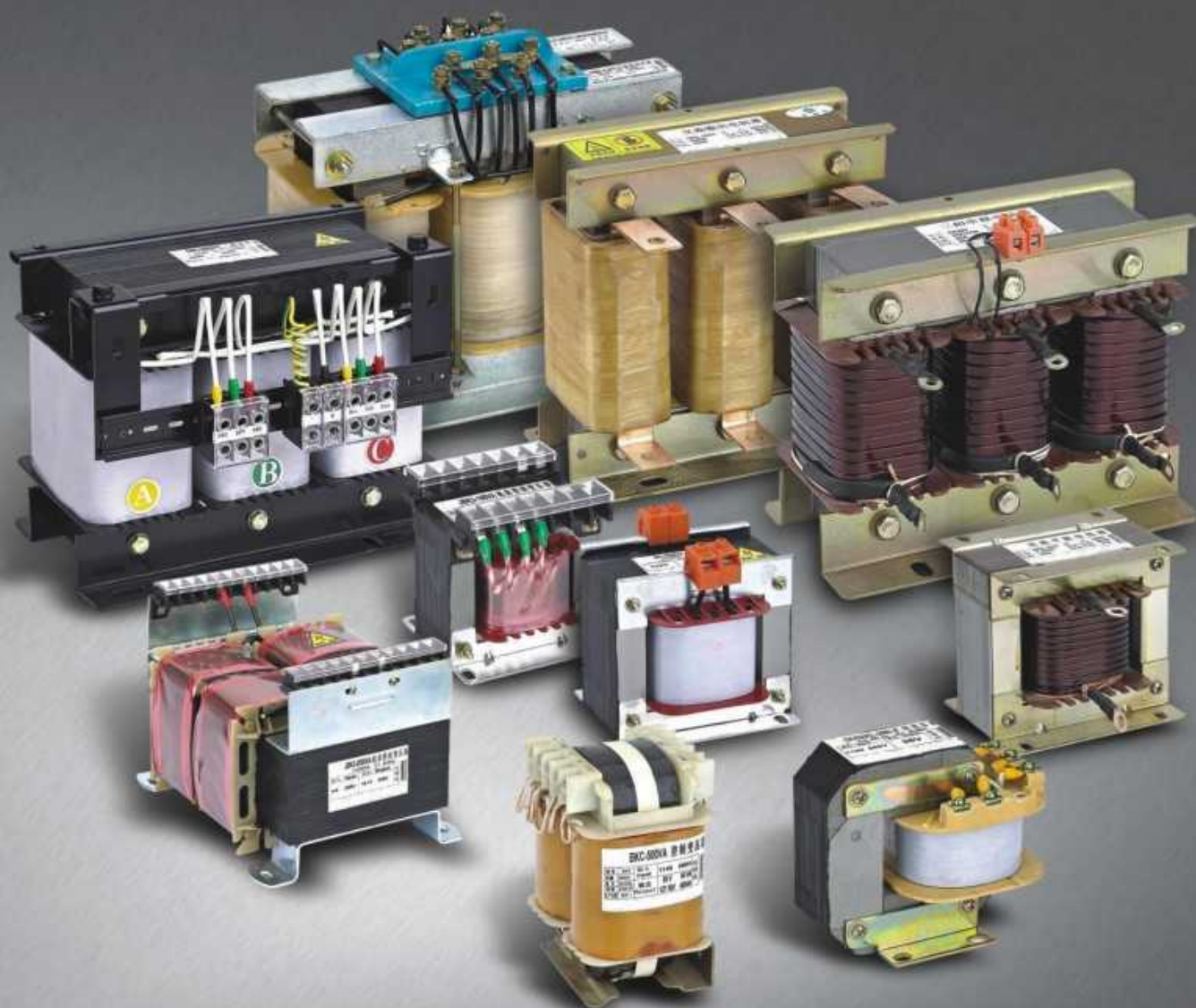




Transformers and Reactors Product Manual

TRANSFORMER PRODUCT MANUAL

明日电气有限公司

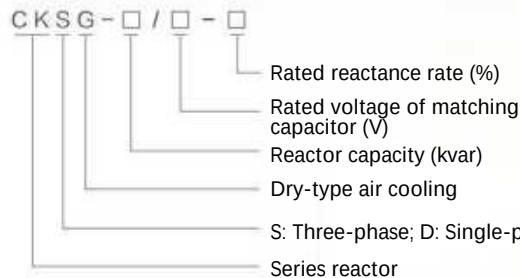
MINGRI ELECTRIC CO., LTD.

I. Overview

Dry-type iron-core series reactors are used in low-voltage reactive power compensation cabinets, connected in series with capacitors. They absorb grid harmonics, improve voltage waveform, boost power factor, suppress inrush current and overvoltage, and protect capacitors.



II. Model and Its Meaning



III. Operating Conditions

- Altitude ≤ 1000 m.
- Ambient temp: $-25^{\circ}\text{C} \sim +45^{\circ}\text{C}$; relative humidity $\leq 90\%$.
- No harmful gases or flammable /explosive materials.
- Good ventilation required; add ventilation equipment if installed in a cabinet.

IV. Structural Features

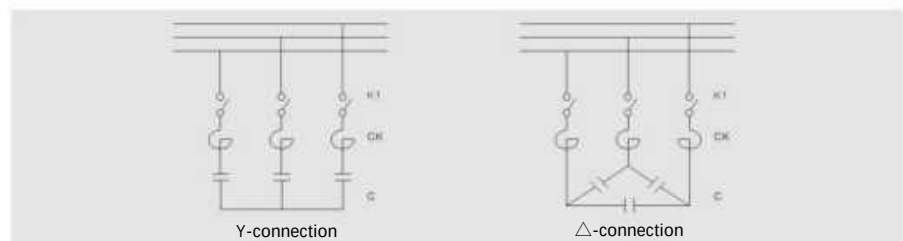
- Available in three-phase and single-phase dry-type iron-core versions.
- Iron core: high-quality low-loss imported cold-rolled oriented silicon steel, with stable core column air gaps.
- Coil: Class F enameled flat copper wire, tightly arranged, no outer insulation, excellent heat dissipation.
- Coil and core are bonded via preheating $\rightarrow$ vacuum impregnation $\rightarrow$ curing with Class H varnish, low noise and high heat resistance.
- Non-magnetic fasteners for core column, ensuring high quality factor, low temperature rise and good filtering.
- Exposed parts are corrosion-resistant; lead terminals are cold-pressed copper tube terminals.
- Small size, light weight, beautiful appearance, comparable to well-known foreign brands.



V. Technical Performance Parameters

- Applicable to 400V and 660V systems.
- Reactance rates: 1%, 6%, 7%, 12%, 13%, 14%.
- Rated insulation level: 3kV for 1 min.
- Temp rise limits: core $\leq 85\text{K}$, coil $\leq 95\text{K}$.
- Noise $\leq 45\text{dB}$.
- Continuous operation at up to $1.35 \times$ rated current.
- Linearity: reactance at $1.8 \times$ rated current / rated reactance ≥ 0.95 .
- Reactance difference between any two phases $\leq \pm 3\%$.
- Heat resistance class: Class HF ($\geq 180^{\circ}\text{C}$).

VI. Wiring Method



Three-phase incoming and outgoing lines

Reactor

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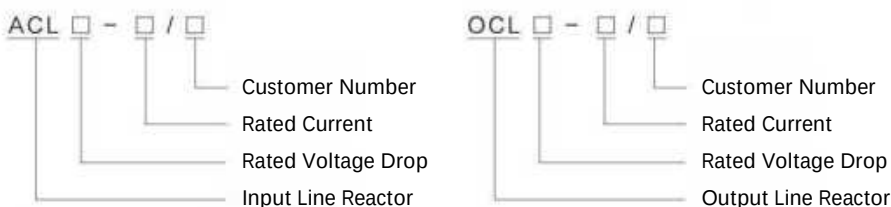


I. Overview

Input/Output Reactors for VFDs: Designed for VFD and speed controller systems. Input reactors are installed to suppress inrush current/voltage, protecting the equipment and extending service life. Output reactors are used to filter harmonics and improve power quality. Made of high-quality imported silicon steel, our reactors feature a compact design, low temperature rise, and quiet operation.

The reactors produced by our company are compatible with VFDs from domestic and foreign brands, including Siemens, ABB, SanKen, Hitachi, Toshiba, Panasonic, Yaskawa, Pochamp, Danfoss, Fuji, Eurotherm, LG, OMRON, Hyundai, Schneider, Lenze, Emerson, and Convo, etc.

II. Model and Its Meaning



III. Product Features

1. Significant power interference (interference, overvoltage) to other equipment
2. Phase-to-phase voltage unbalance > 1.8% of rated voltage
3. Extremely low impedance lines (power transformer > 10× VFD rated value)
4. Large number of VFDs installed on one line to reduce line current
5. Use of power factor (COSφ) correction capacitors or units

IV. Operating Conditions

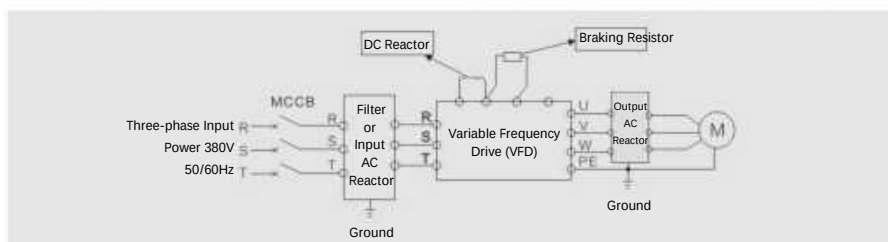
1. Altitude ≤ 1000 meters
2. Operating ambient temperature: -25°C~+45°C; relative humidity ≤ 90%
3. No harmful gases or flammable/explosive materials in the surrounding area
4. Good ventilation is required; add ventilation equipment if installed in a cabinet



V. Technical Performance Parameters

1. Rated Operating Voltage: 380V/440V, 50Hz
2. Rated Operating Current: 5A to 1600A @ 40°C
3. Dielectric Strength: Core-winding 3000VAC/50Hz/5mA/10s, no flashover breakdown (factory test)
4. Insulation Resistance: ≥100MΩ at 1000VDC
5. Reactor Noise: <65dB (measured at 1m horizontal distance)
6. Protection Class: IP00
7. Insulation Class: Class F or above
8. Product Standards: IEC289:1987 (Reactors), GB10229-88 (Reactors, eqv IEC289:1987), JB9644-1999 (Semiconductor Motor Drives - Reactors)

VI. Wiring Method



SG/ZSG/SBK Series

Three-Phase Dry-Type (Rectifier) Transformer

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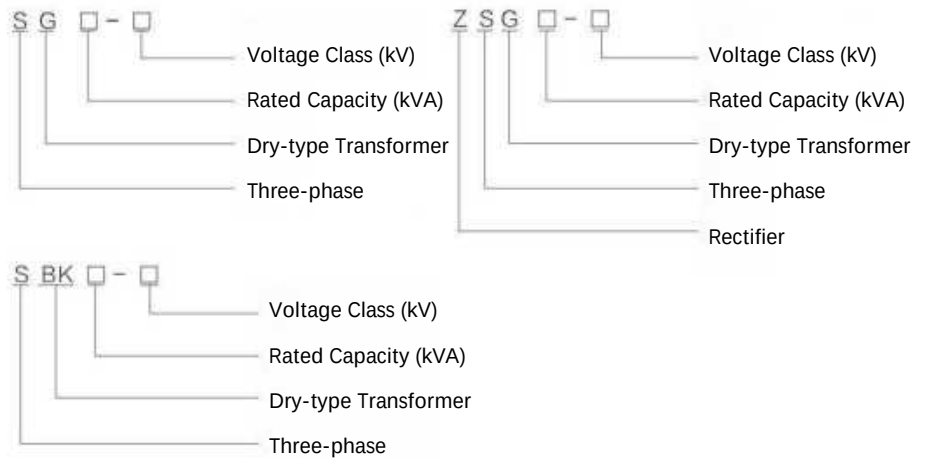
I. Overview



The SG series three-phase dry-type transformers are widely used in CNC systems, suitable for various three-phase power supply applications with AC 50~60Hz and input/output voltages not exceeding 500V. Customization options include input/output voltage levels, connection groups, number and position of tapping taps (usually $\pm 5\%$), distribution of winding capacities, configuration of secondary single-phase windings, integration of rectifier circuits, and requirements for external enclosures. All designs can be meticulously manufactured according to user specifications.

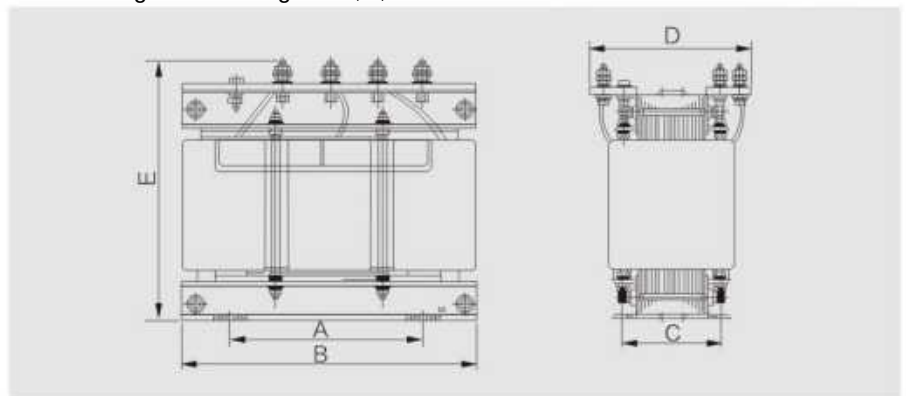
The ZSG series three-phase dry-type rectifier transformers are designed for rectifier equipment, used for charging, voltage regulation, and DC power supply after rectification.

II. Model and Its Meaning



III. Outline and Installation Dimensions

The outline and installation dimension drawings of SG, ZSG, and SBK are shown in the following table and Figures 1, 2, and 3



SG/ZSG/SBK Series

Three-Phase Dry-Type (Rectifier) Transformer

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Model	Output Voltage		Connection Group Number	Overall Dimensions (mm)						Mounting Dimensions				K × J		
	Input	Output		Open Type			Protected Type			Open Type		Protected Type				
				Bmax	Dmax	Emax	Bmax	Dmax	Emax	A±5	C±5	A±5	C±5			
SG, ZSG, SBK-0.15KVA	660 400 380 200	380 220 110 36	Y/ynoY/Yo) Y/d(Y/Δ) D/y(Δ/Y) Y/d(Δ/Δ)	200	105	140	260	180	160	125	77			8 × 18		
SG, ZSG, SBK-0.3KVA				180	110	180	260	180	160	75	70					
SG, ZSG, SBK-0.5KVA				180	115	180	260	200	120	75	75					
SG, ZSG, SBK-0.75KVA				230	130	200	260	250	260	110	85					
SG, ZSG, SBK-1KVA				230	140	200	315	200	260	110	90					
SG, ZSG, SBK-1.5KVA				230	155	200	355	290	280	110	105					
SG, ZSG, SBK-2KVA				270	165	250				180	130					
SG, ZSG, SBK-2.5KVA				270	175	250	370	290	300	180	140					
SG, ZSG, SBK-3KVA				270	185	250				180	150					
SG, ZSG, SBK-4KVA				300	180	285	510	400	550	200	140	420	220			
SG, ZSG, SBK-5KVA				300	200	285				200	155					
SG, ZSG, SBK-10KVA				370	210	240	560	430	600	265	160	470	230			
SG, ZSG, SBK-15KVA				420	245	390	600	440	620	310	180	580	240			
SG, ZSG, SBK-20KVA				540	320	450	650	440	650	340	185	770	300			
SG, ZSG, SBK-30KVA				540	380	480	870	500	780	340	210			Φ12		
SG, ZSG, SBK-40KVA				750	350	520	960	550	810	420	170					
SG, ZSG, SBK-50KVA											180				870	350
SG, ZSG, SBK-60KVA											195				900	350
SG, ZSG, SBK-80KVA											205					
SG, ZSG, SBK-100KVA				860	450	650	1050	810	810	420	220	960	350			
SG, ZSG, SBK-125KVA	860	500	700													
SG, ZSG, SBK-160KVA	950	600	800													
SG, ZSG, SBK-200KVA	1000	680	850													
SG, ZSG, SBK-250KVA	1050	700	850													

Note: 1. Dimensions not specified in blanks are to be determined per user requirements and are for reference only. Products with output current exceeding 3000A are custom-positioned, with dimensions corresponding to their specifications.

2. The rated input and output voltages listed in the table can be freely combined as required.

3. The voltages and dimensions listed in the table can be negotiated and determined according to user requirements.

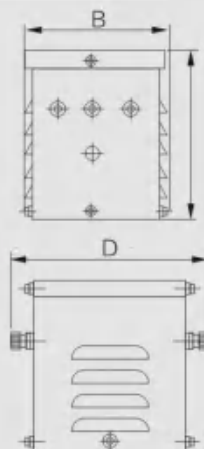


Figure 2 Protected Type (0.3~3kVA)

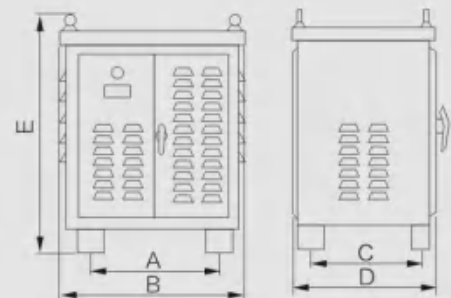


Figure 3 Protected Type (5~10kVA)

I. Overview

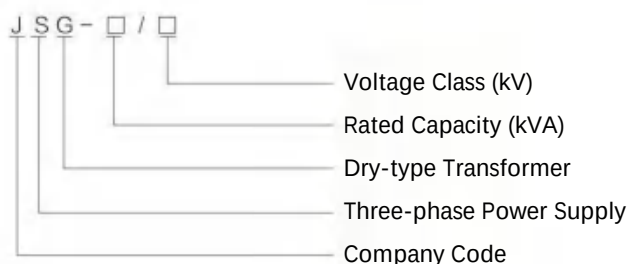
The JSG series three-phase servo transformers are widely used in CNC systems. This series is more energy-efficient, improves the reliability and service life of the transformer, and features heat resistance, moisture resistance, stability, low-temperature resistance, and radiation resistance.

The JSG series three-phase dry-type transformers are suitable for various three-phase power supply applications with AC 50~60Hz and input/output voltages not exceeding 500V.

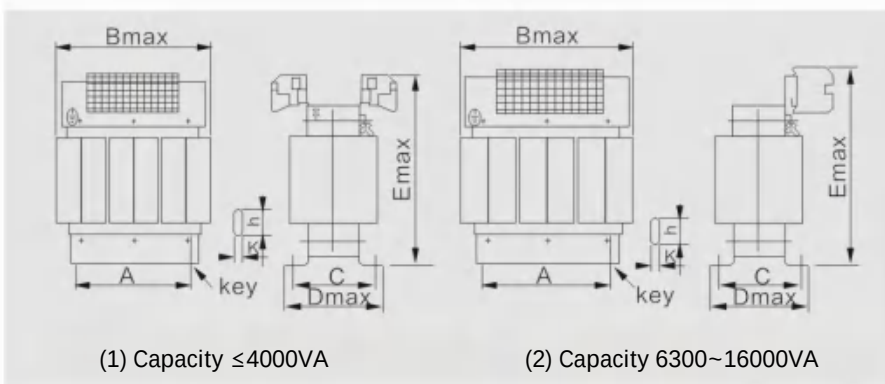
Customization options include input/output voltage levels, connection groups, number and position of tapping taps (usually $\pm 5\%$), distribution of winding capacities, configuration of secondary single-phase windings, integration of rectifier circuits, and requirements for enclosures. All designs can be meticulously manufactured according to user specifications.



II. Model and Its Meaning



III. Outline and Installation Dimensions



Model	Overall Dimensions (mm)			Mounting Dimensions		Mounting Holes		Remarks
	Amax	Bmax	Emax	A	C	k × h	Screws	
JSG-160VA	124	64	139	90	49	5 × 8	M4	片20
JSG-250VA	151	67	162	113	49	6 × 12	M5	25
JSG-400VA	151	82	162	113	64	6 × 12	M5	25
JSG-630VA	180	83	188	136	56	7.4 × 13	M6	30
JSG-1000VA	180	102	188	136	76	7.4 × 13	M6	30
JSG-1600VA	229	123	217	176	94	7.4 × 13	M6	38
JSG-2500VA	262	138	248	200	101	10 × 18	M8	
JSG-4000VA	300	154	277	224	118	10 × 18	M8	50
JSG-6300VA	361	169	316	264	138	10 × 18	M8	60
JSG-10000VA	420	185	366	316	141	12 × 18	M10	70
JSG-16000VA	480	194	411	256	155	15 × 22	M12	80

QZB Series

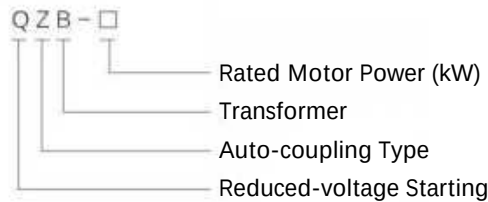
Auto-coupling Reduced-voltage Starting Transformer

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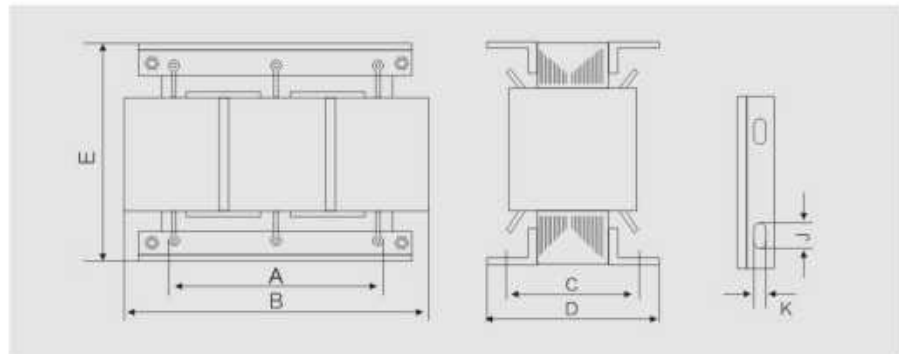
I. Overview

The QZB series auto-coupling reduced-voltage starting transformers are applicable for infrequent reduced-voltage starting of three-phase squirrel-cage induction motors with a rated voltage of 380V, power range of 14kW to 300kW, at 50Hz AC, to mitigate the impact of motor starting on the power supply network.

II. Model and Its Meaning



III. Outline and Installation Dimensions



Model	Rated Motor Power (kW)	Maximum Operating Time (s)	Maximum Operating Current (A)	Model	Mounting Dimensions		Mounting Hole KJ×J	Overall Dimensions (mm)		
					A	C		B	D	E
QZB-14	14	30	28	QZB-14	180	100	12×20	270	144	255
QZB-20	20	30	40	QZB-17	180	100	12×20	270	144	255
QZB-28	28	30	56	QZB-20	180	100	12×20	270	144	255
QZB-30	30	30	59	QZB-22	195	110	12×20	300	145	260
QZB-40	40	30	80	QZB-28	195	125	12×20	300	160	260
QZB-55	55	30	110	QZB-30	195	125	12×20	300	160	260
QZB-75	75	30	142	QZB-40	195	125	12×20	300	160	280
QZB-115	115	50	230	QZB-45	195	125	12×20	300	160	280
QZB-135	135	50	270	QZB-55	260	120	12×20	300	170	300
QZB-190	190	70	370	QZB-75	260	135	12×20	370	185	300
QZB-225	225	70	410	QZB-90	320	150	12×20	370	200	330
QZB-260	260	70	475	QZB-115	320	150	12×20	420	200	330
QZB-300	300	70	535	QZB-135	320	150	12×20	420	200	330
				QZB-160	320	150	12×20	420	200	380
				QZB-190	320	170	12×20	420	220	380
				QZB-225	340	145	12×20	420	230	420
				QZB-260	340	155	12×20	540	240	420
				QZB-300	340	155	12×20	540	240	420

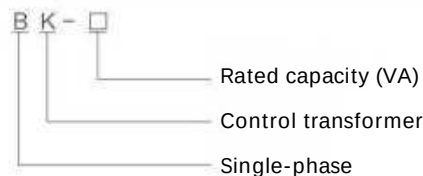
I. Overview

The BK series control transformers (hereinafter referred to as "transformers") absorb the advantages of similar domestic and international products, and are manufactured using advanced technology and rigorous design. They also feature terminal blocks connected via state-of-the-art methods. These transformers offer excellent performance, reliable operation, low energy consumption, compact size, safe wiring, and wide applicability, making them an ideal power supply for voltage transformation.

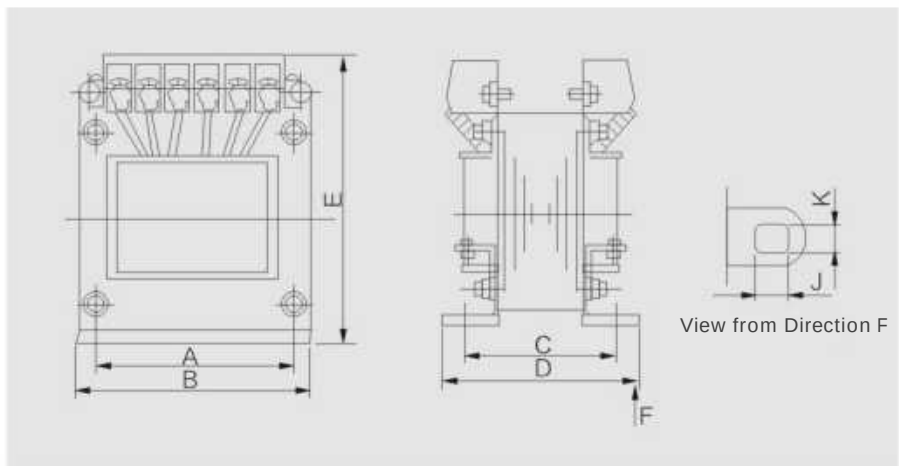
They are suitable for AC circuits with a frequency of 50 – 60 Hz and a rated supply voltage not exceeding 1200 V. They can serve as control power supplies for machine tools and mechanical equipment, power supplies for work lighting and signal lights, and can also be used as small power sources.



II. Model Designation and Explanation



III. External Dimensions and Installation Dimensions



Model	External Dimensions			Installation Dimensions	
	Bmax	Dmax	Emax	K	J
BK-50VA	85	80	92	65	60
BK-100VA	103	90	110	75	64
BK-150VA	103	98	110	75	74
BK-200VA	103	105	110	75	77
BK-250VA	114	122	125	90	90
BK-300VA	114	127	125	90	95
BK-400VA	132	130	142	94	97
BK-500VA	132	135	142	94	102
BK-700VA	150	140	175	127	115
BK-1000VA	150	155	175	127	130
BK-1500VA	171	175	190	130	150
BK-2000VA	171	195	190	130	170

JBK3 Series

Control Transformers

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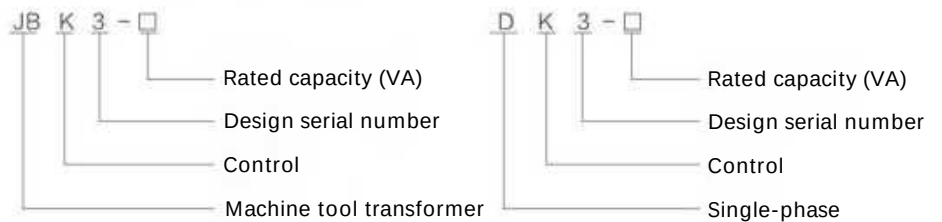
I. Overview

All JBK3 series machine tool control transformers use pure oxygen-free copper coils coated with double-layer insulating varnish. They feature ultra-low wire loss, high resistance to oxidation, a long service life, and advanced manufacturing processes. With high magnetic permeability, their loss is far lower than national standards, achieving an internationally leading level in conversion efficiency.

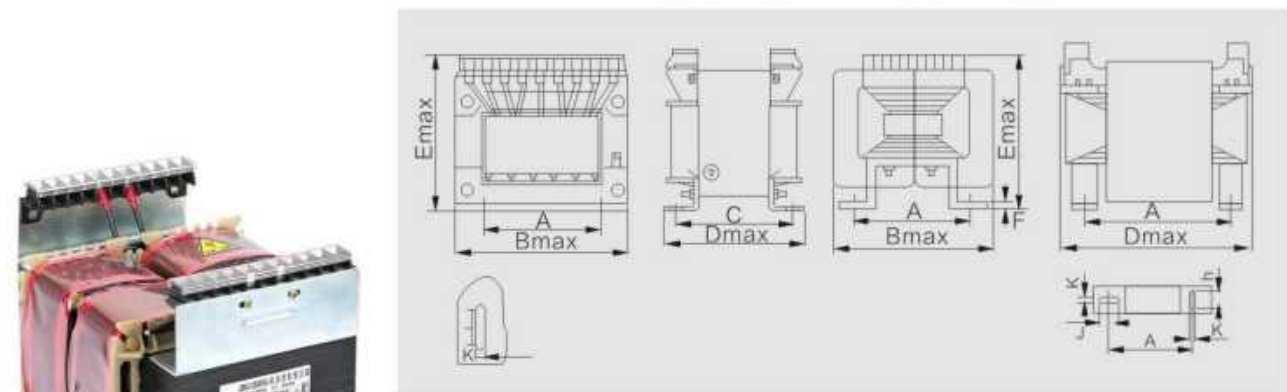
These transformers are widely used in 50 – 60 Hz AC circuits as control power supplies for electrical systems of machine tools and mechanical equipment, as well as power supplies for work lighting and signal lamps.



II. Model Designation and Explanation



III. External Dimensions and Installation Dimensions



IV. Installation Dimensions

Model	Bmax	Dmax	Emax	Mounting Hole Spacing		Mounting Hole K or K×J	Fmax
				A	C		
JBK3-40、63VA	78	75	89	56±0.4	51±2	4.8×9	12
JBK3-100VA	85	90	91	64±0.4	68±2	4.8×9	12
JBK3-160VA	96	97	105	84±0.4	73±2	5.8×11	14
JBK3-250VA	96	105	105	84±0.4	85±2	5.8×11	14
JBK3-400VA	120	105	123	103±0.4	82±2	7×12	18
JBK3-630VA	150	105	145	128±0.5	86±2	7×12	22
JBK3-1000VA	160	195	145	140±2	158±2	7×12	18
JBK3-1600VA	180	225	155	155±2	180±2	7×12	18
JBK3-2500VA	200	250	171	165±2	210±2	7×12	18

I. Overview

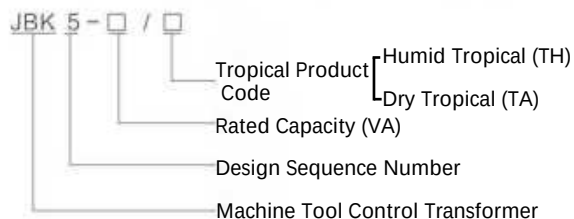


The JBK5 series machine tool control transformers are developed on the basis of the JBK3 series, with an optimized advanced terminal structure that integrates the terminals with the bobbin, raising the protection degree to IP2LX to prevent accidental contact with live circuits. Domestic IT crimp terminals are adopted, allowing a higher wiring density.

The connections between silicon steel sheets, and between the silicon steel sheets and the base plate, are all made using argon arc welding, forming a compact, integrated structure. In particular, the one-piece formed base plate ensures more precise mounting dimensions than the JBK3 series; made of high-quality corrosion-resistant alloy, it greatly improves the reliability of earthing performance and overall product quality. The product complies with international and national standards including VDE0550, IEC204-1, EC439, JB5555, and GB5226, and is interchangeable with foreign products.

The JBK5 series machine tool control transformers are suitable for AC 50~90Hz, with an input voltage not exceeding 500V and an output rated voltage not exceeding 220V. They serve as the general electrical control power supply, as well as the power supply for working lights and signal lights, for mechanical equipment in various industries.

II. Model and Its Meaning



III. Outline and Installation Dimensions

Outline and Mounting Dimension Drawings 1, 2 and Table 1 of the Transformer

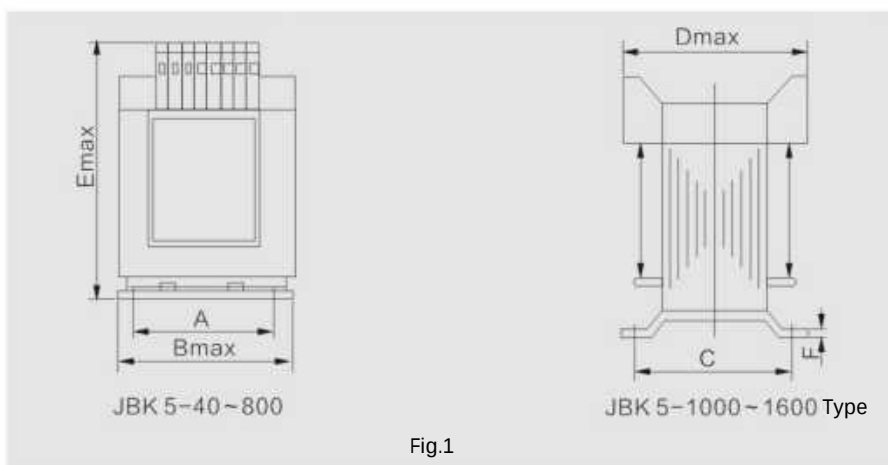
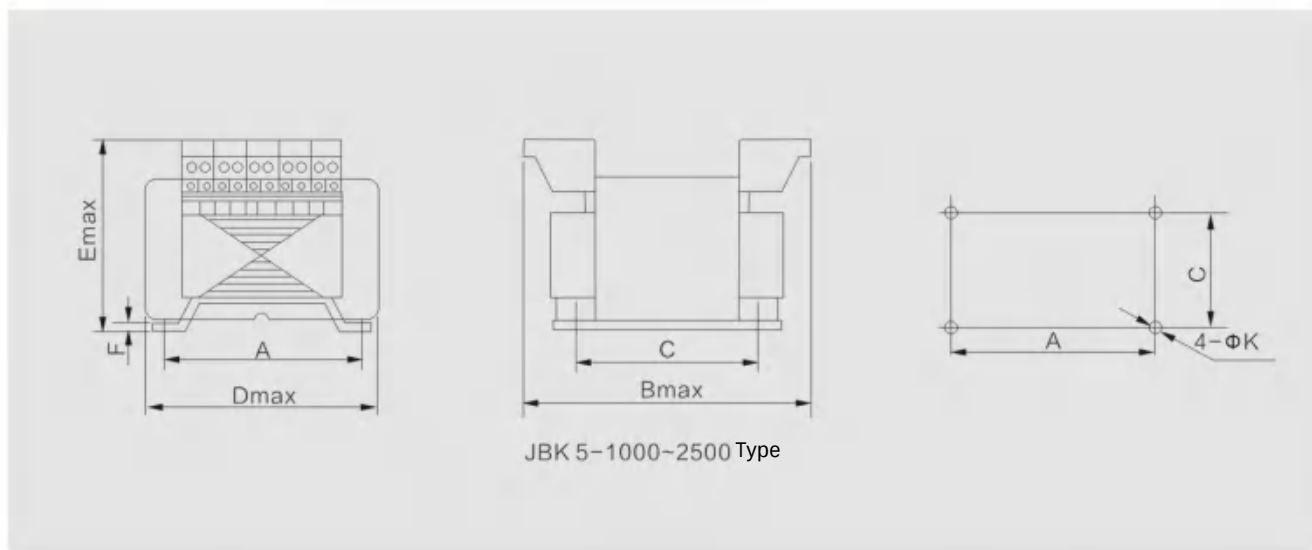


Fig.1

JBK5 Series

Machine Tool Control Transformer

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Tabel 1

Model	Overall Dimensions			Mounting Dimensions		Mounting Holes (K)	Fmax	Remarks
	Bmax	Dmax	Emax	A	C			
JBK5-40, 63VA	78	72	96	56 ± 0.15	46 ± 0.125	4.6	1.5	
JBK5-100VA	85	88	96	64 ± 0.15	62 ± 0.15	4.6	1.5	
JBK5-160VA	96	92	106	84 ± 0.175	73.5 ± 0.5	5.5	1.5	
JBK5-250VA	96	100	106	84 ± 0.175	85 ± 0.175	5.8	1.5	
JBK5-400VA	120	100	122	93 ± 0.175	84 ± 0.175	5.8	2	
JBK5-630VA	150	114	140	125 ± 0.2	92 ± 0.175	7	2	
JBK5-800VA	150	125	142	125 ± 0.2	105 ± 0.2	7	2	
JBK5-1000VA	160	195	142	140 ± 0.2	158 ± 0.2	7	3	
JBK5-1000VA	168	130	155	138 ± 0.2	105 ± 0.2	9	2	Horizontal Type
JBK5-1600VA	184	225	145	155 ± 0.2	180 ± 0.2	7	3	Vertical Type
JBK5-1600VA	168	140	155	138 ± 0.2	116 ± 0.2	9	2	Horizontal Type
JBK5-2500VA	250	200	152	165 ± 0.2	210 ± 0.23	7	4	Vertical Type

IV. Main Technical Parameters

The main technical parameters of the transformer are listed in Table 2

Model	Parameter	Power (%)	Signal Winding (%)	Control Winding (%)	Signal Winding (%)	Control Winding (%)	Rated Input Voltage (V)	Rated Output Voltage (V)	Remarks
JBK5-40VA	80	85	5 < Um ≤ 5 10 < Um ≤ 10	95%~105% UH	6 or 12	1.1Um	AC380 ± 5% Ac220 ± 5%	Ac220 (127) 110	The capacity allocation of each winding can be manufactured according to user requirements
JBK5-63VA								48	
JBK5-100VA								35	
JBK5-160VA								24	
JBK5-250VA	90	90	4.5 < Um ≤ 6 9 < Um ≤ 12					12	
JBK5-400VA								6	
JBK5-630VA									
JBK5-800VA									
JBK5-1000VA	90	90							
JBK5-1600VA									
JBK5-2500VA									

JMB/BJZ/DG/BZ(DM) Series

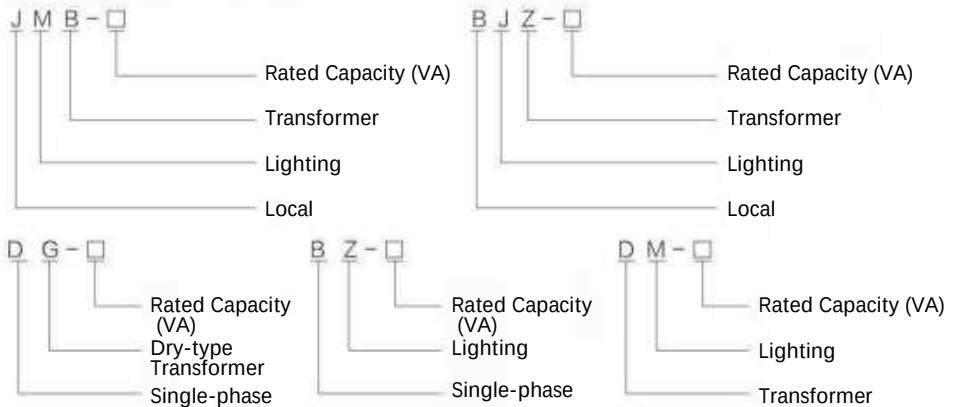
Lighting & Hand Lamp Control Transformer

www.mingriple.com

I. Overview

Suitable for AC circuits of 50-60Hz, it is widely used in the electronic industry, industrial and mining enterprises, as the control power supply for general circuits in machine tools and mechanical equipment, and as the power supply for safety lighting and indicator lamps.

II. Model and Its Meaning



III. Technical Features

The primary and secondary windings are wound separately. When there is only one secondary winding, it bears the full rated capacity of the transformer. If the secondary side includes control, lighting and indicator lamp windings, they are wound separately according to the capacity allocation of each winding. For transformers with a single winding and center taps, the capacity of each center tap is less than the rated capacity of the transformer, and only the highest voltage output terminal can bear the rated capacity.

IV. Operating Environment

This transformer can operate reliably under the following conditions:

1. Altitude not exceeding 2500m;
2. Ambient air temperature: maximum not exceeding 40°C, minimum not lower than -25°C;
3. Relative air humidity: average maximum relative humidity of 90% in the wettest month;
4. Free from severe vibration and impact;
5. In a medium free from explosion hazard, and free from gases and conductive dust that corrode metals and damage insulation;
6. In locations exposed to rain and snow.

V. Outline and Installation Dimensions

Model	Rated Input Voltage	Rated Output Voltage	Overall Dimensions (mm)	Model	Rated Input Voltage	Rated Output Voltage	Overall Dimensions (mm)
JMB-25VA	220V	6V	150 × 160 × 130	JMB-700VA	220V	6V	218 × 290 × 185
JMB-50VA	220V	6.3V	150 × 160 × 130	JMB-1000VA	220V	6.3V	218 × 290 × 185
JMB-100VA	220V	12V	150 × 160 × 130	JMB-1500VA	220V	12V	260 × 290 × 235
JMB-150VA	220V	24V	160 × 170 × 135	JMB-2000VA	220V	24V	260 × 290 × 235
JMB-200VA	220V	36、48V	160 × 170 × 135	JMB-2500VA	220V	36、48V	280 × 350 × 230
JMB-250VA	220V	110V	180 × 170 × 155	JMB-3000VA	220V	110V	280 × 350 × 230
JMB-300VA	380V	127V	160 × 170 × 155	JMB-4000VA	380V	127V	360 × 355 × 280
JMB-400VA	380V	220V	210 × 230 × 175	JMB-5000VA	380V	220V	360 × 355 × 280
JMB-500VA	380V	330V	210 × 230 × 175	JMB-10KVA	380V	330V	510 × 430 × 490

BKC Series

Control Transformers

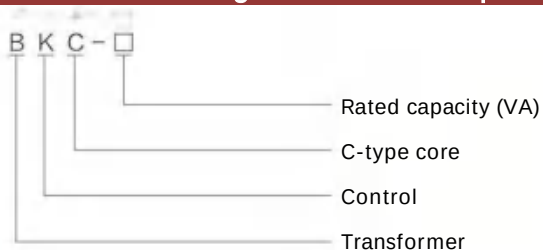
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I. Overview

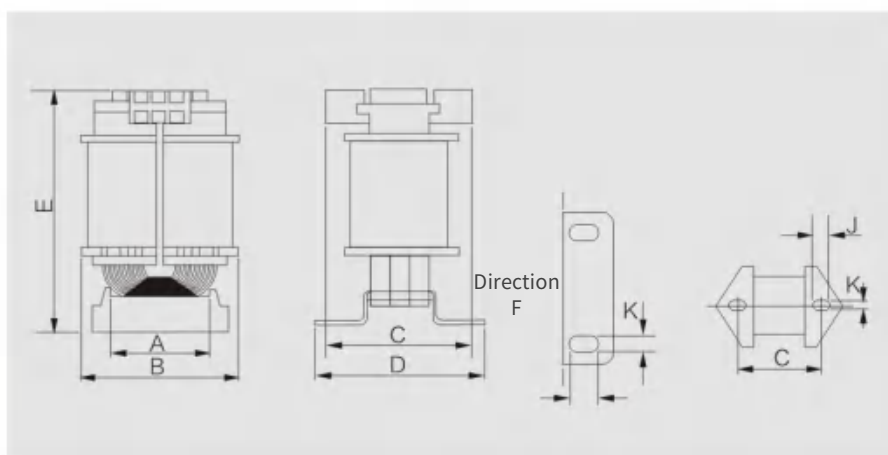
Suitable for 50 Hz / 60 Hz AC circuits, it is widely used in the electronics industry, mining and industrial enterprises, machine tools, and mechanical equipment as a general control power supply for electrical devices.



II. Model Designation and Explanation



III. External Dimensions and Installation Dimensions



IV. Installation Dimensions

Model	Installation Dimensions		Mounting Hole K or K×J	External Dimensions		
	A	C		B	D	E
BKC-25VA	50	64	4.5×6.5	83	58	83
BKC-50VA	50	57	5×8	70	80	98
BKC-100VA	56	80	6×9	79	103	110
BKC-150VA	56	80	6×9	83	103	125
BKC-200VA	80	78	6×9	100	99	137
BKC-250VA	78	78	6×	101	98	139

Mining Transformer /Integrated Protection Transformer

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I. Overview

QC series mining transformers are suitable for AC 50Hz, with voltage class up to 1140V and capacity up to 500VA. They are widely used as the power supply for control circuits, local lighting and signal equipment in flameproof mining magnetic starters.



II. Operating Environment

This transformer can operate reliably under the following conditions:

1. Altitude not exceeding 2500m;
2. Ambient air temperature: maximum not exceeding 40°C, minimum not lower than -25°C;
3. Relative air humidity: average maximum relative humidity of 90% in the wettest month;
4. Free from severe vibration and impact;
5. In a medium free from explosion hazard, and free from gases and conductive dust that corrode metals and damage insulation;
6. In locations exposed to rain and snow.
7. The waveform of the supply voltage is approximately sinusoidal.

I. Overview

The flameproof enclosure of the integrated device is cylindrical, with a protruding base and cover. The cover and body adopt a rotary cover spigot structure. A junction box is installed on the top of the enclosure for cable incoming and outgoing. On the right side of the enclosure, there is a handle for operating the isolating switch and a test button to check the effectiveness of the short-circuit and earth leakage protection systems. A reliable mechanical interlock ensures that the cover cannot be opened when the isolating switch is closed, and the isolating switch cannot be closed when the cover is open. A transparent mirror above the cover allows observation of the status indicator lamp from outside. The connection between the main transformer and the movement adopts a terminal board, so the movement can be taken out independently during maintenance.

Functions of Main Components:

1. Isolating Switch 1K: Normally used only for isolating the power supply and is not allowed to operate under load. In emergency situations, it can break the locked-rotor current of the electric drill 3 times.
2. Primary-side Fuses 1RD, 2RD: Provide short-circuit protection for the main transformer.
3. Secondary-side Fuses 3RD, 4RD: Serve as backup protection for short circuits in the 133V system.
4. Glass-tube Fuse 5RD: Protects the control transformer.
5. Thermal Relay: Provides overload protection for the electric drill.
6. AC Contactor CJ: Used to break or close the main circuit of the electric drill, with a coil voltage of 127V.
7. Main Transformer ZB: Wiring modes are Y/ Δ and Δ / Δ for 1140V/133V and 660V/133V respectively, supplying 2.0KVA coalfield electric drills. It adopts Class B insulation with an allowable temperature rise of 85°C.
8. Electronic Circuit Board Plug-in: Includes electronic components for control and protection circuits. It is moisture-proof, dust-proof and easy to replace.

II. Technical Parameters

Main Transformer				Power of Controlled Electric Drill	Operating Value of Earth Leakage Resistance	Earth Leakage Resistance Operation	Short-circuit Protection Distance and Operating Time	Earth Leakage Blocking Value
Rated Capacity (kW)	Connection Mode	Rated Voltage (V)	Rated Current (A)					
4.0	Y/ Δ	1140/133	2.02/17.4	2KW	Factory Calibrated Value: 2K Ω $\pm$ 20%	Not exceeding 0.25 seconds	Protection Distance: 0 ~300 meters Operating Time: <0.1 second	4K Ω $\pm$ 20%
	Δ / Δ	660/133	3.49/17.4					
6.0	Y/ Δ	1140/133	3.04/26					
	Δ / Δ	660/133	5.25/26					