

# TEST DATA OF AEA600F-32

Regulated DC Power Supply  
July 12, 2022

Approved by : \_\_\_\_\_ Jun Uchida  
\_\_\_\_\_  
Design Manager

Prepared by : \_\_\_\_\_ Shota Takashima  
\_\_\_\_\_  
Design Engineer

**COSEL CO.,LTD.**



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(Final Page 15)

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Model	AEA600F-32																																																					
Item	Input Current (by Load Current)	Temperature Testing Circuitry	25°C Figure A																																																			
Object	_____																																																					
1.Graph	<p>Legend:</p> <ul style="list-style-type: none"> <li>— ▲ — Input Volt. 100V</li> <li>- ■ - Input Volt. 200V</li> <li>- ○ - Input Volt. 230V</li> </ul>																																																					
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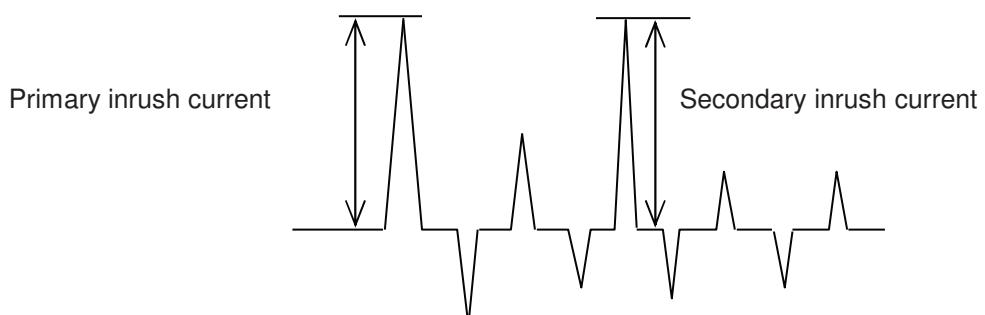
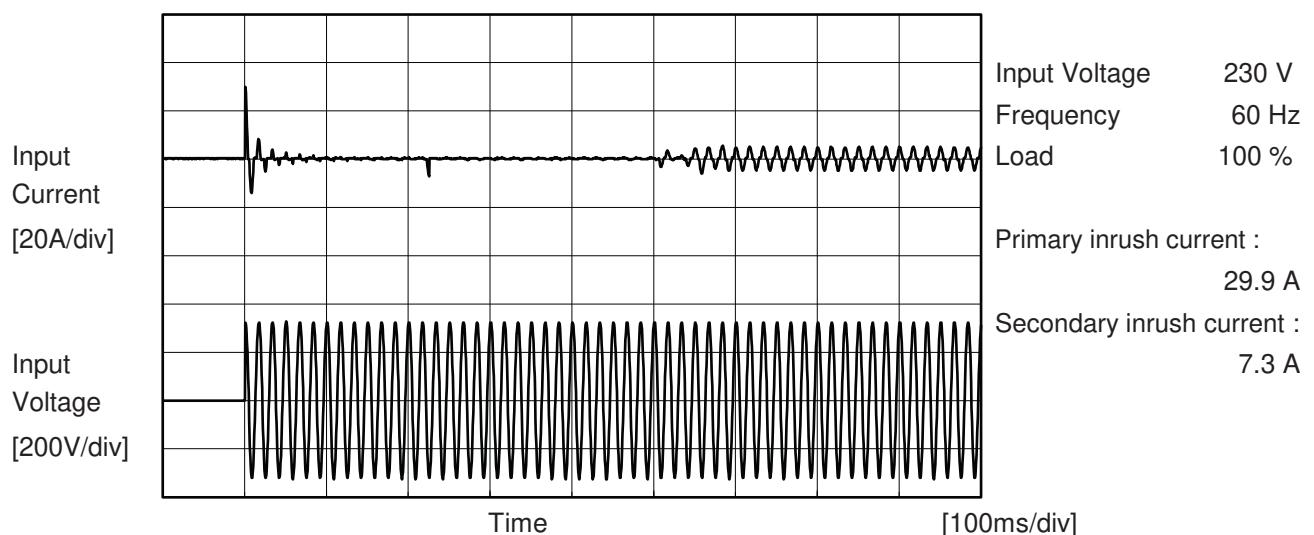
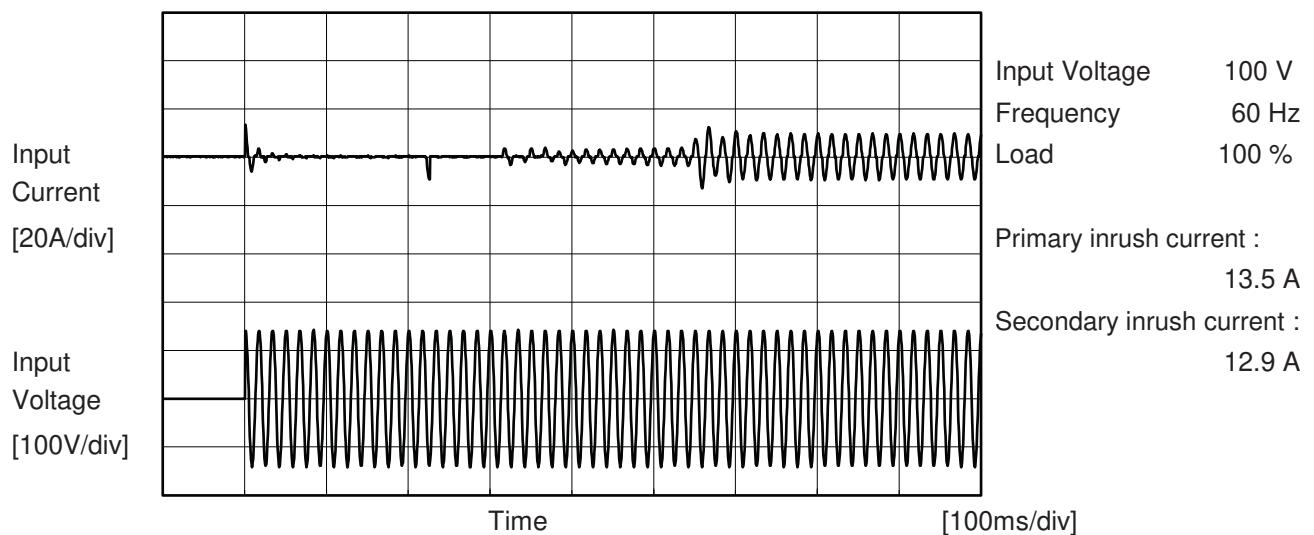
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Model	AEA600F-32	Temperature	25°C
Item	Inrush Current	Testing Circuitry	Figure A
Object	_____		





Model	AEA600F-32	Temperature	25°C
Item	Leakage Current	Testing Circuitry	Figure B
Object	_____		

## 1. Results

[mA]

Standards	Testing Circuitry	Measuring Method	Input Volt.			Note
			100 [V]	230 [V]	240 [V]	
DEN-AN	Figure B-1	Both phases	0.07	0.19	0.20	Operation
		One of phases	0.14	0.36	0.39	Stand by
IEC62368-1	Figure B-2	Both phases	0.07	0.19	0.20	Operation
		One of phases	0.14	0.36	0.39	Stand by
IEC60601-1	Figure B-3	Both phases	0.07	0.19	0.20	Operation
		One of phases	0.14	0.36	0.39	Stand by
	Figure B-4	Both phases	0.07	0.19	0.20	Operation
		One of phases	0.14	0.36	0.39	Stand by

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

## 2. Condition

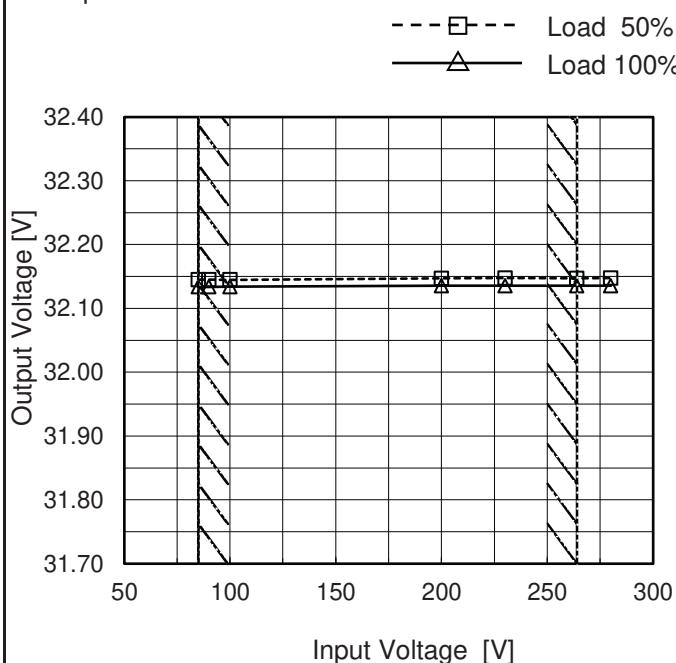
Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.

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Model	AEA600F-32
Item	Line Regulation
Object	+32V18.8A

 Temperature 25°C  
 Testing Circuitry Figure A

## 1.Graph



## 2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
85	32.145	32.134 *1
90	32.145	32.134 *2
100	32.145	32.134 *2
200	32.147	32.135
230	32.147	32.135
264	32.147	32.136
280	32.148	32.136
--	-	-
--	-	-

\*1 : Load 60%

\*2 : Load 80%

Note: Slanted line shows the range of the rated input voltage.

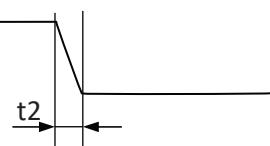
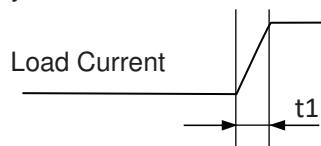
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Object	+32V18.8A	Testing Circuitry	Figure C																																																			
1.Graph	<p style="text-align: center;">         Input Voltage 200V          Load 100%       </p>																																																					

# COSEL

Model	AEA600F-32	Temperature	25°C
Item	Dynamic Load Response	Testing Circuitry	Figure A
Object	+32V18.8A		

Input Volt. 200 V  
Cycle 1000 ms

Response.  $t_1=t_2=50\mu\text{s}$ . Typ

Load 0%(0A)  $\longleftrightarrow$   
Load 100%(18.8A)

200[mV/div]

10[ms/div]

10[ms/div]

Load 50%(9.4A)  $\longleftrightarrow$   
Load 100%(18.8A)

200[mV/div]

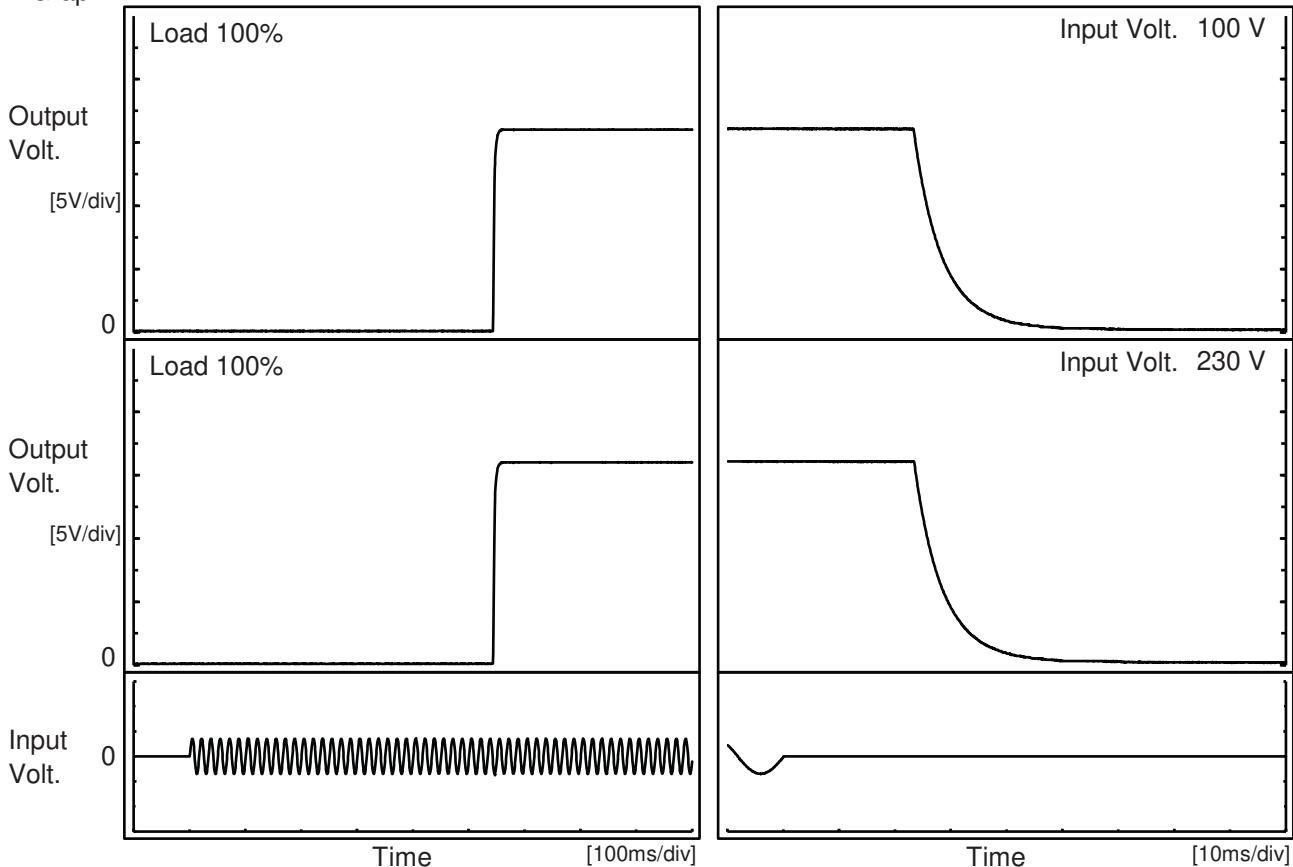
10[ms/div]

10[ms/div]

# COSEL

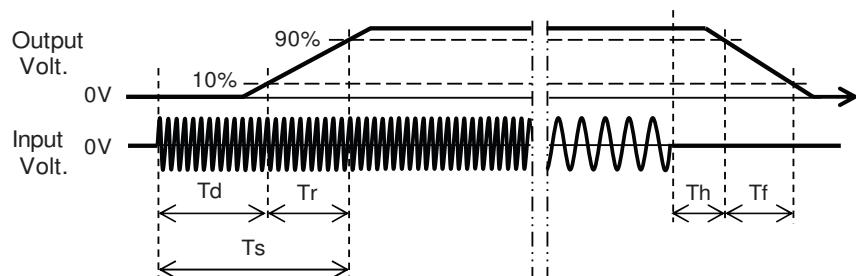
Model	AEA600F-32	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+32V18.8A		

## 1. Graph



## 2. Values

Input Volt.	Time	Td	Tr	Ts	Th	Tf	[ms]
100 V		545.0	5.0	550.0	23.8	12.0	
230 V		544.5	4.5	549.0	23.9	12.0	



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Item	Hold-Up Time	Temperature 25°C Testing Circuitry Figure A																																
Object	+32V18.8A																																	
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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> <p>Note: Slanted line shows the range of the rated input voltage.</p>																																		

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1.Graph	<p>Graph showing Instantaneous Compensation Time [ms] vs Load Current [A] for three input voltages: 100V, 200V, and 230V. The Y-axis is logarithmic from 1 to 1000 ms. The X-axis is linear from 0 to 20 A. Data points are shown for 3.8, 7.6, 11.3, 15.1, 18.8, and 20.7 A. A slanted line indicates the rated load current range.</p>																																																					
2.Values	<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Time [ms]</th> </tr> <tr> <th>Input Volt. 100[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 230[V]</th> </tr> </thead> <tbody> <tr> <td>0.0</td><td>-</td><td>-</td><td>-</td></tr> <tr> <td>3.8</td><td>110</td><td>111</td><td>111</td></tr> <tr> <td>7.6</td><td>56</td><td>57</td><td>57</td></tr> <tr> <td>11.3</td><td>38</td><td>38</td><td>38</td></tr> <tr> <td>15.1</td><td>28</td><td>28</td><td>28</td></tr> <tr> <td>18.8</td><td>22</td><td>22</td><td>22</td></tr> <tr> <td>20.7</td><td>-</td><td>20</td><td>20</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> </tbody> </table>			Load Current [A]	Time [ms]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	0.0	-	-	-	3.8	110	111	111	7.6	56	57	57	11.3	38	38	38	15.1	28	28	28	18.8	22	22	22	20.7	-	20	20	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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**COSEL**

Model	AEA600F-32																																																																													
Item	Overcurrent Protection	Temperature Testing Circuitry	25°C Figure A																																																																											
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Model	AEA600F-32	Testing Circuitry Figure A
Item	Ambient Temperature Drift	
Object	+32V18.8A	

## 1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 200V	Input Volt. 230V
-20	32.068	32.071	32.071
25	32.144	32.144	32.144
50	32.141	32.142	32.142

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A	
Object	+32V18.8A		

## 1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-20	74	80
25	74	81
50	75	82

Item	Overvoltage Protection	Testing Circuitry Figure A	
Object	+32V18.8A		

## 1.Values

Load 0%

Ambient Temperature[°C]	Operating Point [V]	
	Input Volt. 100V	Input Volt. 230V
-20	44.66	44.54
25	46.47	46.47
50	47.46	47.35

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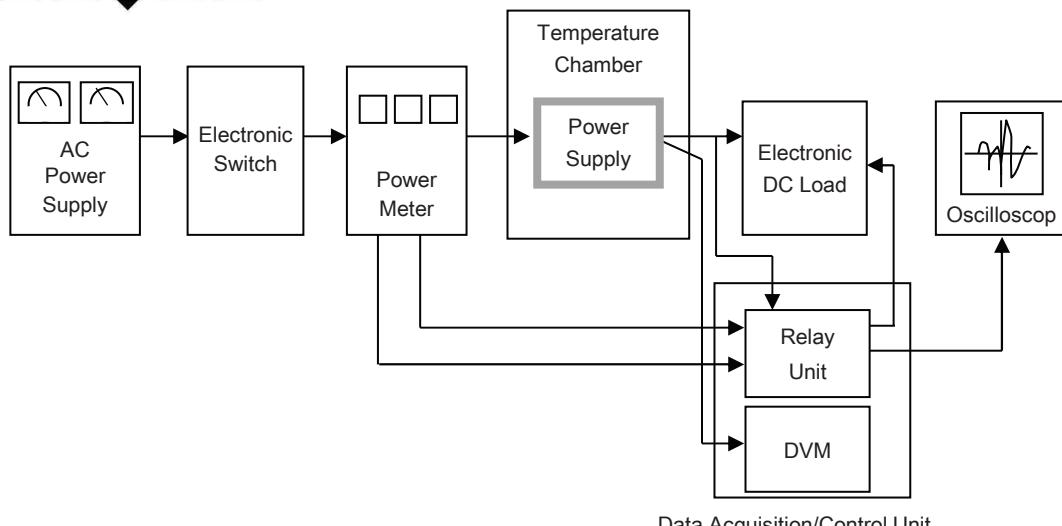


Figure A

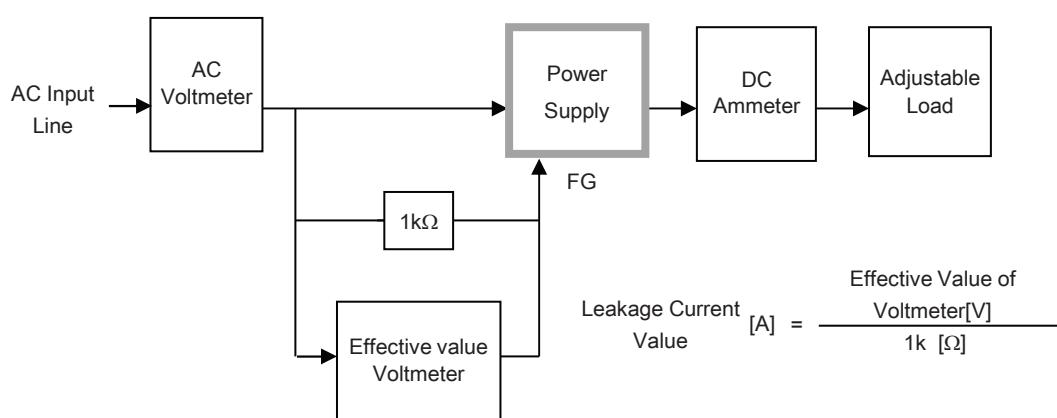


Figure B-1 ( DEN-AN )

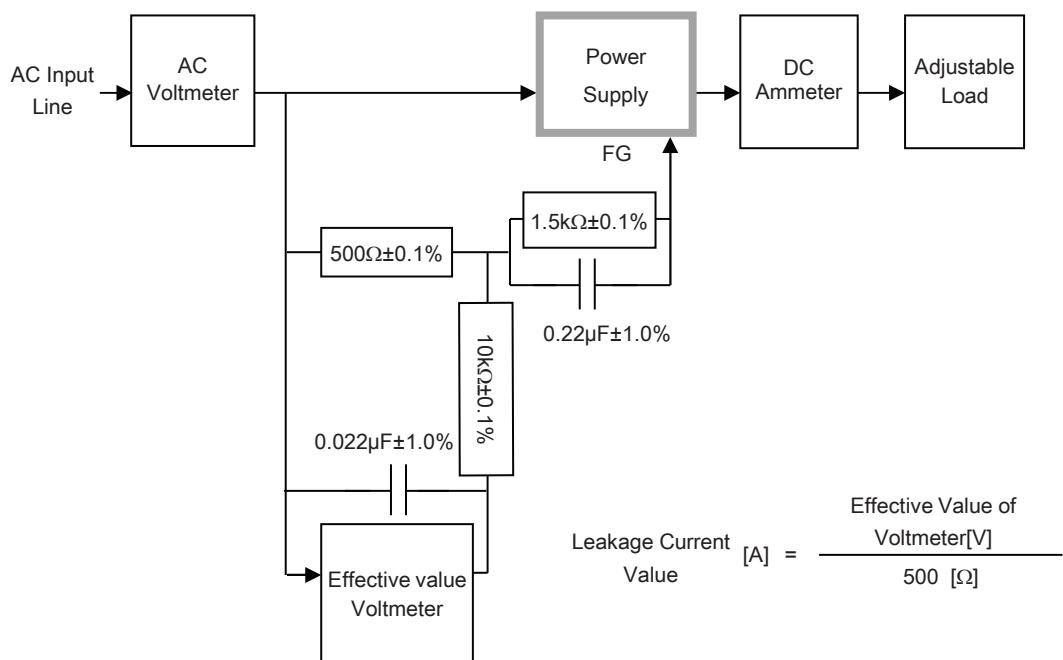


Figure B-2 ( IEC62368-1 refer to IEC60990 Fig.4 )

**COSEL**

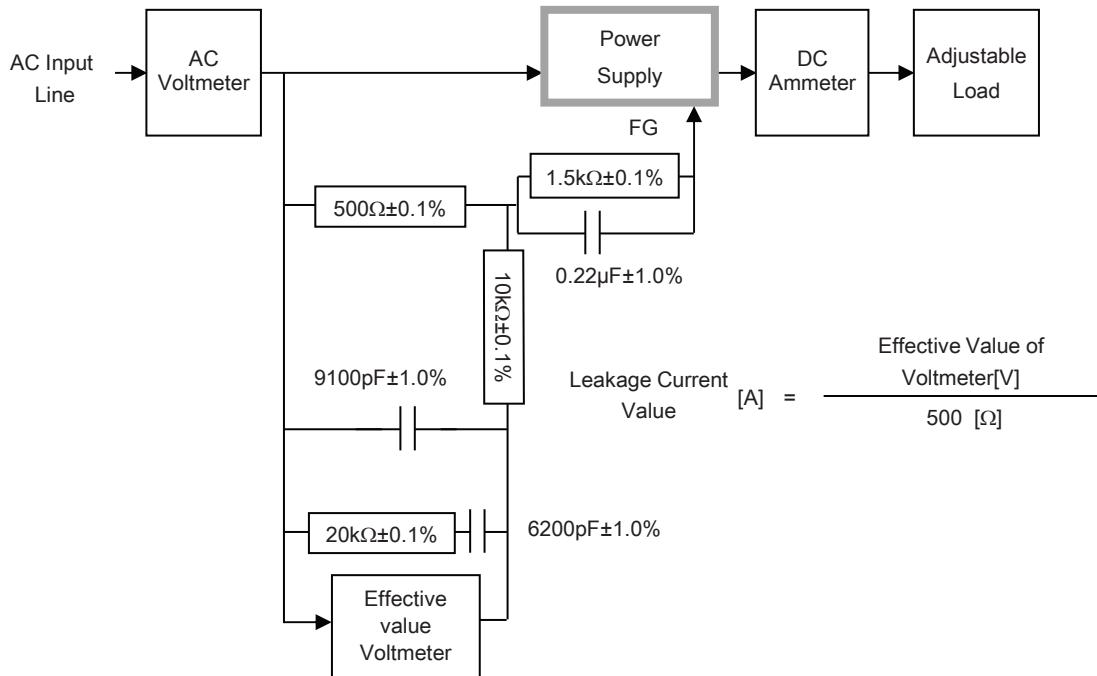


Figure B-3 ( IEC62368-1 refer to IEC60990 Fig.5 )

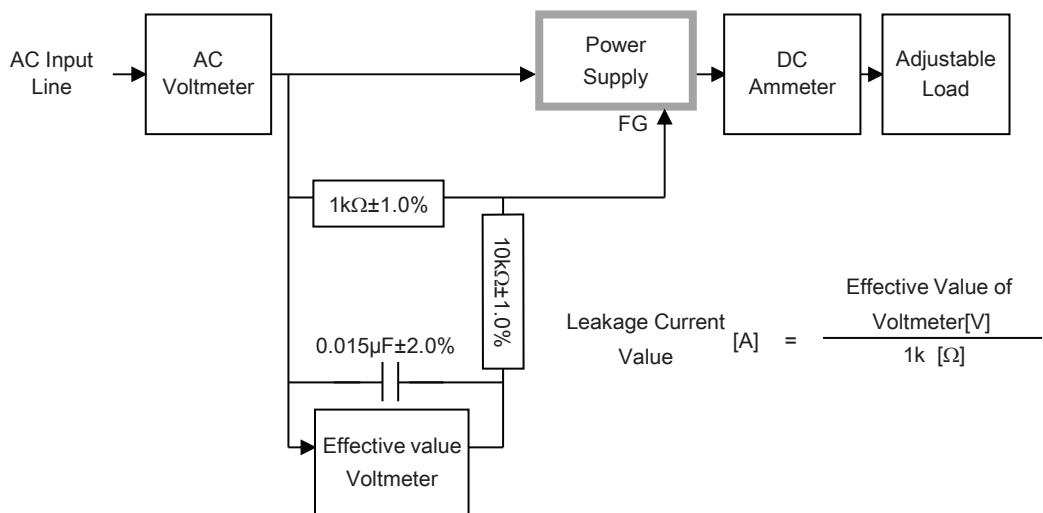


Figure B-4 ( IEC60601-1)

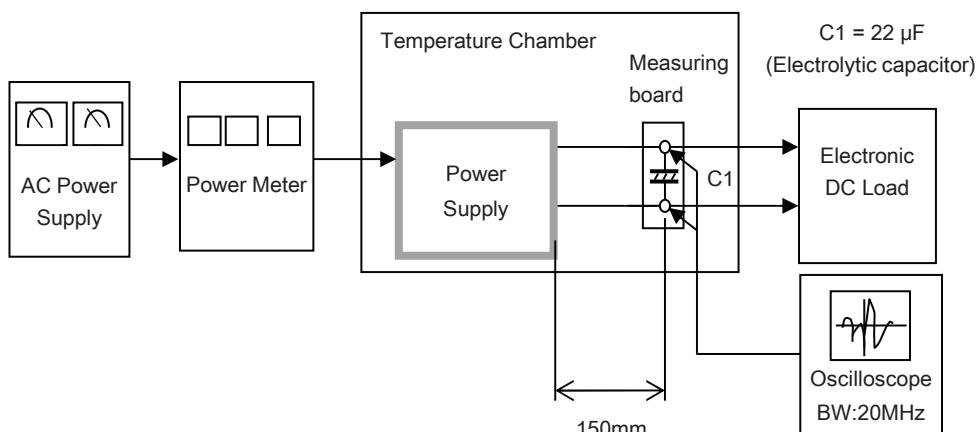


Figure C