

Line Leakage Testers



【特點】

- 顯示器升級為 OLED，顯示明亮清晰容易閱讀
- 可以和華儀耐壓測試器結合使用，組成自動化測試系統 (ESC-125)
- 內建 99 組程式記憶組
- 洩漏電流提供 Peak 值量測 (ESC-112)
- 內置微處理器，數值精準，操作簡易
- 完全符合安全標準的規範
- 內建常見標準的人體模擬阻抗，一組外接，使用效率高
- 可量測常態，單一故障及接地失效的洩漏電流
- 量測頻寬達 1MHz 符合 IEC 相關標準要求
- 可自動執行 8 組狀態洩漏電流的量測 (ESC-112)
- 可外接標準 GPIB / USB & RS232 界面作控制
- 前面板軟體輸入校正
- 鍵盤鎖定功能
- 量測速度快，準確度高

【Features】

- It is upgraded to OLED display and the value will be clearer to read.
- Able to link EXTECH safety tester and AC Power Source to form a complete Electrical Safety Test System (ESC-125)
- Storage up to 99 memories
- To provide peak measurement of leakage current. (ESC-112)
- Built-in microprocessor design with high accuracy of measurement and user friendly
- Full compliance to various safety agencies standard
- Built-in common Measuring Devices (MD) and an external MD circuit connection also available
- Able to perform normal, single fault and ground open measurement configurations
- Wide measurement bandwidth DC - 1MHz for IEC compliance requirement
- Performs the 8 most common Line Leakage Tests in sequences (ESC-112)
- Option GPIB or USB & RS232 interfaces
- Front panel software calibration
- Front Panel Lockout
- Fast and accurate measurement test result

Line Leakage Testers

[Specification]

MODEL		ESC-112	ESC-125
MODEL			
Voltage	115 / 230VAC ± 15%, User selection		
Frequency	50 / 60 Hz ± 5%		
Fuse	2A / 250V Slow-Blow fuse		
Line condition			
Power Switch	Reverse polarity switch setting select ON / OFF		
Neutral Switch	Neutral switch on/off selection for single fault condition		
Ground Switch	Ground switch on/off selection for class I single fault condition	-	
Probe Setting			
Ground to Line (G - L)	V	V	
Surface to Line (PH - L)	V	-	
Surface to Surface (PH - PL)	V	-	
Ground to Neutral (G - N)	-	V	
Auto Function (G - L & G - N)	-	V	
SETTING			
Leakage HI / Lo Trip	Range	0uA, 1uA - 10000uA (0 = OFF)	0uA, 1uA - 10000uA (0 = OFF)
	Resolution	1uA	1uA
LeakageHI / Lo Trip (Peak)	Range	0uA, 1uA - 15000uA (0 = OFF)	-
	Resolution	1uA	-
Leakage Current RMS Display			
Range	MD Major Resistance is 0.5KΩ	MD Major Resistance is 1KΩ	MD Major Resistance is 1.5KΩ
Range 1	0.0uA - 260.0uA	0.0uA - 130.0uA	0.0uA - 85.0uA
Range 2	240.0uA - 999.9uA, 1000uA - 1050uA	120.0uA - 525.0uA	80.0uA - 350.0uA
Range 3	800.0uA - 999.9uA 1000 - 4200uA	400.0uA - 999.9uA 1000uA - 2100uA	266.6uA - 999.9uA 1000uA - 1400uA
Range 4	3600uA - 10000uA	1800uA - 10000uA	1200uA - 10000uA
Leakage Current RMS Display			
Range	Frequency	Basic Accuracy	
Range 1 - 4 (for ESC-112)	DC, 15Hz - 10KHZ	± (2% of reading + 5 counts)	
	10K-1MHZ	± (5% of reading)	
Range 1 - 4 (for ESC-125)	DC, 15Hz - 200KHZ	± (2% of reading + 5 counts)	
	200K - 1MHZ	± (5% of reading)	
Leakage Current Peak Display (for ESC-112)			
Range	MD Major Resistance is 0.5KΩ	MD Major Resistance is 1KΩ	MD Major Resistance is 1.5KΩ
Range 1	0uA - 260uA	0uA - 130uA	0uA - 85uA
Range 2	240uA - 1050uA	120uA - 525uA	80uA - 350uA
Range 3	800uA - 4200uA	400uA - 2100uA	266uA - 1400uA
Range 4	3600uA - 15000uA	1800uA - 15000uA	1200uA - 15000uA
Leakage Current Peak Display (for ESC-112)			
Range	Frequency	Basic Accuracy	
Range 1 - 4	DC, 15Hz - 1MHZ	± (10% of reading + 2uA)	

Line Leakage Testers

MODEL		ESC-112	ESC-125
MD Circuit module			
Measuring Device (MD)		A, B, C, D, E, F, G	A, E, F, G
		MD A. UL 544 Non Patient, UL484	
		MD B. UL 544 Patient Care	
		MD C. IEC60601-1, UL2601-1, EN 60601-1	
		MD D. UL1563	
		MD E. UL60950, IEC60950, IEC61010 - 1, IEC60335-1, IEC60990	
		MD F. External MD	
		MD G. Basic measuring element 1KΩ of Frequency check	
MD Components	Resistance accuracy = 1%; Capacitance accuracy = 5%		
MD Voltage Limit	Maximum 32Vdc		
Internal Leakage	1. Internal Leakage current = 65uA, 2. 277V applied to Ph max leakage current = 70uA		-
Leakage Current Offset	Range : 0 - 999.9uA ; Resolution : 0.1uA		
DUT POWER			
AC Voltage Display	Range	30.0- 300.0V	
	Resolution	0.1V	
	Accuracy	± (1% of reading + 2 counts) , 30.0 - 300.0VAC	
AC Current	30A max continuous		
Over current protection	32A, Response time < 600ms / 68Apeak, Response time < 600ms		
Delay Time	Range	0, 1.0 - 999.9s (0 = continuous)	
	Resolution	0.1s	
GENERAL			
PLC Remote Control	Input : Test, Reset, and Recall Memory 1 through 3		
	Output : Pass, Fail, Processing for ESC-112 Pass, Fail, Processing, Start-Out, Reset-Out for ESC-125		
Memory	99 memories, 8step / memory		
Display	20 x 2 OLED		
Alarm Volume Setting	Range : 0 - 9; 0 = OFF, 1 is softest volume, 9 is loudest volume		
Key Lock	To prevent unauthorized alteration of the test Parameters		
Calibration	Software and adjustments are made through front panel		
Interface	Optional USB & RS232, GPIB		
Environment	0 - 40°C, 20 - 80%RH		
Dimension (W xH x D), mm	430 x 89 x 400		
Net Weight	11.5Kg		

*Product specifications are subject to change without notice

[Ordering Information]

ESC-112 Line Leakage Tester

ESC-125 Line Leakage Tester

Opt.731 GPIB Interface

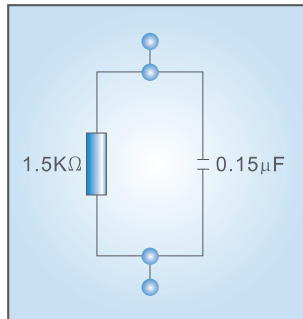
Opt.763 USB & RS232 PC control Card

Opt.779 Peak measurement circuit for ESC-112

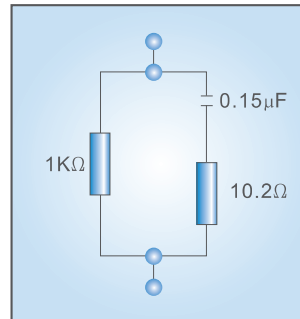
Opt.784 Connection Kit for 7440 link with ESC-125

Built-in Measuring Device (Five groups for model ESC-112 and two groups for model ESC-125)

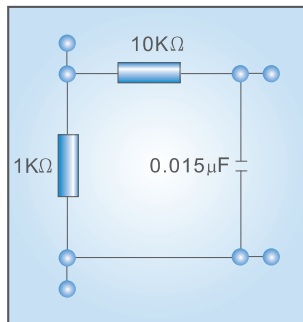
MD A=UL544NP、UL484、 IEC60598



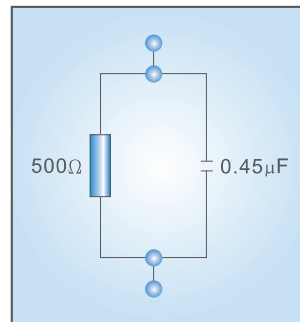
MD B=UL544P



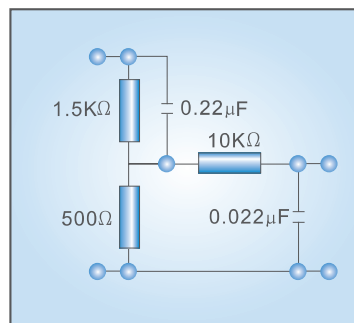
MD C = IEC60601-1,UL2601-1, EN60601-1



MD D= UL1563



MD E = IEC61010-1,UL61010, IEC60950, IEC 60335-1、 IEC60990



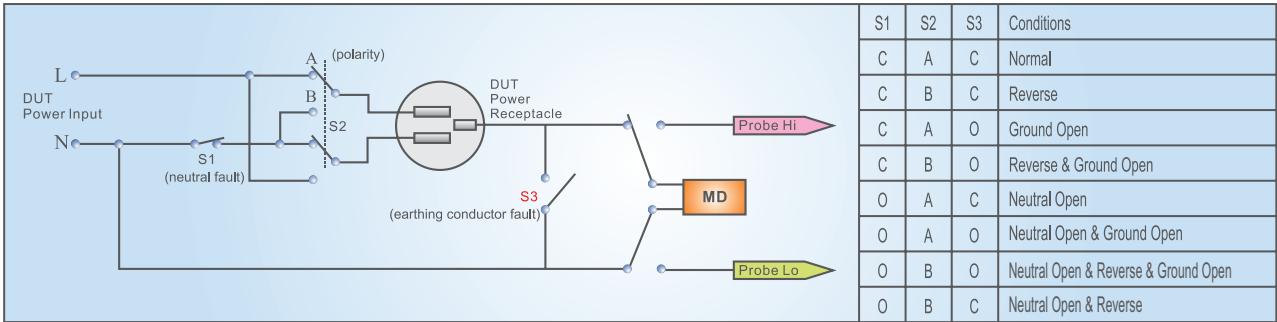
Cross Reference Letter	Agency Specification	Application
A	UL544 Non patient equipment	Medical Equipment
B	UL544 Patient care equipment	Medical Equipment
C	IEC60601-1,UL2601,EN60601-1	Medical Equipment
D	UL1563	Electric Spas, Equipment Assemblies and Associated Equipment
E	IEC61010-1,	Laboratory Equipment.
	IEC60950,UL60950,EN60950	Information Technology Equipment.
F	User configurable	User configurable
G	Frequency check	Frequency check

Line Leakage Testers

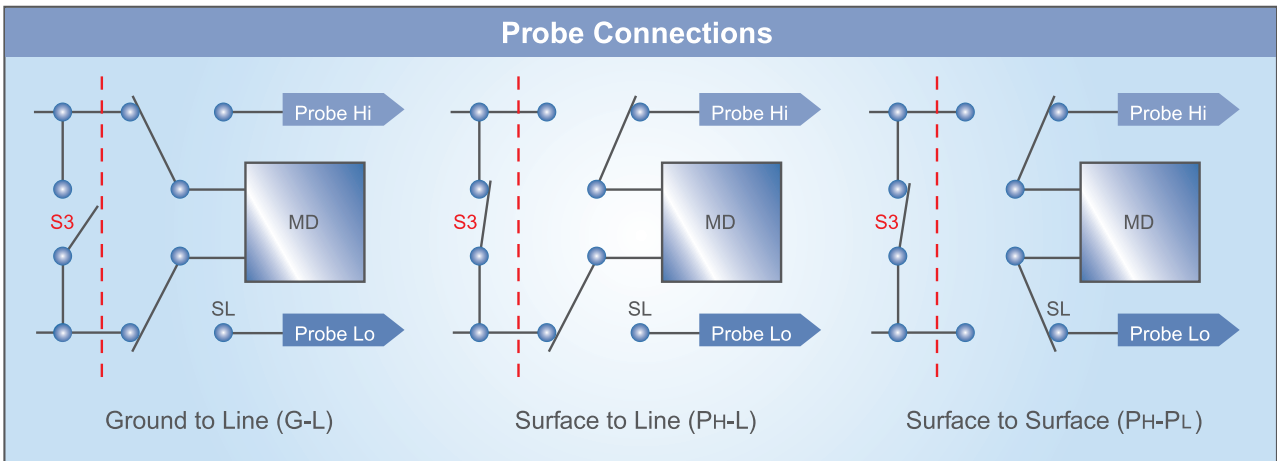
MODEL ESC-112 measurement configuration

In accordance to IEC, UL or any safety standards for line leakage test, the model ESC-112 can be setup to 8 types of measurement configurations test in normal, reverse polarity, neutral fault, earthing conductor fault.

Different types of measurement configurations can be setup into one memory and the user able to run the test by pressing the button. The instrument will complete all the test parameters automatically.



S1=Neutral S2=Reverse S3=Ground O: open C: close



MODEL ESC-125 measurement configuration

Model ESC-125 is exclusively designed to test for Class I DUT, which are required by some safety agencies on Earth Leakage Current measurement. Different types of measurement configurations can be setup into one memory and the user able to run the test by pressing the Test button. The instrument will complete all the test parameters automatically.

