

TEST DATA OF PJA50F-12

Regulated DC Power Supply
May 26, 2026

Approved by : Yoshiaki Shimizu
Design Manager

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Design Engineer

COSEL CO.,LTD.

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(Final Page 15)

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Model		PJA50F-12		Temperature 25°C																																																				
Item		Input Current (by Load Current)		Testing Circuitry Figure A																																																				
Object		_____																																																						
1.Graph		—△— Input Volt. 100V ---□--- Input Volt. 115V ---○--- Input Volt. 230V		2.Values																																																				
Input Current [A] 0.000.501.001.502.00 0.01.02.03.04.05.0 Load Current [A]		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Input Current [A]</th></tr><tr><th>Input Volt. 100[V]</th><th>Input Volt. 115[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>0.00</td><td>0.031</td><td>0.034</td><td>0.066</td></tr><tr><td>0.80</td><td>0.243</td><td>0.212</td><td>0.153</td></tr><tr><td>1.60</td><td>0.425</td><td>0.375</td><td>0.245</td></tr><tr><td>2.40</td><td>0.608</td><td>0.545</td><td>0.340</td></tr><tr><td>3.20</td><td>0.798</td><td>0.706</td><td>0.428</td></tr><tr><td>4.00</td><td>0.994</td><td>0.883</td><td>0.526</td></tr><tr><td>4.30</td><td>1.072</td><td>0.954</td><td>0.562</td></tr><tr><td>4.73</td><td>1.177</td><td>1.049</td><td>0.608</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table>		Load Current [A]	Input Current [A]			Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]	0.00	0.031	0.034	0.066	0.80	0.243	0.212	0.153	1.60	0.425	0.375	0.245	2.40	0.608	0.545	0.340	3.20	0.798	0.706	0.428	4.00	0.994	0.883	0.526	4.30	1.072	0.954	0.562	4.73	1.177	1.049	0.608	--	-	-	-	--	-	-	-	--	-	-	-		
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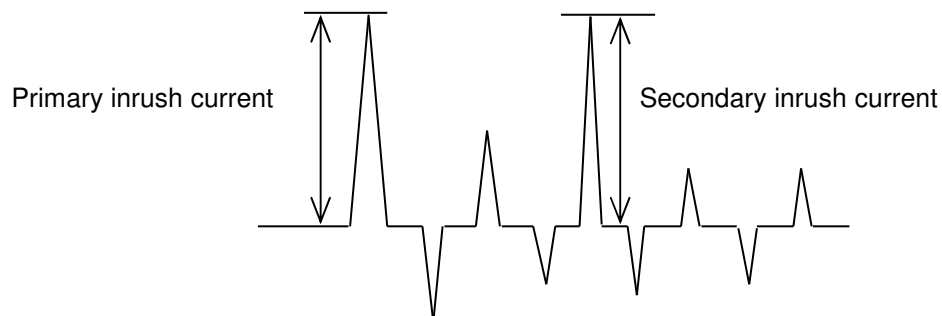
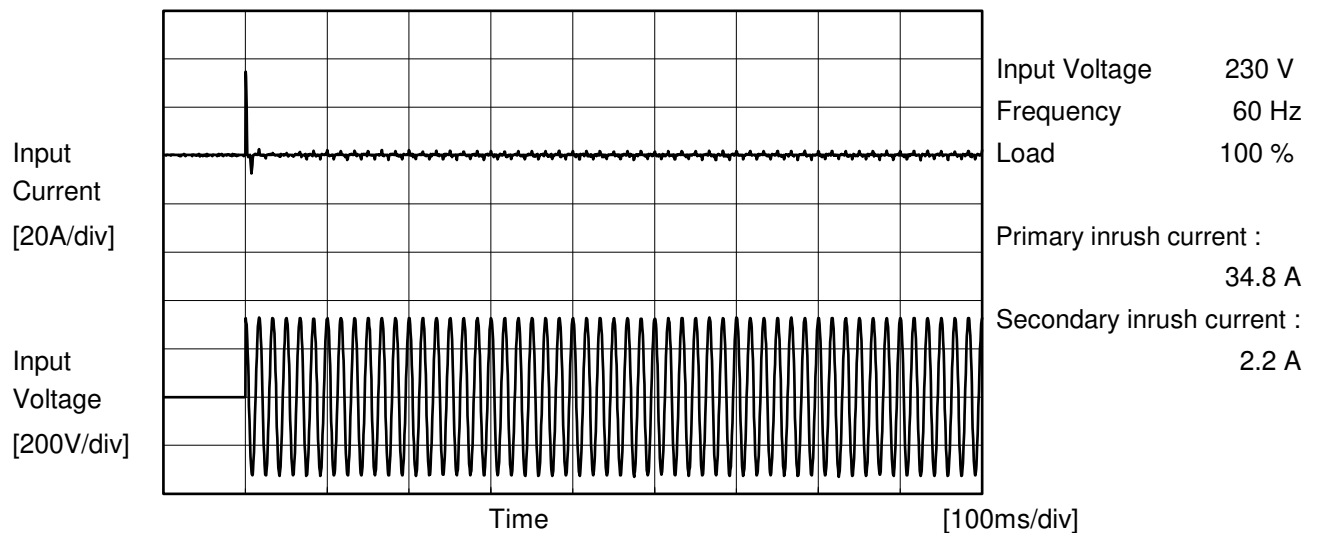
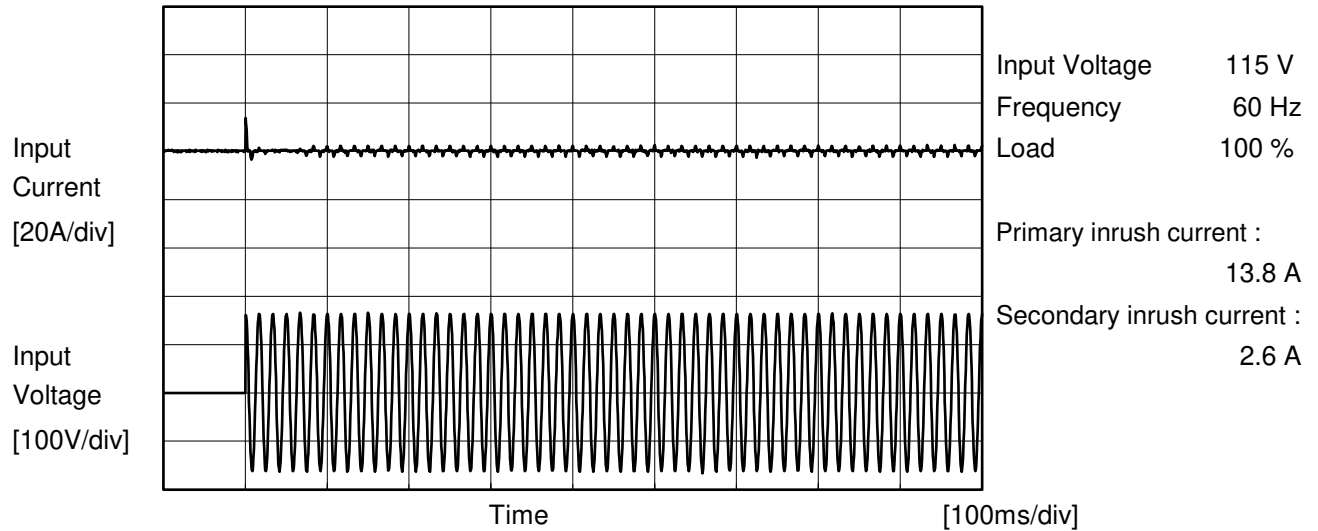
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Model		PJA50F-12	Temperature		25°C																																																			
Item		Power Factor (by Load Current)	Testing Circuitry		Figure A																																																			
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Model	PJA50F-12	Temperature	25°C
Item	Inrush Current	Testing Circuitry	Figure A
Object	_____		





Model		PJA50F-12	Temperature 25°C Testing Circuitry Figure C
Item		Leakage Current	
Object		_____	

1.Results

[mA]

Standards	Testing Circuitry	Measuring Method	Input Volt.			Note
			100 [V]	115 [V]	230 [V]	
DEN-AN	Figure C-1	Both phases	0.21	0.25	0.54	Operation
		One of phases	0.30	0.35	0.78	Stand by
IEC62368-1	Figure C-2	Both phases	0.21	0.24	0.53	Operation
		One of phases	0.30	0.35	0.76	Stand by
	Figure C-3	Both phases	0.21	0.24	0.52	Operation
		One of phases	0.30	0.35	0.76	Stand by

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

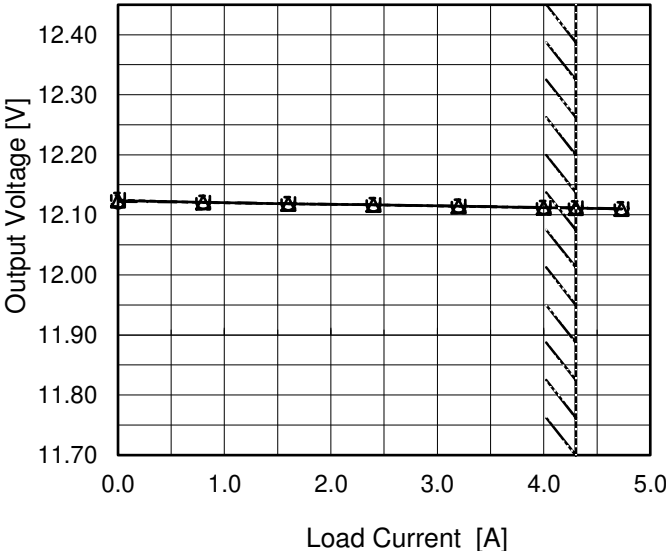
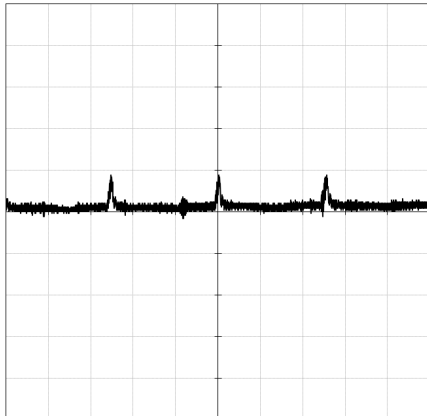
2.Condition

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

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Model	PJA50F-12	Temperature	25°C
Item	Line Regulation	Testing Circuitry	Figure A
Object	+12V4.3A		
1.Graph		2.Values	
Load 50% Load 100% Output Voltage [V] 12.40 12.30 12.20 12.10 12.00 11.90 11.80 11.70 50 100 150 200 250 300			

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Model		PJA50F-12		Temperature 25°C																																																				
Item		Load Regulation		Testing Circuitry Figure A																																																				
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Item		Ripple-Noise		Temperature 25°C																																																				
Object		+12V4.3A		Testing Circuitry Figure B																																																				
1.Graph		Input Voltage 230V Load 100%  20[mV/div] 4[μs/div]																																																						

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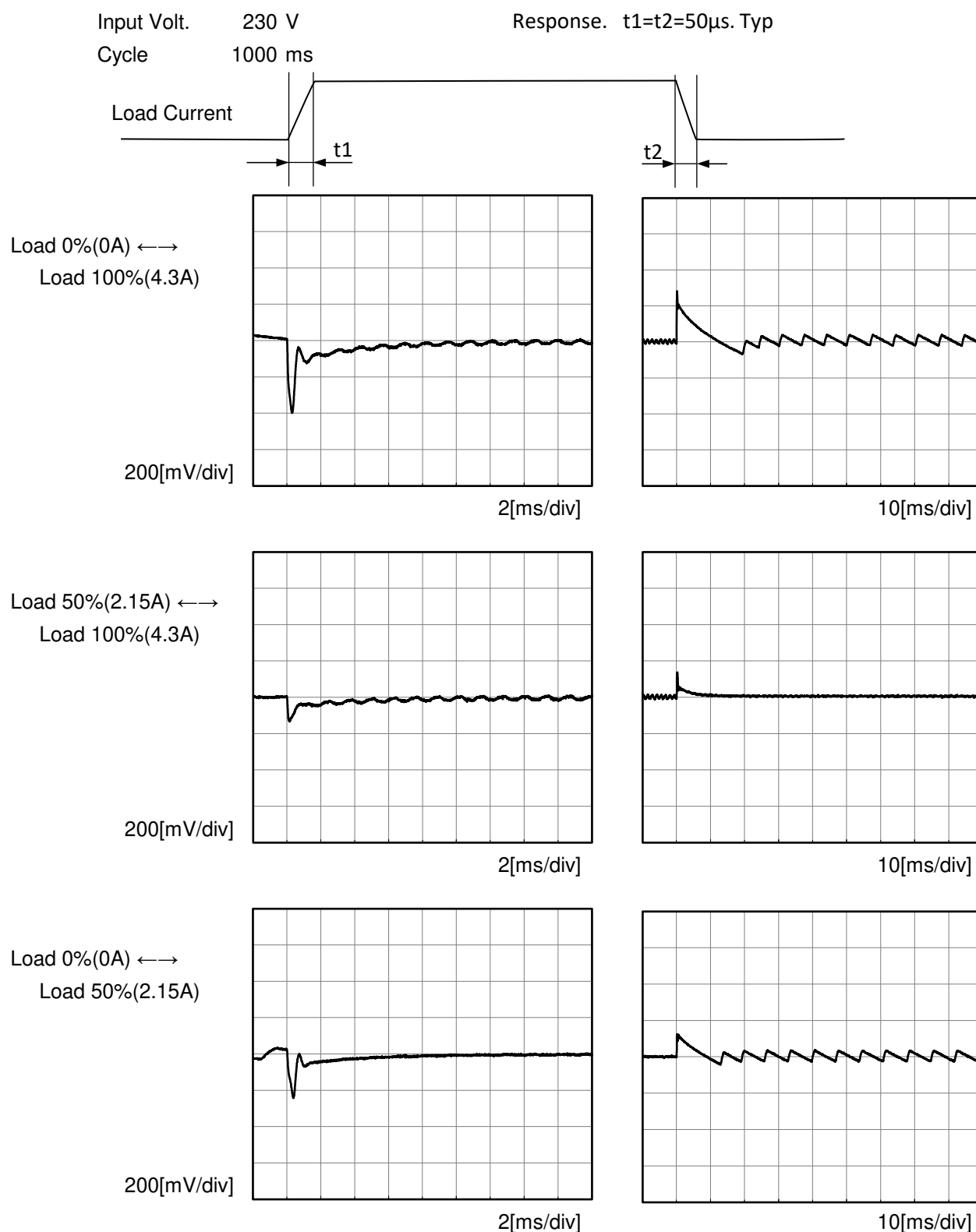
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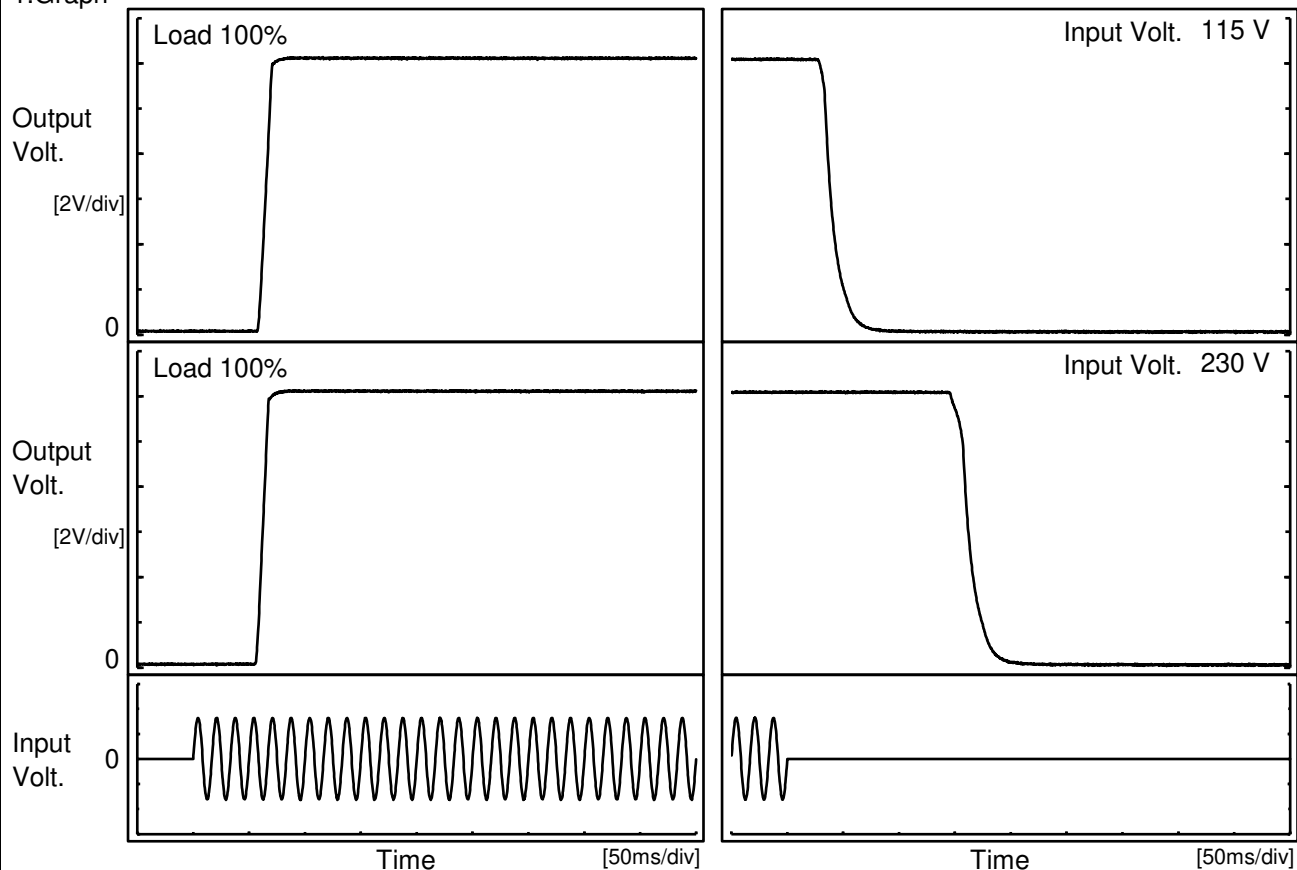
Model	PJA50F-12	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	+12V4.3A	



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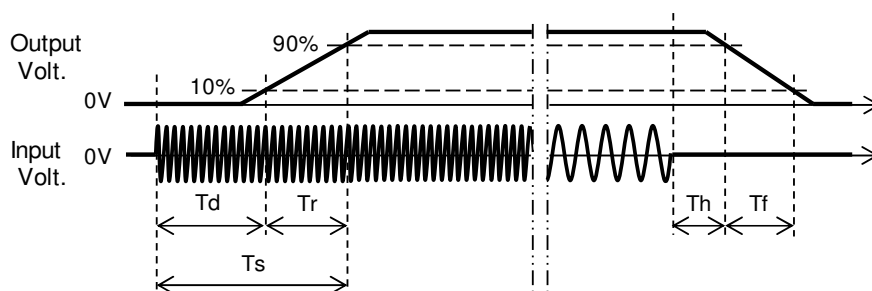
Model	PJA50F-12	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+12V4.3A		

1.Graph



2.Values

Input Volt.	Time	Td	Tr	Ts	Th	Tf
115 V		59.8	9.8	69.6	33.0	22.0
230 V		57.8	9.0	66.8	153.8	24.8



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Model		PJA50F-12	Temperature25°C Testing CircuitryFigure A
Item		Hold-Up Time	
Object		+12V4.3A	
1.Graph			2.Values
</			

Model		PJA50F-12	Temperature25°C Testing CircuitryFigure A																																																		
Item		Instantaneous Interruption Compensation																																																			
Object		+12V4.3A																																																			
1.Graph		—△— ---□--- ---○--- Input Volt. 100V Input Volt. 115V Input Volt. 230V Instantaneous Compensation Time [ms] Load Current [A]	2.Values																																																		
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Model		PJA50F-12	Temperature		25°C																																									
Item		Overcurrent Protection	Testing Circuitry		Figure A																																									
Object		+12V4.3A																																												
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Input Volt. 115V Input Volt. 230V Note: Slanted line shows the range of the rated load current. Overcurrent protection is Hiccup mode.			<table><tr><th rowspan="2">Output Voltage [V]</th><th colspan="2">Load Current [A]</th></tr><tr><th>Input Volt. 115[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>12.0</td><td>6.02</td><td>5.85</td></tr><tr><td>11.4</td><td>-</td><td>-</td></tr><tr><td>10.8</td><td>-</td><td>-</td></tr><tr><td>9.6</td><td>-</td><td>-</td></tr><tr><td>8.4</td><td>-</td><td>-</td></tr><tr><td>7.2</td><td>-</td><td>-</td></tr><tr><td>6.0</td><td>-</td><td>-</td></tr><tr><td>4.8</td><td>-</td><td>-</td></tr><tr><td>3.6</td><td>-</td><td>-</td></tr><tr><td>2.4</td><td>-</td><td>-</td></tr><tr><td>1.2</td><td>-</td><td>-</td></tr><tr><td>0.0</td><td>-</td><td>-</td></tr></table>			Output Voltage [V]	Load Current [A]		Input Volt. 115[V]	Input Volt. 230[V]	12.0	6.02	5.85	11.4	-	-	10.8	-	-	9.6	-	-	8.4	-	-	7.2	-	-	6.0	-	-	4.8	-	-	3.6	-	-	2.4	-	-	1.2	-	-	0.0	-	-
Output Voltage [V]	Load Current [A]																																													
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		Testing Circuitry Figure A	
Model	PJA50F-12		
Item	Ambient Temperature Drift		
Object	+12V4.3A		
1.Values Load 100%			
Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 115V	Input Volt. 230V
-10	12.104	12.104	12.104
25	12.115	12.115	12.115
50	12.112	12.113	12.113
Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A	
Object	+12V4.3A		
1.Values			
Ambient Temperature[°C]	Input Voltage [V]		
	Load 50%	Load 100%	
-10	32	56	
25	32	59	
50	33	56	
Item	Overvoltage Protection	Testing Circuitry Figure A	
Object	+12V4.3A		
1.Values Load 0%			
Ambient Temperature[°C]	Operating Point [V]		
	Input Volt. 115V	Input Volt. 230V	
-20	14.70	14.70	
25	15.11	15.11	
50	15.37	15.37	

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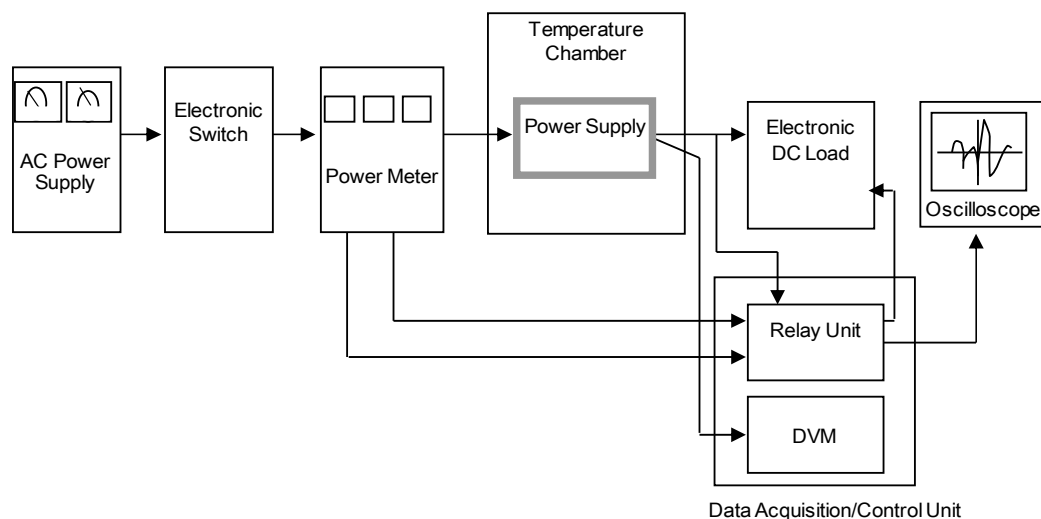


Figure A

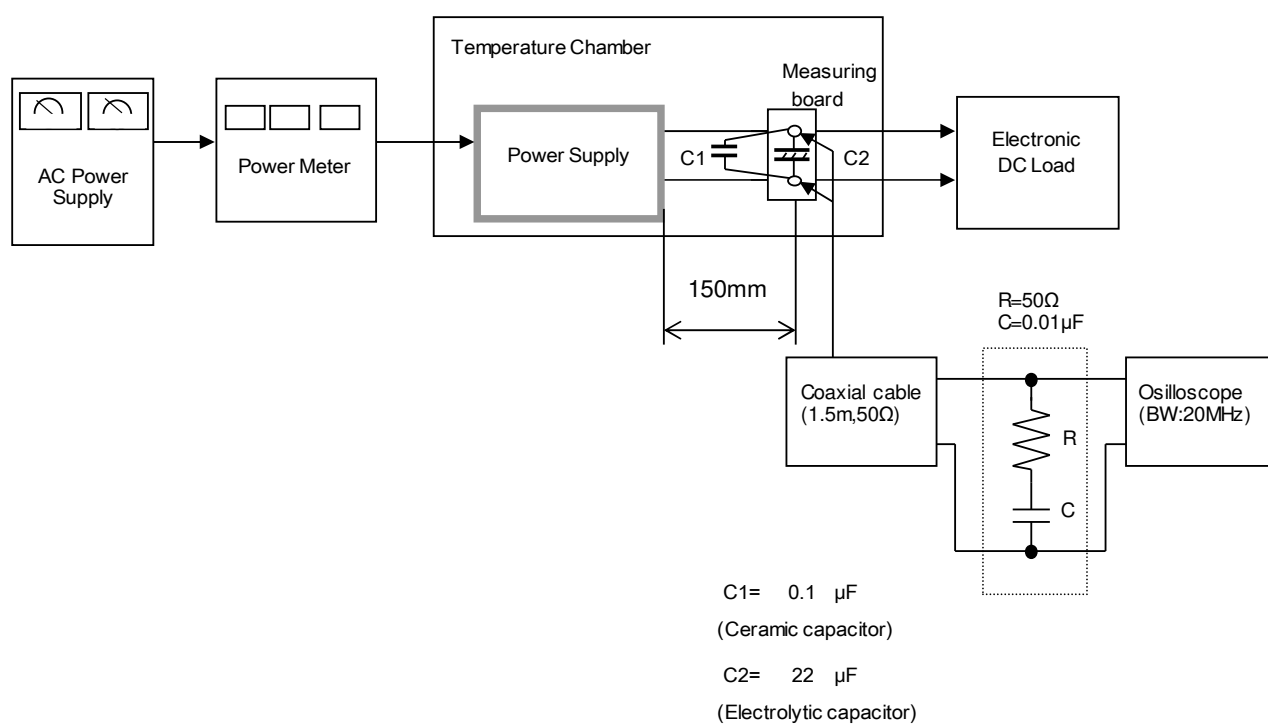


Figure B

