

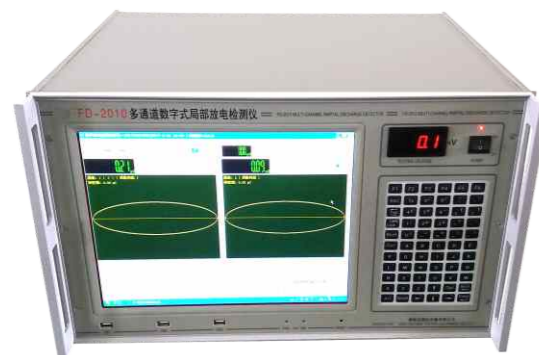
Introduction

Partial discharge detector and coupling capacitor are used for partial discharge measurement. The coupling capacitor can also be used as the voltage divider with additional secondary low voltage arm.

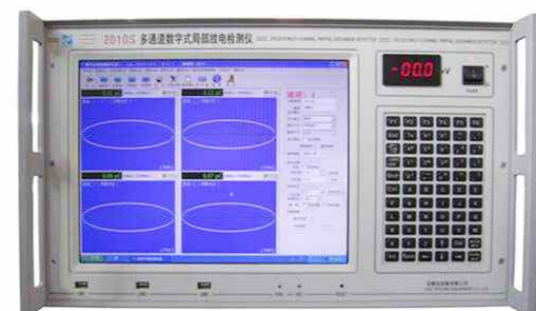
Technical Parameter of Coupling Capacitor

Model No.	Rated Voltage	Rated Capacitance	Partial Discharge
JXOC-5/1	5kV	1nF	≤2pC
JXOC-25/1	25kV	1nF	≤2pC
JXOC-50/1	50kV	1nF	≤2pC
JXOC-100/1	100kV	1nF	≤2pC
JXOC-200/1	200kV	1nF	≤2pC
JXOC-300/1	300kV	1nF	≤2pC

Partial discharge detector is suitable for the online partial discharge measurement of electrical apparatus, such as surge arresters, insulators, power transformers, generators, CT/VT, GIS, capacitors, power cables and switchgears. There are 3 models, JXFE-2003, JXFD-2010 and JXFD-2010s.



JXFD-2010



JXFD-2010S

Technical Data of JXFE-2003

- 1) Measuring Channels: 1 Channel;
- 2) The capacitance range of the test object 6pF--250μF;
- 3) Band width:
 - a. On low frequency 3dB, fL: 10kHz, 20kHz, 40 KHz optional;
 - b. On high frequency 3dB, fH: 80kHz, ,200kHz, 300 KHz optional;
- 4) Gain adjusting:
- 6) grades of rough gain. Gain between 2 near grades is 20±1dB, fine adjusting range > 20dB;
- 5) Ellipse time base:
 - a. Frequency: 50 Hz, 100 Hz, 150 Hz, 200 Hz, 400Hz;
 - b. Ellipse rotation: 30° per grade, total 150°;
 - c. Display mode: ellipse—line—sine;
- 6) Digital meter with 3.5 bits LED digital displaying;
- 7) Partial discharge magnitude deviation within 0-100: < ±5%.
- 8) Size :460*420*260 (Width*Length*Height) mm, about 16kgs.

Technical Data of JXFD-2010

- 1) Measuring channel : 2 channels;
- 2) The capacitance range of test object: 6pF ~ 250μF;
- 3) Measuring precision: 0.1 pC;
- 4) Sample: 12bit; Rate: 20M/S;
- 5) Display mode: ellipse , line , sine;
- 6) It can save test data, waveform and playback, analyze the record.
- 7) Capture the single special or random waveform and have particular analysis.
- 8) Store, print partial discharge waveform and data, and automatically generate test report.
- 9) Time base: Open window anywhere. Any combination of time window. Dynamically amplify time window.
- 10) Filter frequency band: 3dB low frequency fL options: 10,20,40kHz, 3dB high frequency fH options: 80, 200, 300kHz. fL and fH can be combined to form any band-pass filter.
- 11) Signal amplifier:
 - ☆ Gain control: coarse gain control , fine gain control , 5 grades in coarse gain control, the amplifier rate between 2 near grades is 20dB, the deviation is ±1dB, amplifier rate of fine control >20dB.
 - ☆ Asymmetry between amplifier positive and negative response: 1dB
- 12) Partial discharge measurement: it can measure partial discharge signal in the mode of continuous and amplifier, deviation ±5% (in full scale)

Technical Data of JXFD-2010S

- 1) Measuring Channels: 4 Channels;
- 2) The capacitance range of the test object 6pF--250μF;
- 3) Test precision: 0.1pC;
- 4) Sample precision: 12bit; Sample Rate : 20M/S;
- 5) Time window: You can select the phase dynamically, amplify the time window dynamically.
- 6) Filter frequency band:
 - a. On low frequency 3dB, f_L: 10, 20, 40 KHz optional;
 - b. On high frequency 3dB, f_H: 80, 200, 300 KHz optional, f_L and f_H can be freely combined to form any filter band .
- 7) Data store and display. It can print and generate standard test report.
- 8) AC220V, Frequency 50Hz, Power 300W.

Technical Data of Impedance Unit

No.	Tuning capacitance range	Sensitivity (pC) (Un-balance circuit)	RMS Of max. current	
			(Un-balance circuit)	(Balance circuit)
2	25~100~400pF	0.04	50mA	0.5A
3	100~400~1500pF	0.06	120mA	1A
4	400~1500~6000pF	0.1	0.25A	2A



Impedance Unit



JXFE-2003

Technical Data of External Calibrator

This calibrator can output calibrating pulse of 1.2 kHz to the produce with different output range. It is suitable for every experiment circuit recommended by IEC-270.

- 1) Calibration pulse range: 5pC, 10pC, 20pC, 50pC;
- 2) Polarity: positive and negative;
- 3) Frequency Adjust: 1.2 kHz;
- 4) Frequency change range: >±100Hz;
- 5) Pulse rising edge: <60nS;
- 6) Pulse falling edge: >100uS;
- 7) Input capacitance: 10pF;
- 8) Calibrating charge deviation:

$$Eq = (Eu^2 + Ec^2) \frac{1}{2} \leq \pm 10\%$$
- 9) Dimension: 160×125×50mm³;
- 10) Weight: 0.5kg;
- 11) Battery: 6FM 22;
- 12) Battery voltage: 9V.



100kV 30kVA AC Test System With 100kV Coupling Capacitor



PD Test System For Transformer



100kV 1000pF Coupling Capacitor



200kV 1000pF Coupling Capacitor