

TEST DATA OF UMHA120F-48-Y

Regulated DC Power Supply
December 24, 2025

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Design Manager

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Design Engineer

COSEL CO.,LTD.

CONTENTS

1.Input Current (by Load Current)	1
2.Efficiency (by Load Current)	2
3.Power Factor (by Load Current)	3
4.Inrush Current	4
5.Leakage Current	5
6.Line Regulation	6
7.Load Regulation	7
8.Ripple-Noise	7
9.Dynamic Load Response	8
10.Rise and Fall Time	9
11.Hold-Up Time	10
12.Instantaneous Interruption Compensation	11
13.Overcurrent Protection	12
14.Ambient Temperature Drift	13
15.Minimum Input Voltage for Regulated Output Voltage	13
16.Overvoltage Protection	13
17.Figure of Testing Circuitry	14

(Final Page 14)

- 1 -

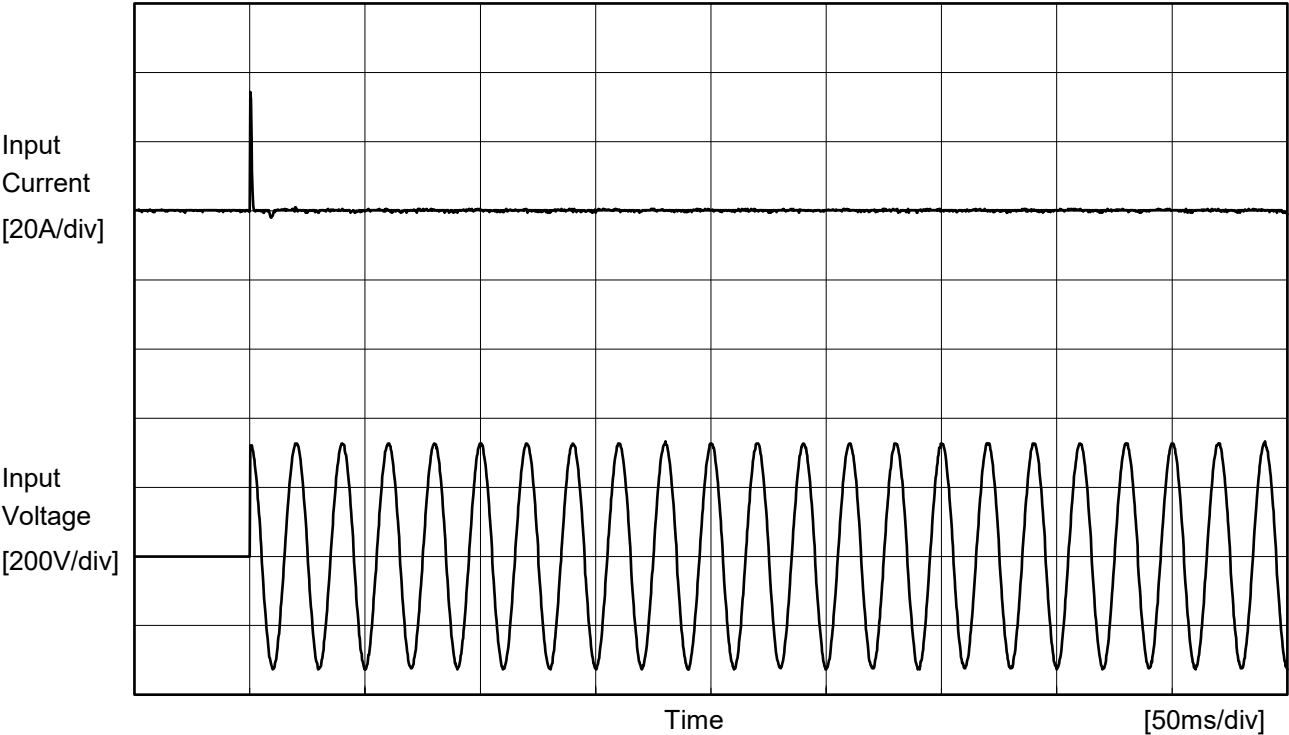
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Model	UMHA120F-48-Y																																																									
Item	Power Factor (by Load Current)	Temperature	25°C																																																							
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1.Graph		2.Values																																																								
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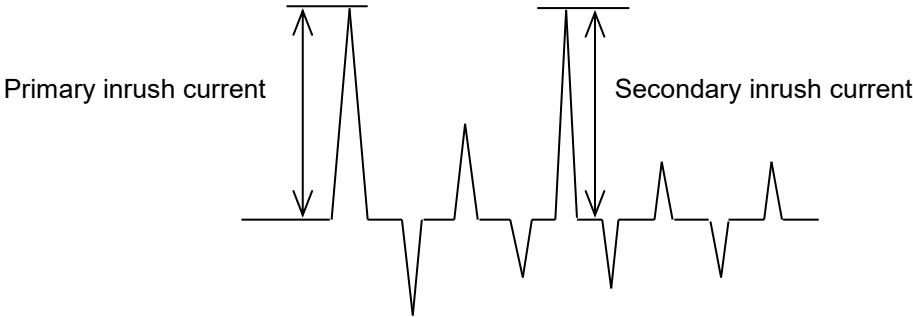


Model		UMHA120F-48-Y	
Item		Inrush Current	Temperature 25°C Testing Circuitry Figure A
Object			



Input Voltage 230 V
Frequency 50 Hz
Load 100 %

Primary inrush current 34.4 A
Secondary inrush current 1.0 A





COSEL		Temperature 25°C Testing Circuitry Figure C
Model	UMHA120F-48-Y	
Item	Leakage Current	
Object	_____	

1.Results

[uA]

Standards	Testing Circuitry	Measuring Method	Input Volt.			Note
			115 [V]	230 [V]	264 [V]	
IEC60601-1	Figure C-1	Both phases	8.37	19.40	21.34	Operation
		One of phases	15.56	34.10	39.80	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	UMHA120F-48-Y																																		
Item	Line Regulation	Temperature	25°C																																
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Object	+48V2.5A																																		
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		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 115[V]</th><th>Input Volt. 230[V]</th><th>Input Volt. 264[V]</th></tr><tr><td>0.0</td><td>48.069</td><td>48.063</td><td>48.063</td></tr><tr><td>0.5</td><td>48.062</td><td>48.057</td><td>48.057</td></tr><tr><td>1.0</td><td>48.058</td><td>48.055</td><td>48.055</td></tr><tr><td>1.5</td><td>48.057</td><td>48.055</td><td>48.056</td></tr><tr><td>2.0</td><td>48.056</td><td>48.059</td><td>48.059</td></tr><tr><td>2.5</td><td>48.060</td><td>48.059</td><td>48.059</td></tr><tr><td>--</td><td>--</td><td>--</td><td>--</td></tr><tr><td>--</td><td>--</td><td>--</td><td>--</td></tr><tr><td>--</td><td>--</td><td>--</td><td>--</td></tr><tr><td>--</td><td>--</td><td>--</td><td>--</td></tr><tr><td>--</td><td>--</td><td>--</td><td>--</td></tr></table>				Load Current [A]	Output Voltage [V]			Input Volt. 115[V]	Input Volt. 230[V]	Input Volt. 264[V]	0.0	48.069	48.063	48.063	0.5	48.062	48.057	48.057	1.0	48.058	48.055	48.055	1.5	48.057	48.055	48.056	2.0	48.056	48.059	48.059	2.5	48.060	48.059	48.059	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Item		Ripple-Noise		Temperature 25°C																																																				
Object		+48V2.5A		Testing Circuitry Figure B																																																				
1.Graph		<div><div><div>Input Voltage 230V</div><div>Load 100%</div></div><div><div><div>20[mV/div]</div><div><div></div></div><div>20[ms/div]</div></div></div></div>																																																						

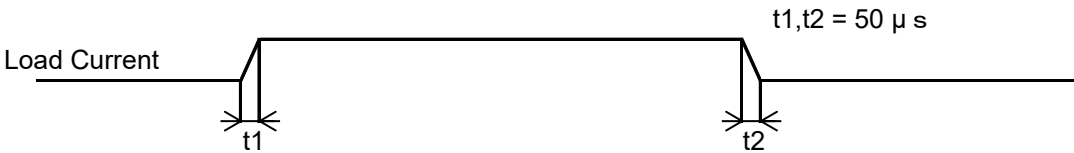
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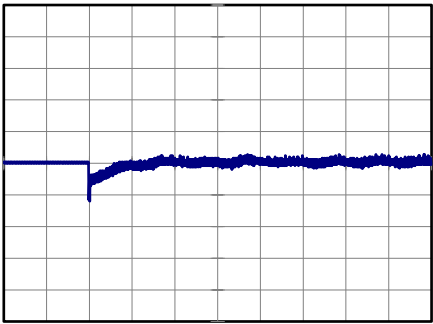
Model	UMHA120F-48-Y		
Item	Dynamic Load Response	Temperature	25°C
		Testing Circuitry	Figure A
Object	+48V2.5A		

Input Volt. 230 V
Cycle 1000 ms

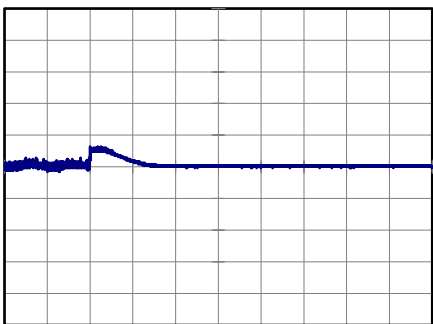


Min.Load (0A)←→
Load 100% (2.5A)

200 mV/div



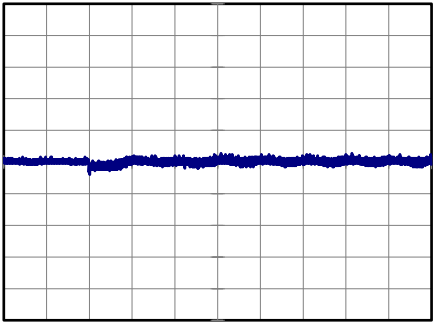
10 ms/div



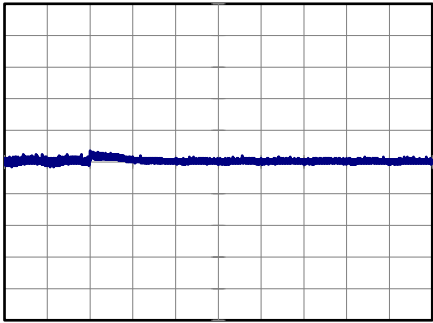
10 ms/div

Load 50% (1.25A)←→
Load 100% (2.5A)

200 mV/div



10 ms/div



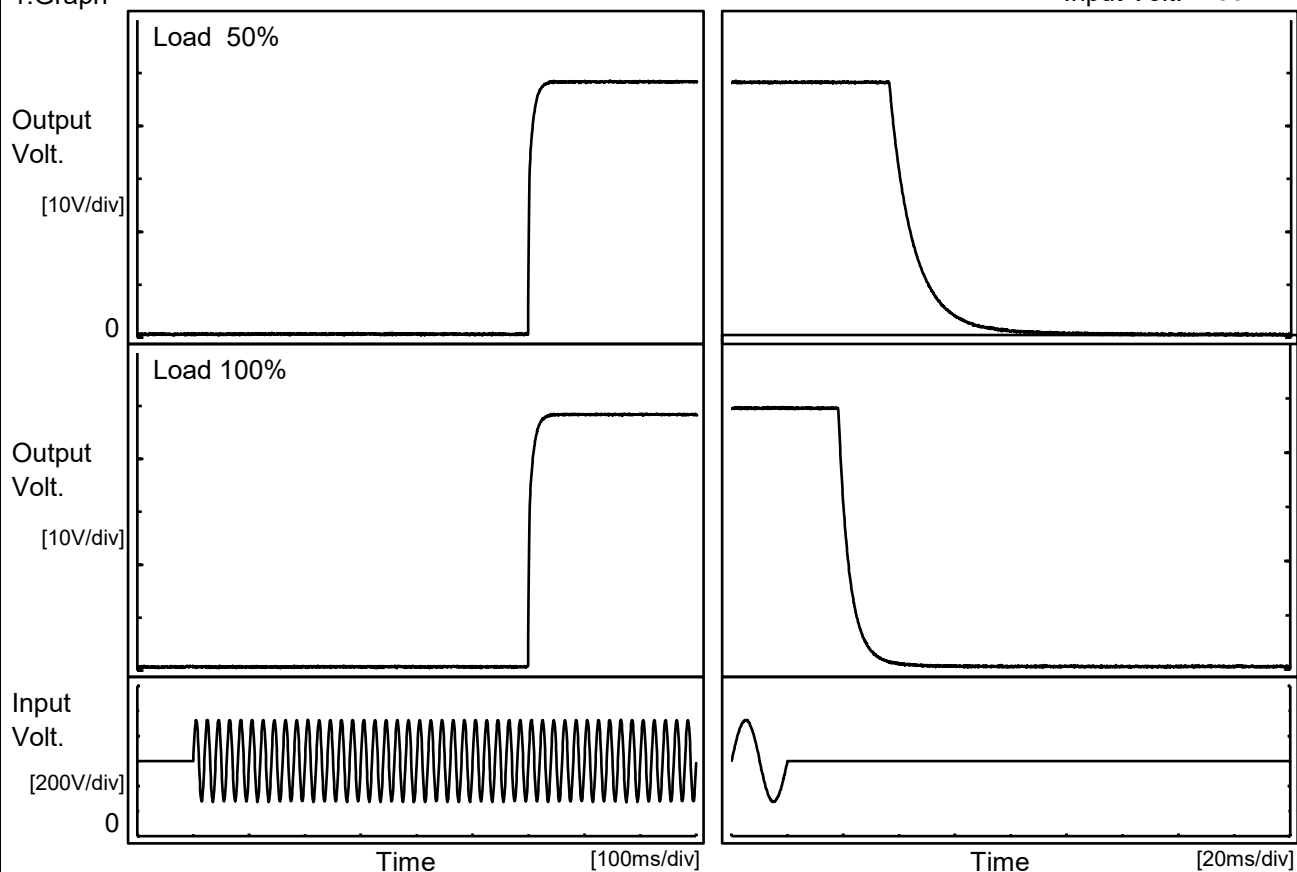
10 ms/div

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Model	UMHA120F-48-Y	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+48V2.5A		

1.Graph

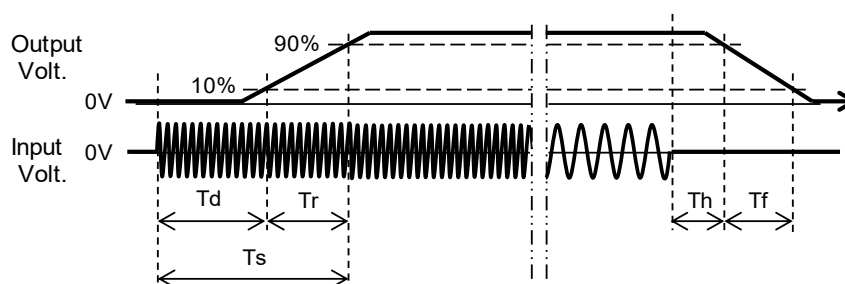
Input Volt. 230 V



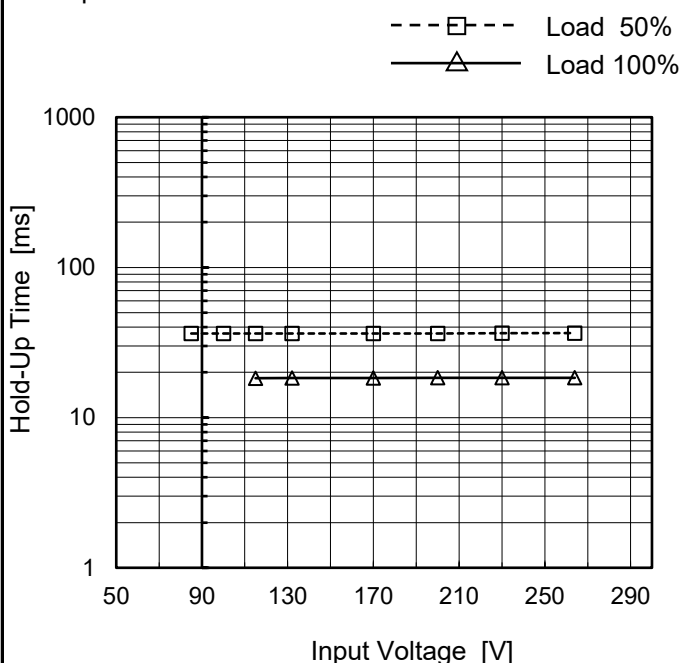
2.Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	598.5	13.0	611.5	37.2	20.2
100 %	598.5	13.0	611.5	18.6	9.2





Model		UMHA120F-48-Y	Temperature 25°C Testing Circuitry Figure A
Item		Hold-Up Time	
Object		+48V2.5A	
1.Graph			2.Values
<div><div><div>---□---</div><div>Load 50%</div></div><div><div>—△—</div><div>Load 100%</div></div></div> 			
<p>This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.</p>			

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- 11 -

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Model	UMHA120F-48-Y		
Item	Ambient Temperature Drift	Testing Circuitry Figure A	
Object	+48V2.5A		
1.Values Load 100%			
Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 115V	Input Volt. 230V	Input Volt. 264V
-20	47.859	47.886	47.905
25	48.031	48.044	48.050
45	48.087	48.092	48.097
Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A	
Object	+48V2.5A		
1.Values			
Ambient Temperature[°C]	Input Voltage [V]		
	Load 50%	Load 100%	
-20	50	58	
25	50	58	
45	50	58	
Item	Overvoltage Protection	Testing Circuitry Figure A	
Object	+48V2.5A		
1.Values Load 0%			
Ambient Temperature[°C]	Operating Point [V]		
	Input Volt. 115V	Input Volt. 264V	
-20	63.13	63.13	
25	62.32	62.25	
45	63.27	63.27	

- 13 -

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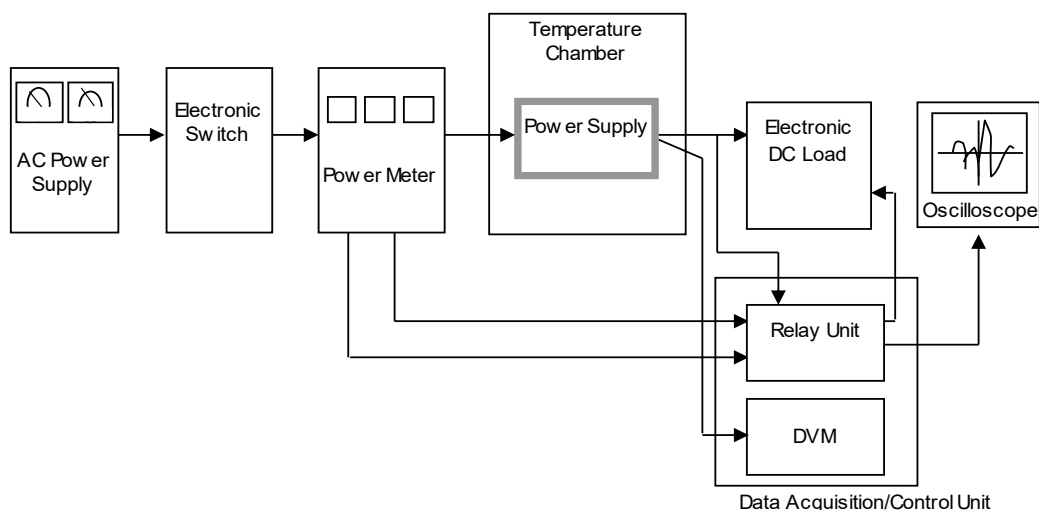


Figure A

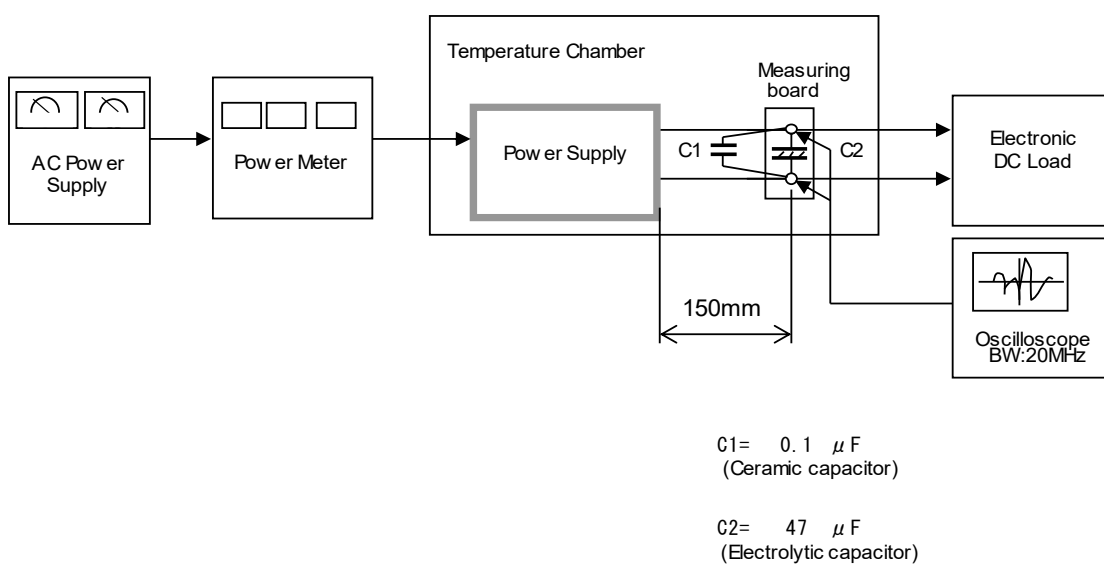


Figure B

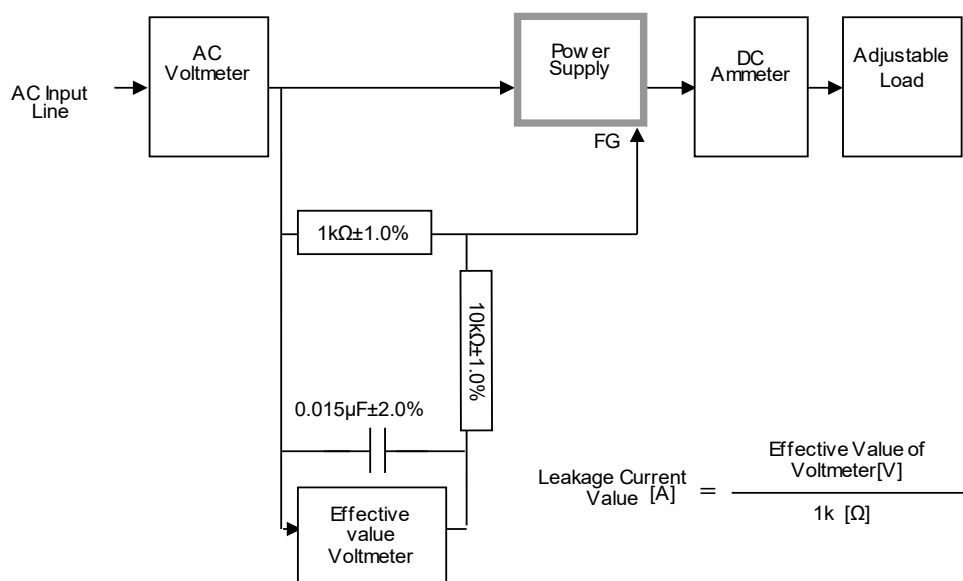


Figure C-1 (IEC60601-1)