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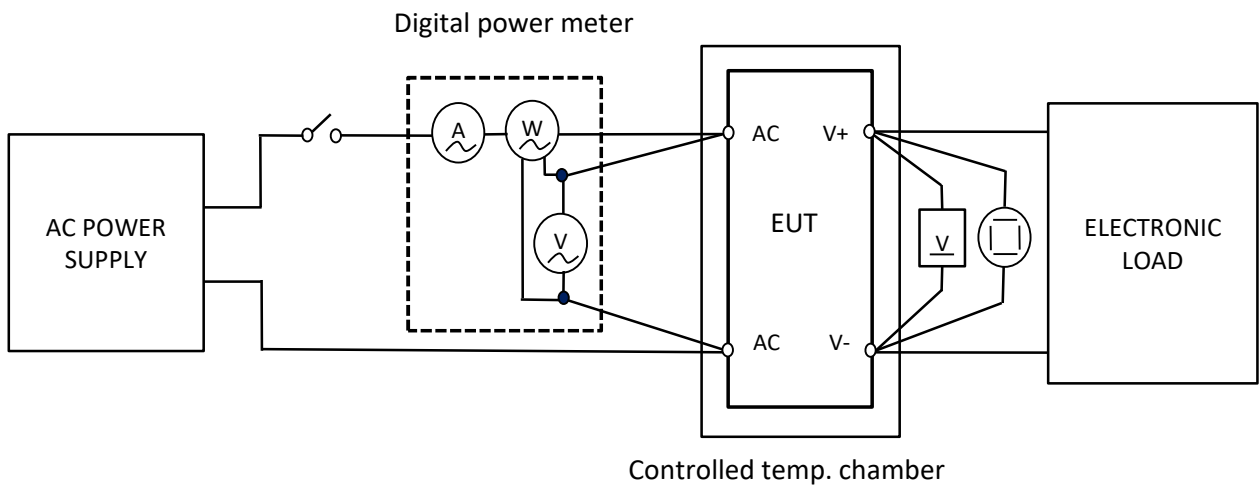
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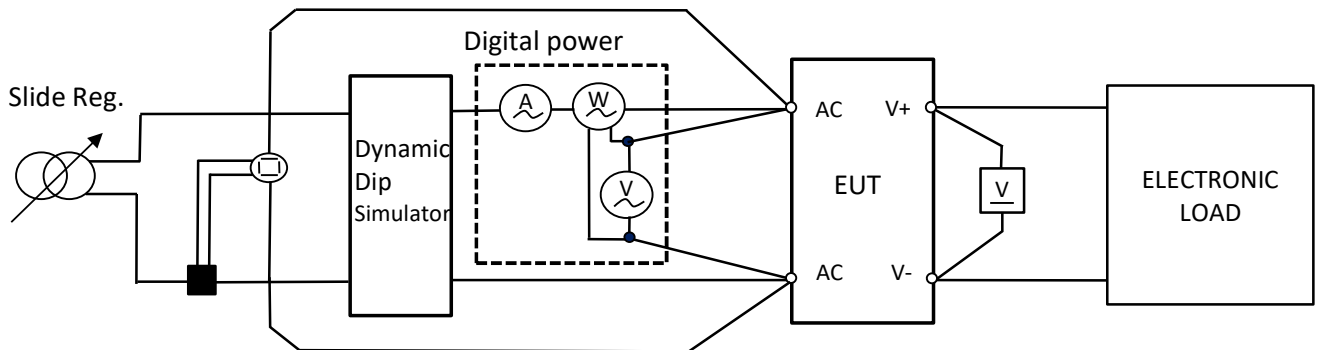
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NOTE:Leakage current
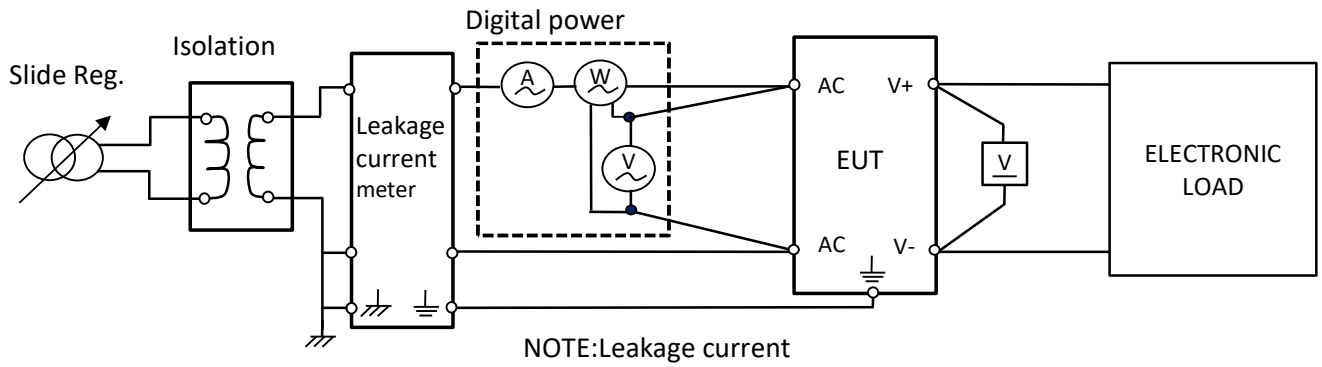
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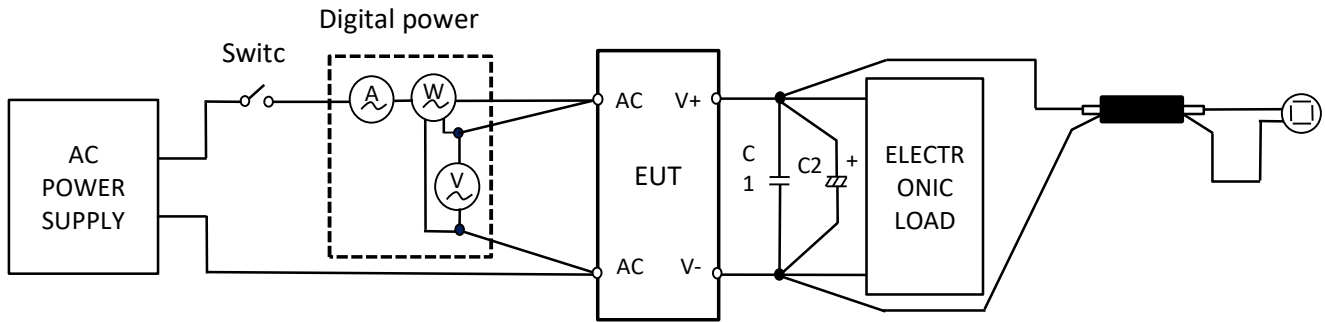
C1 : 0.1μF CERAMICS CAPACITOR
C2 : 22μ 50V ALUMINUM CAPACITOR
THE BANDWIDTH OF OSCILLOSCOPE IS SET WITH 20MHz

UNIFIVE 優源科技

1.ELECTRICAL FUNCTION Character(電氣特性)

1-1.Line&Load Regulation And Temperature Chafaile Character (輸入＆負荷及溫度變動特性)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	90Vac/100Vac/240Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz ~63Hz
3	Output Load(輸出負載)	0%,25%,50%,75%,100% Of Full Load
4	Regulation(調整率)	Load Regulation:≦0.63%;Line Regulation ≦0.4%
5	Ambient Temp.(℃)(環境溫度)	25℃
6	Sample Size(取樣數)	1PCS

Output voltage	24.0V

※ Character Data(特性數據) :

I/P O/P	90Vac/63Hz	100Vac/60Hz	240Vac/50Hz	264Vac/47Hz	Line Regulation ≦0.4%
0%	24.14V	24.14V	24.14V	24.14V	0.00%
25%	24.13V	24.12V	24.13V	24.13V	0.04%
50%	24.11V	24.11V	24.11V	24.11V	0.00%
75%	24.1V	24.11V	24.1V	24.1V	0.04%
100%	24.09V	24.09V	24.09V	24.09V	0.00%
Load Regulation:≦ 0.63%	0.21%	0.21%	0.21%	0.21%	

Output voltage	5.0V

※ Character Data(特性數據) :

I/P	90Vac/63Hz	100Vac/60Hz	240Vac/50Hz	264Vac/47Hz	Line Regulation ≦0.8%
0%	4.98V	4.98V	4.98V	4.98V	0.00%
25%	4.98V	4.98V	4.98V	4.98V	0.00%
50%	4.98V	4.98V	4.98V	4.98V	0.00%
75%	4.98V	4.98V	4.98V	4.98V	0.00%
100%	4.98V	4.98V	4.98V	4.98V	0.00%
Load Regulation:≦ 0.8%	0.00%	0.00%	0.00%	0.00%	

MODEL NO: UOHC3150-2406-S   24V/6.3A

1-2.1 Ripple And Noise Character（紋波與雜訊）

※ Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	90Vac/100Vac/240Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz ~63Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(℃)(環境溫度)	-10℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據)：

I/P	90Vac/63Hz		100Vac/60Hz		240Vac/50Hz		264Vac/47Hz	
ITEM	Ripple	Noise	Ripple	Noise	Ripple	Noise	Ripple	Noise
-10℃ @ 24Vdc	26.6mV	46.4mV	29.2mV	44.6mV	29.8mV	43.0mV	21.8mV	38.8mV
-10℃ @ 5Vdc	1.8mV	4.6mV	3.2mV	4.4mV	3.2mV	5.2mV	2.6mV	5.2mV

※ Character Waveform (特性波形)：

-10℃ @ 24Vdc	
90Vac/63Hz Input	100Vac/60Hz Input
240Vac/50Hz Input	264Vac/47Hz Input

-10℃ @ 5Vdc	
90Vac/63Hz Input	100Vac/60Hz Input
240Vac/50Hz Input	264Vac/47Hz Input
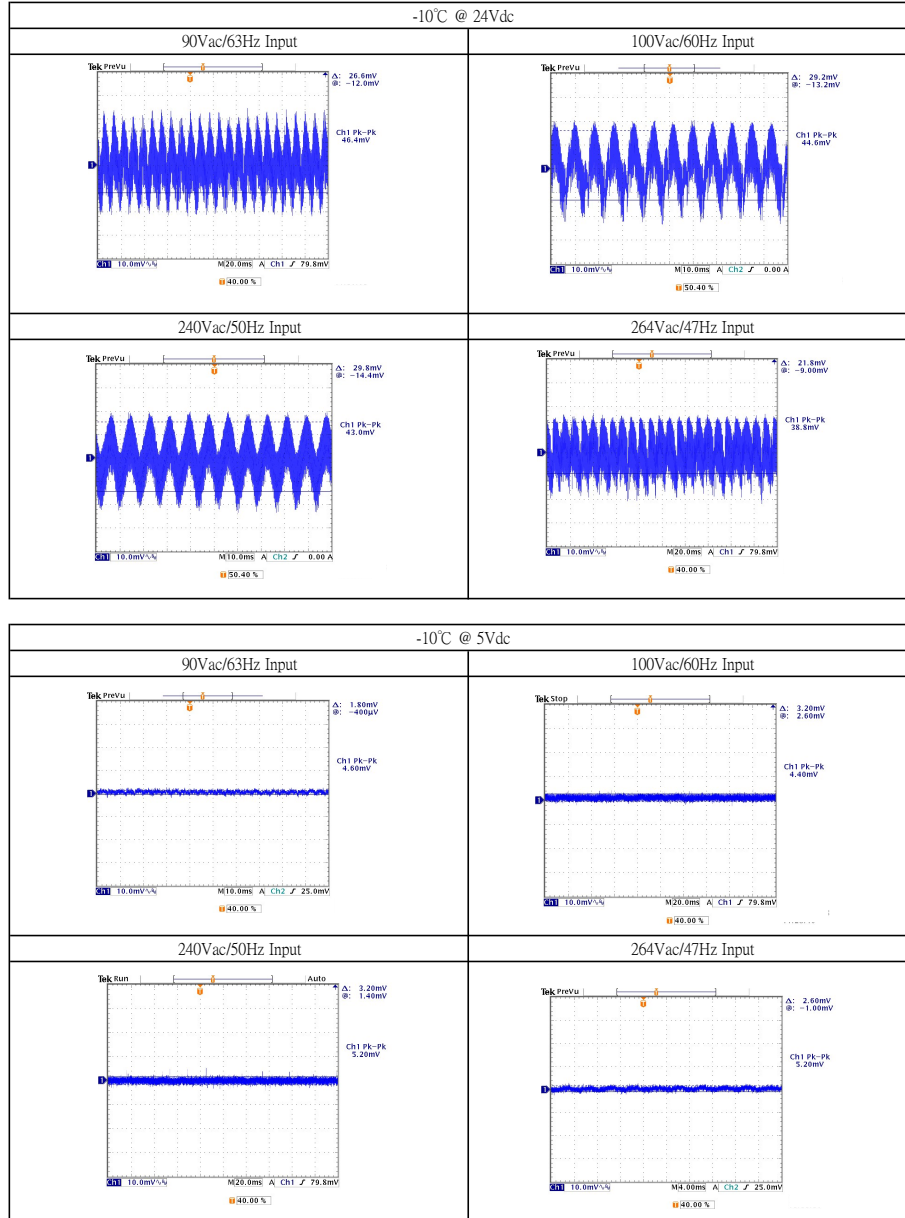
MODEL NO：UOHC3150-2406-S	24V/6.3A

1-2.3 Ripple And Noise Character（紋波與雜訊）

※ Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	90Vac/100Vac/240Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz ~63Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(℃)(環境溫度)	50℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據)：

I/P	90Vac/63Hz		100Vac/60Hz		240Vac/50Hz		264Vac/47Hz	
ITEM	Ripple	Noise	Ripple	Noise	Ripple	Noise	Ripple	Noise
50℃ @ 24Vdc	29.2mV	44.6mV	21.8mV	38.8mV	26.6mV	46.4mV	29.8mV	43.0mV
50℃ @ 5Vdc	2.6mV	4.8mV	1.8mV	4.6mV	2.6mV	4.8mV	3.6mV	6.0mV

※ Character Waveform (特性波形)：

50℃ @ 24Vdc	
90Vac/63Hz Input	100Vac/60Hz Input
240Vac/50Hz Input	264Vac/47Hz Input

50℃ @ 5Vdc	
90Vac/63Hz Input	100Vac/60Hz Input
240Vac/50Hz Input	264Vac/47Hz Input
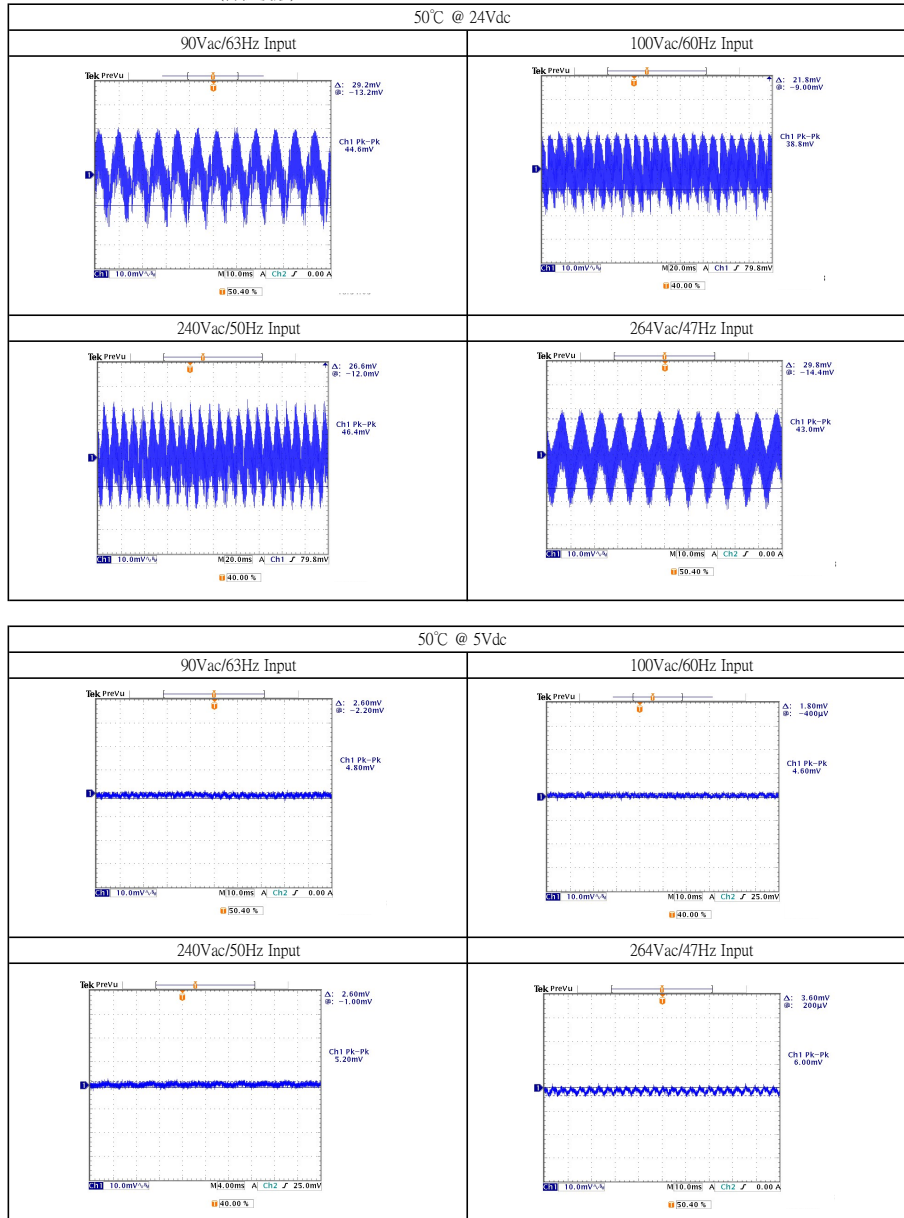
1-3.Over-Voltage Protection(過電壓保護特性)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	90Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz /63Hz
3	Output Load(輸出負載)	No/Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

O/P	No Load		Full Load	
I/P	90Vac/63Hz	264Vac/47Hz	90Vac/63Hz	264Vac/47Hz
Character Result @ 24Vac	29.6V	30.2V	29.2V	29.1V
Character Result @ 5Vdc	6.64V	6.72V	6.6V	6.24V

※ Character Waveform (特性波形)：

24Vdc	
90Vac No Load	264Vac No Load
90Vac Full Load	264Vac Full Load

5Vdc	
90Vac No Load	264Vac No Load
90Vac Full Load	264Vac Full Load

1-4.Over-Current Protection(過電流保護特性)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	90Vac/100Vac/240Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz ~63Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

I/P	90V/63Hz	100V/60Hz	240V/50Hz	264V/47Hz
O.C.P點	12.5A	12.5A	12.5A	12.5A

I/P	90V/63Hz										
Voltage(V)	24.2	24.2	24.2	24.2	24.2	24.2	24.2	0.0	0.0	0.0	0.0
Current(A)	3.125	6.25	7.5	8.75	10	11.25	12.5	13.75	15	16.25	17.5
I/P	100V/60Hz										
Voltage(V)	24.2	24.2	24.2	24.2	24.2	24.2	24.2	0.0	0.0	0.0	0.0
Current(A)	3.125	6.25	7.5	8.75	10	11.25	12.5	13.75	15	16.25	17.5
I/P	240V/50Hz										
Voltage(V)	24.2	24.2	24.2	24.2	24.2	24.2	24.2	0.0	0.0	0.0	0.0
Current(A)	3.125	6.25	7.5	8.75	10	11.25	12.5	13.75	15	16.25	17.5
I/P	264V/47Hz										
Voltage(V)	24.2	24.2	24.2	24.2	24.2	24.2	24.2	0.0	0.0	0.0	0.0
Current(A)	3.125	6.25	7.5	8.75	10	11.25	12.5	13.75	15	16.25	17.5

過電流曲綫

1-4.Over-Current Protection(過電流保護特性)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	90Vac/100Vac/240Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz ~63Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

I/P	90V/63Hz	100V/60Hz	240V/50Hz	264V/47Hz
O.C.P點	2.0A	2.0A	2.5A	2.5A

I/P	90V/63Hz										
Voltage(V)	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	0.0	0.0
Current(A)	0.2	0.4	0.6	0.7	0.8	0.9	1	1.5	2	2.5	3
I/P	100V/60Hz										
Voltage(V)	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	0.0	0.0
Current(A)	0.2	0.4	0.6	0.7	0.8	0.9	1	1.5	2	2.5	3
I/P	240V/50Hz										
Voltage(V)	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	0.0
Current(A)	0.2	0.4	0.6	0.7	0.8	0.9	1	1.5	2	2.5	3
I/P	264V/47Hz										
Voltage(V)	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	0.0
Current(A)	0.2	0.4	0.6	0.7	0.8	0.9	1	1.5	2	2.5	3

過電流曲綫

1-5. Dynamic ripple Character(動態負載特性)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	90Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz /63Hz
3	Output Load(輸出負載)	0%-50%-Full Load,TH=0.1ms,TL=0.1ms,Slew rate=1A/us
4	Ambient Temp.(℃)(環境溫度)	- 10℃/50℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

I/P	90Vac/63Hz		264Vac/47Hz	
O/P	Max	Min	Max	Min
-10℃ 0%-50% Load	24.1V	22.2V	24.2V	22.4V
50℃ 0%-50% Load	24.2V	22.4V	24.1V	22.3V
-10℃ 50%-100% Load	23.9V	23.2V	23.9V	23.2V
50℃ 50%-100% Load	23.9V	23.2V	23.9V	23.3V

※ Character Waveform (特性波形) :

-10℃ 0%-50% Load	
90Vac/63Hz	264Vac/47Hz

50℃ 0%-50% Load	
90Vac/63Hz	264Vac/47Hz

-10℃ 50%-100% Load	
90Vac/63Hz	264Vac/47Hz

50℃ 50%-100% Load	
90Vac/63Hz	264Vac/47Hz

1-5. Dynamic ripple Character(動態負載特性)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	90Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz /63Hz
3	Output Load(輸出負載)	0%-50%-Full Load,TH=0.1ms,TL=0.1ms,Slew rate=1A/us
4	Ambient Temp.(℃)(環境溫度)	- 10℃/50℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

I/P	90Vac/63Hz		264Vac/47Hz	
O/P	Max	Min	Max	Min
-10℃ 0%-50% Load	4.98V	4.77V	4.98V	4.78V
50℃ 0%-50% Load	4.97V	4.79V	4.98V	4.77V
-10℃ 50%-100% Load	4.92V	4.73V	4.93V	4.74V
50℃ 50%-100% Load	4.9V	4.71V	4.9V	4.73V

※ Character Waveform (特性波形)：

-10℃ 0%-50% Load	
90Vac/63Hz	264Vac/47Hz

50℃ 0%-50% Load	
90Vac/63Hz	264Vac/47Hz

-10℃ 50%-100% Load	
90Vac/63Hz	264Vac/47Hz

50℃ 50%-100% Load	
90Vac/63Hz	264Vac/47Hz
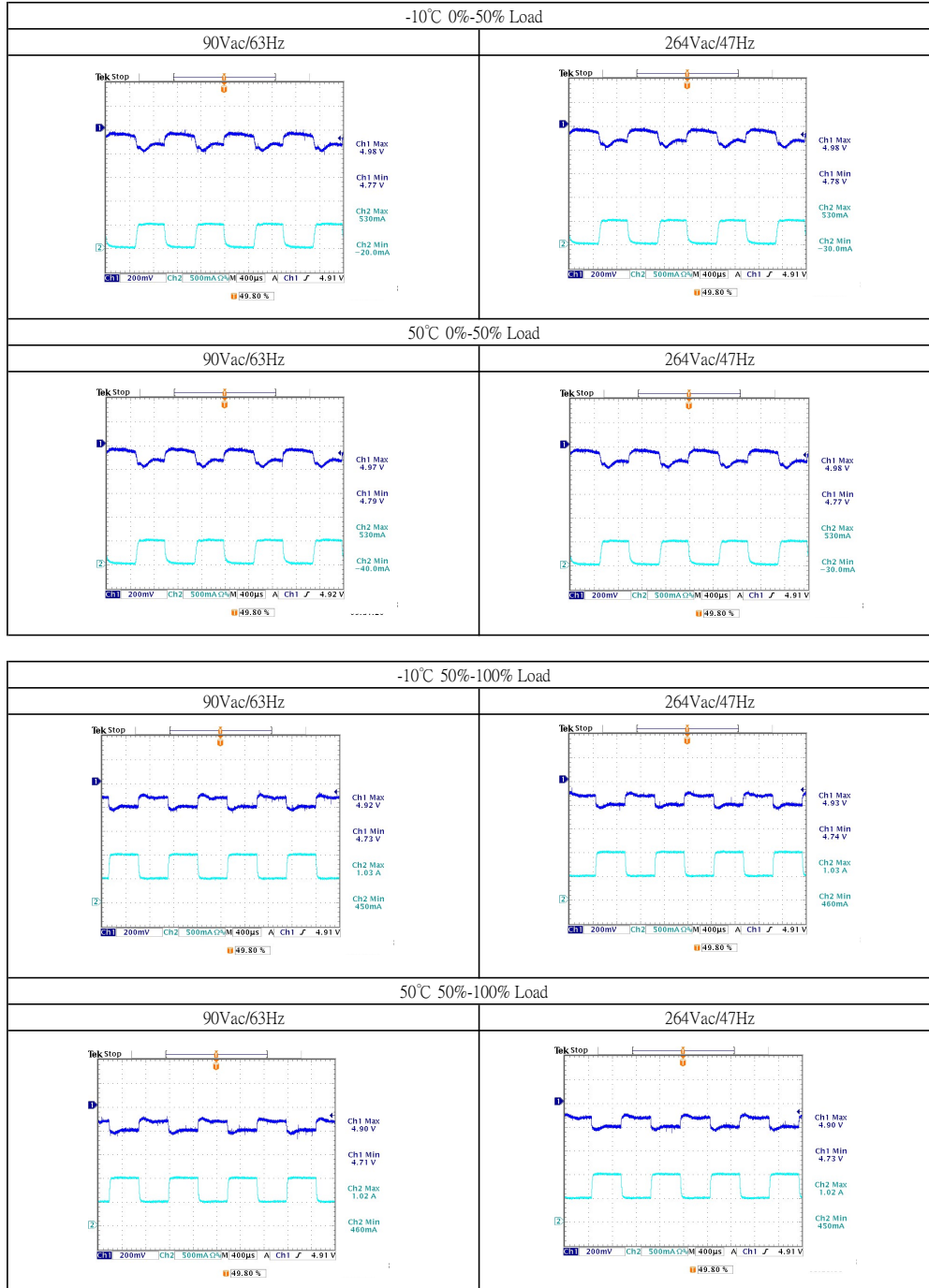
1-6.Efficiency Character(效率特性)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	115Vac/230Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz / 60Hz
3	Output Load(輸出負載)	0%,10%,25%,50%,75%,100% of Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS
6	Output Load(輸出負載)	6.3A

※ Character Data(特性數據) :

使用線材	N/A

Efficiency							Stand by consumption	
Load		10% 25% 50% 75% 100%					0%	
I/P		115Vac/60Hz			230Vac/50Hz		Input 115V/60Hz	230V/50HZ
O/P Load		Pin　(W)	Pout (W)	Efficiency (%)	Pin　(W)	Pout (W)	Efficiency (%)	
10%	0.63A	18.24	15.56	85.31%	18.32	15.24	83.19%	
25%	1.575A	47.42	39.37	83.02%	46.54	39.34	84.53%	
50%	3.15A	91.57	79.72	87.06%	89.8	79.45	88.48%	0.324W	0.378W
75%	4.725A	133.92	118.02	88.12%	131.1	117.97	89.98%	
100%	6.3A	178.27	157.71	88.47%	173.7	157.71	90.79%	
Average				86.67%			88.45%	

1-7.Input&Load Change Character(輸入＆負荷變動特性)
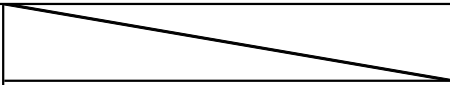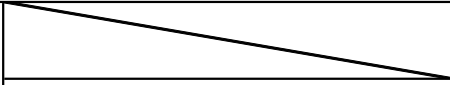
※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	90Vac~264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz ~63Hz
3	Output Load(輸出負載)	No Load and Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS
6		

※ Character Equipment(特性設備）:

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	AC Source(變頻器)	ALL POWER/APG-1005N
2	Power Meter(功率表)	YOKOGAWA/WT310
3	DC Load(DC負載)	ITECH/IT8512+

※ Character Data(特性數據) :

Input change with no load				
No Load			Input Condition	
			90V/63Hz	264Vac/47Hz
	Input Current（A）		0.038	0.079
	Input Power（W）		0.42	0.69
Input change with full load				
Full Load			Input Condition	
			90V/63Hz	264Vac/47Hz
	Input Current（A）		1.91	0.679
	Input Power（W）		169.48	165.6

1-8.Inrush Current (浪涌電流)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	100Vac/200Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz /60Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

Inrush Current		
O/P I/P　　　　　I(A)	Full Load	Full Load
	100Vac/60Hz	200Vac/50Hz
Character Result	5.8A	15.2A

※ Character Waveform (特性波形)：

100Vac/60Hz	200Vac/50Hz
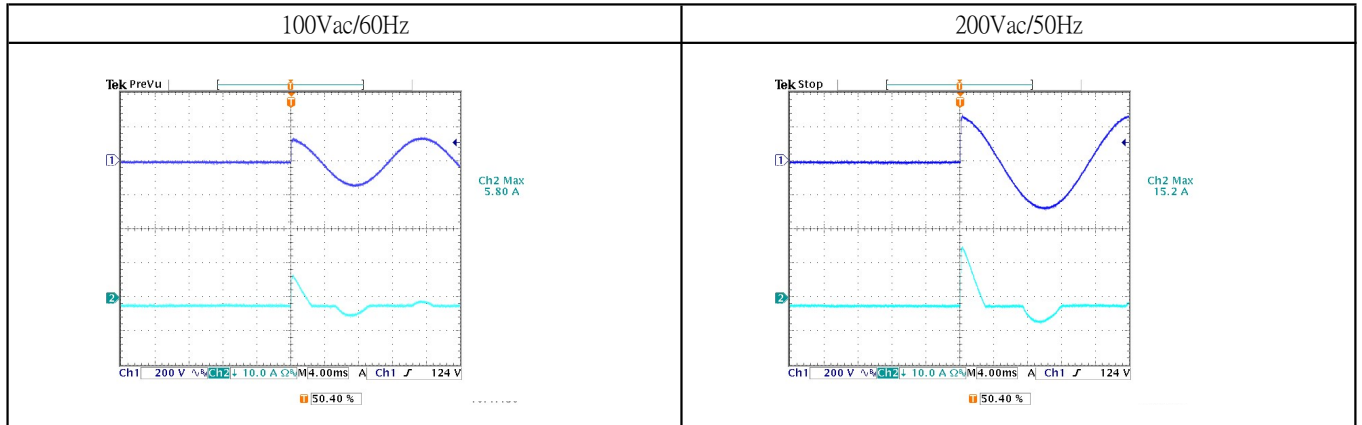
1-9.Turn On Delay(開機爬升延遲時間)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	90Vac
2	I/P Frequency(Hz)(輸入頻率)	63Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

Turn on delay time	
I/P	90Vac/63Hz
Character Result	0.26S

※ Character Waveform (特性波形)：

90Vac/63Hz
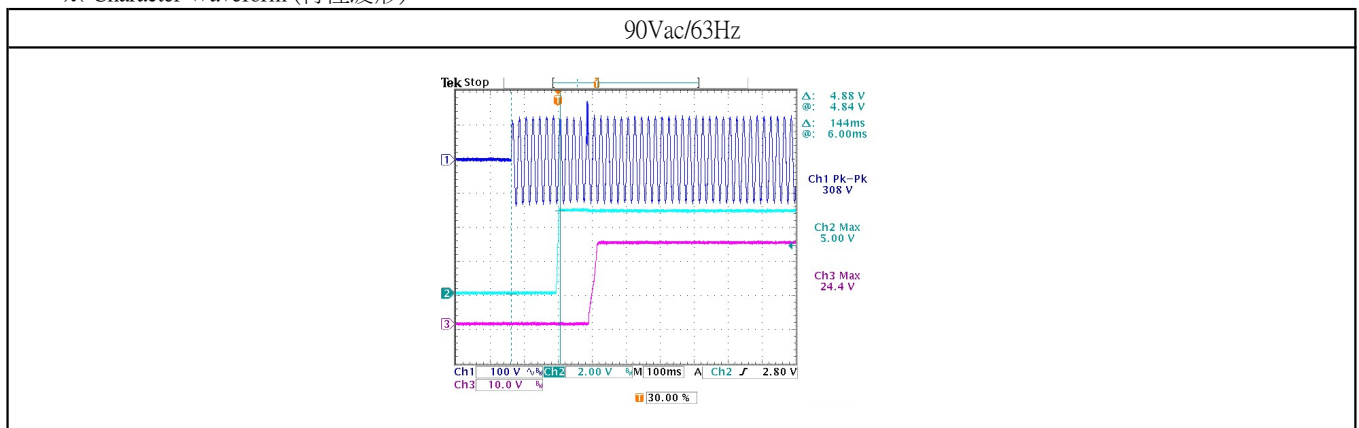
2-1. Hold Up Time Character (保持時間)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	100Vac
2	I/P Frequency(Hz)(輸入頻率)	60Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

Hold up time	
I/P	100Vac/60Hz
Character Result	32.8mS

※ Character Waveform (特性波形)：

100Vac/60Hz
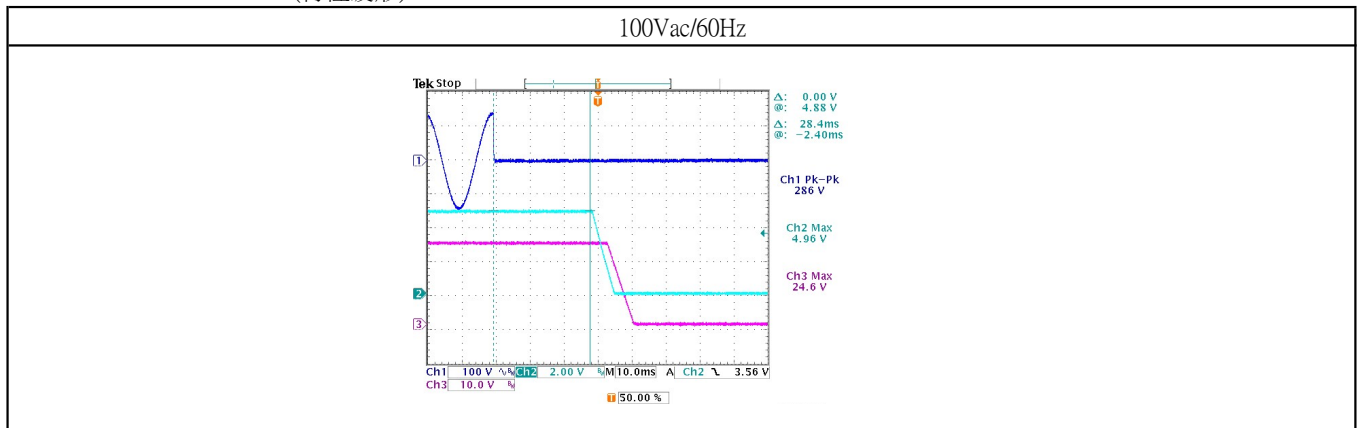
2-2. Low Vac Shut Off (輸入欠壓關斷特性)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	0~90Vac
2	I/P Frequency(Hz)(輸入頻率)	60Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

LOW Vac SHUT OFF	
0~90Vac Input	
O/P	Full Load
Brown in	77.1V
90~0Vac Input	
O/P	Full Load
Brown out	67.2V

2-3. Over Shoot(過沖特性)

※ Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	90Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz /63Hz
3	Output Load(輸出負載)	No Load/Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據)：

Over Shoot				
O/P	No Load		Full Load	
I/P	90Vac/63Hz	264Vac/47Hz	90Vac/63Hz	264Vac/47Hz
Character Result @ 24Vdc	24.4V	24.3V	23.9V	24.0V
Character Result @ 5Vdc	5.06V	5.02V	4.94V	4.94V

※ Character Waveform (特性波形)：

24Vdc	
90Vac/63Hz No Load	264Vac/47Hz No Load
90Vac/63Hz Full Load	264Vac/47Hz Full Load

5Vdc	
90Vac/63Hz No Load	264Vac/47Hz No Load
90Vac/63Hz Full Load	264Vac/47Hz Full Load
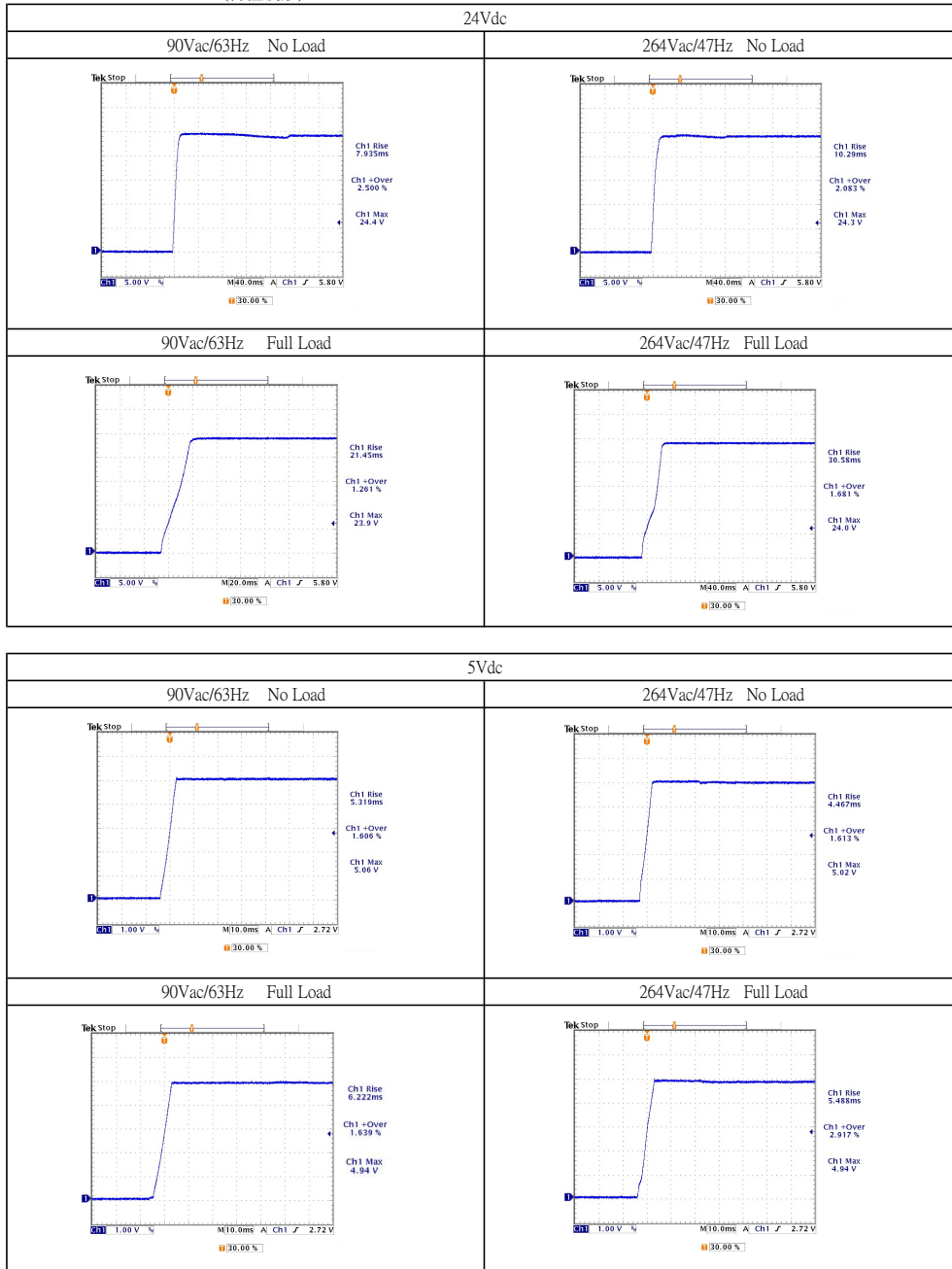
2-4.Under Shoot(下沖特性)

※ Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	90Vac/264Vac
2	I/P Frequency(Hz)(輸入頻率)	47Hz /63Hz
3	Output Load(輸出負載)	Low/Full Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS

※ Character Data(特性數據) :

Under Shoot				
O/P	0.1A		Full Load	
I/P	90Vac/63Hz	264Vac/47Hz	90Vac/63Hz	264Vac/47Hz
Character Result	24.5V	24.7V	24.5V	24.6V

※ Character Waveform (特性波形)：

90Vac/63Hz Low Load	264Vac/47Hz Low Load
90Vac/63Hz Full Load	264Vac/47Hz Full Load
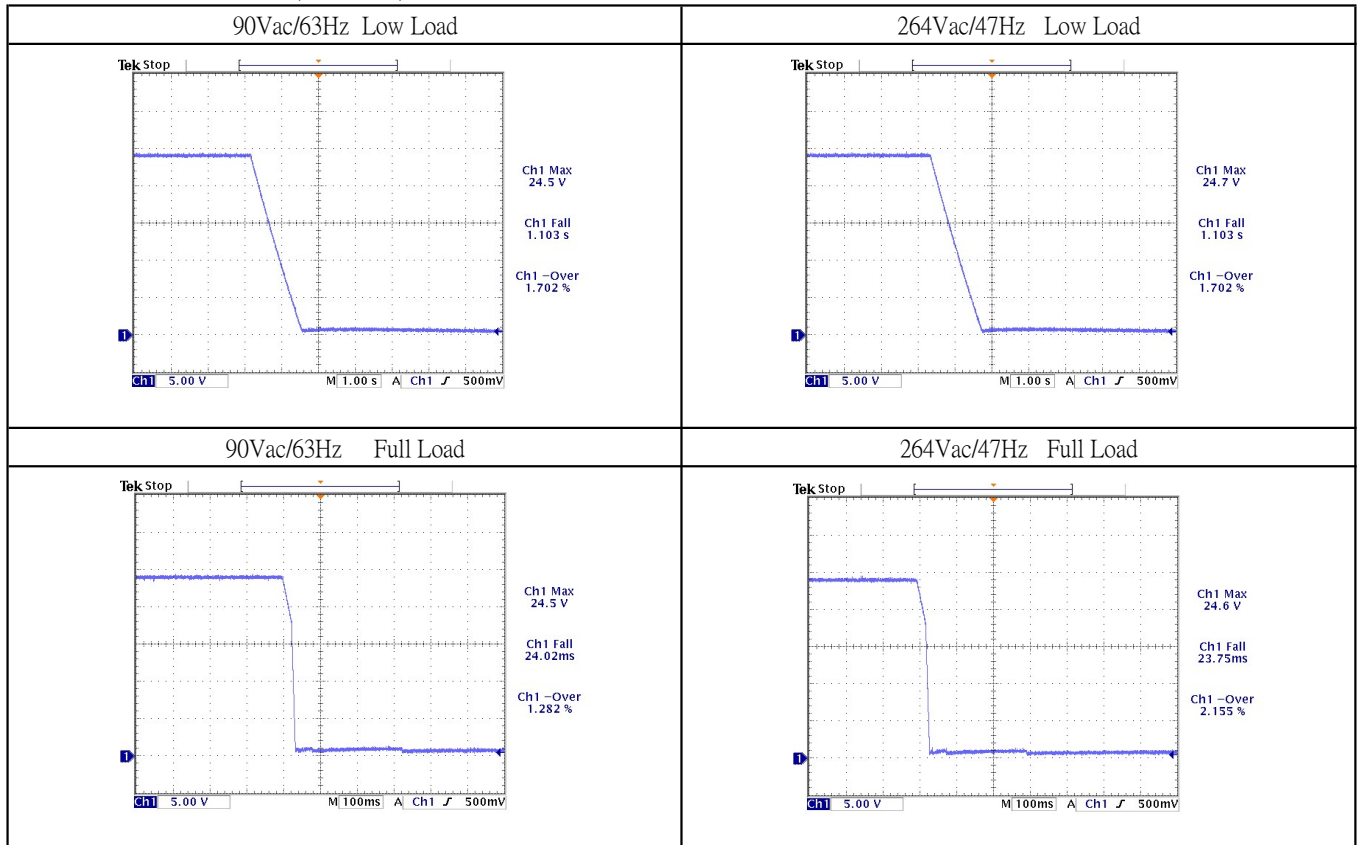
2-5.Leak Current(漏電流特性)

※Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	264Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz
3	Output Load(輸出負載)	No Load
4	Ambient Temp.(℃)(環境溫度)	25℃
5	Sample Size(取樣數)	1PCS
6		

※Character Equipment(特性設備）：

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	Leak current Characterer(泄漏電流特性儀)	VG2301
2		
3		
4		

LEAK CURRENT CHARACTER	
Spec.(mA MAX)	0.75
O/P	No Load
I/P	264Vac

※Character Data：

SINGLE-PHASE　EQUIPMENT

The Character was made in all combinations to the normal and reverse polarity of the supply circuit(Polarity Switch P1)

Terminal A (Switch"s") of Measuring Instrument Connected to:	Switch"e" Position	Touch Current (mA r.m.s.)				
		Polarity P1/Primary Switch Condition				
		Normal/On	Normal/Off	Reverse/On	Reverse/Off	Judgement
Output	Closed	0.132	-	0.054	-	Pass

The touch current [did not] exceed _____ mA r.m.s with terminal A connected to the earth terminal of the unit with Switch "e" opened.

The touch current [did not] exceed __0.75__ mA r.m.s with terminal A connected to the earth terminal of the unit with Switch "e" closed.