

IFLS-600

Insulation Fault Location System



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IFLS-600

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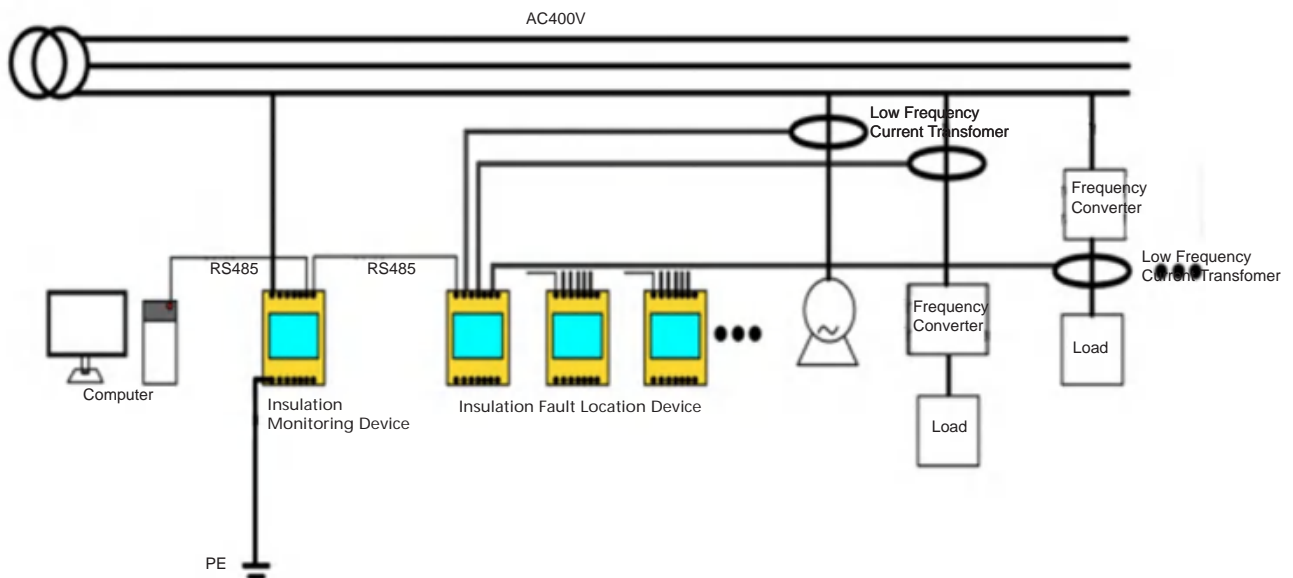
IFLS-600 insulation fault location system not only enables real-time insulation monitoring of IT systems (unearthed power supplies), but also accurately locates insulation faults to specific branches and the number of faulty branches, IFLS-600 system can reliably monitor branches containing frequency converters.



IFLS-600 Features

- Ability to monitor the overall insulation performance of IT systems online;
- Capable of monitoring the fault location current of each branch in the IT system;
- Capable of monitoring the insulation performance of the circuit after the frequency converter and less prone to misoperation;
- Capable of locating insulation faults in IT systems below 600V;
- Can be used in three-phase and single-phase AC systems;
- Add fault locators and monitoring branches according to demand, and up to 16 units can be installed (customizable) for easy installation;
- It can filter out interference factors that affect measurement in the power grid, making measurement more stable and positioning more reliable
- Multiple specifications of low-frequency current sensors are available for selection.

IFLS-600 System Operating Principle






IFLS-600 Installation Diagram of Three-phase AC Power Grid

In the IT system, SKIM600FL continuously sends measurement signals for online insulation monitoring of the system. When an insulation fault occurs for the first time and the insulation resistance value is less than the preset alarm value of the SKIM600FL insulation monitoring instrument, SKIM600FL sends an alarm signal to the upper computer. At the same time, SKIM600FL sends instructions to SKIF12 through RS485 communication for operation (SKIF12 is in standby mode without

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SKIM600FL instructions), SKIF12 has multiple wiring ports that can connect 12 high-precision low-frequency current transformers. The low-frequency current transformers are installed on each branch of the system, so that SKIF12 can collect the fault location current of each branch. The collected fault location current data is compared with the preset current fault value to identify the problematic branch and upload this data to the upper computer or computer through RS485 for duty personnel to handle the fault.

IFLS-600 System Composition

1	SKIM600FL Insulation Monitoring Device	<ol style="list-style-type: none"> 1. Real time online monitoring of the insulation resistance value of the entire circuit; 2. Insulation warning and alarm function; 3. Send commands to the SKIFL-12 insulation fault location; 4. Send fault location signal. 	
2	SKIFL12 Insulation Fault Location Device	<ol style="list-style-type: none"> 1. Receive instructions from insulation monitoring device to collect data; 2. Connect the low-frequency current transformer; 3. Set fault current value. 	
3	CT/KCT Low Frequency Current Transformer	Collecting fault currents on the installation branch	

SKIM600FL Insulation Monitoring Device

IT System	IT System Rated Voltage	AC690V/DC400V	Switching Input	1-Channel Dry Contact Point	Built-in DC15V Power
Power Supply	Voltage	AC 85 ~ 265V (45 ~ 65Hz) DC 18 ~ 36V	Switching Output	2-Channel Relay	1 Normally Open 1 Normally Open/Close
	Rated Power	≤4W	Communication Protocol	RS485 1	Modbus RTU 2400~38400bps
Alarm Value	Alarm Value Ran 1	1...9999 k Ω		RS485 2	Modbus RTU 2400~38400bps
	Alarm Value Ran 2	1...9999 k Ω	Display	LCD	128*64
Response Time	at R=0.5xRan and G=1 μ F	≤ 4 s	Connecting Line	RS485	STP 0.2...2.5 mm ²
	Insulation Alarm Delay (ton)	0...9999s		Test Line	0.2...2.5 mm ²
IT System	Measure Voltage(U1)	± 60V	Maximum Insulation Resistance Value of the Location Branch		40 kΩ
	Internal Resistance (R1)	≥ 152kΩ	General Characteristics	Weight	0.2KG
	Impedance	≥ 152kΩ		Protection Grade	IP20
	Permissible Leakage Capacitance (Ce)	≤ 200 μF		Dimension	100 × 72 × 66mm
	Measurement Value	1 kΩ ... 20 MΩ		Shell Material	PC+ABS
	Measurement Accuracy (1...5kΩ)	± 1 kΩ	Working Condition	Working Temperature	-20°C ~ 55°C
	Measurement Accuracy (5kΩ ... 1MΩ)	± 15 %		Storage Temperature	-30°C ~ 70°C
	Password	off/0...999 (off)		Altitude	≤ 2000m
Fault Memory, Alarm Relay	on/off	Insulated Resistance		AC4000V	
Location	Filters Number	1-10			
	Location Voltage	± 90V			
	Location Current	< 4.5mA			
	Response time (Fault Location)	< 30S			
SKIFL12 Accessible Quantity		≤ 16			

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SKIFL12 Fault Location Device

Power Supply	Voltage	AC 85 - 265V (45 - 65Hz) DC 18 - 36V
	Rated Power	<3W/5VA
Fault Location	Response Time	<30S
	Response Sensitivity	0.1mA
Output	2 Sets of Relays Outputs	2 Sets Alarm
Communication Protocol	RS485	Modbus RTU 2400-38400bps
Display	LCD	128*64
Connecting Line	RS485	STP 0.2...2.5 mm ²
	Test Line	0.2...2.5 mm ²
General Characteristics	Weight	0.2KG
	Protection Grade	IP20
	Dimension	100 x 72 x 66mm
	Shell Material	PC+ABS
Working Condition	Working Temperature	-20°C - 55°C
	Storage Temperature	-30°C - 70°C
	Altitude	≤2000m
	Insulated Resistance	AC4000V

Low Frequency Current Transformer


CT Low Frequency Current Transformer

Model	Main circuit current(A)	Bore(mm)
CT-30	≤63A	30
CT-46	≤160A	46
CT-65	≤250A	65
CT-80	≤400A	80
CT-100	≤630A	100
CT-120	≤1000A	120
CT-150	≤1250A	150
CT-200	≤1600A	200

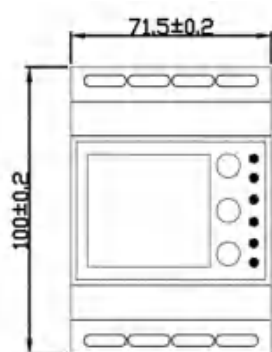


KCT Low Frequency Current Transformer

Model	Main circuit current(A)	Bore(mm)
KCT-46	≤160A	46
KCT-65	≤250A	65
KCT-80	≤400A	80
KCT-100	≤630A	100
KCT-120	≤1000A	120
KCT-150	≤1250A	150



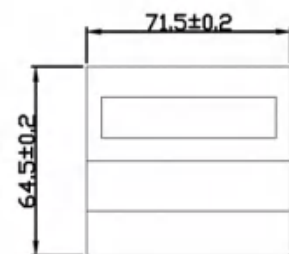
Installation Dimensions (Unit: mm)



Front



Side



Vertical

Mark: The installation dimensions of SKIM600FL and SKIF12 are the same.