WUXI HONGRUI ELECTRIC CO., LTD

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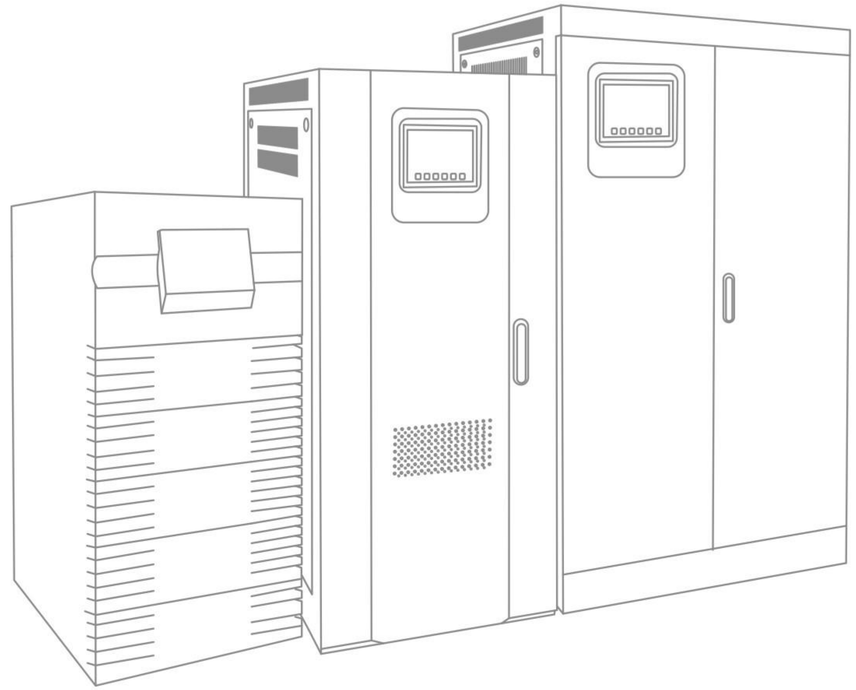
PRODUCT SELECTION MANUAL

Provider of smart power supply solutions

Provide power equipment solutions for public institutions, industry and commerce, and end users

—

High standards | Refinement | Zero defect



WUXI HONGRUI ELECTRIC CO., LTD

ABOUT HONGRUI

Jiangsu Wuxi Hongrui Electric Co., Ltd. is a company specializing in the research and development, design, production, consultation, sales and technical services of AC/DC voltage stabilizers (voltage stabilizing power supplies), transformers, UPS uninterruptible power supplies, EPS emergency power supplies, batteries, solar inverters and other power supply field products.

Since its establishment in 2008, Hongrui Electric has achieved rapid development through technological research and development innovation and 20 years of practical experience in sales and application cases. It has strong technical strength, rich practical experience, and has established scientific research cooperation relationships with many scientific research institutions and universities. Hongrui Electric is equipped with advanced production equipment and inspection instruments as well as excellent employee quality. The products are strictly designed and manufactured in accordance with international and national standards.

Our company has always adhered to the belief of "credibility first, customer supreme". Before sales, we provide scientific power supply consultation and planning based on the user's power environment conditions. After sales, we maintain long-term and stable contact with users and insist on quality tracking services. We also build a good information feedback network. When users encounter difficulties, we can promptly provide repair and maintenance services.

Our company adheres to the tenet of "seeking development through science and technology and efficiency through quality" and "quality first, reputation foremost", and is dedicated to providing users with high-quality products and satisfactory services. We constantly explore new management approaches and establish scientific management systems to keep pace with The Times.

Originating from Taiwan, reaching out to the world!

Hongrui Electric is maintaining a scientific attitude of continuous innovation and progress, keeping pace with The Times, and looking forward to becoming an outstanding partner for more domestic and foreign customers.

Set grand plans
Strive for progress

Hongrui focuses on the heart, professional in shape, and is the leader in power equipment.
Always provide you with a professional and reliable overall solution
Meet your individual needs
We deserve your trust

www.510hb.com

Brand
Reputation

In terms of production

A professional production team ensures the stable quality of the products.
Abundant supply resources ensure high cost performance of the products.
The complete logistics support system ensures the strong timeliness of the products.

Technical aspect

Experienced product developers promptly develop products that adapt to market demands. Professional production process personnel improve the appearance and manufacturing process of the products, making their appearance and quality superior. Technical service personnel with many years of experience can provide professional comprehensive solutions, eliminating users' worries during the use of the products.

Service aspect

Provide technical exchange services
Product customization service

CORE
Values

Corporate mission

Provide customers with high-quality products and solutions, and create a platform for employees to realize their self-worth

Corporate Vision

Through persistent and arduous pursuit bit by bit, we aim to become an outstanding enterprise with influence and respect within the industry

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PRODUCT
CONTENTS

SBW

HIGH-POWER FULLY AUTOMATIC COMPENSATING
POWER VOLTAGE STABILIZER

>>>

Product Overview

The SBW series of high-power compensating power voltage stabilizers are a new generation of energy-saving voltage stabilizers developed and produced by our company based on the introduction and absorption of advanced technologies from similar products in Western Europe and other countries, and in combination with China's national conditions. When the external power supply network voltage fluctuates or the load changes, causing voltage fluctuations, this voltage stabilizer can automatically maintain the stability of the output voltage.

Compared with other types of voltage stabilizers, this voltage stabilizer product features large capacity, high efficiency, no waveform distortion, balanced voltage regulation, strong instantaneous overload capacity, wide range of suitable loads, long-term continuous operation, manual/automatic switching at will, and is equipped with overvoltage, overcurrent, phase loss, phase sequence protection and automatic mechanical fault protection. Moreover, it has the advantages of small size, light weight, convenient use and installation, and reliable operation.

Model meaning

The representation method of this series of voltage stabilizers is shown in Figure (1)

S B W - □ - □KVA

- □KVA — Rated capacity
- □ — Adjustable type F, synchronous type omitted, stable type SG, DT special for elevators, CT special, SL digital display type
- W — Voltage stabilizer
- B — Compensatory
- S — Three-phase is S or single-phase is D

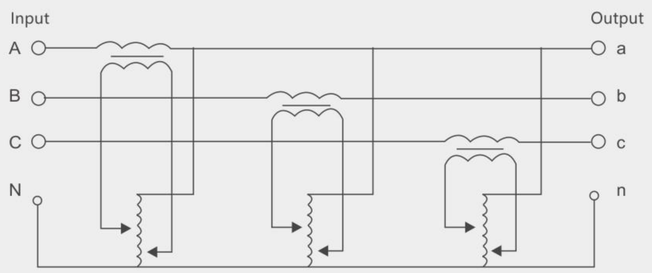
Scope of use

This series of voltage stabilizers are widely used in industrial and mining enterprises, post and telecommunications systems, railways, construction sites, schools, hospitals, hotels, national defense units, scientific research institutions and other departments. Ac voltage stabilizers applied in electronic computers, precision machine tools, computed tomography (CT), precision instruments, experimental devices, elevators, imported equipment and production lines. It is also applicable to low-voltage distribution terminal users with low power supply voltage and large fluctuations, as well as electrical equipment with significant load variations, such as elevators, cranes, mixers, and all other places that require stable voltage.

Main technical parameters

Input voltage	Phase voltage: 176V-264V, line voltage: 304V-456V(three-phase four-wire +PE
Output voltage	Phase voltage: 220V, line voltage: 380V
Voltage stabilization accuracy	Adjustable from 1 to 5%
Frequency	50-60Hz
Efficiency	≥95%(Power rating above 50KVA)
Response time	≤1.5 seconds (when the external voltage changes by 10%)
Waveform distortion	No additional waveform distortion
Protective function	It has overvoltage, overcurrent and mechanical faults
Mains power bypass function	Three-phase products can be conveniently switched between mains power and voltage stabilization (single-phase products do not have this function)
Working mode	It can work continuously and unattended for a long time
Display mode	LCD display or pointer display
Electrical intensity	There was no breakdown or flashover phenomenon when the power frequency sinusoidal voltage was 2000V for 1 minute
Insulation resistance	2 m Ω or higher

Product schematic diagram



Product size

Product model	Product dimensions (CM) : height*width*depth	Number of boxes packed (Individual)	Gross weight per piece (KG)
SBW-30KVA	1200*550*880	1	220
SBW-50KVA	1200*550*880	1	250
SBW-80KVA	1200*550*880	1	350
SBW-100KVA	1300*620*920	1	350
SBW-120KVA	1300*620*920	1	400
SBW-150KVA	1390*700*960	1	500
SBW-180KVA	1390*620*1020	1	550
SBW-200KVA	1390*620*1020	1	600
SBW-250KVA	1600*1000*700	1	730
SBW-300KVA	1800*1100*800	1	970
SBW-350KVA	1800*1100*800	1	990
SBW-400KVA	1950*1100*1250	1	1100
SBW-450KVA	1950*1100*1250	1	1200
SBW-500KVA	1950*1100*1250	1	1300
SBW-600KVA	1950*1100*1250	1	1400
SBW-F50KVA(Tune in)	90*68*132	1	410
SBW-F80KVA(Tune in)	100*85*132	1	510
SBW-F100KVA(Tune in)	100*85*142	1	610
SBW-F150KVA(Tune in)	135*85*155	1	900

Product model	Product dimensions (CM) : height*width*depth	Number of boxes packed (Individual)	Gross weight per piece (KG)
SBW-F180KVA(Tune in)	135*85*155	1	950
SBW-F200KVA(Tune in)	135*85*155	1	1030
SBW-F225KVA(Tune in)	135*100*165	1	1100
SBW-F250KVA(Tune in)	135*100*165	1	1250
SBW-F300KVA(Tune in)	135*100*185	1	1350
SBW-F350KVA(Tune in)	135*100*185	1	1400
SBW-F400KVA(Tune in)	135*100*185	1	1500
SBW-F500KVA(Tune in)	135*105*185	1	1600
SBW-F600KVA(Tune in)	135*105*185	1	1680
SBW-F800KVA(Tune in)	80*100*185*3	1	1800
SBW-F1000KVA(Tune in)	80*100*185*3	1	2000
SBW-F1200KVA(Tune in)	90*100*185*3	1	2400
SBW-F1600KVA(Tune in)	110*100*185*3	1	3200
SBW-F2000KVA(Tune in)	110*120*185	1	4800
DBW-20KVA(Single-phase)	65*50*135	1	180
DBW-30KVA(Single-phase)	65*50*135	1	250
DBW-50KVA(Single-phase)	80*62*143	1	300
DBW-100KVA(Single-phase)	90*68*162	1	400

Note: The above parameters are for reference only. Any changes will not be notified separately.

> Page 03

HZW

SMART CONTACTLESS VOLTAGE
STABILIZING POWER SUPPLY

>>>

Page 04 >

Product Overview

This intelligent contactless compensating AC voltage stabilizer adopts new high-speed DSP computing chip control technology, rapid AC sampling technology, RMS value correction technology, voltage and current zero-crossing switching technology and rapid compensation voltage stabilization technology. It combines intelligent instruments, rapid voltage stabilization and fault diagnosis, making the product safe, efficient and precise.

The voltage stabilizer mainly consists of an isolation transformer, an SCR thyristor module, a DSP control core, rapid voltage stabilization technology and safety protection devices. Through the real-time monitoring of the output voltage by the DSP, the SCR thyristor module is quickly calculated and controlled to adjust the voltage magnitude and polarity of the primary side of the compensation transformer connected in series at the load end, achieving the purpose of rapid voltage stabilization.

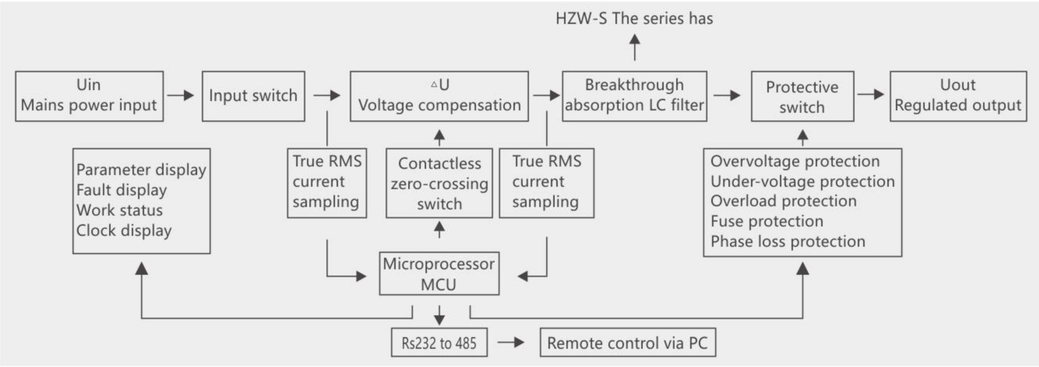
Product features

- High efficiency: Over 98%, with low self-loss;
- High precision: Voltage stabilization accuracy ±1%;
- Intelligent instrument display: Real-time display of effective values of voltage and current, clear, accurate and with high resolution. Membrane key operation, safe and reliable.
- Three-phase individual adjustment: Each phase is adjusted separately to ensure the accuracy of the output voltage of each phase remains unchanged.
- Wide application range: It has a wide voltage stabilization range and can meet the needs of places and equipment with poor power grid quality and large voltage fluctuation range.
- High-speed response: 40-millisecond voltage stabilization speed, no voltage change impact on any computer automation, equipment or instrument;
- Comprehensive protection functions: It is equipped with fault display or protection functions such as phase loss, phase error, over-temperature, overload, overvoltage, undervoltage, short circuit, and fuse blow, ensuring the safe operation of the voltage stabilizer and the load.
- Strong preset function: Multiple parameters such as output voltage, overload, overvoltage and undervoltage, and response speed can be set arbitrarily within the product's rated values.
- Strong overload capacity: The entire machine adopts high-quality components with excellent performance. It can be used continuously under 100% rated load and can withstand instantaneous overload without damaging the machine.
- Strong adaptability: It has strong adaptability to power grids and loads, and can work reliably, continuously and stably under various harsh power grid and complex load conditions.
- No distortion: By adopting zero-crossing voltage and current switching technology, there is no current interruption or inrush current generation during the switching process, and the output waveform is undistorted.
- Low loss: The no-load loss at rated voltage is less than 0.5%, saving customers a significant amount of electricity costs.
- Bypass function, easy to maintain: It can be switched between "voltage stabilization" and "bypass direct power supply", which is convenient for use during fault repair.

Scope of use

The products are widely applied in large-scale mechanical and electrical equipment, metal processing equipment, production lines, elevators, medical devices, embroidery and textile equipment, air conditioners, radio and television, household appliances and building lighting that require stable voltage in fields such as industry, transportation, post and telecommunications, national defense, railways and scientific research.

Product schematic diagram



> Page 05

HZW
SMART CONTACTLESS VOLTAGE
STABILIZING POWER SUPPLY

Main technical parameters

Product model	Hzw-d 10K-100K(Single-phase)	HZW-S10K-3000K(three-phase)
Rated capacity	10-3000KVA	
Phase number	Three-phase five-wire system	
Input, range	220V/380V/400V	±15%/±20%/±30%
Output voltage	220V/380V/400V	
Voltage stabilization accuracy	±1% /±3%/±5% (adjustable)	
Efficiency	10K-50K≥95%, 50K-100K≥97%, >100K≥98%	
Frequency	50Hz/60Hz	
Response time	<10 milliseconds	
Stabilization time	<100 milliseconds	
Insulation class	Grade F	
Insulation resistance	The insulation resistance of the entire machine to ground is greater than 5MΩ	
Insulation strength	2000VAC/1min no arc discharge, no breakdown	
Output waveform	The output waveform has no distortion and no harmonic increment	
Instantaneous overload capacity	Twice the rated current	
Display mode	LCD display	
Working mode	Long-term continuous operation	
Protective function	Overload, overvoltage, undervoltage, short circuit, phase loss, phase sequence, over-temperature, fuse blow	
Heat dissipation method	Forced air cooling	

Product size

Product model	Product dimensions (CM) : height*width*depth	Number of boxes packed (Individual)	Gross weight per piece (KG)
HZW-D3KVA		1	22
HZW-D5KVA	250*530*300	1	25
HZW-D10KVA	250*530*300	1	35
HZW-D15KVA	250*530*300	1	40
HZW-D20KVA	380*780*830	1	86
HZW-D30KVA	380*780*830	1	100
HZW-D40KVA	380*780*830	1	110
HZW-D50KVA	380*780*830	1	125
HZW-S10KVA	380*780*830	1	90
HZW-S20KVA	380*780*830	1	100
HZW-S30KVA	380*780*830	1	110
HZW-S40KVA	380*780*830	1	130
HZW-S50KVA	380*780*830	1	150
HZW-S60KVA	380*780*830	1	165
HZW-S80KVA	430*780*1170	1	195

Product model	Product dimensions (CM) : height*width*depth	Number of boxes packed (Individual)	Gross weight per piece (KG)
HZW-S100KVA	430*780*1170	1	220
HZW-S120KVA	520*850*1300	1	280
HZW-S150KVA	520*850*1300	1	295
HZW-S200KVA	520*850*1300	1	320
HZW-S250KVA	1000*700*1500	1	410
HZW-S300KVA	1000*700*1500	1	450
HZW-S350KVA	1000*700*1500	1	470
HZW-S400KVA	1000*700*1500	1	495
HZW-S500KVA	1200*800*1500	1	555
HZW-S600KVA	1200*800*1600	1	595
HZW-S800KVA	1500*1000*2000	1	665
HZW-S1000KVA	1500*1000*2000	1	725
HZW-S1200KVA	1500*1000*2000	1	745
HZW-S1600KVA	1800*1200*2000	1	810
HZW-S2000KVA	1800*1200*2000	1	880

Note: The above parameters are for reference only. Any changes will not be notified separately.

Page 06 >

MPS-TL

SINGLE-PHASE AND THREE-PHASE HIGH-PRECISION
FULLY AUTOMATIC AC VOLTAGE STABILIZER

>>>

Product Overview

The MPS-TL series high-precision fully automatic AC voltage stabilizer (voltage stabilizing power supply) is one of the innovative products of the SVC series AC voltage stabilizer (voltage stabilizing power supply). It is a new type of high-precision fully automatic AC voltage stabilizer (voltage stabilizing power supply) designed and developed by our company by introducing Taiwan technology and combining the actual power situation in China.

The MPS-TL series high-precision fully automatic AC voltage stabilizer (voltage stabilizing power supply) is composed of contact-type autotransformer voltage regulators, precision servo micro-motors, digital control circuits, etc. When the power grid is unstable or the load changes, the digital control circuit of the voltage stabilizer (voltage stabilizing power supply) automatically samples and sends signals to drive the servo micro-motor, adjusting the position of the carbon brush of the auto-transformer voltage regulator of the voltage stabilizer, so as to adjust the output voltage of the voltage stabilizer to the rated value and reach a stable state.

The MPS-TL series of voltage regulators (voltage stabilizing power supplies) are of the common type. This series of voltage regulators features a wide variety of types, complete specifications, beautiful appearance, and economic practicality. It features small size, light weight, undistorted output waveform, high efficiency, stable performance, reliability, simple maintenance and the ability to operate unattended for a long time. This voltage stabilizer is equipped with short-delay, overvoltage/undervoltage and other protection functions.

Scope of use

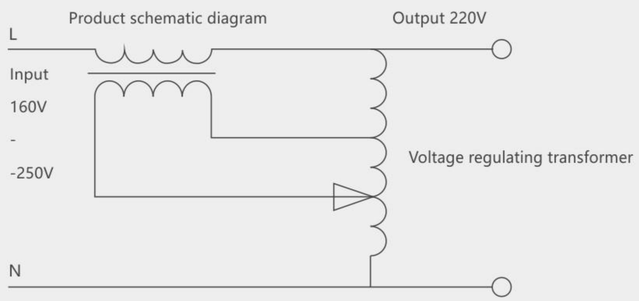
It is widely applied in household appliances, computers, televisions, air conditioning equipment, color developing systems, stereo sound systems, lighting systems, electrical equipment, medical equipment, and industrial automation equipment. Among various imported mechanical and electrical equipment.

This voltage stabilizer (voltage stabilizing power supply) inherits the excellent properties of SVC. It also features an exquisite appearance, luxurious appearance and perfect economy

Main technical parameters

Input voltage	Single-phase 160V-250V, three-phase 277-430V< three-phase four-wire
Output voltage	Single-phase 220V and 110V three-phase line voltages: 380V phase voltage: 220V
Voltage stabilization accuracy	The phase voltages are 220V±3% and 110V±6%
Frequency	50Hz/60Hz
Adjust the time	<1 second (when the input voltage changes by 10%)
Efficiency	> 95%
Waveform distortion	No additional waveform distortion
Insulation resistance	> 5 m Ω
Overvoltage protection	246V±4V
Ambient temperature	- 10 ℃ to + 40 ℃
Relative humidity	< 95%
Temperature rise	The < 60 ℃
Load power factor	0.8
Electrical resistance strength	1500V/min

Product schematic diagram



Product size

Product model	Product size (CM) Height * width * depth	Packaging size (CM) Height * width * depth	Number of boxes packed (Individual)	Gross weight per piece (KG)
(Intelligent) MPS-TL-10kVA	42*30*63	48*36*71	1	60
(Intelligent) MPS-TL-15kVA	45.5*32*63	51*38*71	1	66
(Intelligent) MPS-TL-20KVA	45.5*32*63	51*38*71	1	72
(Intelligent) MPS-TL-30KVA	51*38*70	57*43. 5*78	1	85
(Intelligent) MPS-TL-40KVA	51*38*70	57*43. 5*78	1	99
(Intelligent) MPS-TL-50KVA	58*45*86	64*51*98	1	141
(Intelligent) MPS-TL-60KVA	58*45*86	64*51*98	1	145
(Intelligent) MPS-TL-75KVA	66*51*90	72*57*100	1	158
(Intelligent) MPS-TL-90KVA	66*51*90	72*57*100	1	173
(Intelligent) MPS-TL-120KVA	66.5*21*90	72*57*100	1	187
(Intelligent) MPS-TL-150KVA	66.5*21*90	72*57*100	1	217

Note: The above parameters are for reference only. Any changes will not be notified separately.

> Page 09

BK

CONTROL TRANSFORMER

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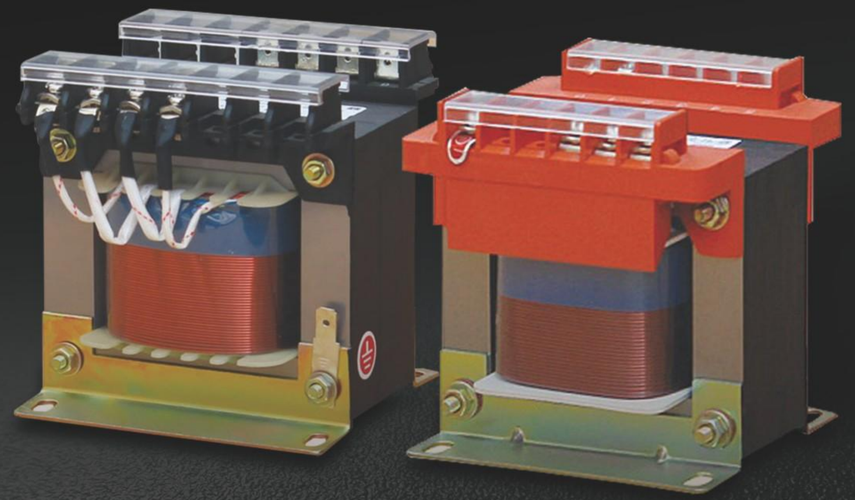


Page 10 >

Model and Its meaning

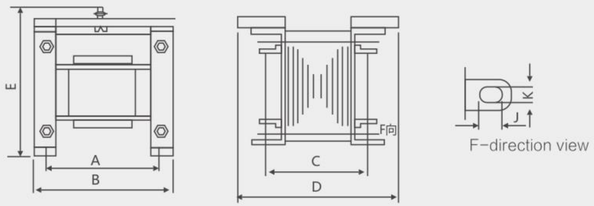
B K - □
- Rated capacity (VA)
- Control
- Transformer

J B K - □
- Rated capacity (VA)
- Control
- Transformer
- Machine tool transformer

Scope of application

The BK series control transformer (hereinafter referred to as the transformer) is applicable to circuits with a voltage ranging from 50/60Hz to 500V, and is typically used as the power supply for machine tool control electrical appliances or local lighting and indicator lights. BK transformers can be classified into shell type and drop-type according to structure, and into vertical type according to installation method.

Outline and installation dimension drawing



Installation dimensions

Model	Overall dimensions			Installation dimensions		Installation hole	
	B max	D max	E max	A	C	K	J
BK−50VA	80	74	85	56	53	4.8	9
BK−100VA	86	84	92	64	65	4.8	9
BK−150VA	96	100	110	84	83	5.8	9
BK−250VA	96	110	110	84	95	5.8	11
BK−300VA	120	120	125	90	93	5.5	11
BK−400VA	120	120	125	90	93	7	13
BK−500VA	120	130	125	90	100	7	13
BK−700VA	150	133	142	122	107	7	13
BK-800VA	150	133	142	122	107	7	13
BK−1000VA	150	143	142	122	120	7	14
BK−1500VA	180	135	170	120	114	7	14
BK−2000VA	180	145	170	120	124	10	18
BK−3000VA	180	200	170	120	154	10	18
BK−4000VA	180	200	170	120	154	10	18
BK−5000VA	240	220	280	200	155	10	18

Note: The above parameters are for reference only. Any changes will not be notified separately.

Usage environment

1. The ambient air temperature is -5℃ to +40℃, and the average value of 24 hours does not exceed +35℃;
2. The installation site's altitude shall not exceed 2000 meters.
3. The relative humidity of the atmosphere shall not exceed 50% when the ambient air temperature is +40℃. At lower temperatures, a higher relative humidity is allowed. The average maximum humidity in the wettest month is 90%, and the average monthly minimum temperature in that month is +25℃, taking into account the condensation on the product surface due to temperature changes.

> Page 11

JKB3

MACHINE TOOL CONTROL TRANSFORMER

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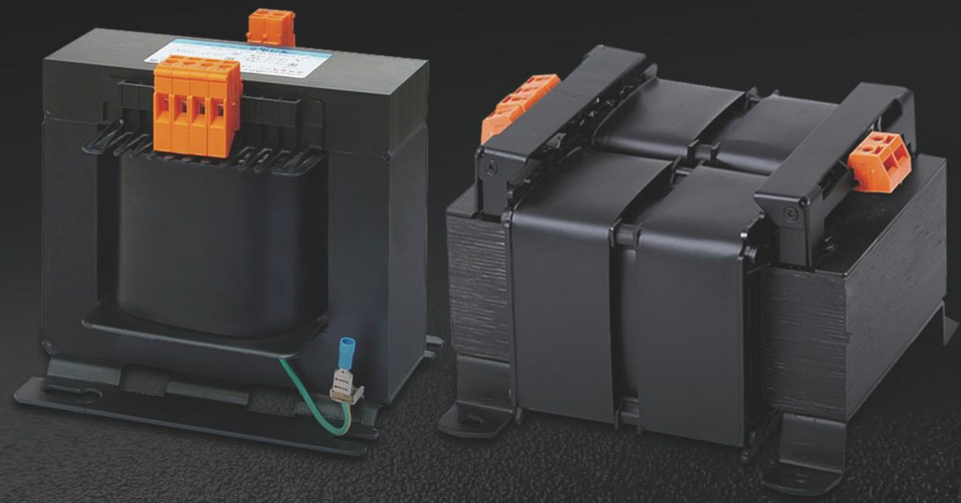


Page 12 >

Model and Its meaning

JB K 3 - □

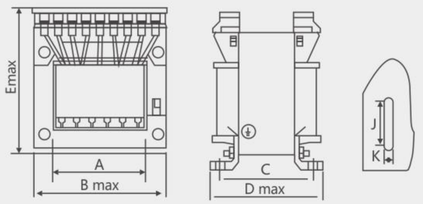
- Rated capacity (VA)
- Design serial number (1.2.3.4)
- Control
- Machine tool transformer

Scope of application

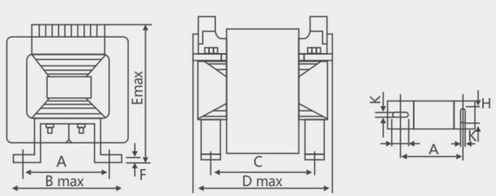
The JKB3 series machine tool control transformer features standardization, normalization, and interchangeability with products from many domestic manufacturers. This series of products complies with national standards, mechanical industry standards, international electrical standards, etc., and has also obtained the EU CE compulsory certification. The JKB3 series machine tool control transformer is suitable for AC 50/60Hz, with an output rated voltage not exceeding 220V and an input rated voltage not exceeding 500. It is used as the control power supply for mechanical equipment and general electrical appliances in various industries, as well as the power supply for working lighting and signal lights.

Outline and installation dimension drawing

JBK3-40~800



JBK3-1000~2500



Installation dimensions

Model	Overall dimensions			Installation dimensions		Installation hole	
	B max	D max	E max	A	C	K	J
JBK3-40VA	78	75	90	56	52	5	9
JBK3-63VA	78	75	90	56	52	5	9
JBK3-100VA	84	85	92	65	69	5	9
JBK3-160VA	96	96	103	84	74	6	10
JBK3-250VA	96	105	103	84	87	6	10
JBK3-300VA	120	100	120	90	82	6	10
JBK3-400VA	120	113	123	90	90	8	9
JBK3-500VA	120	113	127	91	100	7	13
JBK3-630VA	153	110	152	122	86	7	13
JBK3-800VA	153	105	145	122	103	7	13
JBK3-1000VA	200	165	150	158	145	7	14
JBK3-1600VA	255	185	155	185	155	7	14
JBK3-2500VA	265	210	175	210	175	7	14

Note: The above parameters are for reference only. Any changes will not be notified separately.

> Page 13

JBK5

MACHINE TOOL CONTROL TRANSFORMER

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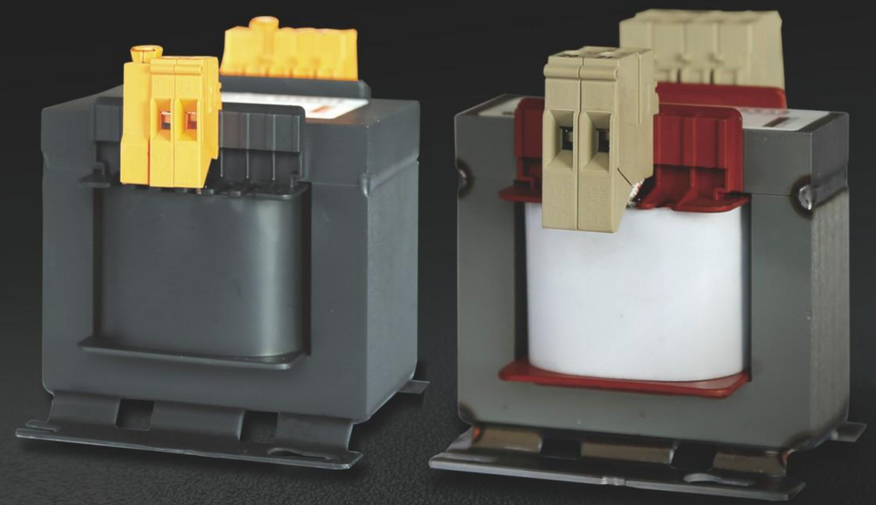


Page 14 >

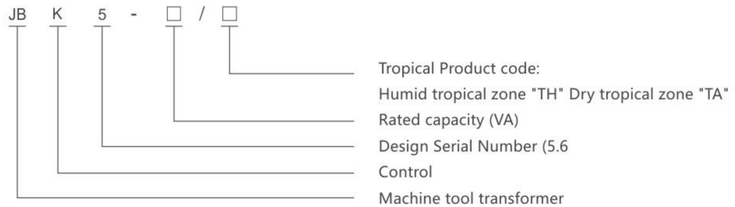
Product Overview

The JBK5 series machine tool control transformer is the latest type of transformer series introduced by our company from Germany in the mid-1990s. Based on the domestic JBK3 series machine tool control transformer, after years of further absorption of similar foreign products and selection of advanced foreign terminal structure methods, the terminal and the frame are combined together, which has raised the protection level to IP2LX Prevent accidental contact with the circuit. The adoption of domestic IT cold-pressed terminal blocks and the wiring method can increase the density of the wiring.

For transformers of 800VA and below, 1000VA and 1600VA vertical structures, the connection between silicon steel sheets and the connection between silicon steel sheets and the base plate are all made by gas shielded argon arc welding, forming an integrated whole, which is simple and clear. Especially, the base plate is formed in one piece, and the installation dimensions are more accurate than those of the JBK3 series. Moreover, it adopts high-quality anti-corrosion alloy materials, which greatly enhances the reliability of the grounding performance and comprehensively improves the product quality. This product complies with relevant international and national standards such as VDE0550, IEC204-1, IEC439, JB/T5555, and GB5226 And it has been awarded the "CE" certification of the European Community and the" UL" certification of the United States. It can be used interchangeably with foreign products.

Model meaning

The representation method of the transformer for this series of machine tools is shown in Figure (1) :



Scope of use

The JBK5 series machine tool control transformer is suitable for AC 50/60Hz, with an input voltage not exceeding 500V and an output rated voltage not exceeding 220V. It is used as a power supply for mechanical equipment in various industries, general electrical control power, and power for working and signal lights.

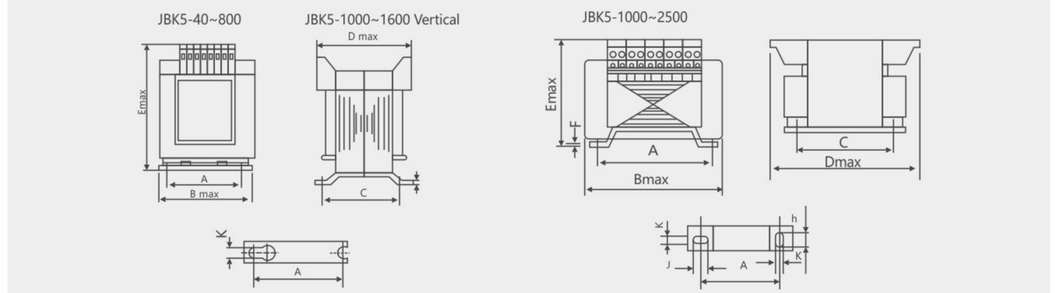
Main technical parameters

Model	Rated capacity (VA)	Efficiency (%)	Output voltage under load		Output voltage under no-load conditions		Rated input voltage (V	Rated output voltage (V)	
			Signal winding (%)	Control winding (%)	Signal winding (%)	Control winding (%)			
JBK5-40	40	80							
JBK5-63	63	80							
JBK5-100	100	80	6≥Um > 5	95%~	6或12	1.1	AC380	AC220	Control
JBK5-160	160	85	12≥Um > 10	105%		Um	±5%	(127)	Control
JBK5-250	250	85		UH				110	Control
JBK5-450	400	85					AC220	48	Lighting or Control
JBK5-630	630	85					±5%	35	Lighting or Control
JBK5-800	800	90						24	Lighting or Control
JBK5-1000	1000	90	6≥Um > 4.5					12	Signal
JBK5-1600	1600	90	12≥Um > 9					6	Signal
JBK5-2500	2500	90							

注:各绕组容量分配可按照用户要求制作。

> Page 15

Product schematic diagram



Product size

Model	Overall dimensions			Installation dimensions		Installation hole		Remarks
	B max	D max	E max	A	C	K	J	
JBK5-40VA	78	72	95	56	46	4.6	8	
JBK5-63VA	78	72	95	56	46	4.6	8	
JBK5-100VA	85	75	98	64	62	4.6	8	
JBK5-160VA	96	92	110	84	73.5	5.5	10	
JBK5-250VA	96	100	110	84	85	5.8	10	
JBK5-300VA	96	130	110	84	85	5.8	10	
JBK5-400VA	120	100	130	90	85	5.8	10	
JBK5-500VA	120	120	130	90	98	5.8	10	
JBK5-630VA	150	110	155	122	90	7	14	
JBK5-800VA	150	130	155	122	105	7	14	
JBK5-1000VA	168	128	170	138	105	9	15	Vertical
JBK5-1600VA	168	140	170	138	116	9	15	Vertical
JBK5-1000VA	155	205	135	127.5	152	7	12	Horizontal
JBK5-1600VA	180	230	153	140	176	7	12	Horizontal
JBK5-2500VA	205	260	175	173	200	7	12	
JBK5-3000VA	205	270	195	173	200	7	12	
JBK5-4000VA	205	270	210	173	200	7	12	
JBK5-5000VA	250	200	320	140	140	12	18	

Note: The above parameters are for reference only. Any changes will not be notified separately.

Page 16 >

SG

THREE-PHASE COHERENT TRANSFORMER

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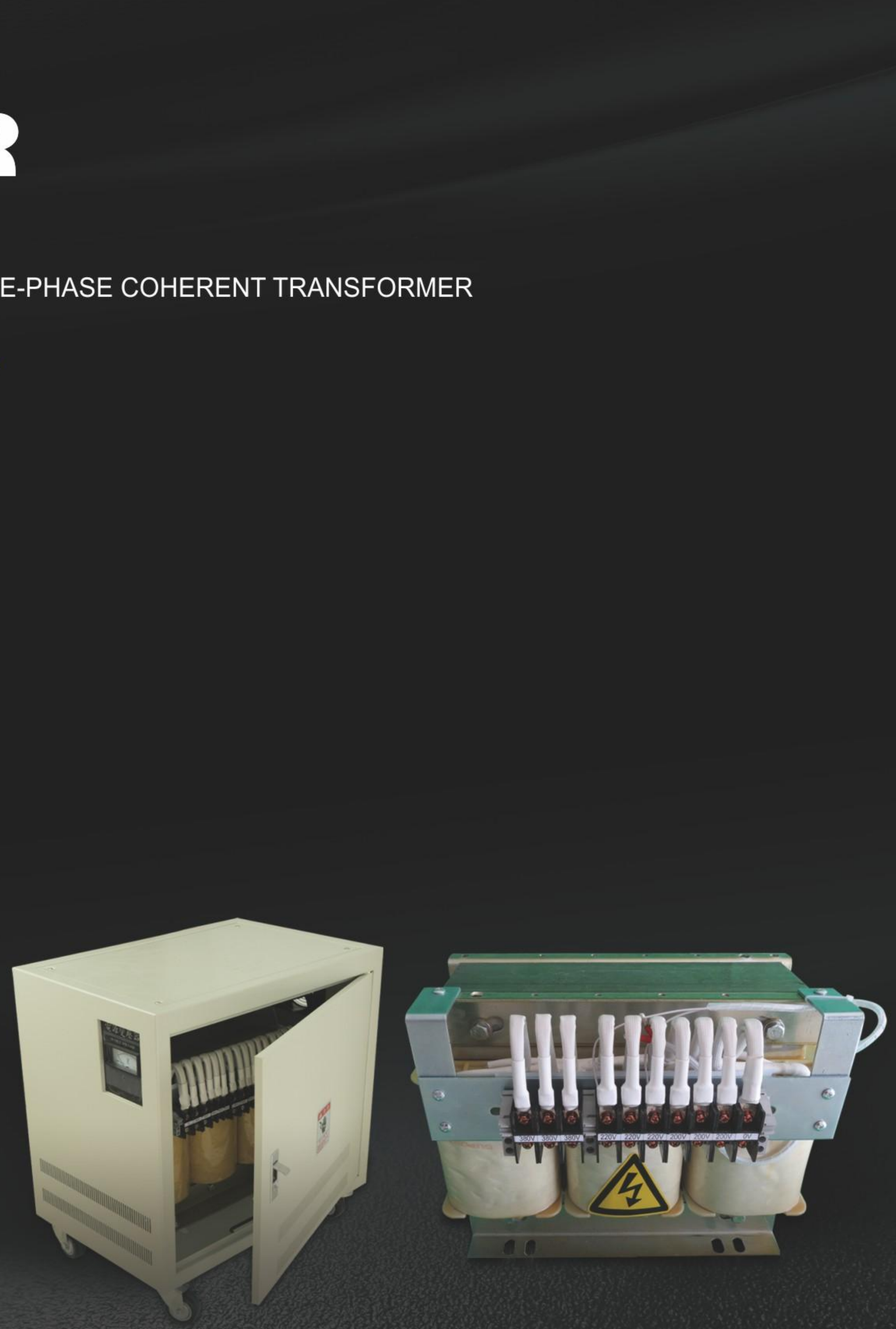


> Page 17

Model and Its meaning

S G - □ - □

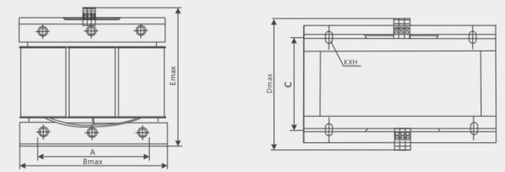
- Voltage level (kV)
- Rated capacity (kVA)
- Dry-type transformer
- Three-phase

Scope of application

For many years, our company has been specializing in the production of SG series three-phase coherent transformers ranging from 160VA to 600KVA, using high-quality materials and advanced technological processes. These transformers are newly developed by our company based on similar products from Siemens for use in numerical control systems, especially the three-phase coherent transformers between 160VA and 16KVA. Their shapes and installation dimensions have been standardized and are universal with the Siemens 4AP series. The products comply with international standards such as VDE0550, IE C439, JB5555, and Gb226.

The SG series three-phase coherent transformers are widely applicable to various three-phase power supply scenarios with an AC frequency of 50-60Hz and input and output voltages not exceeding 500V. The various input and output voltages of the product, connection groups, the number and position of adjustment taps (generally ±5%), the distribution of winding capacity, the power distribution of secondary single-phase windings, the application of rectifier circuits, and whether a casing is required, etc., can all be carefully audited and manufactured according to the user's requirements.

Outline and installation dimension drawing



Installation dimensions

Model	Overall dimensions			Installation dimensions		Installation hole	
	B max	D max	E max	A	C	K	H
SG–500VA	180	110	165	136	78	7	13
SG–1KVA	180	130	165	136	103	7	13
SG–1.5KVA	230	140	220	176	96	7	13
SG–2KVA	265	150	250	200	105	10	18
SG–2.5KVA	265	150	250	200	105	10	18
SG–3KVA	265	160	250	200	113	10	18
SG–4KVA	300	160	280	224	123	10	18
SG–5KVA	300	170	280	224	133	10	18
SG-6KVA	300	180	280	224	143	10	18
SG–8KVA	360	250	305	262	163	15	22
SG–10KVA	360	260	305	262	173	15	22
SG–15KVA	420	280	355	318	180	15	22
SG–20KVA	420	280	355	318	180	15	22
SG–25KVA	420	300	355	318	200	15	22
SG–30KVA	480	340	405	360	205	15	22
SG–35KVA	480	360	405	360	225	15	22
SG–40KVA	540	350	400	400	220	15	22

Note: The above parameters are for reference only. Any changes will not be notified separately.

Page 18 >

C1-3K(S)

HIGH-FREQUENCY ONLINE SINGLE-INPUT SINGLE-OUTPUT
UPS UNINTERRUPTIBLE POWER SUPPLY

>>>

> Page 19

Product Overview

The high-frequency online UPS power supply C1K-C3KVA(S) can provide a better power environment for the load. Considering aspects such as the regulated output range, frequency range, filtering of input noise, and zero conversion time between mains mode and battery mode, it is the best UPS structure. It offers a perfect power protection solution, addressing power issues such as power outages, high and low mains voltage, voltage sags, amplitude oscillations, high-voltage pulses, surge voltages, harmonic distortions, noise interference, and frequency fluctuations. This enables the product to be widely applied in computer equipment, communication equipment, and other control devices. And for impact loads, specific optional accessories can be added to cope with complex industrial environments.

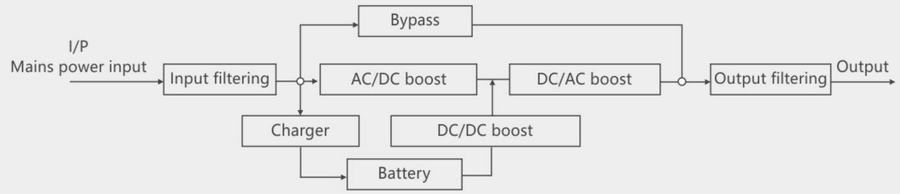
Scope of application

It is widely applied in important data fields of the national economy such as data centers of small and medium-sized enterprises, small branches of the financial system, industrial automation control systems, local area network servers, communication base station servers, Internet cafes, shopping mall cash registers, banks and securities, taxation, communication, postal services, radio and television, public security, transportation, power, medical care, industrial control, national defense, petrochemicals, etc.

Product features

■ Advanced working mode
Dual-conversion online design, zero output conversion time, and adoption of input power factor correction (PFC) technology.
■ DSP full digital control
With digital control adopted, all performance indicators are excellent, making the control system more stable and reliable.
■ Optimize the functional design of the battery pack
The innovative optimization of the battery pack's functional design saves more battery usage than traditional design schemes.
■ Strong environmental adaptability
The wide voltage range ensures that when under half load, the input voltage can be as low as 110V without switching to battery power. The input frequency range is 40 to 70Hz, guaranteeing stable operation when connected to various fuel generators.
■ Comprehensive and reliable protection
It has a self-diagnostic function upon startup, which can promptly detect hidden faults of the UPS. It integrates AC input overvoltage and undervoltage protection, output overload and short circuit protection, inverter overheat protection, and battery undervoltage warning
It integrates multiple functions such as protection and battery overcharge protection, and has a bypass function. When the output is overloaded or the UPS malfunctions, it can continuously switch to the bypass working state and continue to supply from the mains power
It supplies power to the load and provides alarm information, and has the function of detecting input neutral and live wires. It can prevent the neutral and live wires of the UPS mains input from being connected in reverse and has an extremely strong DC starting function.
■ Intelligent Management
The communication RS-232 interface enables multi-functional and multi-purpose monitoring and management operations between the UPS and the computer through the computer window (including monitoring of the mains power status and the working status of the UPS, as well as system Settings)
(Including setting, menu-based operation, remote control and self-diagnosis, recording and analysis, system shutdown operation, etc.) And an SNMP card can be selected to form a network management system.
■ Adapt to the power grid environment in China
The output power factor is 0.8- in line with the development trend of the load, achieving a stronger load-carrying capacity. The overall efficiency of the machine can reach up to 90%, reducing the power loss of the UPS and saving the user's usage cost. It adopts active power
Power factor correction technology (PFC) has an input power factor close to 1, significantly reducing pollution to the municipal power grid. It is designed to meet the requirements of the Chinese power grid, providing a wide input voltage range and being adaptable to harsh environments
The poor power grid environment and excellent input frequency range enable the UPS to adapt to different power supply equipment such as generators.
■ It can be used in conjunction with a generator
■ Wifi intelligent monitoring function (optional)

Working principle diagram



Page 20 >

Product model		C1KVA	C1KVA(S)	C2KVA	C2KVA(S)	C3KVA	C3KVA(S)
Capacity	VA/W	1KVA/0.9KW		2KVA/1.8KW		3KVA/2.7KW	
Input	Voltage range	Full load :160±5%VAC-300±5%VAC; Half-load :110±5%VAC-300±5%VAC					
	Frequency range	40-70Hz					
	Phase	Single-phase grounded type					
	Distortion rate	< 5%					
	Power factor	0.99 or higher					
	Generator input	Support					
Output	Voltage	220(1±1%)VAC					
	Frequency (same frequency mode)	47-53Hz/57-63Hz					
	Power factor	0.9					
	Frequency (Battery mode)	50±0.25Hz or 60±0.25Hz					
	Peak value	03:01					
	Harmonic distortion	≤3%THD(Linear load)					
		≤6%THD(Nonlinear load)					
	Output waveform	Pure sine wave					
	Socket	National standard socket×2		National standard socket×4		National standard socket×3+ Terminal block	
	Overload	100%-110%: Only a warning sound is emitted					
		110%-130% It will automatically shut down after one minute, or switch to bypass mode when input is normal					
		Turn off immediately when the input exceeds 130%, or switch to bypass mode when the input is normal					
Efficiency	Charging mode	85%		88%			
	Battery mode	83%		85%			
Battery	Battery type	12V/7AH	DC36V	12V/7AH	DC72V	12V/7AH	DC96V
	Battery quantity	3	DC36V	6	DC72V	8	DC96V
	Equipment time (full load)	> 5Minutes	DC36V	> 5Minutes	DC72V	> 5Minutes	DC96V

> Page 21

C1-3K(S)
HIGH-FREQUENCY ONLINE SINGLE-INPUT SINGLE-OUTPUT
UPS UNINTERRUPTIBLE POWER SUPPLY

Battery	Charging time (90%)	8 Hour	DC36V	8 Hour	DC72V	8 Hour	DC96V
	Rechargeable battery (maximum)	1.0A	4.0/8.0A	1.0A	4.0/8.0A	1.0A	4.0/8.0A
	Rated charging voltage	41.0±1%Vdc		82.1±1%Vdc		109.4±1%Vdc	
	Temperature detection	yes					
Conversion time	Convert municipal electricity to batteries	zero					
	Inverter to bypass	4ms; Zero-configuration alternative STS					
Other features	Mains power priority mode	Support					
(Optional)	Normal mode (constant voltage and constant frequency)	Support					
	Power distributor	Support					
Display	LED display	Load status/Battery capacity/Battery mode/Bypass mode/Fault					
	LCD display	Load/Battery/Input/Output/operating mode					
Alarm sound	Battery mode	It beeps once every four seconds					
	Low electricity	It beeps once per second					
	Overload	It chirps twice per second					
	Fault	Keep chirping					
Size	Volume (D×W×H)mm	405×145×220		455×195×330			
Weight	Net weight (kg)	12.75	7.5	27.5	15	32	16
Usage environment	Operating environment	0 ~ 40 ℃					
	Relative temperature	20-90%(No condensation)					
	Noise intensity	< 55db@1Meter					
Interface	Micro RS-232	Output supports Windows,Linux,Sun Solaris, IBM Aix,Compaq True64,SGIRIX,FreeBSD.HP-UX and MAC					
	USB(Optional	Windows Famlly&MAC					
	Slot (optional	SNMP/AS400 Relay Card/Rs485					
	EPO(Optional	Support emergency shutdown					

Note: The above parameters are for reference only. Any changes will not be notified separately.

Page 22 >

C6-10K(S)

HIGH-FREQUENCY ONLINE SINGLE-INPUT SINGLE-OUTPUT
UPS UNINTERRUPTIBLE POWER SUPPLY

>>>

> Page 23

Product Overview

Compared with online interactive or standby UPS, high-frequency online UPS can provide a better power environment for the load. Considering aspects such as the regulated output range, frequency range, filtering of input noise, and zero conversion time between mains mode and battery mode, it is the best UPS structure. The C6K-10KVA(S) can also use (N+1) parallel redundant backup, significantly reducing the failure rate and effectively enhancing the safety and reliability of power supply usage, providing users' most important equipment with safe and worry-free power protection.

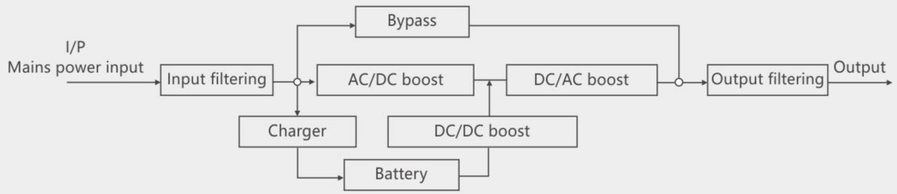
Scope of application

It is widely applied in the billing centers of the communication industry, communication base stations, bank business outlets, ATMs, and network office environments of various industries such as securities, transportation, power, and industry.

Product features

■ Digital design and the guarantee of highly reliable power supply
The C6-10K(S) series UPS is designed with DSP digital signal processor technology, which simplifies the UPS control circuit and enhances the flexibility and stability of control.
High-frequency technology provides a broad space for the development of power supplies
Due to the adoption of high-frequency (50KHz) AC-DC conversion technology, the volume of power components, power consumption, heat dissipation and other aspects can all be greatly reduced.
■ The UPS can be started without mains power
The C6-10K(S) series UPS effectively addresses the power supply issue for customers in the absence of mains power. It can start the UPS in DC mode without mains power, ensuring the normal operation of the equipment during power outages.
■ Overall machine efficiency
The C6-10K(S) series UPS employs transformerless technology and the unique ESIS (Energy-saving Inverter Switch) technology, achieving an efficiency of over 90%. Its advanced high-efficiency design outperforms the traditional dual conversion
The average efficiency of UPS is at least 5%.
Always pay attention to environmental protection
The PFC (Positive Input Power Factor) technology is adopted to make the input power factor approach 1, so only a power line with a smaller cross-section and a smaller fuse are needed to reduce the installation cost. Due to the total harmonic distortion of the input current being less than 5%, the EH series UPS products cause very low harmonic pollution to the mains power supply, thereby reducing the power of the generator to save generator costs. The UPS has high-standard anti-interference design at both the input and output ends, and both conducted interference and radiation can meet the strictest standards. It also has the function of lightning protection.
■ Redundant parallel operation is safer and more reliable
The 6-10KVA products can operate in a redundant parallel mode, with a maximum of 3 units, further enhancing the high reliability of the system.
■ Easy maintainability
The traditional UPS design basically adopts a functional itemized design approach. However, the decentralized design has higher technical requirements for service and maintenance personnel, which will affect the repair time (MTTR) and response time of maintenance, and bring difficulties to the judgment of faulty products by dealers and customers.
In response to the needs of service and maintenance, the Silver Goose series UPS has proposed the "integration" design concept in its design scheme. This not only transforms the traditional decentralized structure into an integrated one but also significantly reduces the unsafe factors brought about by the separated structure, saving space and costs.
■ Excellent human-machine interface. The self-diagnostic function of the EH series UPS can reflect the working status and internal fault information of the UPS in real time and intuitively through the dual display of LCD and LED
To achieve a good affinity for the human-machine interface and significantly reduce the response time for maintenance.
■ Networked Management
The EH series UPS and the computer can achieve multi-functional and multi-purpose monitoring and management operations (including monitoring of mains power conditions and UPS working conditions, system Settings, menu-based operations, remote control and self-diagnosis, recording and analysis, system shutdown operations, etc.) through the computer window via the communication RS-232 interface. And an SNMP card can be selected to form a network management system.
■ It can be used in conjunction with a generator
■ Wifi intelligent monitoring function (optional)

Working principle diagram



Page 24 >

Product model		C6KVA	C6KVA(S)	C10KVA	C10KVA(S)
Capacity	VA/W	6KVA/5.4KW		10KVA/9KW	
Input	Input wiring	Single-phase two-wire + ground wire			
	Voltage range	120-275V			
	Frequency range	50/60Hz adaptive			
	Distortion rate	< 5%			
	Power factor	0.99 or higher			
	Generator input	Support			
Output	Voltage range	220×(1+1%)VAC			
	Frequency (same frequency mode)	46-54Hz/56-64Hz(synchronized with the input mains frequency)			
	Frequency (Battery mode)	50(1+1%)/60(1+1%)Hz			
	Power factor	0.9			
	Peak value	3:1			
	Harmonic distortion	≤3%THD(Linear load)			
		≤6%THD(Nonlinear load)			
	Output waveform	Pure sine wave			
	Output method	Terminal block			
	Overload capacity	Mains power :105%-125%, 1 minute; 125% - 135%, 305; 135%,0.5s battery :≥105%for 30.s			
Efficiency	Charging mode	90%			
	Battery mode	90%			
	Mains power priority mode	97%			
Battery	Battery type	12V/7AH	DC192V	12V/7AH	DC192V
	Battery quantity	16	DC192V	16	DC192V
	Equipment time (full load)	> 5 Minutes	DC192V	> 5 Minutes	DC192V
	Charging time (90%)	8 Hour	DC192V	8 Hour	DC192V

> Page 25

C6-10K(S)
HIGH-FREQUENCY ONLINE SINGLE-INPUT SINGLE-OUTPUT
UPS UNINTERRUPTIBLE POWER SUPPLY

	Rechargeable battery (maximum)	1.0A	6.0A	1.0A	6.0A
	Rated charging voltage	218.4 Vdc			
	Temperature detection	yes			
Conversion time	Convert municipal electricity to batteries	zero			
	Inverter to bypass	4ms; Zero-configuration alternative STS			
Other features	Mains power priority mode	Support			
	Normal mode (constant voltage and constant frequency)	Support			
	Power distributor	Support			
	Remote control panel	Up to 100 meters long			
	Parallel redundancy	Three units (up to			
Indicator light	LED display	Load status/Battery capacity/Battery mode/Bypass mode/Fault			
	LCD display	Load/Battery/Input/Output/operating mode			
	Battery mode	It beeps once every four seconds			
	Low electricity	It beeps once per second			
	Overload	It chirps twice per second			
	"Fault	Keep chirping			
Size	Volume (D×W×H)mm	248 × 500 × 616	240 × 500 × 460	248 × 500 × 616	240×500×460
Weight	Net weight (kg	57	18	67.5	20
Usage environment	Operating environment	0 ~ 40 ℃			
	Relative temperature	20-90%(No condensation)			
	Noise intensity	< 55db@1Meter			
Interface	Micro RS-232	Output supports Windows / 2003 / XP/Vista / 2008/7 LinuxUnix and MAC			
	USB(Optional	Windows Famlly&MAC			
	Slot (optional	SNMP/AS400 Relay Card/Rs485			
	EPO(Optional	Support emergency shutdown			

Note: The above parameters are for reference only. Any changes will not be notified separately.

Page 26 >

PRO

HIGH-FREQUENCY ONLINE THREE-INPUT AND THREE-OUTPUT
UPS UNINTERRUPTIBLE POWER SUPPLY

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> Page 27

Product Overview

The PRO series is a high-efficiency and high-performance dual-conversion, pure online, three-input and three-output UPS product. It offers a perfect power protection solution, addressing power issues such as power outages, high and low mains voltage, voltage sags, amplitude oscillations, high-voltage pulses, surge voltages, harmonic distortions, noise interference, and frequency fluctuations. This enables the product to be widely applied in computer equipment, communication equipment, and other control devices. And for impact loads, specific optional accessories can be added to cope with complex industrial environments.

Scope of application

The PRO series high-frequency online three-input and three-output UPS is the best choice for data centers, network management centers, and enterprise server rooms in various industries or fields such as telecommunications, finance, transportation, government, manufacturing, and energy.

Product features

■ Adapt to the power grid environment in China

1. Output power factor 0.8- suitable for the development trend of load, achieving a stronger load-carrying capacity.
2. The overall efficiency of the machine can reach up to 90%, reducing the power loss of the UPS and saving the user's operating costs.
3. By adopting active power factor correction technology (PFC), the input power factor approaches 1, significantly reducing pollution to the municipal power grid.
4. Designed in response to the requirements of China's power grid, it offers a wide input voltage range and can adapt to harsh power grid environments.
5. The excellent input frequency range enables the UPS to adapt to different power supply equipment such as generators.

■ Perfect configuration and protection functions

1. Online maintenance function: It can safely carry out online maintenance while the load is continuously powered.
2. Remote Power-off function (EPO) enables the UPS to be quickly shut down in case of an emergency.
3. Parallel components: Achieve parallel expansion and parallel redundancy functions, providing users with flexibility in power planning and a safer guarantee.
4. Intelligent Battery Management: It adopts advanced intelligent charging control methods. Based on the battery type and usage status, the optimal charging method is selected to extend the battery's service life. It also automatically performs charging and discharging management on a regular basis and allows for the free selection of battery voltage as needed.
5. Customizable UPS control parameters are available to achieve intelligent management of UPS and fully meet users' demands.
6. Automatically identify and adapt to 50/60Hz power supply systems to meet the requirements of different power supply systems.
7. Comprehensive fault protection and alarm functions: It provides complete fault protection and clear alarm and fault warning functions, including input overvoltage or undervoltage, battery overcharge or low voltage, internal overheating, output overload or short circuit, etc.

■ High reliability

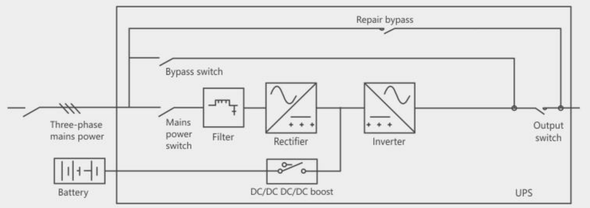
1. By adopting advanced DSP digital control technology, the product features superior performance and more stable and reliable quality.
2. It has strong load-carrying and overload capacity, good load compatibility, and can be applied to various types of loads.
3. Strong anti-interference capability, meeting the strict requirements of IEC61000-4 for anti-electromagnetic interference, providing a clean power environment for your equipment.

■ Rich communication and monitoring

1. It provides RS232 communication and USB interface, which can be used for local or remote power management.
2. It provides intelligent slots, allowing users to load WebPower cards (SNMP cards) and AS400 cards (dry contact cards) as needed to achieve remote management and monitoring functions.

■ Wifi intelligent monitoring function (optional)

Working principle diagram



Page 28 >

Technical parameters

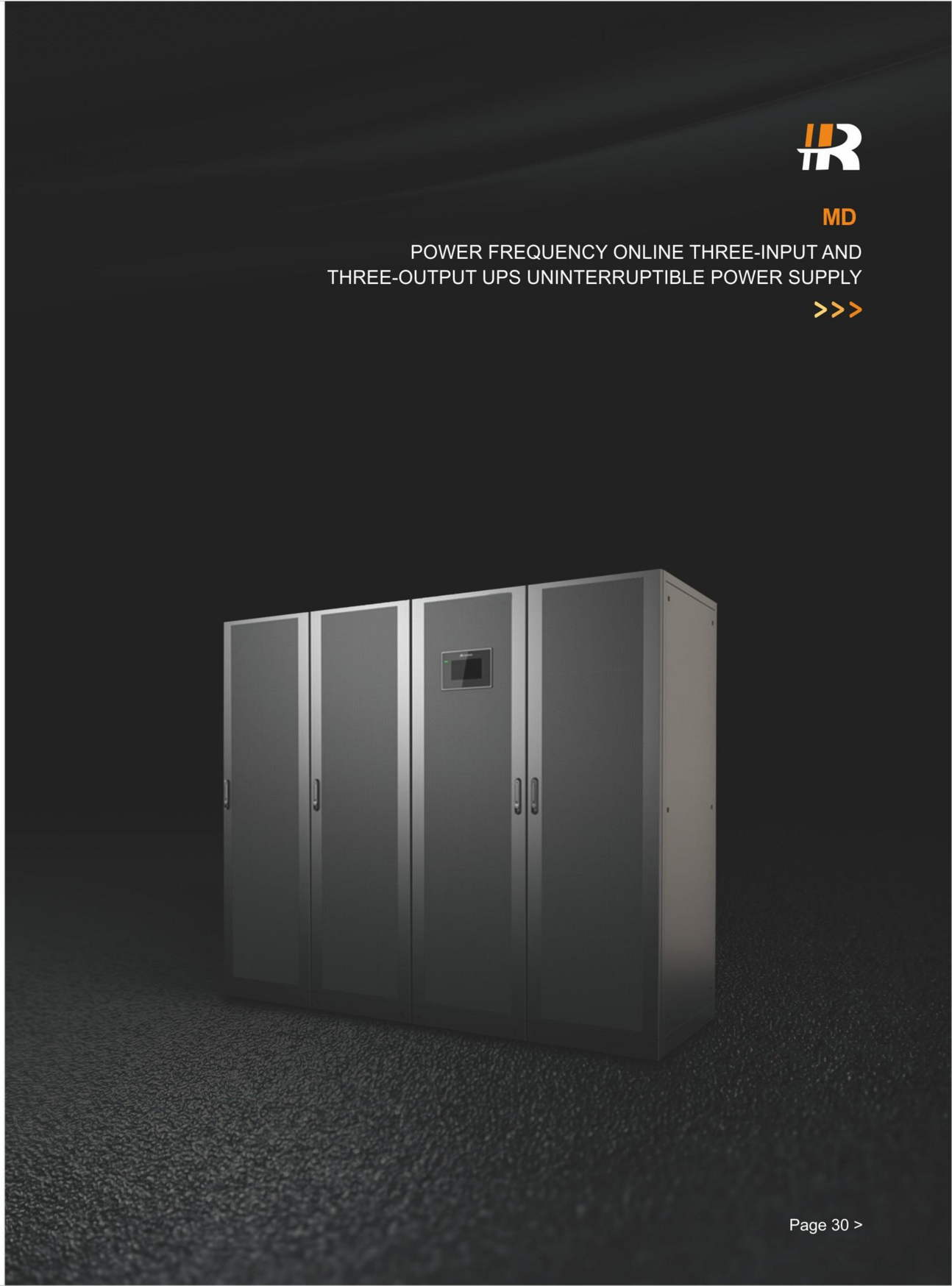
Product model	3C3-10K PRO	3C3-15K PRO	3C3-20K PRO	3C3-10KS PRO	3C3-15KS PRO	3C3-20KS PRO	3C3-30KS PRO
Input power	10KVA/8KW	15KVA/12KW	20KVA/16KW	10KVA/8KW	15KVA/12KW	20KVA/16KW	30KVA/24KW
Input method	Three-phase + neutral wire + ground wire						
Input rated voltage	380VAC(line voltage)						
Input voltage range	Phase voltage: 110VAC-275VAC; Line voltage: 192VAC-495VAC						
Direct current voltage	216/228/240/VDC(18/19/20 cells are optional)						
Frequency range	46Hz-54Hz; 56Hz-64Hz						
Input power	0.99						
Output voltage	380V(1±1%)						
Output frequency	46Hz-54Hz(mains mode, follow mains power),50Hz(battery mode); 56Hz-64Hz(mains mode, follow mains power),60Hz(battery mode)						
Output power factor	0.8						
Efficiency	> 90%						
Overload capacity	AC mode 100%-110%, switch to bypass after 10 minutes; 110%-130%, switch to bypass after 60 seconds; > 130%, switch to bypass after 0.5 seconds						
	Battery mode: 100%-110%, switch to bypass after 30 seconds; 110%-130%, switch to bypass after 10 seconds; > 130%, switch to bypass after 0.5 seconds						
Peak factor	3:1						
Degree of distortion	THD < 2%						
Battery capacity	12V/7AH	12V/9AH	12V/9AH	-	-	-	-
Number of batteries	20	20	40	-	-	-	-
Backup time	It depends on the capacity of the external battery						
Charging current	2A		4A	4A(可扩展到8A)			8A
Charging voltage	It depends on the capacity of the external battery						
Charging time	It depends on the capacity of the external battery						
Electromagnetic compatibility							
ESD	IEC61000-4-2 Level4						
RS	IEC61000-4-3 Level3						
EFT	IEC61000-4-4 Level4						
Surge	IEC61000-4-5 Level4						
Working environment temperature	0 ℃ ~ 40 ℃						
Storage temperature	-25℃ ~ 55℃(excluding battery)						
Ambient temperature	0 ~ 99%						
Altitude	< 1000M						
Dimensions (width×depth×height)mm	330×770×850			330×570×810			330×770×810
Net weight (kg)	105	150	158	47	52	54	63

Note: The above parameters are for reference only. Any changes will not be notified separately.

> Page 29

MD

POWER FREQUENCY ONLINE THREE-INPUT AND
THREE-OUTPUT UPS UNINTERRUPTIBLE POWER SUPPLY
>>>



Page 30 >

Product Overview

The MD series power frequency machine three-input and three-output UPS adopts advanced DSP digital control technology. High-speed microprocessors (MCUS), programmable logic devices (CPLDS), the sixth-generation low-loss high-power IGBTs and static switches have taken the lead in writing the classic legend of the digital age. Their large capacity, high reliability and stable performance are all at the first-class level.

Scope of application

The MD series of industrial frequency three-input and three-output UPS has comprehensively broken through the technical bottlenecks of the analog circuit era. Digital control technology and high-precision SMD technology ensure that it is 100% adaptable to various power grid environments. The single-unit capacity ranges from 10KVA to 80KVA, and it is widely used in telecommunications, banking, securities, transportation, power, industry and other industries.

Product features

All-digital control technology

- The advanced digital circuit system operates ultra-stably

The MD series of industrial frequency three-input and three-output UPS has broken through the technical bottleneck of the UPS industry. It has replaced the traditional analog circuit with an advanced digital circuit system, achieving extraordinary innovation. In digital circuit mode, high-speed microcontrollers and programmable logic devices offer more perfect circuit control, parameter setting and operation management, and their self-checking and self-detection functions are more powerful. The full-process sampling technology not only facilitates self-checking and fault analysis of all independent circuit connections on the circuit board, but also can be digitally transformed into extremely pure and stable sinusoidal voltage, ensuring the ultra-stable operation of the system.

- Intelligent battery management, durable and worry-free

The MD series has introduced an advanced intelligent battery management system, which can automatically adjust the charging current parameters of the battery according to the user's battery configuration, and perform equalization and float charging conversion, temperature compensation charging and discharging management of the battery based on the power supply environment. In addition, the MD series can also detect and manage the battery operation status through the monitoring interface to ensure the efficient operation of the battery. The intelligent battery management system not only reduces the burden on administrators but also extends the battery life by more than 55%.

- The intelligent detection system provides full protection throughout the process

The microprocessor of this system continuously conducts online detection of all power supply statuses, circuit breaker statuses, fuse statuses and all circuit working statuses. When a malfunction occurs, the detection system will immediately alarm and notify the administrator, and simultaneously activate the comprehensive protection function of the UPS.

- Parallel redundancy

Adopting fully digital control technology, it realizes the parallel redundancy function of multiple UPS units.

Advanced schedule management software

The UPS comes with a built-in schedule management software. Users can program it themselves to implement flexible functions such as timed on/off, battery charging and discharging, and equalizing float charging, making it more convenient for users to use and manage the UPS.

- High-precision SMD technology

The MD series has revolutionized the traditional plug-in circuit processing technology, fully adopting high-precision SMD technology. This not only saves space but also completely eliminates the pins in traditional UPS circuits, facilitating the safe operation of integrated circuits while enhancing reliability and operational accuracy.

The adoption of a 4-layer circuit board design and high-precision SMD components completely eliminates the interference of various high-frequency signals generated by the chip itself on other chips, enabling each chip module to operate normally without interference and significantly improving its anti-interference performance.

The MD series fully adopts SMD technology, featuring high temperature resistance, high accuracy, and excellent filtering performance. The overall performance of the machine is more stable, more durable and sturdy, with a service life increased by 80%.

- Sixth-generation IGBT inverter technology

IGBT has excellent high-speed switching characteristics, featuring high voltage and large current working characteristics. It is driven by voltage type and only requires a very small control power. The sixth-generation IGBT features a lower saturation voltage drop, higher inverter efficiency, lower temperature rise and higher reliability.

- Ultra-clear interface information processing technology
- It has the function of voice alarm.
- Humanized large-screen LCD display in both Chinese and English, intuitive display of flowchart operation status, touch buttons with intelligent ICONS, table-style data and event record display, and selectable dishes in both Chinese and English

Single operation.

- Intuitive LED status indication: Workflow program status indication, clear at a glance.

Key technologies for environmental protection and energy conservation

After scientific life cycle assessment, the MD series adopts a touch screen panel with excellent anti-aging performance and a chassis appearance treated with fluorocarbon process, which is environmentally friendly, durable and remains as good as new over time. It adopts a detachable modular design, which is easy to maintain and highly resource-efficient. It adopts a new type of bearing fan, which has excellent heat dissipation performance and is highly energy-saving. It adopts a no-circulating current control circuit and has good power-saving performance. Adopting green rectification and inverter technologies, it provides users with clean energy. By adopting advanced digital circuits and high-precision surface mount technology, the overall lifespan of the machine has been extended by 80% compared to the previous year.

> Page 31

MD
POWER FREQUENCY ONLINE THREE-INPUT AND
THREE-OUTPUT UPS UNINTERRUPTIBLE POWER SUPPLY

Other performance advantages

- Superior load characteristics

It fully meets the load jump from 0 to 100% without switching to bypass and ensures stable and reliable output protection.

- Perfect protection function

It features excellent input and output overvoltage and undervoltage protection, input surge protection, battery overcharge and overdischarge protection, output overload and short circuit protection, and over-temperature protection, among other system protection and alarm functions.

- High-performance dynamic characteristics

By adopting instantaneous control mode and various feedback controls such as RMS value, high dynamic regulation is achieved and the distortion of output voltage is reduced.

- Optional input harmonic filter

Effectively suppress the harmonic pollution of the input, improve the input power factor of the UPS, and reduce the harmonic current of the input.

- Optional battery inspection module

Individual parameters can be measured and displayed on the display board. In case of battery failure, alarm immediately and notify the administrator.

- Personalized Settings

The working status of the UPS can be set according to the user's power consumption requirements. Users can choose the UPS working mode, ECO energy-saving working mode, and EPS working mode.

Technical parameters

Model		10KVA	20KVA	30KVA	40KVA	50KVA	60KVA	80KVA
Rated capacity (W)		8KW	16KW	24KW	32KW	40KW	48KW	64KW
Input	Voltage	Three-phase 380/400/415Vac±20%						
	Power factor meter	0.95 or higher						
	Input frequency	50/60Hz±10%						
Output	Voltage	Three-phase 380/400/415Vac±1%						
	Frequency	50/60Hz±1%						
	Power factor	0.8						
	Transient response	±3%(100% load)						
	Overload capacity	For loads over 130%-150%, switch to bypass mode for 60 seconds; for loads over 150%, switch to bypass mode for 30 seconds						
	Output waveform	Pure sine wave						
	Conversion time	0ms						
	Peak ratio	3:1						
	Efficiency	> 85%						
Battery	Battery type	Maintenance-free lead-acid battery						
	Direct current voltage	384Vac						
	Charging current	8A						

Note: The above parameters are for reference only. Any changes will not be notified separately.

Page 32 >

EPS

SINGLE-PHASE LIGHTING
EMERGENCY POWER SUPPLY

>>>

> Page 33

Product Overview

EPS stands for Emergency Power Supply. It is an emergency power supply device adopted for power guarantee and fire safety in important buildings nowadays.

The principle is that when the power grid is normal, the power grid supplies power to important loads through mutual transfer devices, and at the same time, the charger intelligently charges the backup battery. When the power grid is cut off or the power grid fluctuation exceeds 20% of the normal voltage, the EPS intelligent control system quickly switches to inverter power supply. The direct current from the energy storage battery is inverted and continues to supply sinusoidal alternating current to the load. When the grid voltage is restored, the emergency power supply will intelligently switch to grid power supply.

The single-phase and three-phase EPS fire emergency power supplies developed by our company are mainly composed of core components such as the main control board, inverter module, charger and battery pack. It adopts the TMS28 series DSP digital processing chip from Texas Instruments of the United States for control, with the CPLD logic control chip as the DSP execution terminal. It features advanced SPWM programming algorithm, the latest generation IGBT module, effective control strategy, high-speed data processing capability, complete protection function, strong reliability and simple and convenient maintenance.

Adapt to load types

EPS emergency power supply is suitable for providing centralized emergency power supply to various 380V/220V AC electrical equipment such as fire protection electrical facilities, first-level power loads, fire emergency evacuation lighting or other types of loads.

Product application scope

- Fire protection: Elevators, sprinkler pumps, roller shutters, evacuation lighting, etc
- High-rise buildings: elevators, water pumps, fans, evacuation lighting, underground garage lighting, etc
- Financial system equipment: Large screens for securities trading, monitoring devices, financial machinery and equipment, vaults
- Military radar, vehicle-mounted mobile phones, civil air defense passages, underground facilities
- Hospitals and operating rooms, government agencies, large supermarkets, shopping malls, schools, squares, stations, parks
- Emergency lighting for important venues such as sports stadiums and exhibition centers

Performance characteristics

- It adopts a centralized, continuous and controllable power supply mode and can be directly connected to centralized fire emergency lighting fixtures.
- When providing emergency power supply, it outputs a sine wave, featuring voltage stabilization, frequency stabilization and no noise.
- It can be linked with the fire department, monitored by a computer, and controlled by the fire center.
- Long-life LCD and LED display, clear at a glance;
- Dual power supply automatic switching, high reliability; The switching time can be less than 2 seconds.
- It adopts the TMS28 series DSP digital processing chip from Texas Instruments of the United States for control, with the CPLD logic control chip serving as the DSP execution terminal. It features fast data processing speed, faster, more stable and more reliable protection.
- The main unit is designed to have a lifespan of over 20 years, with automatic switching and the ability to operate unattended.
- The intelligent charging management function can automatically switch between equalization and float charging, automatically monitor the battery working status, and has automatic protection for battery charging and discharging, effectively extending the battery life.
- It has protection functions such as overvoltage, undervoltage, over-temperature, overcurrent and short circuit.
- Modular design structure, high cost performance, stable and reliable, and convenient for maintenance.

Scope of use

- 0.5KW-10KW
- Single input and single output (AC 220V) available: (Standard type) : HR-D-0.5KW, 1KW, 1.5KW, 2KW, 3KW, 4KW, 5KW, 6KW, 7KW, 8KW, 9KW, 10KW
- Three-phase three-output, three-input single-output (AC 380V) available: (Standard type) : HR-S-3KW, 4KW, 5KW, 6KW, 7KW, 8KW, 9KW, 10KW
- Wall-mounted: HR-D-0.5KW, 1KW, 1.5KW, 2KW, 3KW
- Floor-standing types: HR-D-0.5KW, 1KW, 1.5KW, 2KW, HR-S-3KW, 4KW, 5KW, 6KW, 7KW, 8KW, 9KW, 10KW

Note: The new national standard GB17945-2010 "Fire Emergency Lighting Fixtures" stipulates a standby time of 90 minutes (reason: In addition to providing lighting for personnel evacuation, it is also for fire rescue lighting).

Page 34 >

Product technical parameters

Model		0.5KW	1KW	1.5KW	2KW	3KW	4KW	5KW	6KW	7KW	8KW	9KW	10KW
Input	Voltage	Single-phase 220V±25%, three-phase 380V±20%											
	Frequency	50HZ±3HZ											
Output	Voltage	Under normal circumstances: same as the mains voltage. In emergency: 220V/380V±3%											
	Frequency	Under normal conditions: same as the mains voltage. In emergency: 50Hz±0.5%											
	Waveform	Sine wave											
Battery	Battery form	Sealed and maintenance-free											
	Nominal voltage	48VDC						192V/216V DC					
	Charging time	< 20h											
Switch time		< 0.25S											
Emergency power supply		90 minutes (available as needed)											
Time		120% 60 seconds, 150% 5 seconds											
Overload capacity		Overcurrent, undervoltage and short-circuit protection											
Noise 1 meter distance		Under normal circumstances: No noise. In emergency: < 50dB											
Working environment	Relative humidity	0-90%											
	Ambient temperature	- 20 ℃ and 40 ℃											
	Altitude	≤2500m											
Adapt to the load		Suitable for various lighting loads											
Output circuit (standard type)		3											

Note: The above parameters are for reference only. Any changes will not be notified separately.

> Page 35

EPS
SINGLE-PHASE LIGHTING
EMERGENCY POWER SUPPLY

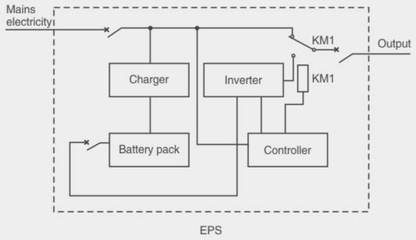
Product size

Product size	Output power (kw)	Emergency time	Host dimensions (width×depth×height) (mm)	Mainframe weight (kg)	Output circuit	Installation
FEPS-D-0.5KW	0.5	60 minutes	600×220×1100	60	3	Embedded Hanging type
		90 minutes	600×220×1100	75		
FEPS-D-1KW	1.0	60 minutes	600×220×1100	80	3	Embedded Hanging type Floor-standing
		90 minutes	600×220×1100	130		
FEPS-D-1.5KW	1.5	60 minutes	730×250×1200	150	3	
		90 minutes	730×250×1200	210		
FEPS-D-2KW	2.0	60 minutes	730×250×1200	215	3	
		90 minutes	730×250×1200	230		
FEPS-D-3KW	3.0	60 minutes	750×410×1200	240	3	
		90 minutes	750×410×1200	360		
FEPS-D-4KW	4.0	60 minutes	750×410×1200	320	3	
		90 minutes	750×410×1200	460		
FEPS-D-5KW	5.0	60 minutes	750×410×1500	410	3	
		90 minutes	750×410×1500	590		
FEPS-D-6KW	6.0	60 minutes	750×410×1500	560	3	
		90 minutes	750×410×1500	750		
FEPS-D-7KW	7.0	60 minutes	800×600×1800	650	3	Floor-standing
		90 minutes	800×600×1800	900		
FEPS-D-8KW	8.0	60 minutes	800×600×1800	750	3	
		90 minutes	800×600×1800	1000		
FEPS-D-9KW	9.0	60 minutes	800×600×1800	850	3	
		90 minutes	800×600×1800	1100		
FEPS-D-10KW	10	60 minutes	800×600×2200	960	3	
		90 minutes	800×600×2200	1200		

Note: The above parameters are for reference only. Any changes will not be notified separately.

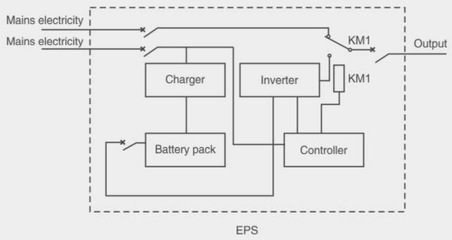
Page 36 >

Single power supply single input schematic diagram



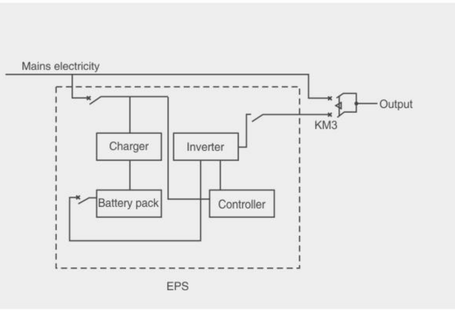
Description: When there is mains power, the mains power is output through KM1, and at the same time, the charger charges the maintenance-free cover battery. When the controller detects that the mains power is off or the mains voltage is too low, the inverter works to switch KM1 to the emergency output state to supply power to the load.

Schematic diagram of single power supply with dual input



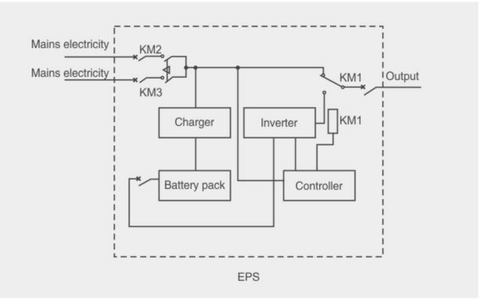
Description: In a dual-line input of one mains power supply, the negative cut-off is controlled by an external switch K, which can be turned on or off. However, when the EPS detects a mains power outage or a low mains voltage, emergency power supply can be achieved regardless of the position of the switch K.

Schematic diagram of dual power input



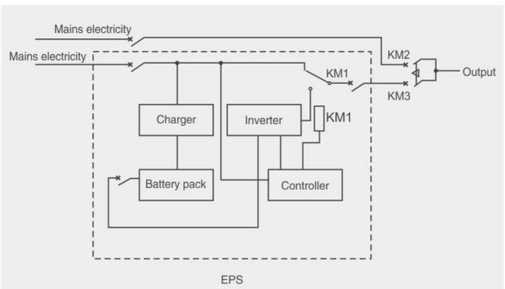
Note: EPS can be connected as shown in the above figure to act as the second power supply to the load, and the terminals are mutually connected. In this way, the inverter is in an unturned state when there is mains power. When there is no mains power in an emergency, it should be turned on immediately with output. This type of mutual investment device is outside the EPS.

Schematic diagram of dual power input



Description: The common mains power is output through KM2 to KM1, and the charger charges the battery at the same time. When the common mains power is cut off, the backup mains power is input and output through KM3/KM1. Only when both the common power and the backup power are cut off simultaneously, the inverter works to switch KM1 to emergency output and supply power to the negative cut-off. The mutual projection device of this method is included in this EPS.

Schematic diagram of dual power input



Note: This wiring method can achieve mutual connection at the end of the first-level load, with EPS serving as the third source. This type of mutual investment device is outside of this EPS.

> Page 37

HR/S

THREE-PHASE VARIABLE FREQUENCY POWER
TYPE EMERGENCY POWER SUPPLY
>>>

Page 38 >

Product Overview

The FEPS-HR/S series three-phase power variable-frequency fire emergency power supply is designed to provide variable-frequency three-phase emergency power for fire protection facilities with only one power supply or motors in first-level loads, addressing the instantaneous impact on the power grid during motor startup or the impact on the EPS emergency power supply inverter during emergency power supply. This high-tech and environmentally friendly patented product is controlled by the TMS28 series DSP digital processing chip from Texas Instruments of the United States, with a CPLD logic control chip as the DSP execution terminal. It features advanced SPWM programming algorithms, the latest generation of IGBT modules, and effective control strategies. It features high-speed data processing capabilities, complete protection functions, strong reliability, and simple and convenient maintenance. This series of EPS provides secondary or tertiary power supply for first-class loads and particularly important load-bearing electrical equipment, fire protection facilities, fire emergency lighting, etc.

Adapt to load types

EPS emergency power supply is suitable for providing centralized emergency power supply to various 380V/220V AC electrical equipment such as fire protection electrical facilities, first-level power loads, fire emergency evacuation lighting or other types of loads.

Product application scope

- Fire protection: Elevators, sprinkler pumps, roller shutters, evacuation lighting, etc
- High-rise buildings: elevators, water pumps, fans, evacuation lighting, underground garage lighting, etc
- Financial system equipment: Large screens for securities trading, monitoring devices, financial machinery and equipment, vaults
- Military radar, vehicle-mounted mobile phones, civil air defense passages, underground facilities
- Hospitals and operating rooms, government agencies, large supermarkets, shopping malls, schools, squares, stations, parks
- Emergency lighting for important venues such as sports stadiums and exhibition centers

Performance characteristics

- It adopts a centralized, continuous and controllable power supply mode and can be directly connected to centralized fire emergency lighting fixtures.
- When providing emergency power supply, a sine wave is output, featuring voltage stabilization, frequency stabilization, static operation, no noise, no smoke emission, no pollution, and no fire hazard.
- It can be linked with the fire department, monitored by a computer, and controlled by the fire center.
- Long-life LCD and LED display, clear at a glance;
- Dual power supply automatic switching, high reliability; The switching time can be less than 2 seconds.

It adopts the TMS28 series DSP digital processing chip from Texas Instruments of the United States for control, with the CPLD logic control chip serving as the DSP execution terminal. It features fast data processing speed, faster, more stable and more reliable protection.

- The main unit is designed to have a lifespan of over 20 years, with automatic switching and the ability to operate unattended.
- The intelligent charging management function can automatically switch between equalization and float charging, automatically monitor the battery working status, and has automatic protection for battery charging and discharging, effectively extending the battery life.
- It has protection functions such as overvoltage, undervoltage, over-temperature, overcurrent and short circuit.
- The modular design structure has a lower condensation cost compared with the generator set, is energy-saving and environmentally friendly, and basically does not consume electricity when not in emergency power supply. It features stable performance, safety and reliability, and is easy to maintain.

Scope of use

- 2.2KW - 500KW
- The specific specifications include: 2.2, 3.7, 5.5, 7.5, 11, 15, 18.5, 22, 30, 37, 45, 55, 75, 93, 110, 132, 160, 200, 250, 315, 400, 500KW, etc
- Installation form: Floor-standing (standard distribution cabinet)
- Standby time: 60-120 minutes (standard configuration), and the standby time can be configured according to design requirements

Note: The new national standard GB17945-2010 "Fire Emergency Lighting Fixtures" stipulates a standby time of 90 minutes (reason: In addition to providing lighting for personnel evacuation, it is also for fire rescue lighting).

> Page 39

HR/S
THREE-PHASE VARIABLE FREQUENCY POWER
TYPE EMERGENCY POWER SUPPLY

Product technical parameters

Model		FEPS-HR/S-2.2-500KW		
Input	Voltage	380V±25%		
	Phase number	Three-phase four-wire +PE		
	Frequency	50Hz±5%		
Output	Capacity	2.2 KW to 500 KW		
	Voltage	AC-380V adjustable (three-phase four-wire +PE)		
	Voltage stability rate	±3%(Emergency power supply)		
	Waveform	PWM wave		
	Frequency	The 0-50Hz variable frequency start-up operates normally, and the frequency is adjustable		
Overload capacity	120% normal operation (≥60 seconds)		Efficiency	In emergency power supply: over 95%; When powered by the power grid: approaches 100%
Conversion time	≤5 seconds (time for switching from mains power supply to emergency power supply)		Operating environment	Temperature :-24℃ ~ 40 ℃, relative humidity :0 ~ 90%, altitude: below 2000 meters
Electromagnetic	Maintenance-free sealed lead-acid battery		Adapt to the load	This power supply is only applicable to motor loads
Standby time	The standard type is 90 minutes (standby time can be configured as per design requirements)		Noise	When the power grid is on, it stands still without making any noise. When powered by inverter, it is ≤55dB
Protection	Overvoltage and undervoltage protection, short-circuit protection, overcurrent protection		Incoming line method	Bottom incoming and outgoing lines. (Standard type) Special requirements can be customized
Display	LCD/LED digital display		Door opening method	The front door opens single and the rear door opens double (standard type). Special requirements can be customized

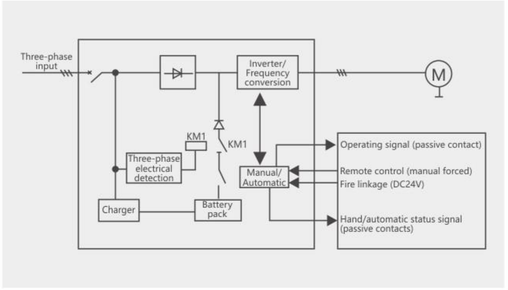
Product size

Model specification	Main cabinet dimensions (width×depth×height) (mm)	Battery cabinet dimensions (width×depth×height) (mm)	Configure battery cabinets (units)	Gross weight per piece (kg)
FESP-HR/P-2.2KW	600×600×1800		The battery is inside the main cabinet	180(including battery)
FESP-HR/P-3.7KW	600×600×2000		The battery is inside the main cabinet	360(including battery)
FESP-HR/P-5.5KW	600×600×2200		The battery is inside the main cabinet	720(including battery)
FESP-HR/P-7.5KW	600×600×2200		The battery is inside the main cabinet	860(including battery)
FESP-HR/P-11KW	800×600×2200		The battery is inside the main cabinet	1030(including battery)
FESP-HR/P-15KW	800×600×2200	800×600×2200	1	1350(including battery)
FESP-HR/P-18.5KW	800×600×2200	800×600×2200	1	1380(including battery)
FESP-HR/P-22KW	800×600×2200	800×600×2200	1	1860(including battery)
FESP-HR/P-30KW	800×600×2200	800×600×2200	2	2000(including battery)
FESP-HR/P-37KW	800×600×2200	800×600×2200	2	2620(including battery)
FESP-HR/P-45KW	800×600×2200	800×600×2200	2	3570(including battery)
FESP-HR/P-55KW	800×600×2200	800×600×2200	3	3630(including battery)
FESP-HR/P-75KW	800×600×2200	800×600×2200	3	5340(including battery)
FESP-HR/P-93KW	800×600×2200	800×600×2200	4	7220(including battery)
FESP-HR/P-110KW	800×600×2200	800×600×2200	4	7320(including battery)

Note: The above parameters are for reference only. Any changes will not be notified separately.

Page 40 >

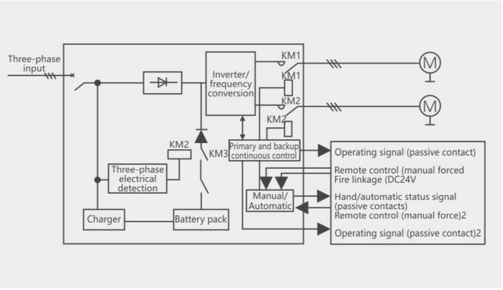
One-to-one load schematic diagram



Explanation

When the three-phase input power is normal, it is rectified to provide direct current to the inverter, and at the same time, the charger charges the battery group. When the three-phase input power is cut off or below 380V±25%, the KM1 is engaged to supply direct current to the inverter from the battery pack. When the motor is required to operate under load, a start signal (such as a running signal, remote control signal, or fire linkage signal) is provided, and the inverter immediately outputs it. The motor is started with variable-frequency electrical energy ranging from 0Hz to 50Hz. Once its frequency reaches 50Hz, it maintains normal operation. Manual/automatic selection conversion switch. In the automatic position, remote control and fire linkage (DC24) operation can be performed. In the manual position, local operation can be carried out. At this time, remote control and fire linkage cannot be operated. The operation signal and manual or automatic position can be monitored by the fire center.

Schematic diagram of one in use and one on standby load

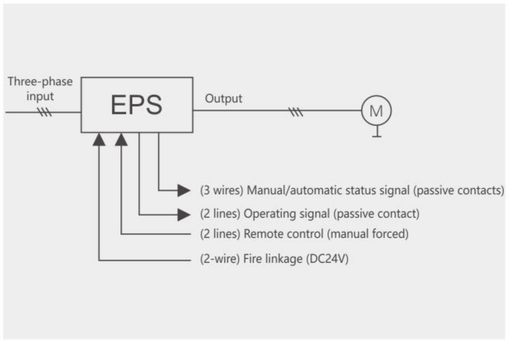


Explanation

The schematic diagram and wiring diagram for a single inverter and a single load with one in use and one on standby are basically the same as those in figure 1. The only difference is that there is an additional primary and standby conversion control, which can be automatically achieved through KM1 or KM2 DC contactors for one in use and one on standby.

Note: When applying HR/P EPS, one control box is in use and one is on standby within this EPS, and no external control box is required.

Schematic diagram of one-to-one load application



Say to use

1. The load can be fire protection facilities such as fans and water pumps or first-class personnel loads

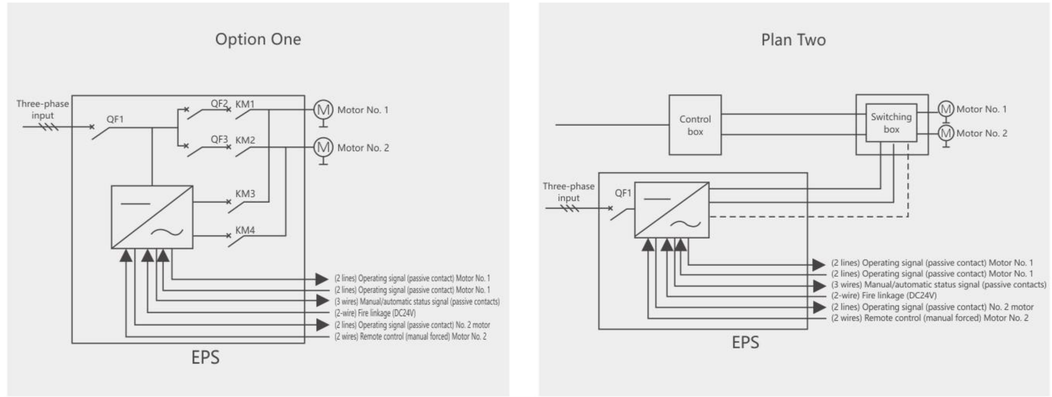
2. The capacity of the load and that of the EPS are 1.2 to 1. The start-up and operation of the load are controlled by the start-up signal connected to the EPS

4. The output of the EPS must be directly connected to the motor of the load. The original control cabinet of the load should be removed and not used. The functions of the original control cabinet are already present in the EPS

5. The load is usually a single motor, but multiple motors can be used when necessary. When there are multiple motors, they must be started and stopped simultaneously.

> Page 41

Schematic diagram of the application of one in use and one on standby

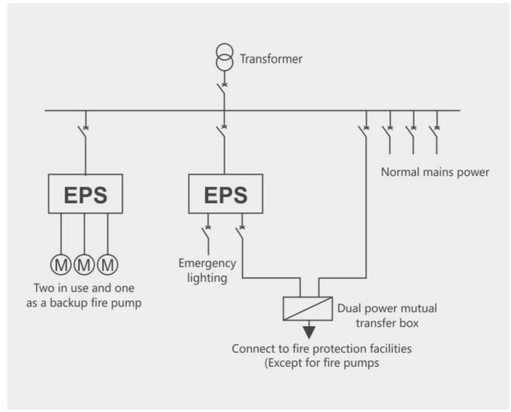


Explanation

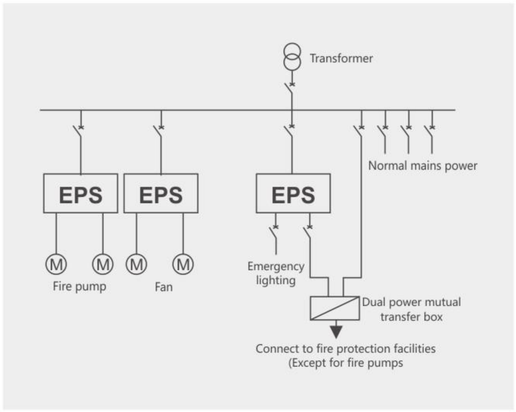
The wiring diagram for the single-inverter and single-load one-to-one application principle is basically the same as that of the single-inverter and single-load one-to-one principle diagram and wiring diagram in Figure 1. The only difference is that there is an additional primary and backup conversion control, which can be automatically achieved through the KM1 or KM2 DC contactor to realize one-to-one.

Note: When applying HR/P EPS, one control box is in use and one is on standby within this EPS, and no external control box is required.

Hybrid wiring application schematic diagram 1



Hybrid wiring application Schematic diagram 2



Explanation

For fire pumps and sprinkler pumps in high-rise buildings, due to their relatively high power, HR/P series EPS products are adopted. However, for other low-power facilities, HR/S series EPS products are used to reduce costs, save pump control boxes and pressure reduction start-up measures.

Page 42 >

HR/S

THREE-PHASE POWER LIGHTING
EMERGENCY POWER SUPPLY

>>>

> Page 43

Product Overview

The FEPS-HR/S series three-phase power and lighting hybrid EPS emergency power supply is developed in collaboration with German experts. It is controlled by the TMS28 series DSP digital processing chip from Texas Instruments of the United States, with a CPLD logic control chip as the DSP execution terminal. It features advanced SPWM programming algorithms, the latest generation of IGBT modules, and effective control strategies. The high-tech and environmentally friendly patented product developed. It features high-speed data processing capabilities, complete protection functions, strong reliability, and simple and convenient maintenance. This series of EPS provides secondary or tertiary power supply for first-class loads and particularly important load-bearing electrical equipment, fire protection facilities, fire emergency lighting, etc.

Adapt to load types

EPS emergency power supply is suitable for providing centralized emergency power supply to various 380V/220V AC electrical equipment such as fire protection electrical facilities, first-level power loads, fire emergency evacuation lighting or other types of loads.

Product application scope

- Fire protection: Elevators, sprinkler pumps, roller shutters, evacuation lighting, etc
- High-rise buildings: elevators, water pumps, fans, evacuation lighting, underground garage lighting, etc
- Financial system equipment: Large screens for securities trading, monitoring devices, financial machinery and equipment, vaults
- Military radar, vehicle-mounted mobile phones, civil air defense passages, underground facilities
- Hospitals and operating rooms, government agencies, large supermarkets, shopping malls, schools, squares, stations, parks
- Emergency lighting for important venues such as sports stadiums and exhibition centers

Performance characteristics

- It adopts a centralized, continuous and controllable power supply mode and can be directly connected to centralized fire emergency lighting fixtures.
- When providing emergency power supply, a sine wave is output, featuring voltage stabilization, frequency stabilization, static operation, no noise, no smoke emission, no pollution, and no fire hazard.
- It can be linked with the fire department, monitored by a computer, and controlled by the fire center.
- Long-life LCD and LED display, clear at a glance;
- Dual power supply automatic switching, high reliability; The switching time can be less than 2 seconds.
- It adopts the TMS28 series DSP digital processing chip from Texas Instruments of the United States for control, with the CPLD logic control chip serving as the DSP execution terminal. It features fast data processing speed, faster, more stable and more reliable protection.
- The main unit is designed to have a lifespan of over 20 years, with automatic switching and the ability to operate unattended.
- The intelligent charging management function can automatically switch between equalization and float charging, automatically monitor the battery working status, and has automatic protection for battery charging and discharging, effectively extending the battery life.
- It has protection functions such as overvoltage, undervoltage, over-temperature, overcurrent and short circuit.
- The modular design structure has a lower condensation cost compared with the generator set, is energy-saving and environmentally friendly, and basically does not consume electricity when not in emergency power supply. It features stable performance, safety and reliability, and is easy to maintain.

Scope of use

- 2.2KW - 800KW
- The specific specifications include: 2.2, 3.7, 5.5, 7.5, 11, 15, 18.5, 22, 30, 37, 45, 55, 75, 93, 110, 132, 160, 200, 250, 315, 400, 500, 630, 800KW, etc
- Installation form: Floor-standing (standard distribution cabinet)
- Standby time: 60-120 minutes (standard configuration), and the standby time can be configured according to design requirements

Note: The new national standard GB17945-2010 "Fire Emergency Lighting Fixtures" stipulates a standby time of 90 minutes (reason: In addition to providing lighting for personnel evacuation, it is also for fire rescue lighting).

Page 44 >

Product technical parameters

Model		FEPS-HR/S-2.2-800KW		
Input	Voltage	380V±25%		
	Phase number	Three-phase four-wire +PE		
	Frequency	50Hz±5%		
Output	Capacity	2.2 KW to 500 KW		
	Voltage	AC-380V adjustable (three-phase four-wire +PE)		
	Voltage stability rate	±3%(Emergency power supply)		
	Waveform	The distortion of the sine wave is ≤3%		
	Frequency	50Hz±5%		
Overload capacity		120% normal operation (≥60 seconds)	Efficiency	In emergency power supply: over 95%; When powered by the power grid: approaches 100%
Conversion time		≤5 seconds (time for switching from mains power supply to emergency power supply)	Operating environment	Temperature :-24℃ to 40 ℃, relative humidity :0 to 90%, altitude: below 2000 meters
Electromagnetic		Maintenance-free sealed lead-acid battery	Adapt to the load	This power supply is particularly suitable for inductive and inductively capacitive mixed loads
Standby time		The standard type is 90 minutes (standby time can be configured as per design requirements)	Noise	When the power grid is on, it stands still without making any noise. When powered by inverter, it is ≤55dB
Protection		Overvoltage and undervoltage protection, short-circuit protection, overcurrent protection	Incoming line method	Bottom incoming and outgoing lines. (Standard type) Special requirements can be customized
Display		LCD/LED digital display	Door opening method	The front door opens single and the rear door opens double (standard type). Special requirements can be customized

Product size

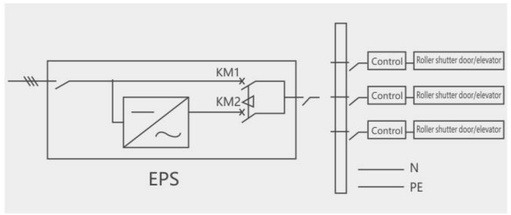
Model specification	Main cabinet dimensions (width×depth×height) (mm)	Battery cabinet dimensions (width×depth×height) (mm)	Configure battery cabinets (units)	Gross weight per piece (kg)
FEPS-HR/S-2.2KW	600×600×1800		The battery is inside the main cabinet	180(including battery)
FEPS-HR/S-3.7KW	600×600×2000		The battery is inside the main cabinet	360(including battery)
FEPS-HR/S-5.5KW	600×600×2200		The battery is inside the main cabinet	720(including battery)
FEPS-HR/S-7.5KW	600×600×2200		The battery is inside the main cabinet	860(including battery)
FEPS-HR/S-11KW	800×600×2200		The battery is inside the main cabinet	1030(including battery)
FEPS-HR/S-15KW	800×600×2200	800×600×2200	1	1350(including battery)
FEPS-HR/S-18.5KW	800×600×2200	800×600×2200	1	1380(including battery)
FEPS-HR/S-22KW	800×600×2200	800×600×2200	1	1860(including battery)
FEPS-HR/S-30KW	800×600×2200	800×600×2200	2	2000(including battery)
FEPS-HR/S-37KW	800×600×2200	800×600×2200	2	2620(including battery)
FEPS-HR/S-45KW	800×600×2200	800×600×2200	2	3570(including battery)
FEPS-HR/S-55KW	800×600×2200	800×600×2200	3	3630(including battery)
FEPS-HR/S-75KW	800×600×2200	800×600×2200	3	5340(including battery)
FEPS-HR/S-93KW	800×600×2200	800×600×2200	4	7220(including battery)
FEPS-HR/S-110KW	800×600×2200	800×600×2200	4	7320(including battery)

Note: The above parameters are for reference only. Any changes will not be notified separately.

> Page 45

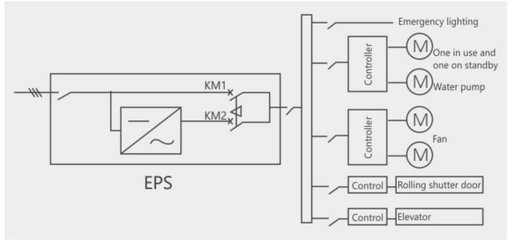
HR/S
THREE-PHASE POWER LIGHTING
EMERGENCY POWER SUPPLY

Wiring diagram for multiple roller shutters (or multiple elevators)



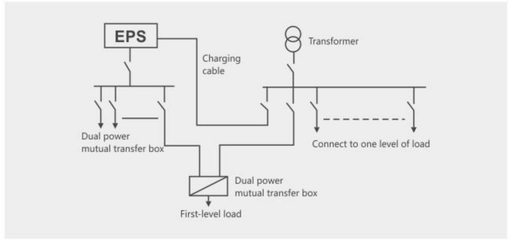
Explanation
This EPS merely serves as a power source in the circuit, providing emergency output when there is no mains power. It is connected to multiple roller shutters
1. In high-rise buildings, if the EPS capacity of the rolling shutter doors is not started simultaneously, it should be no less than five times the total capacity of the motors of the rolling shutter doors that are started simultaneously.
2. As the power consumption for the operation of the roller shutter door is very low, when only the roller shutter door is used, the battery configuration can be reduced accordingly. Generally, it can provide a 20-minute backup time of EPS capacity and be connected to multiple elevators
1. The elevator drive motor should have a frequency conversion function.
2. The capacity of EPS should be 1.2:1 of the total capacity of the elevator.
3. Elevators can only be driven by EPS of HR/S series.

Wiring diagram for mixed power supply connected to the distribution cabinet

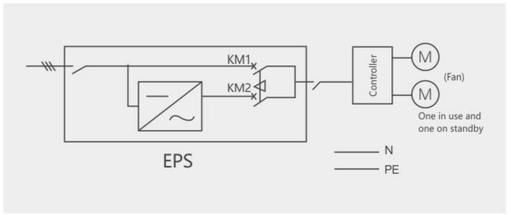


Explanation
1. The selection of EPS capacity is detailed in the EPS capacity calculation method
2. EPS can also be integrated with the distribution cabinet
3. This method of interconnection and mutual placement cannot be placed at the end

Make the wiring diagram of the second power supply and the substation

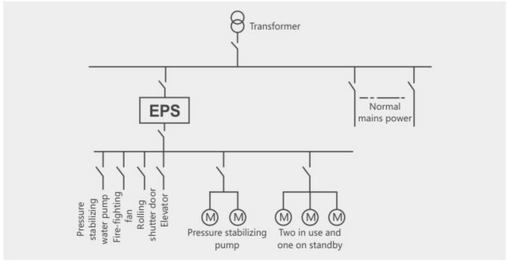


Wiring diagram of one in-use and one standby water pump (or fan)



Explanation
1. If the water pump (fan) has no measures such as frequency conversion, star-delta voltage reduction, or soft start, the capacity of the EPS should be more than five times that of the motor working simultaneously
2. If the water pump (fan) has variable capacity starting, the capacity of EPS is 1.2:1 of the total capacity of the motors working simultaneously.
3. If star-delta voltage reduction and soft start are adopted, the capacity of the EPS is three times the total capacity of the motors working simultaneously.
4. The above-mentioned can be smaller-sized fire pumps and sprinkler racks. Water supply black (exhaust fan, intake fan), etc. When the specification is large, it is recommended to use HR/P series EPS
5. When one EPS is used to drive one or one in use and one as a backup water pump and placed at the end, in addition to serving as a secondary power source, it also has the function of dual-channel mutual transfer, eliminating the need for an additional mutual transfer device.

Draw the wiring diagram of the second power supply and the output bus



Explanation
1. The selection principle of EPS capacity is consistent with that of the mixed wiring range
2. This type of connection can eliminate the need for mutual transfer boxes, but it is advisable when the specifications of the water pump and fan are relatively small
3. This method of interconnection and mutual placement cannot be done at the end

Explanation
1. The EPS input power line (i.e., the charging cable) is calculated at 10% of the nominal capacity of the EPS
2. The capacity of EPS is consistent with the wiring diagram of the hybrid power supply
3. This method can be connected and mutually placed at the end

Page 46 >

FM

GENERAL-PURPOSE VALVE-REGULATED
SEALED LEAD-ACID BATTERY

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> Page 47

Product Overview

The FM and GFM series of valve-regulated maintenance-free sealed lead-acid batteries adopt the latest technological achievements of the contemporary era. The products feature extremely high energy density, extremely low self-discharge rate and superior cycle life. The internal resistance of lead-acid batteries is very small, enabling them to withstand a larger current discharge than other batteries. Therefore, they are general-purpose batteries that can meet the requirements of the vast majority of applications. The product has passed multiple certifications such as ISO9001, ISO14001, OHSAS18001 and TCL at an early stage, providing you with the most reliable backup power supply option.

Battery features

- Valve-regulated lead-acid batteries (FM, GM series) are fully sealed and maintenance-free;
- Lead-calcium-tin alloy grid: Low emissions, low self-discharge rate;
- 3D structure: Optimized design for active material adhesion, fine grid plates provide more surface area for high power output;

The special lead paste formula for the plates and advanced welding technology ensure excellent high-power discharge capacity, with very low internal resistance and the ability to withstand high-current discharge.

- ABS material: UL94-V0;
- Unique exhaust valve design: Controls moisture loss and prevents air and sparks from entering;
- Oxygen recombination efficiency: ≥98%;
- Wide temperature range: -20℃ to 50℃;
- Long-life design, with a float charging life of 8-10 years (at 25℃);

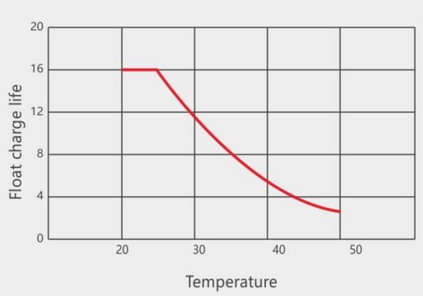
The special grid manufacturing process and automated production line have increased the battery's lifespan and consistency.

Application field

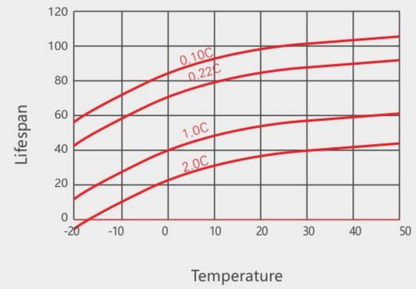
- Solar and wind energy storage systems;
- Backup power supplies for various communication and signal systems such as telecommunications, mobile, Unicom, railways, ships, etc.
- UPS uninterruptible power supply, EPS fire emergency lighting and other backup power supplies;
- Backup power supply for the data and network system computer room center
- Medical and scientific research equipment, instruments and mobile measurement systems;
- DC power supplies for power systems, etc. Backup power supply for nuclear power plants
- Backup power supply for data protection in the banking and financial system industry

Battery performance diagram

The influence of temperature on float charging life

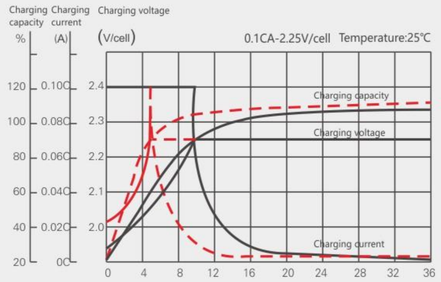


The influence of temperature on capacity



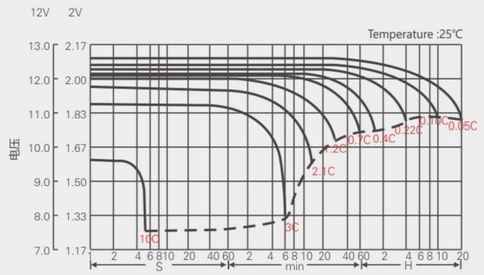
Page 48 >

Float charge characteristic curve



Charging time

Discharge characteristic curve



Discharge time

Specification table of Common general-purpose valve-regulated Sealed Lead-acid batteries

Model	Voltage (V)	Capacity (20HR)	long		wide		high		Total height	
			mm	inch	mm	inch	mm	inch	mm	inch
6-FM-10	12	10	151	5.94	98	3.86	95	3.74	101	3.98
6-FM-12	12	12	151	5.94	98	3.86	95	3.74	101	3.98
6-FM-15	12	15	181	7.13	76	2.99	170	6.69	172	6.77
6-FM-20	12	20	181	7.13	77	3.03	170	6.69	172	6.77
6-FM-24	12	24	175	6.89	166	6.54	126	4.96	126	4.96
6-FM-33	12	33	196	7.72	130	5.12	155	6.10	180	7.09
6-GFM-40	12	40	198	7.80	166	6.54	175	6.89	175	6.89
6-GFM-55	12	55	229	9.02	140	5.51	208	8.19	227	8.94
6-GFM-65	12	65	330	12.99	174	6.85	175	6.89	176	6.93
6-GFM-75	12	80	258	10.16	169	6.65	208	8.19	227	8.94
6-GFM-100	12	100	331	13.03	175	6.89	225	8.86	228	8.98
6-GFM-120	12	120	408	16.06	174	6.85	225	8.86	233	9.17
6-GFM-150	12	150	483	19.02	170	6.69	243	9.57	243	9.57
6-GFM-180	12	180	525	20.67	240	9.45	225	8.86	228	8.98
6-GFM-200	12	200	525	20.67	240	9.45	225	8.86	228	8.98
6-GFM-230	12	230	520	20.47	268	10.55	225	8.86	228	8.98
6-GFM-250	12	250	520	20.47	268	10.55	225	8.86	228	8.98
6-GFM-260	12	250	520	20.47	268	10.55	225	8.86	228	8.98
6-GFM-300	12	250	520	20.47	268	10.55	225	8.86	228	8.98

Note: The above parameters are for reference only. Any changes will not be notified separately.

> Page 49

FM
GENERAL-PURPOSE VALVE-REGULATED
SEALED LEAD-ACID BATTERY

01. Foxconn Electronics Industry Development (Kunshan) Co., LTD
02. Mingshuo Computer (Suzhou) Co., LTD
03. Silicon Product Technology (Suzhou) Co., LTD.
04. Seagate International Technology (Wuxi) Co., LTD
05. Jiangsu Sunshine Group
06. Hailan Group
07. Wuxi Kaiyuan Panasonic Robot Sales Co., LTD
08. Wuxi Younida Auto Parts Co., LTD
09. Wuxi Haike Precision Mould Co., LTD
10. Okuma Machinery (Shanghai) Co., LTD
11. The underground pipeline project in Wuxi New District
12. Kowloon Wharf Wuxi Real Estate Development Company
13. Vanke Real Estate Development Company
14. Jiangsu Ruiyang Chemical
15. Wuxi Hualaiwu Film and Television City
16. Wuxi Taihu Tunnel Project
17. Green Dot Technology (Wuxi) Co., LTD
18. Zhengwen Electronics (Samsung Suzhou) Co., LTD

• Xipin Electronics Suzhou Company

• The Wuxi Metro Line 3 project

• Samsung Electronics Suzhou Company

• The electrolysis workshop project of United Copper Industry

• The Nanjing South High-Speed Railway Project

• The Kunshan South High-Speed Railway Project

Page 50 >