pollution.

4. Technical Parameter

Item	Unit	Value
Rated voltage	kV	40.5
1 min power frequency withstand voltage (virtual value)	kV	95
Lighting impulse withstand voltage (peak)	kV	185
Rated frequency	Hz	50
Rated current	A	1250,1600,2000
Rated short-time withstand current	kV	25 31.5
Rated peak withstand current	kV	63 80
Rated short circuit duration	S	4
Rated short-circuit breaking current	kA	25 31.5
Rated short-circuit making current	kA	63 80
Rated operating sequence		0-0.3s-CO-180s-CO
Break time	ms	<80
Rated short-circuit breaking current times	times	20
Rated breaking current of capacitor bank	A	630
Rated back-back capacitor bank drop-out current	A	400
Rated operating voltage	V	-110/~110 -220/~220
Mechanical endurance		10000

5. Structure Feature

The arc-extinguish chamber is on the upper part and the mechanism is on the lower part. This structure is convenient for debug .

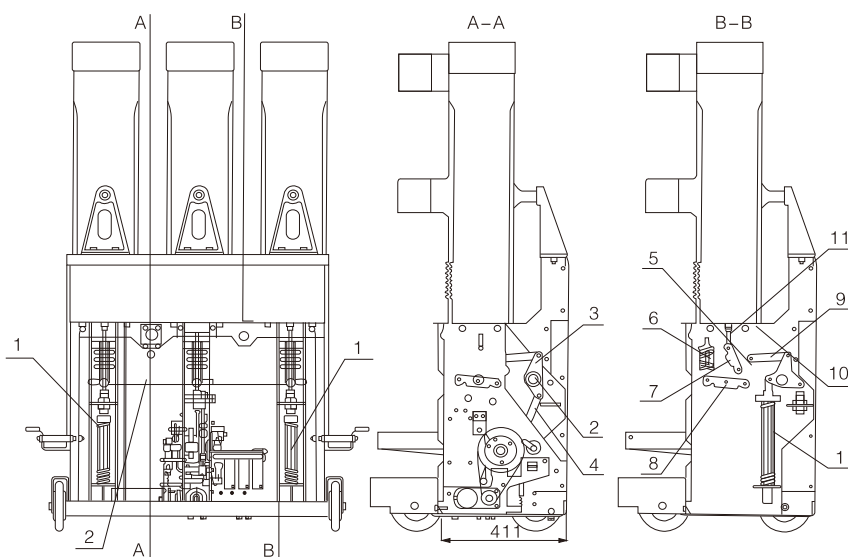
Complex insulating structure using air and organic material; Compactable dimension and small weight.

Vacuum arc-extinguish chamber of Cutler-Hammer Company (USA) and domestic ZMD are both applicable for the VCB. Both two kinds of chambers extinguish arc by vertical magnetic field and featuring with low cut-off and good on-off capability with asymmetry.

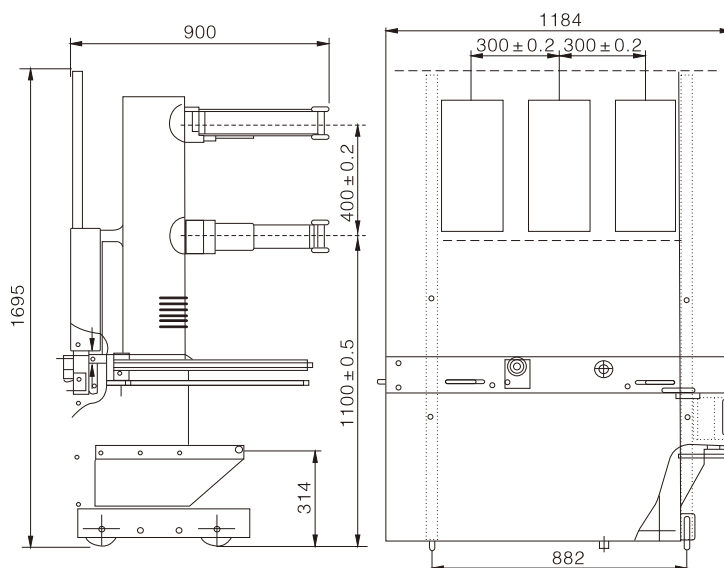
Simple spring operation mechanism is free from maintenance within 10000 times of operations.

Lead-screw propeller, easy and stable operation and good self-locking capability.

6. Outline and Installation Dimension (mm)



- | | | |
|---------------------------|---------------------------|----------------------------|
| 1. Break-brake spring | 2. Large shaft | 3. Middle connecting lever |
| 4. Transmission rod | 5. Drive connecting plate | 6. Contact spring |
| 7. Drive connecting plate | 8. Drive connecting plate | 9. Drive connecting plate |
| 10. Side connecting lever | 11. Rod end joint bearing | |



FZ(R)N25-12 Indoor AC High Voltage Vacuum Load Switch

1. Application

FZN25-12D/T630-20 Type Indoor AC switch is three-phase AC 50Hz, rated voltage of 12kV and indoor installations, for industrial and mining enterprises for distribution in clinics and substations and other occasions, as electrical protection and control facilities for the division and load current, loop current, no load transformer and cable charging current.

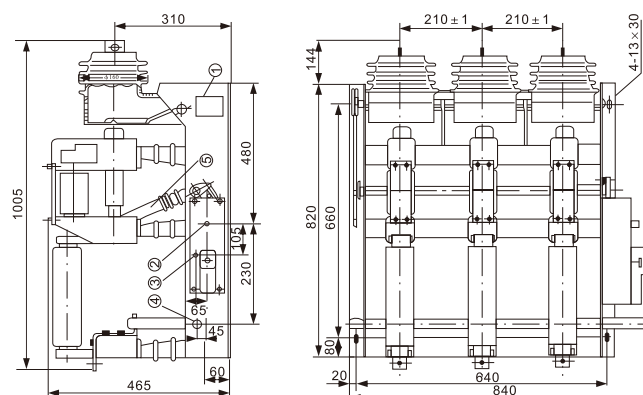
FZRN25-12D/T200-31.5 type indoor AC high voltage vacuum load switch- fuse combination units is three-phase AC 50Hz, rated voltage of 12kV for indoor installations for industrial and mining enterprises and other occasions to change the station distribution Institution for load control and short circuit protection purposes. Equipped with grounding switch can withstand short-circuit current. Actuator can be manual and electric, easy remote control three power system requirements.

FZN25-12D, FZRN25-12D-type load switch and the combination of electric three-phase are for city distribution and industrial power equipment of three phase ring network or terminal power supply ,for load control and short circuit protection. As the combination of electrical transformers and other electrical equipment on the protective effect than the circuit more reliable, more economical, especially for rings, double radiation power supply units and box-type substation.

2. Technical Parameter

No.	Item	Unit	Value	
			FZN25-12D/T630-20	FZN25-12D/T125-31.5
1	Rated voltage	kV	12	
2	Rated frequency	Hz	50	
3	Rated current	A	630	125
4	Rated insulation level	1min power frequency withstand voltage (effective value)	Arc-quenching chamber fracture 30	
			Earth ,phase 42, insulating fracture 48	
		Lightning impulse withstand voltage (peak)	Earth ,phase 75, insulating fracture 85	
5	Rated dynamic current (peak)	kA	50	-
6	4S thermal current	kA	20	-
7	Rated power load breaking current	A	630	125
8	Rated closed-loop breaking current	A	630	125
9	Rated cable charge breaking current	A	10	10
10	Rated breaking no-load transformer capacity	kVA	1600	1600
11	Rated open circuit breaking current	KA	-	31.5
12	Rated transfer current	A	-	2000
13	Fuse model		-	SDLAJ-12, SFLAJ-12
14	Striker output energy	J	-	2-5
15	Rated short-circuit closed current	kA	50	
16	Earth switch rated dynamic current	kA	50	
17	Earth switch 2s thermal current	kA	20	
18	Auxiliary circuit rated voltage	V	AC DC220	AC DC110
19	Mechanical life	times	10000	

3. Outline and Installation Dimension (mm)



- 1.nameplate
- 2.Energy storage shaft
- 3.trip
- 4.Grounding knife shaft
5. Operating lever

FKN12-12(R) Air High Voltage Load Break Switch With Fuse

1. Application

FKN12-12D/630-20 air high voltage load break switch with fuse is a three phase high voltage switch equipment of 12kv,50hz for breaking or closing load current, loop closed current. no-load transformer and cable charging electric current, close short circuit current. The load switch with earthing switch can bear short-circuit current.

FKN12-12RD/125-31.5 air high voltage load break switch-- fuse-combination unit is made of FKN2-12D load switch and S□ LAJ-12(XRNT□ -12) H.V current-limiting fuse box. It can be a reliable short-circuit breaking current up to any current: breaking work load switch current, fuse short-circuit breaking current breaking joint working between the current and the full short-circuit current in any over-current, while fuse allows, through its impact load switch sub-gate.

2. Using Condition

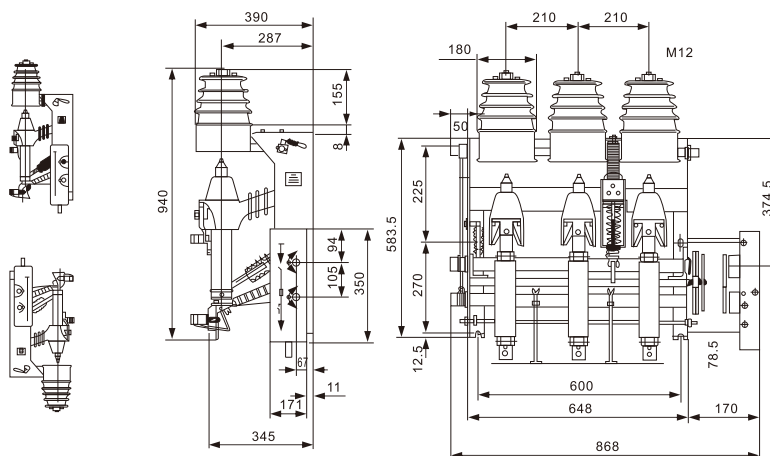
- Ambient temperature -25°C~+40°C
- Elevation ≤ 1000m
- Humidity: daily average humidity ≤ 95%, monthly ≤ 90%
- No risk of fire, explosion, serious pollution, chemical corrosion and severe vibration
- Pollution degree: II

If use out of above condition, please contact with the manufacture

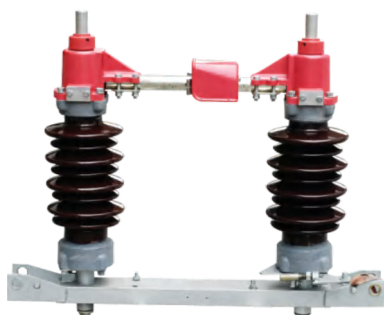
3. Technical Parameter

No.	Item	Unit	FKN-12D/630-20	FZN-12R.D/125-31.5
1	Rated voltage	kV	12	
2	Rated frequency	Hz	50	
3	Rated amper	A	630	125
4	Thunder voltage	kV	Isolation:85	
5	1min Voltage	kV	Earthing 42, Isolation:48	
6	Amper	kA	20(4S)	
7	Stable current	kA	50	
8	Current	kA	50	-
9	Breaking current	kA	-	31.5
10	Moving current	kA	-	1.5
11	Breaking amper	kA	1.8	
12	Transformer capacity	kVA	1250	
13	Power charge current	A	10	
14	Breaking times	times	>100	
15	Breaking time	S	-	>0.06
16	Current	kA	20(2S)	20(2S)
17	Earthing switch voltage	kA	50	50
18	Motor voltage	V	AC220, DC48	

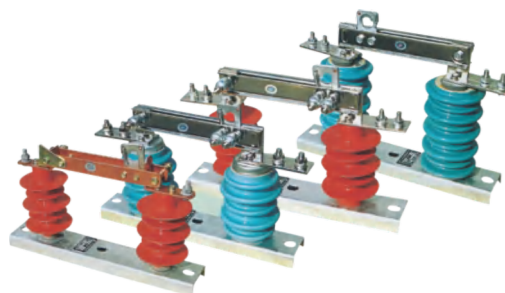
4. Outline and Installation Dimension (mm)



GW Series Outdoor High Voltage Disconnecting Switch

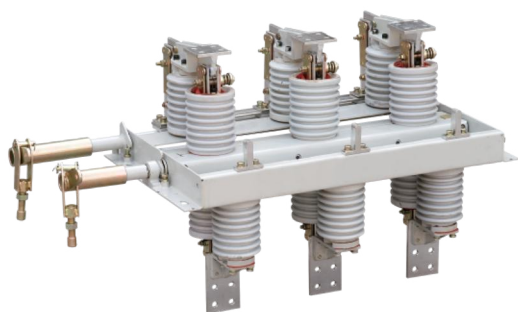


GW4-40.5KV perfect COMPLETE
Outdoor High voltage Disconnecting Switch

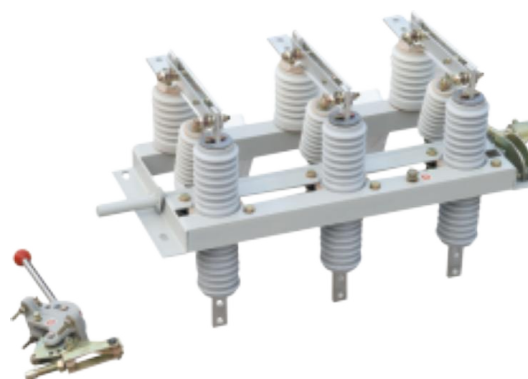


(H)GW9-12 series
outdoor High Voltage Disconnecting Switch

GN Series Indoor Type High Voltage Isolator Switch

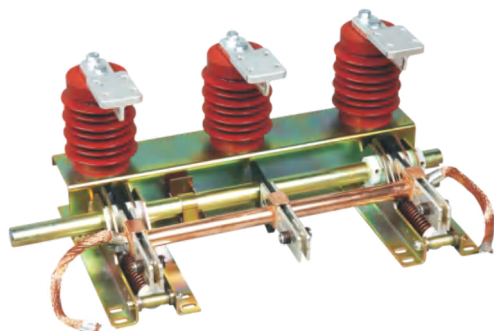


GN30-12 series
Indoor Rotary High Voltage Disconnecting Switch

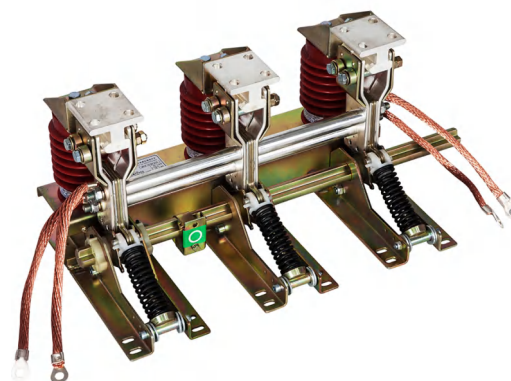


GN19-12 series
Indoor High Voltage Disconnecting Switch

JN Series Indoor High Voltage Ground Switch

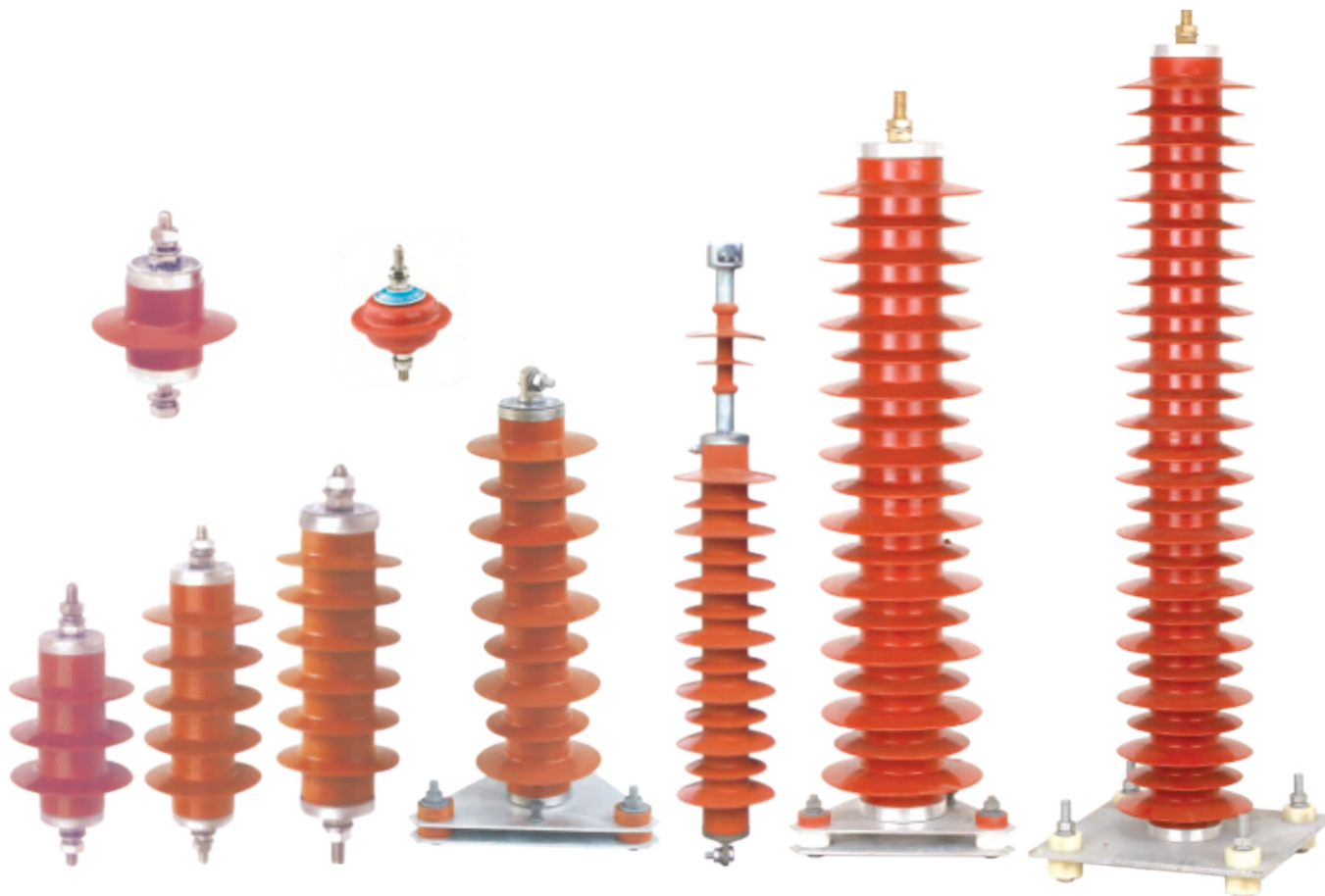


JN15-12/31.5 series
indoor High Voltage ground switch



JN15-12/40 series
indoor High Voltage ground switch

HY series Polymer type Zinc Oxide Lightning Arrester



Outline and Installation Dimension (mm)

