

### **COMPANY PROFILE:**

ANHUANG is a modern company of professional design and manufacture of 3.6 kV to 40.5 kV Medium Voltage cable accessories, electric components and whole set cabinet. Subsidiaries:

Anhuang Electric Power Technology Co.,Ltd Zhejiang Anhuang Imp.& Exp.Co,Ltd.

We provide high quality, low cost products for utility systems worldwide.

Our professional production testing equipment, special production technology and professional service team can satisfy the customers' demand.

Our professional engineers, technicians and managers team always keep our promise: ANHUANG is not only provide cost-effective high quality products but also provide high quality, efficient, fast service and technical support to ensure customers' require. Our company obtained international quality management system certification for ISO 9001, ISO 14010 HSAS 18001

Our company adhering to the 'safety electricity, forever brilliant' as our enterprise's humanism Willing to work with you hand in hand to build better future.

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### Bay-O-Net fuse holder

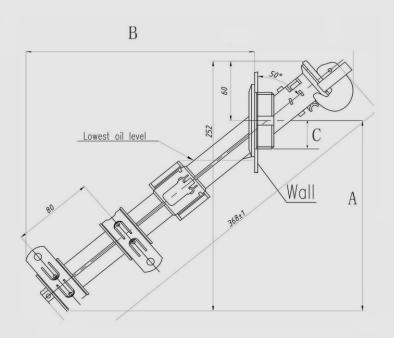


Bay-o-net Assembly is the brief element of oil-transformer, to protect the equipment when over-current. When install the fuse wire in it, the Bay-o-net will provide the safe, highly efficient protection, according to the current, oil temperature.

The Bay-o-net Assembly is suitable for current sensing fuse wire, dual sensing fuse wire, dual element fuse wire, and ELSP current-limiting backup fuse, etc.

It is suitable for high-voltage power system with alternating current of 50HZ, standard voltage of 15.5kv, current rating of 140A. It must be combining with Magn X Interrupter of ELSP Current-limiting Backup Fuse to protect transformer from overload and short circuit

# **Product structure and parameters**





#### Sidewall Assembly Dimensional Information

Rated Assembly (kV)	Length in./(mm)			
	Α	В	С	
23/38	7.48	9.125	1.125	
	(192)	(232)	(29)	

NOTE: Dimensions given are for reference only and can be consider with a tolerance for instance ± 5 mm.

Description		Parameters		
Impulse withstand voltage			150kV	
	AC withstand voltage, 1min			50kV
Voltage	Maximum Single-Phase Interrupting Rating	Volt	age	Thermal circuit
8. 3kV	3000A/3500A	10.	0kV	160A
15. 5kV	2500A/2500A	15.	5kV	150A
23kV	1000A/1000A	26.	7kV	80A

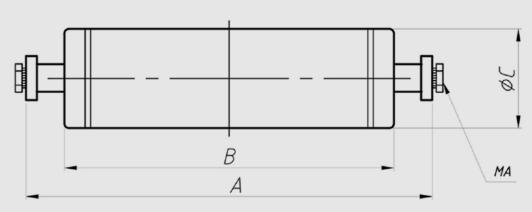


### High voltage current limiting fuse



The magne X interrupter is used in series with low current primary protection devices such as a Bay-o-net Fuse or Magne X The magne X interrupter.

The magne X interrupter highly efficient current-limiting section minimizes the effects of high fault current stresses on equipment and the distribution system. Its minimum interrupting rating is coordinated with that of a low current interrupter to avoid undesirable low current operation; yet its maximum interrupting rating will clear the highest fault currents likely to occur. Higher continuous current ratings can be achieved by connecting two fuses in parallel.



Drawing of XRNTS series High Voltage Current-limiting Fuse

Туре	Rated current	A	В	MA	ΦC	Breaking current
	20 25 31.5 40	248	216	M6	<b>Ø</b> 53	
XRNT5-15. 5	50 63 80 100 125	356	324	M6	<b>Ø</b> 53	
	150 175	405	373	M6	<b>Ø</b> 53	50kA
	200 250	494	462	M10	<b>Ø</b> 76	
	315	600	567	M10	<b>Ø</b> 76	
	20 25 31.5 40	494	462	M10	<b>Ø</b> 76	
XRNT5-25	50 63 80 100	494	402	MIO	Ψ10	50kA
	125 150 175 200	600	567	M10	<b>Ø</b> 76	
XRNT5-40. 5	10 16 20	570	537	M6	<b>Ø</b> 53	
	25 31.5 40	570	537	M10	<b>Ø</b> 76	
	50 63	600	567	M10	<b>Ø</b> 76	31.5kA
	80 90 100	683	650	M10	<b>Ø</b> 76	
	100 125	783	750	M10	<b>Ø</b> 76	



### **Bushing well**

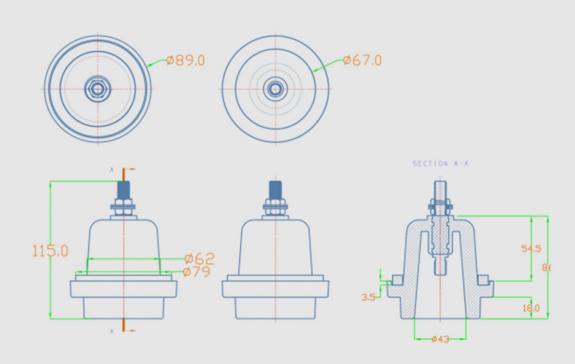


- 1. AH TGZ-15(25)/200A bushing well,mainly used for current 200A gas insulated switchgear,ring main unit,dry transformer and other equipments.Installed on the high voltage side of the device connect to the switch,or connect to transformer high voltage winding.
- 2. Can use a single-through bushing insert, feedthru insert or a single-way T arrester connected to the relevant equipment through the casing.
- 3. The interface complies with the IEEE386 standard.

#### Warning:

- 1. All equipments connected to the bushing well must be powered off during installation or maintenance.
- 2. Check the appearance of the bushing well before installation, and there should be no defects such as breakage, cracks, etc.

## **Product structure and parameters**



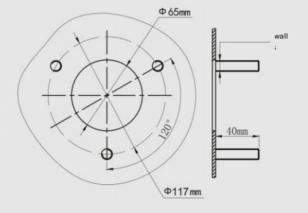
## Installation

#### Step 1

- 1. Open a dia-meter  $\phi 65\text{mm}$  hole on the side of the equipment installation panel, and debur the edge of the hole.
- 2. Averagely weld 3 lengths of M10X40mm mounting screws on the  $\phi117\text{mm}$  circle centered on the center of the hole center. (Fig 1) 3. Make sure that the seal is not damaged and place the seal into the
- Make sure that the seal is not damaged and place the seal into the groove of the bushing well.
   Push the bushing well horizontally into the hole of the equipment, and
- 4. Push the bushing well horizontally into the hole of the equipment, and press on the triangular plate and fix the three mounting holes into the corresponding equipment welding screws. Put the flat washer and the spring washer into the nut until the spring washer is flat and the torque is about 30N.m.(Fig 2)

#### Step 2

Clean and lubricate the inner surface of the bushing well and install a proper shielded separable connector to the front end of the bushing well.





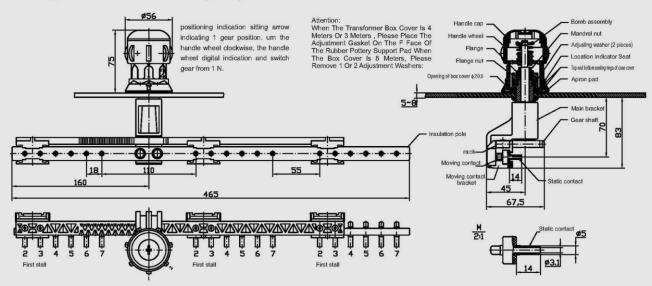
### De-energized Tap Changer



This instruction is suitable for strip-type off-circuit tap changer with its frequency of 50, 60Hz, rated current 63A and below, and rated voltage 33kV(Called tap changer below). This tap changer is used in the oil-immersed power transformer and being operated under off-circuit state.

## **Product structure and parameters**

#### Model Type: WST || 230/10-20-6x5 (H=70) Switch Installation Size And Description:



#### Installation Instructions And Considerations:

- After the switch leaves the factory, through the transportation or other processes may cause accidental damage, the installation should be examed before the overall inspection, if there is damage, do not install
- 2. This switch's rated voltage is 10-20KV, rated current is 304. The number of tap positions is 5. Suitable for the corresponding capacity of oil-immersed power transformer: the place of use should be non-corrosive and explosive gas. Suitable temperature: -25 °C-100C; altitude less than 1000 meters.
- 3. The static contact and the lead should be pressed, there should be no loosening phenomenon, to avoid the occurrence of adverse contact accidents. The lead should be of sufficient length to avoid the tension of the tch when it is loaded into the box cover, resulting in damage.

  4. The switch synchronizes with the transformer or dries separately. The drying temperature is 95 °C ±5 °c, and the time is 8 ~ 12 h. Tighten the mandrel and fastener after drying to prevent oil seepage and loosening.
- During gear adjustment, the dynamic and static contacts will be lubricated with transformer oil so as not to be too light and scratch the contact.

  5. When the switch is assembled with the box cover, in addition to the apron gasket and the sealing ring under the box cover, the upper cover of the handle, the spring assembly, the handle, the flange nut, the adjusting
- gasket, the positioning instruction and the sealing ring on the box cover shall be removed in sequence. Put the switch flange into the opening of the box cover (thick and thin of the box cover to carry out the "attention' requirements). Reverse load the removed parts in the above order. Pay attention to the orientation of the seat and flange.
- 6. When adjusting the switch, pull up the handle and rotate. In transformer test, 58 full gear shifts are made by switching cycle, and then shifts are made. When adjusting the gear, there is a sense of hand. When adjusting to the required gear, move the handle left and right slightly, and the arrow is pointed at the number of gears. It falls freely into the positioning indicator slot, and confirms it, and completes the adjusting. The switch has a limit gear limit and should not exceed it when adjusting to avoid damage.
- 7. When the transformer needs to be adjusted after operation, the power must be cut off. Filing is done according to Item 6. The DC resistance of the transformer should be tested before the power is sent again, and the power can be sent only after it is qualified. 8. If oil seepage occurs on the switch, please fasten the mandrel screw or flange screw.

  - Generally, when transformer is being maintained, the switch should be synchronized, which can be carried out by means of Item 6 and Item 7.
     Switches should be handled lightly. Prevent the impact force acting on the switch to prevent damage. Waterproof, moisture-proof and dust-proof.
  - 11. Switches should be stored in an air-flowing, dry and non-corrosive environment during storage.



# Rotary Tap Changer Technical



This switch was designed by JUDA electrical research Institute. The switch adopts new structure, new material, new technology, having the advantages of reasonable structure, good hand-feeling, Flexible rotary, reach the position accurately etc, It is the improved products of the off-circuit tap changer in china at present, which applies to single-phase, three phase, combination oil-immersed transformer electrical power with frequency of 50HZ,,60HZ, rated voltage of 10-35KV, rated current of 60-125A.

# **Product structure and parameters**

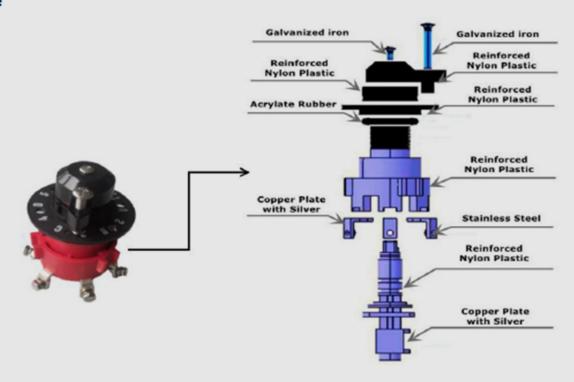
规格 Specifications 相数 Phase number		WSP63	WSP125	WST 250	
		三相 three-phases			
接线方式 Connection mode		中部调压 Central point			
额定通过电流(A) Rated through current(A)		63	125	250	
短路能力 Short-circuit capacity	热稳定(KA/2S) Heat stableness current(KA/2S)	1.6	2.5	3.75	
	动稳定(KA) Dynamic stableness current(KA)	4	6.25	9.375	
额定频率 (HZ) F	Rated frequency (HZ)		50~60		
绝缘水平(KV) Insulation level(KV)	额定电压等级(KV)Rated voltage(KV)	10KV	20KV	35KV	
	工频耐受电压 (50HZ/1min) Power-frequency withstand Voltage(50HZ/1min)	42KV	55KV	95KV	
	冲击 (1.2/50 μ S ) Impulse (1.2/50 μ S )	75KV	125KV	250KV	
密封性 (KPa/24h	n) Sealing Performance (KPa/24h)		60	(II)	
机械寿命 (干次) Machine life (Thousands of times)			2		

#### Remarks:

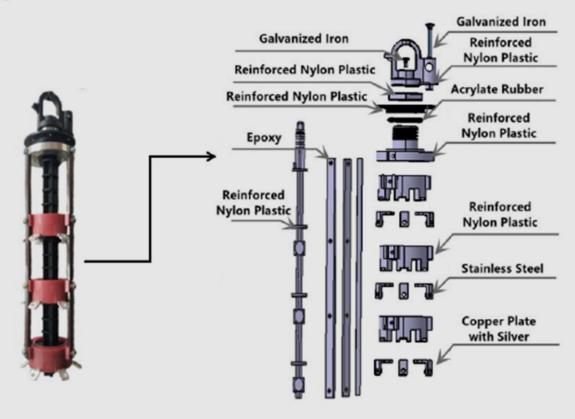
- 1. The tap changer of 63A current applies to the tank cover thickness of 5-8mm
- 2. The tap changer of 125A current applies to the tank cover thickness of 6-10mm
- 3. The tap changer of 250A current applies to the tank cover thickness of 8-12mm
- 4. Height below tank cover can be adjusted according to request



### **WDP Type**



### WSP IV Type



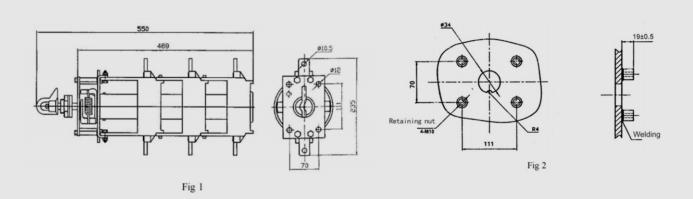


#### Oil Loadbreak switch



With the transformer oil as insulation and arc extinction medium and energy storing spring operating mechanism, this BYFI-40.5 two-position oil immersed load switch applies to the combined transformer with 50~60Hz frequency and 40.5kV rated voltage, it is capable to turn on and off the load current. Equipped with ON and OFF two positions, the clockwise turn is ON, while anticlockwise is OFF, the rotation angle should be controlled within 90 degree. In addition, it can be suitable for end power distribution system or ring-network power distribution system if equipped extra configurations

# **Product structure and parameters**



#### **Ratings and Characteristics**

Description	Units	Ratings	
Rated Voltage	kV	40.5	
Power Frequency	Hz	60	
Current Rating	A	630	
Rated thermostable current	4 second/kA	25	
Rated dynamic current	kA	63	
Impulse Withstand Voltage			
To ground and between phases	kV	200	
Across open contacts	kV	215	
Power Frequency Withstand (1 minute)	6/4/	19761 1	
To ground and between phases	kV	95	
Across open contacts	kV	110	
Contacts	12 W # 4.		
Mechanical life (Minimum Operations)	2,000	2,000	

Before installation, check if the switching motion is flexible and accurate carefully, only after confirmed to be under good condition, the installation can be implemented, in addition, the load switch must be dried under 65 ± 5 degree condition by 24h.



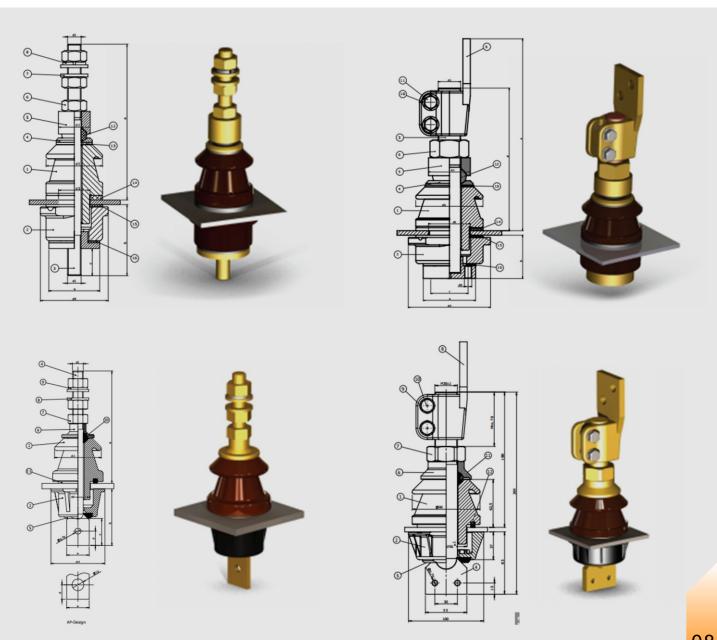
### Porcelain Low Voltage Bushing



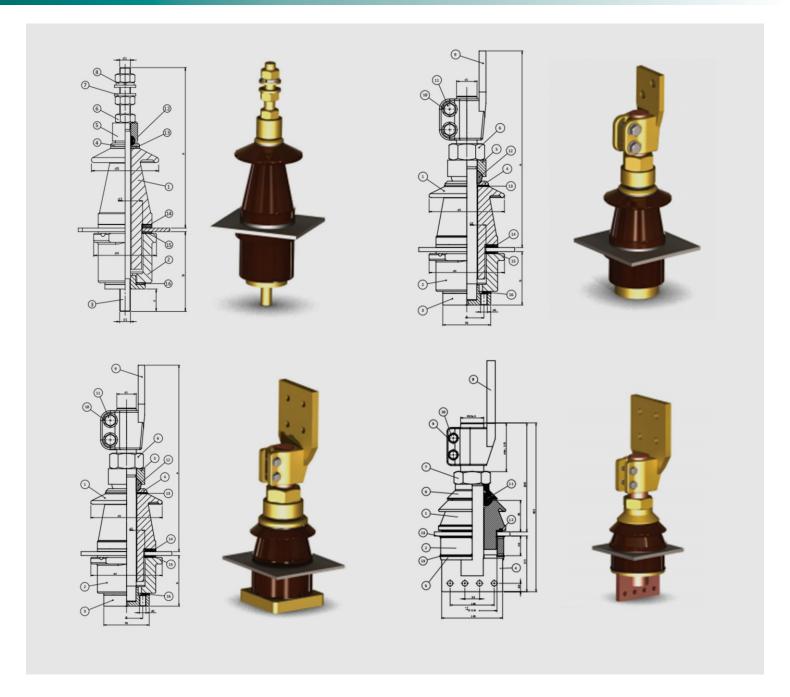
2-36kV/250-630A Oil Type Distribution Transformer Porcelain Bushing DIN Standard

These bushings are used for oil type distribution transformer, these bushings are available in a variety of designs and can be customized to meet almost any type of customer requirements (eg tinning, special drilling, special connectors, etc.).

The LV series features a porcelain insulator on the oil side; in addition, the rods are available in copper or brass.







Therefore, the transformer bushing has the following requirements:

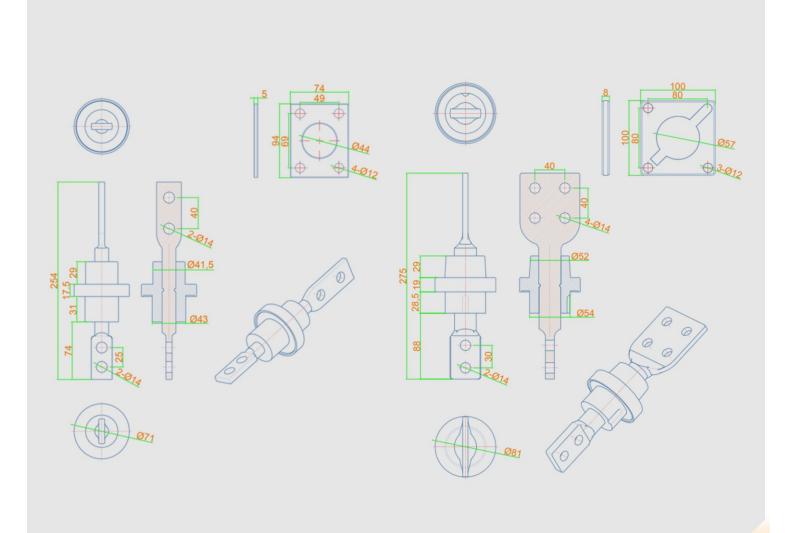
- 1. Must have specified electrical strength and sufficient mechanical strength.
- 2. Must have good thermal stability and be able to withstand instantaneous overheating during short circuit.
- 3. Small shape, small quality, good sealing performance, strong versatility and easy maintenance.

So you can consult us to get more professional design scheme.



# Prefabricated LV bushing





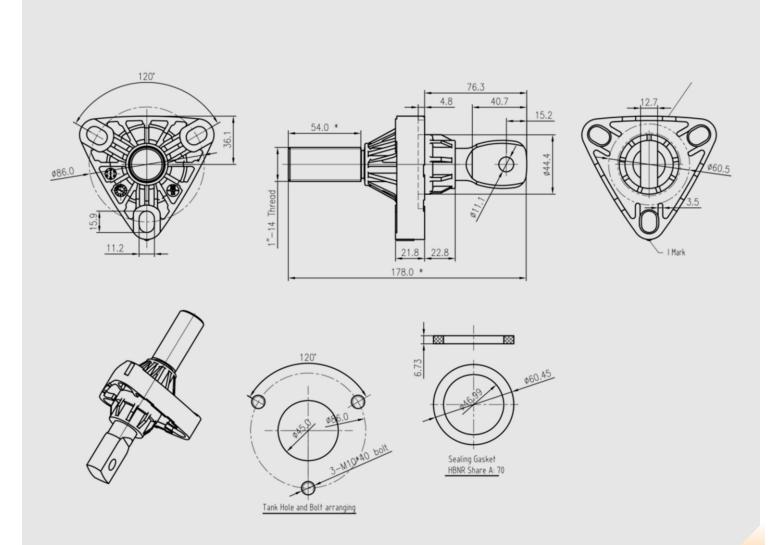


### Prefabricated LV bushing



#### Note:

- 1. Voltage class 1.2 KV, BIL30KV;
- 2. Rated current 1200A;
- 3. Application temperature -40~140'C, Indoor condition without salt fog and chemical corrosion;
- 4. Conductor material: copper C11000;
- 5. Color of insulation body: black;
- 6. Recommended dia.of tank hole:45.0+0.5 mm.
- 7. Sealing gasket see left view.
- 8. \* dimensions can be changed on customer's request. All dimensions are in mm unless otherwise specified

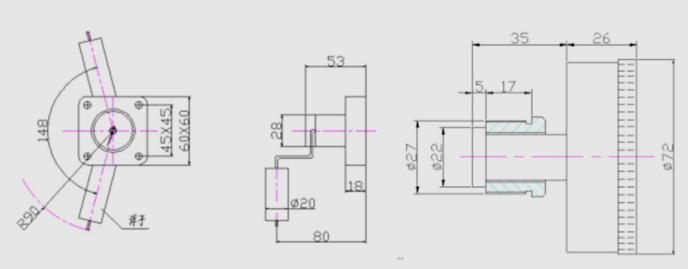




### Transformer meters

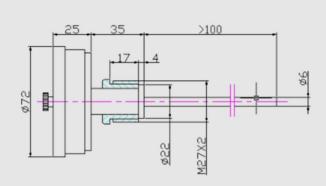


- A BWS-70 Thermometer Gauge
- YSF Pressure Release Valve
- A UHZ-01 Oil Level Indicator to Transformer
- A YZ 70 Pressure Vacuum Gauge

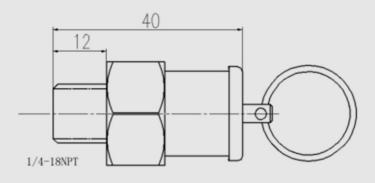


A UHZ-01 Oil Level Indicator to Transformer

A YZ 70 Pressure Vacuum Gauge



A BWS-70 Thermometer Gauge



YSF Pressure Release Valve