

Corona Discharge Checker

MK-720

Immediate detection of insulation deterioration under hot line condition!

Discharge detection based on frequency analysis!

MK-720 detects periodicity of corona discharge at AC power-supplied facilities unaffected by ambient noises.

Ideal for insulation deterioration on insulators, disconnectors and circuit breakers.

Receiving ultrasonic wave from corona discharge enables us to survey electrical instruments without contact.



Rear side



Inlaid composite image for this photo

Features

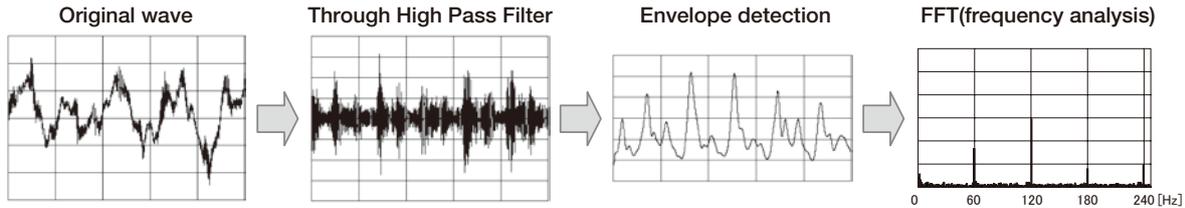
- Detects insulation deterioration on insulators, disconnectors and circuit breakers!
- Precise measurement in $\pm 8^\circ$ spot
- Identifies point of corona discharge with a laser pointer
- Records measurement data (Component rate, Waveform, FFT data)
- Easily transferable recorded data to PC via USB cable
- Generates audible sound from corona discharge and transmit through an earphone



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Measuring principle

Broadband ultrasound is emitted with corona discharge due to insulation deterioration at AC powered facilities. Since the intensity of the emitted ultrasound varies periodically with alternative voltage, double frequency components of power-supply appears prominently in frequency analysis after envelope detection of the received ultrasonic wave. MK-720 can detect corona discharge without effects of ambient noises by evaluating the intensity of double frequency components of the power-supply.



Measurement display

Acoustic pressure level while measuring

Rate of the intensity of double frequency components of the power-supply to total sound intensity (Discharge component rate)

Converted acoustic pressure level of double frequency components of the power-supply

The measurement data is automatically hold and recorded.

Specifications

Model	MK-720
Detecting frequency	Central frequency 40kHz
Detecting directionality	±8°
Functions	Display of discharge component rate Display converted value in acoustic pressure Alarm based on discharge component rate Measuring point indication with laser pointer (Laser pointer light intensity Class 2 JIS C6802, Class 2 IEC 6825-1)
Data memory	Discharge component rate and converted value in acoustic pressure Max. 500 data 10 sets of waveforms of enveloped ultrasound, FFT spectrums, and Top 10 values
Output	Buzzer by setting level excess Signal output terminal (φ3.5mm mini jack) USB port for memory data output (USB mini B socket)
Power supply	AA dry alkaline battery 4 pcs (over continuous 8 hours use)
Dimensions·Net weight	W 174 X H 268 X D 98 mm Approx.400g (excluding batteries)
Measuring ambient	0-40°C, 10-85%RH (non condensing)
Standard configuration	Main unit, AA dry Alkaline battery ×4, USB cable, Software(CD) (MK-9804) *1, Earphone, Strap, Instruction manual, Inspection sheet
Option	Carrying case (MK-9703), Soft case (MK-9702), Reference oscillator (MP-161)

*1 MK-720 requires English OS for Windows XP, Windows Vista and Windows 7.
MK-720 requires Microsoft Excel version Excel 2002, 2003, 2007 and 2010 at use of communication software.
* Windows XP, Windows Vista and Windows 7 are registered trademark of Microsoft Corporation in the United States and other countries.

* All specifications data contained in this catalog are subject to change without notice.

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