

SG4201

PD location system



The location detector of PD is developed by Samgor up to minute. It can test and locate discharge of the electrical equipment. It adopts the sonic-electricity and three-dimensional space transducer, which has the patent technology. It can accurately determine space location of the discharge of testing without connecting. It is widely used to locate and detect the partial discharge for dry-transformer, switch, circuit breaker, cable terminal and other the various electrical equipments.

Function characteristic

- Operate simply, not use connection, not contact test.
- Structure is reasonable, using the insulation handle and fiber-optic cable to guarantee safety in operation.
- The detector fix high voltage insulation sheath to guarantees safety of the apparatus.
- Accurately location, fix the directional sensor in the detector, by analyzing the difference changes for the electricity and sonic signal amplitude, can the location of three-dimensional space of accurate location discharge point.

The testmobile for running attention quasi-online monitor system for PD

- The testmobile for running attention can test PD change during the electrical equipment without power off, it can analyze the electrical equipment insulation state by test PD of this apparatus.

- Adopt wide-band CT to collect from discharge single of the electrical equipment by neutral earth loop or iron core earth loop as well as the earth loop of oil box, by various means of rejecting interference, improve S/N ratio, and therefore effectively raise detection veracity.
- Quasi-online PD core technology is PD test, using electrical pulse and ultrasonic comprehensive detection method, recode and analyze data, bring into tendency chart, it can detect discharge in time, avoids malignant accident.
- System adopts lots of channels to collect data to process discharge, ultrasonic, antenna singles, and it can synthetically use antenna, gate control interference, mix figure and simulation to filter, dynamic bandwidth filter, discharge signal intelligent identification, implement partial discharge quasi-online monitor under strong disturb environmental.
- The system can transmit data by telephone net, internet, and long-range online test the electrical equipment.
- If the instrument is cooperated with the man-carried power, it can improve work efficiency and make apparatus work for three hours.

The result analyzing

- Analyze the quantity, discharge time, time-domain and frequency-domain.
- Measure and observe the single partial discharge pulse, then determine the type of the discharge.
- 2-dimension and 3-dimension partial discharge diagram display.

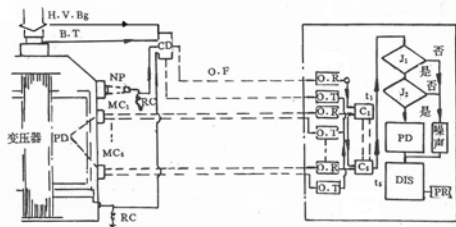
Form and print the report automatically

- Save, print partial discharge diagram and data arbitrary, and form the reports automatically.
- Save, edit the partial discharge diagram and data arbitrary.

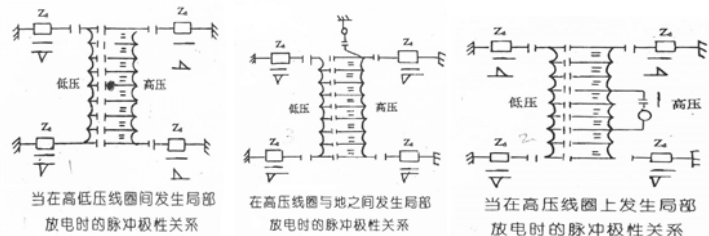
Performance index

Project	SG4001	SG4003
Working environment	Temperature : -10~45℃ Relative humidity : ≤ 95%	
Measurement channel	2 or 4 Channels	2 Channels
Sensitivity	0.1pC	
Sampling accuracy	12Bit	
Sampling rate	20MHz	20MHz
Measurement range	0.1pC ~ 1000nC	
Non-linear error for full range	8%	
Non-linear error for current range	5%	
Scale change	×1, ×10, ×100, ×1000, ×10000, ×100000 (>120dB)	
Measurable device electric capacity	6pF ~ 250μF	
Measurement band	3dB 10kHz ~ 1MHz	
Programmable filter step	Low frequency : 10kHz, 20kHz, 40kHz, 80kHz ,OFF (9kHz) High frequency : 100kHz, 200kHz, 300kHz, 400kHz, OFF (1MHz)	
Digital filtering	10kHz ~ 1MHz Free choose	
Frequency range for testing power	50 ~ 500Hz	
Power	AC 220V ; Frequency 50Hz ; Power 300W	

Principle of ultrasonic wave localization



Principle of electricity localization



GIS testmobile for running attention PD location system

- Implement online test with the high frequency current transformer under the running state.
- The apparatus, which is used with the high sensitivity ultrasonic transducer together, can make online test and locate the partial discharge of the GIS.
- The apparatus, which is used with the high sensitivity ultrasonic transducer together, can detect the pulsateing particle inside GIS in electric field
- The apparatus can make a statistic for lots of tests data and draw the change tendency curve of partial discharge.
- Using the apparatus can detect partial discharge of the GIS rapidly, improve work efficiency.

The power cables partial discharge online test mobile for running attention equipment

The power cable partial discharge online test equipment is developed by Tianwei Xinyu up to minute, which is used to test the discharge malfunction of the power cable. The detector adopts the sonic-electricity transducer, which contains the patent technology. Accompanied with TWPD series products, it can detect the three-dimensional space location and the strength of discharge without contacting with the tested cables. It can avoid the cable box blasting and firing in advance. It can apply to the on-line locating and testing partial discharge for cable termination and cable branch joint box. The test veracity of the product is 100% by thousands of the cable test.

Performance index

Test way	Not contact test
Working environment	Temperature : -10~45℃ Relative humidity : ≤ 95%
Voltage grade	35 kV and following
Signal transmission	Fiber
Sensor	Sonic-electricity integration
Electricity single sensitivity	10pC
Ultrasonic signal sensitivity(not sheltering from)	100pC(relevant with discharge)
Electricity single directivity	Central axle nip angle <25°
Ultrasonic signal directivity	Central axle nip angle <15°
Test band	3dB Bandwidth 10kHz~1MHz
Power	250mW
Power	2xDC9V (9V Integrated battery)

For further information please contact:

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