

TEST DATA OF PJA15F-12

Regulated DC Power Supply
May 26, 2026

Approved by : Yoshiaki Shimizu
Design Manager

Prepared by : Yeongjun Lee
Design Engineer

COSEL CO.,LTD.

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)

COSEL

Model		PJA15F-12	Temperature		25°C																																																			
Item		Input Current (by Load Current)	Testing Circuitry		Figure A																																																			
Object																																																								
1.Graph			2.Values																																																					
—△— ---□--- -·○- Input Volt. 100V Input Volt. 115V Input Volt. 230V 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>0.007</td><td>0.007</td><td>0.008</td></tr><tr><td>0.20</td><td>0.068</td><td>0.061</td><td>0.039</td></tr><tr><td>0.40</td><td>0.119</td><td>0.107</td><td>0.067</td></tr><tr><td>0.60</td><td>0.165</td><td>0.150</td><td>0.094</td></tr><tr><td>0.80</td><td>0.212</td><td>0.191</td><td>0.118</td></tr><tr><td>1.00</td><td>0.258</td><td>0.232</td><td>0.142</td></tr><tr><td>1.20</td><td>0.305</td><td>0.274</td><td>0.167</td></tr><tr><td>1.30</td><td>0.328</td><td>0.294</td><td>0.179</td></tr><tr><td>1.43</td><td>0.359</td><td>0.321</td><td>0.195</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	0.007	0.007	0.008	0.20	0.068	0.061	0.039	0.40	0.119	0.107	0.067	0.60	0.165	0.150	0.094	0.80	0.212	0.191	0.118	1.00	0.258	0.232	0.142	1.20	0.305	0.274	0.167	1.30	0.328	0.294	0.179	1.43	0.359	0.321	0.195	--	-	-	-	--	-	-	-
Load Current [A]	Input Current [A]																																																							
	Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]																																																					
0.00	0.007	0.007	0.008																																																					
0.20	0.068	0.061	0.039																																																					
0.40	0.119	0.107	0.067																																																					
0.60	0.165	0.150	0.094																																																					
0.80	0.212	0.191	0.118																																																					
1.00	0.258	0.232	0.142																																																					
1.20	0.305	0.274	0.167																																																					
1.30	0.328	0.294	0.179																																																					
1.43	0.359	0.321	0.195																																																					
--	-	-	-																																																					
--	-	-	-																																																					
Note: Slanted line shows the range of the rated load current.																																																								

BC-12234

COSEL

Model		PJA15F-12		Temperature 25°C																																																				
Item		Efficiency (by Load Current)		Testing Circuitry Figure A																																																				
Object																																																								
1.Graph		—△— Input Volt. 100V ---□--- Input Volt. 115V -·-○-·- Input Volt. 230V Efficiency [%] Load Current [A] Note: Slanted line shows the range of the rated load current.		2.Values																																																				
		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Efficiency [%]</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>77.4</td><td>77.7</td><td>75.9</td></tr><tr><td>0.40</td><td>79.9</td><td>81.1</td><td>79.7</td></tr><tr><td>0.60</td><td>81.6</td><td>81.3</td><td>80.6</td></tr><tr><td>0.80</td><td>81.1</td><td>81.7</td><td>82.3</td></tr><tr><td>1.00</td><td>80.7</td><td>81.4</td><td>82.8</td></tr><tr><td>1.20</td><td>80.1</td><td>81.0</td><td>82.4</td></tr><tr><td>1.30</td><td>79.7</td><td>80.7</td><td>82.2</td></tr><tr><td>1.43</td><td>79.1</td><td>80.2</td><td>82.2</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]	Efficiency [%]			Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]	0.00	-	-	-	0.20	77.4	77.7	75.9	0.40	79.9	81.1	79.7	0.60	81.6	81.3	80.6	0.80	81.1	81.7	82.3	1.00	80.7	81.4	82.8	1.20	80.1	81.0	82.4	1.30	79.7	80.7	82.2	1.43	79.1	80.2	82.2	--	-	-	-	--	-	-	-
Load Current [A]	Efficiency [%]																																																							
	Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]																																																					
0.00	-	-	-																																																					
0.20	77.4	77.7	75.9																																																					
0.40	79.9	81.1	79.7																																																					
0.60	81.6	81.3	80.6																																																					
0.80	81.1	81.7	82.3																																																					
1.00	80.7	81.4	82.8																																																					
1.20	80.1	81.0	82.4																																																					
1.30	79.7	80.7	82.2																																																					
1.43	79.1	80.2	82.2																																																					
--	-	-	-																																																					
--	-	-	-																																																					

- 2 -

BC-12234

COSEL

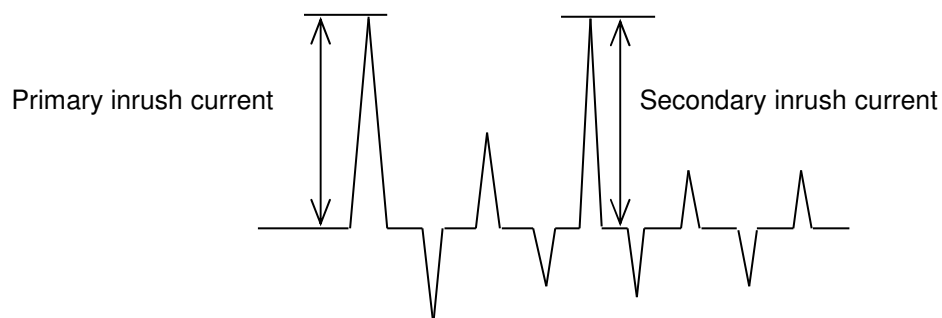
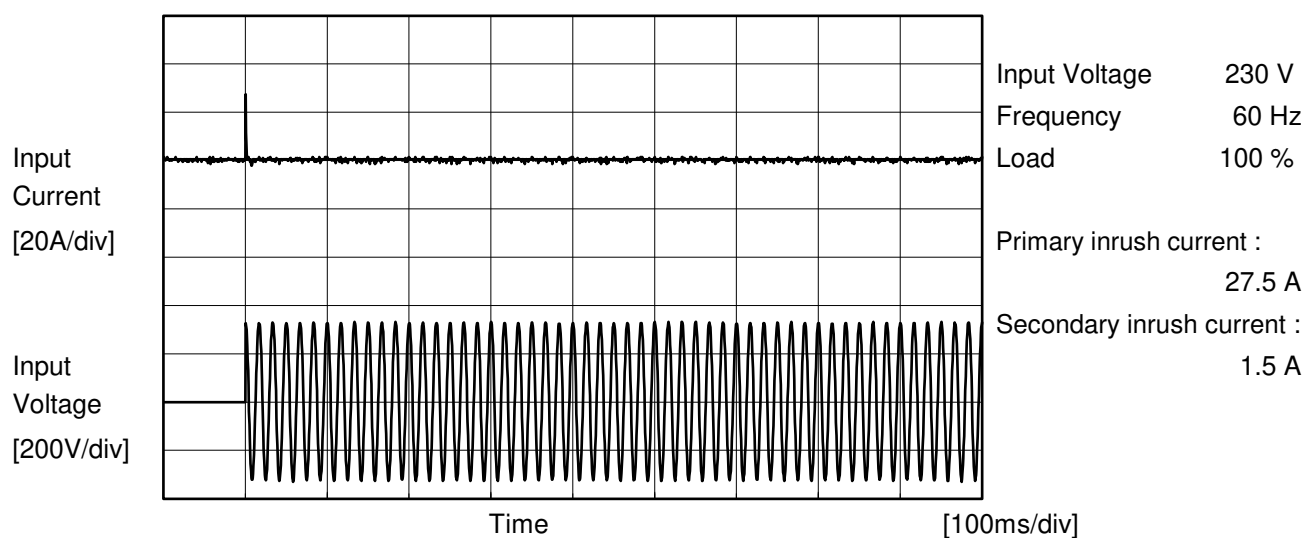
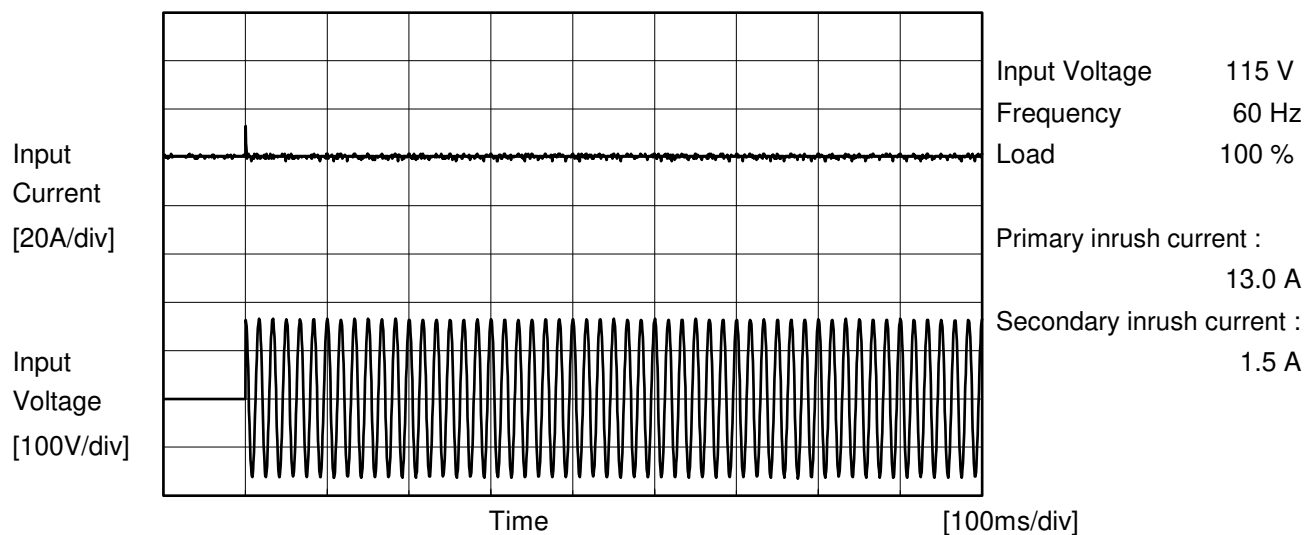
Model		PJA15F-12	Temperature 25°C																																																			
Item		Power Factor (by Load Current)	Testing Circuitry Figure A																																																			
Object		_____																																																				
1.Graph		—△— ---□--- ---○--- Input Volt. 100V Input Volt. 115V Input Volt. 230V	2.Values																																																			
Power Factor Load Current [A]		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Power Factor</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>0.308</td><td>0.291</td><td>0.233</td></tr><tr><td>0.20</td><td>0.465</td><td>0.445</td><td>0.359</td></tr><tr><td>0.40</td><td>0.513</td><td>0.489</td><td>0.397</td></tr><tr><td>0.60</td><td>0.544</td><td>0.521</td><td>0.419</td></tr><tr><td>0.80</td><td>0.567</td><td>0.542</td><td>0.436</td></tr><tr><td>1.00</td><td>0.585</td><td>0.560</td><td>0.450</td></tr><tr><td>1.20</td><td>0.600</td><td>0.574</td><td>0.463</td></tr><tr><td>1.30</td><td>0.606</td><td>0.580</td><td>0.468</td></tr><tr><td>1.43</td><td>0.614</td><td>0.588</td><td>0.474</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]	Power Factor			Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]	0.00	0.308	0.291	0.233	0.20	0.465	0.445	0.359	0.40	0.513	0.489	0.397	0.60	0.544	0.521	0.419	0.80	0.567	0.542	0.436	1.00	0.585	0.560	0.450	1.20	0.600	0.574	0.463	1.30	0.606	0.580	0.468	1.43	0.614	0.588	0.474	--	-	-	-	--	-	-	-
Load Current [A]	Power Factor																																																					
	Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]																																																			
0.00	0.308	0.291	0.233																																																			
0.20	0.465	0.445	0.359																																																			
0.40	0.513	0.489	0.397																																																			
0.60	0.544	0.521	0.419																																																			
0.80	0.567	0.542	0.436																																																			
1.00	0.585	0.560	0.450																																																			
1.20	0.600	0.574	0.463																																																			
1.30	0.606	0.580	0.468																																																			
1.43	0.614	0.588	0.474																																																			
--	-	-	-																																																			
--	-	-	-																																																			
Note: Slanted line shows the range of the rated load current.																																																						

- 3 -

BC-12234

COSEL

Model	PJA15F-12	Temperature	25°C
Item	Inrush Current	Testing Circuitry	Figure A
Object	_____		





Model		PJA15F-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	0.06	0.07	0.17	Operation
		One of phases	0.09	0.11	0.25	Stand by
IEC62368-1	Figure C-2	Both phases	0.06	0.08	0.16	Operation
		One of phases	0.10	0.11	0.24	Stand by
	Figure C-3	Both phases	0.06	0.07	0.16	Operation
		One of phases	0.09	0.11	0.24	Stand by

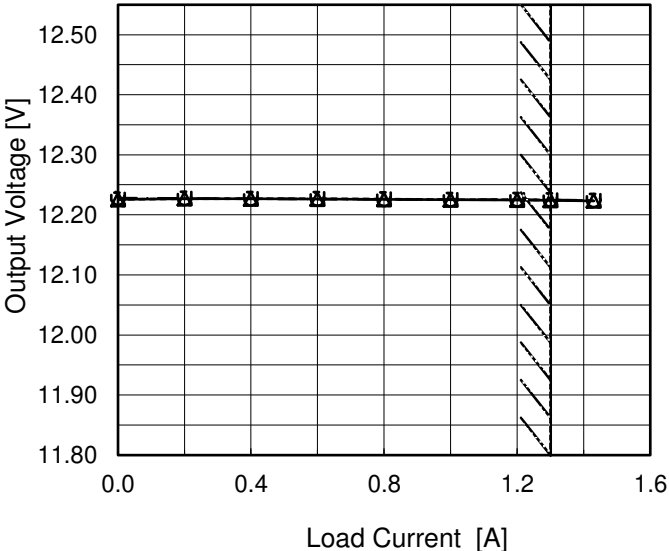
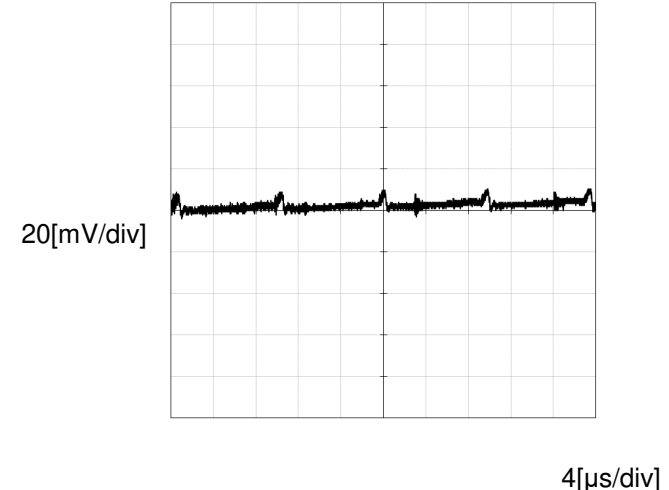
The value for "One of phases" is the reference value only.

2.Condition

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

LUZEL			
Model	PJA15F-12		
Item	Line Regulation	Temperature	25°C
		Testing Circuitry	Figure A
Object	+12V1.3A		
1.Graph		2.Values	
--- □ --- Load 50% — △ — Load 100% Output Voltage [V] </			

COSEL

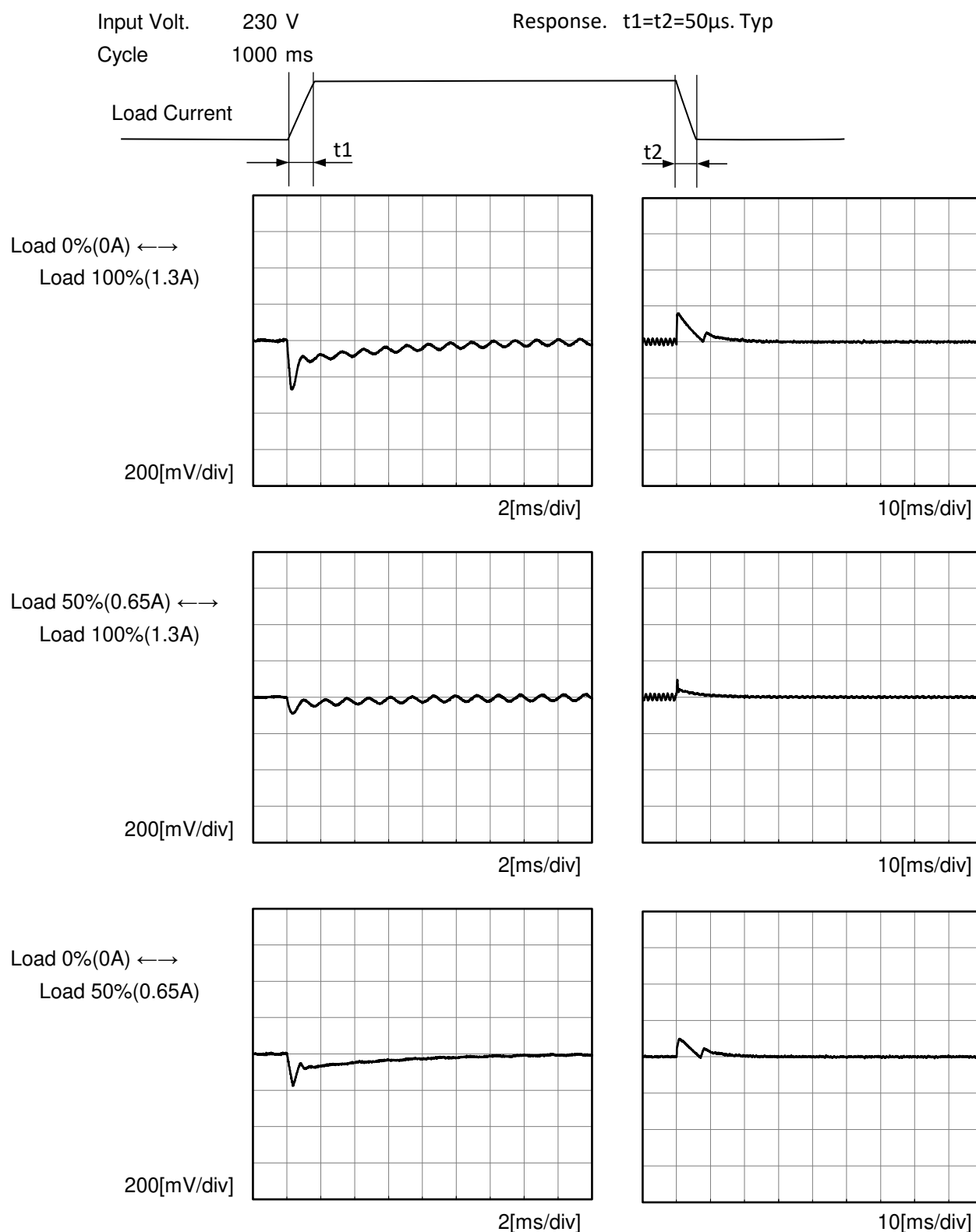
Model		PJA15F-12		Temperature Testing Circuitry	25°C Figure A
Item		Load Regulation			
Object		+12V1.3A			
1.Graph					
		—△—	Input Volt.	100V	2.Values
		---□---	Input Volt.	115V	
		---○---	Input Volt.	230V	
					
Note: Slanted line shows the range of the rated load current.					
Item		Ripple-Noise		Temperature Testing Circuitry	25°C Figure B
Object		+12V1.3A			
1.Graph					
		Input Voltage	230V		
		Load	100%		
					

- 7 -

BC-12234

COSEL

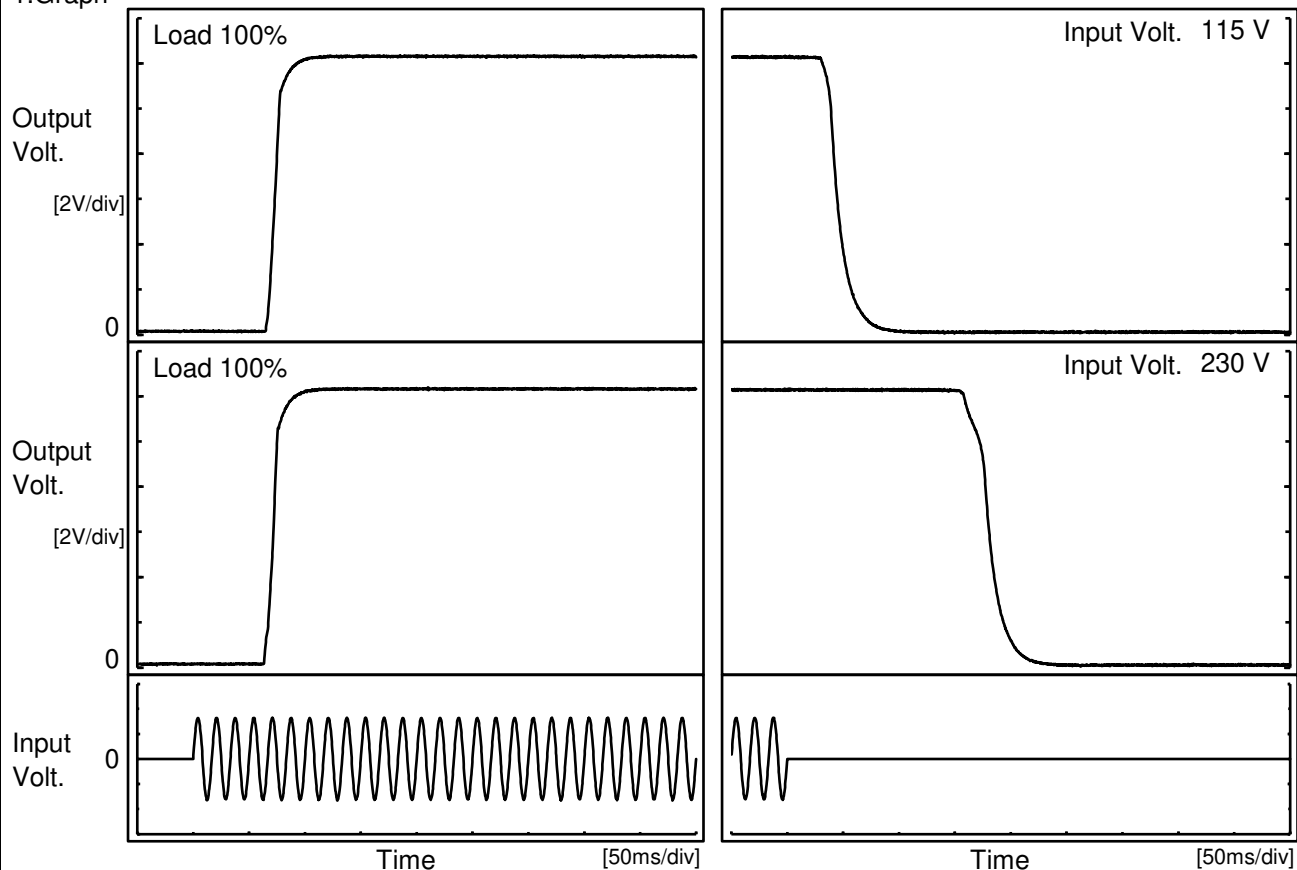
Model	PJA15F-12	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	+12V1.3A	



COSEL

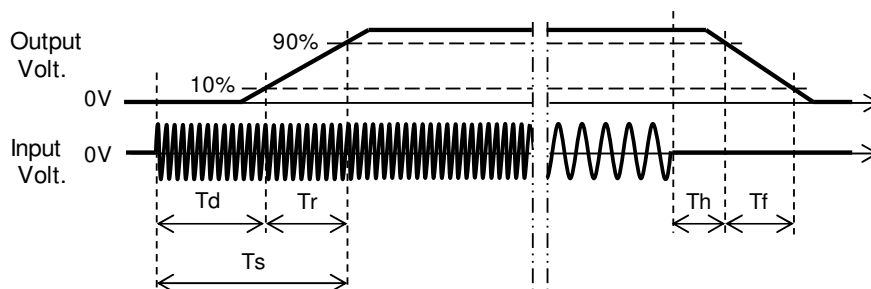
Model	PJA15F-12	Temperature 25°C Testing Circuitry Figure A
Item	Rise and Fall Time	
Object	+12V1.3A	

1.Graph



2.Values

		[ms]				
Input Volt.	Time	Td	Tr	Ts	Th	Tf
115 V		67.8	11.8	79.6	37.0	25.5
230 V		65.5	12.8	78.3	165.3	34.0



COSEL

LOREL			
Model	PJA15F-12		
Item	Hold-Up Time	Temperature	25°C
		Testing Circuitry	Figure A
Object	+12V1.3A		
1.Graph		2.Values	
Hold-Up Time [ms] <			

COSEL

LOREL																																																						
Model	PJA15F-12	Temperature	25°C																																																			
Item	Instantaneous Interruption Compensation	Testing Circuitry	Figure A																																																			
Object	+12V1.3A																																																					
1.Graph Input Volt. 100V Input Volt. 115V Input Volt. 230V Instantaneous Compensation Time [ms] 10000 1000 100 10 1 0.0 0.4 0.8 1.2 1.6 Load Current [A] Note: Slanted line shows the range of the rated load current.		2.Values <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>178</td><td>253</td><td>1095</td></tr><tr><td>0.40</td><td>93</td><td>128</td><td>567</td></tr><tr><td>0.60</td><td>58</td><td>85</td><td>376</td></tr><tr><td>0.80</td><td>47</td><td>62</td><td>281</td></tr><tr><td>1.00</td><td>35</td><td>47</td><td>221</td></tr><tr><td>1.20</td><td>25</td><td>36</td><td>174</td></tr><tr><td>1.30</td><td>23</td><td>31</td><td>157</td></tr><tr><td>1.43</td><td>14</td><td>22</td><td>130</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	178	253	1095	0.40	93	128	567	0.60	58	85	376	0.80	47	62	281	1.00	35	47	221	1.20	25	36	174	1.30	23	31	157	1.43	14	22	130	--	-	-	-	--	-	-	-
Load Current [A]	Time [ms]																																																					
	Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]																																																			
0.00	-	-	-																																																			
0.20	178	253	1095																																																			
0.40	93	128	567																																																			
0.60	58	85	376																																																			
0.80	47	62	281																																																			
1.00	35	47	221																																																			
1.20	25	36	174																																																			
1.30	23	31	157																																																			
1.43	14	22	130																																																			
--	-	-	-																																																			
--	-	-	-																																																			

- 11 -

BC-12234

COSEL

Model		PJA15F-12	Temperature		25°C																																									
Item		Overcurrent Protection	Testing Circuitry		Figure A																																									
Object		+12V1.3A																																												
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>12.0</td><td>1.71</td><td>1.75</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	1.71	1.75	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]																																													
	Input Volt. 115[V]	Input Volt. 230[V]																																												
12.0	1.71	1.75																																												
11.4	-	-																																												
10.8	-	-																																												
9.6	-	-																																												
8.4	-	-																																												
7.2	-	-																																												
6.0	-	-																																												
4.8	-	-																																												
3.6	-	-																																												
2.4	-	-																																												
1.2	-	-																																												
0.0	-	-																																												



Model	PJA15F-12		
Item	Ambient Temperature Drift	Testing Circuitry Figure A	
Object	+12V1.3A		
1.Values		Load 100%	
Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 115V	Input Volt. 230V
-10	12.193	12.193	12.194
25	12.227	12.227	12.228
50	12.234	12.234	12.234
Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A	
Object	+12V1.3A		
1.Values			
Ambient Temperature[°C]	Input Voltage [V]		
	Load 50%	Load 100%	
-10	32	67	
25	31	64	
50	33	62	
Item	Overvoltage Protection	Testing Circuitry Figure A	
Object	+12V1.3A		
1.Values		Load 0%	
Ambient Temperature[°C]	Operating Point [V]		
	Input Volt. 115V	Input Volt. 230V	
-20	14.60	14.60	
25	15.07	15.07	
50	15.28	15.28	

- 13 -

BC-12234

