For Reference

COSEL

TEST DATA OF AEA1000F-36

Regulated DC Power Supply
July 6, 2021

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COSEL CO.,LTD.

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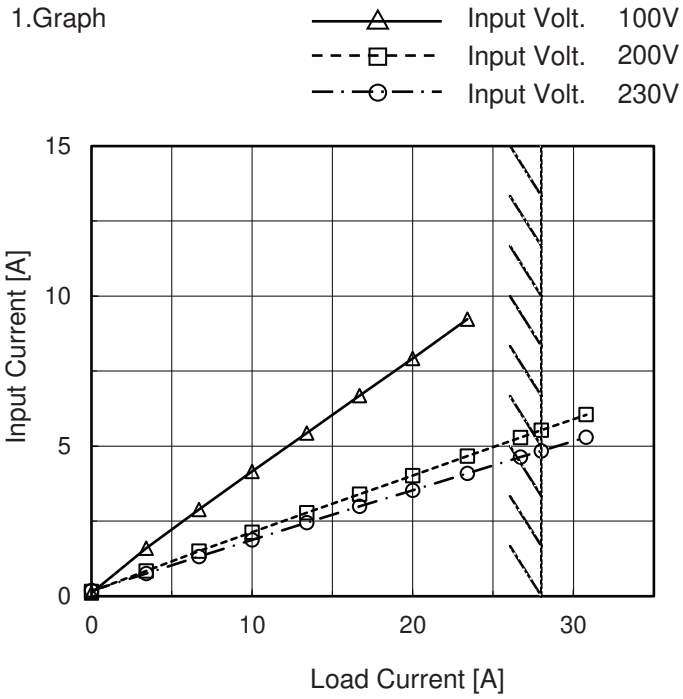
Model	AEA1000F-36
Item	Input Current (by Load Current)
Object	———————

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	0.106	0.163	0.187
3.4	1.601	0.843	0.755
6.7	2.888	1.499	1.321
10.0	4.150	2.133	1.878
13.4	5.430	2.778	2.447
16.7	6.680	3.402	2.994
20.0	7.920	4.020	3.528
23.4	9.230	4.670	4.090
26.7	-	5.280	4.630
28.0	-	5.530	4.840
30.8	-	6.050	5.300

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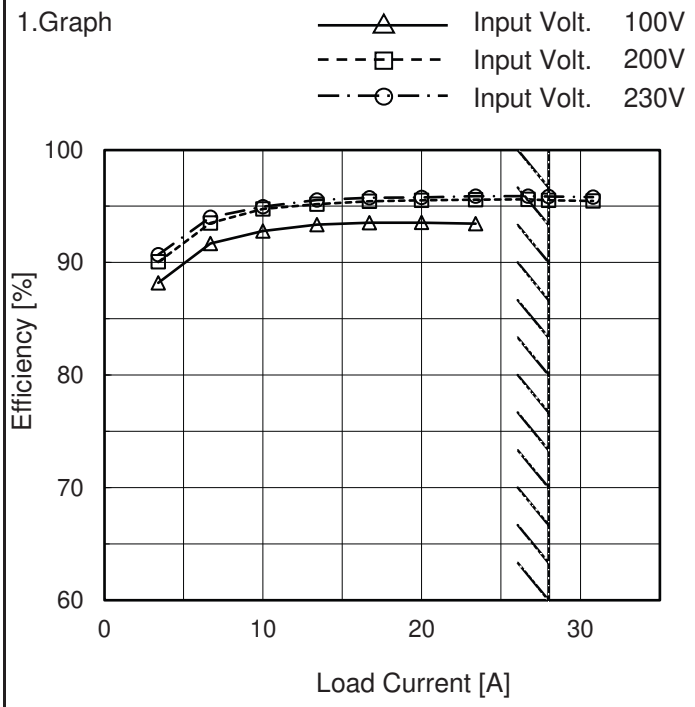
Model	AEA1000F-36
Item	Efficiency (by Load Current)
Object	————————

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	-	-	-
3.4	88.2	90.1	90.7
6.7	91.7	93.5	94.0
10.0	92.8	94.8	94.9
13.4	93.4	95.2	95.6
16.7	93.5	95.4	95.8
20.0	93.6	95.5	95.8
23.4	93.4	95.6	95.9
26.7	-	95.6	95.9
28.0	-	95.5	95.9
30.8	-	95.5	95.8

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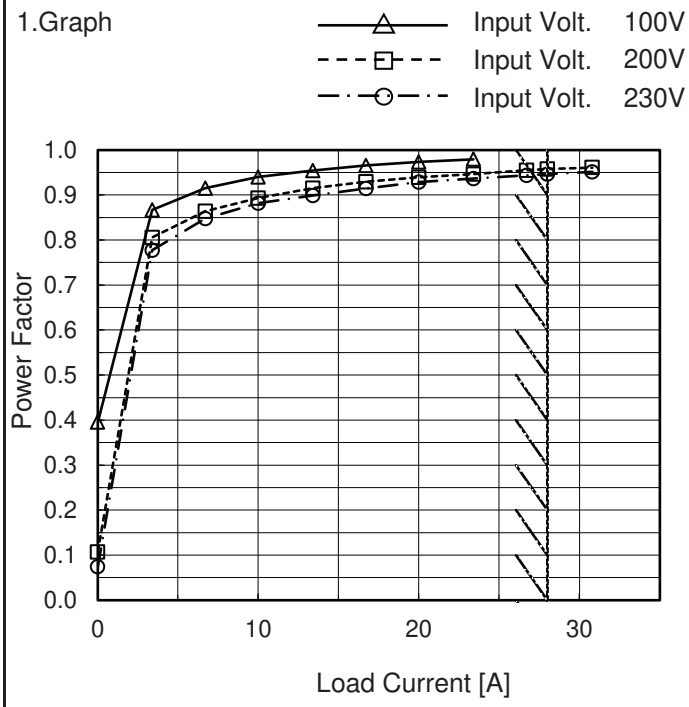
Model	AEA1000F-36
Item	Power Factor (by Load Current)
Object	———————

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	0.395	0.107	0.074
3.4	0.867	0.806	0.778
6.7	0.915	0.864	0.848
10.0	0.940	0.893	0.882
13.4	0.954	0.915	0.899
16.7	0.966	0.929	0.914
20.0	0.973	0.939	0.928
23.4	0.979	0.946	0.936
26.7	-	0.955	0.944
28.0	-	0.957	0.946
30.8	-	0.961	0.952

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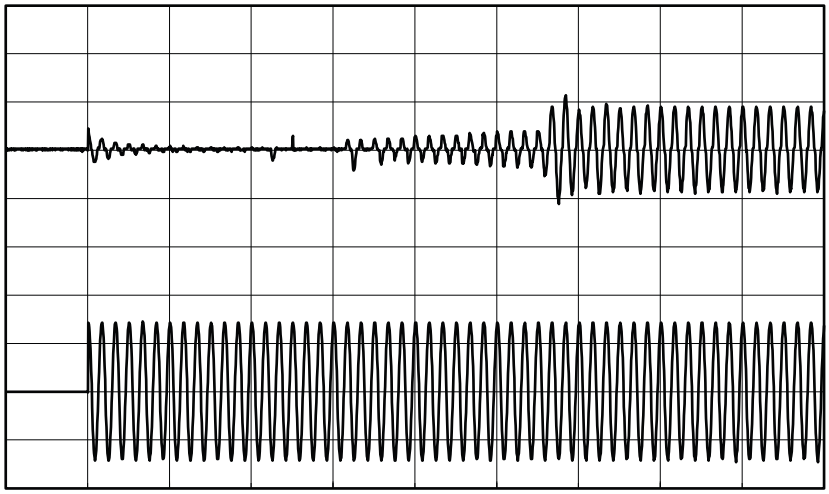
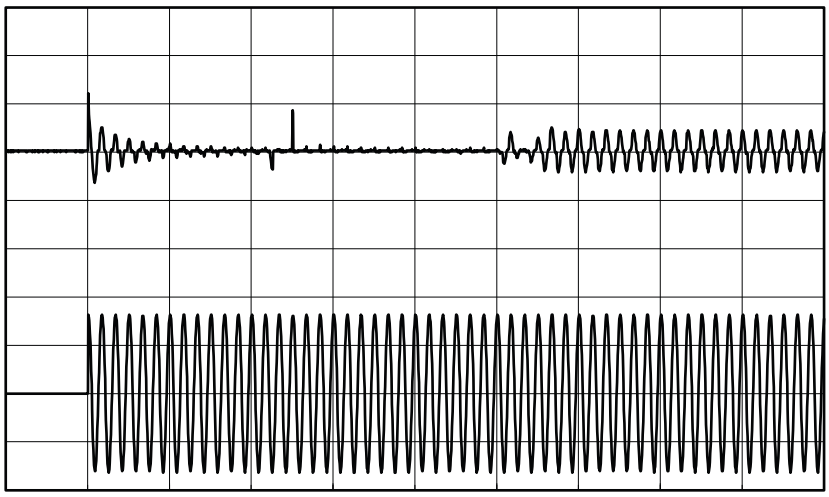
Model	AEA1000F-36
Item	Inrush Current
Object	————————

Temperature 25°C
Testing Circuitry Figure A



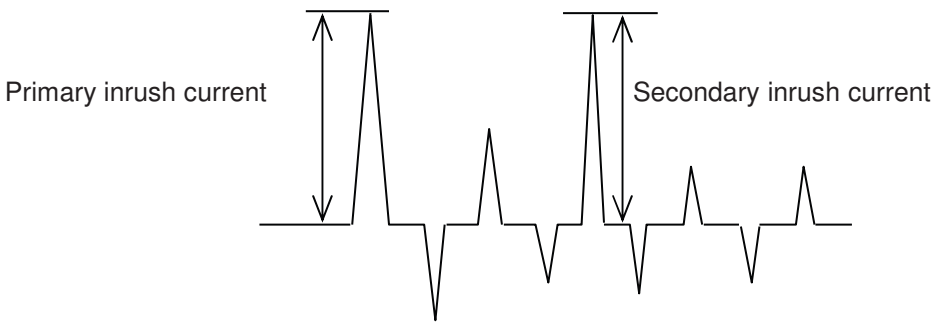
Input Voltage 100 V
Frequency 60 Hz
Load 100 %

Primary inrush current :
8.8 A
Secondary inrush current :
22.6 A



Input Voltage 230 V
Frequency 60 Hz
Load 100 %

Primary inrush current :
24.5 A
Secondary inrush current :
17.2 A



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Model	AEA1000F-36	
Item	Leakage Current	Temperature 25°C 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	0.10	0.18	0.20	Operation
		One of phases	0.15	0.34	0.37	Stand by
IEC62368-1	Figure B-2	Both phases	0.08	0.17	0.19	Operation
		One of phases	0.15	0.33	0.37	Stand by
	Figure B-3	Both phases	0.08	0.17	0.19	Operation
		One of phases	0.15	0.34	0.38	Stand by
IEC60601-1	Figure B-4	Both phases	0.08	0.17	0.19	Operation
		One of phases	0.15	0.34	0.38	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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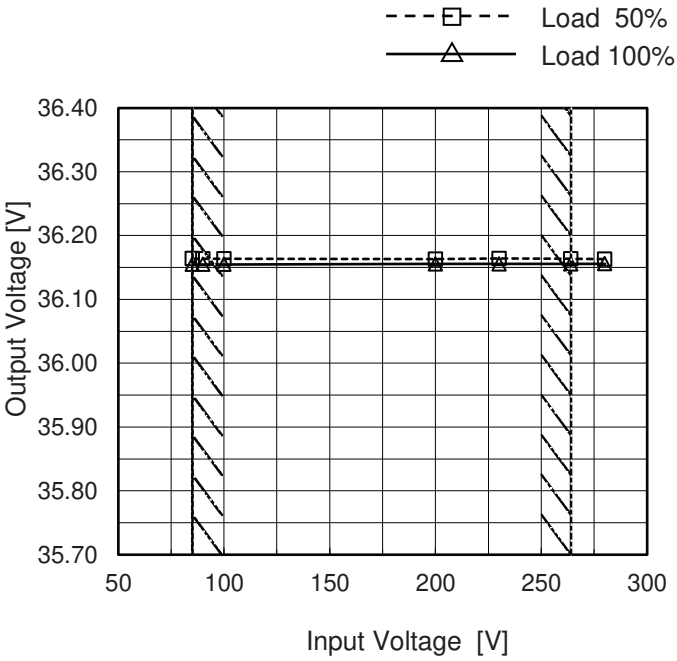
Model	AEA1000F-36
Item	Line Regulation
Object	+36V28A

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	36.164	36.155
90	36.164	36.155
100	36.164	36.155
200	36.163	36.156
230	36.164	36.156
264	36.163	36.156
280	36.163	36.156
--	-	-
--	-	-

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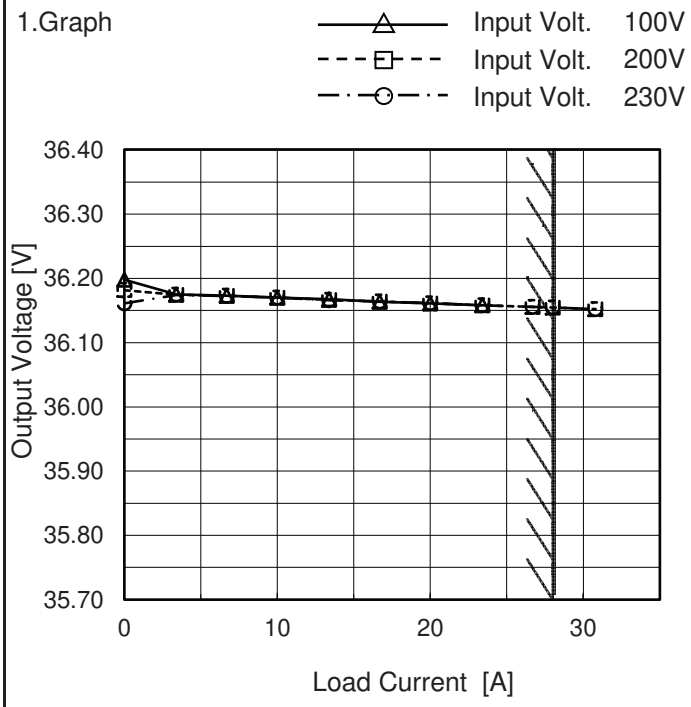
Model	AEA1000F-36
Item	Load Regulation
Object	+36V28A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



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

2.Values

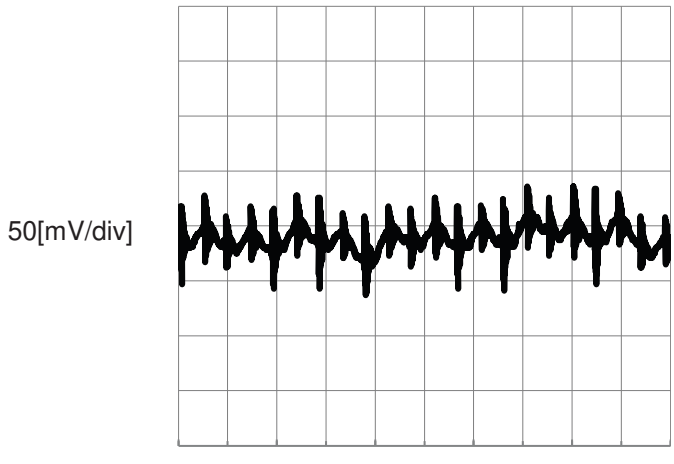
Load Current [A]	Output Voltage [V]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	36.198	36.182	36.161
3.4	36.175	36.175	36.175
6.7	36.173	36.173	36.173
10.0	36.170	36.170	36.170
13.4	36.167	36.166	36.166
16.7	36.164	36.164	36.164
20.0	36.161	36.161	36.161
23.4	36.159	36.158	36.158
26.7	-	36.156	36.156
28.0	-	36.155	36.155
30.8	-	36.152	36.152

Item	Ripple-Noise
Object	+36V28A

Temperature 25°C
Testing Circuitry Figure C

1.Graph

Input Voltage 200V
Load 100%



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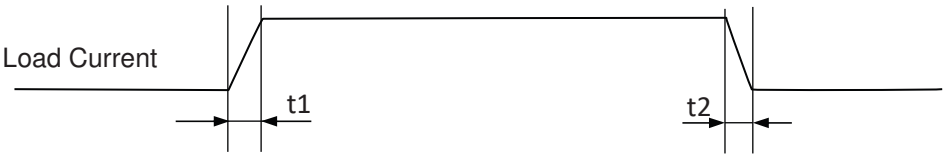
Model	AEA1000F-36
Item	Dynamic Load Response
Object	+36V28A

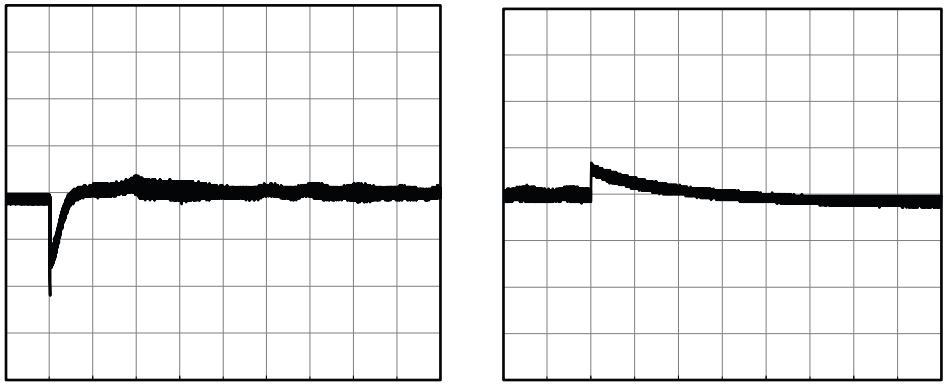
Temperature 25°C
Testing Circuitry Figure A

Input Volt. 200 V
Cycle 1000 ms

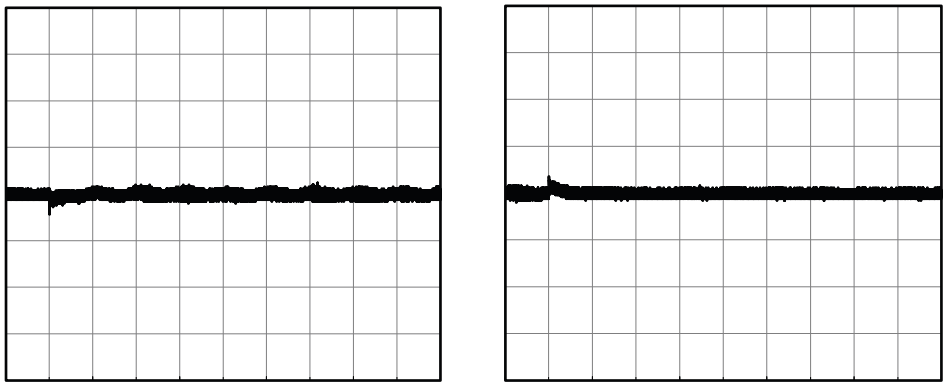
Response. t1=t2=50µs. Typ



Load 0%(0A) ←→
Load 100%(28A)



Load 50%(14A) ←→
Load 100%(28A)



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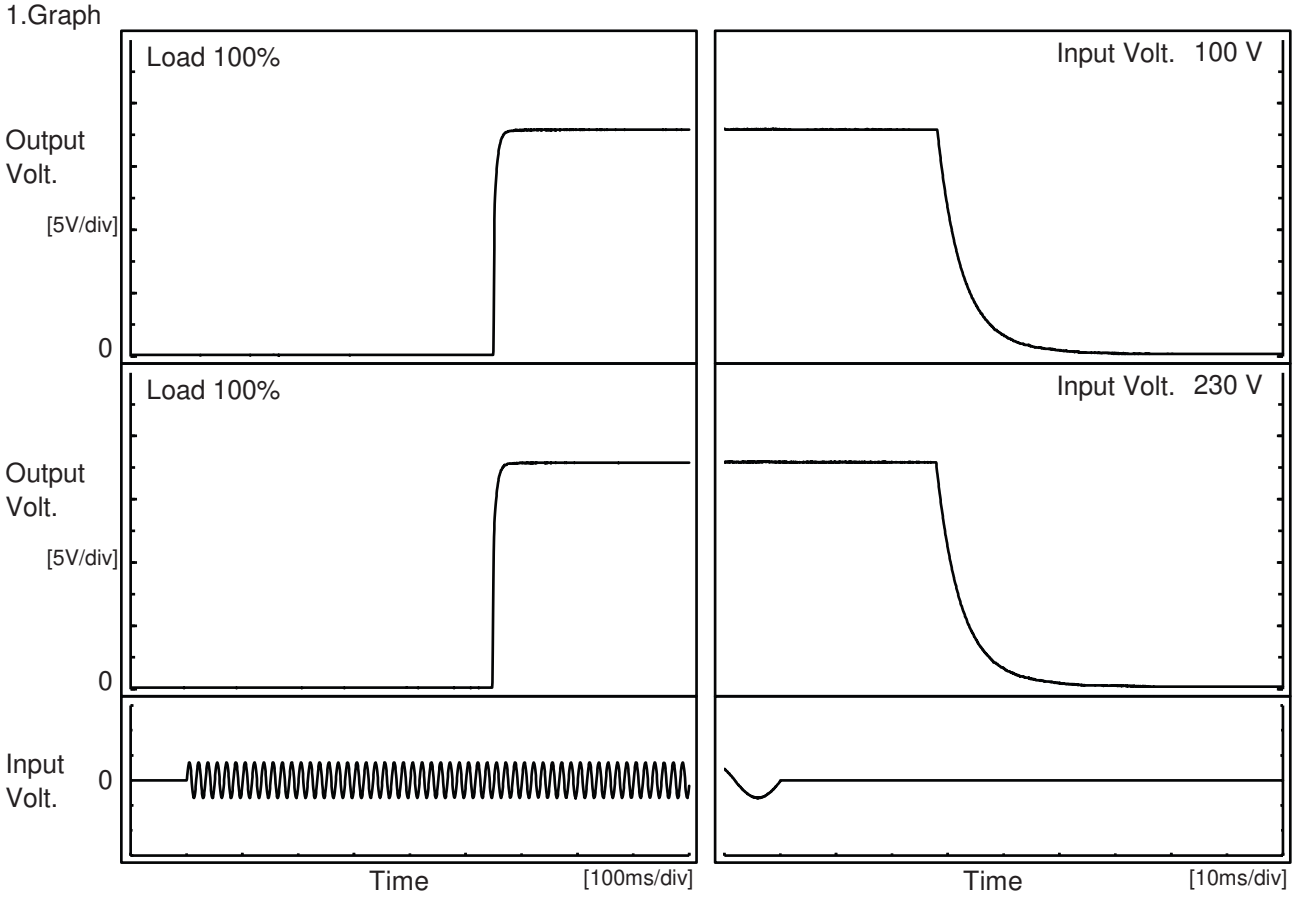
Model	AEA1000F-36
Item	Rise and Fall Time
Object	+36V28A

Temperature 25°C
Testing Circuitry Figure A

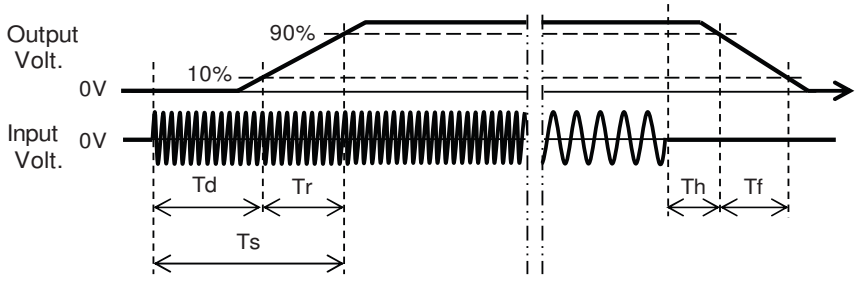
1.Graph



2.Values

[ms]

Input Volt. \ Time	Td	Tr	Ts	Th	Tf
100 V	550.0	9.5	559.5	28.5	10.7
230 V	548.5	9.5	558.0	28.3	10.7



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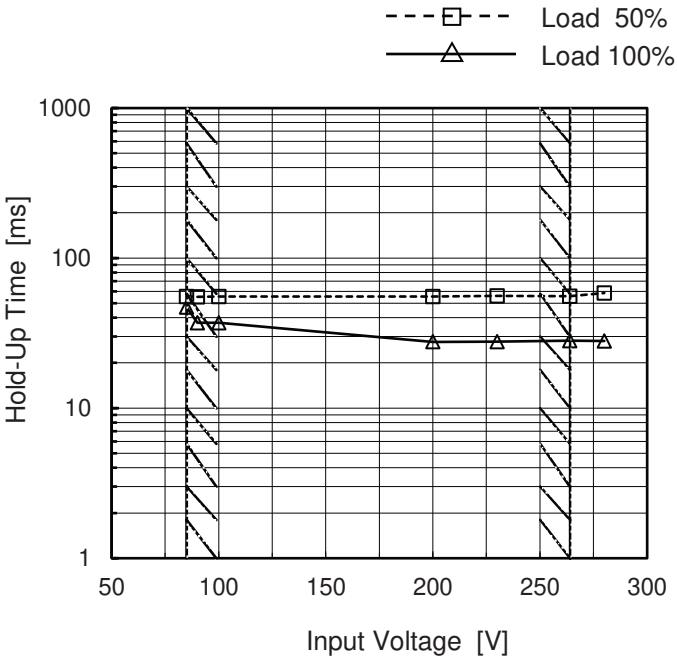
Model	AEA1000F-36
Item	Hold-Up Time
Object	+36V28A

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	47 ※1
90	55	37 ※2
100	55	37 ※2
200	55	28
230	56	28
264	56	28
280	59	28
--	-	-
--	-	-

※1 : Load 60%
※2 : Load 75%

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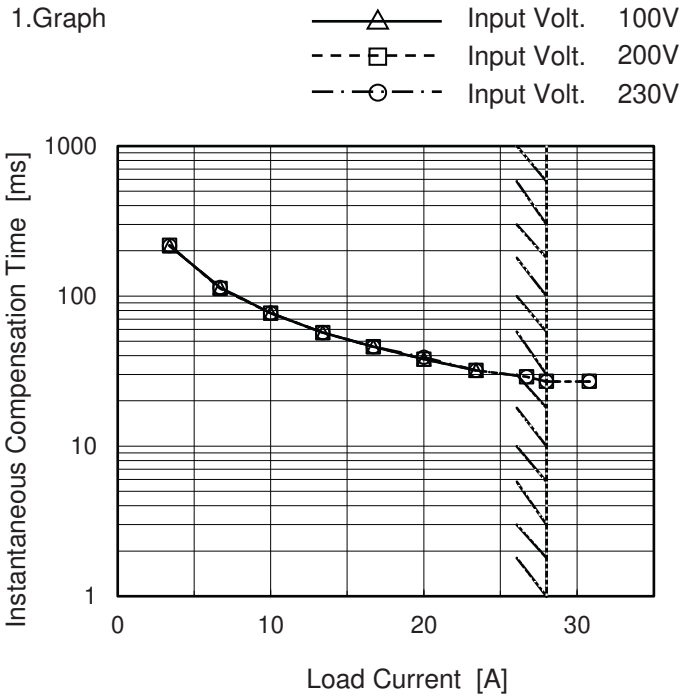
Model	AEA1000F-36
Item	Instantaneous Interruption Compensation
Object	+36V28A

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	-	-	-
3.4	216	218	217
6.7	114	112	114
10.0	77	77	77
13.4	57	57	57
16.7	46	46	46
20.0	38	38	39
23.4	32	32	32
26.7	-	29	29
28.0	-	27	27
30.8	-	27	27

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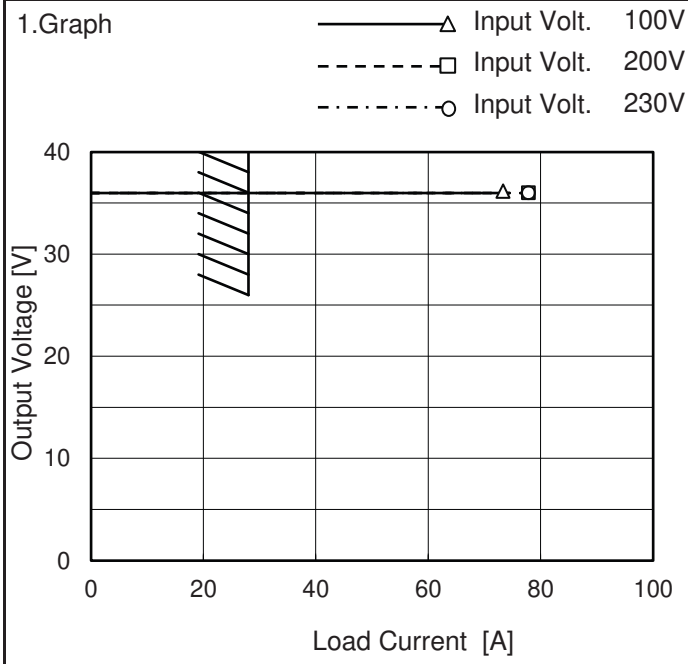
Model	AEA1000F-36
Item	Overcurrent Protection
Object	+36V28A

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]
36	72.68	76.85	76.85
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

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Model	AEA1000F-36
Item	Ambient Temperature Drift
Object	+36V28A

Testing Circuitry Figure A

1.Values

Load 100%

Ambient Temperature[℃]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 200V	Input Volt. 230V
-20	36.095	36.096	36.095
25	36.161	36.162	36.162
50	36.189	36.189	36.190

Item	Minimum Input Voltage for Regulated Output Voltage
Object	+36V28A

Testing Circuitry Figure A

1.Values

Ambient Temperature[℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	75	75
25	75	76
50	74	76

Item	Overvoltage Protection
Object	+36V28A

Testing Circuitry Figure A

1.Values

Load 0%

Ambient Temperature[℃]	Operating Point [V]	
	Input Volt. 100V	Input Volt. 200V
-20	46.77	46.83
25	48.64	48.64
50	49.64	49.64

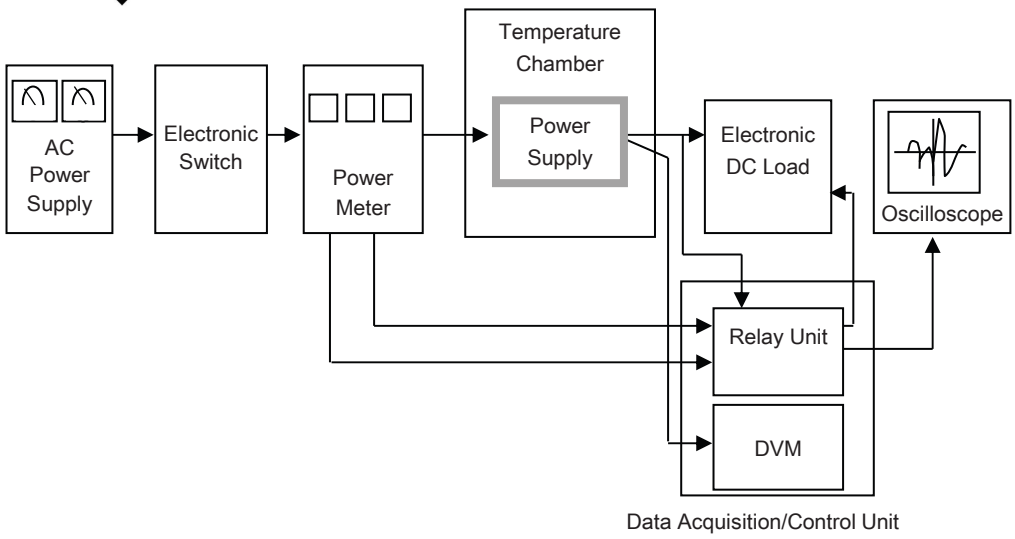

Figure A

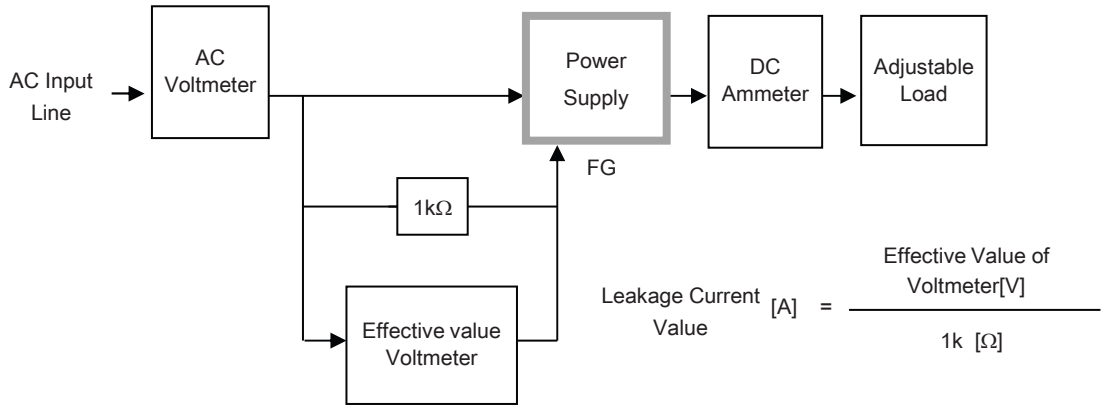

Figure B-1 (DEN-AN)

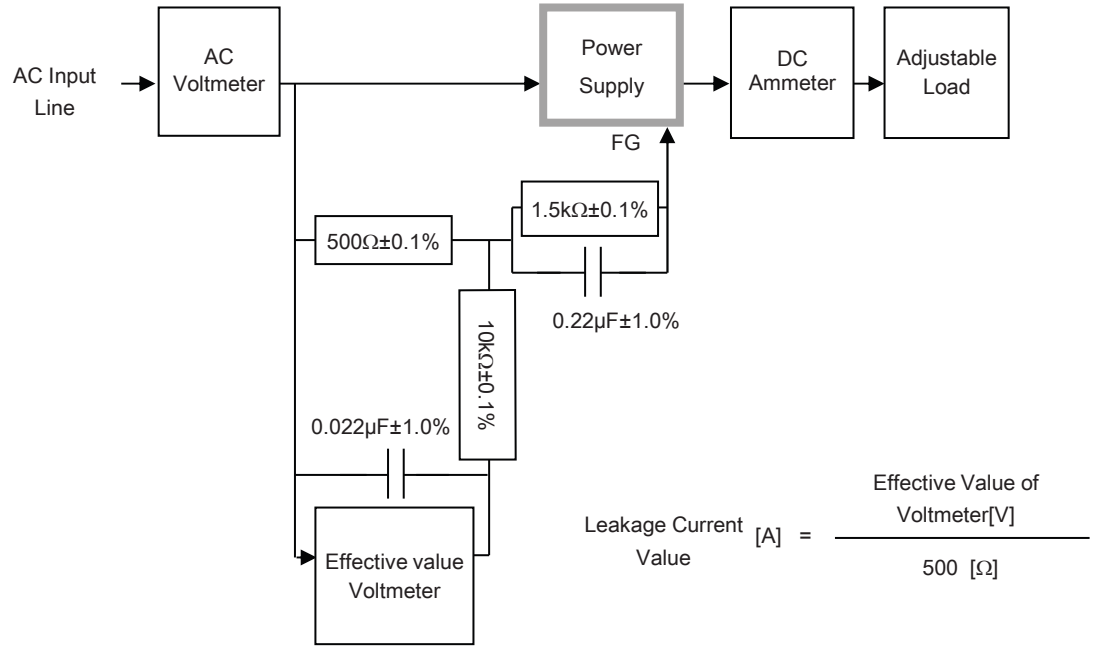

Figure B-2 (IEC62368-1 refer to IEC60990 Fig.4)

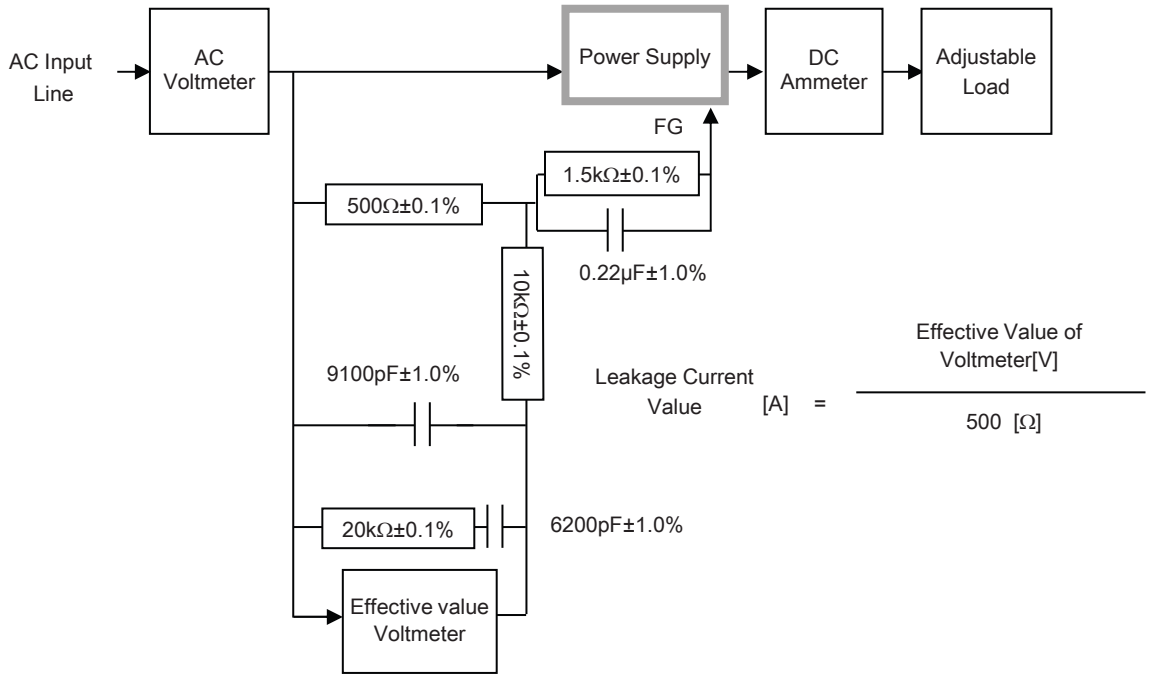

Figure B-3 (IEC62368-1 refer to IEC60990 Fig.5)

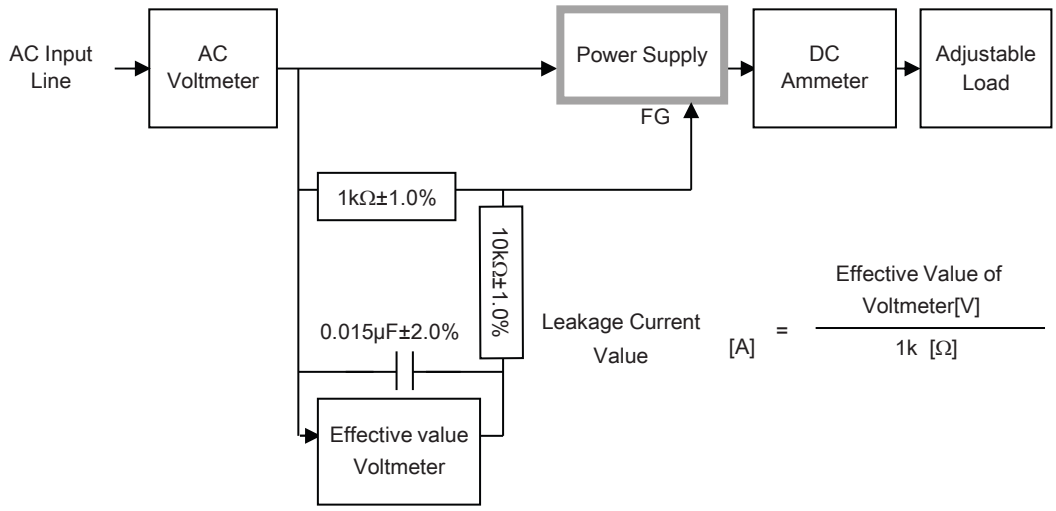

Figure B-4 (IEC60601-1)

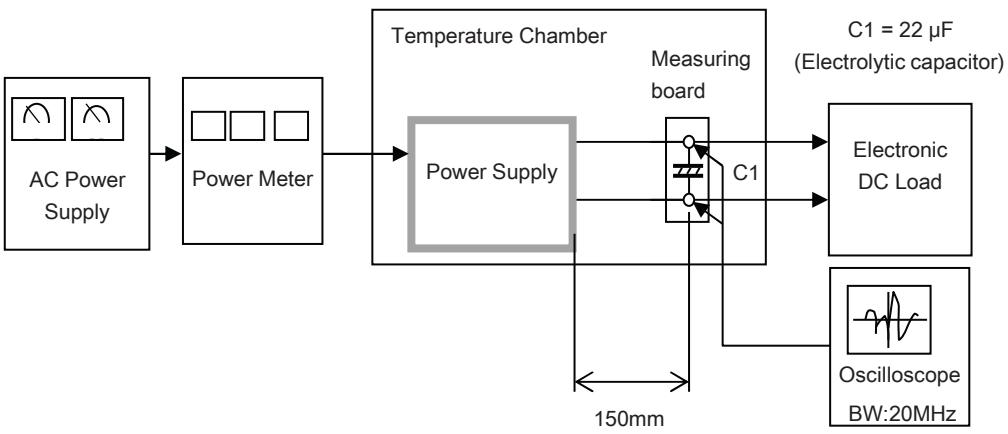

Figure C