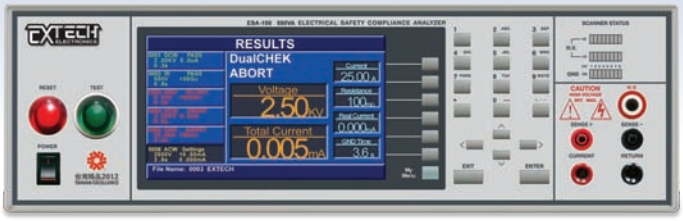
ESA 系列　ESA-140 / ESA-150NEW 彩色全功能安規綜合分析儀

Electrical Safety Compliance Analyzer



台灣精品 2012
TAIWAN EXCELLENCE

【特點】

- 七合一安規綜合分析儀 (ACW、DCW、IR、GB、TCT、RUN TEST and AC Source)
- 超大型 7 吋 TFT-LCD 顯示器 (解析度 800 x 480)
- 採用 DSP (Digital Signal Processing) 技術
- 具有我的最愛 (My Menu) 快捷鍵功能
- 接地與耐壓可同步測試 (DualCHEK) 功能
- 可執行熱態 (動態) 耐壓測試 (Hot Hipot)
- 內建隔離可程式交流電源 500VA (選購)
- 可量測 MD 兩端的電壓 (MDV)
- 於測試結果可儲存過程中最大電流 (Imax)
- 接觸電流可選購 AC / DC / AC + DC 量測
- MD 具有外接 BNC 端子
- 內建多點掃描測試功能 (External H.V.)
- 10000 組記憶組，可於一次設定連續測試
- 多國語言，提供繁體中文、簡體中文、英文界面
- 標準 USB & RS232 介面，並可選購 GPIB、Ethernet 與 Multi-function Interface 卡做控制
- 四個等級權限設定，所有測試參數非經充分授權無法修改
- 自動偵測輸入電壓為 115V 或 230V
- 改良式直流高壓快速放電裝置 (專利：M279103)
- 防高壓觸電線路 Smart GFI (專利：169000)
- 緩昇上限 (Ramp High) 設定 (專利：100859)
- 充電下限 (Charge Low) 設定 (專利：106128)

【Features】

- 7-in-1 Electrical Safety Compliance Analyzer (ACW, DCW, IR, GB, TCT, RUN TEST and AC Source)
- Enhanced 7 inches TFT-LCD display (800 x 480)
- Digital Signal Processing Technology
- With Quick Access Menu "My Menu" feature
- DualCHEK simultaneous Ground Bond and Hipot
- Phase Lock function for "Hot" Hipot Tests
- Optional Built-In 500VA Programmable AC Power source
- MD Voltage Display for measuring the voltage drop across the measuring device
- I-Max Leakage Current Display to record maximum leakage current detected during an LLT
- AC, DC, AC+DC Leakage Current Display Capability in LLT. (option)
- MD circuits with BNC port
- External Output Channel with HV
- New memory set up, allowing for flexibility in step and memory numbers. Total up to 10,000 memories or steps
- Multinational selection English language user interface selection. / Traditional Chinese / Simplified Chinese
- Standard USB & RS232 PC Control Card, Optional Ethernet, GPIB, Multi-function Interface card
- Advanced security with User ID and Password protection
- Auto detection 115Vac or 230Vac input voltage
- Exclusive DC Hipot force discharge (Pat.#M279103)
- Exclusive Smart GFI Circuit (Pat.#169000)
- Ramp High feature (Pat.#100859)
- Charge Low feature (Pat.#106128)

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【Specification】

MODEL	ESA-140	ESA-150	
AC WITHSTAND VOLTAGE			
Output Rating	5KVAC / 50mA	5KVAC / 100mA	
	Range	**Resolution**	**Accuracy**
Output Voltage, ACV	0 - 5000	1	± (1.5% of setting + 5V)
Output Voltage, ACV (option 400 / 800Hz)	0 - 5000	1	± (2.5% of setting + 10V)
Output Frequency	50Hz / 60Hz ± 0.1%, User selectable		
Output Waveform	Sine wave, Crest Factor = 1.3 - 1.5		
Output Regulation	± (1% of output + 5V), From no load to full load and low line to high line (combined regulation)		
SETTINGS			
HI and LO-Limit (Total) current, mA	0.000 - 9.999	0.001	± (2% of setting + 2 counts)
	10.00 - 50.00 (for ESA-140)	0.01	
	10.00 - 100.00 (for ESA-150)		
HI and LO-Limit (Real) current, mA	0.000 - 9.999	0.001	± (3% of setting + 50μA)
	10.00 - 50.00 (for ESA-140)	0.01	
	10.00 - 99.99 (for ESA-150)		
Ramp Up Timer, second	0.1 - 999.9	0.1	± (0.1% of setting + 0.05s)
Ramp Down Timer, second	0.0 - 999.9		
Dwell Timer, second	0, 0.4 - 999.9 (0 = continuous)		
Ground Continuity	Current : DC 0.1A ± 0.01A, fixed Max. Ground Resistance : 1.0Ω ± 0.1Ω		
Current Offset	0.000 - 50.00mA (Total current + current offset ≤ 50mA) for ESA-140 0.000 - 99.99mA (Total current + current offset ≤ 100mA) for ESA-150		
Arc Detection	The range is from 1 - 9 (9 is the most sensitive)		
DC WITHSTAND VOLTAGE			
Output Voltage, Vdc	0 - 6000	1	± (1.5% of setting + 5V)
DC Output Ripple	< 4% (6KV / 20mA at Resistive Load)		
SETTINGS			
HI and LO-Limit current, μA	0.0 - 999.9	0.1	± (2% of setting + 2 counts)
	1000 - 20000	1	
Ramp Up Timer, second	0.4 - 999.9	0.1	± (0.1% of setting + 0.05s)
Ramp Down Timer, second	0.0, 1.0 - 999.9		
Dwell Timer, second	0, 0.3 - 999.9 (0 = continuous)		
Ramp-HI current	> 20mApeak maximum, ON / OFF User selectable		
Charge LO current	0.0 - 350.0μA, auto / manual set		
Discharge Time	0.05μF / 10ms		
Maximum Capacitive Load DC Mode	1μF < 1KV, 0.08μF < 4KV		
	0.75μF < 2KV, 0.04μF < 5KV		
	0.5μF < 3KV		
Ground Continuity	Current : DC 0.1A ± 0.01A, fixed Max. Ground Resistance : 1.0Ω ± 0.1Ω		
Current Offset	0 - 20000μA, (Total current + current offset < 20mA)		
Arc Detection	The range is from 1 - 9 (9 is the most sensitive)		
INSULATION RESISTANCE			
Output Voltage, Vdc	30 - 1000	1	± (1.5% of setting + 2 counts)
Charging Current	Maximum > 20mApeak		

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Electrical Safety Compliance Analyzer

MODEL	ESA-140		ESA-150	
INSULATION RESISTANCE				
SETTINGS				
HI and LO-Limit Resistance, MΩ	0.05 - 99.99 (HI-Limit : 0 = OFF)		0.01	0.05 - 999.9, ± (2% of setting + 2 counts)
	100.0 - 999.9		0.1	1000 - 9999, ± (5% of setting + 2 counts)
	1000 - 50000		1	10000 - 50000, ± (15% of setting + 2 counts)
Ramp Up Timer, second	0.1 - 999.9		0.1	± (0.1% of setting + 0.05s)
Ramp Down Timer, second	0.0 , 1.0 - 999.9			
Dwell Timer, second	0, 0.5 - 999.9 (0 = continuous)			
Delay Timer, second	0.5 - 999.9			
Charge LO current, μA	0.000 - 3.500, auto / manual set			
GROUND BOND				
Output AC Current, A	1.00 - 40.00		0.01	± (2% of setting + 2 counts)
Output Voltage, Vac	3.00 - 8.00		0.01	± (2% of setting + 3 counts)
Output Frequency, Hz	50Hz / 60Hz ± 0.1%, User selectable			
Output Regulation	± (1% of output + 0.02A), Within maximum load limits, and over input voltage range			
Maximum Loading	1.00 - 10.00A / 0 - 600mΩ, 10.01 - 30.00A / 0 - 200mΩ, 30.01 - 40.00A / 0 - 150mΩ			
SETTINGS				
Lead Resistance Offset, mΩ	0 - 200		1	± (2% of setting + 2 counts)
HI and LO-Limit Resistance, mΩ	0 - 150 (30.01 - 40.00A)		1	6.00 - 40A, ± (2% of setting + 2 counts)
	0 - 200 (10.01 - 30.00A)			
	0 - 600 (6.00 - 10.00A)			
	0 - 600 (1.00 - 5.99A)			1.00 - 5.99A, ± (3% of setting + 3 counts)
Dwell Timer, second	0, 0.5 - 999.9 (0 = continuous)		0.1	± (0.1% of setting + 0.05s)
CONTINUITY TEST				
Output Current	0.1A for 0 - 10.00Ω, 0.01A for 10.1 - 100.0Ω, 0.001A for 101 - 1000Ω, 0.0001A for 1001 - 10000, 0.1A is max.			
SETTINGS				
Max and Min-Limit Resistance, Ω	0.00 - 10.00		0.01	± (1% of setting + 3 counts)
	10.1 - 100.0		0.1	
	101 - 1000		1	
	1001 - 10000		1	± (1% of setting + 10 counts)
Dwell Timer, second	0.0, 0.3 - 999.9 (0 = continuous)		0.1	± (0.1% of setting + 0.05s)
Resistance Offset, Ω	0.00 - 10.00		0.01	± (1% of reading + 3 counts)
MEASUREMENT				
	Range		**Resolution**	**Accuracy**
Voltage, KV (AC / DC)	0.00 - 6.00		0.01	± (1.5% of reading) ≥ 500V ± (1.5% of reading + 1 count) < 500V
Voltage, Vdc (IR only)	0 - 1000		1	± (1.5% of reading + 2 counts)
AC Current (Total), mA	0.000 - 3.500		0.001	± (2% of reading + 2 counts)
	3.00 - 100.00		0.01	
AC Current (Real), mA	0.000 - 9.999		0.001	± (3% of reading + 50μA) all ranges PF > 0.1 ; V > 250Vac
	10.00 - 99.99		0.01	
DC Current, μA	0.0 - 350.0		0.1	± (2% of reading + 2 counts)
DC Current, mA	0.300 - 3.500		0.001	
	3.00 - 20.00		0.01	
AC Current, A (GB)	0.00 - 40.00		0.01	± (3% of reading + 3 counts)
Resistance, MΩ (IR)	30 - 499V	500 - 1000V		30 - 499V 0.05 - 999.9, ± (7% of reading + 2 counts) 500 - 1000V 0.05 - 999.9, ± (2% of reading + 2 counts) 1000 - 9999, ± (5% of reading + 2 counts) 10000 - 50000, ± (15% of reading + 2 counts)
	0.050 - 1.999	0.050 - 9.999	0.001	
	2.00 - 19.99	10.00 - 99.99	0.01	
	20.0 - 199.9	100.0 - 999.9	0.1	
	200 - 50000	1000 - 50000	1	

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Resistance, mΩ (GB)	0 - 600	1	1.00 - 2.99A, ± (3% of reading + 3 counts) 3.00 - 40.00A, ± (2% of reading + 2 counts)
Resistance, Ω (Continuity)	0.00 - 10.00	0.01	± (1% of reading + 3 counts)
	10.1 - 100.0	0.1	
	101 - 1000	1	
	1001 - 10000	1	± (1% of reading + 10 counts)
GENERAL			
Input Voltage AC	115 / 230Vac ± 15% auto range, 50 / 60Hz ± 5%, 5A / 250Vac Slow-Blow for ESA-140, 10A / 250Vac Slow-Blow for ESA-150		
PLC Remote Control	Input : Test, Reset, Interlock, Recall File 1 through 3, Recall File 1 through 7 (Option) Output : Pass, Fail, Test-in-Process		
Memory	It has 10000 steps and allow the user to create different memories and steps		
TFT LCD	800 x 480 resolution digital TFT LCD and 9 ranges contrast setting		
DualCHEK	5kVac / 25mA and 25Aac / 150mΩ for ESA-140 ; 5kVac / 50mA and 30Aac / 150mΩ for ESA-150		
Safety	Built-in Smart GFI circuit, GFI trip current 5.0mA max., HV shut down speed : <1ms (on 50 / 60Hz and test under 1000V)		
Hot Hipot Test	To detect the line input voltage to produce a simultaneous sine wave of line power at hipot output		
My Menu	The menu can be customized and created the most favorite used functions by the user		
Interface	Standard USB & RS232 PC Control Card, optional Ethernet, GPIB (IEEE-488.2), Multi-function Interface card (USB-A / RS-485 / RS-232 / BAR Code PS / 2 type)		
Multinational Language	The operating screen can select different language including English / Traditional Chinese / Simplified Chinese		
Alarm Volume Setting	Range : 0 - 9 ; 0 = OFF, 1 is softest volume, 9 is loudest volume		
Calibration	Adjustments can be made through the front panel		
Environment	0 - 40°C, 20 - 80% RH		
Dimensions / Net Weight	430mm (W) x 133mm (H) x 500 mm (D) / 30Kg		
STANDARD ACCESSORIES			
Power Cord (10A)	x 1		
Fuses	x2 (Including a spare contained in the fuse holder)		
Interlock Disable Key (1505)	x 1		
Hipot Test Lead, 1.5m (1101)	x 1		
Ground Bond Test Lead 40A, 1.6m (1137)	x 1		
Ground Bond Return Lead 40A, 1.6m (1138)	x 1		
USB Link Cable, 1.8m	x 1		
OPTION			
MATRIX SCANNER (for Opt.794)			
High Voltage Rating	5KVAC / 6KVDC		
High Current Rating	40A		
Number of HV Channel	8		
Number of HA Channel	8		
Point to Point Continuity	To use the scanner to reach point to point continuity test and this function will be a standard feature when built-in scanner is added		
RUN TEST (for Opt.767, Opt.768 and Opt.769)			
DUT POWER			
AC Voltage	0 - 277.0V, Single phase unblance		
Current	16A maximum continuous		
Power Rating	4500W maximum		
Short Circuit Protection	23Arms or Inrush Current 68Apeak, Response time RMS < 3s; Peak < 10us		
SETTINGS			
HI and LO-Limit AC Voltage, V	30.0 - 277.0	0.1	± (1.5% of setting + 0.2V)
HI and LO-Limit AC Current, A	0.00 - 16.00	0.01	± (2% of setting + 2 counts)
HI and LO-Limit AC Power, W	0 - 4500	1	± (5% of setting + 3 counts)
HI and LO-Limit Power Factor	0.000 - 1.000	0.001	± (8% of setting + 2 counts)
HI and LO-Limit Leakage Current	0.00 - 10.00 HI-Limit : 0 = OFF	0.01	± (2% of setting + 2 counts)

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MODEL	ESA-140		ESA-150	
Delay Time, second	0.2 - 999.9		0.1	± (0.1% of setting + 0.05s)
Dwell Time, second	0, 0.1 - 999.9 (0 = continuous)			
MEASUREMENT				
	Range		**Resolution**	**Accuracy**
Voltage, Vac	0.0 - 277.0		0.1	± (1.5% of reading + 2 counts) at 30 - 277V
Current, Aac	0.00 - 16.00		0.01	± (2% of reading + 2 counts)
Power, Watts	0 - 4500		1	± (5% of reading + 3 counts)
Power, Factor	0.000 - 1.000		0.001	± (8% of reading + 2 counts)
Leakage Current, mA	0.00 - 10.00		0.01	± (2% of reading + 2 counts)
MD	Leakage current measuring resistor = 2kΩ ± 1%			
TOUCH CURRENT TEST (for Opt.768 and Opt.769)				
DUT				
DUT Input Power Rating	0 - 277V, AC@ 16Aac max.			
Current	16A maximum continuous			
Short Circuit Protection	23Arms or Inrush Current 68Apeak, Response time RMS < 3s ; Peak < 10us			
SETTINGS				
Leakage HI and LO-Limit (RMS), μA	Range	0.0 - 999.9μA (0 = OFF)	Resolution	0.1μA
		1000 - 10000uA		1μA
Leakage HI and LO-Limit (peak), μA	Range	0.0 - 999.9μA (0 = OFF)	Resolution	0.1μA
		1000 - 10000uA		1μA
Dwell Time, second	0, 0.5 - 999.9 for AC+DC 0.1 - 999.9 for AC / DC only (0 = continuous)		0.1	± (0.1% of setting + 0.05s)
Delay Time, second	0.5 - 999.9 for AC+ DC 1.8 - 999.9 for AC / DC only (Auto range) 1.3 - 999.9 for AC / DC only (Fixed range)			
Measuring Device (MD)	A. UL544 Non Patient, UL484, IEC60598, UL1363,UL923, UL471, UL867, UL697			
	B. UL544 Patient Care			
	C. UL2601-1, IEC60601-1, EN60601-1			
	D. UL1563			
	E. IEC60990 Fig4 U2, IEC 60950-1, IEC60335-1, IEC60598-1, UL484, IEC60065, IEC61010, IEC60065			
	F. IEC60990 Fig5 U3, IEC60598-1			
	G. Basic measuring element 1k ohm of frequency check			
MD A - G components	Resistance accuracy : ± 1%, Capacitance accuracy : ± 5%			
MD Voltage Limit	Maximum 30Vpeak or 30Vdc			
Probe setting	G-L, PH-PL, PH-L (Use HV relay and HV terminal connector)			
Internal Leakage	1. Internal Leakage current = 65uA; 2. 277V applied to PH max leakage current = 70uA			
External MD	User can add one extra MD for his application			
Current Measurement	The leakage current is fitting range by leakage current Hi-limit setting value			
Frequency Range	DC, 15Hz ≤ F ≤ 1MHz			
Leakage Current Range (RMS)				
Auto Range	Range 1 - Range 6	0.0uA - 10.00mA	Resolution	0.1uA / 1uA / 0.01mA
Fixed Range > 6% of Range	Range 1 - Range 6	0.0uA - 10.00mA	Resolution	0.1uA / 1uA / 0.01mA
Fixed Range < 6% of Range	Range 2 - Range 6	0.0uA - 600uA	Resolution	0.1uA / 1uA / 0.01mA

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MODEL	ESA-140		ESA-150	
Accuracy for Auto Range				
Range	Mode	Frequency	Basic Accuracy	
Range 1 - 5*1	AC + DC	DC	± (2% of reading + 3 counts)	
		15Hz < f < 100kHz	± (2% of reading + 3 counts)	
		100kHz < f < 1MHz	± (5% of reading) > 10.0uA	
	AC only*2	15Hz < f < 30Hz	± (3% of reading + 5 counts)	
		30Hz < f < 100kHz	± (2% of reading + 3 counts)	
		100kHz < f < 1MHz	± (5% of reading) > 10.0uA	
	DC only*3	DC	± (2% of reading + 3 counts) > 10.0uA	
Range 6*1	AC + DC	DC	± (5% of reading) > 10.0uA	
		15Hz < f < 100kHz		
	AC only*2	15Hz < f < 30Hz		
		30Hz < f < 100kHz		
	DC only*3	DC		
Accuracy for Fixed Range				
Range	Mode	Frequency	Basic Accuracy (> 6% of Range)	Additional Error (< 6% of Range)
Range 1 - 5*1	AC+ DC	DC	± (2% of reading + 3 counts)	add (2% of reading + 0.2% of range)
		15Hz < f < 100kHz	± (2% of reading + 3 counts)	add (2% of reading + 0.2% of range)
		100kHz < f < 1MHz	± (5% of reading) > 10.0uA	add (2% of reading + 0.5% of range)
	AC only*2	15Hz < f < 30Hz	± (3% of reading + 5 counts)	add (2% of reading + 0.2% of range)
		30Hz < f < 100kHz	± (2% of reading + 3 counts)	add (2 % of reading + 0.2% of range)
		100kHz < f < 1MHz	± (5% of reading) > 10.0uA	add (2% of reading + 0.5% of range)
	DC only*3	DC	± (2% of reading + 3 counts) > 10.0uA	add (2% of reading + 0.2% of range)
Range 6*1	AC + DC	DC	± (5% of reading) > 10.0uA	add (2% of reading + 0.2% of range)
		15Hz < f < 100kHz		
	AC only*2	15Hz < f < 30Hz		
		30Hz < f < 100kHz		
	DC only*3	DC		
Leakage Current Range (PEAK)				
Auto Range	Range 1 - Range 6	0.0uA - 10.00mA	Resolution	0.1uA / 1uA / 0.01mA
Fixed Range > 6% of Range	Range 1 - Range 6	0.0uA - 10.00mA	Resolution	0.1uA / 1uA / 0.01mA
Fixed Range < 6% of Range	Range 2 - Range 6	0.0uA - 600uA	Resolution	0.1uA / 1uA / 0.01mA
Accuracy for Auto Range				
Range	Mode	Frequency	Basic Accuracy	
Range 1 - 5*1	AC + DC	DC	± (2% of reading + 2uA)	
		15Hz < f < 1MHz	± (10% of reading + 2uA)	
	AC only*2	15Hz < f < 1MHz	± (10% of reading + 2uA)	
Range 6*1	AC + DC	DC	± (2% of reading + 3 counts)	
		15Hz < f < 100kHz	± (10% of reading + 2 counts)	
	AC only*2	15Hz < f < 100kHz	± (10% of reading + 2 counts)	
Accuracy for Fixed Range				
Range	Mode	Frequency	Basic Accuracy (> 6% of Range)	Additional Error (< 6% of Range)
Range 1 - 5*1	AC + DC	DC	± (2% of reading + 2uA)	add (2% of reading + 0.2% of range)
		15Hz < f < 100kHz	± (10% of reading + 2uA)	add (2% of reading + 0.2% of range)
		100kHz < f < 1MHz	± (10% of reading + 2uA)	add (2% of reading + 0.5% of range)

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MODEL	ESA-140			ESA-150
Range 1 - 5*1	AC only*2	15Hz < f < 100kHz	± (10% of reading + 2uA)	add (2% of reading + 0.2% of range)
		100kHz < f < 1MHz	± (10% of reading + 2uA)	add (2% of reading + 0.5% of range)
Range 6*1	AC + DC	DC	± (2% of reading + 3 counts)	add (2% of reading + 0.2% of range)
		15Hz < f < 100kHz	± (10% of reading + 2 counts)	
	AC only*2	15Hz < f < 100kHz	± (10% of reading + 2 counts)	
Leakage Voltage Range (RMS)				
Auto Range	Range 1 - Range 6	0.0mV - 15.00V	Resolution	0.1mV / 1mV / 0.01V
Fixed Range > 6% of Range	Range 1 - Range 6	0.0mV - 15.00V	Resolution	0.1mV / 1mV / 0.01V
Fixed Range < 6% of Range	Range 2 - Range 6	0.0mV - 900mV	Resolution	0.1mV / 1mV / 0.01V
Accuracy for Auto Range				
Range	Mode	Frequency	Basic Accuracy	
Range 1 - 5*1	AC + DC	DC	± (2% of reading + 3 counts)	
		15Hz < f < 100kHz	± (2% of reading + 3 counts)	
		100kHz < f < 1MHz	± (5% of reading) > 10.0mV	
	AC only*2	15Hz < f < 30Hz	± (3% of reading + 5 counts)	
		30Hz < f < 100kHz	± (2% of reading + 3 counts)	
		100kHz < f < 1MHz	± (5% of reading) > 10.0mV	
	DC only*3	DC	± (2% of reading + 3 counts) > 10.0mV	
Range 6*1	AC + DC	DC	± (5% of reading) > 10.0mV	
		15Hz < f < 100kHz		
	AC only*2	15Hz < f < 30Hz		
		30Hz < f < 100kHz		
	DC only*3	DC		
Accuracy for Fixed Range				
Range	Mode	Frequency	Basic Accuracy (> 6% of Range)	Additional Error (< 6% of Range)
Range 1 - 5*1	AC + DC	DC	± (2% of reading + 3 counts)	add (2% of reading + 0.2% of range)
		15Hz < f < 100kHz	± (2% of reading + 3 counts)	add (2% of reading + 0.2% of range)
		100kHz < f < 1MHz	± (5% of reading) > 10.0mV	add (2% of reading + 0.5% of range)
	AC only*2	15Hz < f < 30Hz	± (3% of reading + 5 counts)	add (2% of reading + 0.2% of range)
		30Hz < f < 100kHz	± (2% of reading + 3 counts)	add (2% of reading + 0.2% of range)
		100kHz < f < 1MHz	± (5% of reading) > 10.0mV	add (2% of reading + 0.5% of range)
	DC only*3	DC	± (2% of reading + 3 counts) > 10.0mV	add (2% of reading + 0.2% of range)
Range 6*1	AC + DC	DC	± (5% of reading) > 10.0mV	add (2% of reading + 0.2% of range)
		15Hz < f < 100kHz		
	AC only*2	15Hz < f < 30Hz		
		30Hz < f < 100kHz		
	DC only*3	DC		
Leakage Voltage Range (Peak)				
Auto Range	Range 1 - Range 6	0.0mV - 15.00V	Resolution	0.1mV / 1mV / 0.01V
Fixed Range > 6% of Range	Range 1 - Range 6	0.0mV - 15.00V	Resolution	0.1mV / 1mV / 0.01V
Fixed Range < 6% of Range	Range 2 - Range 6	0.0mV - 900mV	Resolution	0.1mV / 1mV / 0.01V

ESA 系列　ESA-140 / ESA-150NEW 彩色全功能安規綜合分析儀

Electrical Safety Compliance Analyzer

MODEL	ESA-140		ESA-150	
Accuracy for Auto Range				
Range	Mode	Frequency	Basic Accuracy	
Range 1 - 5*1	AC + DC	DC	± (2% of reading + 2mV)	
		15Hz < f < 1MHz	± (10% of reading + 2mV)	
	AC only*2	15Hz < f < 1MHz	± (10% of reading + 2mV)	
Range 6*1	AC + DC	DC	± (2% of reading + 3 counts)	
		15Hz < f < 100kHz	± (10% of reading + 2 counts)	
	AC only*2	15Hz < f < 100kHz	± (10% of reading + 2 counts)	
Accuracy for Fixed Range				
Range	Mode	Frequency	Basic Accuracy (> 6% of Range)	Additional Error (< 6% of Range)
Range 1~5*1	AC + DC	DC	± (2% of reading + 2mV)	add (2% of reading + 0.2% of range)
		15Hz < f < 100kHz	± (10% of reading + 2mV)	add (2% of reading + 0.2% of range)
		100kHz < f < 1MHz	± (10% of reading + 2mV)	add (2% of reading + 0.5% of range)
	AC only*2	15Hz < f < 100kHz	± (10% of reading + 2mV)	add (2% of reading + 0.2% of range)
		100kHz < f < 1MHz	± (10% of reading + 2mV)	add (2% of reading + 0.5% of range)
Range 6*1	AC + DC	DC	± (2% of reading + 3 counts)	add (2% of reading + 0.2% of range)
		15Hz < f < 100kHz	± (10% of reading + 2 counts)	
	AC only*2	15Hz < f < 100kHz	± (10% of reading + 2 counts)	
To explain with notes for leakage				
*1 If the final measured signal is > range 5, then the maximum composite signal can be measured is 28 volts peak. If the final measured signal is ≤ range 5, then the maximum composite signal can be measured is 12 volts peak				
*2 AC cutoff frequency for High Pass Filter is 15Hz on AC only mode				
*3 AC cutoff frequency for Low Pass Filter is 15Hz on DC only mode				
Leakage Imax Range				
The specification is as same as leakage current (RMS)				
The specification is as same as leakage current (Peak)				
Line Voltage Measurement				
Range	0.0 - 277.0Vac			
Resolution	0.1V			
Accuracy	± (1.5% of reading + 0.2V), 30.0 - 277.0V			
GENERAL				
Continous Power Output selection (like Continuous Run) for both TCT and Run testing.	To create continuous parameter selection for both TCT and RUN testing. When continuous = ON under RUN testing mode, the power won't shut down when connected two steps. But when the steps setting are different than line condition under the TCT mode, DUT output will momentary power off in 25ms, then it will power on			
AC SOURCE (for Opt.769)				
OUTPUT				
Power	500VA Maximum			
Voltage	0 - 150.0V / 0 - 277.0V			
Current	4.20A / 2.10A			

*Product specifications are subject to change without notice

【Ordering Information】

ESA-140 Electrical Safety Compliance Analyzer
ESA-150 500VA Electrical Safety Compliance Analyzer
Opt.731 GPIB Interface Card
Opt.751 Multi-function Interface Card
Opt.758 Ethernet Card
Opt.763 USB & RS232 PC Control Card
Opt.767 Run Test
Opt.768 Run Test + TCT
Opt.769 Run Test + TCT + AC Source
Opt.770 Output 400 / 800Hz for ACW
Opt.771 External HV (P-G / S-G / P-S) for Opt.767, Opt.768 or Opt.769
Opt.772 AC, DC, AC + DC measurement for TCT for Opt.768 or Opt.769
Opt.773 Power Control for Opt.767, Opt.768 or Opt.769
Opt.774 Cold Resistance for Opt.767, Opt.768 or Opt.769
Opt.775 PLC 15 Memory
Opt.776 PLC 31 Memory
Opt.785 Connection Kit for ESA link with 7630
Opt.787 Connection Kit for ESA link with 6600
Opt.790 IR Output 6000V
Opt.794 8W + 8G Matrix Scanner Module
Opt.795 Wi-Fi Adapter
1945 3KVA Hot-Hipot Transformer Box