

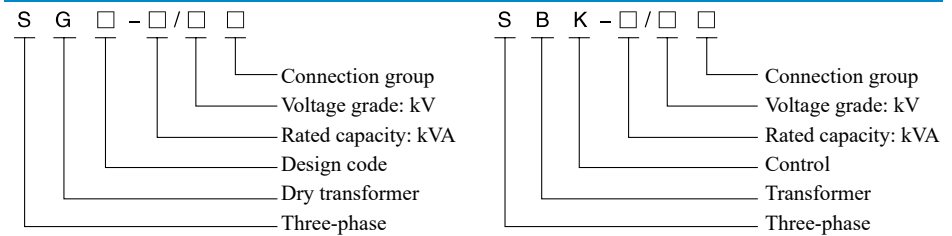
SG (SG10), SBK Series Three-Phase Dry Transformer



1 Overview

SG(SG10), SBK series three-phase dry transformer (hereinafter referred to as transformer) is used in the AC 50/60Hz circuit with the rated voltage up to 1200V as the power supply of the energy storage, control, lighting and indicator for mechanical equipment, various machine tools electric apparatuses, and photovoltaic wind power set, and it can also be used as miniature power supply and rectifier power supply. The SBK is of the open type, and the SG is of the protection type.

2 Type Designation



3 Outline and Installation Dimensions

3.1 SBK series open type dry transformer outline dimensions (see Table, Fig. 1, Fig. 2).

3.2 SBK series protection type dry transformer outline dimensions (see Table, Fig. 3, Fig. 4, Fig. 5).

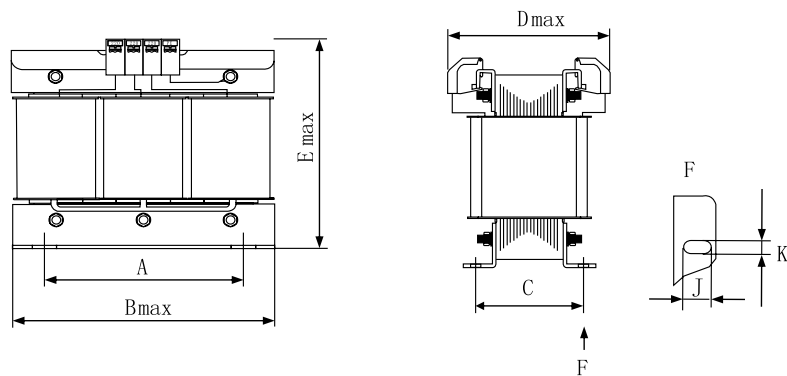


Fig. 1 Open type 5kVA and below (SBK)

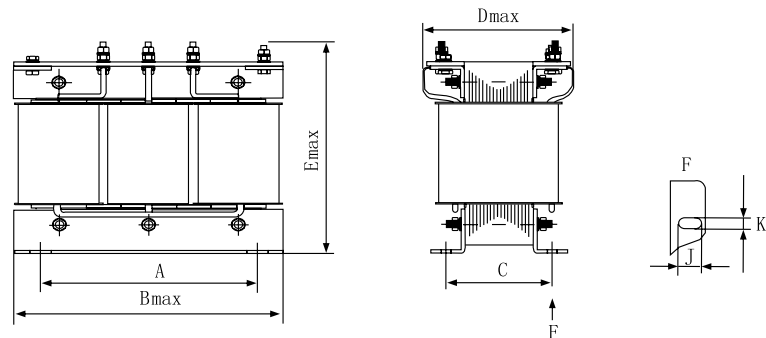


Fig. 2 Open type 6kVA and above (SBK)

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Fig. 3 Protection type 3kVA and below

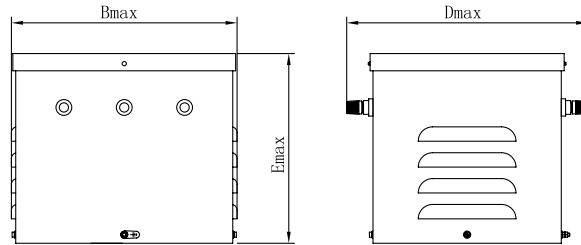


Fig. 4 Protection type (4kVA ~ 45 KVA)

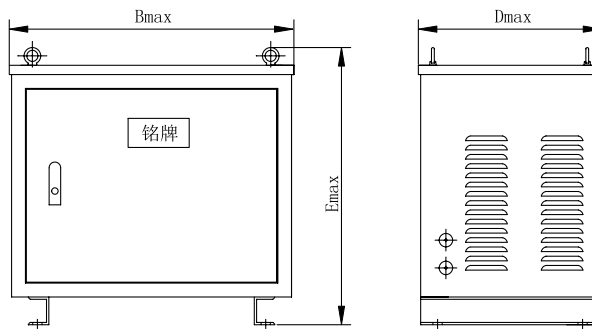
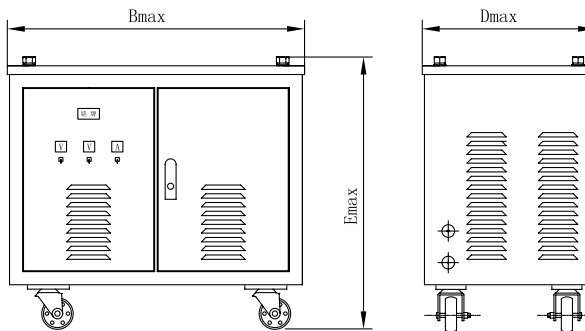
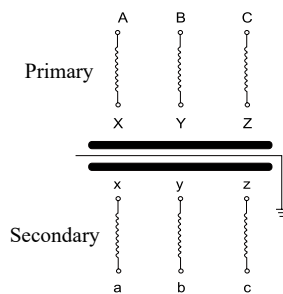


Fig. 5 Protection type (50kVA ~ 500 KVA)

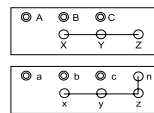


Electrical schematic diagram

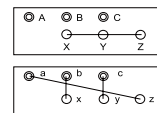


Connection group diagram

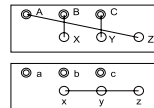
Example ① Y/yn(Y/Y0)



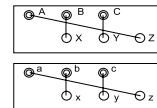
Example ② Y/D(Y/Δ)



Example ③ D/y(Δ/Y)



Example ④ D/d(Δ/Δ)



SG (SG10), SBK Series Three-Phase Dry Transformer

Model & Spec.	Rated voltage (V)		Open type			Protection type		
			Outline dimensions (max)	Installation dimensions (+5)	Mounting hole	Outline dimensions (max)	Installation dimensions	
	Input	Output	B×D×E (mm)	A×C (mm)	K×J	B×D×E (mm)	K×J	
SG-0.1	690	660	125×100×125	90×55	6×12	245×240×215	—	
SG-0.3			155×110×155	110×66	8×16			
SG-0.5			185×140×185	130×85				
SG-0.75			185×150×185	130×92				
SG-1			185×160×185	130×103				
SG-1.5			235×170×225	180×105				
SG-2			270×190×255	200×110				
SG-2.5			270×190×255	200×118				
SG-3			270×200×255	200×126				
SG-4			660	380	305×210×305	220×135		10×22
SG-5	305×220×305	220×135						
SG-6	365×220×350	260×135						
SG-8	365×240×350	260×145						
SG-10	400	220			425×260×400	320×145	12×25	400×330×400
SG-15					425×280×400	320×160		
SG-20					480×320×460	360×160		
SG-25					480×340×460	360×170		
SG-30					480×350×460	360×180		
SG-40					540×350×550	400×190		
SG-50			以定制为准	以定制为准	φ 13	520×400×465		
SG-60			以定制为准	以定制为准				
SG-80			以定制为准	以定制为准				
SG-100			以定制为准	以定制为准				
SG-125	以定制为准	以定制为准						
SG-150	以定制为准	以定制为准						
SG-200	380	200	480×350×460	360×180	φ 15	600×470×540		
SG-30			480×350×460	360×180				
SG-40	380	200	540×350×550	400×190	φ 13	680×500×680		
SG-50			以定制为准	以定制为准				
SG-60			以定制为准	以定制为准				
SG-80			以定制为准	以定制为准				
SG-100			以定制为准	以定制为准				
SG-125	380	200	以定制为准	以定制为准	φ 15	850×600×820		
SG-150			以定制为准	以定制为准				
SG-200			以定制为准	以定制为准				
SG-250	380	200	以定制为准	以定制为准	φ 15	1000×700×900		
SG-30			以定制为准	以定制为准				
SG-40	380	200	以定制为准	以定制为准	φ 15	1200×750×1020		
SG-50			以定制为准	以定制为准				
SG-60	380	200	以定制为准	以定制为准	φ 15	1300×800×1150		
SG-80			以定制为准	以定制为准				
SG-100	380	200	以定制为准	以定制为准	φ 15	1300×800×1150		
SG-125			以定制为准	以定制为准				
SG-150	380	200	以定制为准	以定制为准	φ 15	1300×800×1150		
SG-200			以定制为准	以定制为准				
SG-250	380	200	以定制为准	以定制为准	φ 15	1300×800×1150		
SG-30			以定制为准	以定制为准				

Control Devices

Notes:

- The dimensions listed in the above table are for reference: SG-50KVA and above has cylindrical iron core that shall be specially customized, and the installation dimensions are determined according to the materials. The product dimensions of the AI line with the current of greater than 250A and with the voltage of greater than 800V are changed, and shall be customized.
- Any of the rated input and output voltages listed in the table can be selected according to the requirements.
- Any voltage and dimension not listed in the above table shall be specially customized according to the user's requirements through the negotiation.
- The terminal blocks of SG-3kVA and below protection type product are located outside the housing, as shown in Fig. 3.
SG-3kVA and below protection type product has housing, and the voltmeter, ammeter, air cooling system and wheels are added according to the user's requirements, as shown in Fig. 4 and Fig. 5.

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4 Normal working and installation conditions

- 4.1 The altitude does not exceed 2000m.
- 4.2 The maximum ambient temperature is +40°C, and the minimum temperature is -5°C.
- 4.3 The relative humidity of the atmosphere air does not exceed 50% at the ambient temperature +40°C, and higher relative humidity is allowed at lower temperatures. The maximum relative humidity is 90% (at +25°C).
- 4.4 There is no dirt and explosive medium that severely affect the insulation of transformer and no corrosive harmful gas or dust in the ambient air; during operation, the transformer shall not be subject to natural erosion.
- 4.5 There is no severe vibration and bump at the installation site.
- 4.6 The power voltage waveform is a sine wave, and the three-phase power supply is approximately symmetrical.

5 Structure Features

SG series three-phase dry transformer can be of the open type (SBK) and protection type, featuring with low loss, small noise, good performance, and non-pollution to the environment. For protection type, the housing is made of cold-rolled steel plate, and the transformer is installed inside and there are inlet and outlet holes on the housing for convenient installation of power line. In addition, for protection type, the voltage and current monitoring meters, axial current cooling fan and steering wheels can be added according to the user's requirements for convenient movement.

6 Ordering Notice

- 6.1 Product name: Three-phase dry transformer.
 - 6.2 Product model: SG-10/0.5.
 - 6.3 Output capacity: 10kVA.
 - 6.4 Frequency: 50z.
 - 6.5 Rated input voltage (refer to line voltage): 380V.
 - 6.6 Rated output voltage (refer to line voltage): 220V.
 - 6.7 Connection method: "Y" for input, "d" for "Y/d" for output
 - 6.8 Open type or protection type: Protection type
 - 6.9 Whether an isolation shield is required or not shall be specified when ordering.
- Note: If out of the normal working environment range (such as temperature, and altitude), special customization is required.