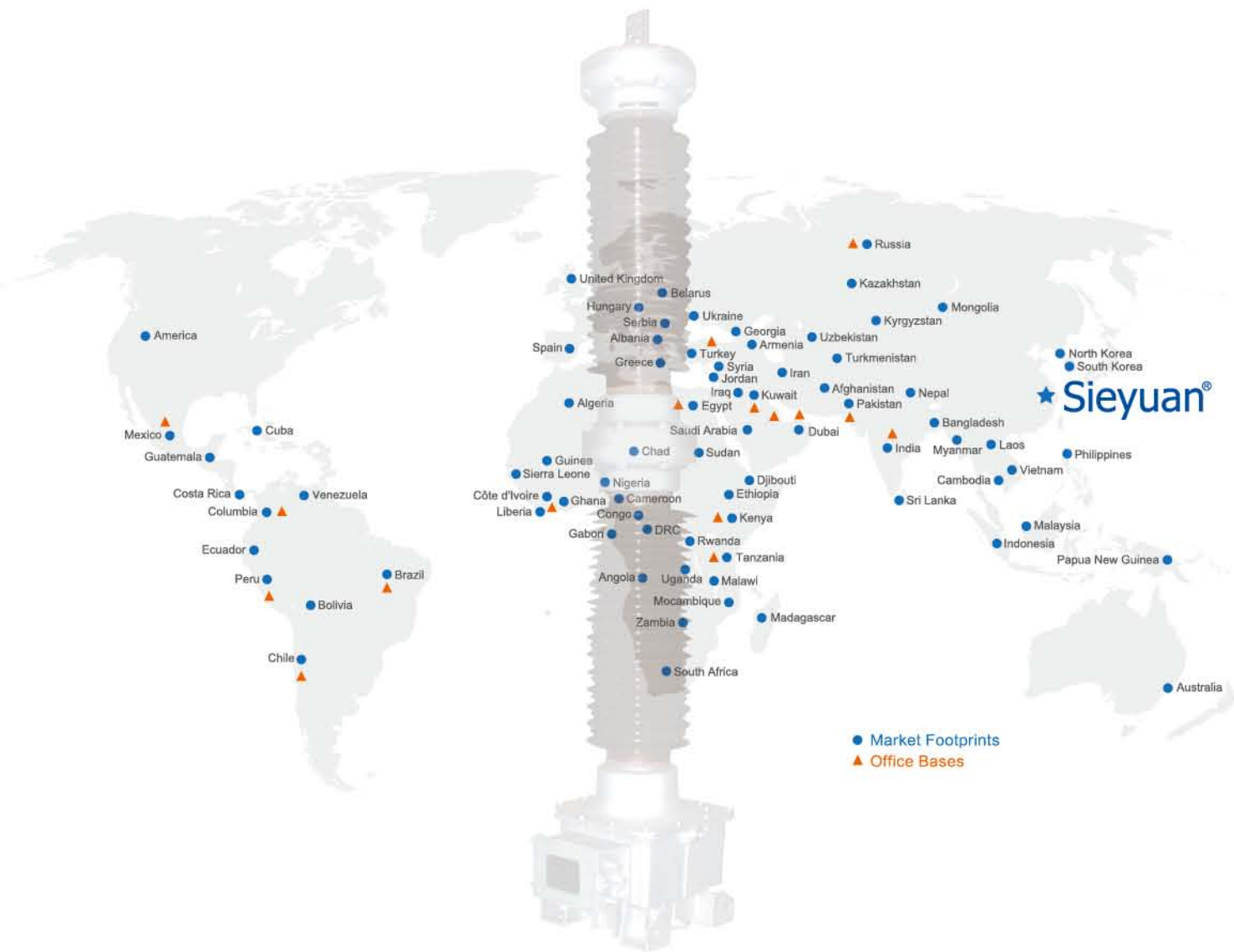


Main oversea offices have been established



JIANGSU SIEYUAN HERTZ INSTRUMENT TRANSFORMER CO., LTD.

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Sieyuan®



35-1000kV

CAPACITIVE VOLTAGE TRANSFORMERS

Outdoor operation/Oil-paper insulated



JIANGSU SIEYUAN HERTZ INSTRUMENT TRANSFORMER CO., LTD.



Application/Service condition

- Meet ANSI/IEEE /IEC/GB standards
- Meet the requirement of temperature -60°C – $+45^{\circ}\text{C}$
- Meet the requirement of high altitude up to 3000 meters
- Meet the requirement of high humidity and corrosion along the coast
- Meet rated frequency 50Hz or 60Hz
- System earthing condition: effectively earthed neutral system.
- Meet customer demand for customized products,CVTs to be used beyond the limits of the standard.

General

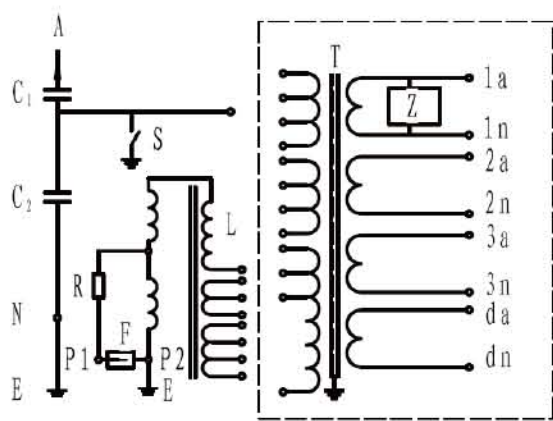
- Jiangsu Sieyuan Hertz Instrument Transformer Co., Ltd. is a high & new-tech enterprise in China, history back to 1967. The Company mainly produces all kinds of high-voltage current and voltage transformers.
- Capacitive voltage transformers of type SNFS/SNFM/SNUM/SNTM/SNUH/SNTH are used in high-voltage switchgears from 35 to 1000 kV. They transmit voltages to standardised, equivalent values for meters, measuring and protective devices.



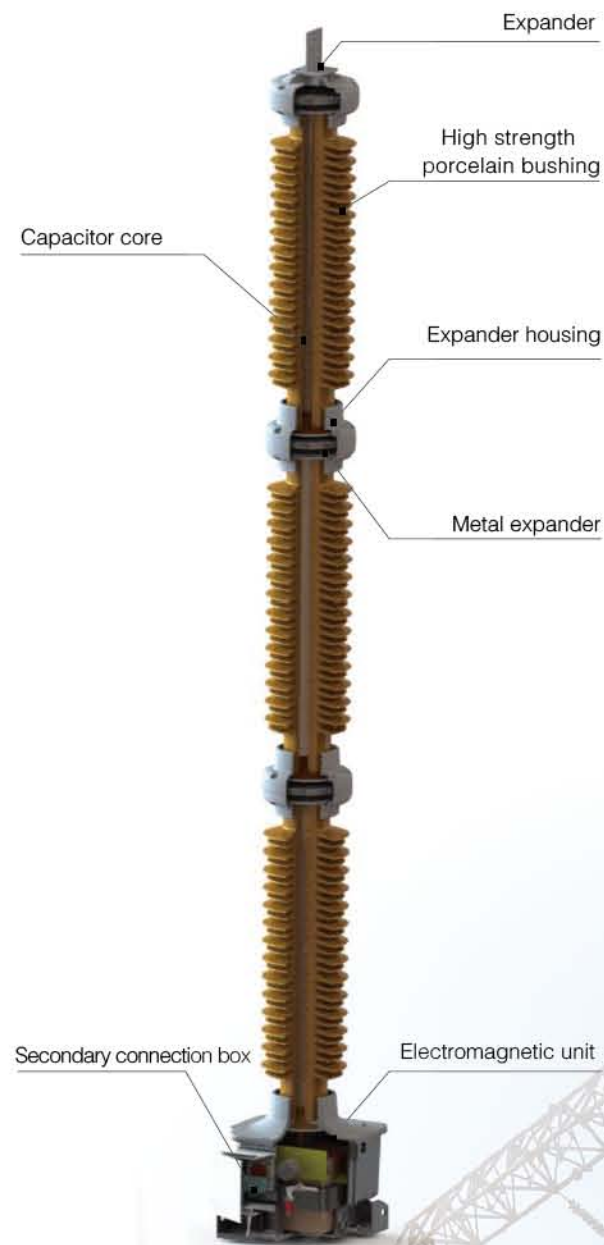
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CVT Description

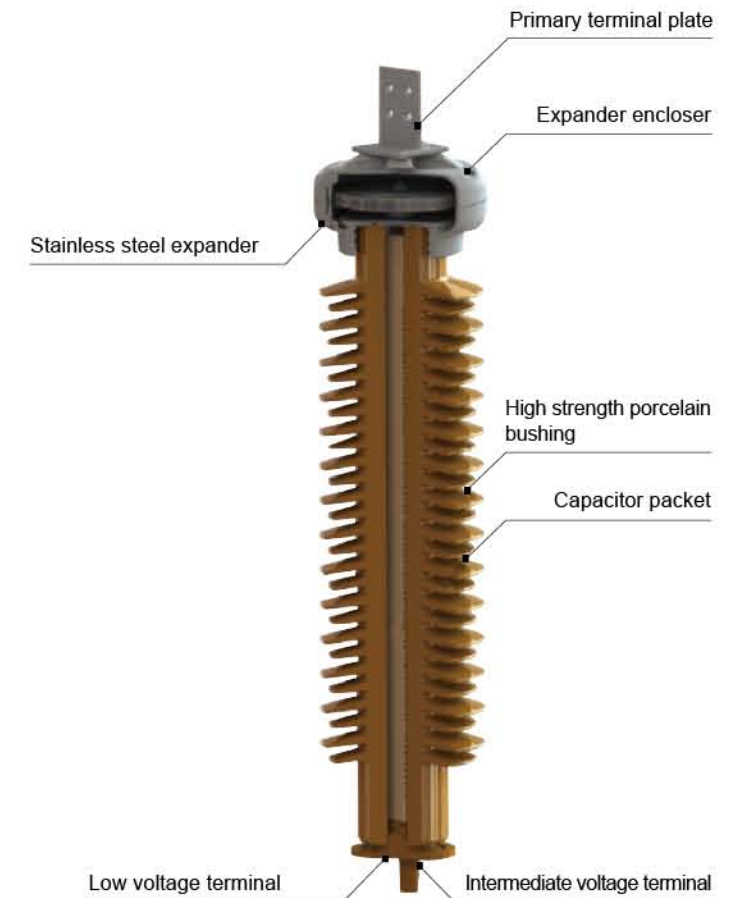
- The capacitive voltage transformer consists of one capacitor unit and one electromagnetic measuring unit (EMU). The capacitor unit is located in the insulator and consists of one capacitive mixed dielectric which is impregnated with insulation liquid. For volume compensation of the oil there is a stainless steel expansion bellows in the head section. The operating pressure can be visualized via a monitoring unit.



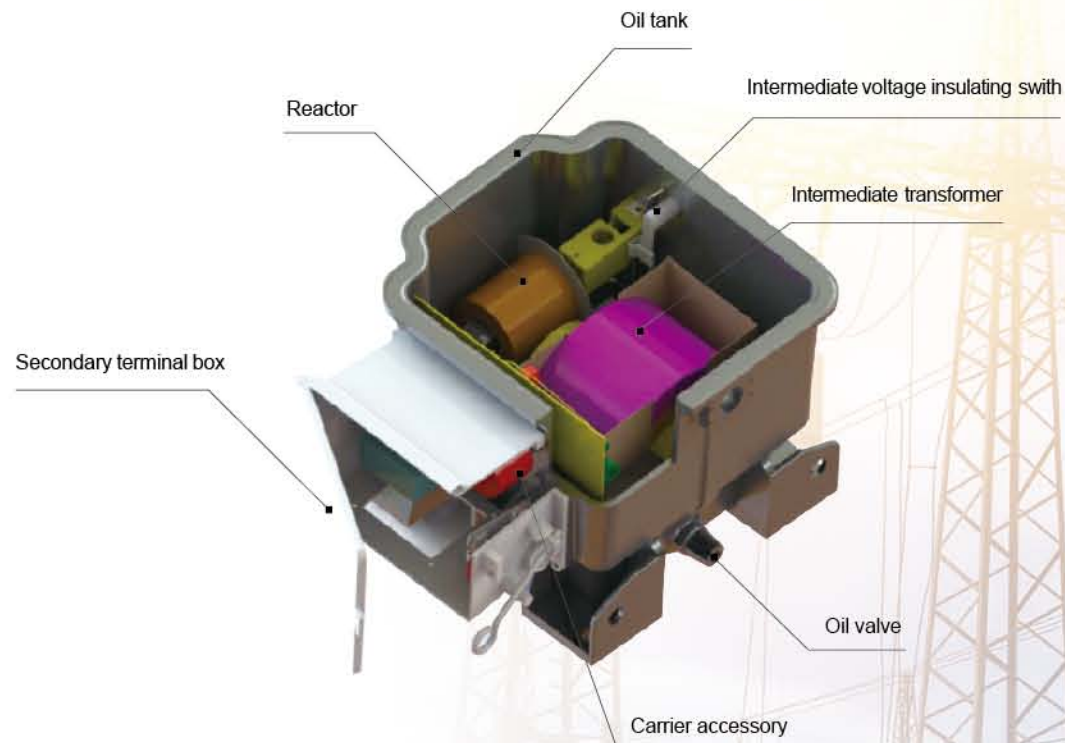
Capacitor unit



- Capacitor divider: PEPE (1-phenyl-1-ethyl phenyl ethane) impregnated with membrane paper insulation
- Voltage division ratio is stable, low temperature coefficient ($|T_c| \leq 2 \times 10^{-4} \text{ K}^{-1}$)
- The middle and low voltage terminals are integrally cast and molded with excellent insulation performance. Limit sealing technology to avoid leakage of products to achieve maintenance free



Electromagnetic Measuring Unit (EMU)

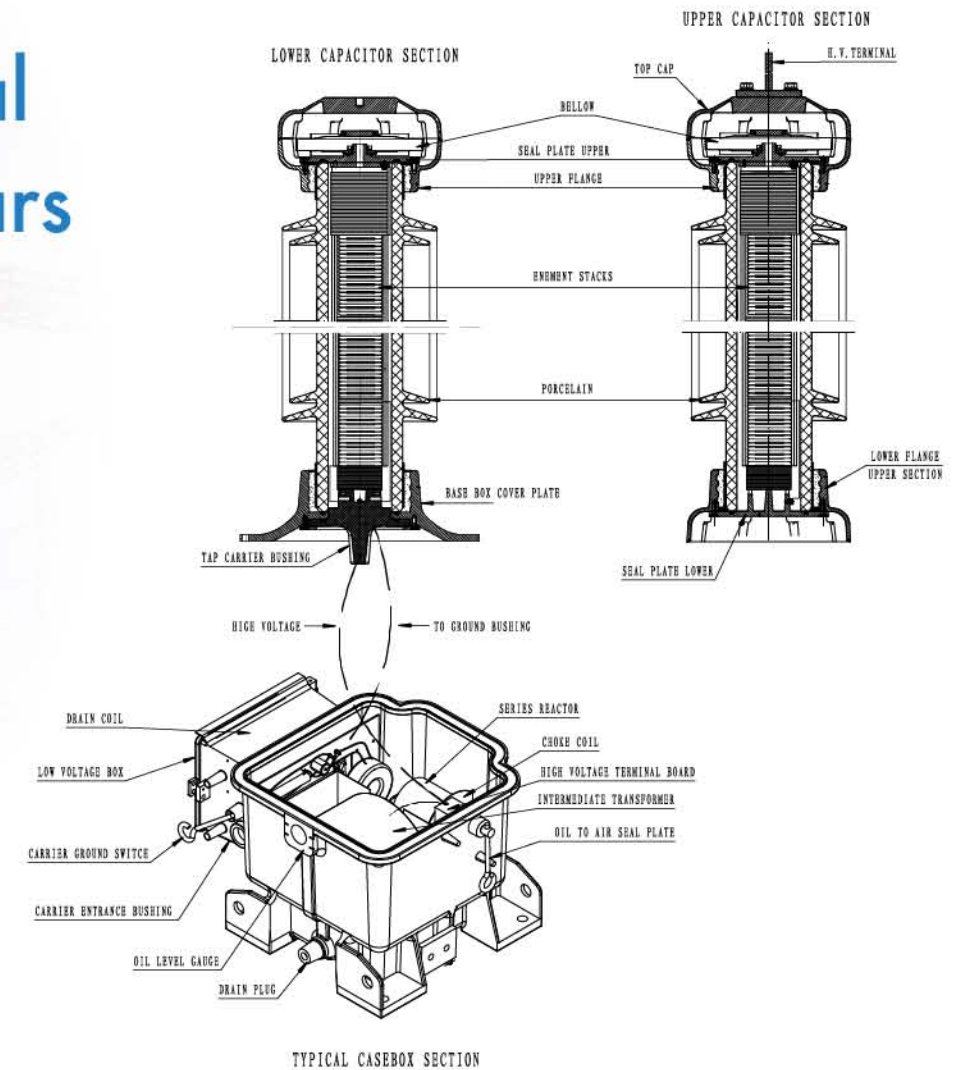


- In order to compensate the voltage drop due to capacitive capacitor load effect caused by the divider, the two voltage changes with the load decreases with the reactor series in the medium voltage circuit, the circuit design of equivalent capacitance and inductance values are basically the same, in order to obtain the voltage signal of a specified load range and accuracy class. A winding is arranged on a winding of the two side of the intermediate transformer so as to effectively restrain the ferromagnetic resonance

Carrier Accessories

- The following carrier accessories will be provide by request:
- A carrier grounding switch
- A carrier protective gap
- A drain coil
- A carrier terminal

Technical Particulars



Electrical Performance Characteristics

Model	SNFS	SNFM	SNUM	SNTM	SNUH	SNTH
Capacitance	Standard	Medium	Medium	Medium	High	High
Two Main Windings, Each			0.15Y (0to75VA)		0.15Y (0to75VA)	
			0.3MWXYZ (200VA)	0.15MWXYZ (200VA)	0.3MWXYZ (200VA)	0.15MWXYZ (200VA)
	0.6MWXYZ (200VA)	0.6MWXYZ (200VA)	0.6ZZ (400VA)	0.3MWXYZ,ZZ (400VA)	0.6ZZ (400VA)	0.3MWXYZ,ZZ (400VA)
	1.2ZZ (400VA)	1.2ZZ (400VA)				
Auxiliary Winding	1.2Y-Other ratings available upon request					

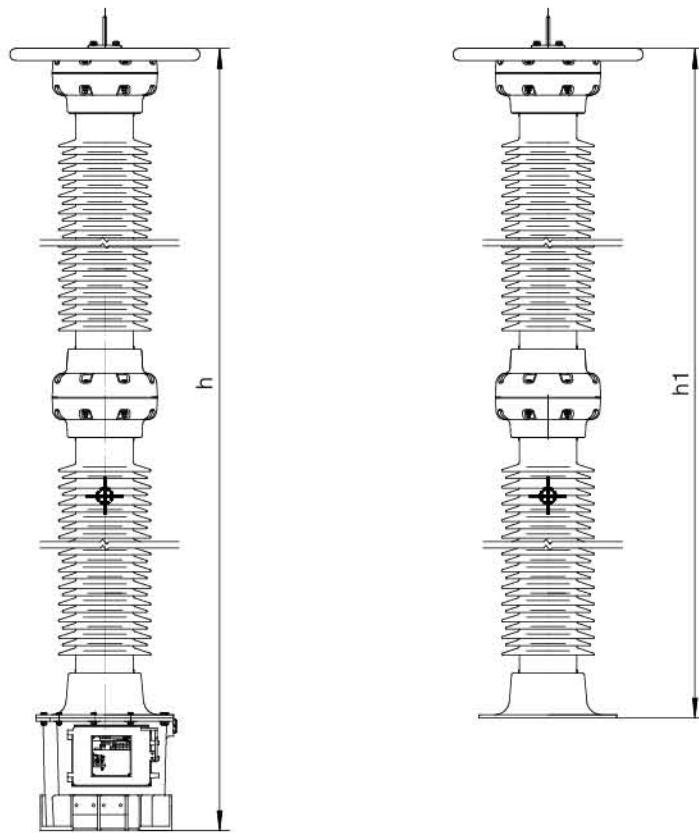


Table 1 Electrical, Mechanical and Physical Data

Maximum continous operating voltage, phase to phase	Impulse withstand 1.2/50 μ s kV(BIL)	Power frequency withsyand, kV, 1min. Dry	Power frequency withsyand, kV, 10sec. Wet	Standard Capacitance pF(A)	Guaranteed minimum creepage distance in/mm	Dimension h1 in/mm	Approx. weight lb/kg
72.5	350	165	140	20800	71.5/1813	55.4/1406	490/223
123	550	265	230	12500	121/3075	67.2/1706	550/249
145	650	320	275	10400	143/3625	75/1906	585/266
170	750	370	325	8300	167.5/4250	83.3/2116	620/281
245	1050	525	460	6200	241/6125	106.6/2706	720/326
300	1300	650	565	5200	295.3/7500	132.4/3363	815/369
362	1550	785	680	4100	356.3/9050	148.9/3783	880/399
420	1550	785	680	3500	413.4/10500	189.8/4820	1040/472
550	1800	900	780	2800	496/12600	195.4/4963	1080/490

Table 2 Electrical, Mechanical and Physical Data

Maximum continous operating voltage, phase to phase	Impulse withstand 1.2/50 μ s kV(BIL)	Power frequency withsyand, kV, 1min. Dry	Power frequency withsyand, kV, 10sec. Wet	Medium Capacitance pF(B)	Guaranteed minimum creepage distance in/mm	Dimension h2 in/mm	Approx. weight lb/kg
72.5	350	165	140	40000	71.5/1813	55.4/1406	660/301
123	550	265	230	20000	121/3075	67.2/1706	740/336
145	650	320	275	16500	143/3625	75/1906	790/359
170	750	370	325	15000	167.5/4250	83.3/2116	835/379
245	1050	525	460	10000	241/6125	106.6/2706	970/440
300	1300	650	565	8200	295.3/7500	132.4/3363	1100/498
362	1550	785	680	7500	356.3/9050	148.9/3783	1190/539
420	1550	785	680	5500	413.4/10500	189.8/4820	1405/637
550	1800	900	780	5000	496/12600	195.4/4963	1460/662

■ The parameters in the table are typical engineering parameters, which can be customized according to different customer requirements.

Electrical Performance Characteristics

Table 3 Electrical, Mechanical and Physical Data

Maximum continuous operating voltage, phase to phase	Impulse withstand 1.2/50 μ s kV(BIL)	Power frequency withsyand, kV, 1min. Dry	Power frequency withsyand, kV, 10sec. Wet	Medium Capacitance pF(C)	Guaranteed minimum creepage distance in/mm	Dimension h3 in/mm	Approx. weight lb/kg
72.5	350	165	140	40000	71.5/1813	64.4/1636	765/346
123	550	265	230	20000	121/3075	76.2/1936	840/382
145	650	320	275	16500	143/3625	84.1/2136	915/416
170	750	370	325	15000	167.5/4250	92.4/2346	985/446
245	1050	525	460	10000	241/6125	115.6/2936	1135/515
300	1300	650	565	8200	295.3/7500	145.4/3693	1315/597
362	1550	785	680	7500	356.3/9050	162/4116	1450/657
420	1550	785	680	5500	413.4/10500	206.7/5251	1715/778
550	1800	900	780	5000	496/12600	208.4/5293	1755/795

Table 5 Type Electrical, Mechanical and Physical Data

Maximum continuous operating voltage, phase to phase	Impulse withstand 1.2/50 μ s kV(BIL)	Power frequency withsyand, kV, 1min. Dry	Power frequency withsyand, kV, 10sec. Wet	High Capacitance pF(E)	Guaranteed minimum creepage distance in/mm	Dimension h5 in/mm	Approx. weight lb/kg
72.5	350	165	140	50000	112.2/2850	71.3/1810	1100/499
123	550	265	230	47500	112.2/2850	71.3/1810	1100/499
145	650	320	275	38100	139/3530	79.8/2026	1175/533
170	750	370	325	30500	166.1/4220	88.3/2242	1300/590
245	1050	525	460	22800	224.4/5700	121.7/3092	1649/748
300	1300	650	565	15800	332.3/8440	155.5/3950	1975/896
362	1550	785	680	15200	332.3/8440	155.5/3950	1975/896
420	1550	785	680	12700	417/10590	197.8/5023	2350/1066
550	1800	900	780	10100	498.4/12660	223/5664	2700/1225

Table 4 Electrical, Mechanical and Physical Data

Maximum continuous operating voltage, phase to phase	Impulse withstand 1.2/50 μ s kV(BIL)	Power frequency withsyand, kV, 1min. Dry	Power frequency withsyand, kV, 10sec. Wet	Medium Capacitance pF(D)	Guaranteed minimum creepage distance in/mm	Dimension h4 in/mm	Approx. weight lb/kg
72.5	350	165	140	40000	71.5/1813	66.4/1686	765/346
123	550	265	230	20000	148/3751	76/1932	937/425
145	650	320	275	18800	177/4495	85/2157	981/445
170	750	370	325	15000	167.5/4250	94.4/2396	985/446
245	1050	525	460	11250	295.3/7500	121/3082	1378/625
300	1300	650	565	9400	295.3/7500	147.4/3743	1315/597
362	1550	785	680	9400	384/9765	184/4662	1995/905
420	1550	785	680	5500	413.4/10500	208.7/5301	1715/778
550	1800	900	780	5050	671/17050	226/5741	2172/985

Table 6 Electrical, Mechanical and Physical Data

Maximum continuous operating voltage, phase to phase	Impulse withstand 1.2/50 μ s kV(BIL)	Power frequency withsyand, kV, 1min. Dry	Power frequency withsyand, kV, 10sec. Wet	High Capacitance pF(F)	Guaranteed minimum creepage distance in/mm	Dimension h6 in/mm	Approx. weight lb/kg
72.5	350	165	140	50000	112.2/2850	73.3/1860	1100/499
123	550	265	230	47500	112.2/2850	73.3/1860	1100/499
145	650	320	275	38100	139/3530	81.8/2076	1175/533
170	750	370	325	30500	166.1/4220	90.3/2292	1300/590
245	1050	525	460	22800	224.4/5700	123.7/3142	1649/748
300	1300	650	565	15800	332.3/8440	157.5/4000	1975/896
362	1550	785	680	15200	332.3/8440	157.5/4000	1975/896
420	1550	785	680	12700	417/10590	199.8/5073	2350/1066
550	1800	900	780	10100	498.4/12660	225/5714	2700/1225

■ The parameters in the table are typical engineering parameters, which can be customized according to different customer requirements.