

## FCRG1-(L) - 40.5 - 252 DRY TYPE HIGH VOLTAGE WALL BUSHING

### 1. Technical parameters

Rated voltage: 40.5 - 252kV

Rated current: 100 - 5000A

Rated frequency: 50Hz

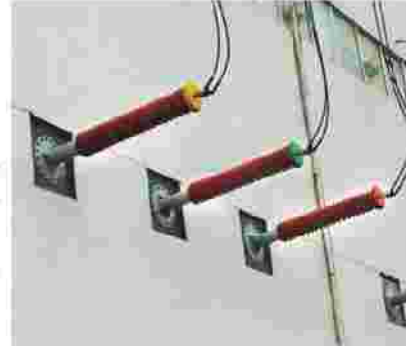
### 2. Environment condition

Installation way: indoor-indoor or outdoor-indoor  
level installation or vertical  
installation

Environment temperature: -50 - 50℃

Height: ≤1000m (confering with consumer above  
1000m)

Pollution class: II、III、IV



252kV dry type high voltage wall bushings  
are working at Shandong Rizhao Power Plant

### 3. Main Performance

The main performance of the product can satisfy the requests of GB/T4109 《Technical specification of high voltage bushing》 and IEC 60137 《Bushing for alternating voltage above 1000V》.

#### 3.1 Rated insulated level and partial discharge level

Rated voltage $U_r$ (kV)	System voltage (kV)	Rated insulated level		Partial discharge level	
		Power frequency withstand voltage (kV)	Lightning impulse withstand voltage (kV)	Partial discharge test voltage (kV)	Partial discharge (pC)
40.5	35	95	185	40.5/24	10/5
72.5	66	160	350	72.5/44	10/5
126	110	230	550	126/77	10/5
252	220	460	1050	252/153	10/5

#### 3.2 Dielectric loss factor

Dielectric loss factor is not greater than 0.0025 under 10kV and  $1.05U_r/3$  kV  
(the temperature 10-30℃)

#### 3.3 Temperature rising limit

The highest temperature rising is not greater than 75K.

#### 3.4 Rated short-time thermal current is twenty-five times rated current when time keeps up

1 second.

### 3.5 Bending withstand load (N)

Rated voltage $U_r$ (kV)	Rated current (A)			
	$\leq 800$	1000 ~ 1600	2000 ~ 2500	$\geq 3150$
40.5	1000	1060	2000	3150
72.5	1000	1250	2000	4000
126	1250	1600	2500	4000
252	1250	1600	2500	4000

### 4. Acceptance and maintenance

Every dry type high voltage wall bushing has passed the tests including power frequency withstand voltage, partial discharge, dielectric loss factor, terminal withstand voltage before leaving the factory. we follow up GB50150 《Standard for hand-over test of electric equipment and electric equipment installation engineering》 when the products are handed over.

In generally, the products need no maintenance basically. It is enough to check the capacity and dielectric loss factor every 2-3 years.

### 5. Transportation and installation

- 5.1 The products should be packed by shockproof material when they are transported.
- 5.2 Pay attention to silicon rubber umbrellas when the products are suspended.
- 5.3 Documents: certificate, test report, product manual. They should be put into packing box with the products.
- 5.4 Please earth reliably the terminal of the products after installing.

### 6. Notice for order

You should specify the following parameters at least when ordering:

Electric parameters: rated voltage, rated current, rated short-time thermal current, creepage distance;

Environment condition: temperature, height, pollution class, installation way;

You should offer correct parameters according to the requests of current transformer if you want to append wall bushing type current transformer, at the same time you should illuminate discription type or integrated type.

We can offer the special products too.

**FCRG1 - ( L ) - 40.5 - 252 DRY TYPE HIGH VOLTAGE WALL BUSHING**

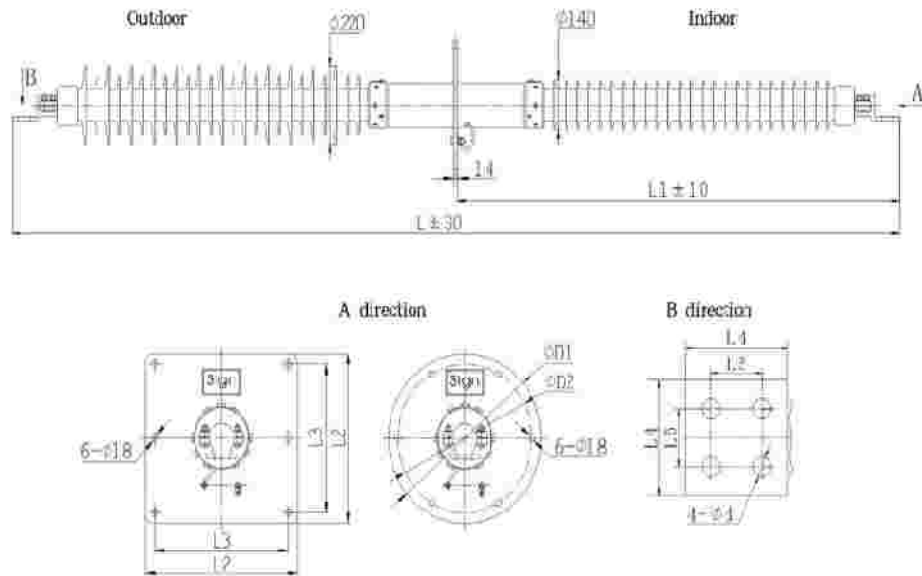


fig6 FCRG1-40.5-126 dry type high voltage wall bushing

Type and specification	Rated voltage (kV)	Rated current (A)	L	L1	L2	L3	L4	L5	D1	D2	d	Weight (kg)
FCRG1-40.5/630 ~ 1000	40.5	630 ~ 1000	1440	715	250	200	80	40	/	/	14	30
FCRG1-40.5/1250	40.5	1250	1480	735	250	200	100	50	/	/	18	35
FCRG1-40.5/1600 ~ 2000	40.5	1600 ~ 2000	1480	735	250	200	100	50	/	/	18	50
FCRG1-40.5/2500	40.5	2500	1530	760	250	200	125	60	/	/	18	60
FCRG1-72.5/630 ~ 1000	72.5	630 ~ 1000	2400	1180	400	350	80	40	400	350	14	70
FCRG1-72.5/1250	72.5	1250	2440	1200	400	350	100	50	400	350	18	75
FCRG1-72.5/1600 ~ 2000	72.5	1600 ~ 2000	2440	1200	400	350	100	50	400	350	18	95
FCRG1-72.5/2500	72.5	2500	2500	1230	400	350	125	60	400	350	18	110
FCRG1-126/630 ~ 1000	126	630 ~ 1000	3070	1540	400	350	80	40	400	350	14	80
FCRG1-126/1250	126	1250	3110	1560	400	350	100	50	400	350	18	85
FCRG1-126/1600 ~ 2000	126	1600 ~ 2000	3110	1560	400	350	100	50	400	350	18	110
FCRG1-126/2500	126	2500	3160	1585	400	350	125	60	400	350	18	120

FCRG1-40.5-126 dry type high voltage wall bushing dimension chart

**FCRG1-(L)-40.5-252 DRY TYPE HIGH VOLTAGE WALL BUSHING**

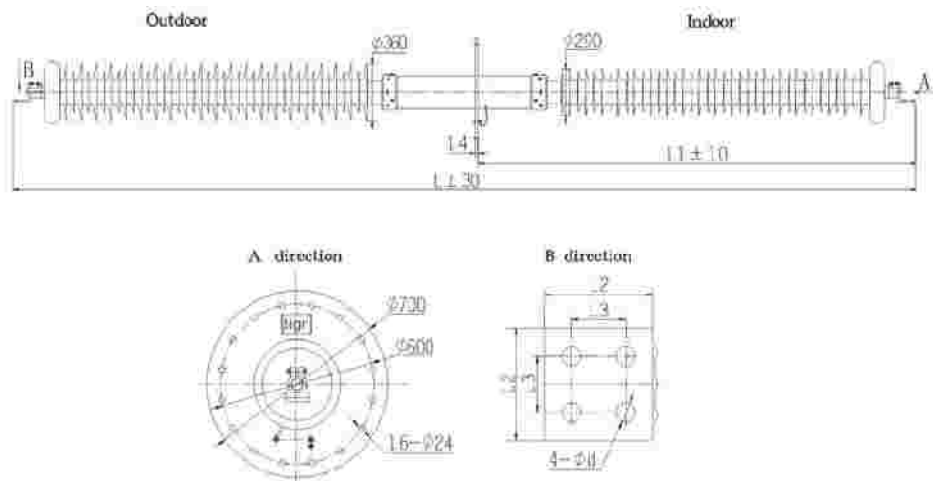


fig7 FCRG1-252 dry type high voltage wall bushing

Type and specification	Rated voltage (kV)	Rated current (A)	L	L1	L2	L3	d	Weight (kg)
FCRG1-252/630~1000	252	630~1000	5600	2640	80	40	14	350
FCRG1-252/1250	252	1250	5640	2660	100	50	18	370
FCRG1-252/1600	252	1600	5640	2669	100	50	18	380
FCRG1-252/2000	252	2000	5640	2660	100	50	18	400
FCRG1-252/2500	252	2500	5690	2685	125	60	18	430

FCRG1-252 dry type high voltage wall bushing dimension chart

**FCRG1-(L) - 40.5 ~ 252 DRY TYPE HIGH VOLTAGE WALL BUSHING**

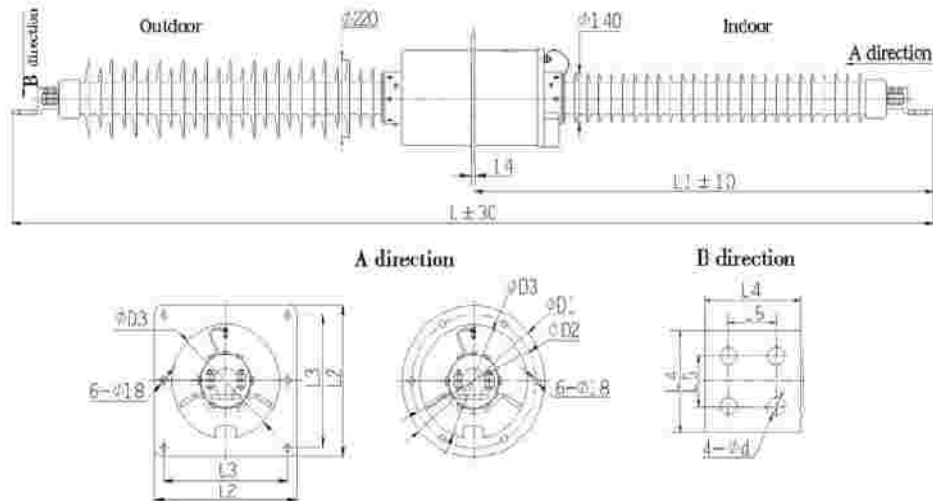


Fig8 FCRG1-L-40.5~126 dry type high voltage wall bushing (CT flange integrated type)

Type and specification	Rated voltage (kV)	Rated current (A)	L	L1	L2	L3	L4	L5	D1	D2	D3	d	Weight (kg)
FCRG1-L-40.5/630 ~ 1000	40.5	630 ~ 1000	1840	915	350	300	80	40	350	300	260	14	90
FCRG1-L-40.5/1250	40.5	1250	1880	935	350	300	100	50	350	300	260	18	95
FCRG1-L-40.5/1600 ~ 2000	40.5	1600 ~ 2000	1880	935	350	300	100	50	350	300	260	18	110
FCRG1-L-40.5/2500	40.5	2500	1930	960	350	300	125	60	350	300	260	18	120
FCRG1-L-72.5/630 ~ 1000	72.5	630 ~ 1000	2400	1180	400	350	80	40	400	350	320	14	130
FCRG1-L-72.5/1250	72.5	1250	2440	1200	400	350	100	50	400	350	320	18	135
FCRG1-L-72.5/1600 ~ 2000	72.5	1600 ~ 2000	2440	1200	400	350	100	50	400	350	320	18	150
FCRG1-L-72.5/2500	72.5	2500	2500	1230	400	350	125	60	400	350	320	18	170
FCRG1-L-126/630 ~ 1000	126	630 ~ 1000	3070	1540	400	350	80	40	400	350	320	14	140
FCRG1-L-126/1250	126	1250	3110	1560	400	350	100	50	400	350	320	18	145
FCRG1-L-126/1600 ~ 2000	126	1600 ~ 2000	3110	1560	400	350	100	50	400	350	320	18	160
FCRG1-L-126/2500	126	2500	3160	1585	400	350	125	60	400	350	320	18	180

FCRG1-L-126 dry type high voltage wall bushing(CT flange integrated type)dimension chart

**FCRG1-(L)-40.5-252 DRY TYPE HIGH VOLTAGE WALL BUSHING**

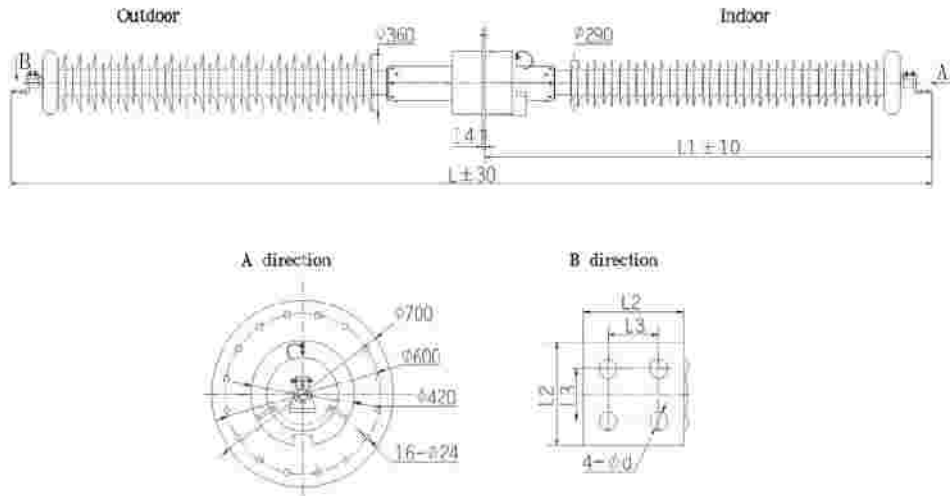


fig9 FCRG1-L-252 dry type high voltage wall bushing (CT flange integrated type)

Type and specification	Rated voltage (kV)	Rated current (A)	L	L1	L2	L3	d	Weight (kg)
FCRG1-L-252/630-1000	252	630-1000	5600	2640	80	40	14	410
FCRG1-L-252/1250	252	1250	5640	2660	100	50	18	450
FCRG1-L-252/1600	252	1600	5640	2660	100	50	18	460
FCRG1-L-252/2000	252	2000	5640	2660	100	50	18	500
FCRG1-L-252/2500	252	2500	5680	2685	125	60	18	550

FCRG1-L-252 dry type high voltage wall bushing (CT flange integrated type) dimension chart



**FCRG1-(L)-40.5~252 DRY TYPE HIGH VOLTAGE WALL BUSHING**

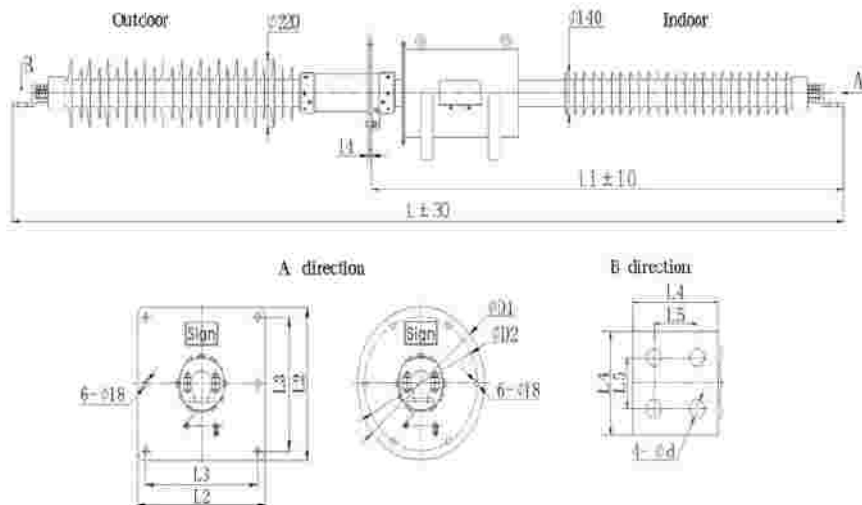


fig10 FCRG1-L-40.5~126 dry type high voltage wall bushing(CT discription type)

Type and specification	Rated voltage (kV)	Rated current (A)	L	L1	L2	L3	L4	L5	D1	D2	d	Weight (kg)
FCRG1-L-40.5/630~1000	40.5	630~1000	1840	1115	250	200	80	40	/	/	14	40
FCRG1-L-40.5/1250	40.5	1250	1880	1135	250	200	100	50	/	/	18	45
FCRG1-L-40.5/1600~2000	40.5	1600~2000	1880	1135	250	200	100	50	/	/	18	60
FCRG1-L-40.5/2500	40.5	2500	1930	1160	250	200	125	60	/	/	18	70
FCRG1-L-72.5/630~1000	72.5	630~1000	2730	1535	400	350	80	40	400	350	14	75
FCRG1-L-72.5/1250	72.5	1250	2770	1555	400	350	100	50	400	350	18	80
FCRG1-L-72.5/1600~2000	72.5	1600~2000	2770	1555	400	350	100	50	400	350	18	100
FCRG1-L-72.5/2500	72.5	2500	2820	1580	400	350	125	60	400	350	18	120
FCRG1-L-126/630~1000	126	630~1000	3400	1870	400	350	80	40	400	350	14	80
FCRG1-L-126/1250	126	1250	3440	1890	400	350	100	50	400	350	18	95
FCRG1-L-126/1600~2000	126	1600~2000	3440	1890	400	350	100	50	400	350	18	110
FCRG1-L-126/2500	126	2500	3490	1915	400	350	125	60	400	350	18	140

FCRG1-L-40.5~126 dry type high voltage wall bushing(CT discription type)dimension chart

**FCRG1-(L)-40.5-252 DRY TYPE HIGH VOLTAGE WALL BUSHING**

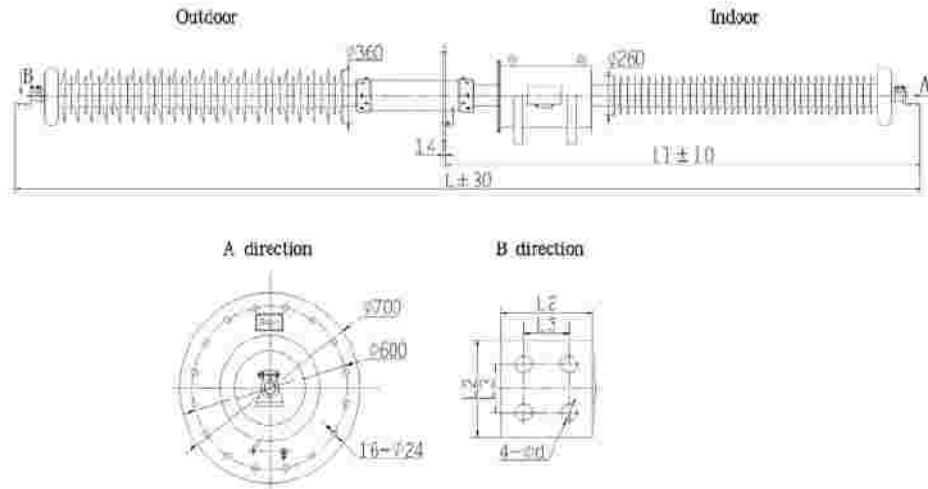


fig11 FCRG1-L-252 dry type high voltage wall bushing(CT discription type)

Type and specification	Rated voltage (kV)	Rated current (A)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	d	Weight (kg)
FCRG1-L-252/630 ~ 1000	252	630 ~ 1000	5600	2640	80	40	14	350
FCRG1-L-252/1250	252	1250	5640	2660	100	50	18	370
FCRG1-L-252/1600	252	1600	5640	2660	100	50	18	380
FCRG1-L-252/2000	252	2000	5640	2660	100	50	18	400
FCRG1-L-252/2500	252	2500	5690	2685	125	60	18	430

FCRG1-L-252 dry type high voltage wall bushing(CT discription type)dimension chart