

TEST DATA OF LFP150F-24-Y

Regulated DC Power Supply
February 4, 2013

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Yoshiaki Shimizu Design Manager

Prepared by : Soshi Nakamura
Soshi Nakamura Design Engineer

COSEL CO.,LTD.


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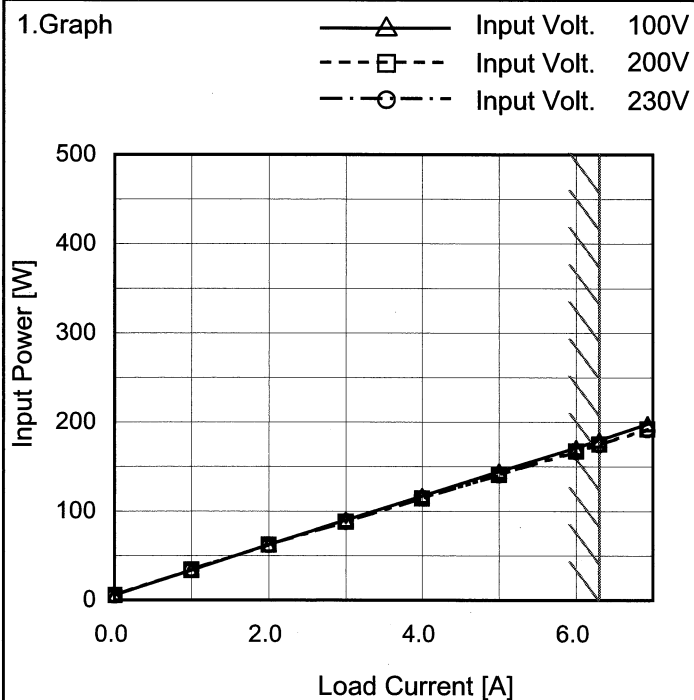
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Model		LFP150F-24-Y																																																				
Item		Input Current (by Load Current)																																																				
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<div><div><div><div><div></div><div></div></div><div>—△—</div><div>Input Volt.</div><div>100V</div></div><div><div><div></div><div></div></div><div>---□---</div><div>Input Volt.</div><div>200V</div></div><div><div><div></div><div></div></div><div>---○---</div><div>Input Volt.</div><div>230V</div></div></div><div>Input Current [A]</div><div>Load Current [A]</div></div>		<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. 200[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>0.00</td><td>0.083</td><td>0.081</td><td>0.084</td></tr><tr><td>1.00</td><td>0.354</td><td>0.223</td><td>0.208</td></tr><tr><td>2.00</td><td>0.639</td><td>0.359</td><td>0.330</td></tr><tr><td>3.00</td><td>0.915</td><td>0.487</td><td>0.441</td></tr><tr><td>4.00</td><td>1.180</td><td>0.616</td><td>0.557</td></tr><tr><td>5.00</td><td>1.459</td><td>0.750</td><td>0.671</td></tr><tr><td>6.00</td><td>1.724</td><td>0.882</td><td>0.786</td></tr><tr><td>6.30</td><td>1.811</td><td>0.922</td><td>0.820</td></tr><tr><td>6.93</td><td>1.989</td><td>1.005</td><td>0.895</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. 200[V]	Input Volt. 230[V]	0.00	0.083	0.081	0.084	1.00	0.354	0.223	0.208	2.00	0.639	0.359	0.330	3.00	0.915	0.487	0.441	4.00	1.180	0.616	0.557	5.00	1.459	0.750	0.671	6.00	1.724	0.882	0.786	6.30	1.811	0.922	0.820	6.93	1.989	1.005	0.895	--	-	-	-	--	-	-	-
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Model	LFP150F-24-Y
Item	Input Power (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 Power [W]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.00	5.8	5.3	5.1
1.00	33.8	34.0	34.0
2.00	62.4	62.0	61.8
3.00	90.3	87.9	87.8
4.00	117.0	114.2	114.2
5.00	144.8	140.7	140.4
6.00	171.4	167.4	166.8
6.30	180.0	175.3	174.7
6.93	198.2	192.2	191.6
--	-	-	-
--	-	-	-



Model		LFP150F-24-Y	
Item		Efficiency (by Input Voltage)	
Object			
1.Graph		2.Values	

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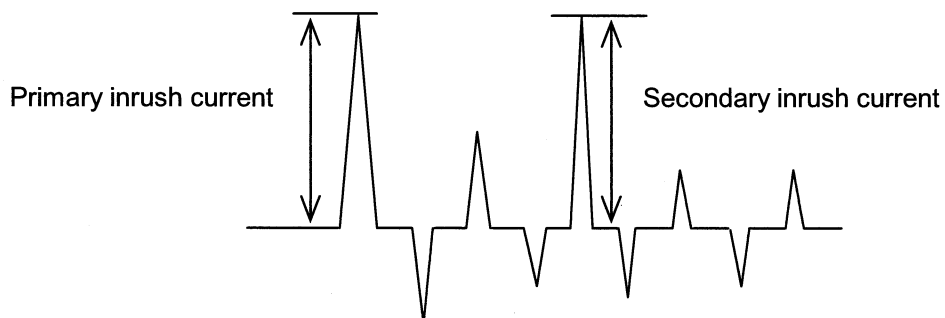
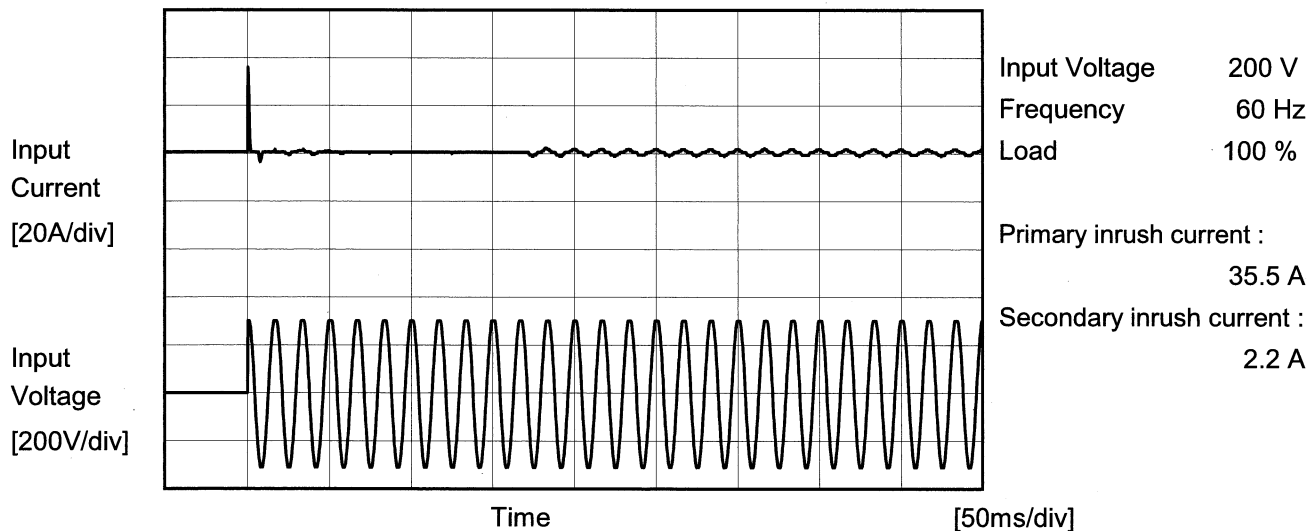
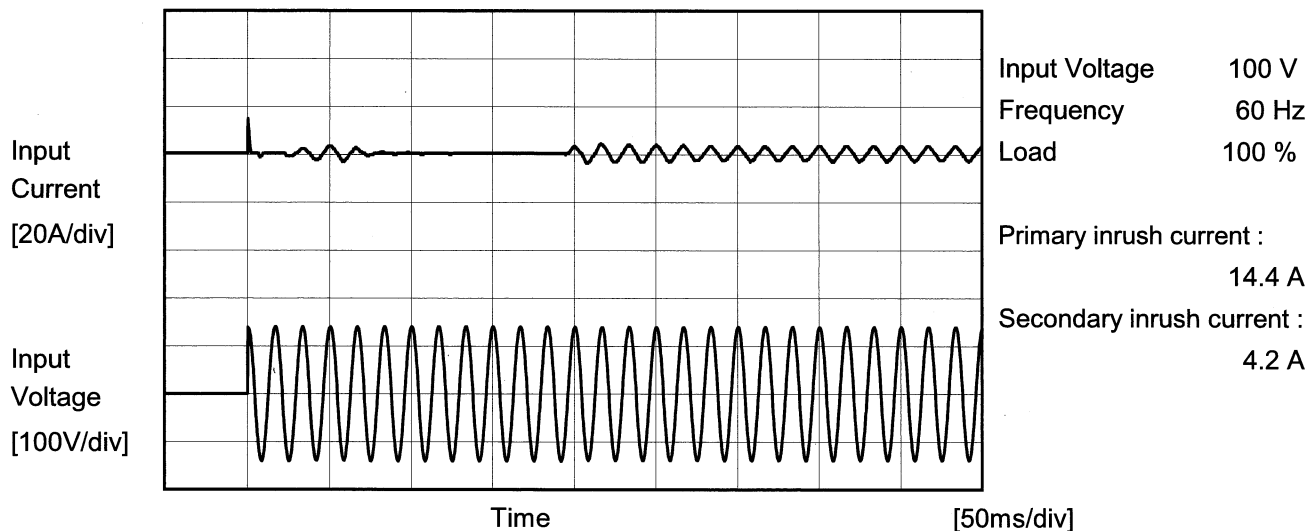
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Model	LFP150F-24-Y	Temperature 25°C Testing Circuitry Figure A	
Item	Inrush Current		
Object			





		Temperature 25°C Testing Circuitry Figure B
Model	LFP150F-24-Y	
Item	Leakage Current	
Object	_____	

1.Results

[mA]

Standards		Input Volt.			Note
		100 [V]	200 [V]	240 [V]	
DEN-AN	Both phases	0.28	0.40	0.46	Operation
	One of phases	0.24	0.52	0.63	Stand by
IEC60950-1	Both phases	0.16	0.41	0.45	Operation
	One of phases	0.26	0.63	0.64	Stand by

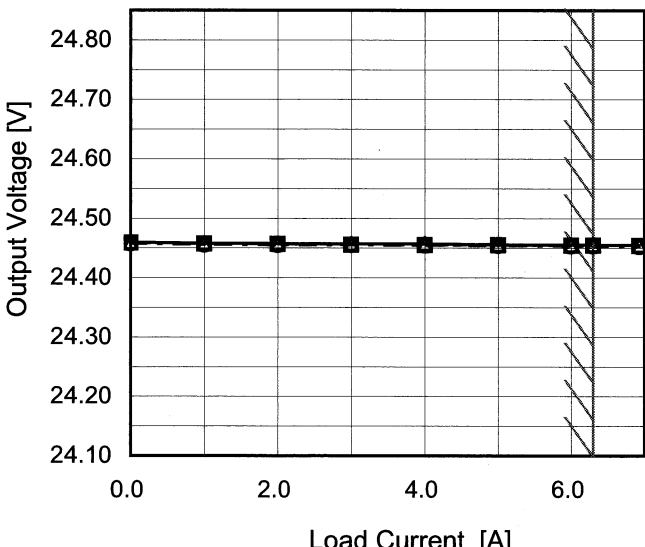
The value for "One of phases" is the reference value only.

2.Condition

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

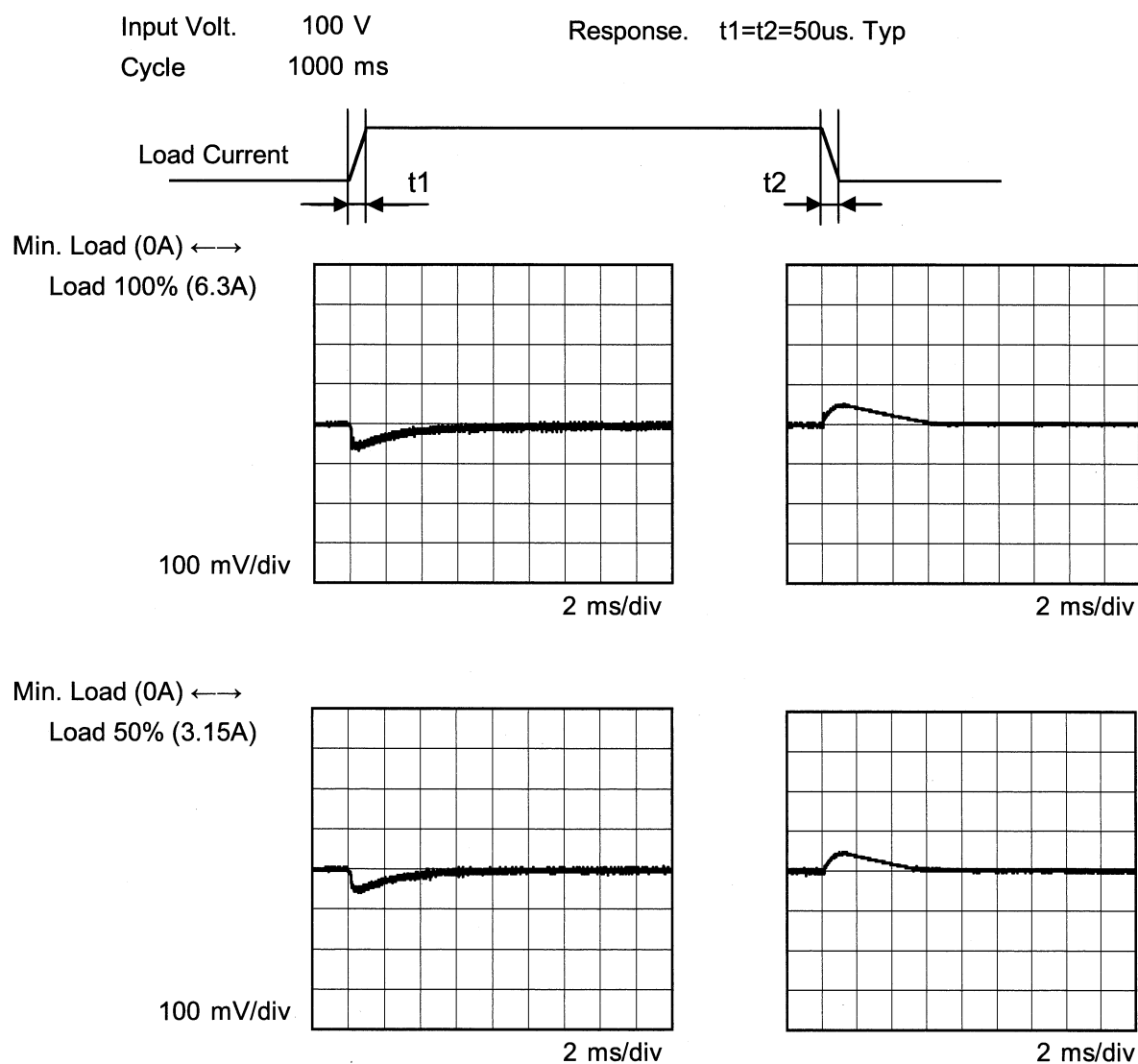
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Item	Dynamic Load Response	Testing Circuitry	Figure A
Object	+24V6.3A		





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Object		+24V6.3A																																							
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<div><div><div>—△—</div><div>Input Volt. 100V</div></div><div><div>-·-○-·-</div><div>Input Volt. 230V</div></div></div> <table><thead><tr><th>Load Current [A]</th><th>Input Volt. 100 [V]</th><th>Input Volt. 230 [V]</th></tr></thead><tbody><tr><td>0.00</td><td>5</td><td>5</td></tr><tr><td>1.00</td><td>20</td><td>20</td></tr><tr><td>2.00</td><td>20</td><td>20</td></tr><tr><td>3.00</td><td>20</td><td>20</td></tr><tr><td>4.00</td><td>25</td><td>25</td></tr><tr><td>5.00</td><td>25</td><td>25</td></tr><tr><td>6.00</td><td>30</td><td>30</td></tr><tr><td>6.30</td><td>30</td><td>30</td></tr><tr><td>6.93</td><td>30</td><td>30</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></tbody></table>				Load Current [A]	Input Volt. 100 [V]	Input Volt. 230 [V]	0.00	5	5	1.00	20	20	2.00	20	20	3.00	20	20	4.00	25	25	5.00	25	25	6.00	30	30	6.30	30	30	6.93	30	30	--	-	-	--	-	-		
Load Current [A]	Input Volt. 100 [V]	Input Volt. 230 [V]																																							
0.00	5	5																																							
1.00	20	20																																							
2.00	20	20																																							
3.00	20	20																																							
4.00	25	25																																							
5.00	25	25																																							
6.00	30	30																																							
6.30	30	30																																							
6.93	30	30																																							
--	-	-																																							
--	-	-																																							
<p>Measured by 20 MHz Oscilloscope.</p> <p>Ripple Voltage is shown as p-p in the figure below.</p> <p>Note: Slanted line shows the range of the rated load current.</p>																																									
<div><div><div>T1: Due to AC Input Line</div><div>T2: Due to Switching</div></div><p>Ripple [mVp-p]</p><p>T1</p><p>T2</p></div>																																									
Fig. Complex Ripple Wave Form																																									

Model		LFP150F-24-Y	
Item		Ripple-Noise	
Object		+24V6.3A	
1.Graph		2.Values	

</

Model	LFP150F-24-Y																																						
Item	Ripple Voltage (by Ambient Temp.)	Testing Circuitry Figure C																																					
Object	+24V6.3A																																						
1.Graph		2.Values																																					
<div><div><div>---□---</div><div>Input Volt. 100V</div></div><div><div>—△—</div><div>Input Volt. 230V</div></div></div> <table><thead><tr><th>Ambient Temperature [°C]</th><th>100V [mV]</th><th>230V [mV]</th></tr></thead><tbody><tr><td>-30</td><td>60</td><td>60</td></tr><tr><td>-10</td><td>50</td><td>50</td></tr><tr><td>0</td><td>45</td><td>50</td></tr><tr><td>25</td><td>30</td><td>30</td></tr><tr><td>50</td><td>35</td><td>30</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></tbody></table> <p>Measured by 20 MHz Oscilloscope.</p> <p>Note: Slanted line shows the range of the rated ambient temperature.</p>		Ambient Temperature [°C]	100V [mV]	230V [mV]	-30	60	60	-10	50	50	0	45	50	25	30	30	50	35	30	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-		
Ambient Temperature [°C]	100V [mV]	230V [mV]																																					
-30	60	60																																					
-10	50	50																																					
0	45	50																																					
25	30	30																																					
50	35	30																																					
--	-	-																																					
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Model		LFP150F-24-Y																																																				
Item		Ambient Temperature Drift																																																				
Object		+24V6.3A																																																				
1.Graph		2.Values																																																				
<div><div><div>—△—</div><div>Input Volt.</div><div>100V</div></div><div><div>---□---</div><div>Input Volt.</div><div>200V</div></div><div><div>---○---</div><div>Input Volt.</div><div>230V</div></div></div> <p>Output Voltage [V]</p> <p>Ambient Temperature [°C]</p> <p>Load 100%</p>		<table><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 100[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>-20</td><td>24.479</td><td>24.479</td><td>24.479</td></tr><tr><td>-10</td><td>24.474</td><td>24.473</td><td>24.473</td></tr><tr><td>0</td><td>24.467</td><td>24.467</td><td>24.467</td></tr><tr><td>10</td><td>24.462</td><td>24.462</td><td>24.462</td></tr><tr><td>20</td><td>24.459</td><td>24.458</td><td>24.458</td></tr><tr><td>25</td><td>24.453</td><td>24.453</td><td>24.452</td></tr><tr><td>30</td><td>24.449</td><td>24.448</td><td>24.448</td></tr><tr><td>40</td><td>24.441</td><td>24.440</td><td>24.440</td></tr><tr><td>50</td><td>24.428</td><td>24.427</td><td>24.427</td></tr><tr><td>60</td><td>24.410</td><td>24.410</td><td>24.410</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table>		Ambient Temperature [°C]	Output Voltage [V]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	-20	24.479	24.479	24.479	-10	24.474	24.473	24.473	0	24.467	24.467	24.467	10	24.462	24.462	24.462	20	24.459	24.458	24.458	25	24.453	24.453	24.452	30	24.449	24.448	24.448	40	24.441	24.440	24.440	50	24.428	24.427	24.427	60	24.410	24.410	24.410	--	-	-	-
Ambient Temperature [°C]	Output Voltage [V]																																																					
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]																																																			
-20	24.479	24.479	24.479																																																			
-10	24.474	24.473	24.473																																																			
0	24.467	24.467	24.467																																																			
10	24.462	24.462	24.462																																																			
20	24.459	24.458	24.458																																																			
25	24.453	24.453	24.452																																																			
30	24.449	24.448	24.448																																																			
40	24.441	24.440	24.440																																																			
50	24.428	24.427	24.427																																																			
60	24.410	24.410	24.410																																																			
--	-	-	-																																																			
Note: Slanted line shows the range of the rated ambient temperature.																																																						



		Testing Circuitry Figure A
Model	LFP150F-24-Y	
Item	Output Voltage Accuracy	
Object	+24V6.3A	

1. Output Voltage Accuracy

This is defined as the value of the output voltage, regulation load, ambient temperature and input voltage varied at random in the range as specified below.

Temperature : -10 - 50°C

Input Voltage : 85 - 264V

Load Current : 0 - 6.3A

* Output Voltage Accuracy = $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

* Output Voltage Accuracy (Ration) = $\frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}} \times 100$

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	-10	85	0	24.478	±26	±0.1
Minimum Voltage	50	264	6.3	24.427		

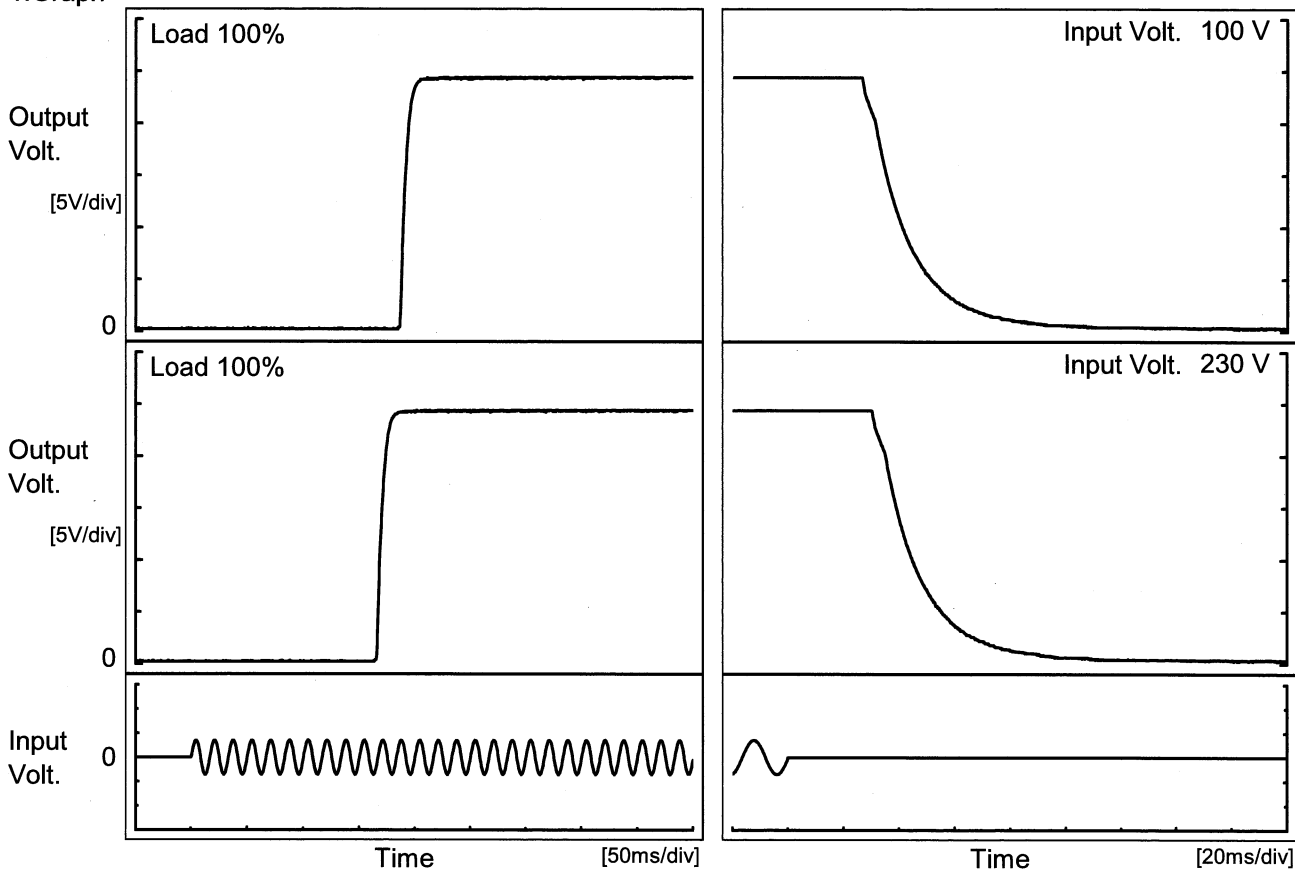


Model	LFP150F-24-Y		
Item	Time Lapse Drift	Temperature	25°C
Object	+24V6.3A	Testing Circuitry	Figure A
1.Graph		2.Values	
<div><div><div>Output Voltage [V]</div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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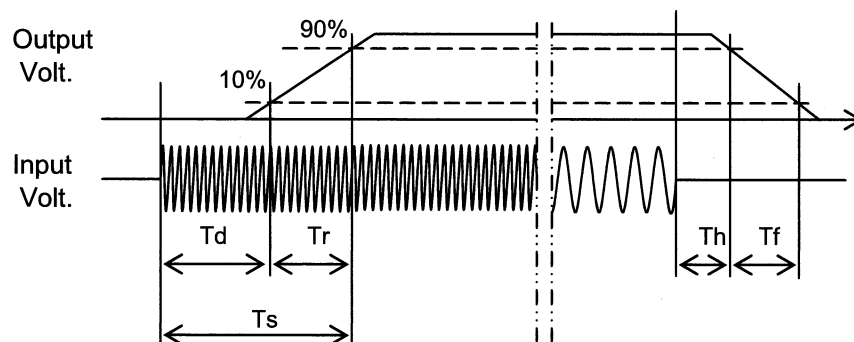
Model	LFP150F-24-Y	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+24V6.3A		

1.Graph



2.Values

Input Volt.	Time	Td	Tr	Ts	Th	Tf
100 V		187.8	9.0	196.8	29.2	33.6
230 V		166.8	9.0	175.8	32.9	34.0



Model		LFP150F-24-Y																																	
Item		Hold-Up Time																																	
Object		+24V6.3A																																	
1.Graph		Temperature 25°C Testing Circuitry Figure A																																	
<div><div><div><div><div></div><div></div></div><div></div></div><div><div><div></div><div></div></div><div></div></div><div><div><div></div><div></div></div><div></div></div></div><div>Load 50%</div><div>Load 100%</div></div> <div><div><div>1000</div><div>100</div><div>10</div><div>1</div></div><div><div>50</div><div>100</div><div>150</div><div>200</div><div>250</div><div>300</div></div><div><div>Hold-Up Time [ms]</div><div>Input Voltage [V]</div></div></div>		2.Values																																	
		<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>75</td><td>53</td><td>26</td></tr><tr><td>85</td><td>54</td><td>27</td></tr><tr><td>100</td><td>55</td><td>27</td></tr><tr><td>120</td><td>56</td><td>28</td></tr><tr><td>200</td><td>61</td><td>30</td></tr><tr><td>230</td><td>62</td><td>31</td></tr><tr><td>264</td><td>65</td><td>32</td></tr><tr><td>280</td><td>67</td><td>33</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Input Voltage [V]	Hold-Up Time [ms]		Load 50%	Load 100%	75	53	26	85	54	27	100	55	27	120	56	28	200	61	30	230	62	31	264	65	32	280	67	33	--	-	-
Input Voltage [V]	Hold-Up Time [ms]																																		
	Load 50%	Load 100%																																	
75	53	26																																	
85	54	27																																	
100	55	27																																	
120	56	28																																	
200	61	30																																	
230	62	31																																	
264	65	32																																	
280	67	33																																	
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<p>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.</p>																																			

Model	LFP150F-24-Y																																																						
Item	Instantaneous Interruption Compensation	Temperature	25°C																																																				
Object	+24V6.3A	Testing Circuitry	Figure A																																																				
1.Graph		2.Values																																																					
<div><div><div>—△—</div><div>Input Volt. 100V</div></div><div><div>---□---</div><div>Input Volt. 200V</div></div><div><div>-·-○-·-</div><div>Input Volt. 230V</div></div></div> <p>Instantaneous Compensation Time [ms]</p> <p>Load Current [A]</p> <p>Note: Slanted line shows the range of the rated load current.</p>		<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. 200[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>0.00</td><td>-</td><td>-</td><td>-</td></tr><tr><td>1.00</td><td>154</td><td>189</td><td>190</td></tr><tr><td>2.00</td><td>77</td><td>97</td><td>106</td></tr><tr><td>3.00</td><td>51</td><td>64</td><td>73</td></tr><tr><td>4.00</td><td>38</td><td>47</td><td>56</td></tr><tr><td>5.00</td><td>31</td><td>39</td><td>39</td></tr><tr><td>6.00</td><td>28</td><td>35</td><td>35</td></tr><tr><td>6.30</td><td>27</td><td>30</td><td>31</td></tr><tr><td>6.93</td><td>26</td><td>30</td><td>30</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. 200[V]	Input Volt. 230[V]	0.00	-	-	-	1.00	154	189	190	2.00	77	97	106	3.00	51	64	73	4.00	38	47	56	5.00	31	39	39	6.00	28	35	35	6.30	27	30	31	6.93	26	30	30	--	-	-	-	--	-	-	-
Load Current [A]	Time [ms]																																																						
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- 20 -

BC-10707

Model	LFP150F-24-Y																																								
Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A																																							
Object	+24V6.3A																																								
1.Graph		2.Values																																							
<div><div>---□--- Load 50%</div><div>—△— Load 100%</div></div> <p>Note: Slanted line shows the range of the rated ambient temperature.</p>		<table><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="2">Input Voltage [V]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr><tr><td>-20</td><td>33</td><td>44</td></tr><tr><td>-10</td><td>33</td><td>44</td></tr><tr><td>0</td><td>33</td><td>44</td></tr><tr><td>10</td><td>33</td><td>44</td></tr><tr><td>20</td><td>33</td><td>44</td></tr><tr><td>25</td><td>33</td><td>44</td></tr><tr><td>30</td><td>33</td><td>44</td></tr><tr><td>40</td><td>32</td><td>43</td></tr><tr><td>50</td><td>33</td><td>43</td></tr><tr><td>60</td><td>32</td><td>43</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Ambient Temperature [°C]	Input Voltage [V]		Load 50%	Load 100%	-20	33	44	-10	33	44	0	33	44	10	33	44	20	33	44	25	33	44	30	33	44	40	32	43	50	33	43	60	32	43	--	-	-
Ambient Temperature [°C]	Input Voltage [V]																																								
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25	33	44																																							
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Model	LFP150F-24-Y																																														
Item	Overcurrent Protection	Temperature	25°C																																												
Object	+24V6.3A	Testing Circuitry	Figure A																																												
1.Graph		2.Values																																													
<div><div><div></div>Input Volt. 100V</div><div><div></div>Input Volt. 230V</div></div> <p>Note: Slanted line shows the range of the rated load current.</p> <p>Intermittent operation occurs when the output voltage is from 15V to 0V.</p>		<table><tr><th rowspan="2">Output Voltage [V]</th><th colspan="2">Load Current [A]</th></tr><tr><th>Input Volt. 100[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>22.8</td><td>14.10</td><td>14.05</td></tr><tr><td>21.6</td><td>14.15</td><td>14.10</td></tr><tr><td>19.2</td><td>14.27</td><td>14.24</td></tr><tr><td>16.8</td><td>14.33</td><td>14.28</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Output Voltage [V]	Load Current [A]		Input Volt. 100[V]	Input Volt. 230[V]	22.8	14.10	14.05	21.6	14.15	14.10	19.2	14.27	14.24	16.8	14.33	14.28	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-
Output Voltage [V]	Load Current [A]																																														
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<div><div><div>—△—</div><div>Input Volt. 100V</div></div><div><div>---□---</div><div>Input Volt. 230V</div></div></div> <p>Operating Point [V]</p> <p>Ambient Temperature [°C]</p> <p>Load 0%</p> <p>Note: Slanted line shows the range of the rated ambient temperature.</p>		<table><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="2">Operating Point [V]</th></tr><tr><th>Input Volt. 100[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>-20</td><td>30.75</td><td>30.64</td></tr><tr><td>-10</td><td>30.93</td><td>30.87</td></tr><tr><td>0</td><td>31.16</td><td>31.04</td></tr><tr><td>10</td><td>31.34</td><td>31.34</td></tr><tr><td>20</td><td>31.57</td><td>31.45</td></tr><tr><td>25</td><td>31.63</td><td>31.63</td></tr><tr><td>30</td><td>31.75</td><td>31.75</td></tr><tr><td>40</td><td>31.98</td><td>31.86</td></tr><tr><td>50</td><td>32.16</td><td>32.16</td></tr><tr><td>60</td><td>32.33</td><td>32.33</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Ambient Temperature [°C]	Operating Point [V]		Input Volt. 100[V]	Input Volt. 230[V]	-20	30.75	30.64	-10	30.93	30.87	0	31.16	31.04	10	31.34	31.34	20	31.57	31.45	25	31.63	31.63	30	31.75	31.75	40	31.98	31.86	50	32.16	32.16	60	32.33	32.33	--	-	-
Ambient Temperature [°C]	Operating Point [V]																																								
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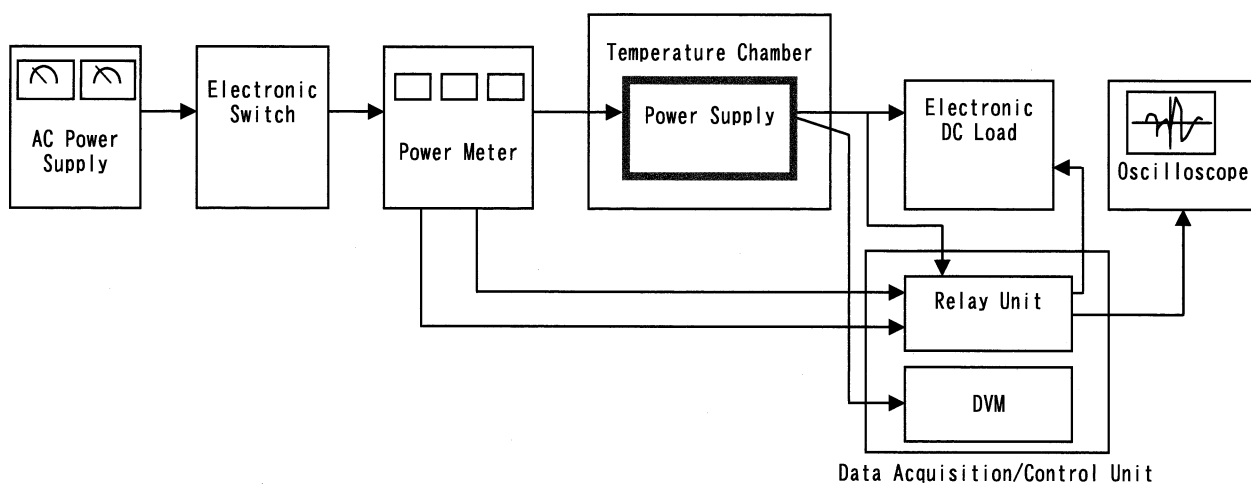


Figure A

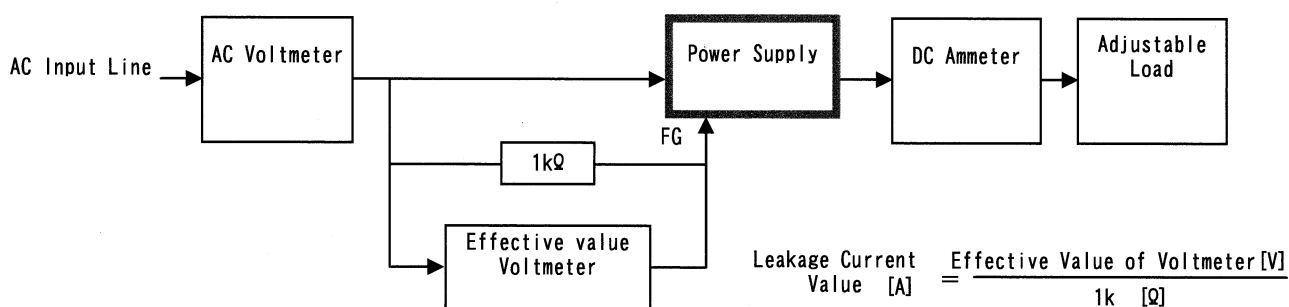


Figure B (DEN-AN)

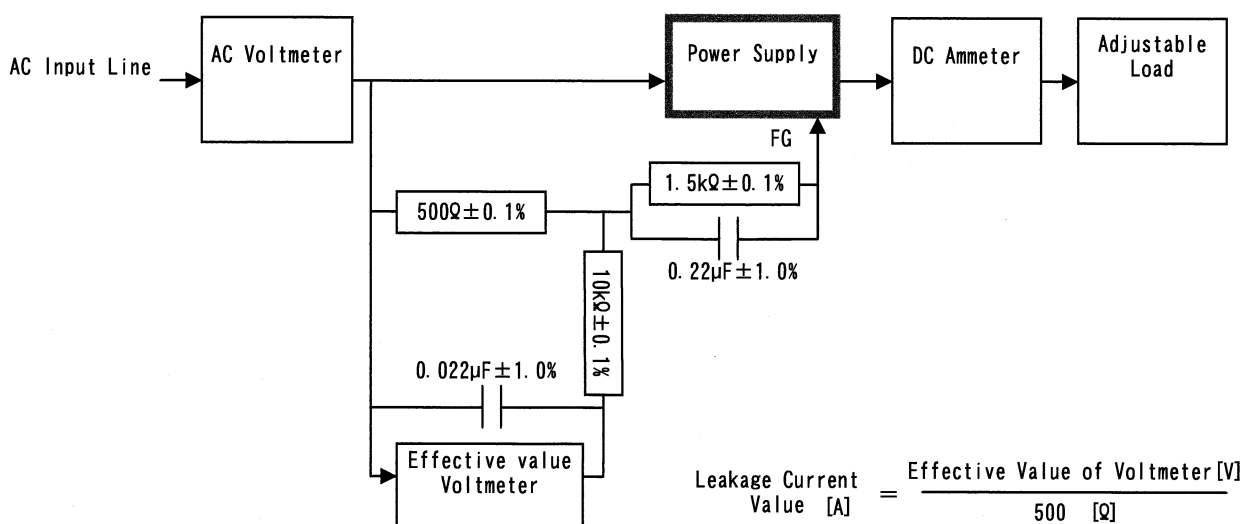


Figure B (IEC60950-1)

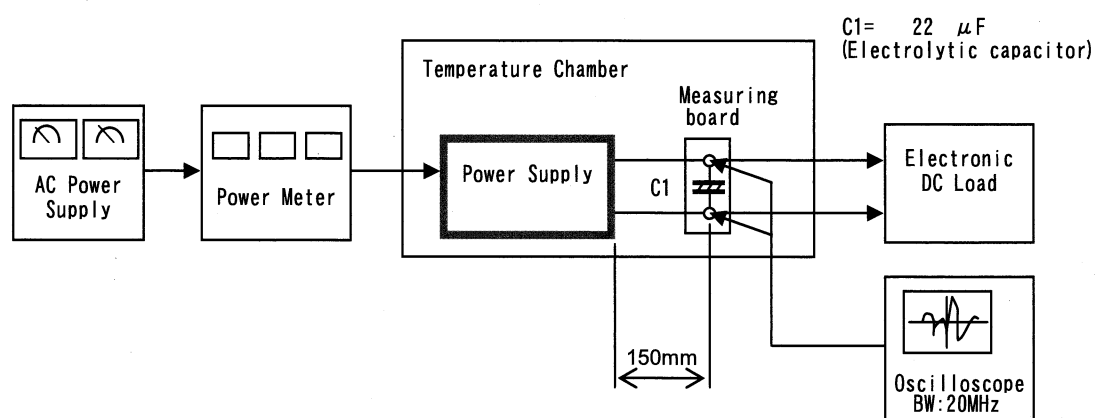


Figure C