

TEST DATA OF PCA1500F-12

Regulated DC Power Supply
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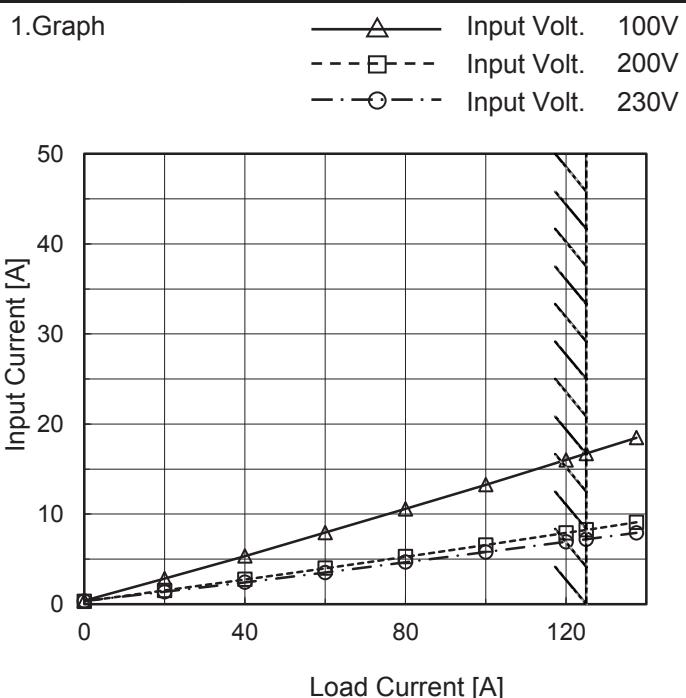
CONTENTS

1.Input Current (by Load Current)	1
2.Efficiency (by Load Current)	2
3.Power Factor (by Load Current)	3
4.Inrush Current	4
5.Leakage Current	5
6.Line Regulation	6
7.Load Regulation	7
8.Ripple-Noise	7
9.Dynamic Load Response	8
10.Rise and Fall Time	9
11.Hold-Up Time	10
12.Instantaneous Interruption Compensation	11
13.Overcurrent Protection	12
14.Ambient Temperature Drift	13
15.Minimum Input Voltage for Regulated Output Voltage	13
16.Overvoltage Protection	13
17.Figure of Testing Circuitry	14

(Final Page 15)

Model	PCA1500F-12
Item	Input Current (by Load Current)
Object	_____

Temperature 25°C
Testing Circuitry Figure A



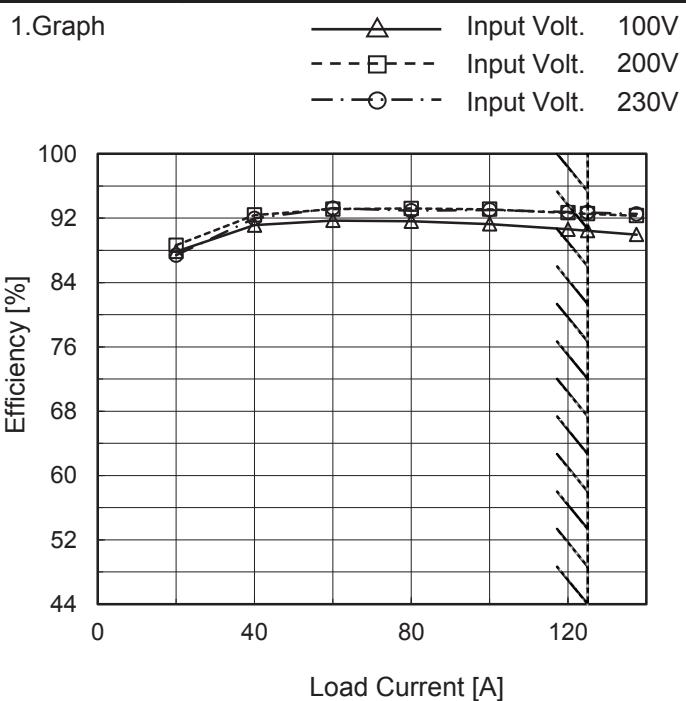
2.Values

Load Current [A]	Input Current [A]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	0.379	0.311	0.349
20.0	2.819	1.506	1.375
40.0	5.340	2.731	2.424
60.0	7.940	3.990	3.505
80.0	10.580	5.260	4.660
100.0	13.260	6.560	5.770
120.0	16.010	7.910	6.910
125.0	16.710	8.250	7.200
137.5	18.470	9.080	7.910
--	-	-	-
--	-	-	-

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

Model	PCA1500F-12
Item	Efficiency (by Load Current)
Object	_____

Temperature 25°C
Testing Circuitry Figure A



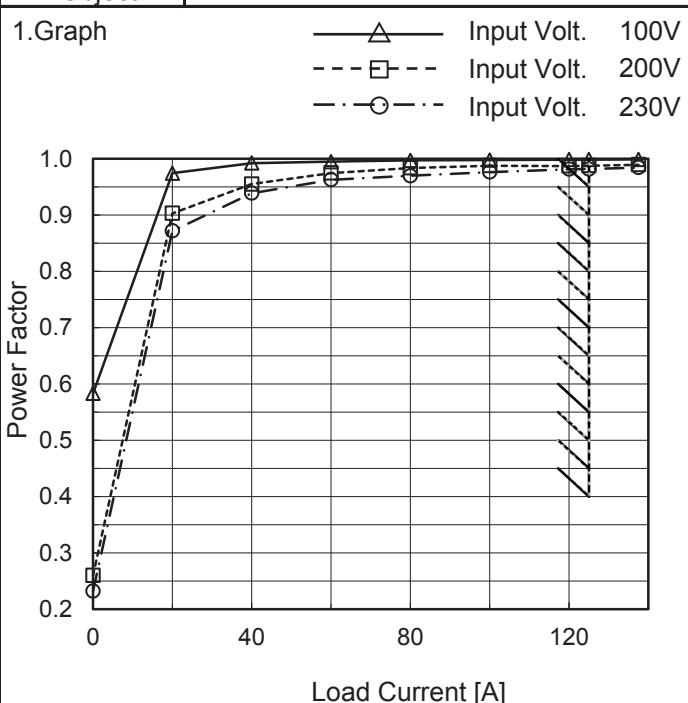
2.Values

Load Current [A]	Efficiency [%]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	-	-	-
20.0	87.9	88.6	87.4
40.0	91.1	92.4	92.0
60.0	91.7	93.1	93.2
80.0	91.6	93.2	92.9
100.0	91.3	93.1	93.0
120.0	90.6	92.7	92.8
125.0	90.4	92.5	92.7
137.5	90.0	92.3	92.5
--	-	-	-
--	-	-	-

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

Model	PCA1500F-12
Item	Power Factor (by Load Current)
Object	_____

Temperature 25°C
Testing Circuitry Figure A

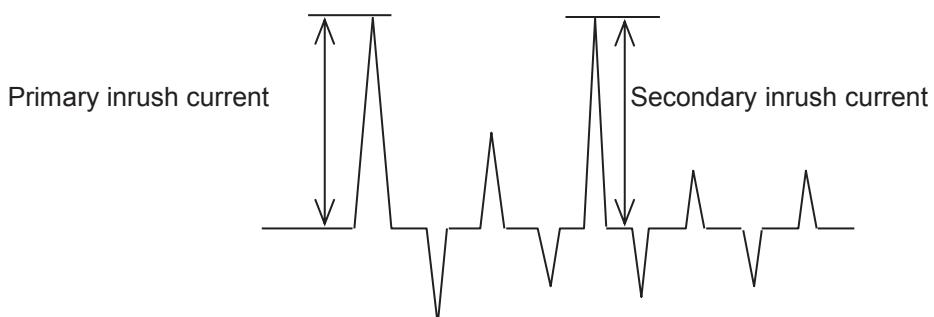
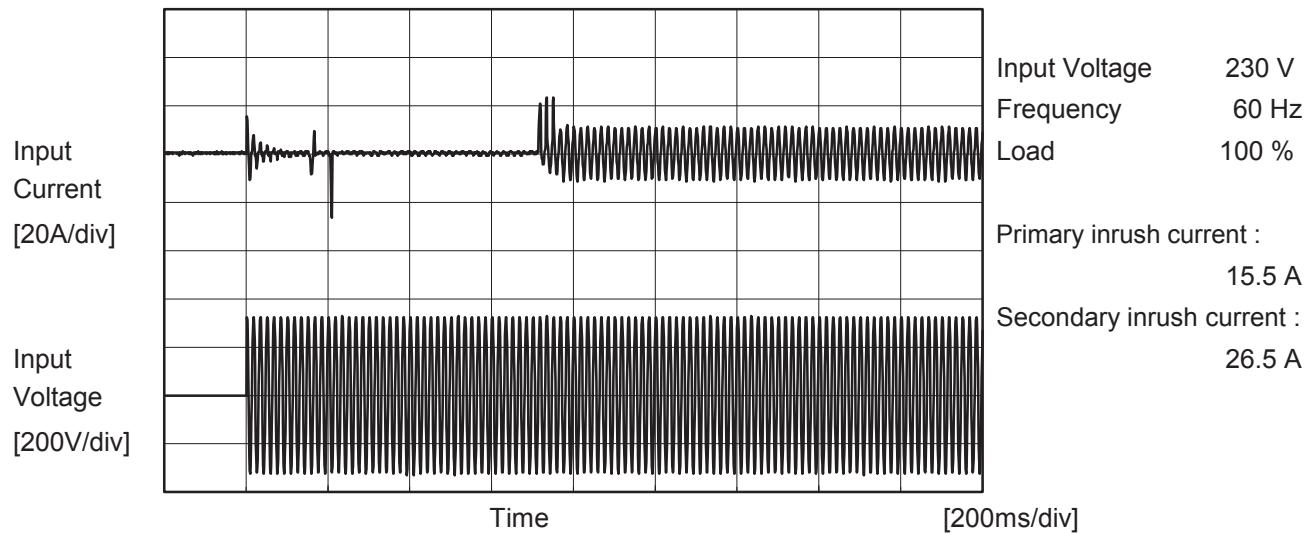
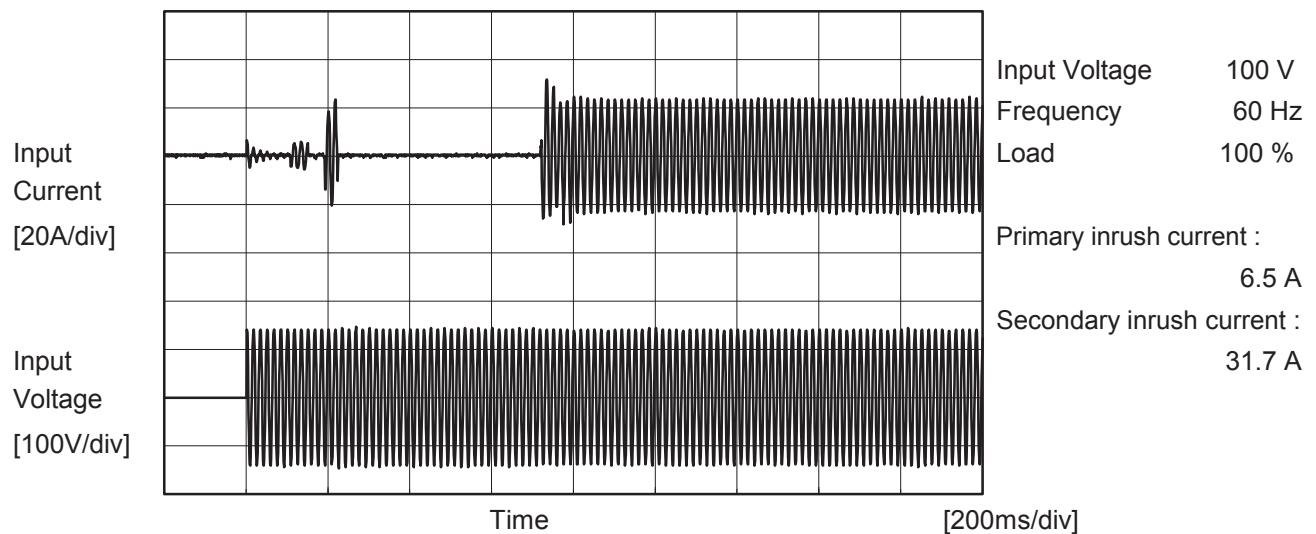


2.Values

Load Current [A]	Power Factor		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	0.583	0.260	0.232
20.0	0.974	0.903	0.872
40.0	0.992	0.955	0.939
60.0	0.995	0.975	0.963
80.0	0.997	0.984	0.970
100.0	0.998	0.988	0.977
120.0	0.999	0.987	0.982
125.0	0.999	0.988	0.982
137.5	0.999	0.990	0.985
--	-	-	-
--	-	-	-

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

Model	PCA1500F-12	Temperature	25°C
Item	Inrush Current	Testing Circuitry	Figure A
Object	_____		



Model	PCA1500F-12	Temperature Testing Circuitry	25°C Figure B
Item	Leakage Current		
Object	_____		

Standards	Testing Circuitry	Measuring Method	Input Volt.			Note
			100 [V]	230 [V]	240 [V]	
DEN-AN	Figure B-1	Both phases	0.23	0.28	0.29	Operation
		One of phases	0.23	0.55	0.58	Stand by
IEC62368-1	Figure B-2	Both phases	0.15	0.27	0.29	Operation
		One of phases	0.22	0.53	0.56	Stand by
IEC60601-1	Figure B-3	Both phases	0.22	0.30	0.32	Operation
		One of phases	0.23	0.56	0.58	Stand by
	Figure B-4	Both phases	0.18	0.28	0.30	Operation
		One of phases	0.22	0.57	0.62	Stand by

Note:

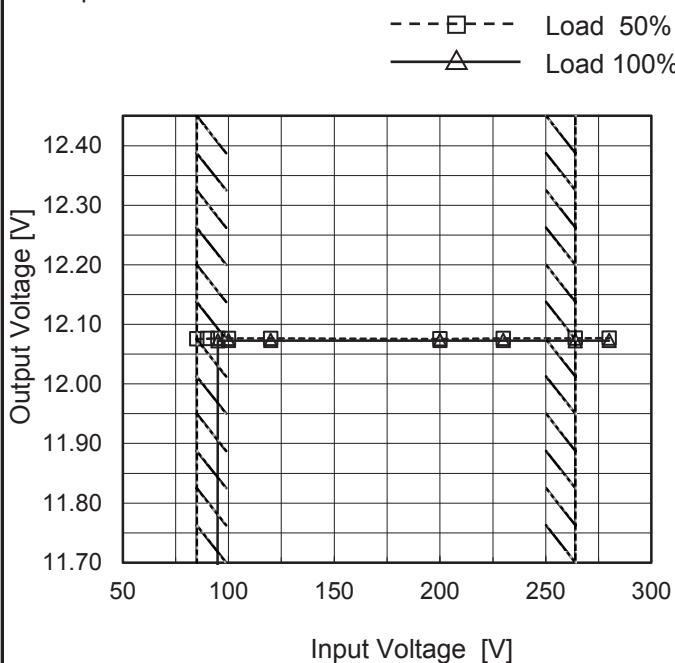
The value of "One of phases" is for reference only.

The above value is the larger one of each phase of AC input.

Model	PCA1500F-12
Item	Line Regulation
Object	+12V125A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



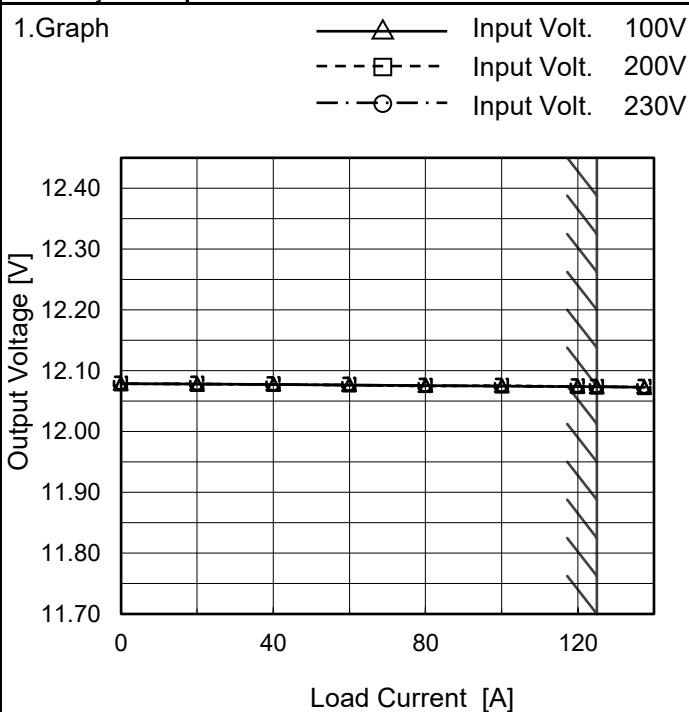
2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
85	12.076	-
90	12.076	-
95	12.076	12.073
100	12.076	12.073
120	12.076	12.073
200	12.076	12.073
230	12.076	12.073
264	12.077	12.073
280	12.077	12.073

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

Model	PCA1500F-12
Item	Load Regulation
Object	+12V125A

Temperature 25°C
Testing Circuitry Figure A



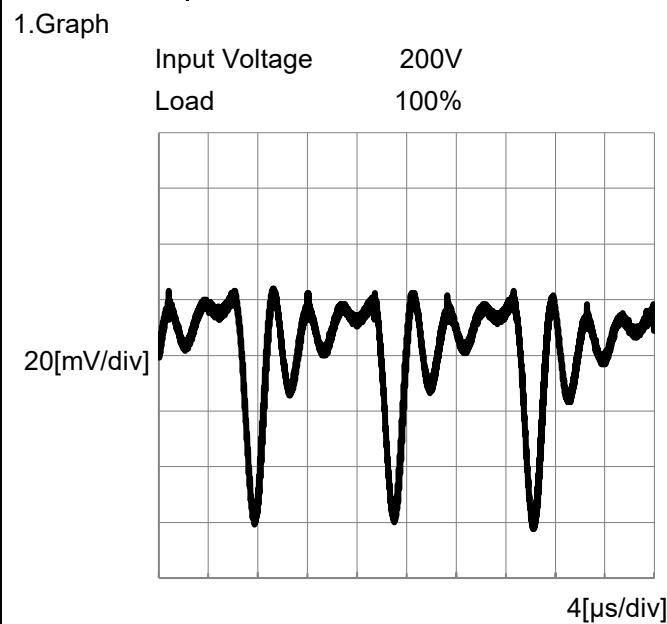
2.Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	12.079	12.079	12.079
20.0	12.078	12.078	12.078
40.0	12.078	12.078	12.077
60.0	12.077	12.077	12.076
80.0	12.076	12.075	12.076
100.0	12.075	12.075	12.075
120.0	12.074	12.074	12.074
125.0	12.074	12.074	12.073
137.5	12.073	12.073	12.073
--	--	--	--
--	--	--	--

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

Item	Ripple-Noise
Object	+12V125A

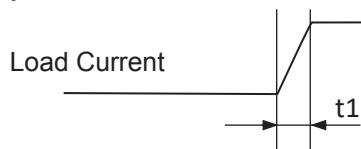
Temperature 25°C
Testing Circuitry Figure C



Model	PCA1500F-12	Temperature	25°C
Item	Dynamic Load Response	Testing Circuitry	Figure A
Object	+12V125A		

Input Volt. 200 V
Cycle 1000 ms

Response. $t_1=t_2=50\mu s$. Typ



Load 0%(0A) \longleftrightarrow
Load 100%(125A)

1[V/div]

2[ms/div]

20[ms/div]

Load 0%(0A) \longleftrightarrow
Load 50%(62.5A)

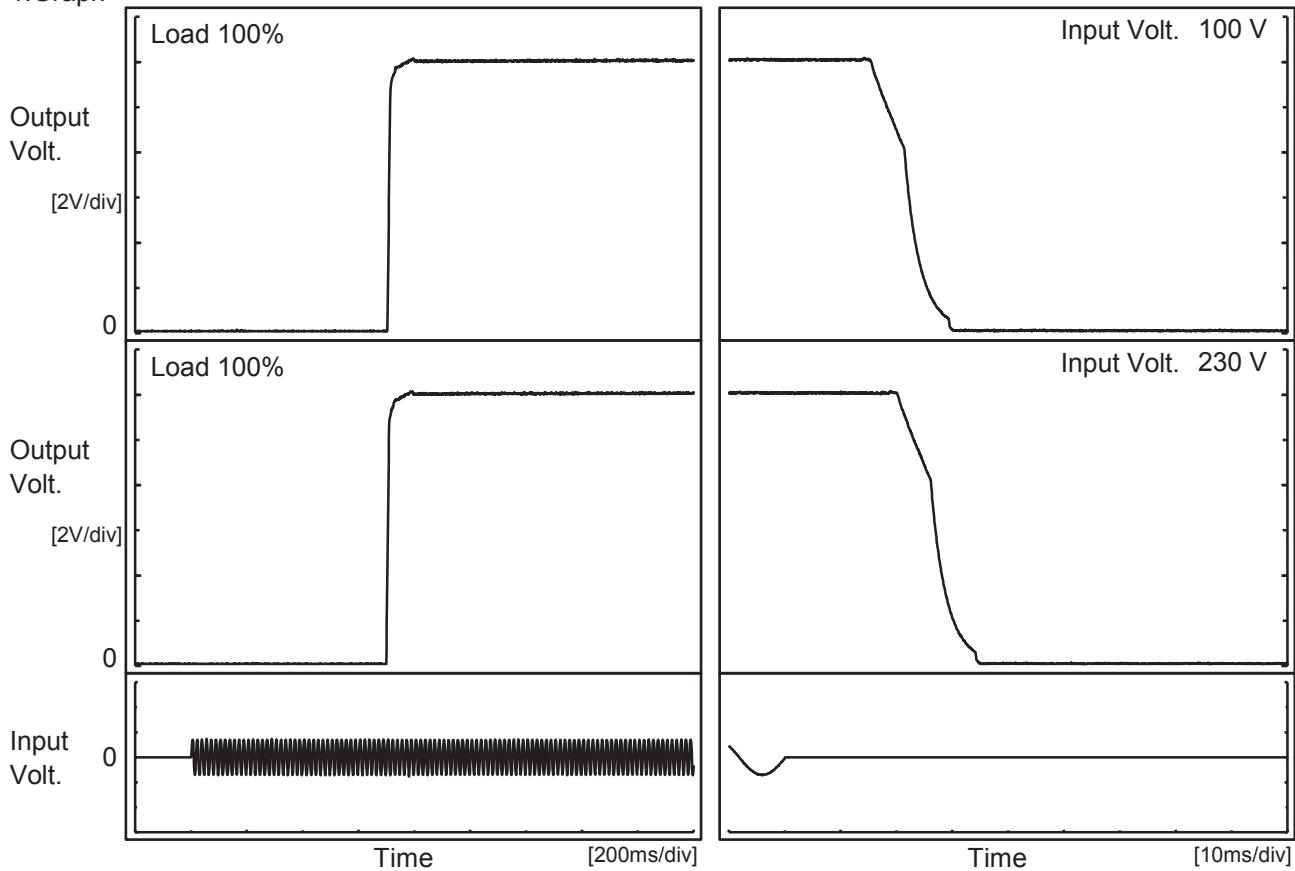
1[V/div]

2[ms/div]

20[ms/div]

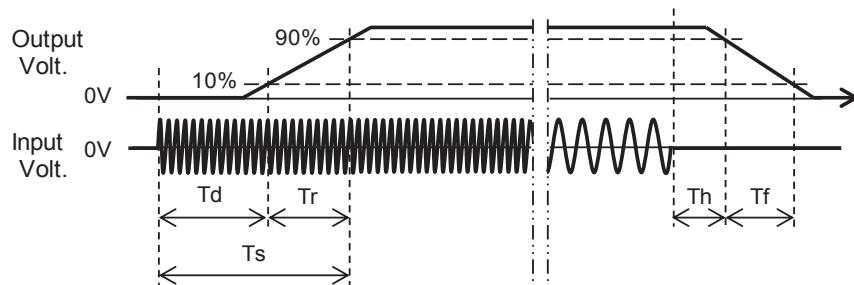
Model	PCA1500F-12	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+12V125A		

1. Graph



2. Values

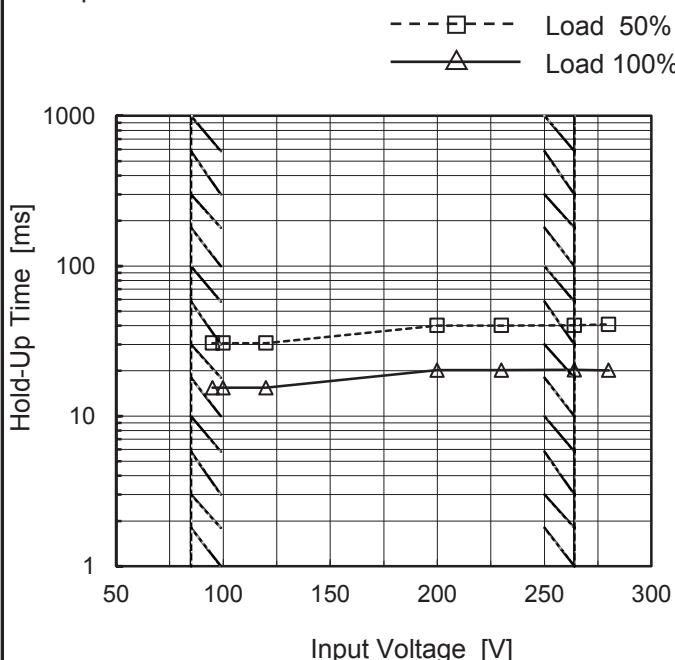
Input Volt.	Time	Td	Tr	Ts	Th	Tf	[ms]
100 V		705.0	10.0	715.0	17.0	10.0	
230 V		701.0	10.0	711.0	21.8	9.8	



Model	PCA1500F-12
Item	Hold-Up Time
Object	+12V125A

Temperature 25°C
Testing Circuitry Figure A

1. Graph



2. Values

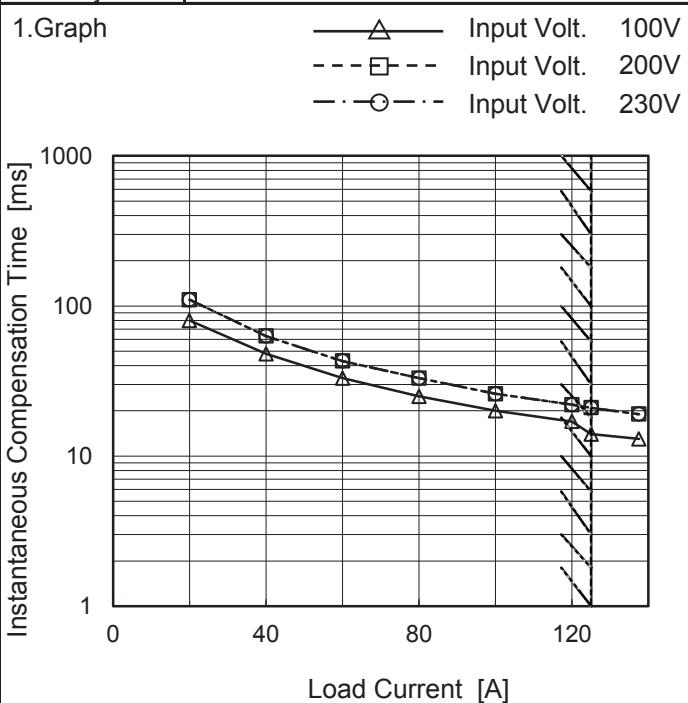
Input Voltage [V]	Hold-Up Time [ms]	
	Load 50%	Load 100%
85	31	-
90	31	-
95	31	15
100	31	15
120	31	15
200	40	20
230	40	20
264	40	20
280	41	20

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.

Model	PCA1500F-12
Item	Instantaneous Interruption Compensation
Object	+12V125A

Temperature 25°C
Testing Circuitry Figure A



2. Values

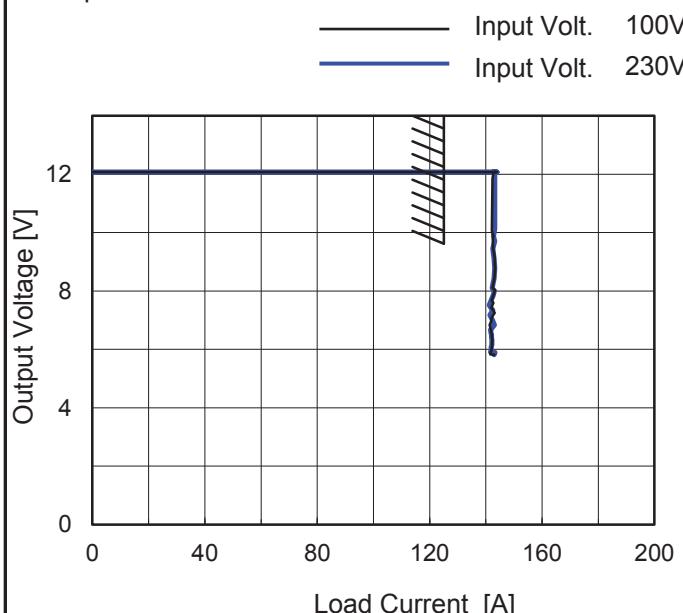
Load Current [A]	Time [ms]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	-	-	-
20.0	80	110	110
40.0	48	63	63
60.0	33	43	43
80.0	25	33	33
100.0	20	26	26
120.0	17	22	22
125.0	14	21	21
137.5	13	19	19
--	-	-	-
--	-	-	-

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

Model	PCA1500F-12
Item	Overcurrent Protection
Object	+12V125A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



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

2.Values

Output Voltage [V]	Load Current [A]	
	Input Volt. 100[V]	Input Volt. 230[V]
11.4	142.38	143.18
10.8	142.15	143.15
9.6	142.51	143.20
8.4	142.98	142.89
7.2	143.14	142.43
6.0	142.10	141.95
--	-	-
--	-	-
--	-	-
--	-	-
--	-	-
--	-	-

Model	PCA1500F-12	Testing Circuitry Figure A
Item	Ambient Temperature Drift	
Object	+12V125A	

1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 200V	Input Volt. 230V
-20	12.039	12.039	12.038
25	12.074	12.074	12.075
50	12.078	12.077	12.077

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A	
Object	+12V125A		

1.Values

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

Item	Overvoltage Protection	Testing Circuitry Figure A	
Object	+12V125A		

1.Values

Load 0%

Ambient Temperature[°C]	Operating Point [V]	
	Input Volt. 100V	Input Volt. 230V
-20	15.45	15.45
25	15.45	15.45
50	15.45	15.45

COSEL

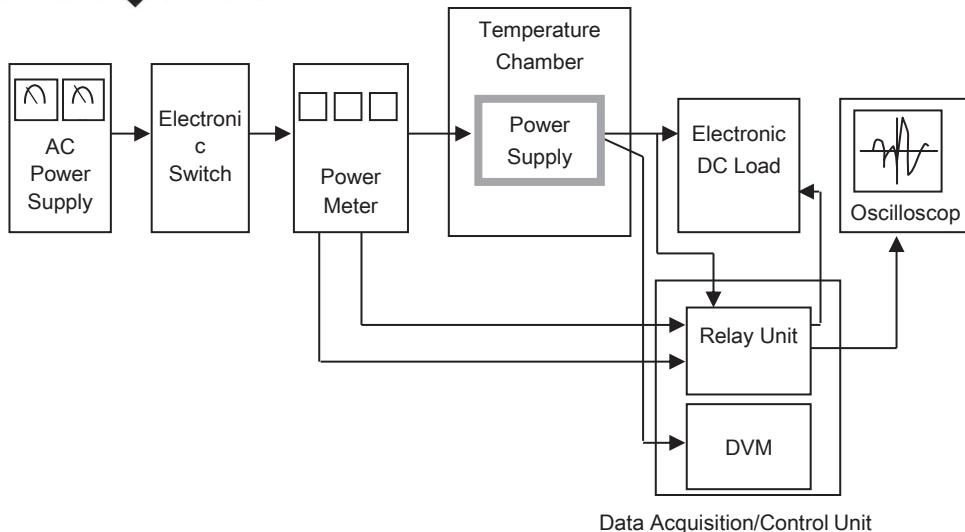


Figure A

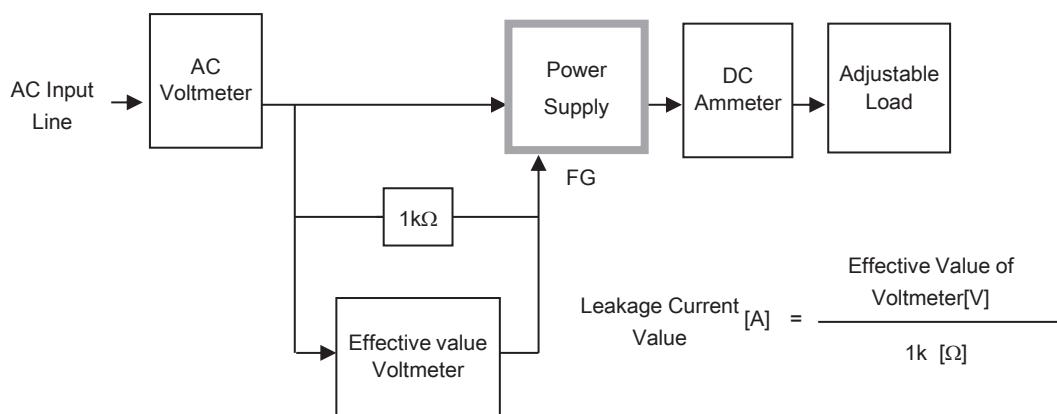


Figure B-1 (DEN-AN)

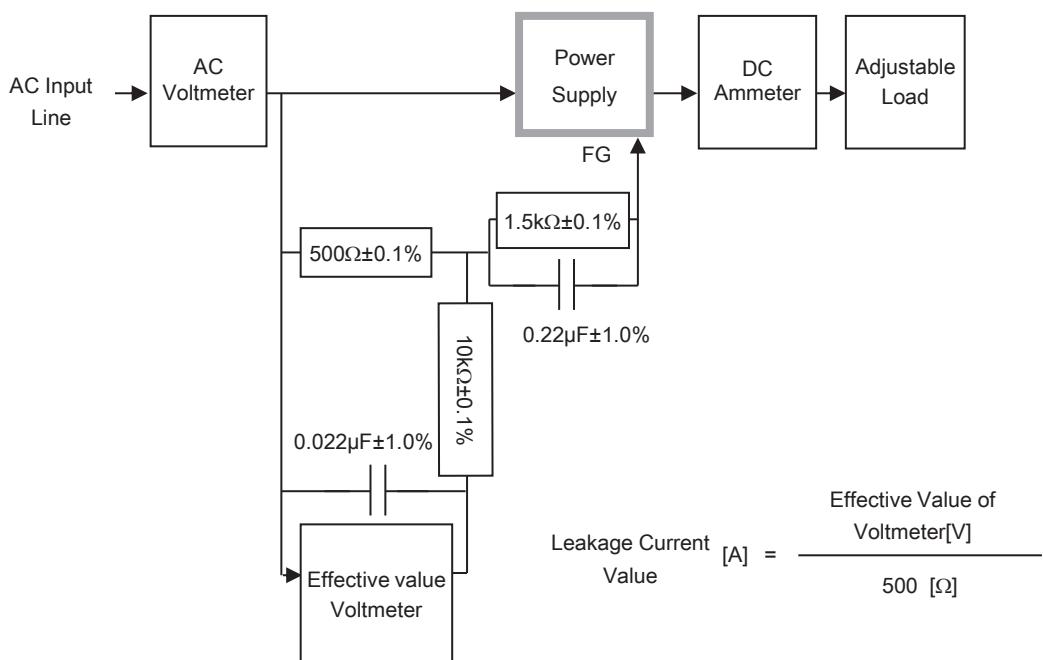


Figure B-2 (IEC62368-1 refer to IEC60990 Fig.4)

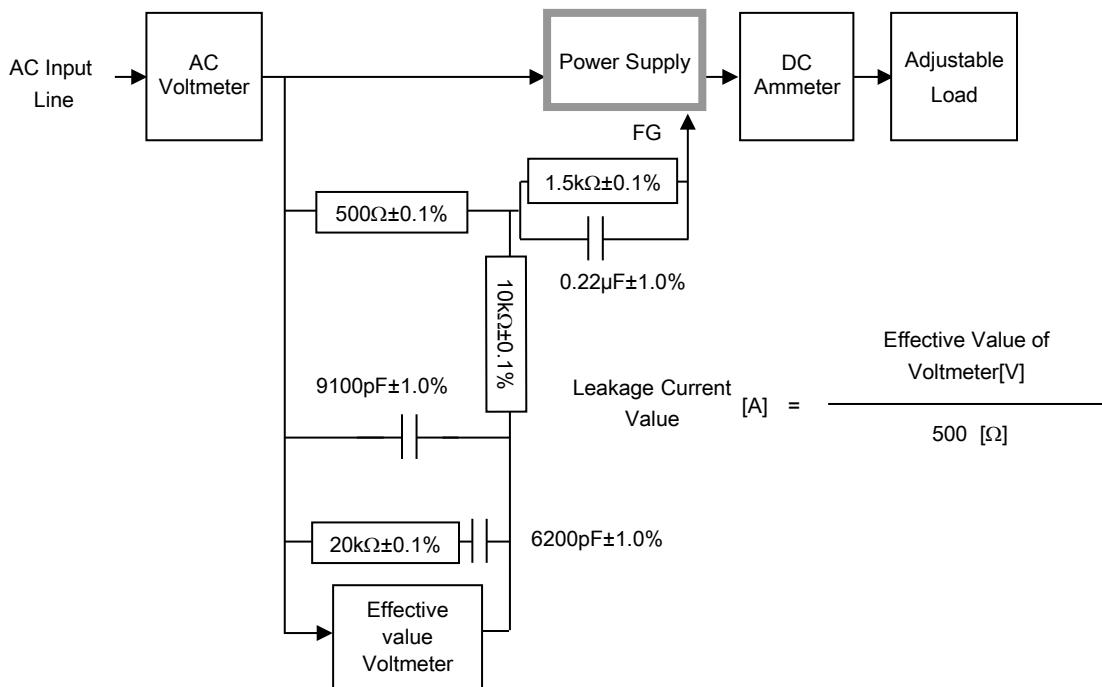


Figure B-3 (IEC62368-1 refer to IEC60990 Fig.5)

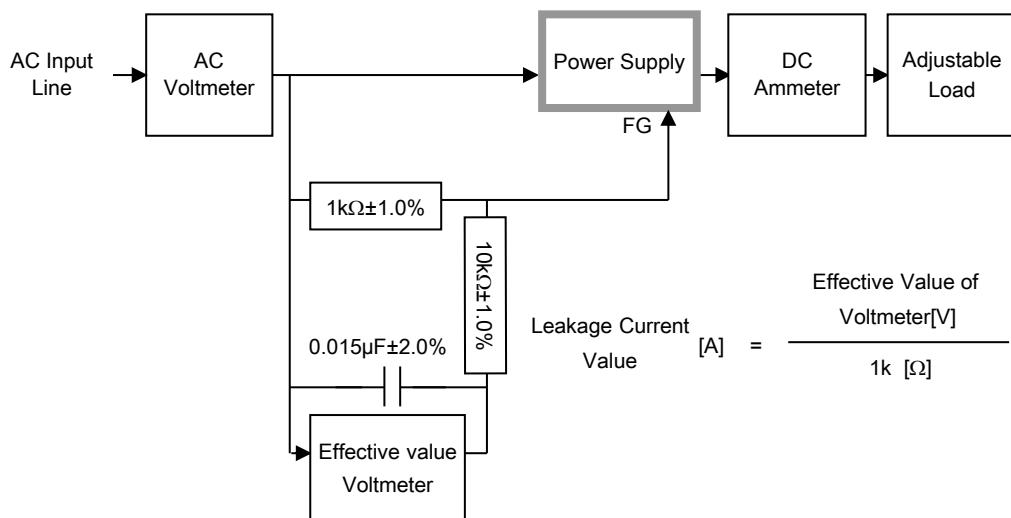


Figure B-4 (IEC60601-1)

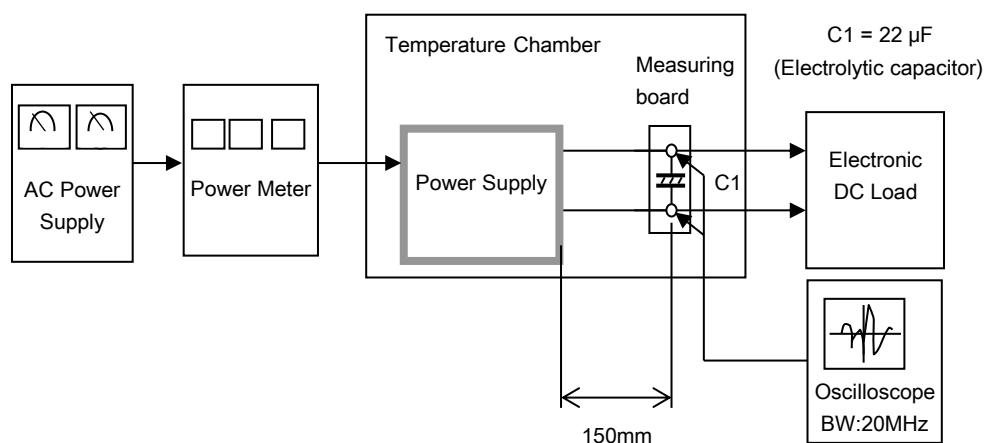


Figure C