



# TEST DATA OF UMA30F-12

Regulated DC Power Supply  
January 18, 2023

Approved by : Takashi Kajii  
Design Manager

Prepared by : Jeonghoon Yi  
Design Engineer

**COSEL CO.,LTD.**

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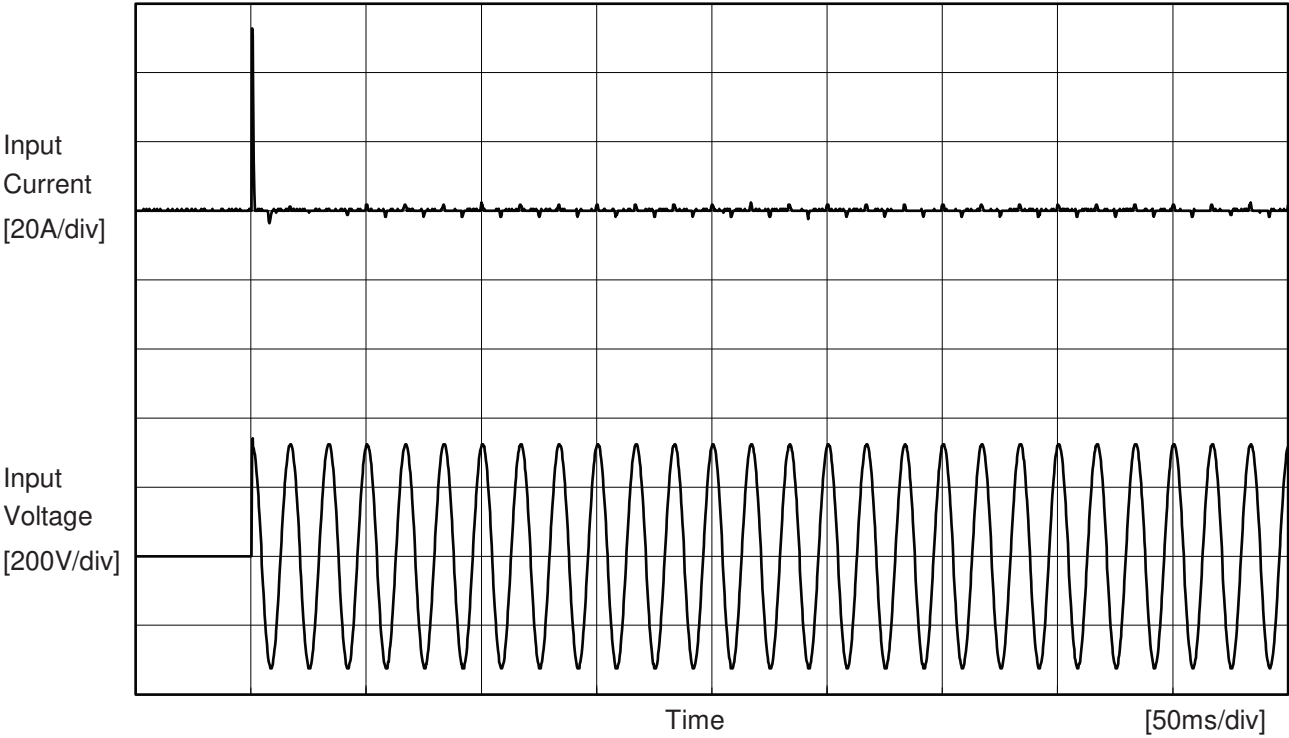
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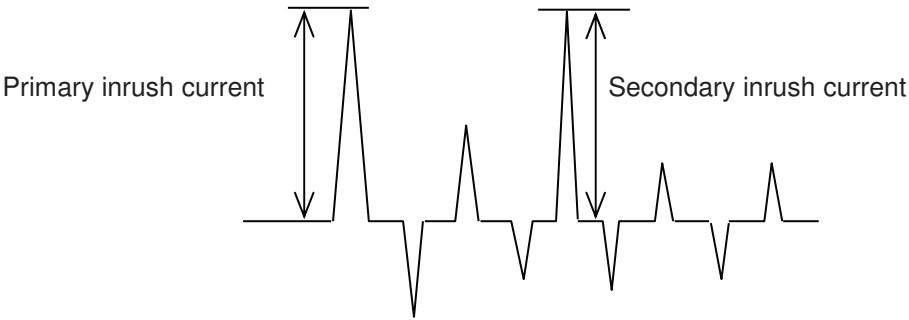
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Model		UMA30F-12	Temperature     25°C Testing Circuitry   Figure A
Item		Inrush Current	
Object		+12V2.5A	



Input Voltage	230 V
Frequency	60 Hz
Load	100 %
Primary inrush current	52.8 A
Secondary inrush current	2.4 A





Model		UMA30F-12	Temperature 25°C Testing Circuitry Figure C
Item		Leakage Current	
Object		+12V2.5A	

## 1.Results

[mA]

Standards	Testing Circuitry	Measuring Method	Input Volt.			Note
			115 [V]	230 [V]	264 [V]	
IEC60601-1	Figure C-1	Both phases	0.05	0.11	0.12	Operation
		One of phases	0.10	0.21	0.24	Stand by
IEC62368-1	Figure C-2	Both phases	0.05	0.11	0.13	Operation
		One of phases	0.10	0.21	0.25	Stand by
	Figure C-3	Both phases	0.05	0.11	0.12	Operation
		One of phases	0.10	0.21	0.25	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.

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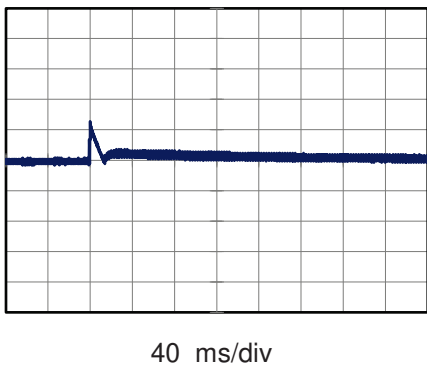
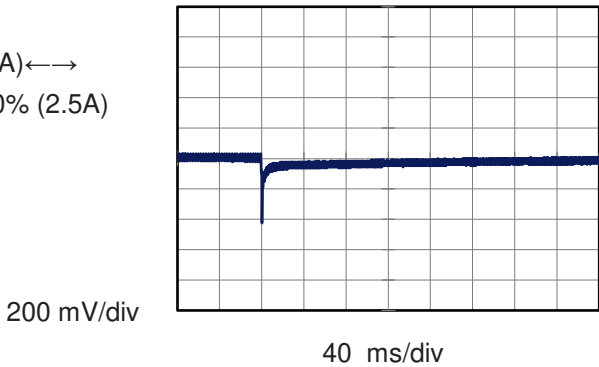


Model	UMA30F-12		
Item	Dynamic Load Response	Temperature	25°C
		Testing Circuitry	Figure A
Object	+12V2.5A		

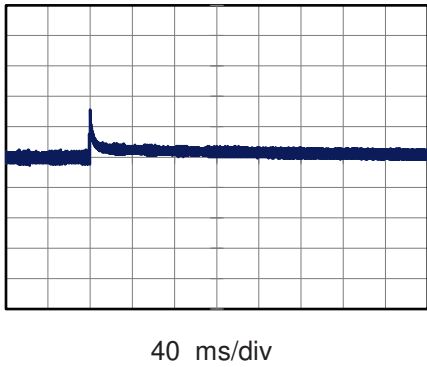
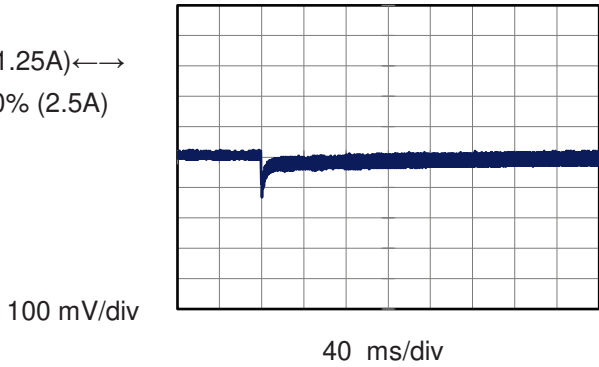
Input Volt. 230 V  
Cycle 1000 ms



Min.Load (0A)←→  
Load 100% (2.5A)



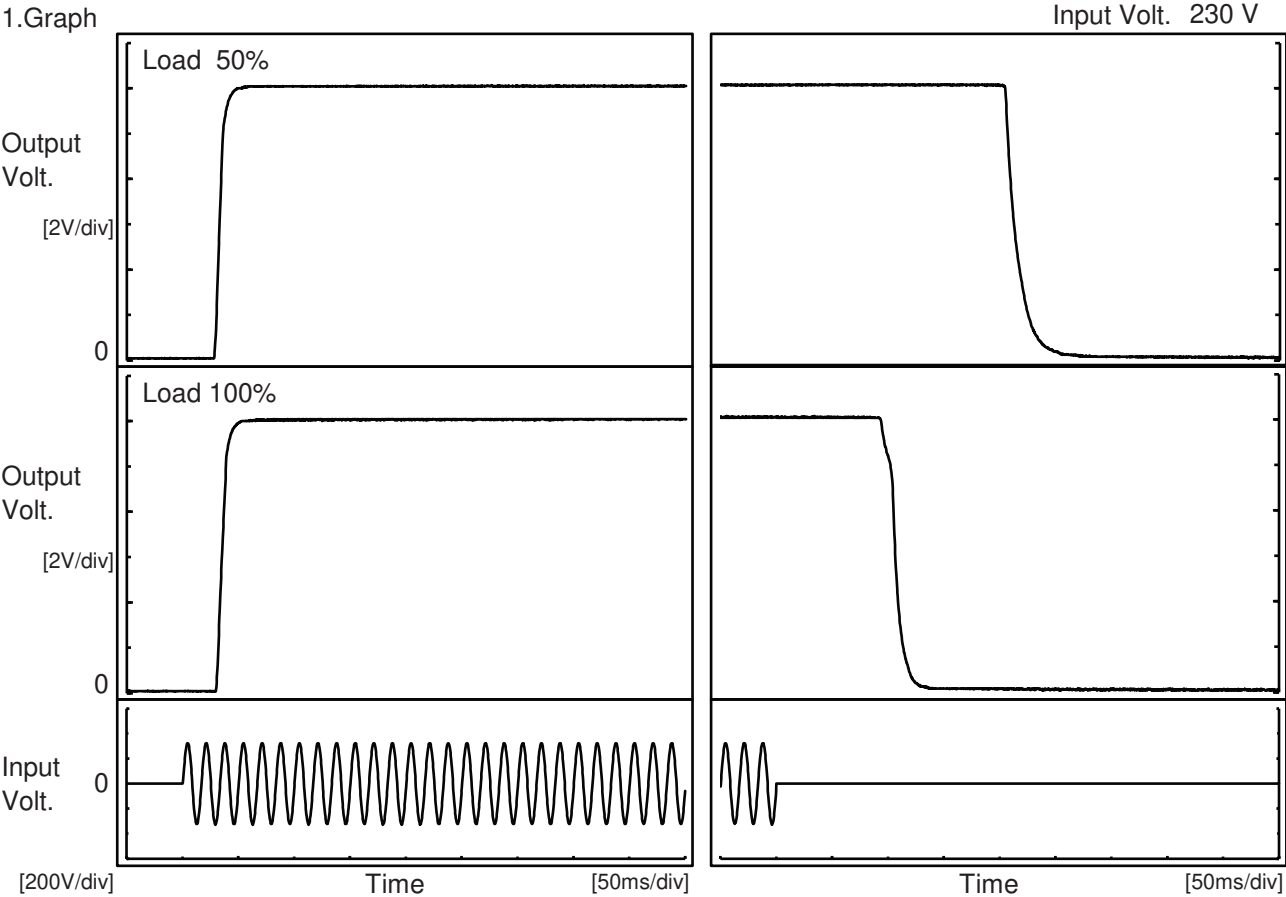
Load 50% (1.25A)←→  
Load 100% (2.5A)





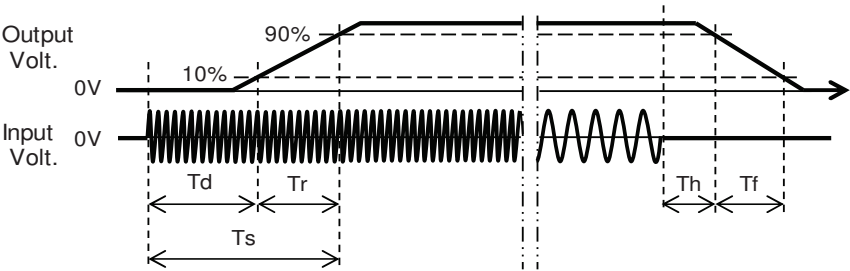
Model		UMA30F-12	Temperature 25°C Testing Circuitry Figure A
Item		Rise and Fall Time	
Object		+12V2.5A	

1.Graph



2.Values

		[ms]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		30.0	8.5	38.5	205.8	24.5
100 %		31.8	9.0	40.8	97.0	20.0



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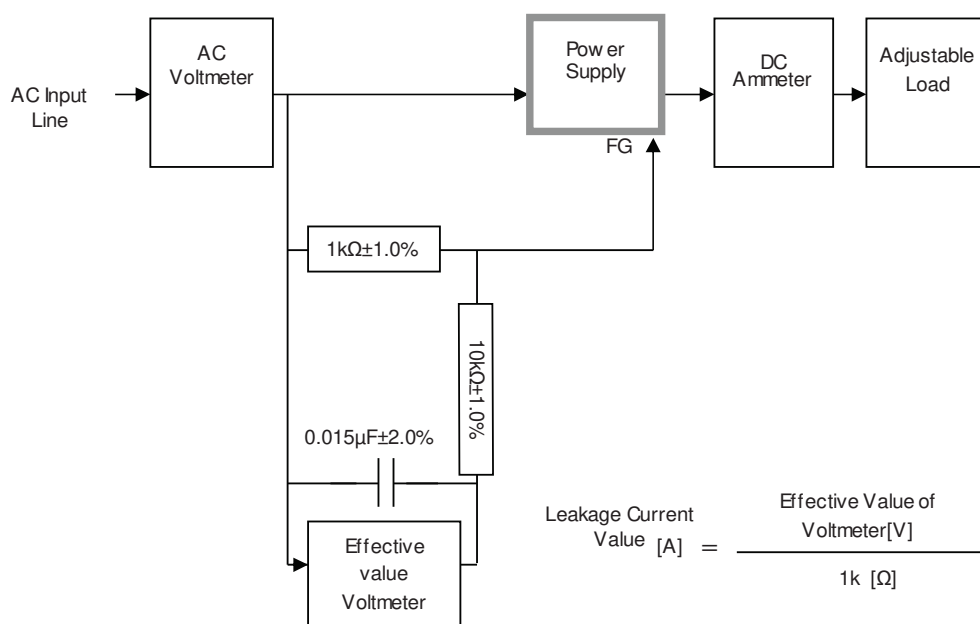
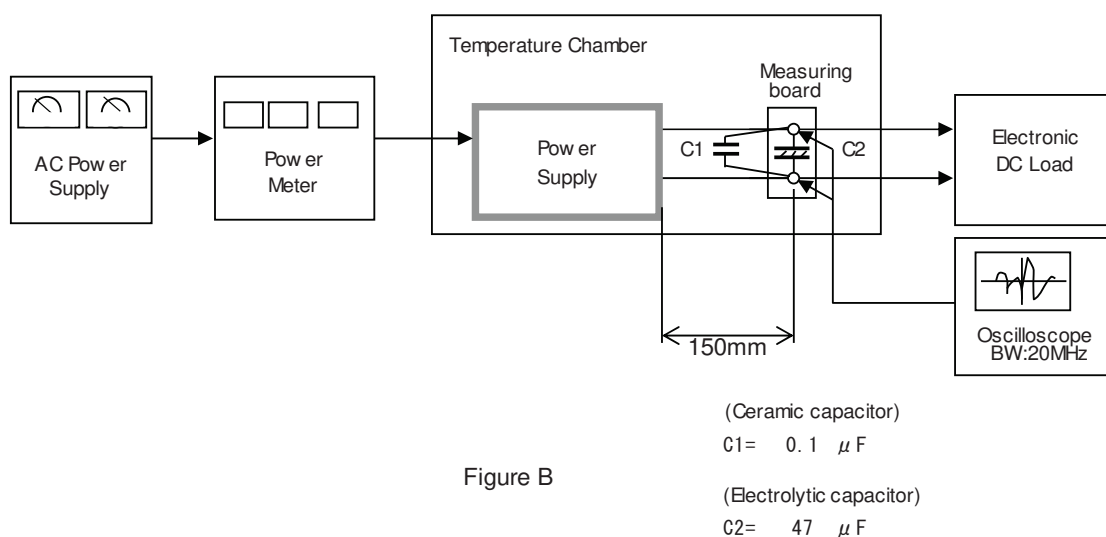
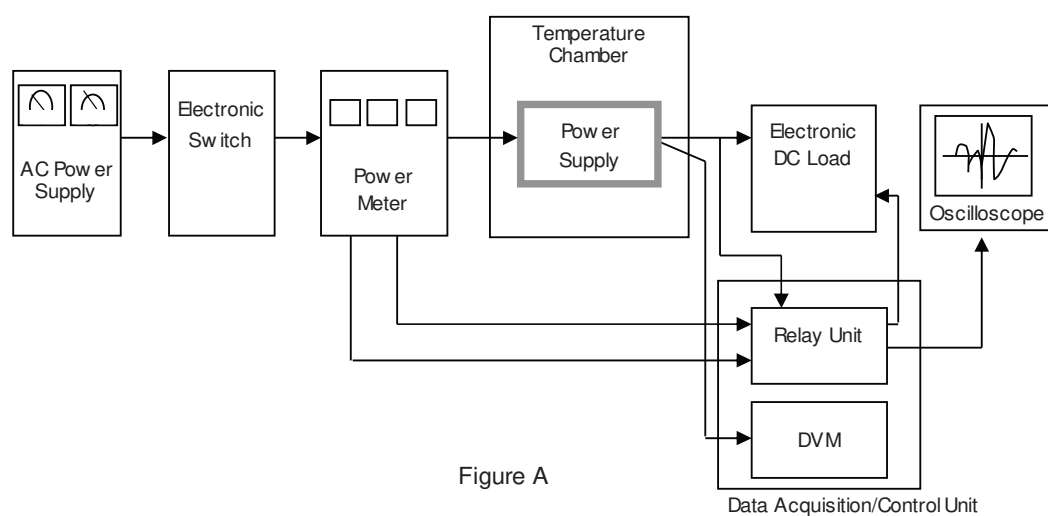
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**COSEL**

		Testing Circuitry    Figure A	
Model	UMA30F-12		
Item	Ambient Temperature Drift		
Object	+12V2.5A		
1.Values <span style="float:right">Load 100%</span>			
Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 115V	Input Volt. 230V	Input Volt. 264V
-20	12.104	12.106	12.106
25	12.148	12.149	12.149
50	12.160	12.161	12.162
Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry    Figure A	
Object	+12V2.5A		
1.Values			
Ambient Temperature[°C]	Input Voltage [V]		
	Load 50%	Load 100%	
-20	36	65	
25	35	67	
50	34	67	
Item	Overvoltage Protection	Testing Circuitry    Figure A	
Object	+12V2.5A		
1.Values <span style="float:right">Load 0%</span>			
Ambient Temperature[°C]	Operating Point [V]		
	Input Volt. 115V	Input Volt. 264V	
-20	14.57	14.57	
25	14.98	14.98	
50	15.26	15.26	

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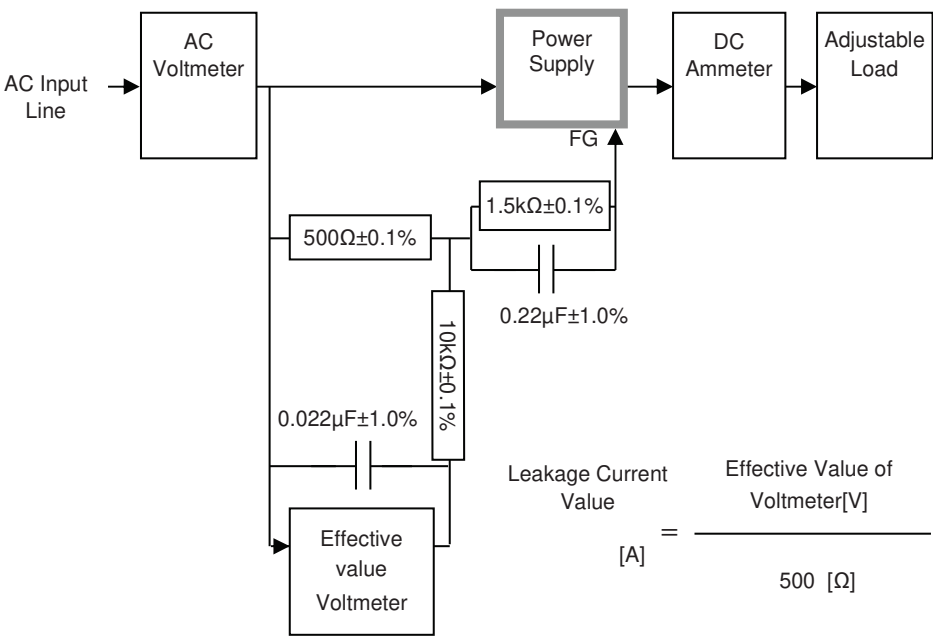


Figure C-2 ( IEC62368-1 refer to IEC60990 Fig.4 )

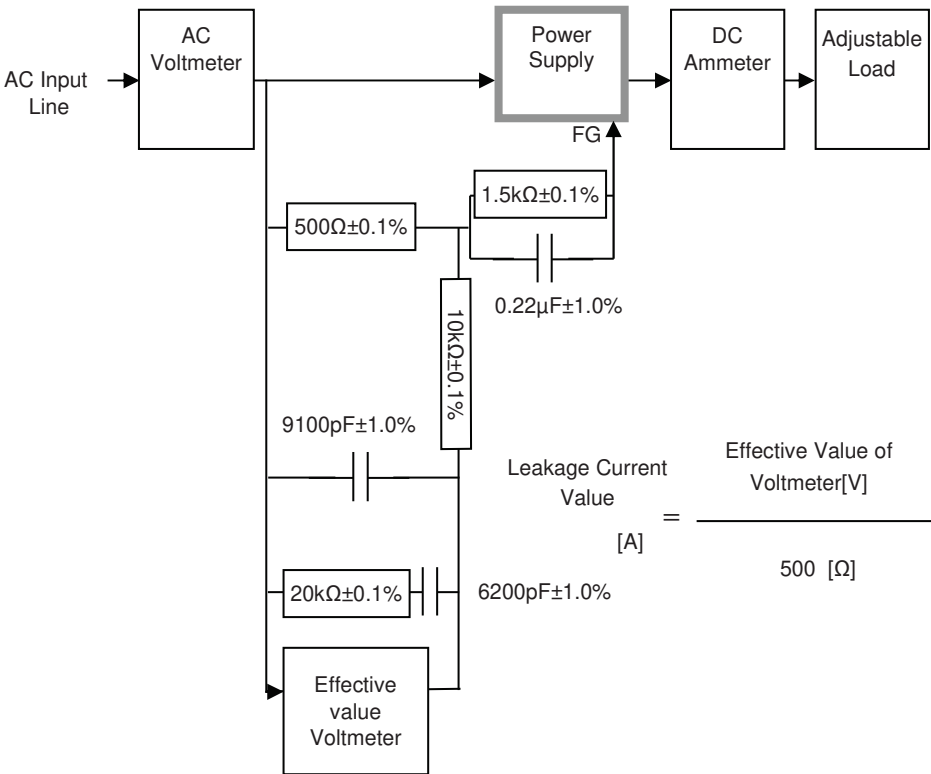


Figure C-3 ( IEC62368-1 refer to IEC60990 Fig.5 )