For Reference

COSEL

TEST DATA OF AEA800F-48

Regulated DC Power Supply
August 9, 2022

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COSEL CO.,LTD.

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CONTENTS

(Final Page 15)

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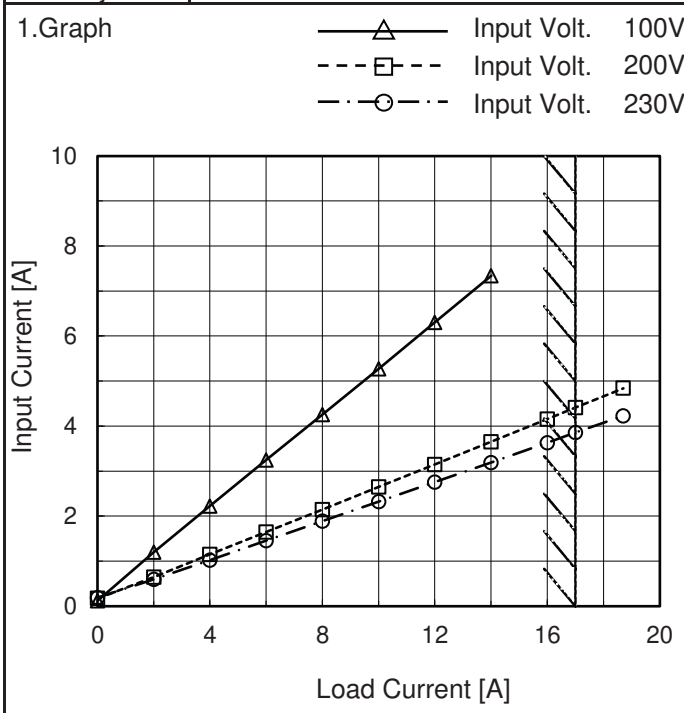
Model	AEA800F-48
Item	Input Current (by Load Current)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Input Current [A]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	0.121	0.175	0.192
2.0	1.201	0.649	0.595
4.0	2.225	1.147	1.023
6.0	3.243	1.647	1.453
8.0	4.255	2.144	1.890
10.0	5.270	2.646	2.324
12.0	6.299	3.149	2.754
14.0	7.340	3.653	3.192
16.0	-	4.157	3.633
17.0	-	4.410	3.854
18.7	-	4.843	4.227

BC-11891

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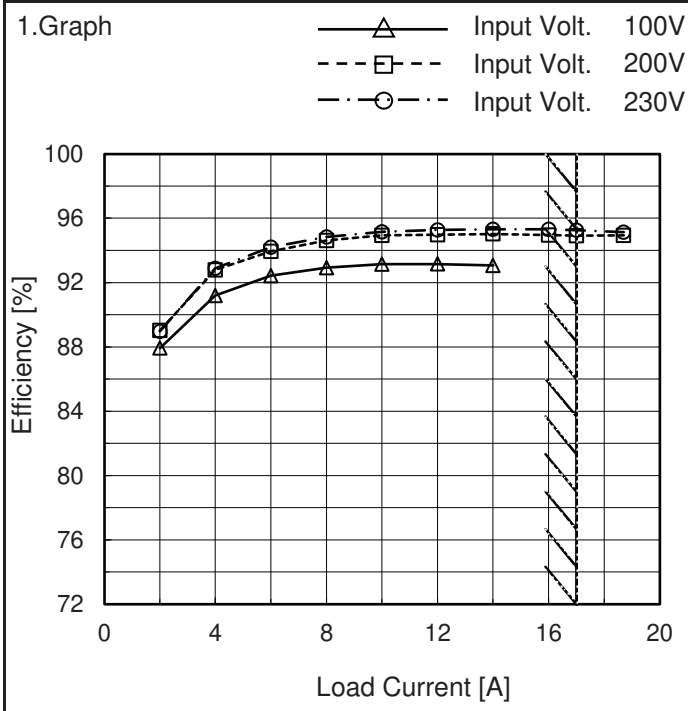
Model	AEA800F-48
Item	Efficiency (by Load Current)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Efficiency [%]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	-	-	-
2.0	87.9	89.0	89.0
4.0	91.2	92.8	92.9
6.0	92.4	93.9	94.2
8.0	92.9	94.6	94.8
10.0	93.1	94.9	95.1
12.0	93.2	95.0	95.3
14.0	93.1	95.0	95.3
16.0	-	95.0	95.3
17.0	-	94.9	95.3
18.7	-	94.9	95.1

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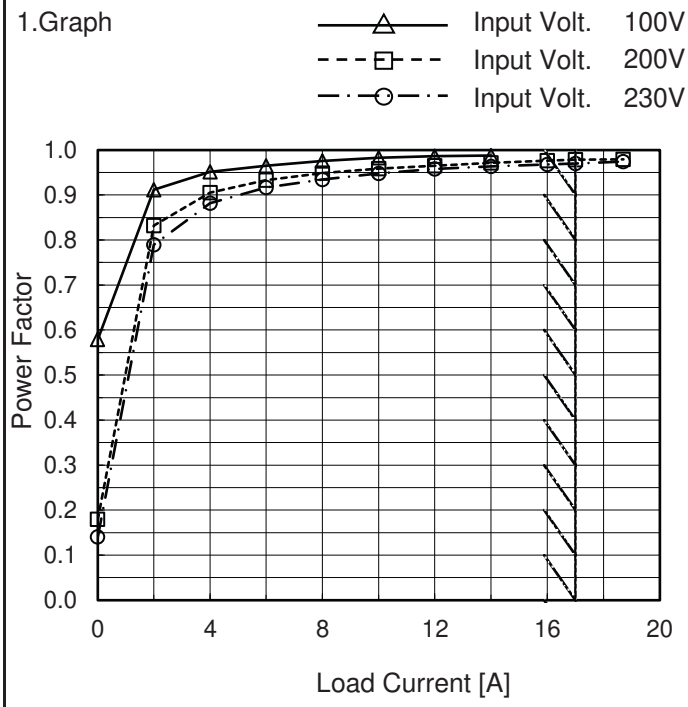
Model	AEA800F-48
Item	Power Factor (by Load Current)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Power Factor		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	0.579	0.179	0.141
2.0	0.912	0.832	0.790
4.0	0.951	0.905	0.882
6.0	0.964	0.933	0.917
8.0	0.976	0.949	0.934
10.0	0.982	0.958	0.948
12.0	0.986	0.965	0.957
14.0	0.988	0.971	0.963
16.0	-	0.976	0.968
17.0	-	0.978	0.970
18.7	-	0.979	0.974

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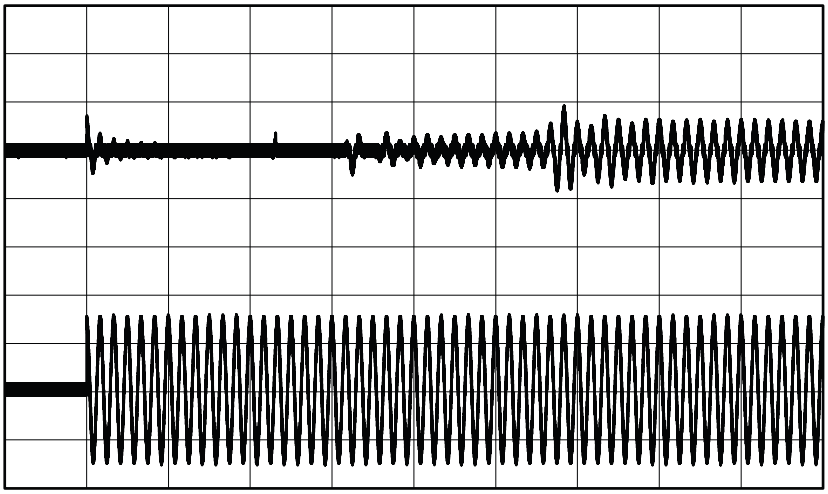
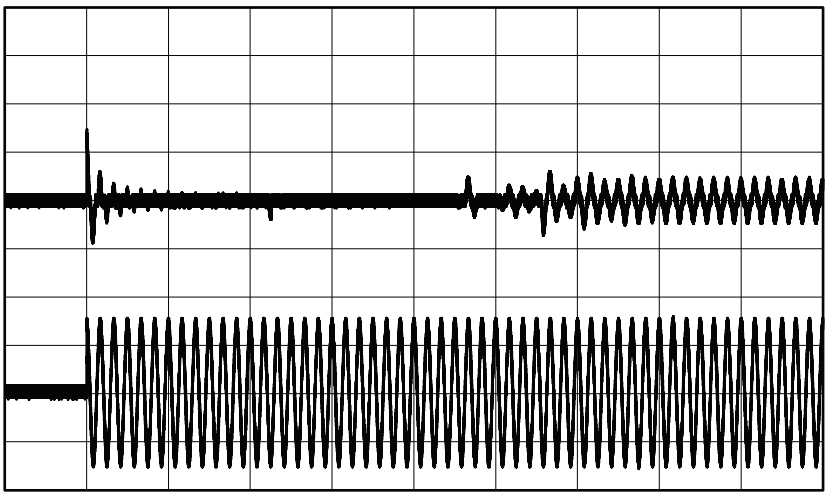
Model	AEA800F-48	
Item	Inrush Current	Temperature 25°C Testing Circuitry Figure A
Object	————————	



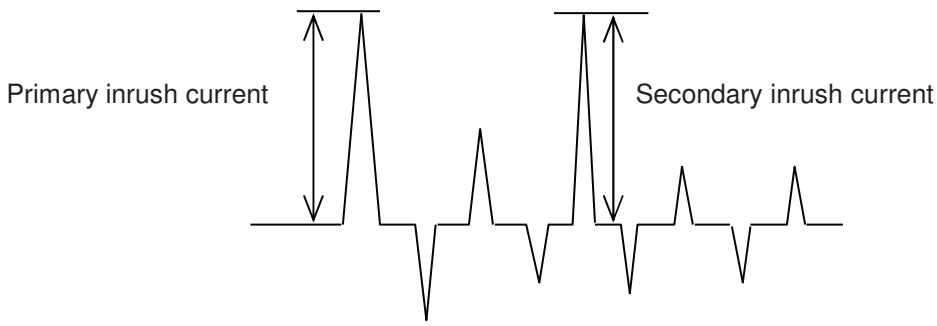
Input Voltage 100 V
Frequency 60 Hz
Load 100 %

Primary inrush current :
14.4 A
Secondary inrush current :
7.2 A



Input Voltage 200 V
Frequency 60 Hz
Load 100 %

Primary inrush current :
29.6 A
Secondary inrush current :
8.0 A



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Model	AEA800F-48	
Item	Leakage Current	Temperature 25°C Testing Circuitry Figure B
Object	———————————	

1.Results

[mA]

Standards	Testing Circuitry	Measuring Method	Input Volt.			Note
			100 [V]	240 [V]	264 [V]	
DEN-AN	Figure B-1	Both phases	0.08	0.21	0.23	Operation
		One of phases	0.15	0.39	0.44	Stand by
IEC62368-1	Figure B-2	Both phases	0.08	0.20	0.23	Operation
		One of phases	0.15	0.39	0.43	Stand by
	Figure B-3	Both phases	0.08	0.20	0.23	Operation
		One of phases	0.15	0.38	0.43	Stand by
IEC60601-1	Figure B-4	Both phases	0.08	0.20	0.23	Operation
		One of phases	0.15	0.38	0.43	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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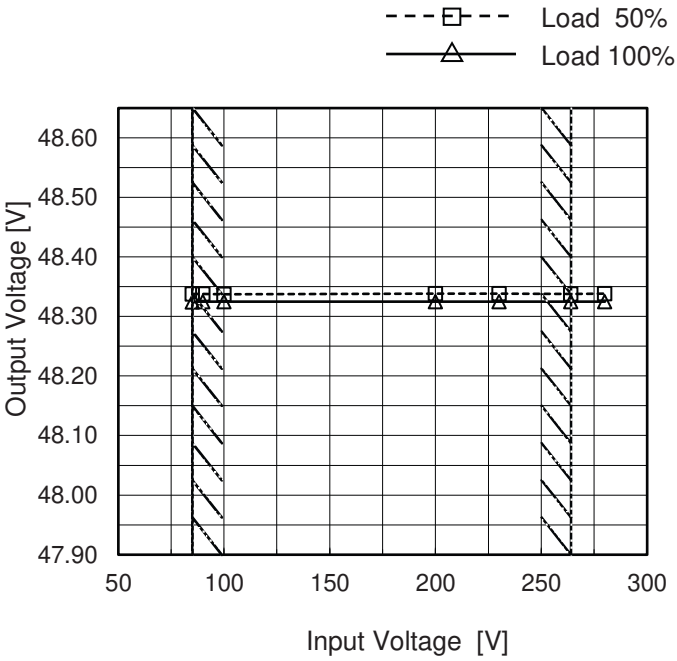
Model	AEA800F-48
Item	Line Regulation
Object	+48V17A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



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

2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
85	48.337	48.324 ※1
90	48.338	48.325 ※2
100	48.337	48.325 ※2
200	48.338	48.325
230	48.338	48.325
264	48.338	48.325
280	48.338	48.325
--	-	-
--	-	-

※1 : Load 60%
※2 : Load 75%

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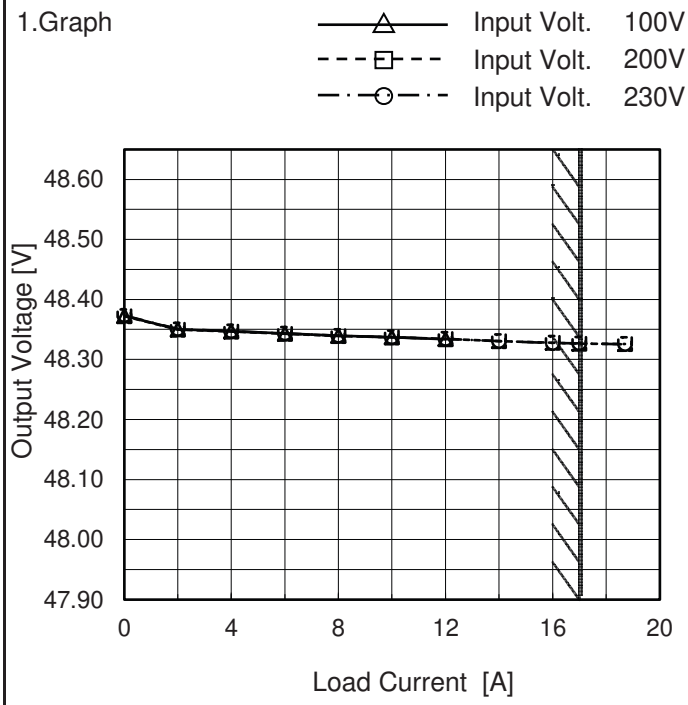
Model	AEA800F-48
Item	Load Regulation
Object	+48V17A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

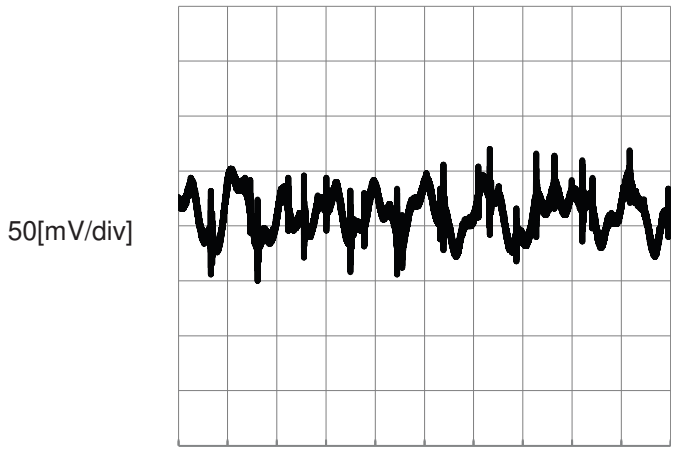
Load Current [A]	Output Voltage [V]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	48.373	48.372	48.374
2.0	48.350	48.350	48.351
4.0	48.347	48.347	48.347
6.0	48.343	48.343	48.343
8.0	48.340	48.339	48.339
10.0	48.337	48.337	48.337
12.0	48.334	48.334	48.334
14.0	--	48.331	48.331
16.0	--	48.328	48.328
17.0	--	48.326	48.327
18.7	--	48.326	48.326

Item	Ripple-Noise
Object	+48V17A

Temperature 25°C
Testing Circuitry Figure C

1.Graph

Input Voltage 200V
Load 100%



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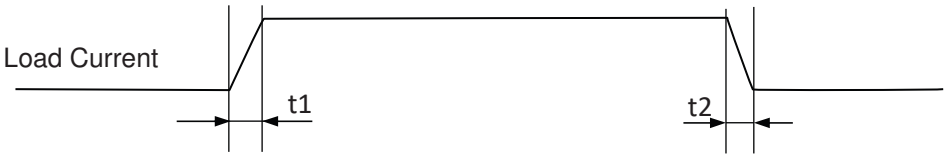
Model	AEA800F-48
Item	Dynamic Load Response
Object	+48V17A

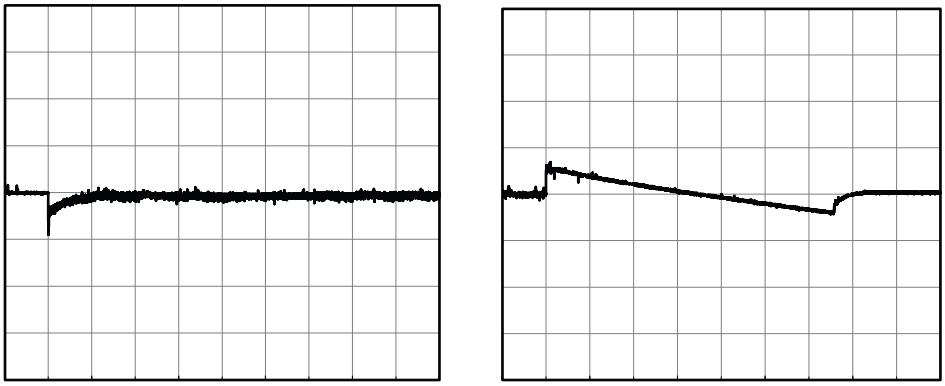
Temperature 25°C
Testing Circuitry Figure A

Input Volt. 200 V
Cycle 1000 ms

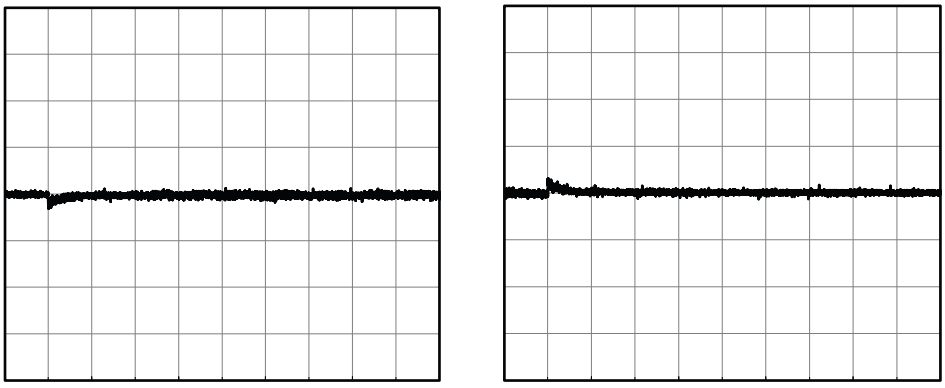
Response. t1=t2=50µs. Typ



Load 0%(0A) ⟷ Load 100%(17A)



Load 50%(8.5A) ⟷ Load 100%(17A)



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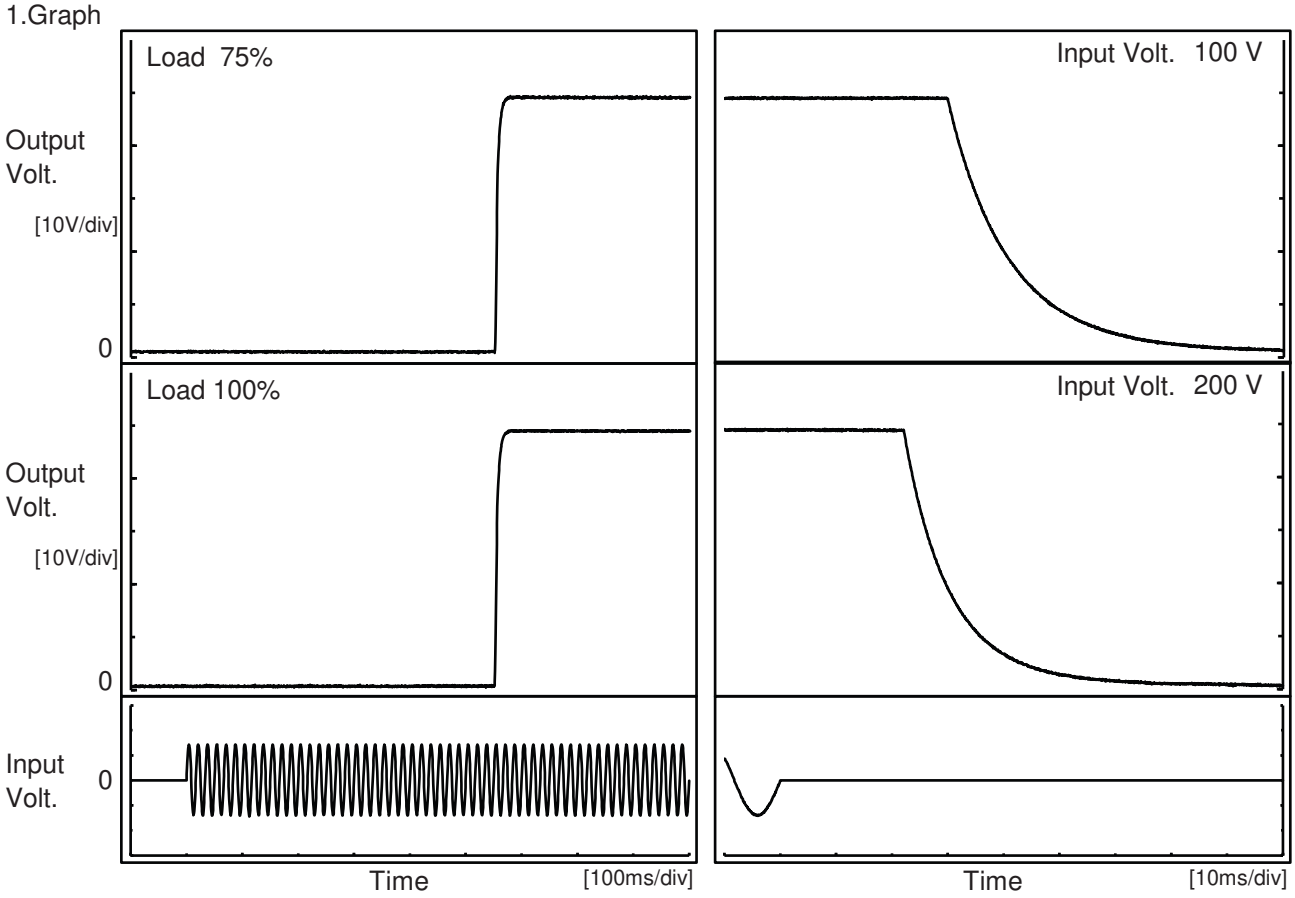
Model	AEA800F-48
Item	Rise and Fall Time
Object	+48V17A

Temperature 25°C
Testing Circuitry Figure A

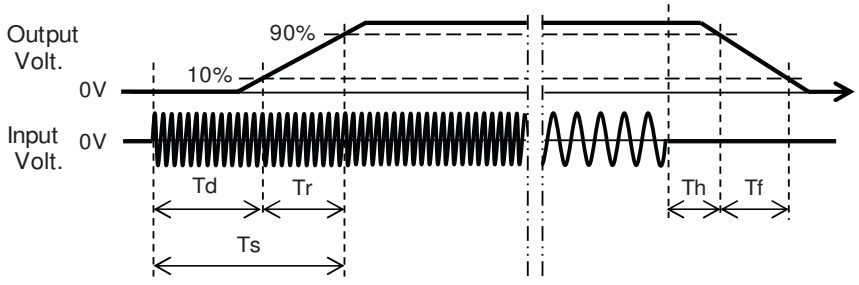
1.Graph



2.Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
100 %	552.5	8.0	560.0	31.1	26.2
100 %	552.0	8.0	560.0	23.0	19.5



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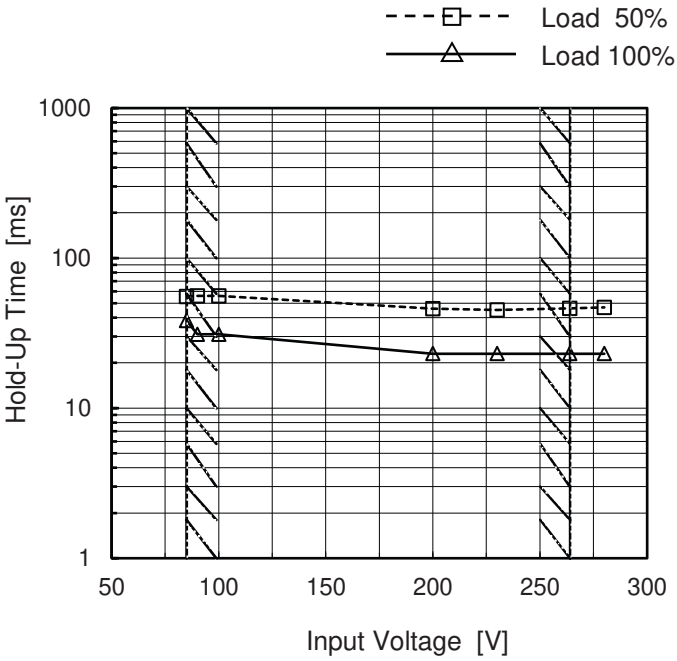
Model	AEA800F-48
Item	Hold-Up Time
Object	+48V17A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.
Note: Slanted line shows the range of the rated input voltage.

2.Values

Input Voltage [V]	Hold-Up Time [ms]	
	Load 50%	Load 100%
85	55	38 ※1
90	56	31 ※2
100	56	31 ※2
200	46	23
230	45	23
264	46	23
280	47	23
--	-	-
--	-	-

※1 : Load 60%
※2 : Load 75%

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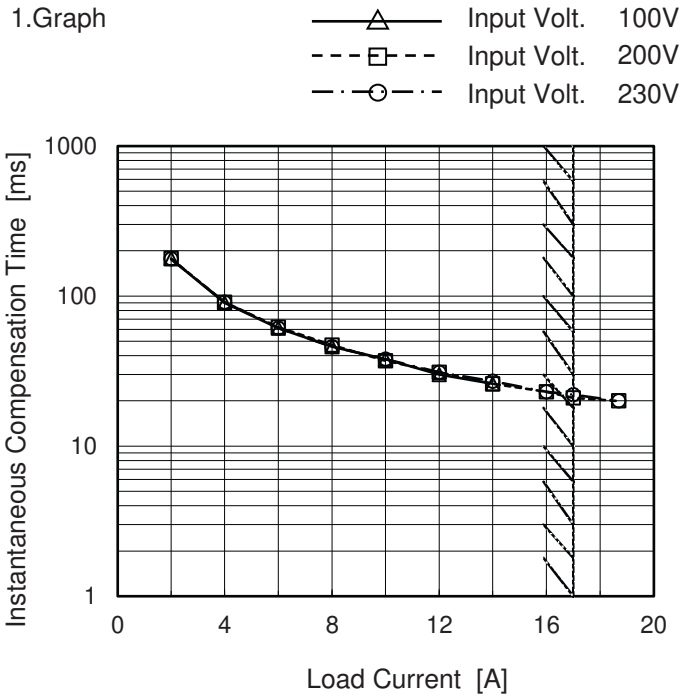
Model	AEA800F-48
Item	Instantaneous Interruption Compensation
Object	+48V17A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Time [ms]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	-	-	-
2.0	177	178	177
4.0	90	91	91
6.0	61	62	61
8.0	46	47	46
10.0	38	37	38
12.0	30	31	31
14.0	26	26	27
16.0	-	23	23
17.0	-	21	22
18.7	-	20	20

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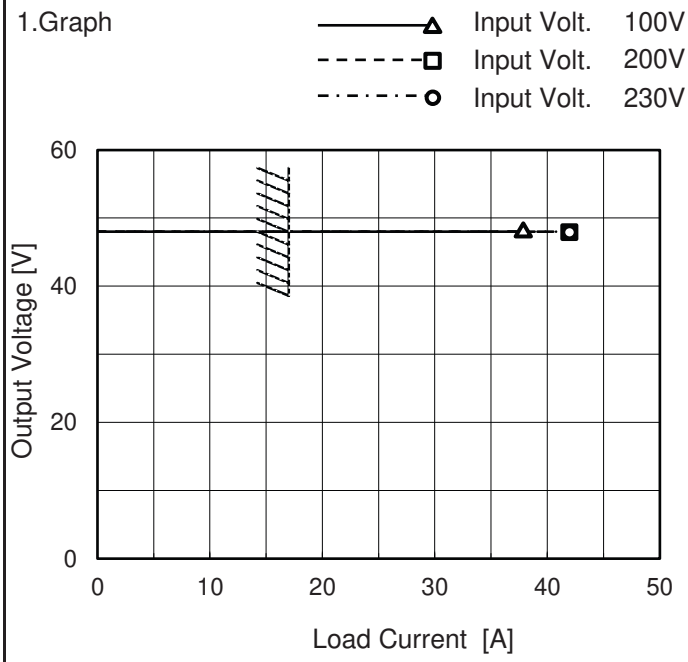
Model	AEA800F-48
Item	Overcurrent Protection
Object	+48V17A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

Overcurrent protection is Hiccup mode

2.Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
48	37.40	41.60	41.60
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

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Model	AEA800F-48
Item	Ambient Temperature Drift
Object	+48V17A

Testing Circuitry Figure A

1.Values

Load 100%

Ambient Temperature[℃]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 200V	Input Volt. 230V
-20	48.197	48.197	48.197
25	48.328	48.327	48.327
50	48.345	48.345	48.344

Item	Minimum Input Voltage for Regulated Output Voltage
Object	+48V17A

Testing Circuitry Figure A

1.Values

Ambient Temperature[℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	73	73
25	72	72
50	73	73

Item	Overvoltage Protection
Object	+48V17A

Testing Circuitry Figure A

1.Values

Load 0%

Ambient Temperature[℃]	Operating Point [V]	
	Input Volt. 100V	Input Volt. 200V
-20	63.36	62.83
25	65.06	64.95
50	66.64	66.53

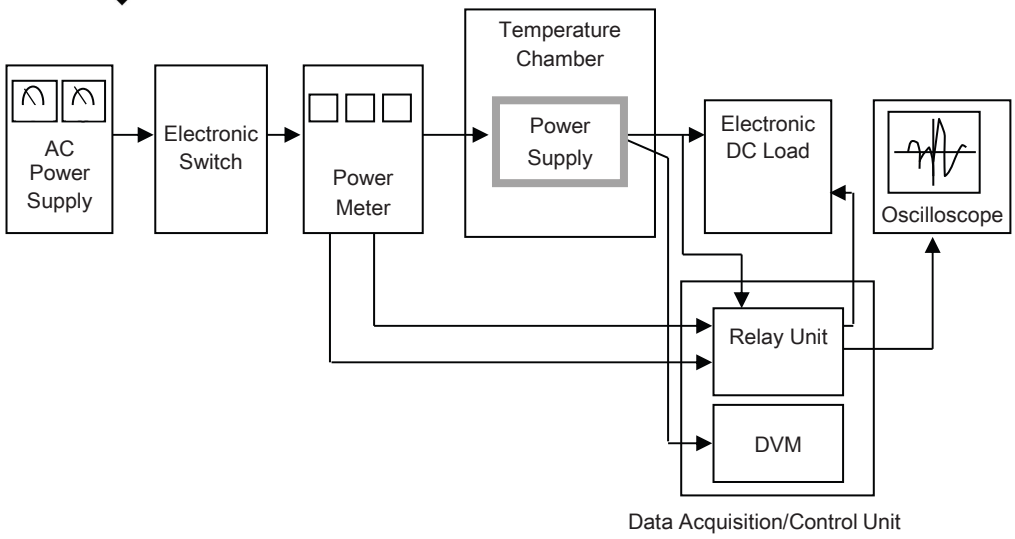

Figure A

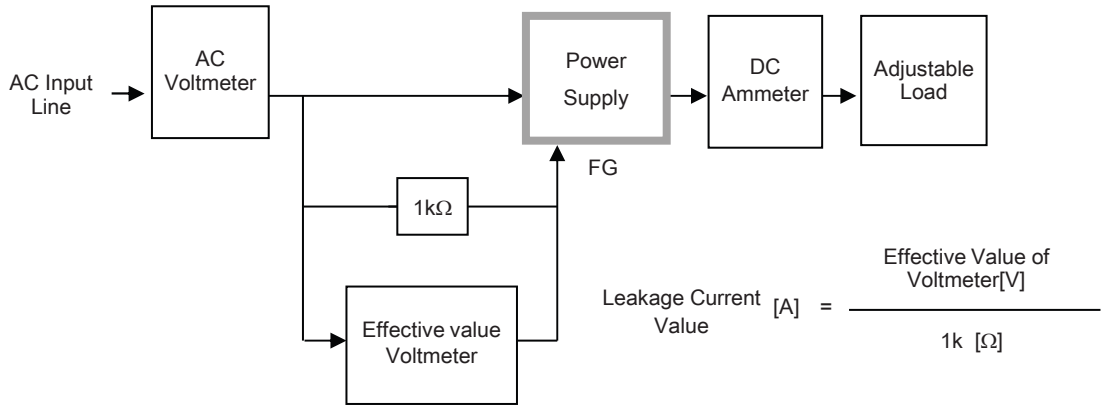

Figure B-1 (DEN-AN)

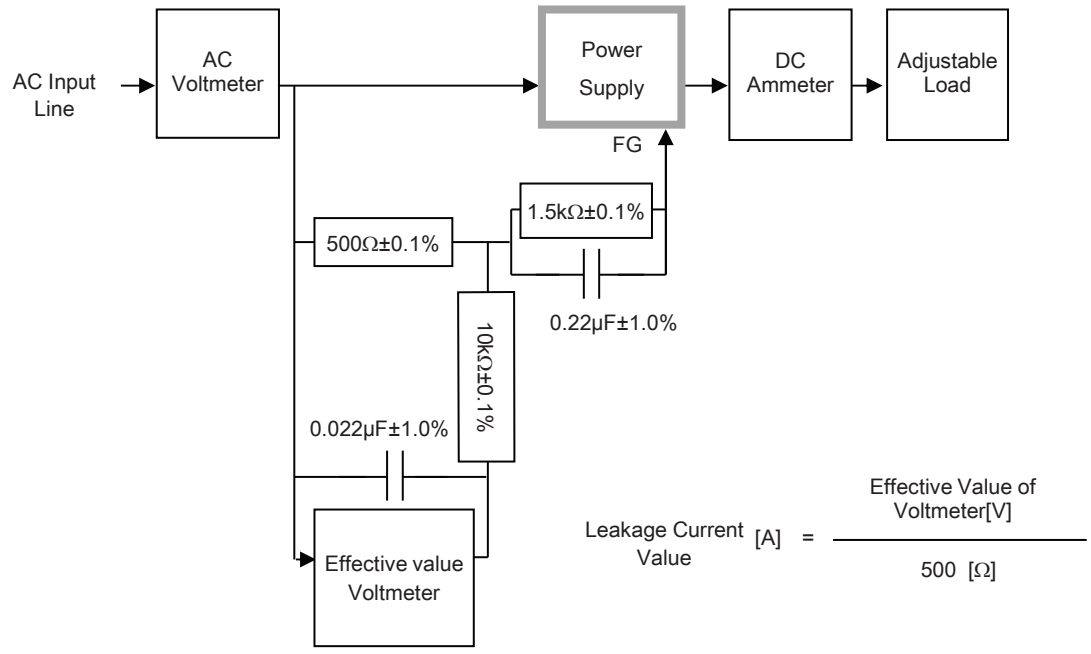

Figure B-2 (IEC62368-1 refer to IEC60990 Fig.4)

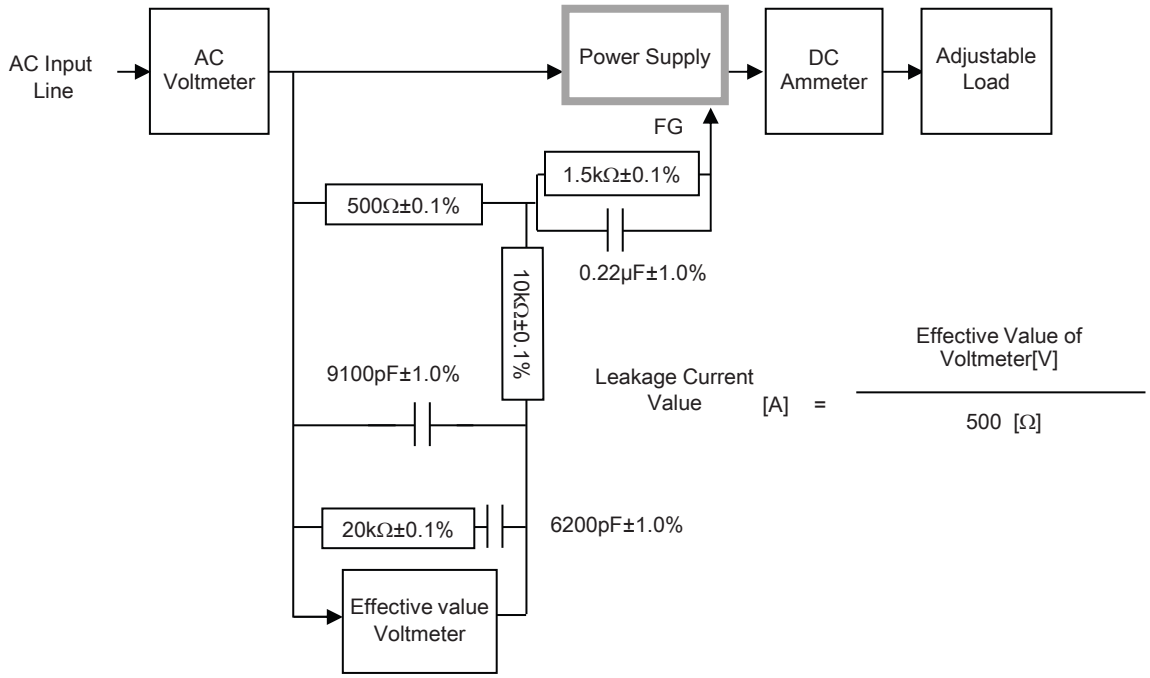

Figure B-3 (IEC62368-1 refer to IEC60990 Fig.5)

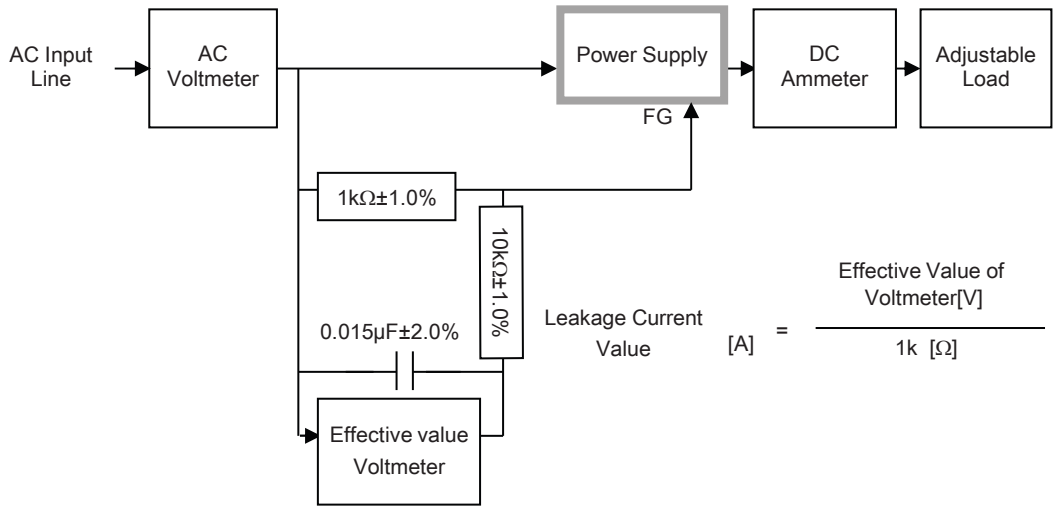

Figure B-4 (IEC60601-1)

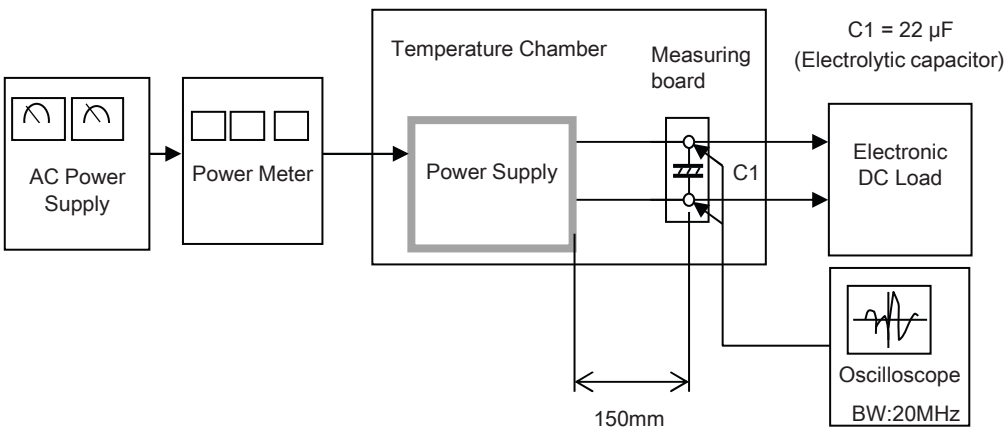

Figure C