



TEST DATA OF FDA75F-24

Regulated DC Power Supply
May 21, 2026

Approved by : Takashi Kajii
Design Manager

Prepared by : Ryoki Nakanishi
Design Engineer

COSEL CO.,LTD.

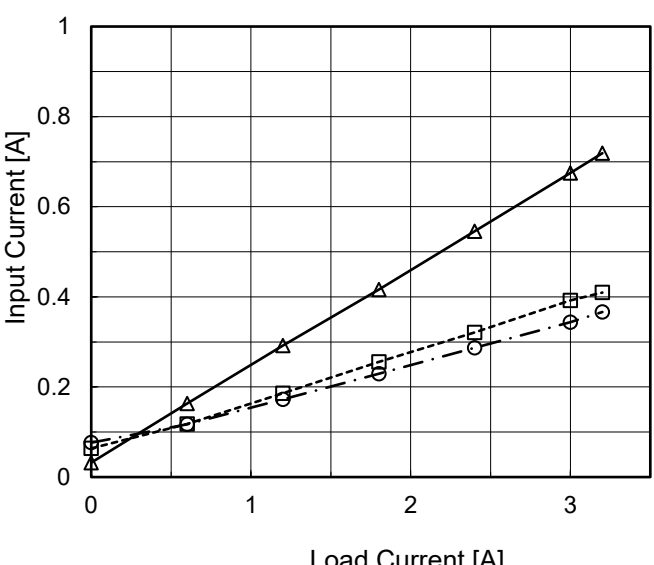


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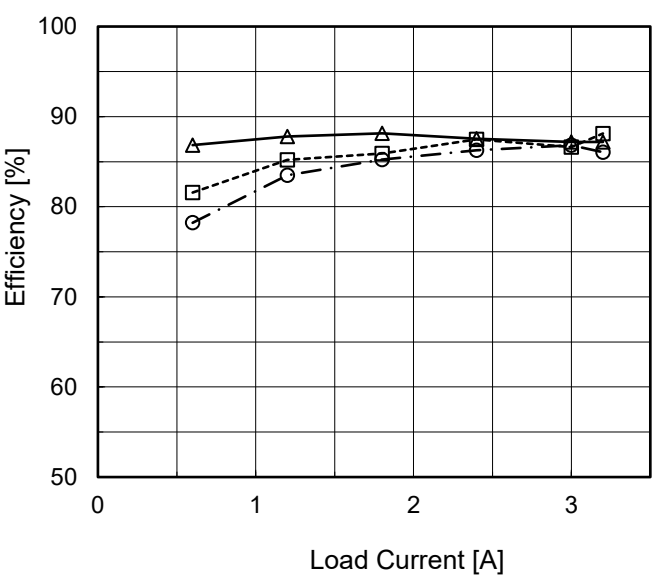
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Model		FDA75F-24	Temperature		25°C																																																			
Item		Input Current (by Load Current)	Testing Circuitry		Figure A																																																			
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1.Graph		<div><div><div>—△—</div><div>Input Volt.</div><div>200V</div></div><div><div>---□---</div><div>Input Volt.</div><div>400V</div></div><div><div>-·-○-·-</div><div>Input Volt.</div><div>480V</div></div></div> <div></div>	2.Values																																																					
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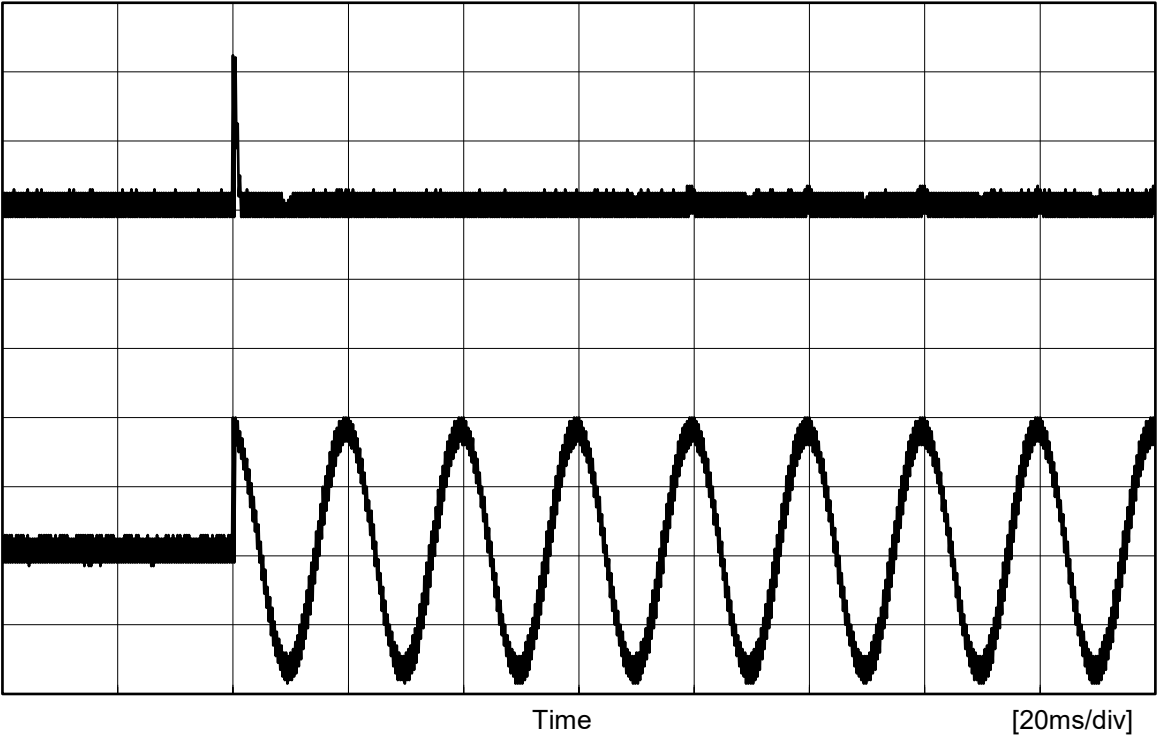
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Model		FDA75F-24	Temperature 25°C Testing Circuitry Figure A
Item		Inrush Current	
Object			

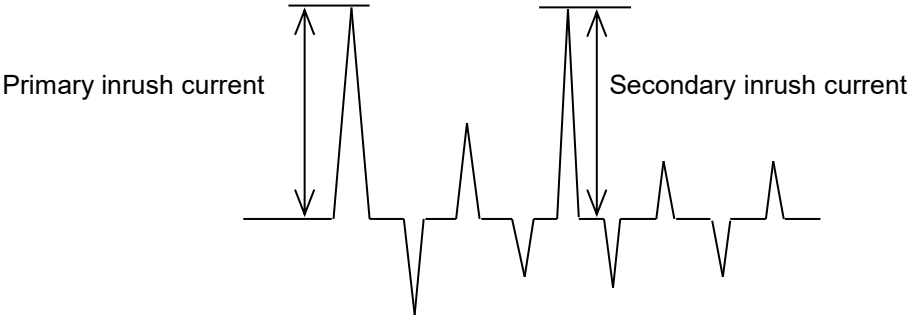
Input
Current
[20A/div]

Input
Voltage
[400V/div]



Input Voltage 400 V
Frequency 50 Hz
Load 100 %

Primary inrush current 44.8 A
Secondary inrush current 3.6 A



Object

[mA]

Operation

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



Model	FDA75F-24																																		
Item	Line Regulation	Temperature	25°C																																
Object	+24V3.2A	Testing Circuitry	Figure A																																
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<div><div><div>-----□-----</div><div>Load 50%</div></div><div><div>-----△-----</div><div>Load 100%</div></div></div> <div><div>Output Voltage [V]</div><div><div>24.3</div><div>24.2</div><div>24.1</div><div>24</div><div>23.9</div></div><div><div>100</div><div>200</div><div>300</div><div>400</div><div>500</div><div>600</div></div><div>Input Voltage [V]</div></div>		<table><tr><th rowspan="2">Input Voltage [V]</th><th colspan="2">Output Voltage [V]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr><tr><td>180</td><td>24.039</td><td>-</td></tr><tr><td>200</td><td>24.039</td><td>24.038</td></tr><tr><td>240</td><td>24.039</td><td>24.039</td></tr><tr><td>400</td><td>24.039</td><td>24.039</td></tr><tr><td>480</td><td>24.040</td><td>24.039</td></tr><tr><td>528</td><td>24.040</td><td>24.039</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Input Voltage [V]	Output Voltage [V]		Load 50%	Load 100%	180	24.039	-	200	24.039	24.038	240	24.039	24.039	400	24.039	24.039	480	24.040	24.039	528	24.040	24.039	--	-	-	--	-	-	--	-	-
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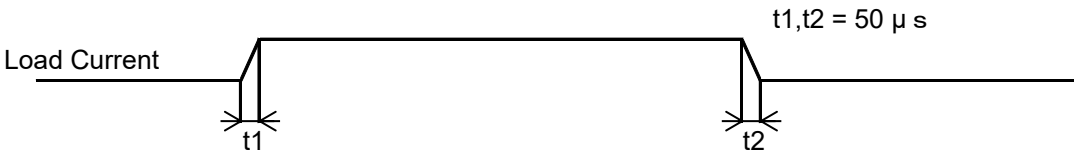
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<div><div><div>Input Voltage</div><div>400V</div></div><div><div>Load</div><div>100%</div></div></div> <div><div>10[mV/div]</div><div>20[ms/div]</div></div>																																																						



Model	FDA75F-24		
Item	Dynamic Load Response	Temperature	25°C
Object	+24V3.2A	Testing Circuitry	Figure A

Input Volt. 400 V
Cycle 1000 ms

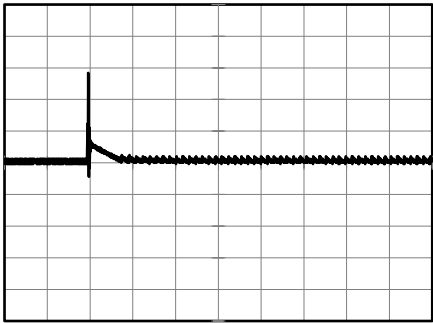


Min.Load (0A)←→
Load 100% (3.2A)

100 mV/div



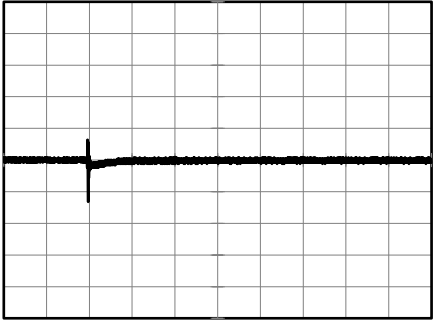
10 ms/div



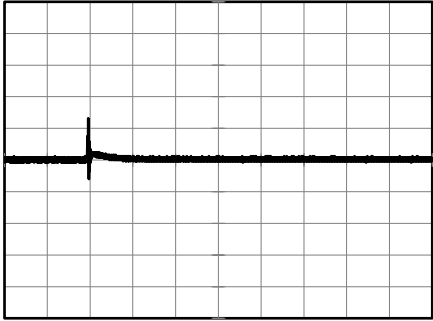
10 ms/div

Load 50% (1.6A)←→
Load 100% (3.2A)

100 mV/div



10 ms/div

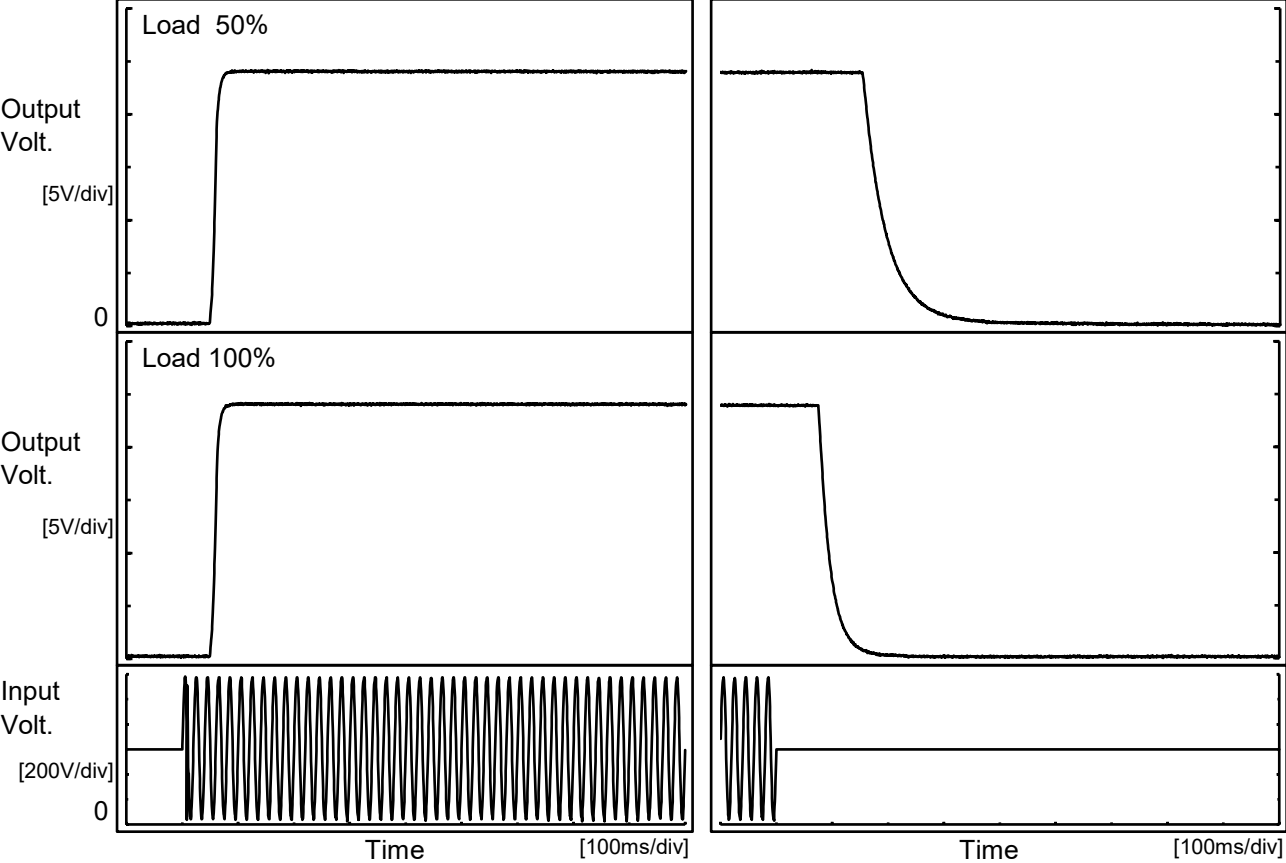


10 ms/div



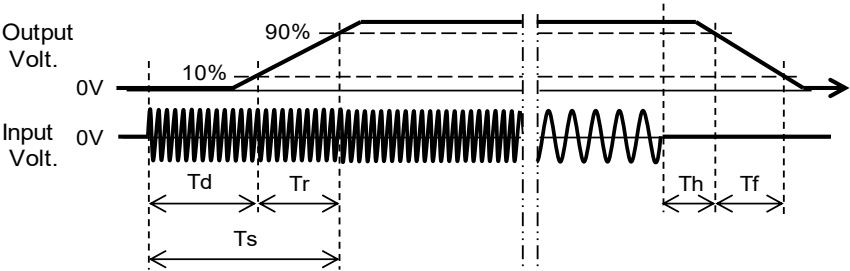
Model		FDA75F-24	Temperature 25°C Testing Circuitry Figure A
Item		Rise and Fall Time	
Object		+24V3.2A	

1.Graph



2.Values

		[ms]				
Load \ Time		Td	Tr	Ts	Th	Tf
50 %		52.5	13.5	66.0	158.5	94.5
100 %		52.5	13.5	66.0	77.5	47.0



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<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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Model		FDA75F-24	Temperature		25°C																																																			
Item		Instantaneous Interruption Compensation	Testing Circuitry		Figure A																																																			
Object		+24V3.2A																																																						
1.Graph			2.Values																																																					
<div><div><div>—△—</div><div>Input Volt.</div><div>200V</div></div><div><div>---□---</div><div>Input Volt.</div><div>400V</div></div><div><div>-·-○-·-</div><div>Input Volt.</div><div>480V</div></div></div> <div><div><div>Instantaneous Compensation Time [ms]</div><div>1000</div><div>100</div><div>10</div><div>1</div></div><div><div>0</div><div>1</div><div>2</div><div>3</div></div><div><div>Load Current [A]</div></div></div>			<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Time [ms]</th></tr><tr><th>Input Volt. 200[V]</th><th>Input Volt. 400[V]</th><th>Input Volt. 480[V]</th></tr><tr><td>0.0</td><td>-</td><td>-</td><td>-</td></tr><tr><td>0.6</td><td>90</td><td>412</td><td>598</td></tr><tr><td>1.2</td><td>44</td><td>208</td><td>305</td></tr><tr><td>1.8</td><td>28</td><td>138</td><td>205</td></tr><tr><td>2.4</td><td>18</td><td>101</td><td>151</td></tr><tr><td>3.0</td><td>13</td><td>78</td><td>119</td></tr><tr><td>3.2</td><td>12</td><td>74</td><td>112</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]	Time [ms]			Input Volt. 200[V]	Input Volt. 400[V]	Input Volt. 480[V]	0.0	-	-	-	0.6	90	412	598	1.2	44	208	305	1.8	28	138	205	2.4	18	101	151	3.0	13	78	119	3.2	12	74	112	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
Load Current [A]	Time [ms]																																																							
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Model		FDA75F-24	
Item		Overcurrent Protection	
Object		+24V3.2A	

1.Graph

△

Input Volt. 200V

□

Input Volt. 400V

○

Input Volt. 480V

30

20

10

0

<

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		Testing Circuitry Figure A	
Model	FDA75F-24		
Item	Ambient Temperature Drift		
Object	+24V3.2A		
1.Values Load 100%			
Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 200V	Input Volt. 400V	Input Volt. 480V
-20	23.968	23.971	23.972
25	24.033	24.033	24.033
50	24.065	24.066	24.065
Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A	
Object	+24V3.2A		
1.Values			
Ambient Temperature[°C]	Input Voltage [V]		
	Load 50%	Load 100%	
-20	125	144	
25	120	142	
50	119	136	
Item	Overvoltage Protection	Testing Circuitry Figure A	
Object	+24V3.2A		
1.Values Load 0%			
Ambient Temperature[°C]	Operating Point [V]		
	Input Volt. 200V	Input Volt. 480V	
-20	30.29	30.23	
25	31.41	31.35	
50	32.05	31.93	

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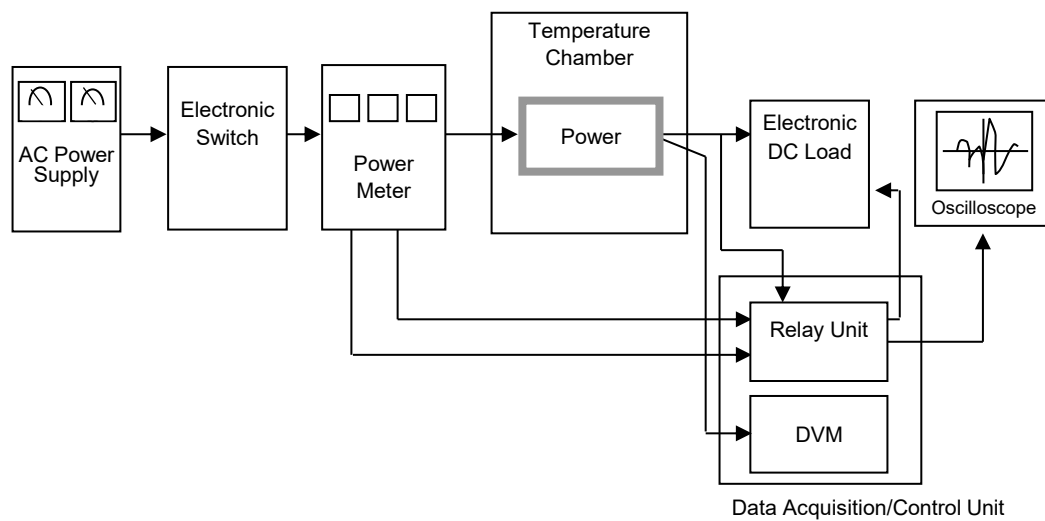


Figure A

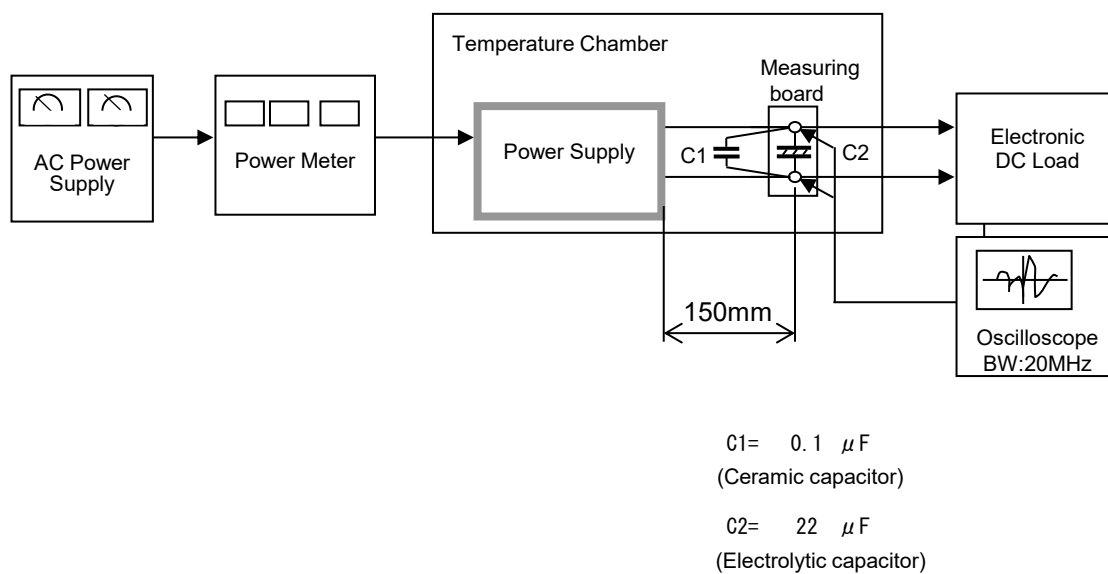


Figure B

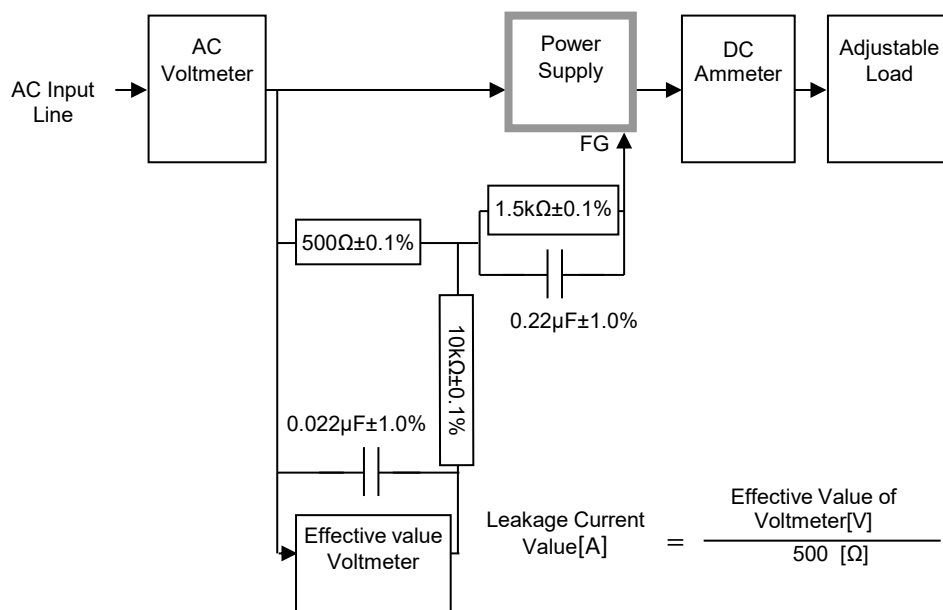


Figure C-2 (IEC62368-1 refer to IEC60990 Fig.4)

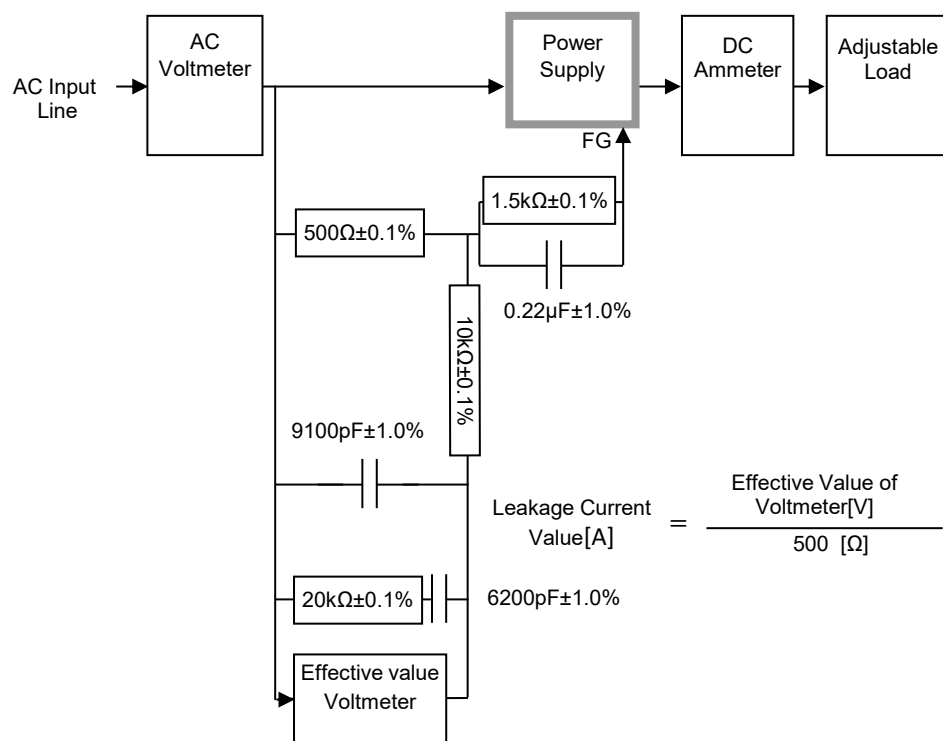


Figure C-3 (IEC62368-1 refer to IEC60990 Fig.5)