COSEL

Reference

TEST DATA OF PJMA300F-24

Regulated DC Power Supply
September 6, 2021

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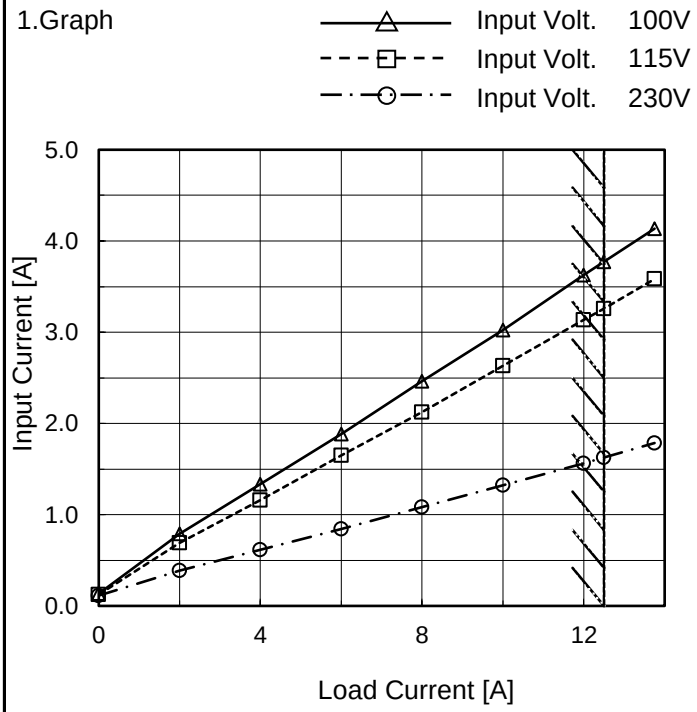
Model	PJMA300F-24
Item	Input Current (by Load Current)
Object	———————

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	0.135	0.125	0.114
2.00	0.788	0.689	0.389
4.00	1.336	1.161	0.614
6.00	1.882	1.650	0.845
8.00	2.464	2.123	1.082
10.00	3.027	2.631	1.322
12.00	3.628	3.132	1.563
12.50	3.770	3.257	1.624
13.75	4.135	3.583	1.786
--	-	-	-
--	-	-	-

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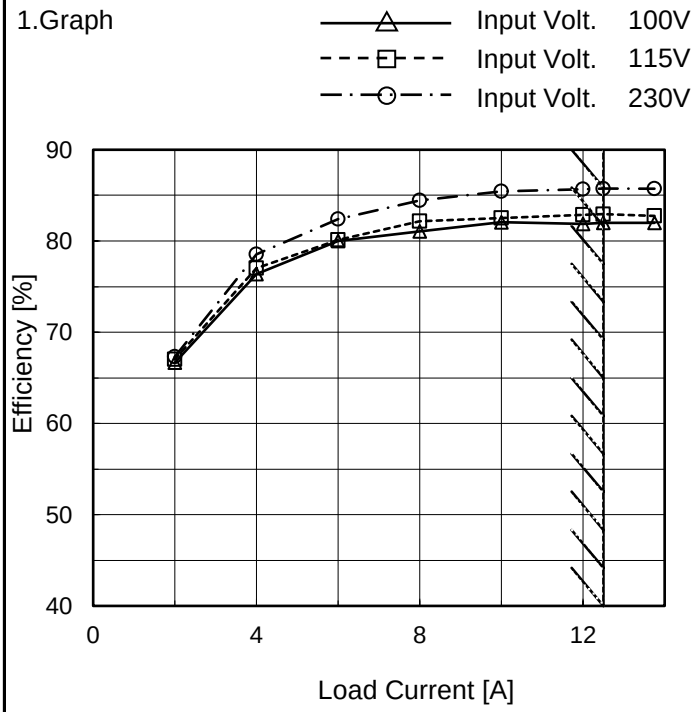
Model	PJMA300F-24
Item	Efficiency (by Load Current)
Object	———————

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	-	-	-
2.00	66.7	67.0	67.3
4.00	76.4	77.0	78.6
6.00	80.0	80.1	82.4
8.00	81.1	82.2	84.4
10.00	82.1	82.5	85.4
12.00	81.9	82.9	85.7
12.50	82.0	82.9	85.7
13.75	82.0	82.7	85.7
--	-	-	-
--	-	-	-

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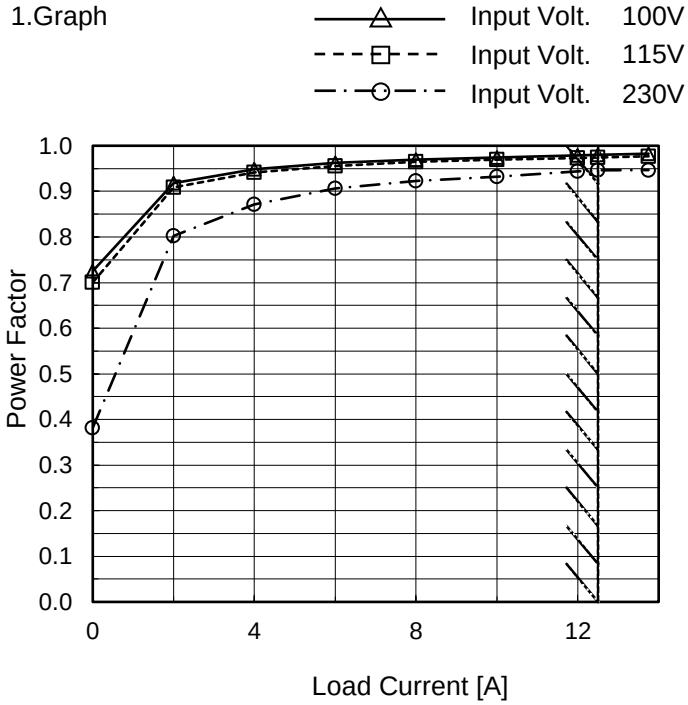
Model	PJMA300F-24
Item	Power Factor (by Load Current)
Object	———————

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	0.725	0.700	0.382
2.00	0.918	0.909	0.803
4.00	0.949	0.941	0.871
6.00	0.963	0.955	0.906
8.00	0.969	0.965	0.923
10.00	0.975	0.969	0.932
12.00	0.979	0.973	0.944
12.50	0.980	0.974	0.946
13.75	0.983	0.977	0.947
--	-	-	-
--	-	-	-

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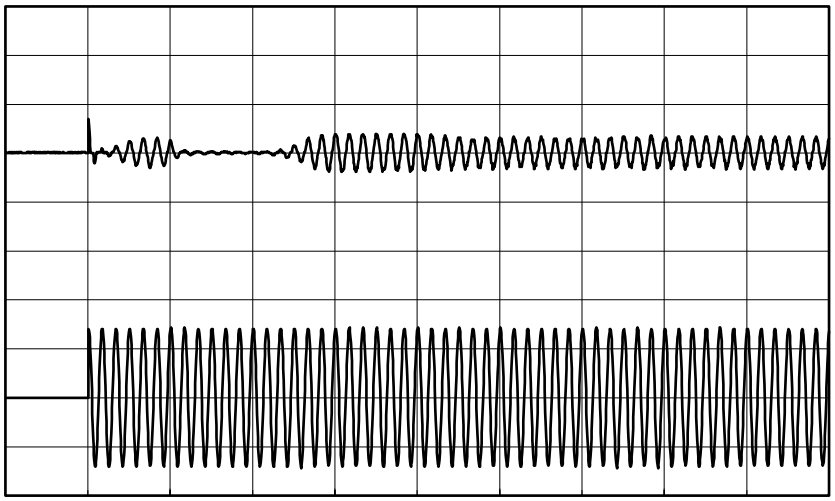
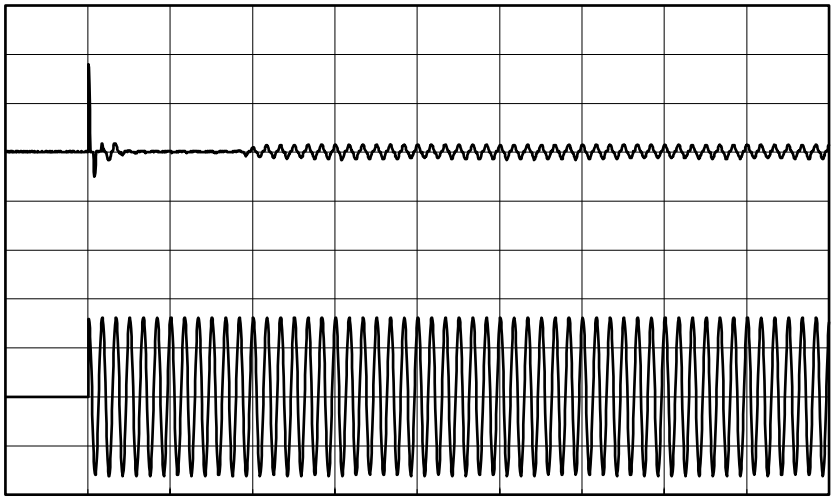
Model	PJMA300F-24		
Item	Inrush Current	Temperature	25°C
		Testing Circuitry	Figure A
Object	———————		



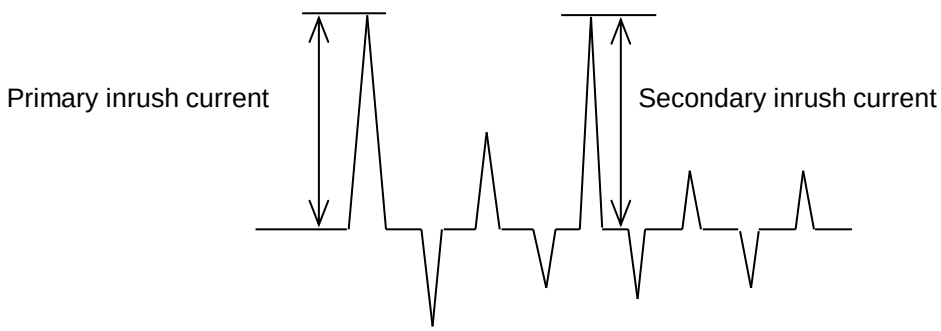
Input Voltage 100 V
Frequency 60 Hz
Load 100 %

Primary inrush current :
14.0 A
Secondary inrush current :
8.0 A



Input Voltage 230 V
Frequency 60 Hz
Load 100 %

Primary inrush current :
36.0 A
Secondary inrush current :
3.2 A



Model	PJMA300F-24	
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.

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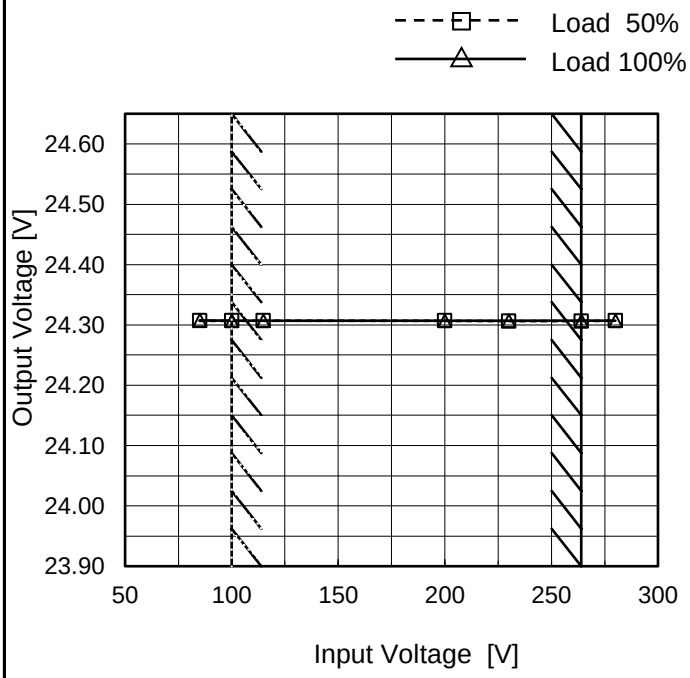
Model	PJMA300F-24
Item	Line Regulation
Object	+24V12.5A

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	24.307	24.307 ※1
100	24.307	24.307
115	24.307	24.307
200	24.307	24.307
230	24.306	24.307
264	24.306	24.307
280	24.307	24.307
--	-	-
--	-	-

※1:Load 80%

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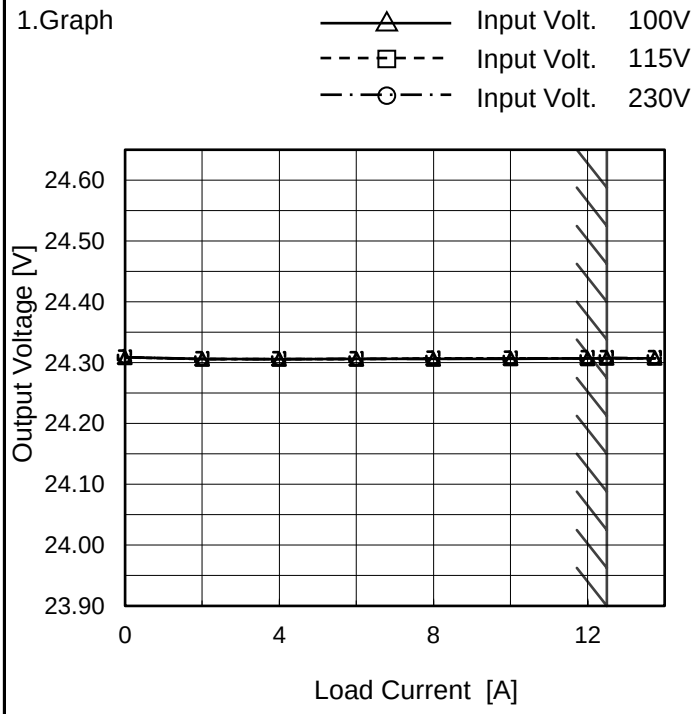
Model	PJMA300F-24
Item	Load Regulation
Object	+24V12.5A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



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

2.Values

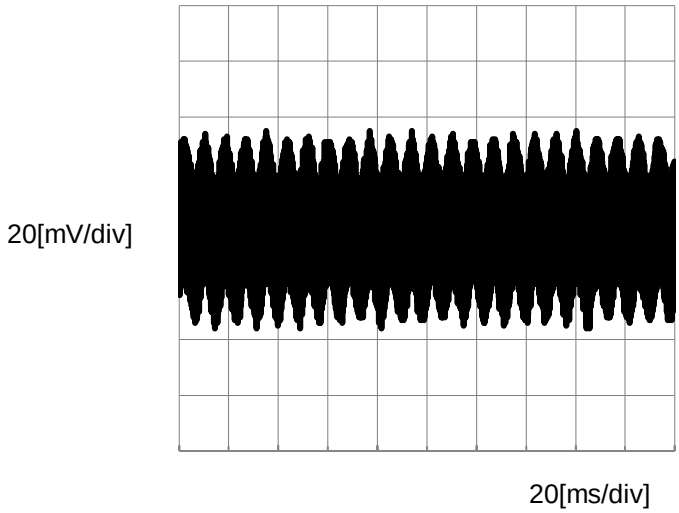
Load Current [A]	Output Voltage [V]		
	Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]
0.00	24.309	24.309	24.309
2.00	24.306	24.306	24.306
4.00	24.306	24.306	24.306
6.00	24.306	24.306	24.306
8.00	24.306	24.307	24.307
10.00	24.307	24.307	24.307
12.00	24.307	24.307	24.308
12.50	24.308	24.307	24.308
13.75	24.308	24.307	24.308
--	--	--	--
--	--	--	--

Item	Ripple-Noise
Object	+24V12.5A

Temperature 25°C
Testing Circuitry Figure B

1.Graph

Input Voltage 115V
Load 100%



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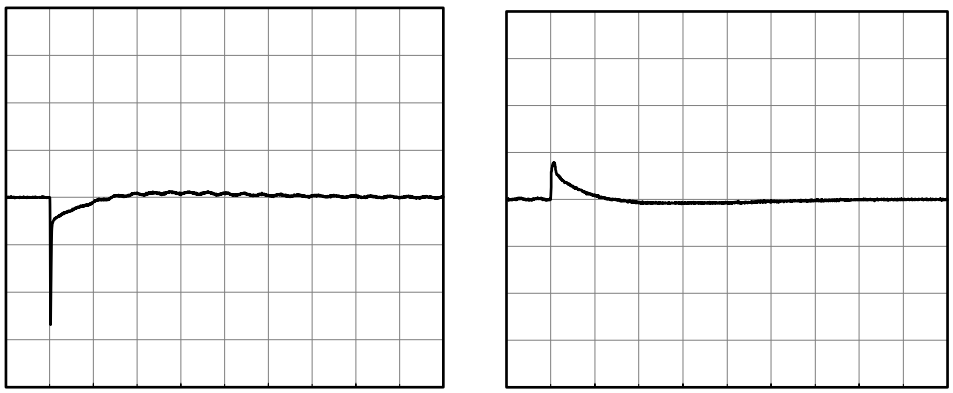
Model	PJMA300F-24		
Item	Dynamic Load Response	Temperature Testing Circuitry	25°C Figure A
Object	+24V12.5A		

Input Volt. 115 V

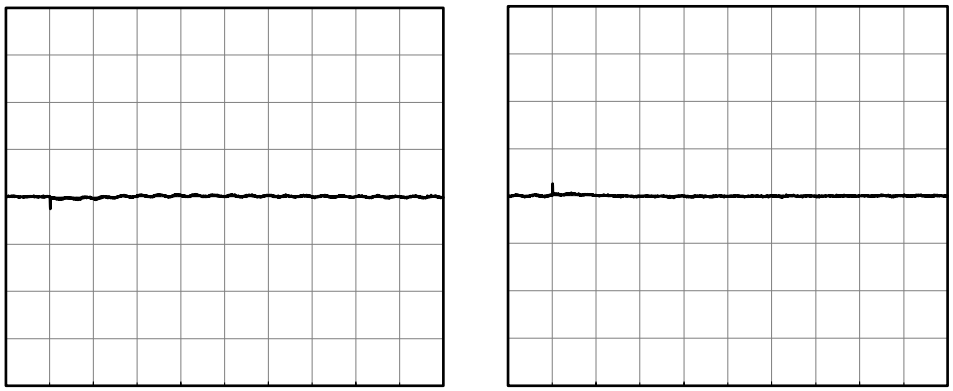
Cycle 1000 ms

Response. t1=t2=50µs. Typ

Load 0%(0A) ⟷ Load 100%(12.5A)



Load 50%(6.25A) ⟷ Load 100%(12.5A)



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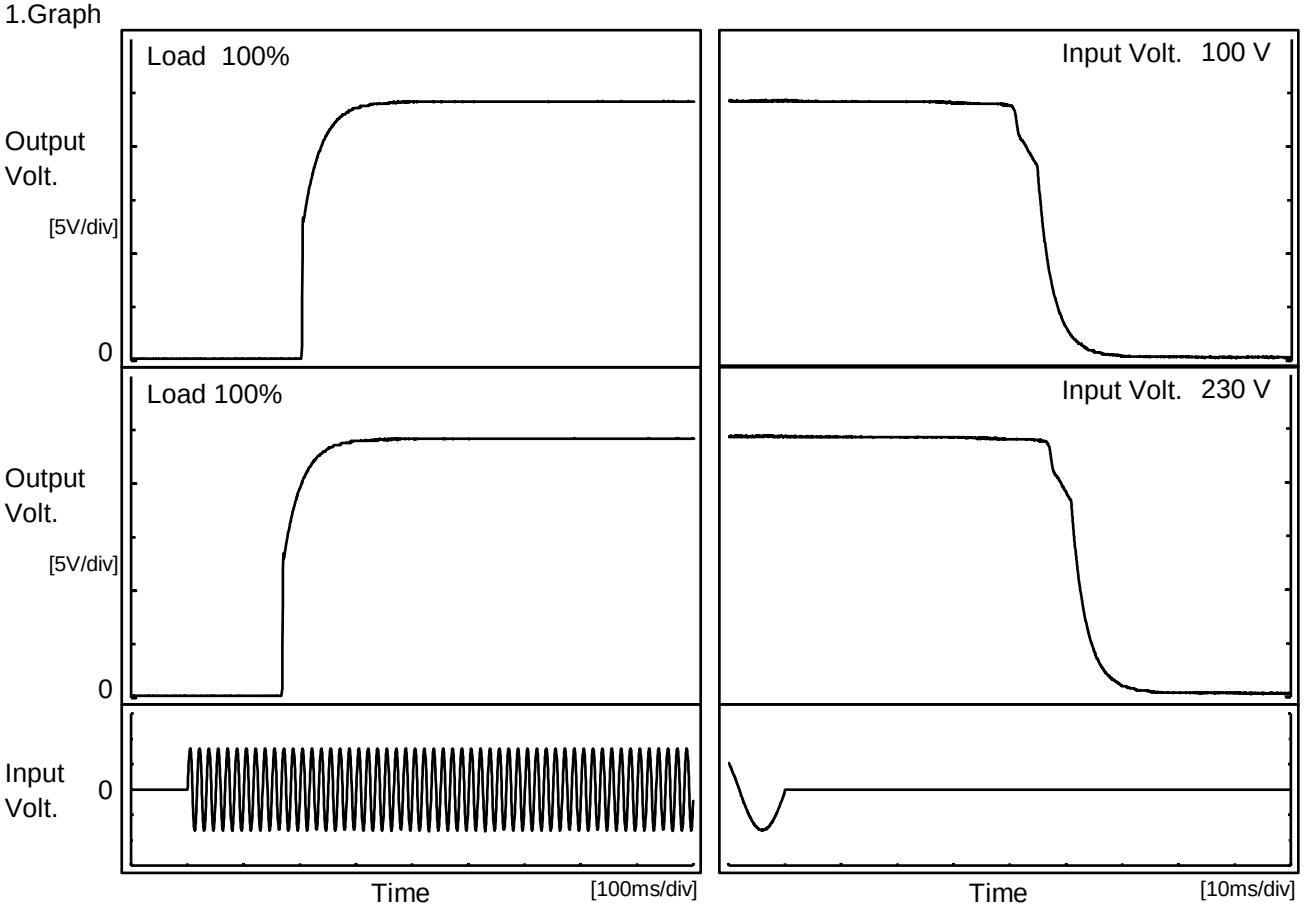
Model	PJMA300F-24	
Item	Rise and Fall Time	Temperature 25°C Testing Circuitry Figure A
Object	+24V12.5A	

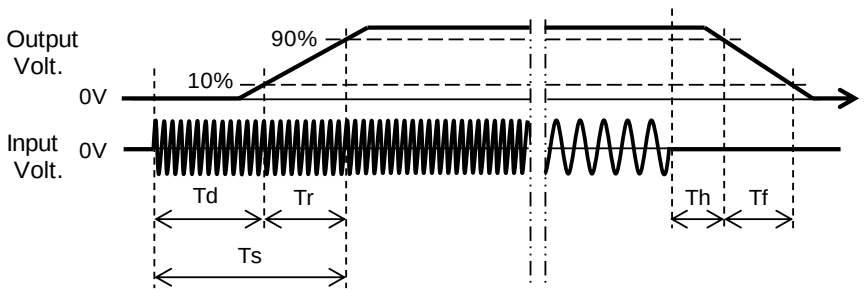
1.Graph



2.Values

[ms]

Input Volt. \ Time	Td	Tr	Ts	Th	Tf
100V	204.0	51.5	255.5	41.3	9.3
230V	169.0	51.0	220.0	47.5	9.2



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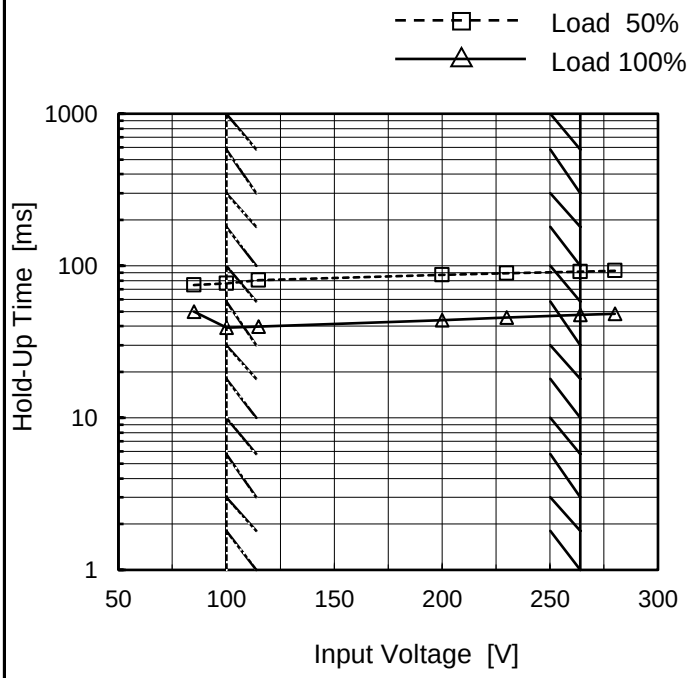
Model	PJMA300F-24
Item	Hold-Up Time
Object	+24V12.5A

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	75	50 ※1
100	77	39
115	80	40
200	87	44
230	89	46
264	92	47
280	93	48
--	-	-
--	-	-

※1 : Load 80%

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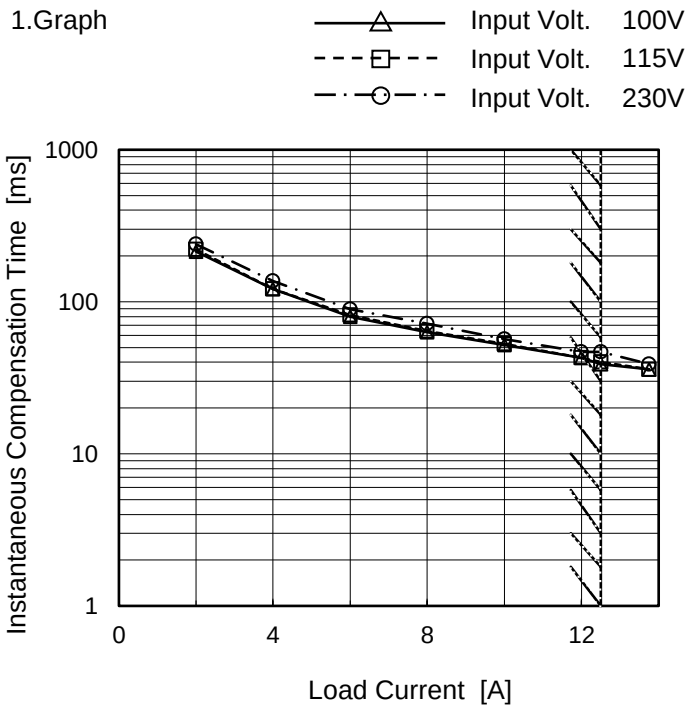
Model	PJMA300F-24
Item	Instantaneous Interruption Compensation
Object	+24V12.5A

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	-	-	-
2.00	214	221	239
4.00	121	121	137
6.00	80	82	89
8.00	63	64	72
10.00	52	53	57
12.00	43	43	47
12.50	39	40	47
13.75	36	36	39
--	-	-	-
--	-	-	-

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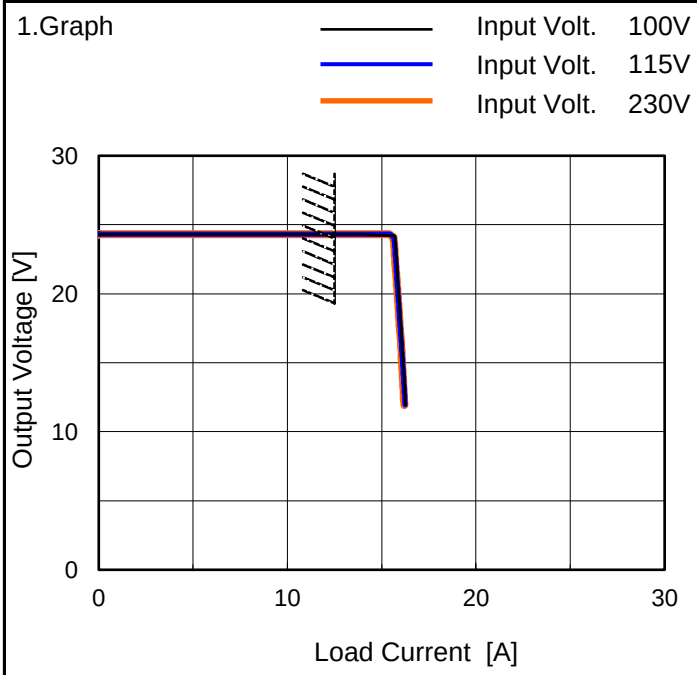
Model	PJMA300F-24
Item	Overcurrent Protection
Object	+24V12.5A

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]
22.8	15.77	15.73	15.70
21.6	15.81	15.78	15.75
19.2	15.94	15.90	15.88
16.8	16.05	16.02	16.00
14.4	16.16	16.13	16.10
12.0	16.26	16.23	16.19
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

COSEL

Model	PJMA300F-24
Item	Ambient Temperature Drift
Object	+24V12.5A

Testing Circuitry Figure A

1.Values

Load 100%

Ambient Temperature[℃]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 115V	Input Volt. 230V
-20	24.290	24.291	24.291
25	24.320	24.320	24.321
50	24.308	24.308	24.307

Item	Minimum Input Voltage for Regulated Output Voltage
Object	+24V12.5A

Testing Circuitry Figure A

1.Values

Ambient Temperature[℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	39	57
25	39	57
50	39	58

Item	Overvoltage Protection
Object	+24V12.5A

Testing Circuitry Figure A

1.Values

Load 0%

Ambient Temperature[℃]	Operating Point [V]	
	Input Volt. 100V	Input Volt. 230V
-20	30.03	29.97
25	30.91	30.91
50	31.44	31.43

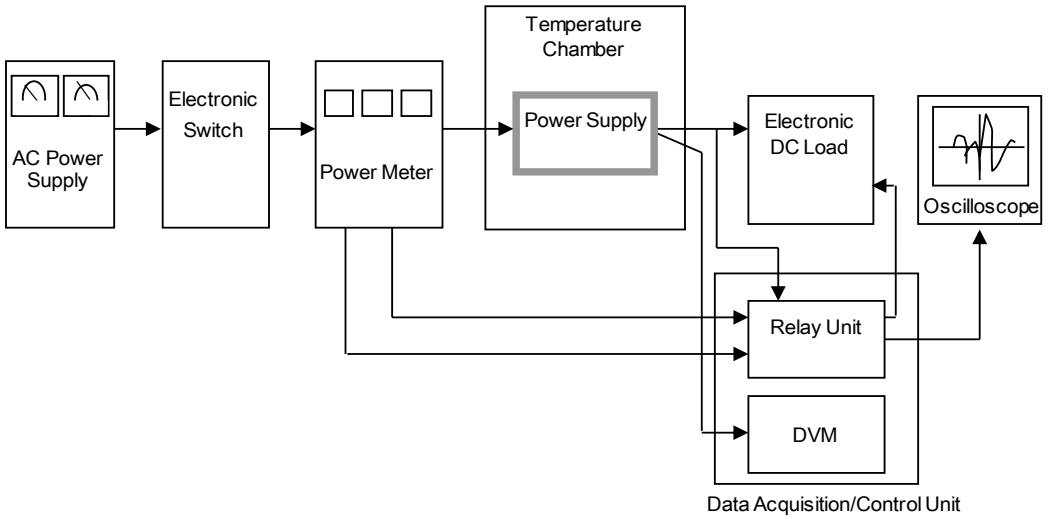
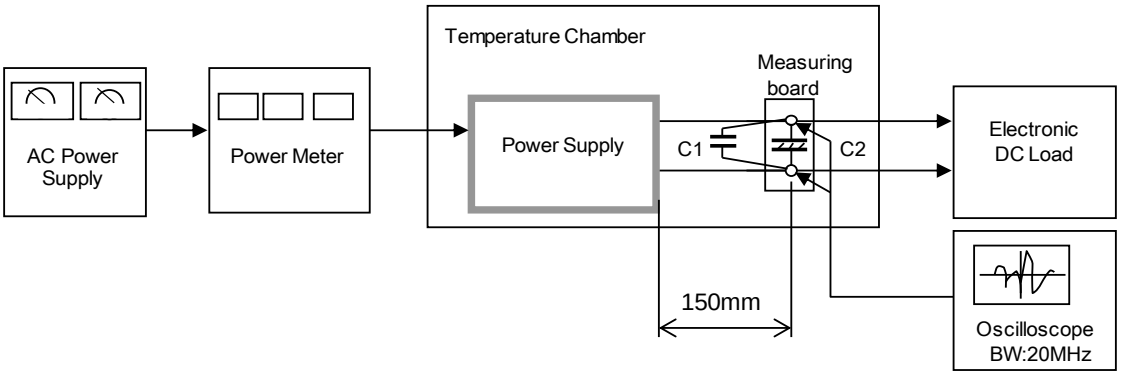


Figure A



C1= 0.1 μF
(Ceramic capacitor)

C2= 22 μF
(Electrolytic capacitor)

Figure B

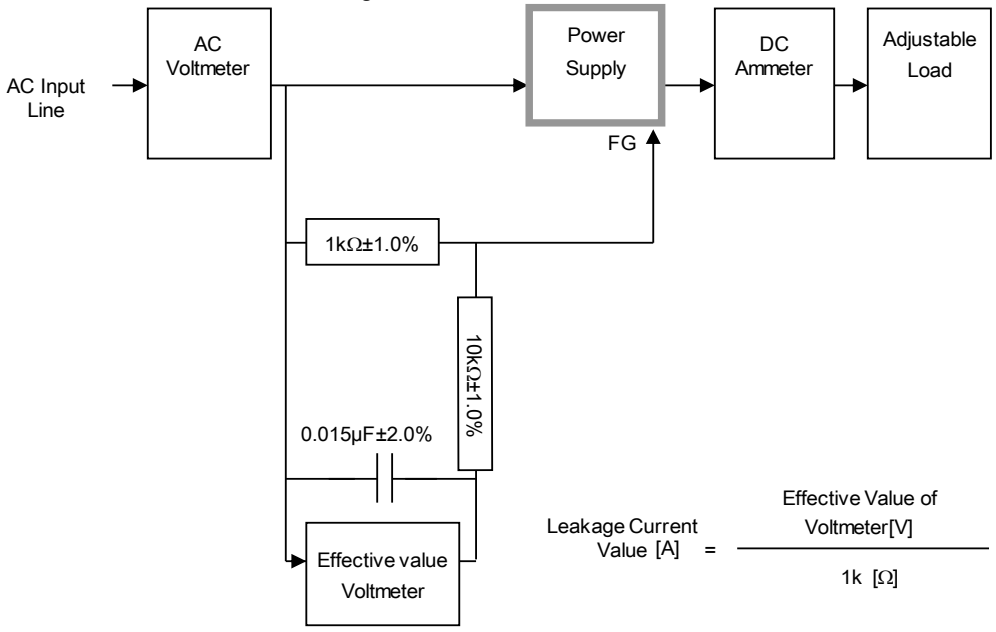


Figure C (IEC60601-1)