COSEL

Reference

TEST DATA OF PJMA300F-48

Regulated DC Power Supply
September 6, 2021

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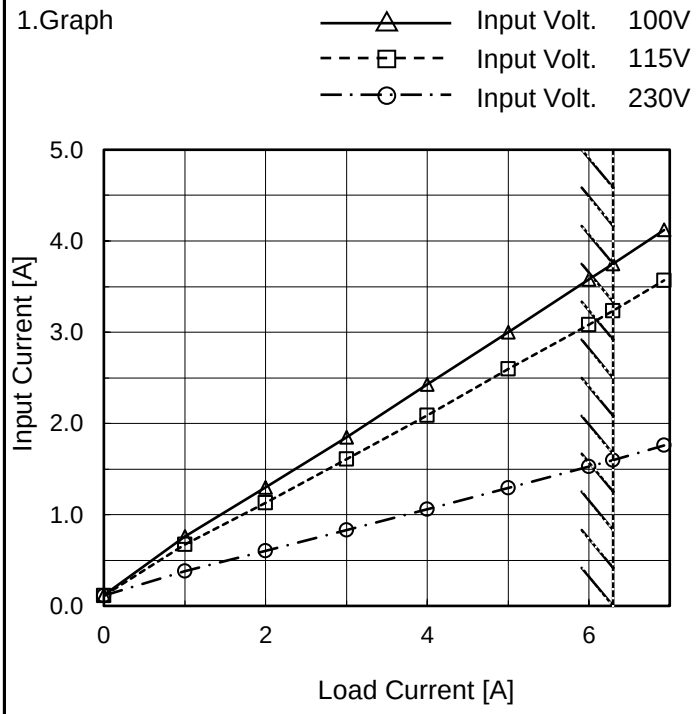
Model	PJMA300F-48
Item	Input Current (by Load Current)
Object	———————

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. 115[V]	Input Volt. 230[V]
0.00	0.118	0.112	0.113
1.00	0.764	0.672	0.382
2.00	1.298	1.130	0.602
3.00	1.849	1.611	0.831
4.00	2.428	2.090	1.057
5.00	3.000	2.596	1.293
6.00	3.581	3.084	1.528
6.30	3.746	3.234	1.600
6.93	4.120	3.568	1.759
--	-	-	-
--	-	-	-

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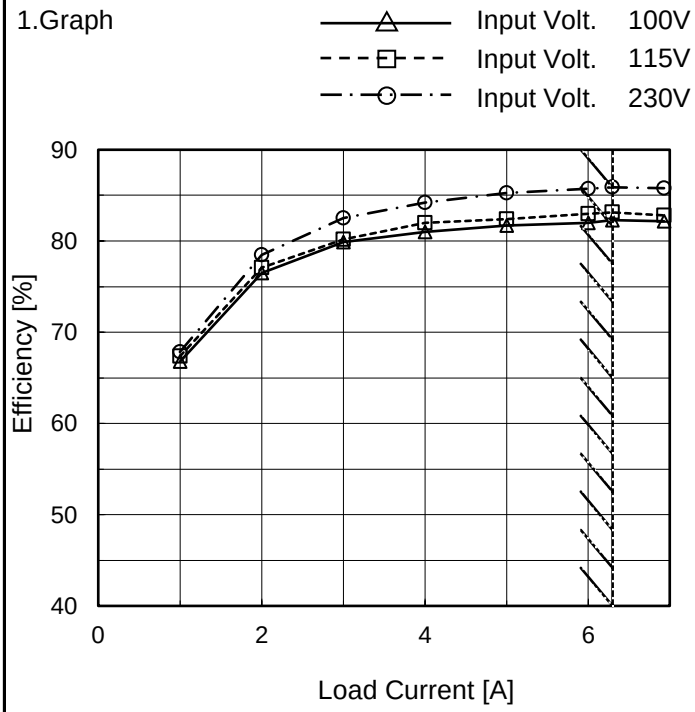
Model	PJMA300F-48
Item	Efficiency (by Load Current)
Object	———————

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. 115[V]	Input Volt. 230[V]
0.00	-	-	-
1.00	66.8	67.4	67.8
2.00	76.5	77.1	78.5
3.00	79.9	80.2	82.5
4.00	81.0	82.0	84.2
5.00	81.7	82.4	85.3
6.00	82.0	83.0	85.7
6.30	82.3	83.1	85.9
6.93	82.2	82.8	85.8
--	-	-	-
--	-	-	-

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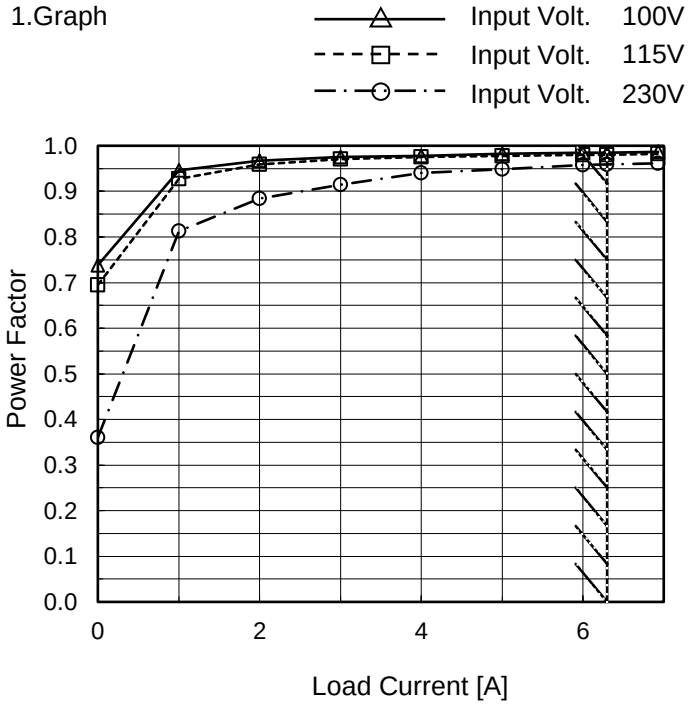
Model	PJMA300F-48
Item	Power Factor (by Load Current)
Object	————————

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. 115[V]	Input Volt. 230[V]
0.00	0.738	0.695	0.360
1.00	0.946	0.928	0.812
2.00	0.967	0.959	0.885
3.00	0.975	0.970	0.915
4.00	0.978	0.976	0.940
5.00	0.982	0.978	0.949
6.00	0.984	0.980	0.958
6.30	0.985	0.981	0.960
6.93	0.987	0.982	0.961
--	-	-	-
--	-	-	-

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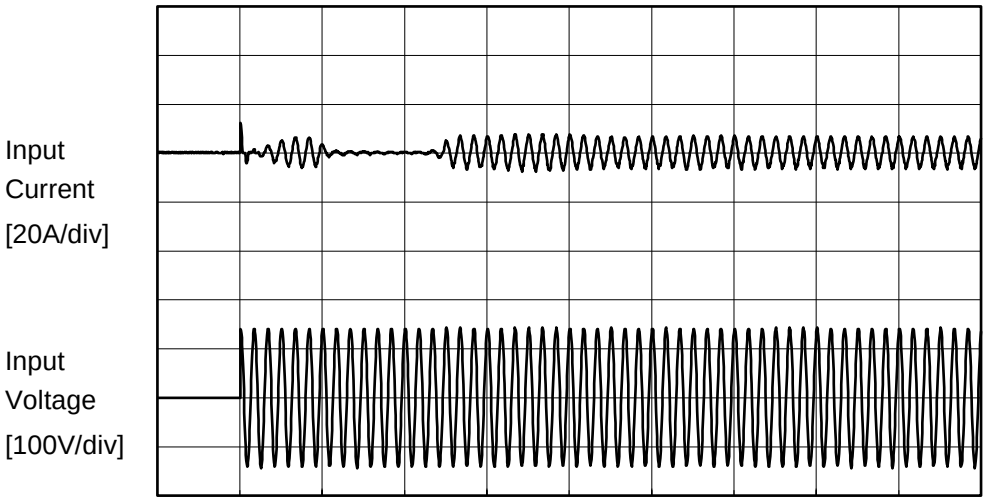
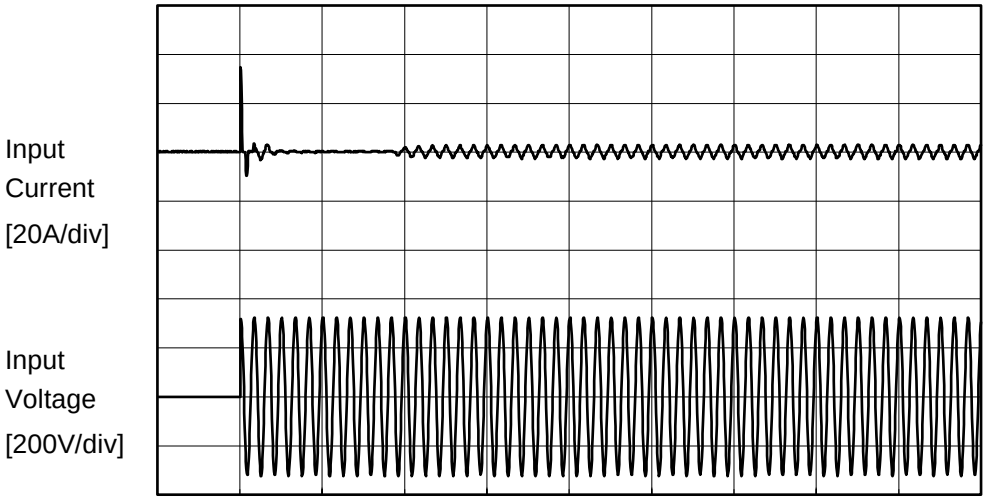
Model	PJMA300F-48		
Item	Inrush Current	Temperature	25°C
		Testing Circuitry	Figure A
Object	———————		



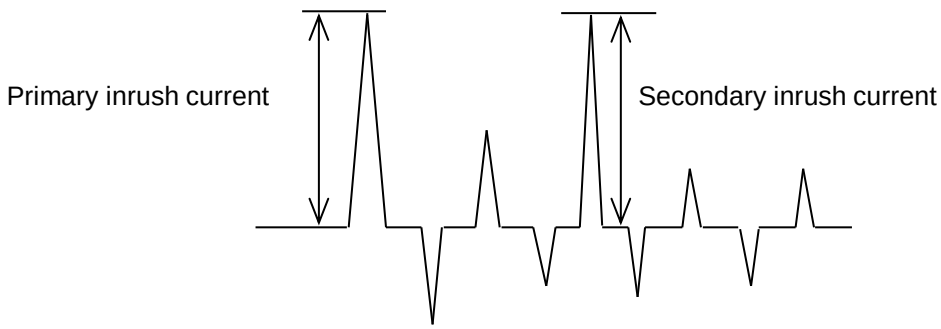
Input Voltage 100 V
Frequency 60 Hz
Load 100 %

Primary inrush current :
12.4 A
Secondary inrush current :
7.6 A



Input Voltage 230 V
Frequency 60 Hz
Load 100 %

Primary inrush current :
34.8 A
Secondary inrush current :
3.2 A



Model	PJMA300F-48	
Item	Leakage Current	Temperature 25°C Testing Circuitry Figure C
Object	————————	

1.Results

[mA]

Standards		Input Volt.			Note
		115 [V]	230 [V]	240 [V]	
IEC60601-1	Both phases	0.08	0.18	0.18	Operation
	One of phases	0.16	0.33	0.34	Stand by

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

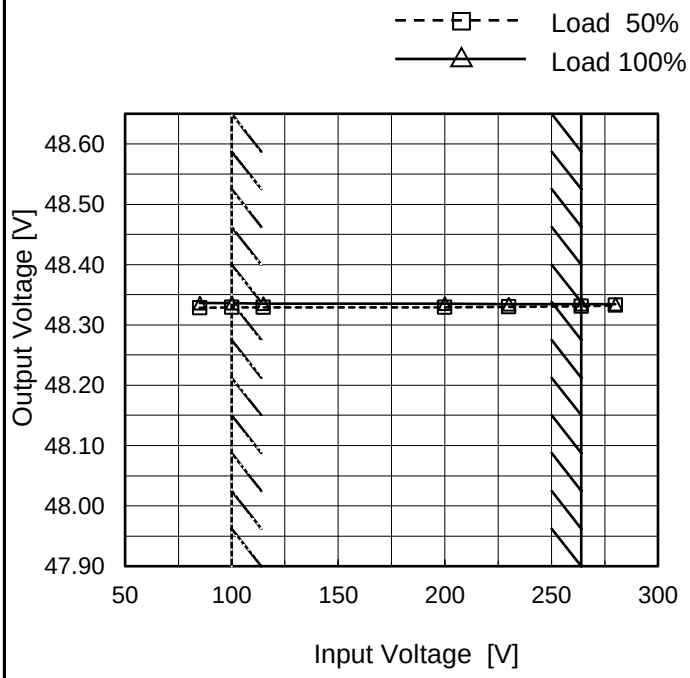
2.Condition

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

Model	PJMA300F-48
Item	Line Regulation
Object	+48V6.3A

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	48.328	48.336 ※1
100	48.329	48.336
115	48.329	48.336
200	48.329	48.335
230	48.330	48.335
264	48.331	48.334
280	48.332	48.335
--	-	-
--	-	-

※1:Load 80%

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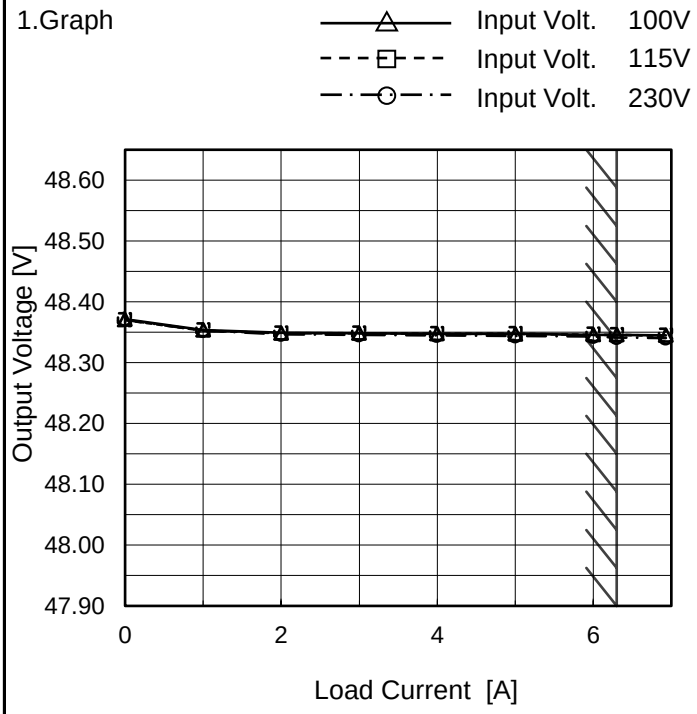
Model	PJMA300F-48
Item	Load Regulation
Object	+48V6.3A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



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

2.Values

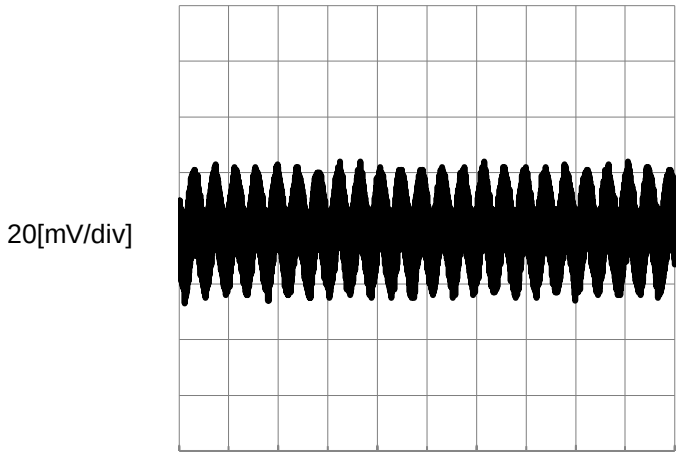
Load Current [A]	Output Voltage [V]		
	Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]
0.00	48.371	48.370	48.370
1.00	48.354	48.353	48.352
2.00	48.349	48.348	48.346
3.00	48.349	48.348	48.345
4.00	48.348	48.347	48.345
5.00	48.347	48.347	48.344
6.00	48.346	48.346	48.343
6.30	48.346	48.345	48.341
6.93	48.345	48.344	48.340
--	--	--	--
--	--	--	--

Item	Ripple-Noise
Object	+48V6.3A

Temperature 25°C
Testing Circuitry Figure B

1.Graph

Input Voltage 115V
Load 100%



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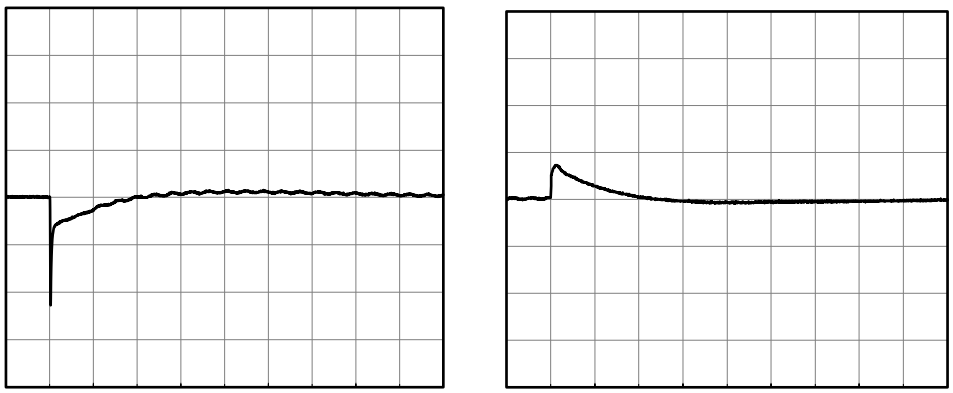
Model	PJMA300F-48
Item	Dynamic Load Response
Object	+48V6.3A

Temperature 25°C
Testing Circuitry Figure A

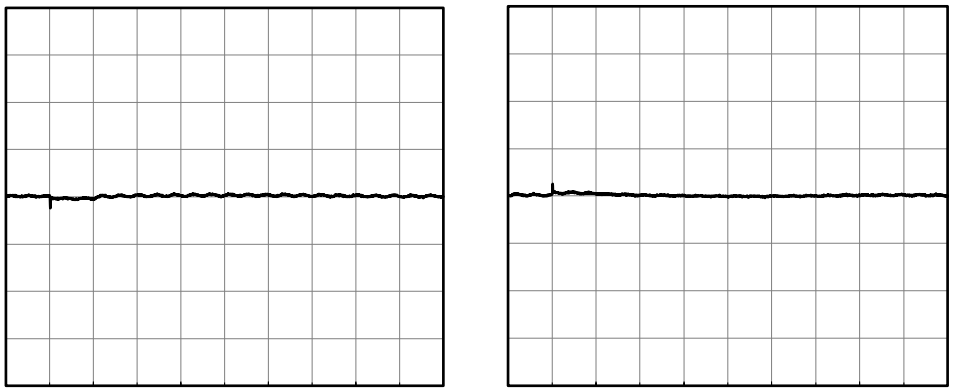
Input Volt. 115 V
Cycle 1000 ms

Response. t1=t2=50µs. Typ

Load 0%(0A) ←→
Load 100%(6.3A)



Load 50%(3.15A) ←→
Load 100%(6.3A)



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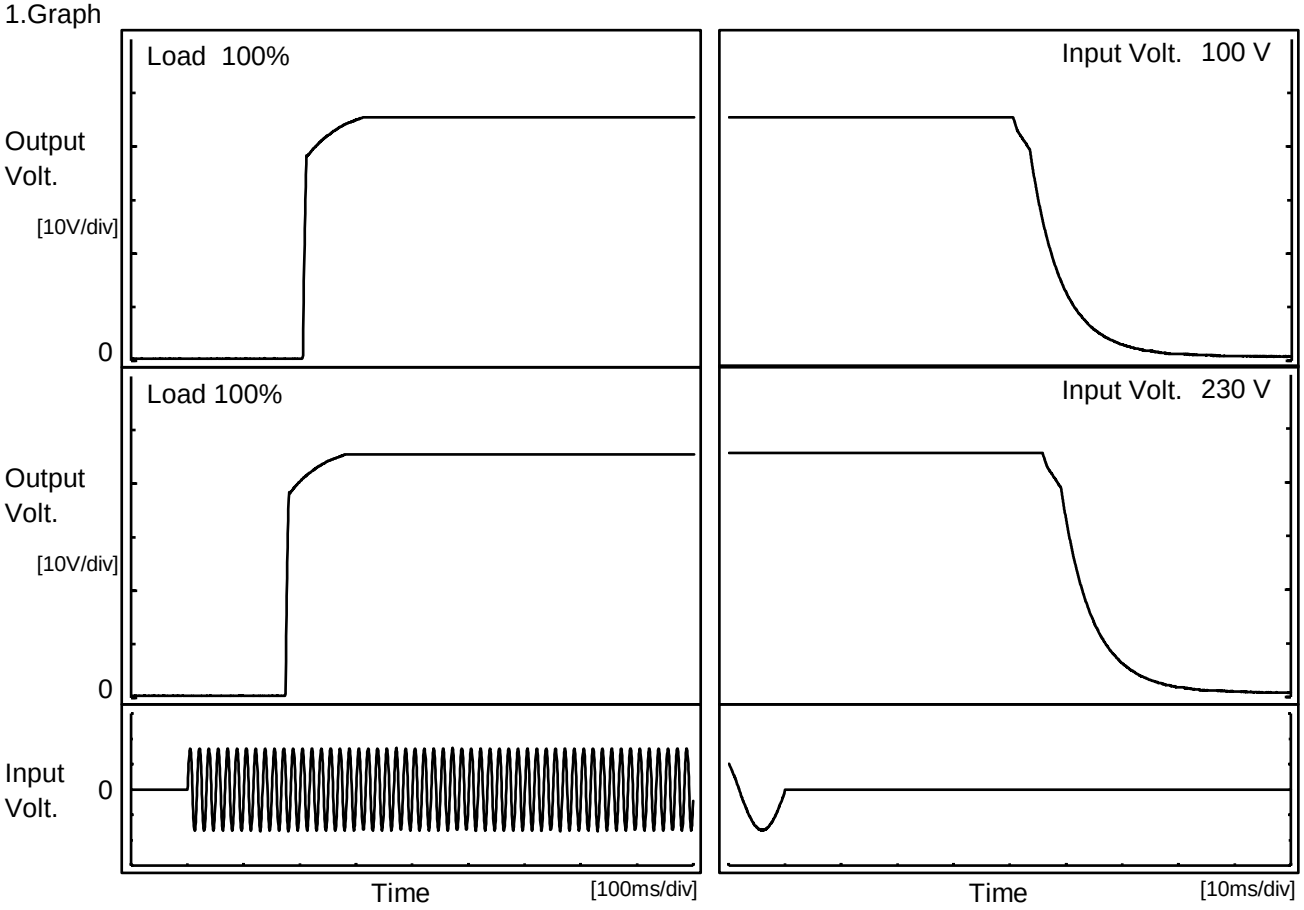
Model	PJMA300F-48
Item	Rise and Fall Time
Object	+48V6.3A

Temperature 25°C
Testing Circuitry Figure A

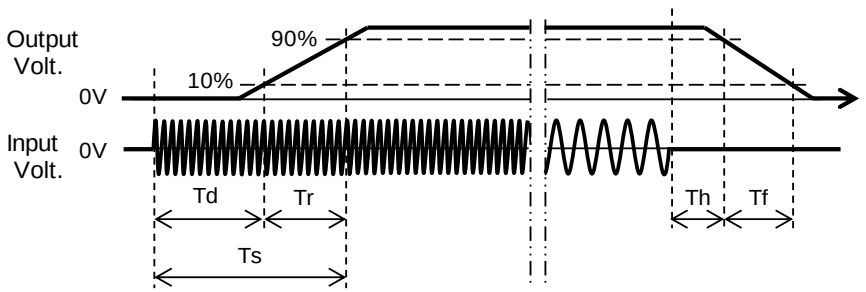
1.Graph



2.Values

[ms]

Input Volt. \ Time	Td	Tr	Ts	Th	Tf
100V	206.0	64.5	270.5	41.1	14.7
230V	175.0	64.0	239.0	46.4	14.9



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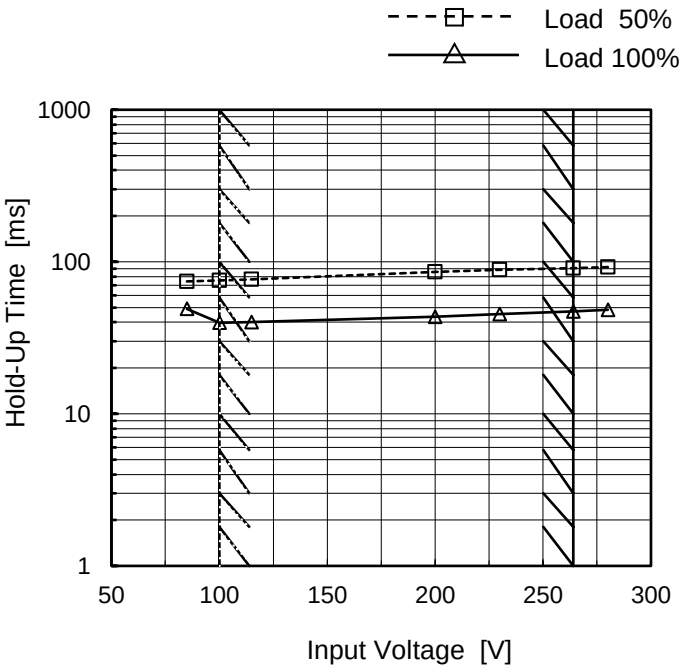
Model	PJMA300F-48
Item	Hold-Up Time
Object	+48V6.3A

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	74	49 ※1
100	76	40
115	77	40
200	86	43
230	89	45
264	91	47
280	92	48
--	-	-
--	-	-

※1 : Load 80%

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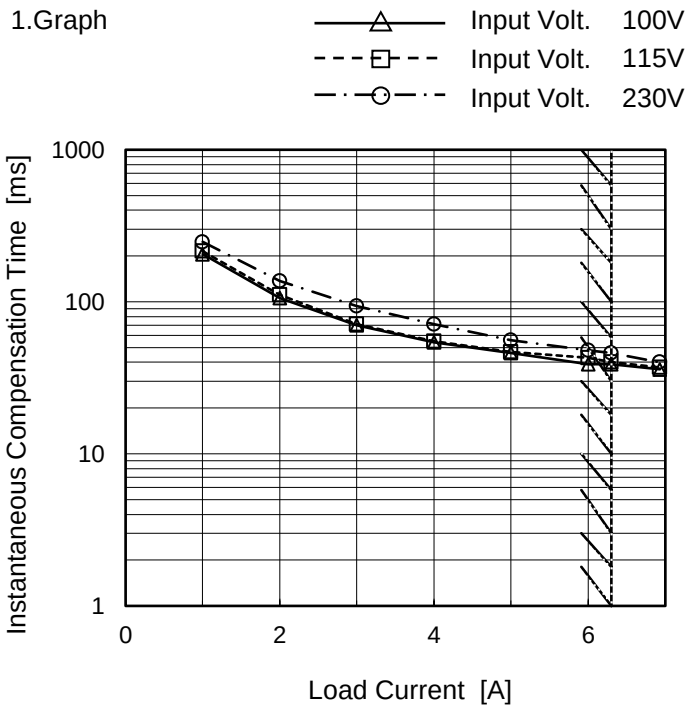
Model	PJMA300F-48
Item	Instantaneous Interruption Compensation
Object	+48V6.3A

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. 115[V]	Input Volt. 230[V]
0.00	-	-	-
1.00	206	215	248
2.00	106	111	137
3.00	70	71	94
4.00	54	55	71
5.00	46	47	56
6.00	39	43	48
6.30	39	40	46
6.93	36	37	40
--	-	-	-
--	-	-	-

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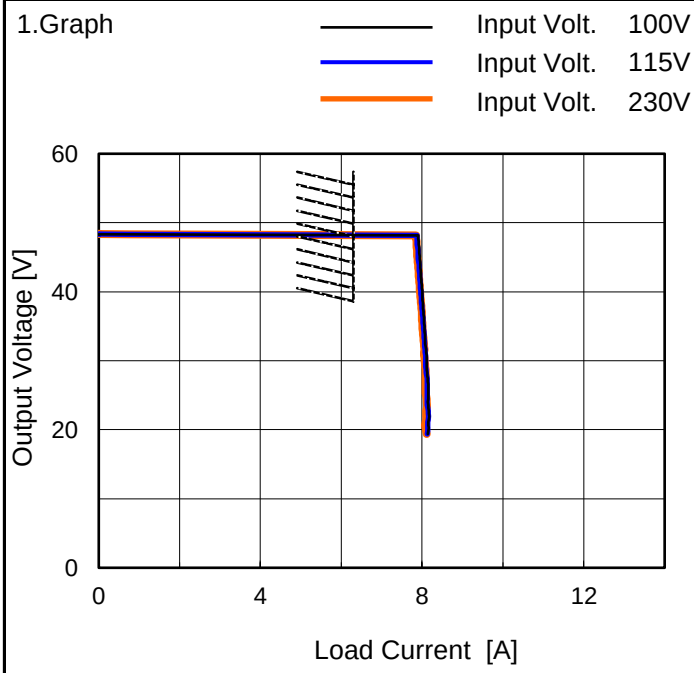
Model	PJMA300F-48
Item	Overcurrent Protection
Object	+48V6.3A

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. 115[V]	Input Volt. 230[V]
45.6	7.93	7.90	7.88
43.2	7.91	7.87	7.85
38.4	8.02	7.99	7.97
33.6	8.07	8.05	8.02
28.8	8.11	8.09	8.08
24.0	8.14	8.12	8.11
19.2	8.14	8.12	8.11
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

COSEL

Model	PJMA300F-48
Item	Ambient Temperature Drift
Object	+48V6.3A

Testing Circuitry Figure A

1.Values

Load 100%

Ambient Temperature[℃]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 115V	Input Volt. 230V
-20	48.181	48.182	48.182
25	48.326	48.327	48.325
50	48.371	48.371	48.368

Item	Minimum Input Voltage for Regulated Output Voltage
Object	+48V6.3A

Testing Circuitry Figure A

1.Values

Ambient Temperature[℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	35	50
25	35	51
50	36	52

Item	Overvoltage Protection
Object	+48V6.3A

Testing Circuitry Figure A

1.Values

Load 0%

Ambient Temperature[℃]	Operating Point [V]	
	Input Volt. 100V	Input Volt. 230V
-20	59.79	59.68
25	61.86	61.86
50	62.98	62.97

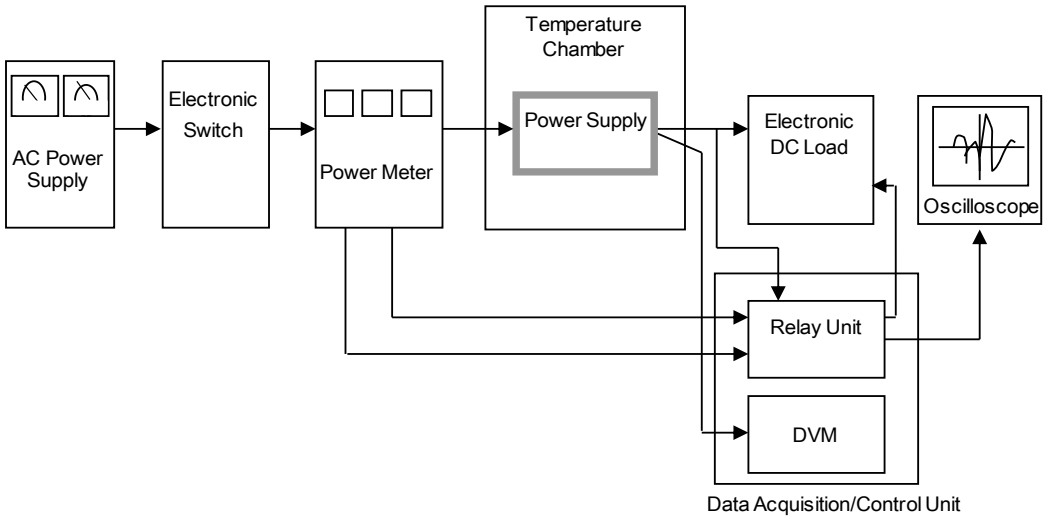
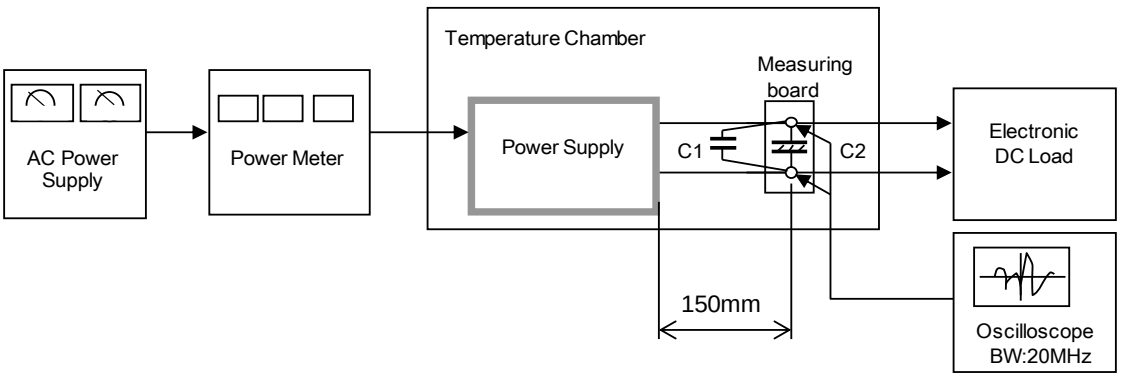


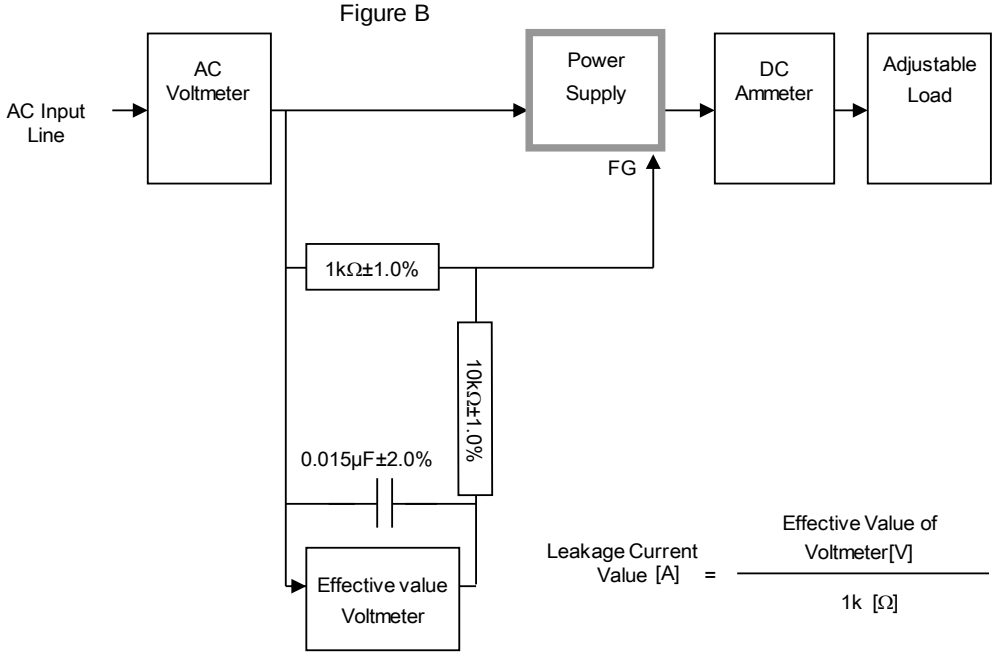
Figure A



C1= 0.1 μF
(Ceramic capacitor)

C2= 22 μF
(Electrolytic capacitor)

Figure B



$$\text{Leakage Current Value [A]} = \frac{\text{Effective Value of Voltmeter[V]}}{\text{1k [Ω]}}$$

Figure C (IEC60601-1)