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9170 電氣安規及運轉特性自動化測試系統

Electrical Safety & Functionality Test System

【特點】

- 全新六合一 (ACW, DCW, IR, GB, RUN, LLT)
- 搭配全新 SPACE-9170 安規自動化測試軟體
- 搭配工業電腦(IPC)；防塵、耐震、抗干擾、穩定性高，適合各種工作環境
- 系統內建標準 7742 + Opt.739 可輸出 Ground Bond 40A 的安規綜合分析儀
- 系統內建標準全新 6710 (1KVA) 交流電源供應器，也可選購更高容量的交流電源供應器 6700 全系列或 6600 系列交流電源供應器 (6605/6610/6620/6630/6650)
- 可選購外接介電測試矩陣式掃描器
- 體積小；12U 的儀器防塵機箱櫃

【Features】

- Brand New 6-In-1 System (ACW, DCW, IR, GB, RUN, LLT)
- Incorporate with SPACE-9170 Electrical Safety Auto Test Software
- Incorporate with Industrial PC (IPC); dust proof, vibration resistance, Immunity against Interference, high stability, and suitable for any working environment
- Built-in 7742+Opt.739 Electrical Safety Compliance Analyzer with 40A output of Ground Bond Test
- Built-in 6710 (1KVA) Programmable AC Power Source, or option of any higher capacities of 6700 Series Programmable AC Power Source or 6600 Series Programmable AC Power Source (6605/6610/6620/6630/6650)
- Option to link with external Matrix Scanner
- 12U compact size and dust proof system cabinet

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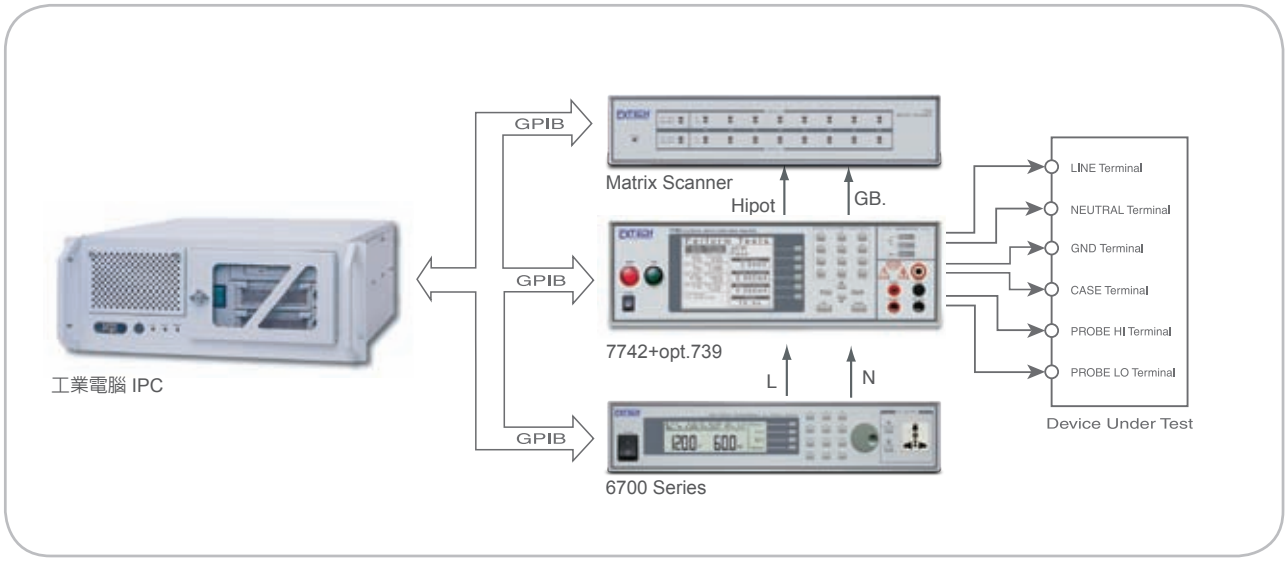
系統架構

1.7742 安規綜合分析儀
2.Opt.739 產品電氣性能及電源洩漏電流測試模組
3.6710 (1000VA) 線性可程式交流電源供應器
4.SPACE-9170 安規自動化測試軟體
5.7006 矩陣掃描器
6.工業電腦

System Structure

1.7742 Electrical Safety Compliance Analyzer
2.Opt.739 Run & Line Leakage Test Module
3.6710 (1000VA) Linear programmable AC Power Source
4.SPACE-9170 Electrical Safety Auto Test Software
5.7006 Matrix Scanner
6.Industry PC



【Specification】

MODEL	7742		
AC WITHSTAND VOLTAGE			
	Range	**Resolution**	**Accuracy**
Output Voltage, ACV	0 - 5000	1	± (2% of setting + 5V)
Output Frequency	50Hz / 60Hz ± 0.1%, User selectable		
Output Waveform	Sine wave ,THD. < 2% (Resistive load), Crest Factor = 1.3 - 1.5		
Output Regulation	± (1% of output + 5V), From no load to full load		
SETTINGS			
HI and LO-Limit (Total) current, mA	0.000 - 9.999 (0 = OFF)	0.001	± (2% of setting + 2 counts)
	10.00 - 40.00	0.01	
HI and LO-Limit (Real) current, mA	0.000 - 9.999	0.001	± (3% of setting + 50μA)
	10.00 - 40.00	0.01	
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 : 1Ω ± 0.1Ω, fixed		
Arc Detection	The range is from 1 - 9 (9 is the most sensitive)		

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MODEL	7742		
DC WITHSTAND VOLTAGE			
Output Voltage, DCV	0 - 5000	1	± (2% of setting + 5V)
DC Output Ripple	< 4% (5KV / 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, 1.0 - 999.9 (0 = OFF)		
Dwell Timer, second	0, 0.3 - 999.9		
Ramp-HI current	> 20mApeak maximum, ON / OFF User selectable		
Charge LO current	0.0 - 350.0μA, auto / manual set		
Discharge Time	≤ 200ms		
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 : 1Ω ± 0.1Ω, fixed		
Arc Detection	The range is from 1 - 9 (9 is the most sensitive)		
INSULATION RESISTANCE			
Output Voltage, DCV	50 - 1000	1	± (2% of setting + 2 counts)
Charging Current	Maximum > 20mApeak		
SETTINGS			
HI and LO-Limit resistance, MΩ	0.05 - 99.99 (HI - Limit : 0 = OFF)	0.01	Same as Resistance MEASUREMENT Accuracy
	100.0 - 999.9	0.1	
	1000 - 50000	1	
Ramp Up Timer, second	0.1 - 999.9	0.1	± (0.1% of setting + 0.05s)
Ramp Down Timer, second	0, 1.0 - 999.9 (0 = OFF)		
Delay Timer, second	0, 1.0 - 999.9 (0 = continuous)		
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 + 2counts)
Output Voltage, Vac	3.00 - 8.00	0.01	± (2% of setting + 3counts)
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	1.00 - 2.99A, ± (3% of setting + 3 counts) 3.00 - 40A, ± (2% of setting + 2 counts)
HI and LO-Limit Resistance, mΩ	0 - 150 (30.01 - 40.00A)	1	
	0 - 200 (10.01 - 30.00A)		
	0 - 600 (1 - 10.00A)		
Dwell Timer, second	0, 0.5 - 999.9 (0 = continuous)	0.1	± (0.1% of setting + 0.05s)
CONTINUITY TEST			
Output Current	DC 0.1A ± 0.01A, Max		

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MODEL	7742		
CONTINUITY TEST			
HI and LO-Limit Resistance, Ω	0.00 - 9.99	0.01	± (1% of setting + 5 counts)
	10.0 - 99.9	0.1	± (1% of setting + 2 counts)
	100 - 999	1	
	1000 - 9999	1	
Dwell Timer, second	0.0, 0.3 - 999.9 (0 = continuous)	0.1	± (0.1% of setting + 0.05s)
Resistance Offset, Ω	0.00 - 2.00	0.01	± (1% of setting + 5 counts)
MEASUREMENT			
	Range	**Resolution**	**Accuracy**
Voltage, KV (AC / DC)	0.00 - 5.00	0.01	± (1.5% of reading + 1 count)
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 - 40.00	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 - 40.00	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)	50 - 499V	500 - 1000V	50 - 499V 0.05 - 999.9, ± (7% of reading + 2 counts) 500 - 1000V 0.10 - 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 - 999.99	0.1
	200 - 50000	1000 - 50000	1
Resistance, mΩ (GB)	0 - 600		1	1.00 - 2.99 A, ± (3% of reading + 3 counts) 3.00 - 40.00 A, ± (2% of reading + 2 counts)
Resistance, Ω (Continuity)	0.00 - 9.99		0.01	± (1% of reading + 5 counts)
	10 - 99.9		0.1	± (1% of reading + 2 counts)
	100 - 999		1	
	1000 - 9999		1	
GENERAL			
Input Voltage AC	115 / 230Vac ± 15%, 50 / 60Hz ± 5%, max. current 10A		
PLC Remote Control	Input : Test, Reset, Interlock, Recall File 1 through 10 Output : Pass, Fail, Test-in-Process		
Memory	50 memories, 30 steps / memory		
Graphic Display	320 x 240 Monographic LCD, 9 ranges contrast setting		
Safety	Built-in Smart GFI circuit, GFI trip current 450μA max, HV shut down speed : < 1ms		
Interface	Standard USB & RS232, Optional GPIB (IEEE - 488.2), Multi-function Interface card, Ethernet card		
Security	Programmable password lockout capability to avoid unauthorized access to test set-up program		
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 - 40ºC, 20 - 80%RH		
Dimension (W x H x D), mm	430 x 133 x 500		
Net Weight	30Kg		

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MODEL	7742		
STANDARD ACCESSORIES			
Power Cord (10A)	x 1		
Fuses	x 2 (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		
MATRIX SCANNER (for Opt.736)			
High Voltage Rating	5KVAC / 5KVDC		
High Current Rating	40A		
Number of HV Channel	8		
Number of HA Channel	8		
RUN TEST (for Opt.738 & 739)			
MEASUREMENT			
	Range	**Resolution**	**Accuracy**
Voltage, Vac	0.0 - 277.0	0.1	± (1.5% of reading + 2 counts)
Current, Aac	0.00 - 15.00	0.01	± (2% of reading + 2 counts)
Power, Watts	0 - 4200	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 Circuit	Leakage current measuring resistance = 2KΩ ± 1%		
Timer, second	0.0 - 999.9	0.1	± (0.1% of reading + 0.05s)
SETTINGS			
HI and LO Limit AC Voltage, V	0.0 - 277.0	0.1	± (1.5% of setting + 0.2 V), at 30.0 - 277.0V
HI and LO Limit AC Current, A	0.00 - 15.00	0.01	± (2% of setting + 2 counts)
HI and LO Limit AC Power, W	0 - 4200	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)
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)		
DUT POWER			
AC Voltage	0 - 277.0V, Single phase unbalance, 0 - 15.0A maximum		
Power Rating	4200W maximum		
DUT Protection	Short circuit current 23A, < 3sec, Inrush Current 68A Response time 1ms		
LINE LEAKAGE TEST (for Opt.739)			
CURRENT MEASUREMENT			
Frequency Range	DC-1MHz		
Leakage Current Range (RMS)	**Resolution**	**Accuracy (DC - 100KHz)**	**Accuracy (> 100K - 1 MHz)**
0.0μA - 999.9μA	0.1μA	± (1.5% of reading + 3 counts)	± (5% of reading + 5μA)
1000μA - 6000μA	1μA	± (1.5% of reading + 3 counts)	

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MODEL	7742		
Leakage Current Range (Peak)			
Opt.739 only	**Resolution**	**Accuracy (DC - 100KHz)**	**Accuracy (> 100K - 1 MHz)**
0.0μA - 999.9μA	0.1μA	± (10% of reading + 2μA)	± (10% of reading + 2μA)
1000μA - 6000μA	1μA	± (10% of reading + 2μA)	
LINE VOLTAGE MEASUREMENT			
Range	0.0 - 277.0VAC		
Resolution	0.1V		
Accuracy	± (1.5 % of reading + 0.2V), at 30.0 - 277.0V		
DUT			
DUT Input Power Rating	0 - 277VAC @ 15Aac max		
DUT Protection	Short circuit current 23A, < 3sec. Inrush Current 68A Response time 1ms		
SETTINGS			
High / Low Limit, μA	Range : 0.0 - 6000μA (0 = OFF), Resolution : 0.1μA		
Delay Time, second	Range : 0, 1.0 - 999.9 (0 = continuous) ; Resolution : 0.1s		
Measuring Device	A UL544 Non Patient, UL484, IEC60598, UL1363		
	B UL544 Patient Care		
	C UL2601-1, IEC60601-1, EN60601-1		
	D UL1563		
	E UL60950, IEC60950, IEC61010-1, IEC60335-1, IEC60990 Fig4 U2		
	F IEC60990 Fig5 U3		
	G IEC60990 Fig3 U1		
MD A - D components	Resistance accuracy : ± 1% Capacitor accuracy : ± 5%		
MD Voltage Limit	Maximum 30Vpeak or 30Vdc		

*Product specifications are subject to change without notice

MODEL	6710		
Output Voltage, AC, Vrms	**0 - 300**		
Output Current, AC, Arms	8.4A at 0 - 150V range / 4.2A at 0 - 300V range		
Output Current, AC, Apeak	33.6A at 0 - 150V range / 16.8A at 0 - 300V range		
Output Frequency, Hz	45 - 500		
Measurement			
	Range	**Resolution**	**Accuracy**
Voltage, V	0.0 - 300.0V / 0.0 - 600.0V	0.01	± (0.5% of reading + 2 counts) for 0 - 300V ± (0.5% of reading + 4 counts) for 0 - 600V
Current (r.m.s), A	0.000 - 3.500	0.001	± (0.5% of reading + 5 counts)
	3.00 - 35.00	0.01	± (0.5% of reading + 3 counts)
Current (peak), A	0.0 - 200.0	0.1	± (1% of reading + 2 counts)
Power, W	0.0 - 350.0	0.1	± (0.6% of reading + 5 counts)
	300 - 4000	1	± (0.6% of reading + 2 counts)
Frequency, Hz	0 - 500.0	0.1	± 0.1Hz
Power Factor	0 - 1.000	W / VA, Calculated and displayed to three significant digits	
GENERAL			
Input Voltage	115 / 230Vac ± 15%		
Computer	Industrial PC with GPIB interface		
Peripherals	15" TFT LCD Monitor, Keyboard and Mouse		

【Ordering Information】

9170 Electrical Safety & Functionality Test System
7006 Matrix Scanner