

TEST DATA OF PJA30F-24

Regulated DC Power Supply
May 26, 2026

Approved by : Yoshiaki Shimizu
Design Manager

Prepared by : Yeongjun Lee
Design Engineer

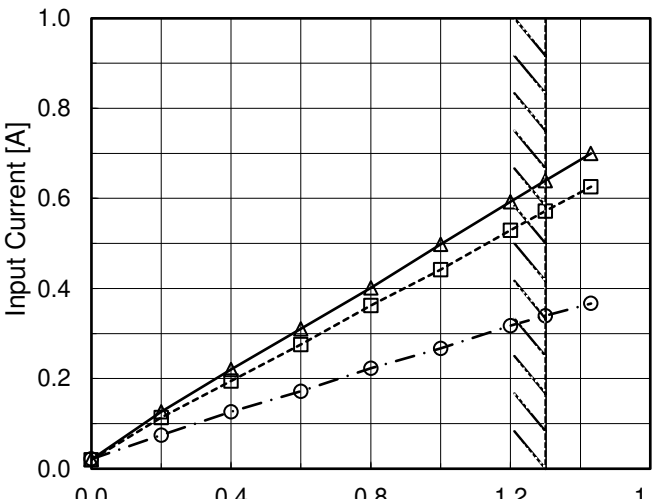
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(Final Page 15)

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Model		PJA30F-24		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]  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>0.021</td><td>0.020</td><td>0.022</td></tr><tr><td>0.20</td><td>0.126</td><td>0.114</td><td>0.075</td></tr><tr><td>0.40</td><td>0.220</td><td>0.194</td><td>0.126</td></tr><tr><td>0.60</td><td>0.311</td><td>0.276</td><td>0.172</td></tr><tr><td>0.80</td><td>0.401</td><td>0.362</td><td>0.223</td></tr><tr><td>1.00</td><td>0.498</td><td>0.442</td><td>0.267</td></tr><tr><td>1.20</td><td>0.593</td><td>0.529</td><td>0.317</td></tr><tr><td>1.30</td><td>0.639</td><td>0.572</td><td>0.339</td></tr><tr><td>1.43</td><td>0.700</td><td>0.626</td><td>0.367</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	0.021	0.020	0.022	0.20	0.126	0.114	0.075	0.40	0.220	0.194	0.126	0.60	0.311	0.276	0.172	0.80	0.401	0.362	0.223	1.00	0.498	0.442	0.267	1.20	0.593	0.529	0.317	1.30	0.639	0.572	0.339	1.43	0.700	0.626	0.367	--	-	-	-	--	-	-	-		
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1.Graph		—△— Input Volt. 100V ---□--- Input Volt. 115V -·-○-·- Input Volt. 230V Efficiency [%] 100 90 80 70 60 50 0.0 0.4 0.8 1.2 1.6 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6		2.Values																																																				
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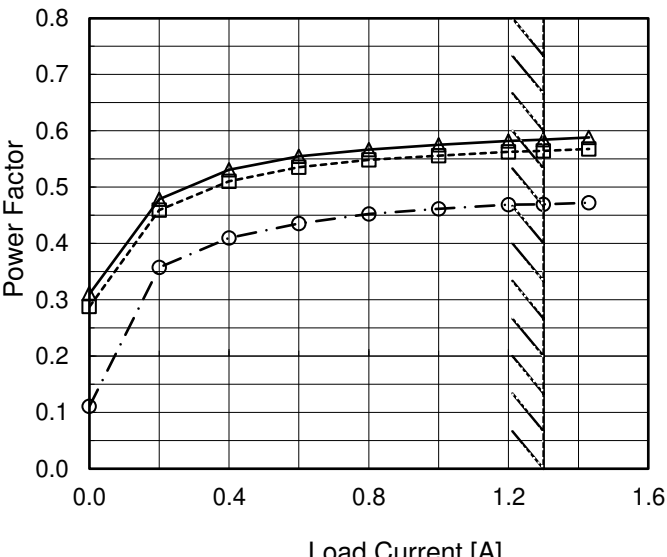
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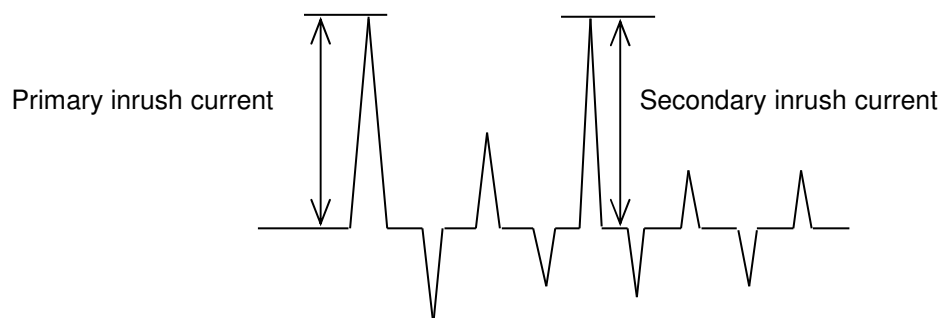
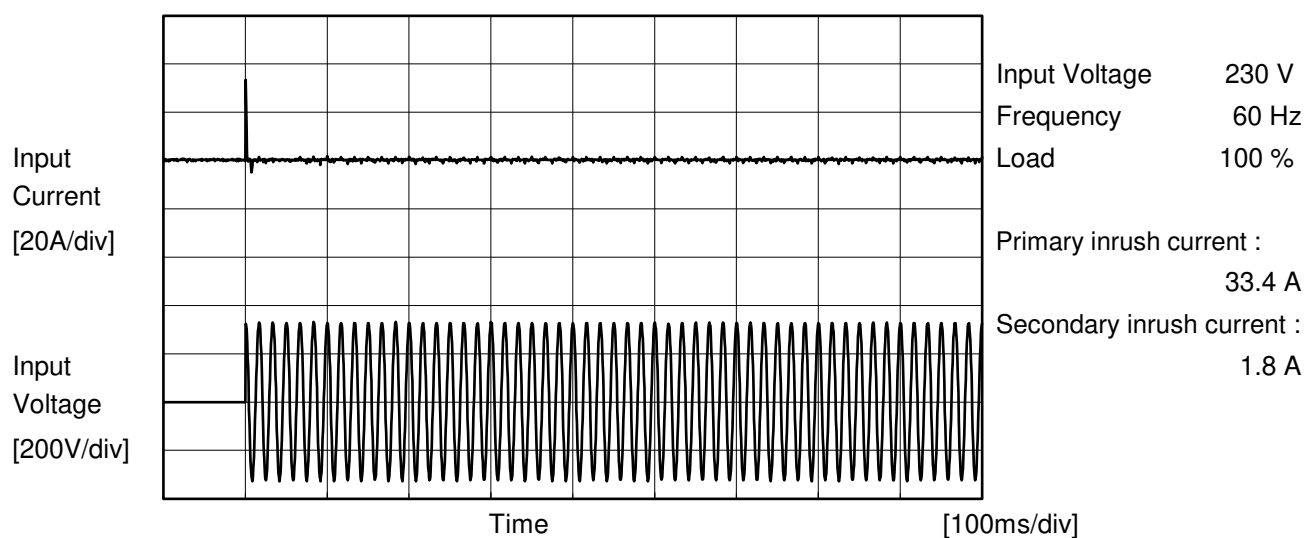
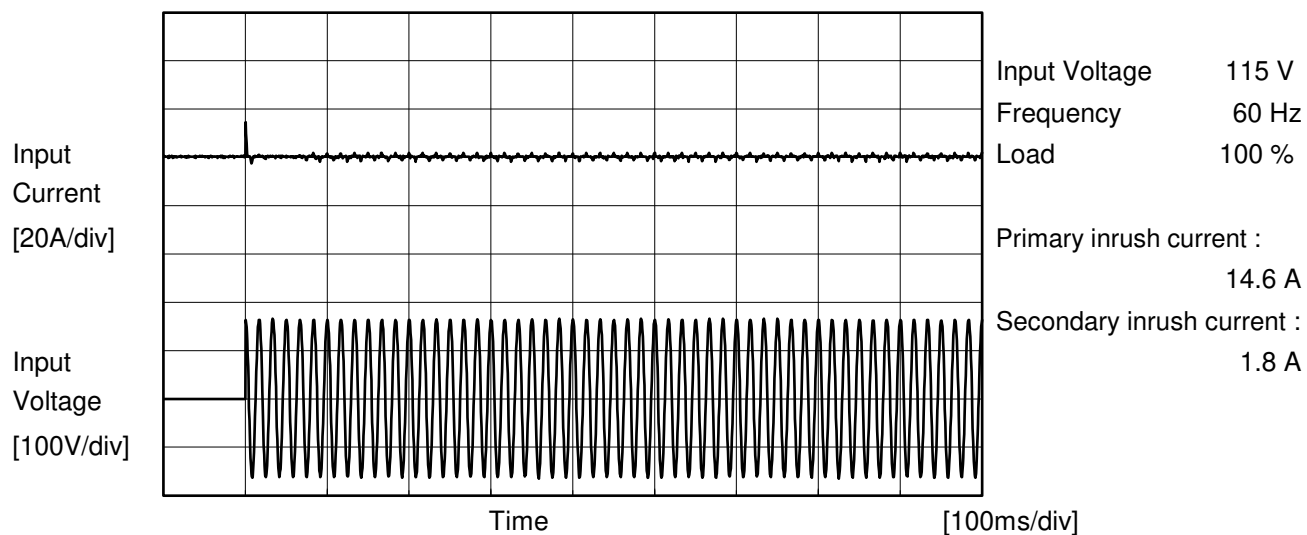
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Model	PJA30F-24	Temperature	25°C
Item	Inrush Current	Testing Circuitry	Figure A
Object	_____		





Model		PJA30F-24	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	0.19	0.22	0.48	Operation
		One of phases	0.27	0.32	0.70	Stand by
IEC62368-1	Figure C-2	Both phases	0.18	0.21	0.46	Operation
		One of phases	0.27	0.31	0.69	Stand by
	Figure C-3	Both phases	0.18	0.21	0.46	Operation
		One of phases	0.27	0.31	0.68	Stand by

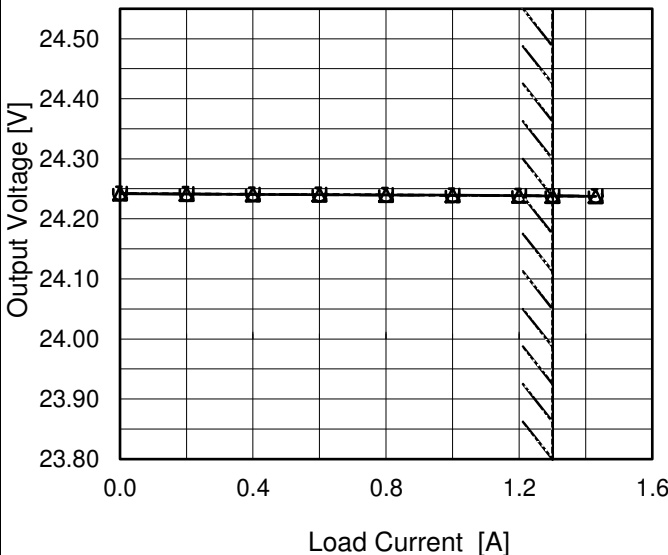
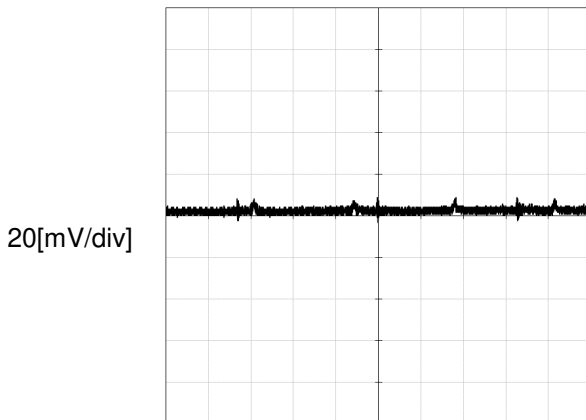
The value for "One of phases" is the reference value only.

2.Condition

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

Model		PJA30F-24	Temperature		25°C																																
Item		Line Regulation	Testing Circuitry		Figure A																																
Object		+24V1.3A																																			
1.Graph			2.Values																																		
Load 50% Load 100% <table><thead><tr><th rowspan="2">Input Voltage [V]</th><th colspan="2">Output Voltage [V]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr></thead><tbody><tr><td>85</td><td>24.240</td><td>24.238</td></tr><tr><td>100</td><td>24.240</td><td>24.238</td></tr><tr><td>115</td><td>24.240</td><td>24.238</td></tr><tr><td>200</td><td>24.240</td><td>24.238</td></tr><tr><td>230</td><td>24.240</td><td>24.238</td></tr><tr><td>264</td><td>24.240</td><td>24.238</td></tr><tr><td>280</td><td>24.240</td><td>24.238</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></tbody></table> Note: Slanted line shows the range of the rated input voltage.			Input Voltage [V]	Output Voltage [V]		Load 50%	Load 100%	85	24.240	24.238	100	24.240	24.238	115	24.240	24.238	200	24.240	24.238	230	24.240	24.238	264	24.240	24.238	280	24.240	24.238	--	-	-	--	-	-			
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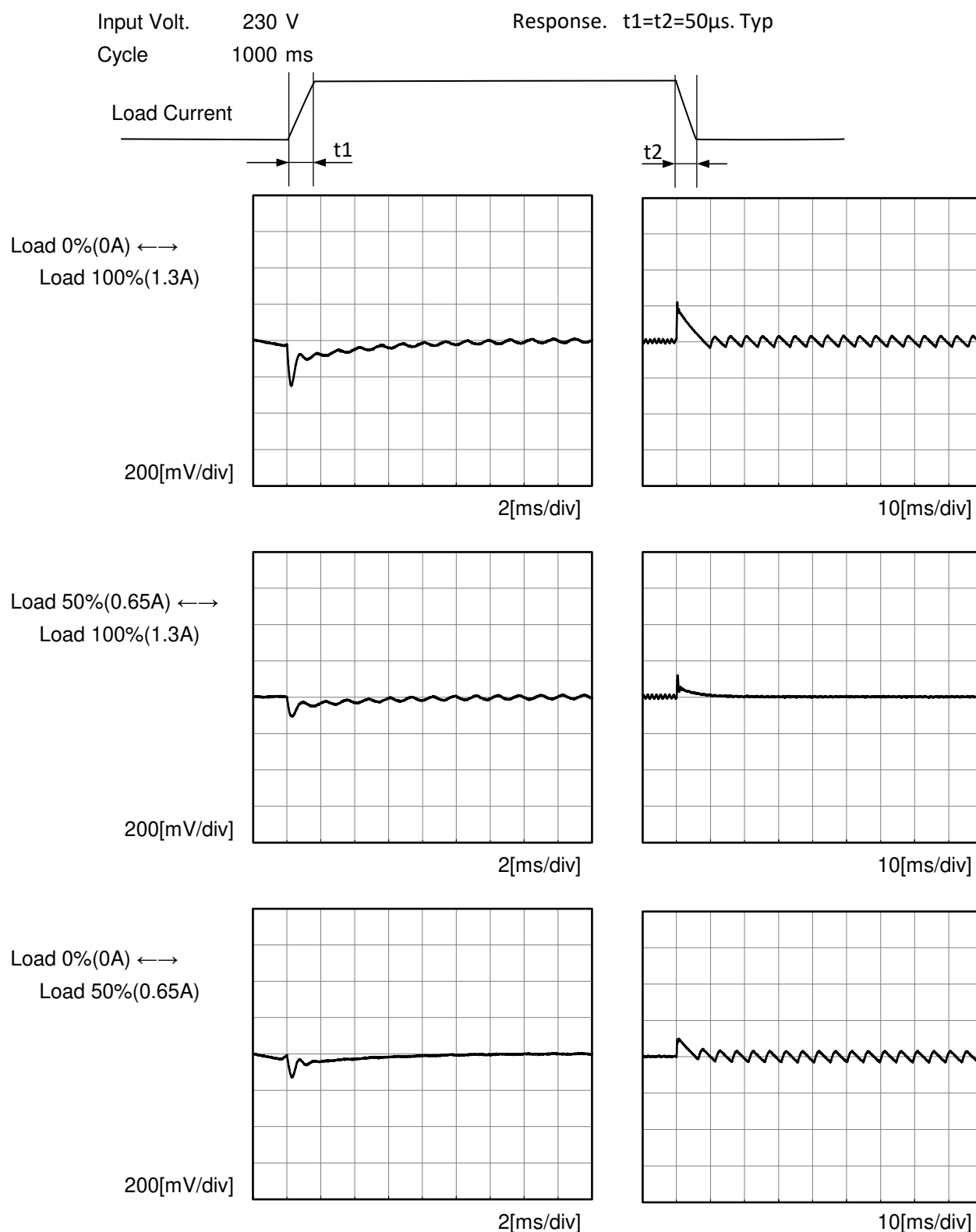
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Object		+24V1.3A		Testing Circuitry Figure B																																																				
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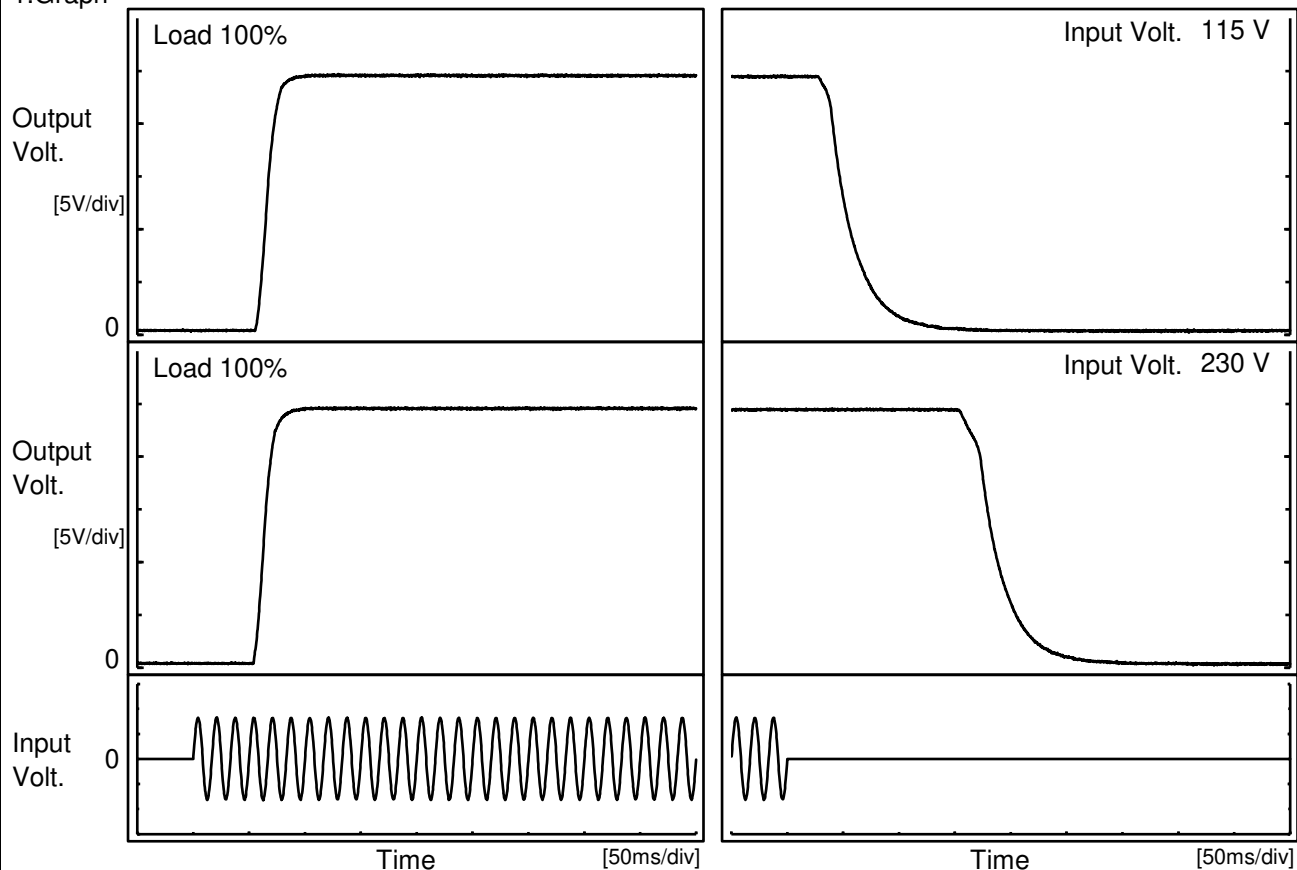
Model	PJA30F-24	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	+24V1.3A	



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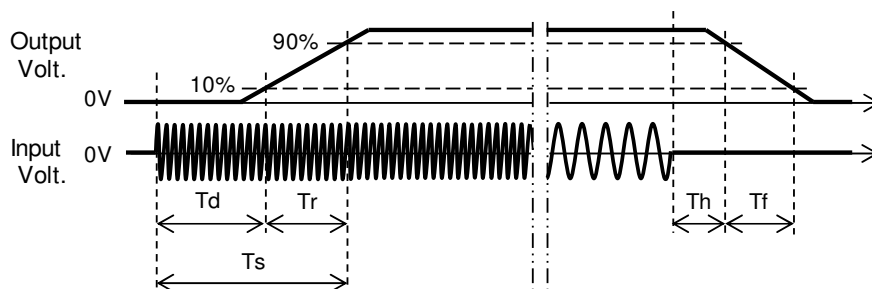
Model	PJA30F-24	Temperature 25°C Testing Circuitry Figure A
Item	Rise and Fall Time	
Object	+24V1.3A	

1.Graph



2.Values

		[ms]				
Input Volt.	Time	Td	Tr	Ts	Th	Tf
115 V		58.8	16.8	75.6	38.5	49.8
230 V		56.8	15.5	72.3	166.8	53.5



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Model	PJA30F-24																																		
Item	Hold-Up Time	Temperature	25°C																																
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Hold-Up Time [ms] 1000 100 10 1 50 100 150 200 250 300 ---□--- Load 50% —△— Load 100% Input Voltage [V]		<table><tr><th rowspan="2">Input Voltage [V]</th><th colspan="2">Hold-Up Time [ms]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr><tr><td>85</td><td>39</td><td>14</td></tr><tr><td>100</td><td>56</td><td>20</td></tr><tr><td>115</td><td>77</td><td>30</td></tr><tr><td>200</td><td>251</td><td>114</td></tr><tr><td>230</td><td>338</td><td>158</td></tr><tr><td>264</td><td>450</td><td>215</td></tr><tr><td>280</td><td>512</td><td>246</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Input Voltage [V]	Hold-Up Time [ms]		Load 50%	Load 100%	85	39	14	100	56	20	115	77	30	200	251	114	230	338	158	264	450	215	280	512	246	--	-	-	--	-	-
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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.																																			

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		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Time [ms]</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>-</td><td>-</td><td>-</td></tr><tr><td>0.20</td><td>181</td><td>248</td><td>1076</td></tr><tr><td>0.40</td><td>92</td><td>126</td><td>504</td></tr><tr><td>0.60</td><td>57</td><td>84</td><td>368</td></tr><tr><td>0.80</td><td>42</td><td>62</td><td>277</td></tr><tr><td>1.00</td><td>31</td><td>47</td><td>218</td></tr><tr><td>1.20</td><td>23</td><td>36</td><td>173</td></tr><tr><td>1.30</td><td>19</td><td>29</td><td>157</td></tr><tr><td>1.43</td><td>13</td><td>22</td><td>114</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]	Time [ms]			Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]	0.00	-	-	-	0.20	181	248	1076	0.40	92	126	504	0.60	57	84	368	0.80	42	62	277	1.00	31	47	218	1.20	23	36	173	1.30	19	29	157	1.43	13	22	114	--	-	-	-	--	-	-	-
Load Current [A]	Time [ms]																																																					
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Note: Slanted line shows the range of the rated load current.																																																						

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Model		PJA30F-24	Temperature Testing Circuitry	25°C Figure A																																									
Item		Overcurrent Protection																																											
Object		+24V1.3A																																											
1.Graph			2.Values																																										
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>24.0</td><td>1.65</td><td>1.70</td></tr><tr><td>22.8</td><td>-</td><td>-</td></tr><tr><td>21.6</td><td>-</td><td>-</td></tr><tr><td>19.2</td><td>-</td><td>-</td></tr><tr><td>16.8</td><td>-</td><td>-</td></tr><tr><td>14.4</td><td>-</td><td>-</td></tr><tr><td>12.0</td><td>-</td><td>-</td></tr><tr><td>9.6</td><td>-</td><td>-</td></tr><tr><td>7.2</td><td>-</td><td>-</td></tr><tr><td>4.8</td><td>-</td><td>-</td></tr><tr><td>2.4</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]	24.0	1.65	1.70	22.8	-	-	21.6	-	-	19.2	-	-	16.8	-	-	14.4	-	-	12.0	-	-	9.6	-	-	7.2	-	-	4.8	-	-	2.4	-	-	0.0	-	-
Output Voltage [V]	Load Current [A]																																												
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4.8	-	-																																											
2.4	-	-																																											
0.0	-	-																																											



		Testing Circuitry Figure A	
Model	PJA30F-24		
Item	Ambient Temperature Drift		
Object	+24V1.3A		
1.Values Load 100%			
Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 115V	Input Volt. 230V
-10	24.213	24.213	24.213
25	24.239	24.240	24.240
50	24.239	24.239	24.239
Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A	
Object	+24V1.3A		
1.Values			
Ambient Temperature[°C]	Input Voltage [V]		
	Load 50%	Load 100%	
-10	32	67	
25	32	67	
50	32	67	
Item	Overvoltage Protection	Testing Circuitry Figure A	
Object	+24V1.3A		
1.Values Load 0%			
Ambient Temperature[°C]	Operating Point [V]		
	Input Volt. 115V	Input Volt. 230V	
-20	30.20	30.20	
25	31.39	31.39	
50	31.99	31.99	

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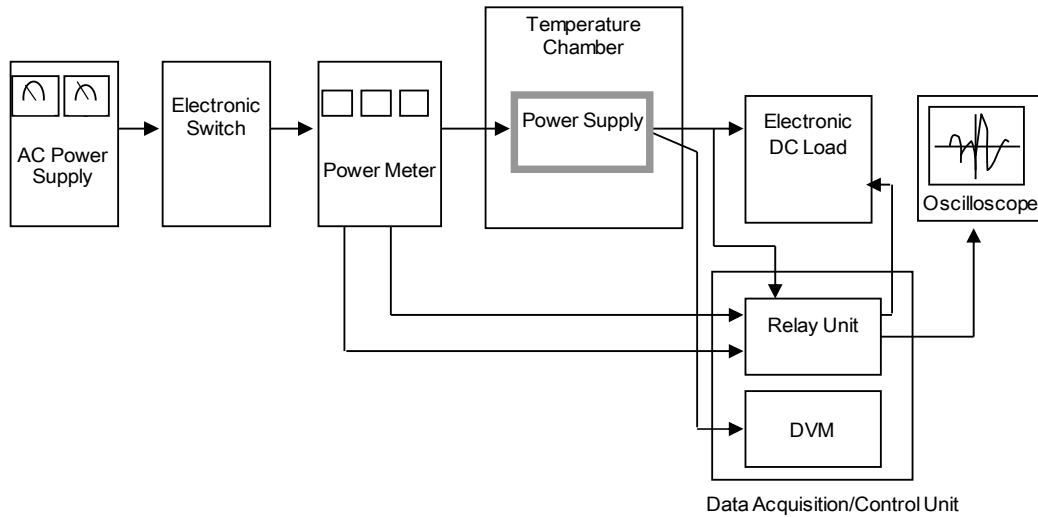


Figure A

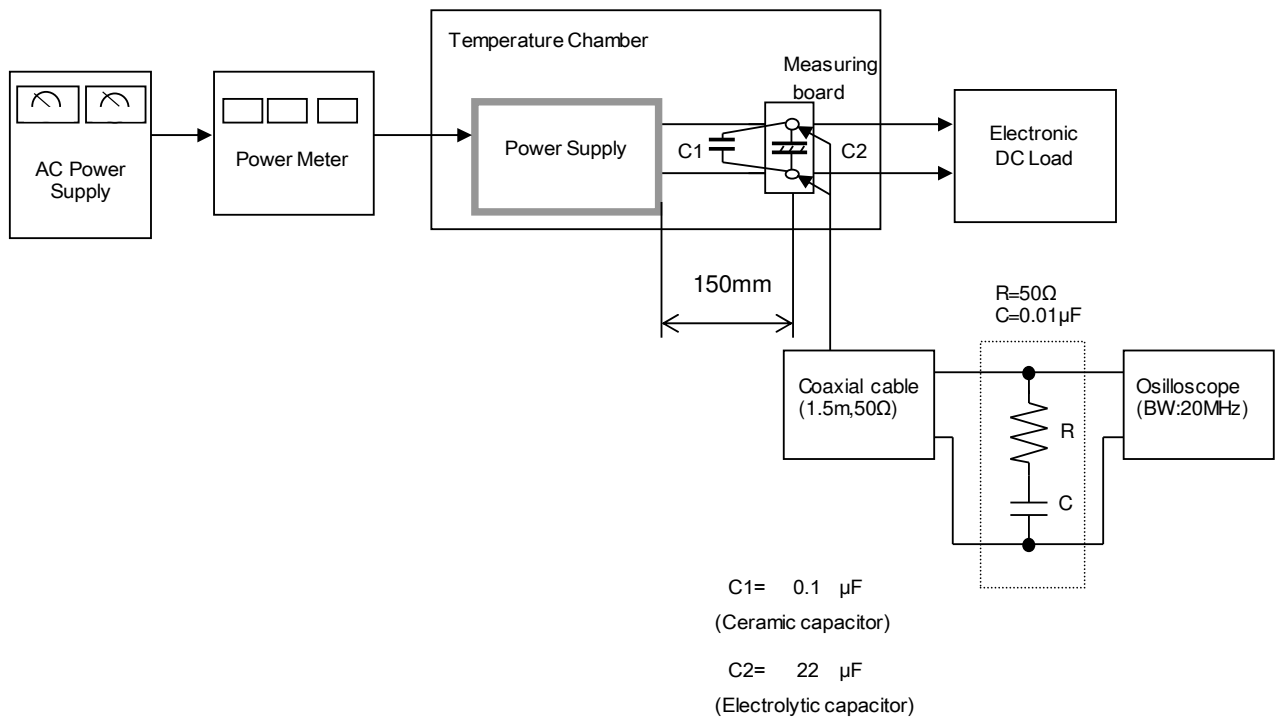


Figure B

