

# TEST DATA OF UMHA120F-18-Y

Regulated DC Power Supply  
December 22, 2025

Approved by : Takashi Kajii  
Design Manager

Prepared by : Ryoki Nakanishi  
Design Engineer

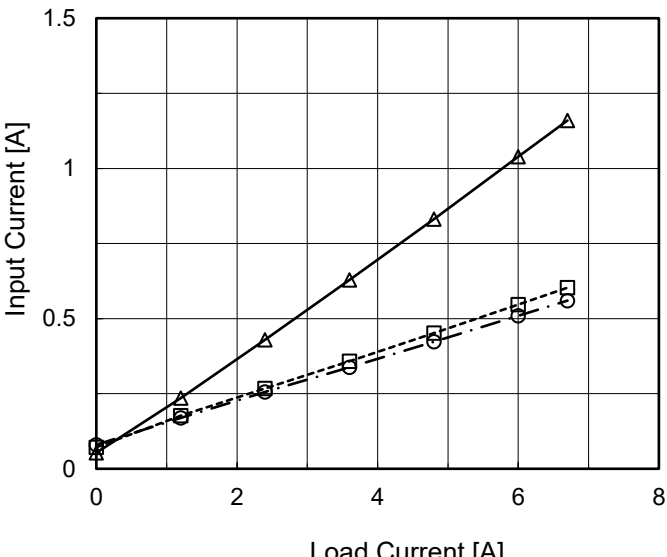
**COSEL CO.,LTD.**

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Model		UMHA120F-18-Y		Temperature 25°C																																																				
Item		Input Current (by Load Current)		Testing Circuitry Figure A																																																				
Object		_____																																																						
1.Graph		<div><div><div>—△—</div><div>Input Volt.</div><div>115V</div></div><div><div>---□---</div><div>Input Volt.</div><div>230V</div></div><div><div>---○---</div><div>Input Volt.</div><div>264V</div></div></div> 		2.Values																																																				
		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Input Current [A]</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>0.053</td><td>0.072</td><td>0.080</td></tr><tr><td>1.2</td><td>0.235</td><td>0.177</td><td>0.169</td></tr><tr><td>2.4</td><td>0.430</td><td>0.268</td><td>0.256</td></tr><tr><td>3.6</td><td>0.629</td><td>0.358</td><td>0.338</td></tr><tr><td>4.8</td><td>0.831</td><td>0.451</td><td>0.423</td></tr><tr><td>6.0</td><td>1.039</td><td>0.546</td><td>0.509</td></tr><tr><td>6.7</td><td>1.159</td><td>0.603</td><td>0.560</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]	Input Current [A]			Input Volt. 115[V]	Input Volt. 230[V]	Input Volt. 264[V]	0.0	0.053	0.072	0.080	1.2	0.235	0.177	0.169	2.4	0.430	0.268	0.256	3.6	0.629	0.358	0.338	4.8	0.831	0.451	0.423	6.0	1.039	0.546	0.509	6.7	1.159	0.603	0.560	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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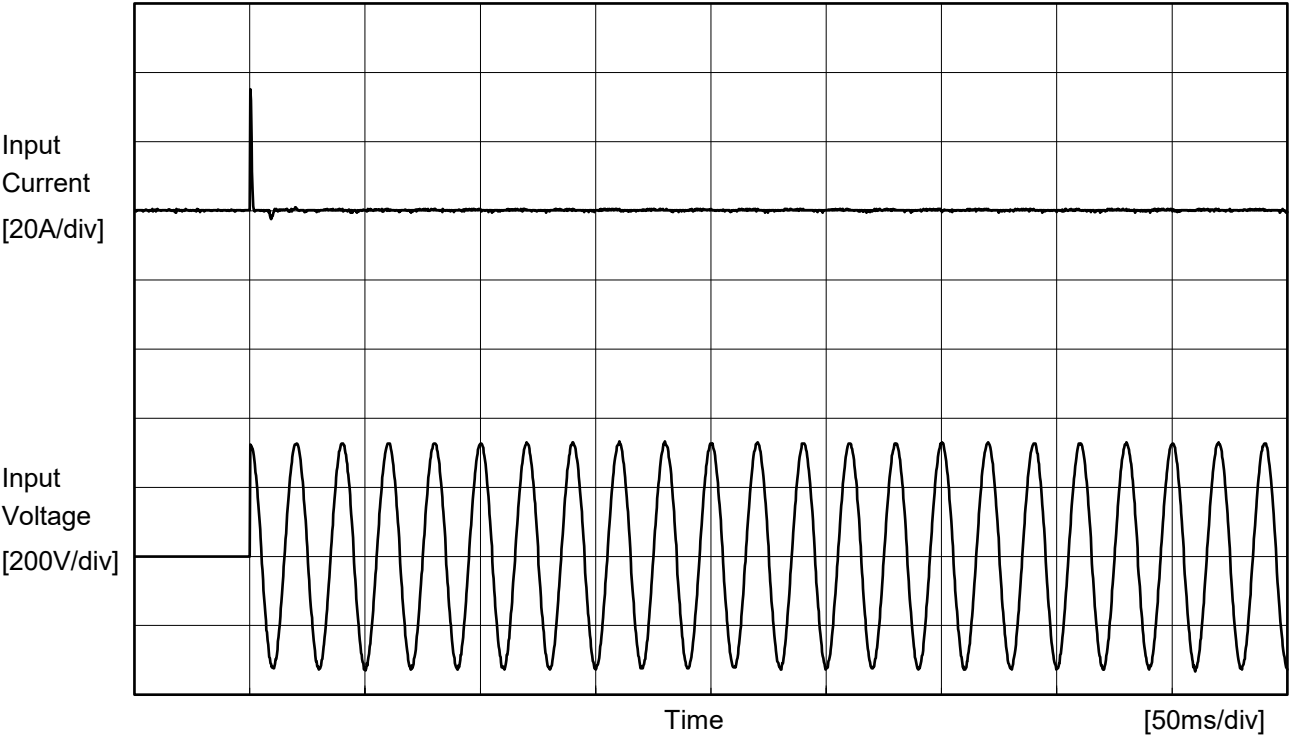
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**COSEL**

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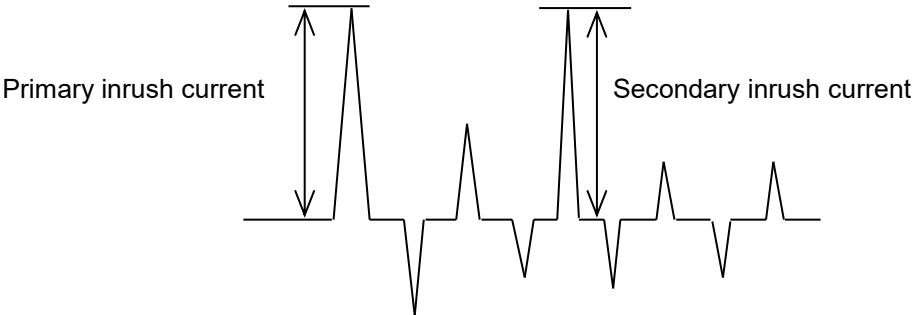


Model		UMHA120F-18-Y	
Item		Inrush Current	Temperature 25°C Testing Circuitry Figure A
Object			



Input Voltage 230 V  
Frequency 50 Hz  
Load 100 %

Primary inrush current 35.2 A  
Secondary inrush current 0.6 A





COSEL		Temperature 25°C Testing Circuitry Figure C
Model	UMHA120F-18-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

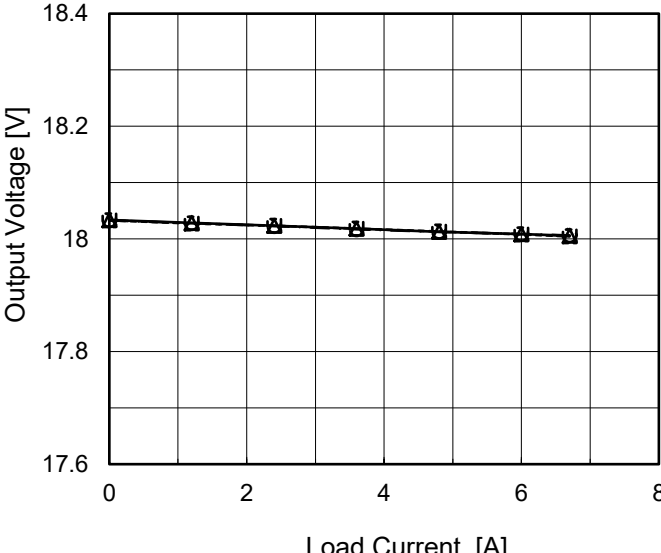
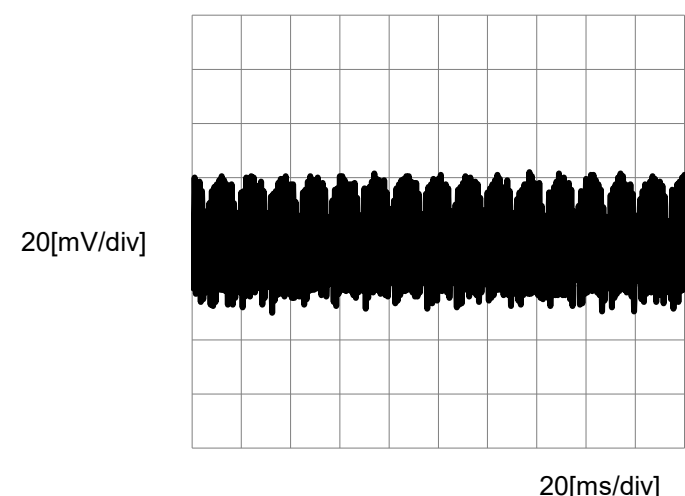
Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.

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Item		Line Regulation																																																																	
Object		+18V6.7A																																																																	
1.Graph		2.Values																																																																	
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**COSEL**

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Object	+18V6.7A	Testing Circuitry	Figure B																																																			
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<div><div><div>Input Voltage</div><div>230V</div></div><div><div>Load</div><div>100%</div></div></div> 																																																						

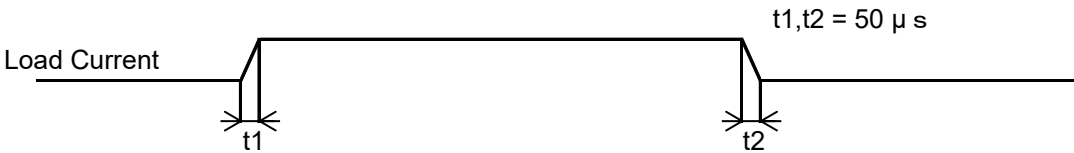
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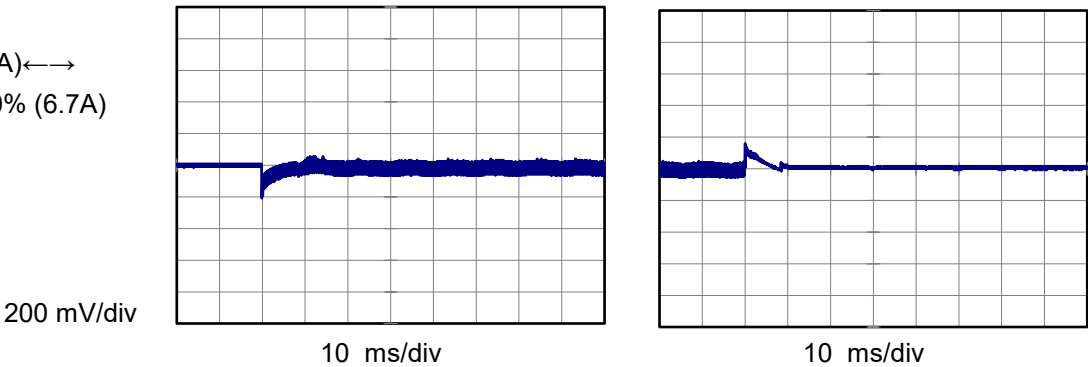


Model	UMHA120F-18-Y		
Item	Dynamic Load Response	Temperature	25°C
		Testing Circuitry	Figure A
Object	+18V6.7A		

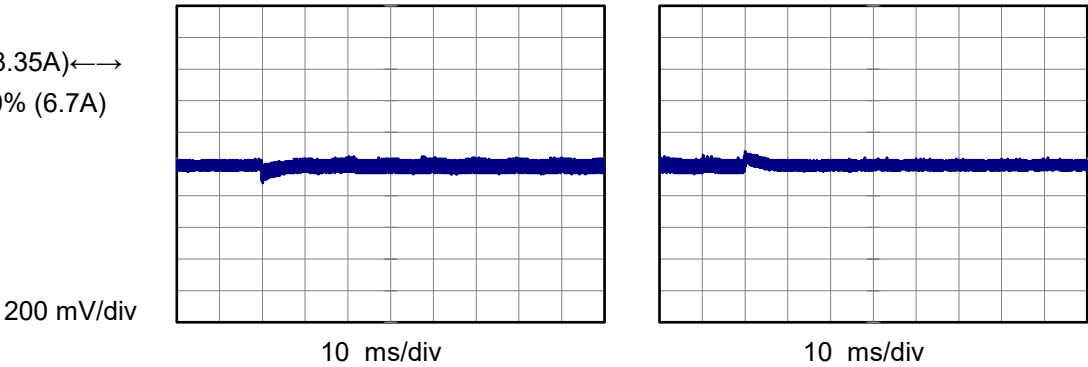
Input Volt. 230 V  
Cycle 1000 ms



Min.Load (0A)←→  
Load 100% (6.7A)



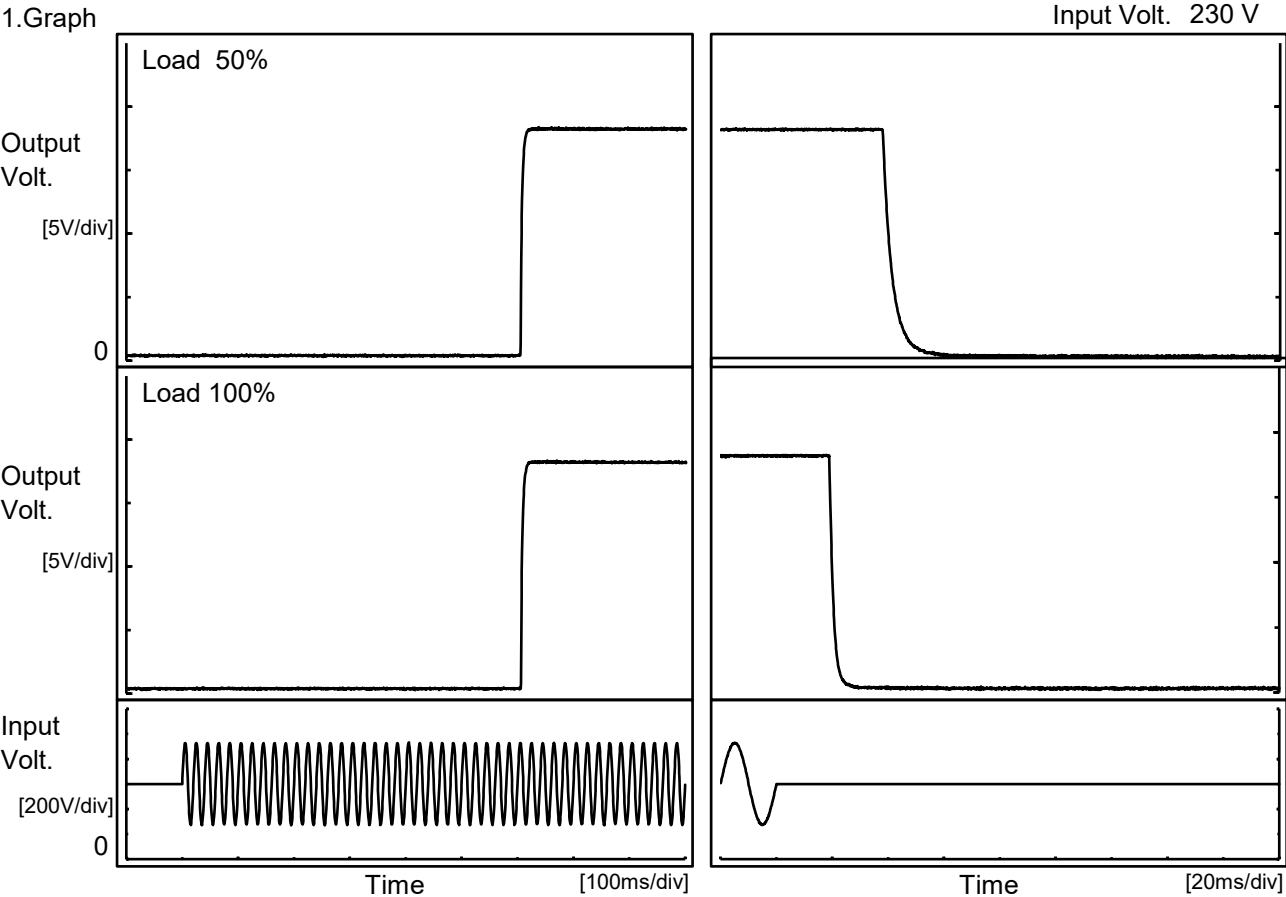
Load 50% (3.35A)←→  
Load 100% (6.7A)





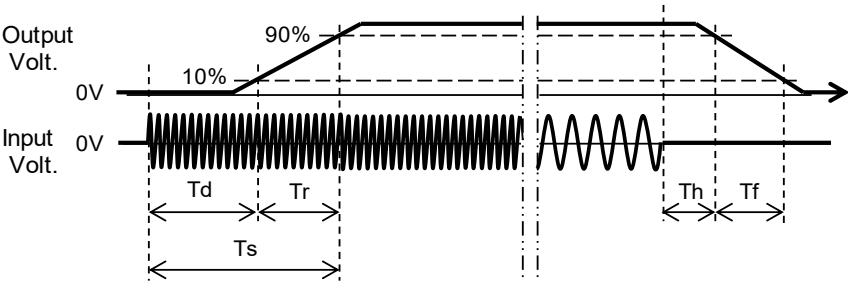
Model		UMHA120F-18-Y	Temperature 25°C Testing Circuitry Figure A
Item		Rise and Fall Time	
Object		+18V6.7A	

1.Graph



2.Values

		[ms]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		605.0	5.5	610.5	38.3	8.0
100 %		605.5	5.5	611.0	19.1	3.1



[illegible]

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Item	Instantaneous Interruption Compensation	Temperature	25°C																																																			
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Model	UMHA120F-18-Y		
Item	Ambient Temperature Drift		Testing Circuitry    Figure A
Object	+18V6.7A		
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	17.951	17.953	17.954
25	17.998	17.999	17.998
45	18.009	18.007	18.009
Item	Minimum Input Voltage for Regulated Output Voltage		Testing Circuitry    Figure A
Object	+18V6.7A		
1.Values			
Ambient Temperature[°C]	Input Voltage [V]		
	Load 50%	Load 100%	
-20	51	58	
25	50	58	
45	50	60	
Item	Overvoltage Protection		Testing Circuitry    Figure A
Object	+18V6.7A		
1.Values <span style="float:right">Load 0%</span>			
Ambient Temperature[°C]	Operating Point [V]		
	Input Volt. 115V	Input Volt. 264V	
-20	23.59	23.52	
25	24.26	24.20	
45	24.53	24.47	

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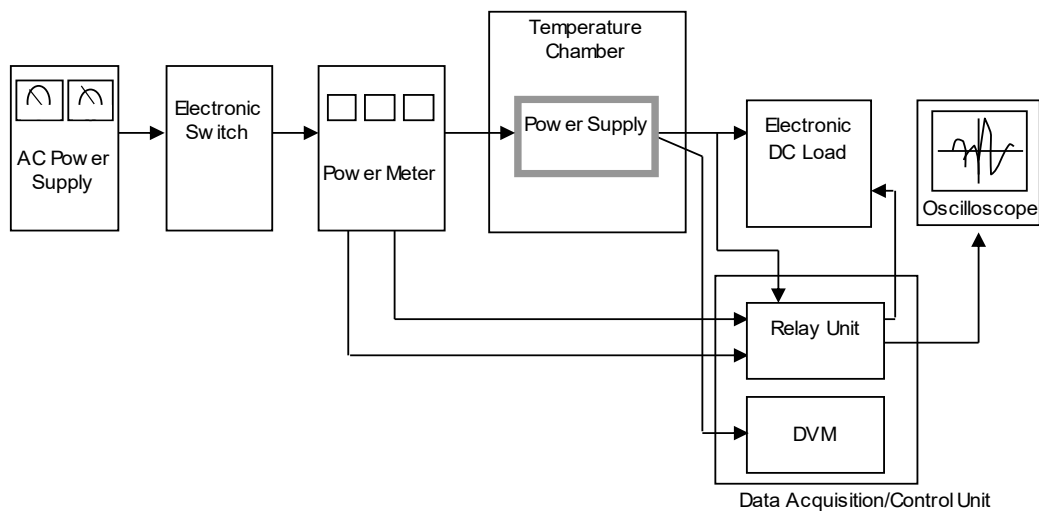


Figure A

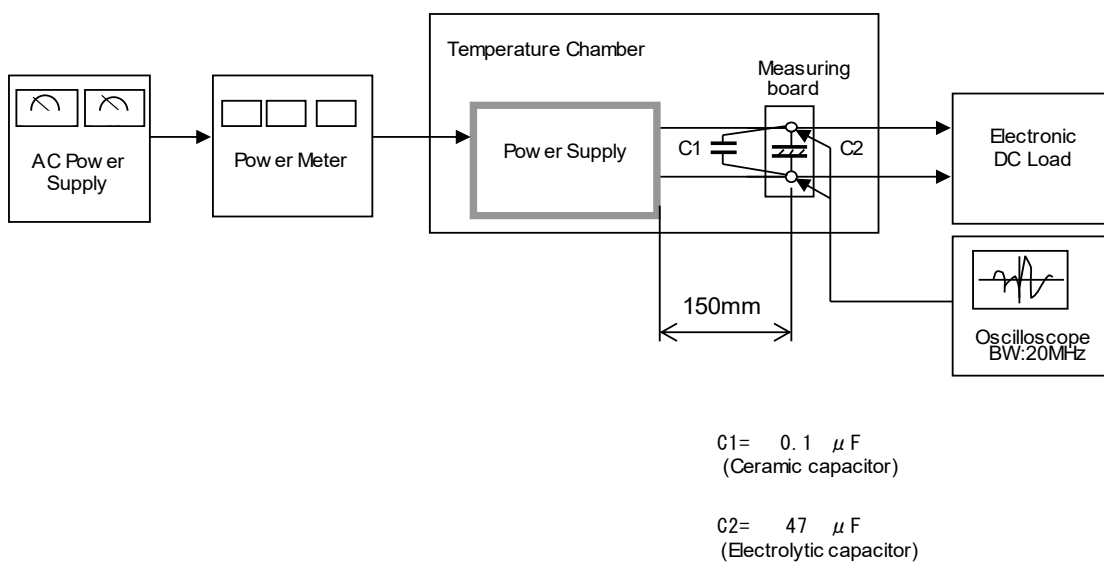


Figure B

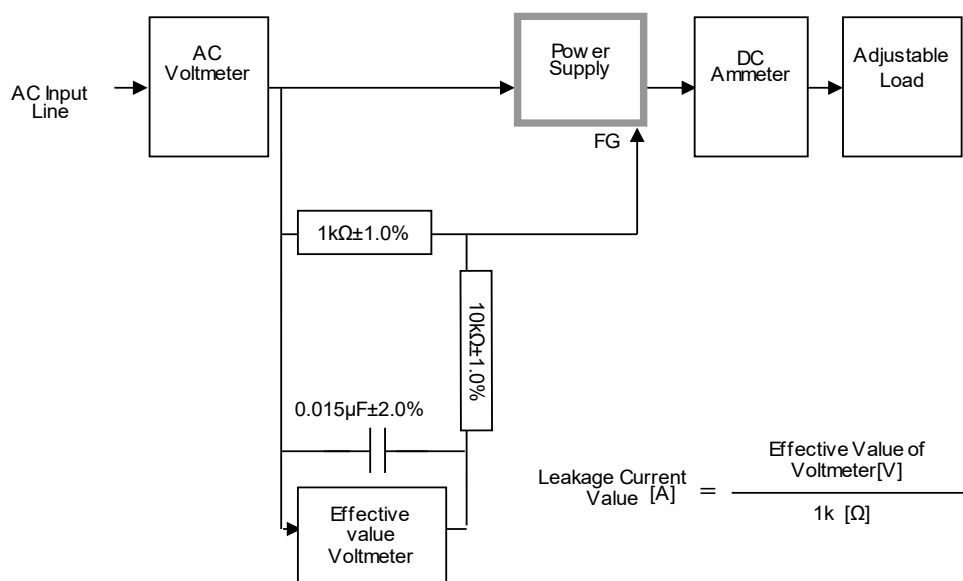


Figure C-1 (IEC60601-1)