

TEST DATA OF UMA120F-18-Y

Regulated DC Power Supply
June 23, 2025

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Design Manager

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Design Engineer

COSEL CO.,LTD.

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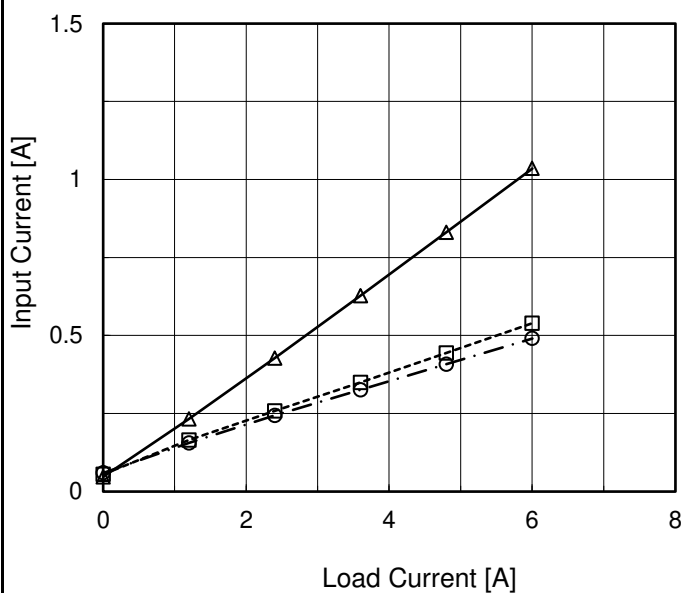
(Final Page 15)

Model	UMA120F-18-Y
Item	Input Current (by Load Current)
Object	+18V6A

Temperature 25°C
Testing Circuitry Figure A

1. Graph

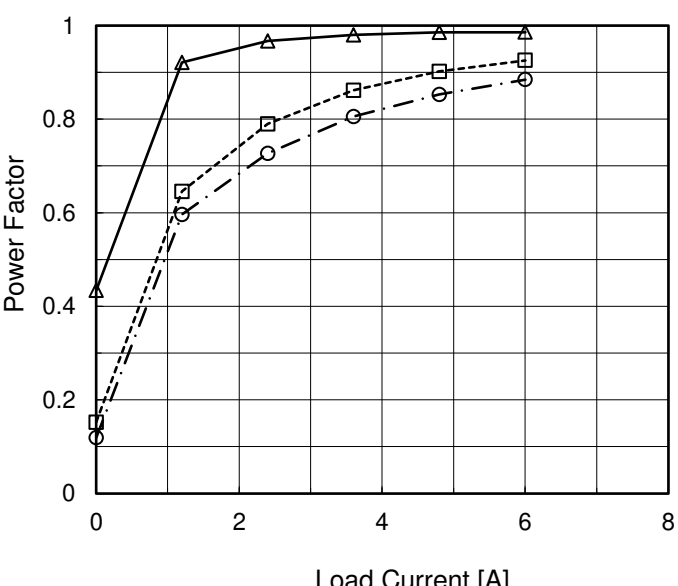
—△— Input Volt. 115V
 ---□--- Input Volt. 230V
 -·-○-·- Input Volt. 264V



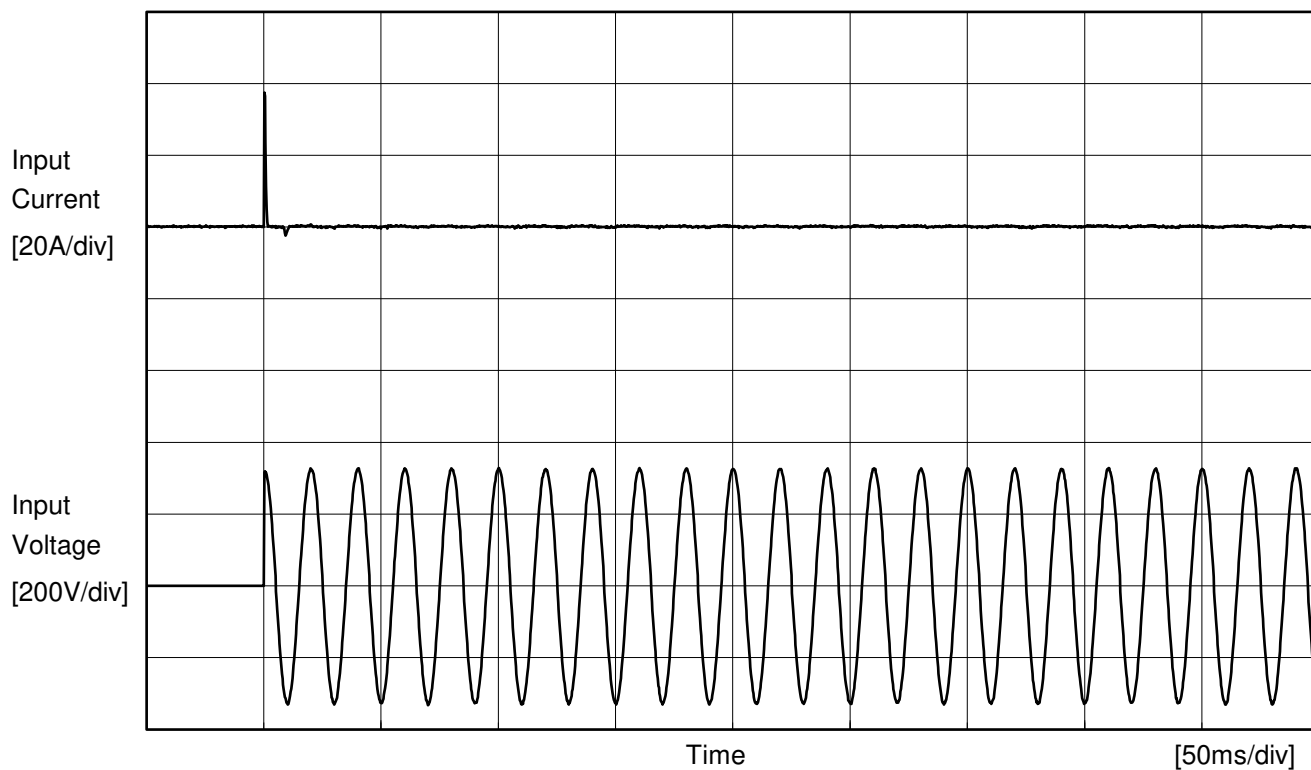
2. Values

Load Current [A]	Input Current [A]		
	Input Volt. 115[V]	Input Volt. 230[V]	Input Volt. 264[V]
0.0	0.047	0.055	0.060
1.2	0.232	0.165	0.156
2.4	0.428	0.258	0.244
3.6	0.628	0.350	0.326
4.8	0.830	0.444	0.408
6.0	1.036	0.540	0.491
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Model		UMA120F-18-Y		Temperature Testing Circuitry	25°C Figure A																																																
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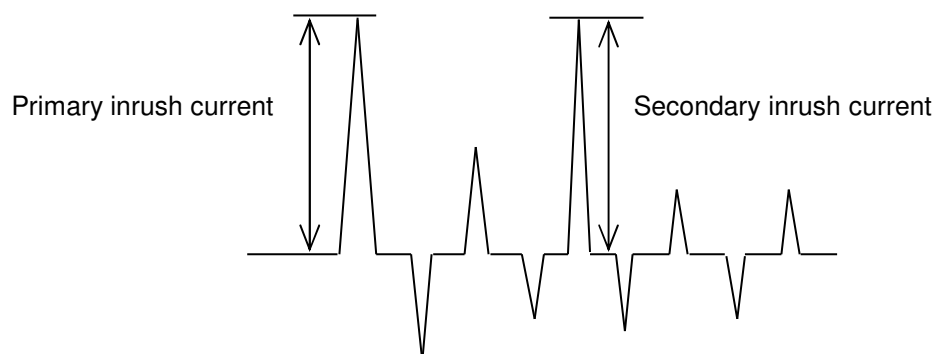
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Model	UMA120F-18-Y	Temperature 25°C Testing Circuitry Figure A
Item	Inrush Current	
Object	+18V6A	



Input Voltage 230 V
Frequency 50 Hz
Load 100 %

Primary inrush current 37.4 A
Secondary inrush current 0.6 A



Model		UMA120F-18-Y	Temperature 25°C Testing Circuitry Figure C
Item		Leakage Current	
Object		+18V6A	

1.Results

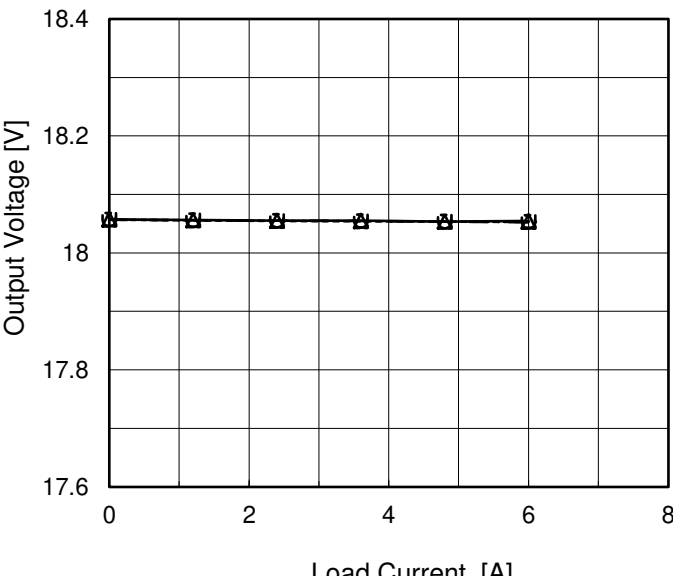
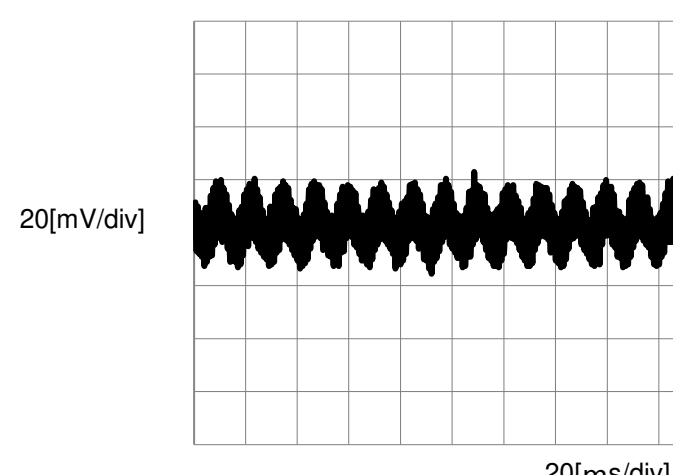
Standards	Testing Circuitry	Measuring Method	Input Volt.			Note
			115 [V]	230 [V]	264 [V]	
IEC60601-1	Figure C-1	Both phases	0.05	0.10	0.12	Operation
		One of phases	0.09	0.20	0.23	Stand by
IEC62368-1	Figure C-2	Both phases	0.05	0.10	0.12	Operation
		One of phases	0.09	0.20	0.23	Stand by
	Figure C-3	Both phases	0.05	0.10	0.12	Operation
		One of phases	0.09	0.20	0.23	Stand by

The value for "One of phases" is the reference value only.

2.Condition

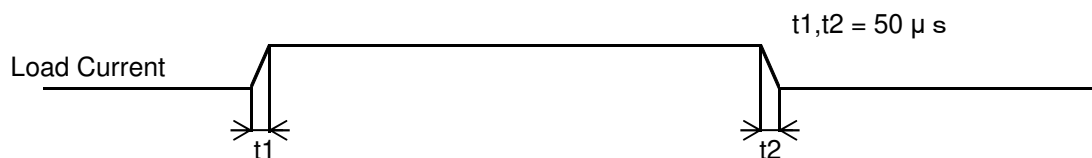
Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.

COSEL																																	
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Item	Line Regulation	Temperature	25°C																														
		Testing Circuitry	Figure A																														
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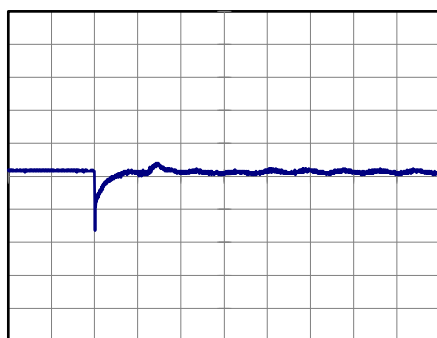
Model	UMA120F-18-Y	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	+18V6A	

Input Volt. 230 V
Cycle 1000 ms

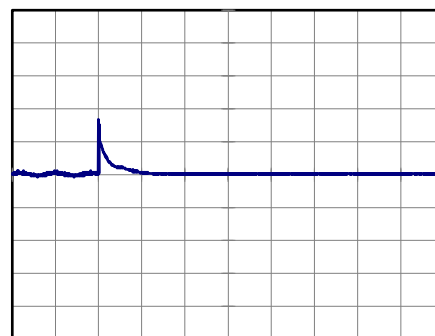


Min.Load (0A) ←→
Load 100% (6A)

100 mV/div



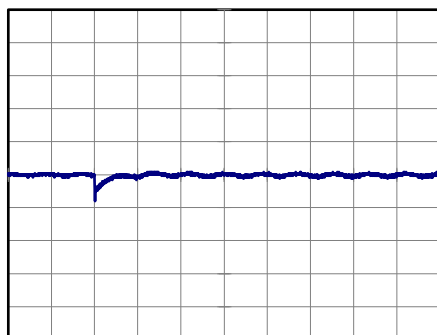
10 ms/div



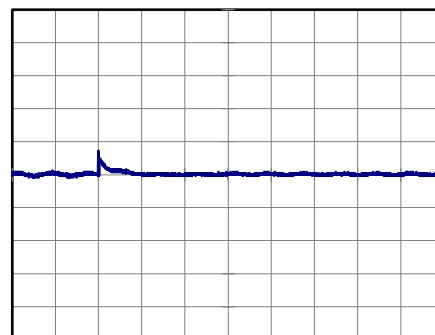
10 ms/div

Load 50% (3A) ←→
Load 100% (6A)

100 mV/div



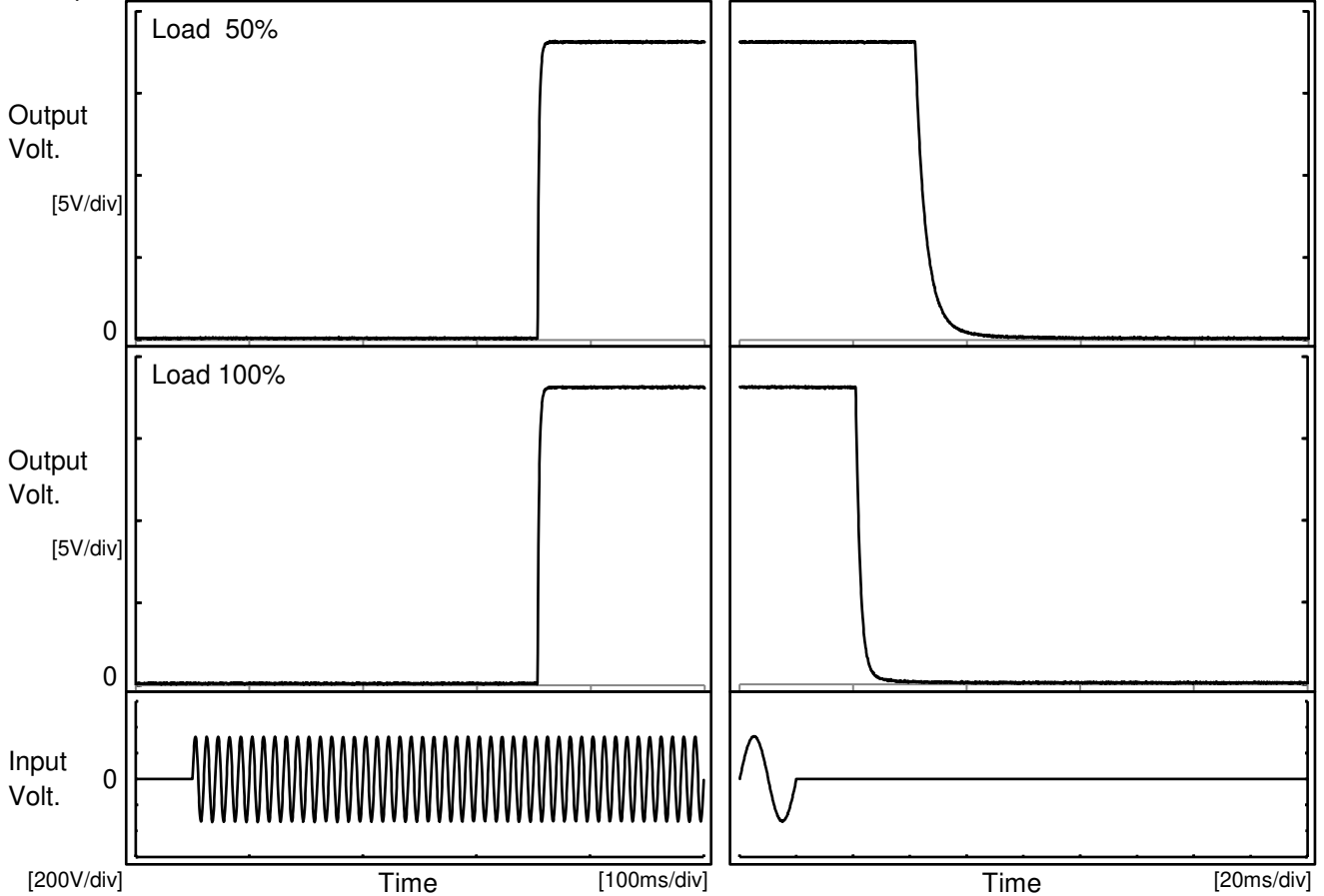
10 ms/div



10 ms/div

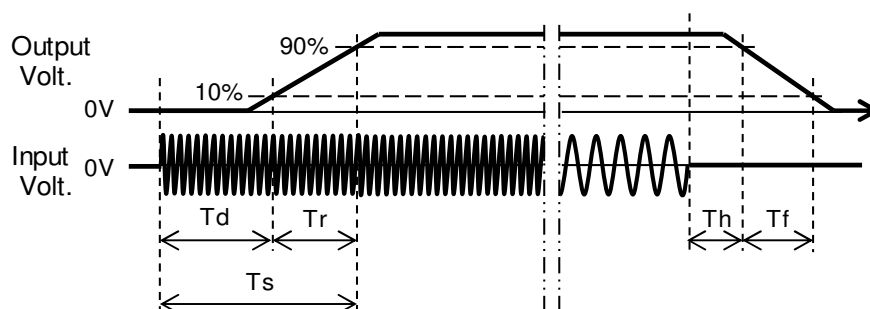
Model	UMA120F-18-Y	Temperature 25°C Testing Circuitry Figure A
Item	Rise and Fall Time	
Object	+18V6A	

1. Graph

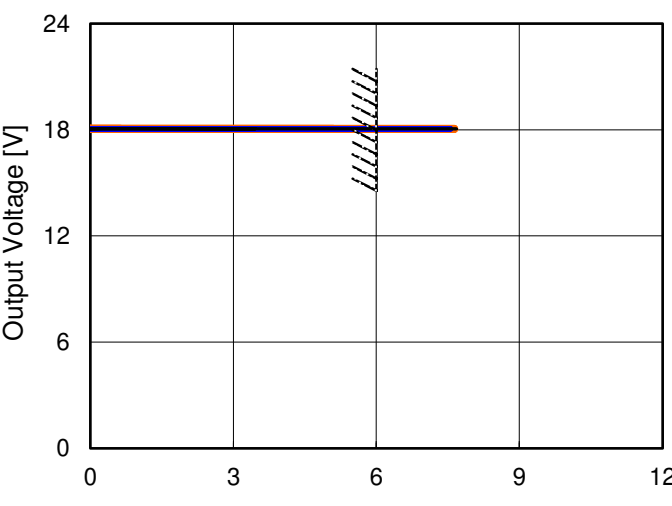


2. Values

		[ms]				
Load	Time	Td	Tr	Ts	Th	
50 %		607.5	5.5	613.0	42.1	8.9
100 %		607.0	6.0	613.0	21.1	3.6



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	Input Volt. 115[V]	Input Volt. 230[V]	Input Volt. 264[V]																																																															
18	7.68	7.44	7.63																																																															
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Model		UMA120F-18-Y
Item		Ambient Temperature Drift
Object		+18V6A

Testing Circuitry Figure A

1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 115V	Input Volt. 230V	Input Volt. 264V
-20	18.001	18.002	18.004
25	18.053	18.053	18.053
50	18.063	18.065	18.065

Item		Minimum Input Voltage for Regulated Output Voltage
Object		+18V6A

Testing Circuitry Figure A

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-20	51	53
25	51	53
50	51	54

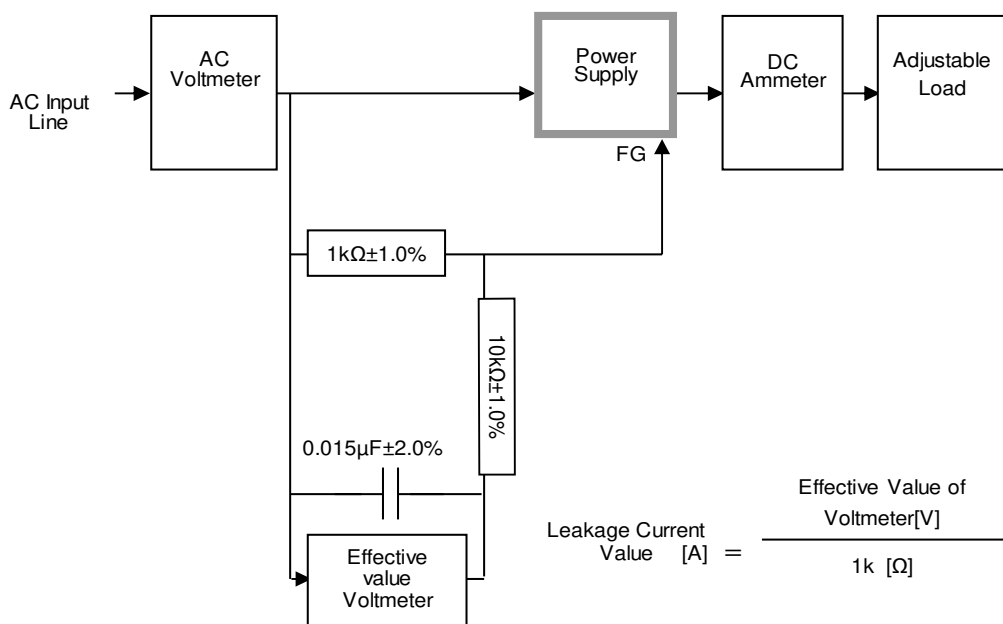
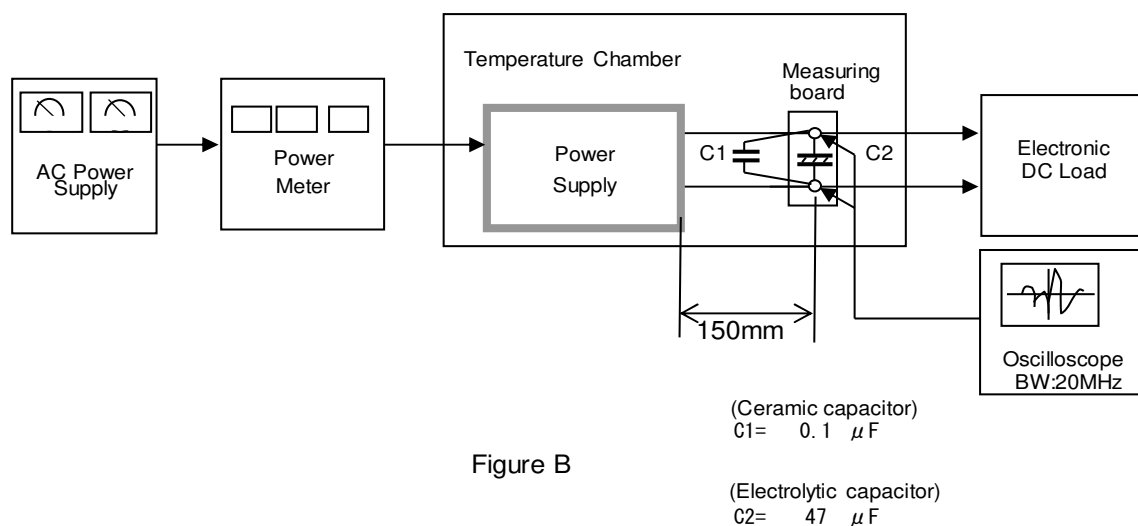
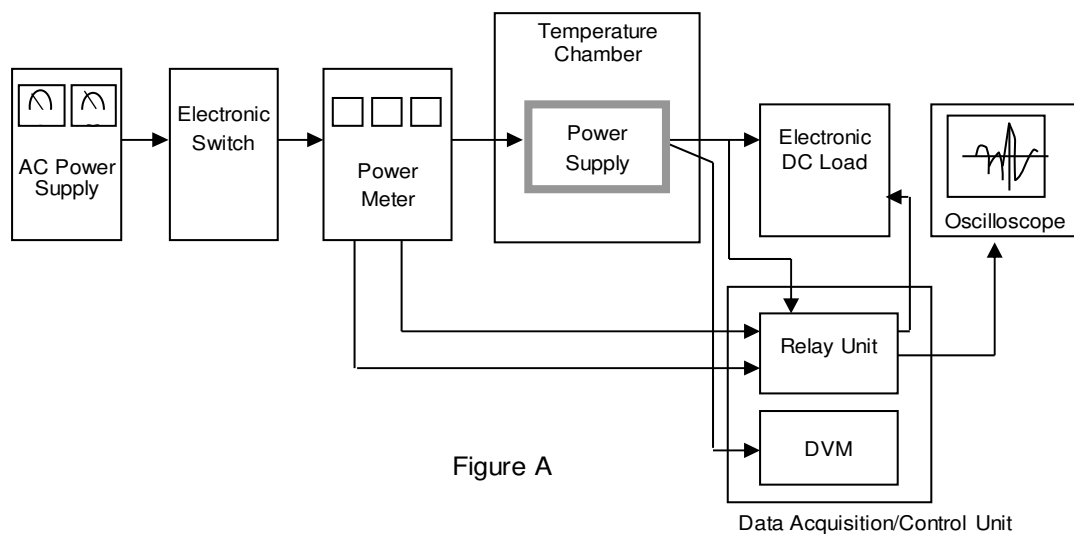
Item		Overvoltage Protection
Object		+18V6A

Testing Circuitry Figure A

1.Values

Load 0%

Ambient Temperature[°C]	Operating Point [V]	
	Input Volt. 115V	Input Volt. 264V
-20	23.52	23.46
25	24.13	24.13
50	24.47	24.47



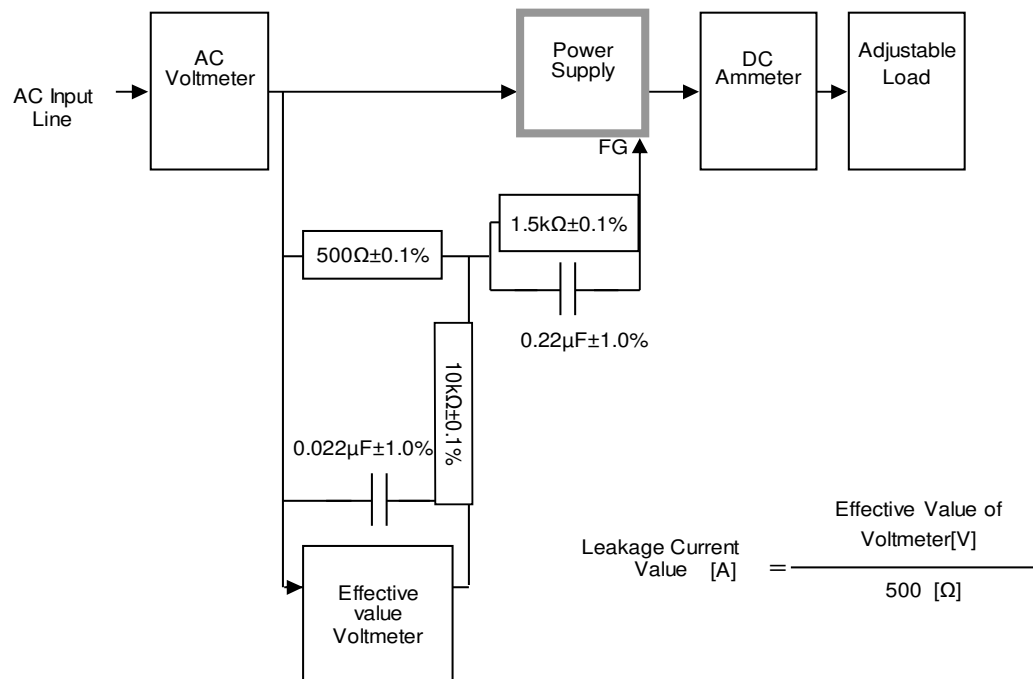


Figure C-2 (IEC62368-1 refer to IEC60990 Fig.4)

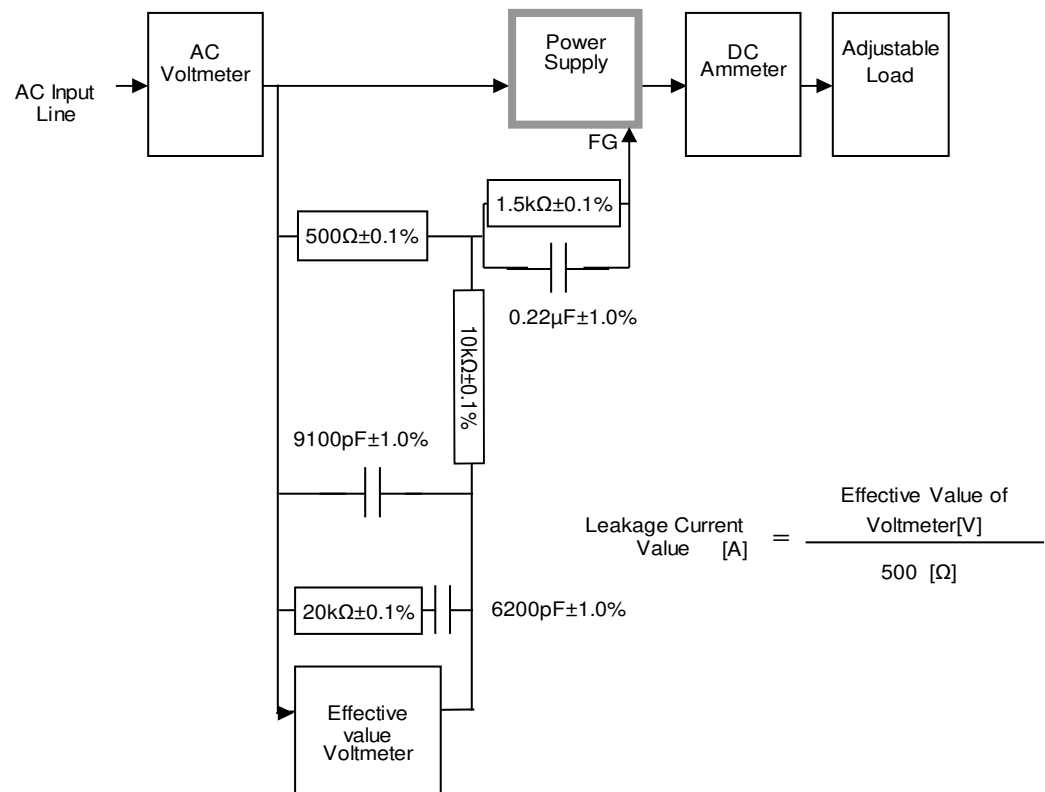


Figure C-3 (IEC62368-1 refer to IEC60990 Fig.5)