



# TEST DATA OF LEA75F-30

Regulated DC Power Supply  
Jun 14, 2005

Approved by : J.Uchida J.Uchida Design Manager

Prepared by : A.Kawai A.Kawai Design Engineer

**COSEL CO.,LTD.**



## CONTENTS

1. Input Current (by Load Current) . . . . .	1
2. Input Power (by Load Current) . . . . .	2
3. Efficiency (by Input Voltage) . . . . .	3
4. Efficiency (by Load Current) . . . . .	4
5. Power Factor (by Input Voltage) . . . . .	5
6. Power Factor (by Load Current) . . . . .	6
7. Inrush Current . . . . .	7
8. Line Regulation . . . . .	8
9. Load Regulation . . . . .	9
10. Dynamic Load Response . . . . .	10
11. Ripple Voltage (by Load Current) . . . . .	11
12. Ripple-Noise . . . . .	12
13. Ripple Voltage (by Ambient Temperature) . . . . .	13
14. Ambient Temperature Drift . . . . .	14
15. Output Voltage Accuracy . . . . .	15
16. Time Lapse Drift . . . . .	16
17. Rise and Fall Time . . . . .	17
18. Hold-Up Time . . . . .	18
19. Instantaneous Interruption Compensation . . . . .	19
20. Minimum Input Voltage for Regulated Output Voltage . . . . .	20
21. Overcurrent Protection . . . . .	21
22. Overvoltage Protection . . . . .	22
23. Figure of Testing Circuitry . . . . .	23

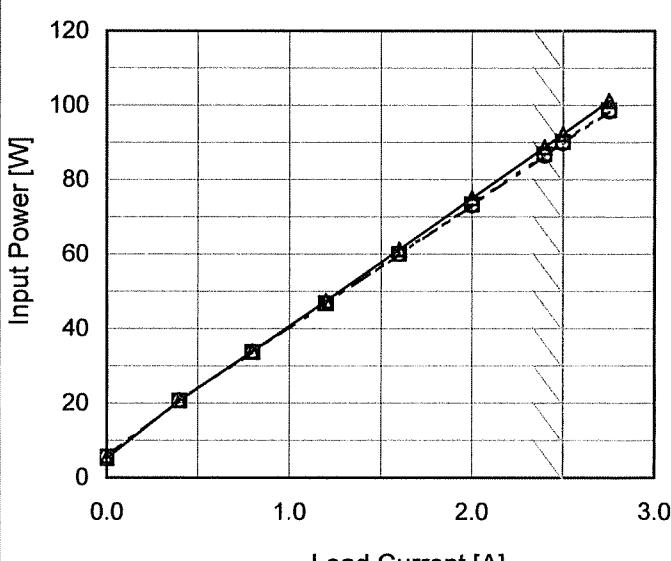
(Final Page 23)

**COSEL**

Model	LEA75F-30	Temperature Testing Circuitry	25°C Figure A																																														
Item	Input Current (by Load Current)																																																
Object	_____	2.Values																																															
1.Graph	<p style="text-align: center;"> <span style="color: black;">—△—</span> Input Volt. 100V  <span style="color: gray;">---□---</span> Input Volt. 200V  <span style="color: gray;">---○---</span> Input Volt. 230V         </p> <table border="1"> <caption>Data points estimated from Figure A</caption> <thead> <tr> <th>Load Current [A]</th> <th>Input Volt. 100[V] [A]</th> <th>Input Volt. 200[V] [A]</th> <th>Input Volt. 230[V] [A]</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>0.070</td><td>0.059</td><td>0.060</td></tr> <tr><td>0.40</td><td>0.227</td><td>0.134</td><td>0.125</td></tr> <tr><td>0.80</td><td>0.357</td><td>0.199</td><td>0.181</td></tr> <tr><td>1.20</td><td>0.491</td><td>0.264</td><td>0.237</td></tr> <tr><td>1.60</td><td>0.627</td><td>0.329</td><td>0.294</td></tr> <tr><td>2.00</td><td>0.762</td><td>0.395</td><td>0.351</td></tr> <tr><td>2.40</td><td>0.899</td><td>0.461</td><td>0.408</td></tr> <tr><td>2.50</td><td>0.934</td><td>0.477</td><td>0.422</td></tr> <tr><td>2.75</td><td>1.020</td><td>0.518</td><td>0.458</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	Load Current [A]	Input Volt. 100[V] [A]	Input Volt. 200[V] [A]	Input Volt. 230[V] [A]	0.00	0.070	0.059	0.060	0.40	0.227	0.134	0.125	0.80	0.357	0.199	0.181	1.20	0.491	0.264	0.237	1.60	0.627	0.329	0.294	2.00	0.762	0.395	0.351	2.40	0.899	0.461	0.408	2.50	0.934	0.477	0.422	2.75	1.020	0.518	0.458	--	-	-	-	--	-	-	-
Load Current [A]	Input Volt. 100[V] [A]	Input Volt. 200[V] [A]	Input Volt. 230[V] [A]																																														
0.00	0.070	0.059	0.060																																														
0.40	0.227	0.134	0.125																																														
0.80	0.357	0.199	0.181																																														
1.20	0.491	0.264	0.237																																														
1.60	0.627	0.329	0.294																																														
2.00	0.762	0.395	0.351																																														
2.40	0.899	0.461	0.408																																														
2.50	0.934	0.477	0.422																																														
2.75	1.020	0.518	0.458																																														
--	-	-	-																																														
--	-	-	-																																														

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

COSEL

Model	LEA75F-30	Temperature Testing Circuitry	25°C Figure A																																																		
Item	Input Power (by Load Current)																																																				
Object	_____																																																				
1. Graph		—△— Input Volt. 100V - -□--- Input Volt. 200V - ·○--- Input Volt. 230V																																																			
			2. Values																																																		
<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Input Power [W]</th> </tr> <tr> <th>Input Volt. 100[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 230[V]</th> </tr> </thead> <tbody> <tr> <td>0.00</td><td>5.2</td><td>5.6</td><td>5.7</td></tr> <tr> <td>0.40</td><td>20.8</td><td>20.7</td><td>20.8</td></tr> <tr> <td>0.80</td><td>34.0</td><td>33.7</td><td>33.8</td></tr> <tr> <td>1.20</td><td>47.5</td><td>46.8</td><td>46.8</td></tr> <tr> <td>1.60</td><td>61.3</td><td>60.1</td><td>60.0</td></tr> <tr> <td>2.00</td><td>75.1</td><td>73.4</td><td>73.1</td></tr> <tr> <td>2.40</td><td>88.8</td><td>86.9</td><td>86.5</td></tr> <tr> <td>2.50</td><td>92.3</td><td>90.2</td><td>89.8</td></tr> <tr> <td>2.75</td><td>101.2</td><td>98.7</td><td>98.4</td></tr> <tr> <td>--</td><td>-</td><td>-</td><td>-</td></tr> <tr> <td>--</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	Load Current [A]	Input Power [W]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	0.00	5.2	5.6	5.7	0.40	20.8	20.7	20.8	0.80	34.0	33.7	33.8	1.20	47.5	46.8	46.8	1.60	61.3	60.1	60.0	2.00	75.1	73.4	73.1	2.40	88.8	86.9	86.5	2.50	92.3	90.2	89.8	2.75	101.2	98.7	98.4	--	-	-	-	--	-	-	-		
Load Current [A]		Input Power [W]																																																			
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]																																																		
0.00	5.2	5.6	5.7																																																		
0.40	20.8	20.7	20.8																																																		
0.80	34.0	33.7	33.8																																																		
1.20	47.5	46.8	46.8																																																		
1.60	61.3	60.1	60.0																																																		
2.00	75.1	73.4	73.1																																																		
2.40	88.8	86.9	86.5																																																		
2.50	92.3	90.2	89.8																																																		
2.75	101.2	98.7	98.4																																																		
--	-	-	-																																																		
--	-	-	-																																																		
<p>Note: Slanted line shows the range of the rated load current.</p>																																																					

**COSEL**

Model	LEA75F-30	Temperature Testing Circuitry 25°C Figure A																													
Item	Efficiency (by Input Voltage)																														
Object	_____																														
1.Graph		2.Values																													
<p>The graph shows efficiency data for the LEA75F-30 at 25°C. The Y-axis represents Efficiency [%] from 35 to 85. The X-axis represents Input Voltage [V] from 50 to 300. Two load conditions are plotted: Load 50% (dashed line with square markers) and Load 100% (solid line with triangle markers). Both curves show efficiency increasing with input voltage. A slanted line on the graph indicates the rated input voltage range.</p> <table border="1"> <thead> <tr> <th>Input Voltage [V]</th> <th>Efficiency Load 50% [%]</th> <th>Efficiency Load 100% [%]</th> </tr> </thead> <tbody> <tr><td>85</td><td>77.0</td><td>81.5</td></tr> <tr><td>100</td><td>77.7</td><td>82.4</td></tr> <tr><td>120</td><td>78.2</td><td>83.2</td></tr> <tr><td>200</td><td>78.9</td><td>84.4</td></tr> <tr><td>230</td><td>79.2</td><td>84.7</td></tr> <tr><td>264</td><td>79.1</td><td>85.0</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>		Input Voltage [V]	Efficiency Load 50% [%]	Efficiency Load 100% [%]	85	77.0	81.5	100	77.7	82.4	120	78.2	83.2	200	78.9	84.4	230	79.2	84.7	264	79.1	85.0	--	-	-	--	-	-	--	-	-
Input Voltage [V]	Efficiency Load 50% [%]	Efficiency Load 100% [%]																													
85	77.0	81.5																													
100	77.7	82.4																													
120	78.2	83.2																													
200	78.9	84.4																													
230	79.2	84.7																													
264	79.1	85.0																													
--	-	-																													
--	-	-																													
--	-	-																													
<p>Note: Slanted line shows the range of the rated input voltage.</p>																															

**COSEL**

Model	LEA75F-30	Temperature	25°C																																																			
Item	Efficiency (by Load Current)	Testing Circuitry	Figure A																																																			
Object																																																						
1.Graph	<p>Graph showing Efficiency [%] vs Load Current [A]. The Y-axis ranges from 35 to 85 in increments of 10. The X-axis ranges from 0.0 to 3.0 in increments of 1.0. Three curves are plotted for Input Volt. 100V (triangles), Input Volt. 200V (squares), and Input Volt. 230V (circles). A slanted line indicates the rated load current range.</p> <table border="1"> <thead> <tr> <th>Load Current [A]</th> <th>Input Volt. 100V [%]</th> <th>Input Volt. 200V [%]</th> <th>Input Volt. 230V [%]</th> </tr> </thead> <tbody> <tr><td>0.5</td><td>62</td><td>62</td><td>-</td></tr> <tr><td>1.0</td><td>72</td><td>72</td><td>-</td></tr> <tr><td>1.5</td><td>78</td><td>78</td><td>-</td></tr> <tr><td>2.0</td><td>80</td><td>80</td><td>-</td></tr> <tr><td>2.5</td><td>82</td><td>82</td><td>-</td></tr> <tr><td>3.0</td><td>83</td><td>83</td><td>-</td></tr> </tbody> </table>			Load Current [A]	Input Volt. 100V [%]	Input Volt. 200V [%]	Input Volt. 230V [%]	0.5	62	62	-	1.0	72	72	-	1.5	78	78	-	2.0	80	80	-	2.5	82	82	-	3.0	83	83	-																							
Load Current [A]	Input Volt. 100V [%]	Input Volt. 200V [%]	Input Volt. 230V [%]																																																			
0.5	62	62	-																																																			
1.0	72	72	-																																																			
1.5	78	78	-																																																			
2.0	80	80	-																																																			
2.5	82	82	-																																																			
3.0	83	83	-																																																			
2.Values	<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Efficiency [%]</th> </tr> <tr> <th>Input Volt. 100[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 230[V]</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>0.40</td><td>60.1</td><td>60.2</td><td>60.1</td></tr> <tr><td>0.80</td><td>72.4</td><td>72.9</td><td>72.8</td></tr> <tr><td>1.20</td><td>77.3</td><td>78.4</td><td>78.5</td></tr> <tr><td>1.60</td><td>79.7</td><td>81.2</td><td>81.4</td></tr> <tr><td>2.00</td><td>81.2</td><td>83.0</td><td>83.4</td></tr> <tr><td>2.40</td><td>82.3</td><td>84.1</td><td>84.5</td></tr> <tr><td>2.50</td><td>82.5</td><td>84.4</td><td>84.7</td></tr> <tr><td>2.75</td><td>82.7</td><td>84.8</td><td>85.0</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>			Load Current [A]	Efficiency [%]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	0.00	-	-	-	0.40	60.1	60.2	60.1	0.80	72.4	72.9	72.8	1.20	77.3	78.4	78.5	1.60	79.7	81.2	81.4	2.00	81.2	83.0	83.4	2.40	82.3	84.1	84.5	2.50	82.5	84.4	84.7	2.75	82.7	84.8	85.0	--	-	-	-	--	-	-	-
Load Current [A]	Efficiency [%]																																																					
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]																																																			
0.00	-	-	-																																																			
0.40	60.1	60.2	60.1																																																			
0.80	72.4	72.9	72.8																																																			
1.20	77.3	78.4	78.5																																																			
1.60	79.7	81.2	81.4																																																			
2.00	81.2	83.0	83.4																																																			
2.40	82.3	84.1	84.5																																																			
2.50	82.5	84.4	84.7																																																			
2.75	82.7	84.8	85.0																																																			
--	-	-	-																																																			
--	-	-	-																																																			
Note:	Slanted line shows the range of the rated load current.																																																					

**COSEL**

Model	LEA75F-30	Temperature Testing Circuitry 25°C Figure A																																
Item	Power Factor (by Input Voltage)																																	
Object	—																																	
1.Graph																																		
<p>Legend:</p> <ul style="list-style-type: none"> <li>Load 50% (dashed line with squares)</li> <li>Load 100% (solid line with triangles)</li> </ul> <p>Input Voltage [V]</p>																																		
<p>Note: Slanted line shows the range of the rated input voltage.</p>																																		
2.Values																																		
<table border="1"> <thead> <tr> <th rowspan="2">Input Voltage [V]</th> <th colspan="2">Power Factor</th> </tr> <tr> <th>Load 50%</th> <th>Load 100%</th> </tr> </thead> <tbody> <tr> <td>85</td><td>0.978</td><td>0.993</td> </tr> <tr> <td>100</td><td>0.970</td><td>0.989</td> </tr> <tr> <td>120</td><td>0.959</td><td>0.984</td> </tr> <tr> <td>200</td><td>0.891</td><td>0.946</td> </tr> <tr> <td>230</td><td>0.859</td><td>0.926</td> </tr> <tr> <td>264</td><td>0.824</td><td>0.900</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>			Input Voltage [V]	Power Factor		Load 50%	Load 100%	85	0.978	0.993	100	0.970	0.989	120	0.959	0.984	200	0.891	0.946	230	0.859	0.926	264	0.824	0.900	--	-	-	--	-	-	--	-	-
Input Voltage [V]	Power Factor																																	
	Load 50%	Load 100%																																
85	0.978	0.993																																
100	0.970	0.989																																
120	0.959	0.984																																
200	0.891	0.946																																
230	0.859	0.926																																
264	0.824	0.900																																
--	-	-																																
--	-	-																																
--	-	-																																

**COSEL**

Model	LEA75F-30
Item	Power Factor (by Load Current)
Object	

1.Graph

Load Current [A]	Power Factor		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.00	0.750	0.479	0.410
0.40	0.918	0.772	0.725
0.80	0.953	0.847	0.811
1.20	0.967	0.888	0.857
1.60	0.979	0.912	0.886
2.00	0.986	0.929	0.907
2.40	0.988	0.943	0.922
2.50	0.988	0.945	0.925
2.75	0.993	0.952	0.933
--	-	-	-
--	-	-	-

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

Temperature 25°C  
Testing Circuitry Figure A

## 2.Values

Load Current [A]	Power Factor		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.00	0.750	0.479	0.410
0.40	0.918	0.772	0.725
0.80	0.953	0.847	0.811
1.20	0.967	0.888	0.857
1.60	0.979	0.912	0.886
2.00	0.986	0.929	0.907
2.40	0.988	0.943	0.922
2.50	0.988	0.945	0.925
2.75	0.993	0.952	0.933
--	-	-	-
--	-	-	-

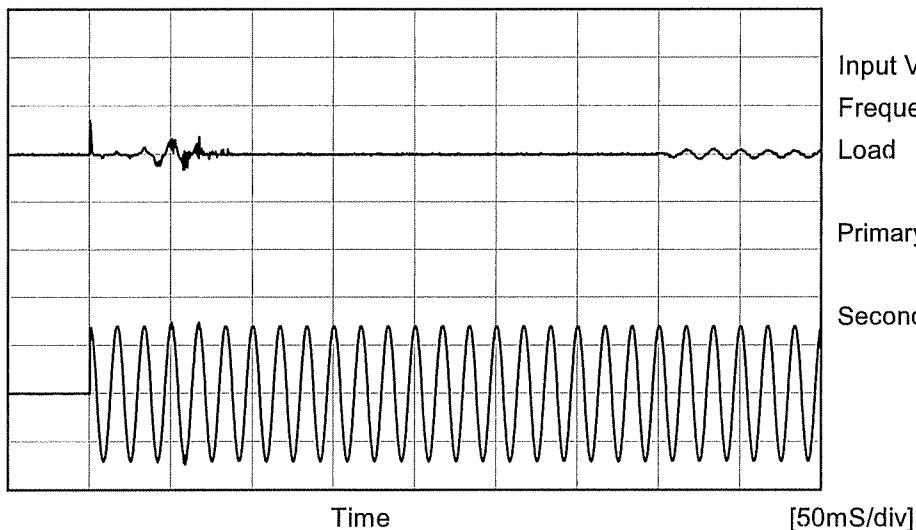
**COSEL**

Model LEA75F-30

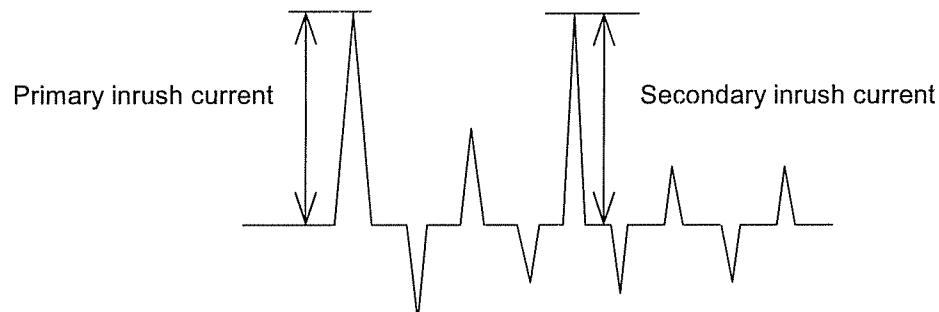
Item Inrush Current

Temperature 25°C  
Testing Circuitry Figure A

Object \_\_\_\_\_

Input  
Current  
[20A/div]Input  
Voltage  
[100V/div]Input  
Current  
[20A/div]Input  
Voltage  
[200V/div]Input Voltage 200 V  
Frequency 60 Hz  
Load 100 %Primary inrush current :  
30.4 A  
Secondary inrush current :  
1.6 A

Time [50mS/div]



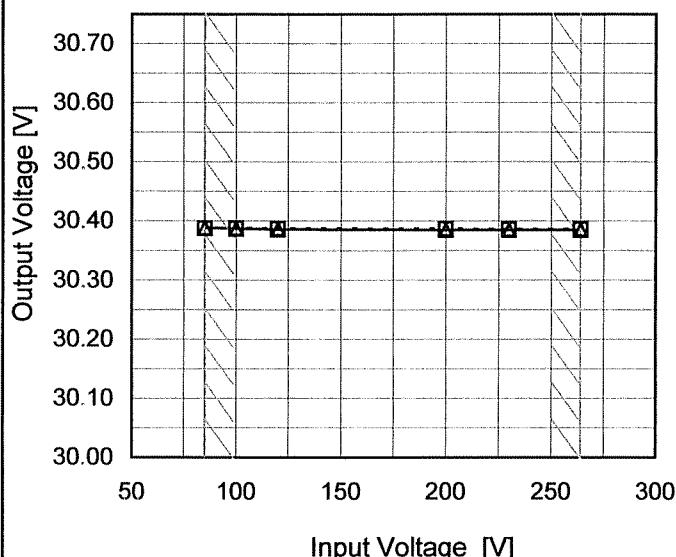
COSEL

Model	LEA75F-30
Item	Line Regulation
Object	+30V2.5A

Temperature 25°C  
 Testing Circuitry Figure A

## 1.Graph

---□--- Load 50%  
 —△— Load 100%



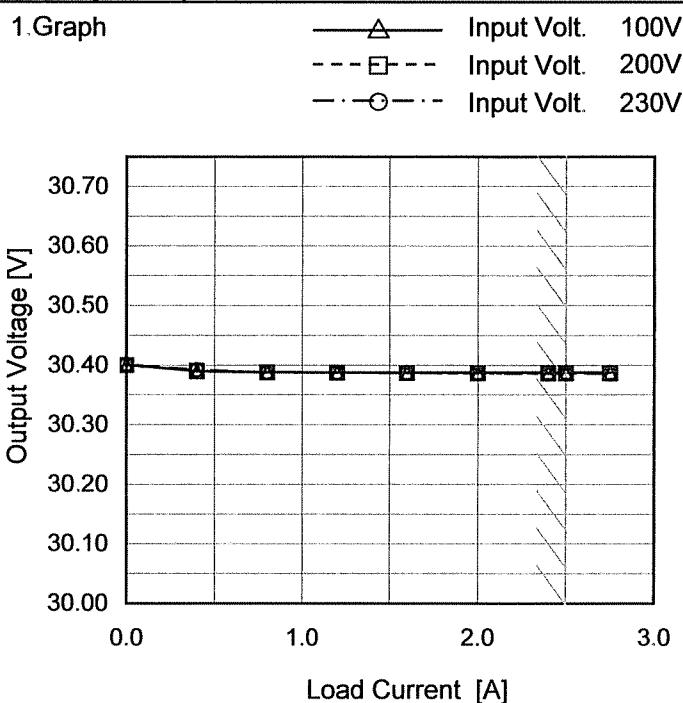
## 2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
85	30.388	30.389
100	30.388	30.387
120	30.387	30.386
200	30.387	30.385
230	30.386	30.385
264	30.386	30.385
--	-	-
--	-	-
--	-	-

Note: Slanted line shows the range of the rated input voltage.

**COSEL**

Model	LEA75F-30
Item	Load Regulation
Object	+30V2.5A

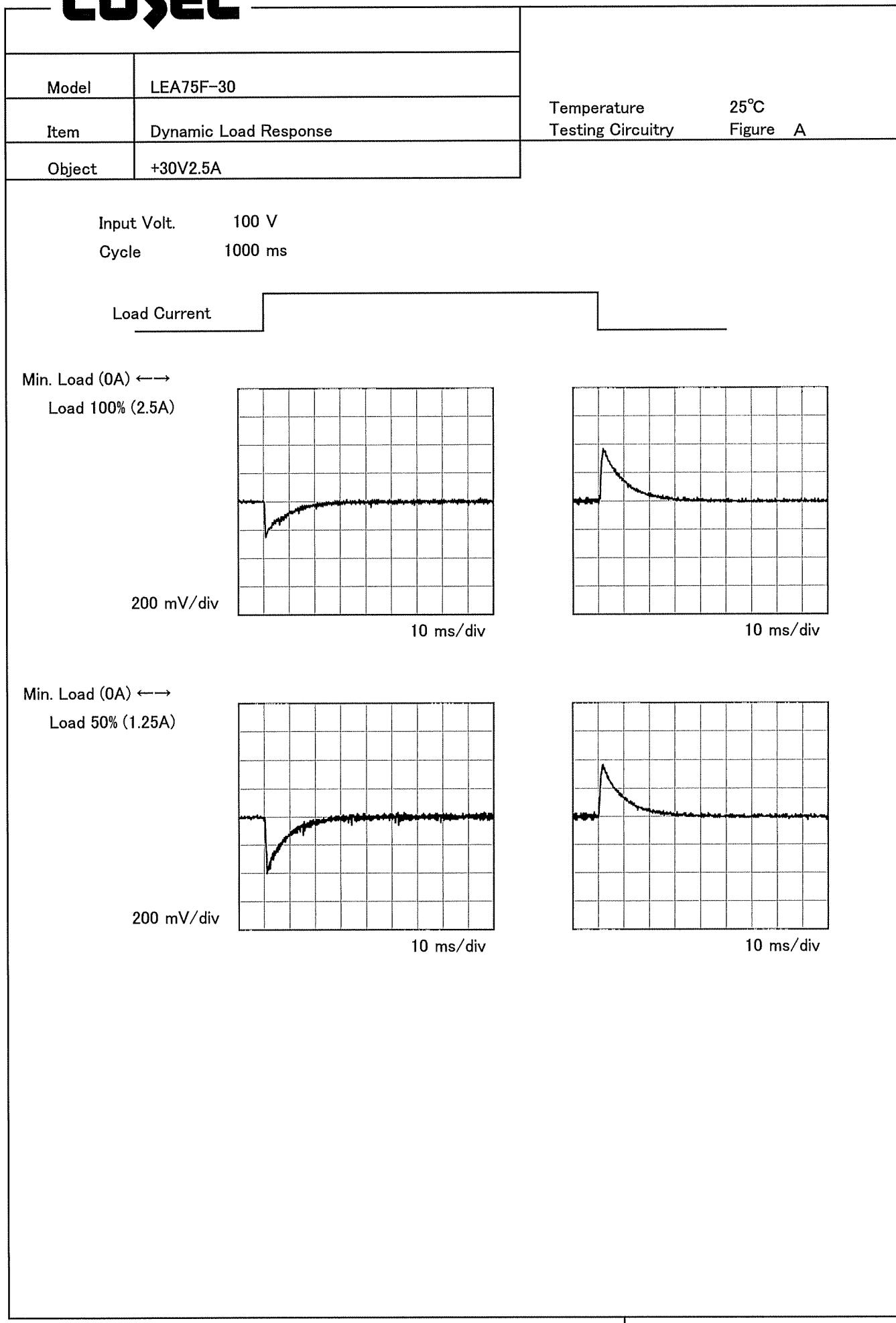


Note: Slanted line shows the range of the rated load current.

Temperature 25°C  
Testing Circuitry Figure A

2. Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.00	30.401	30.400	30.401
0.40	30.390	30.391	30.392
0.80	30.389	30.388	30.388
1.20	30.388	30.387	30.388
1.60	30.388	30.387	30.387
2.00	30.388	30.387	30.387
2.40	30.388	30.386	30.386
2.50	30.388	30.386	30.386
2.75	30.388	30.386	30.386
--	-	-	-
--	-	-	-

**COSEL**

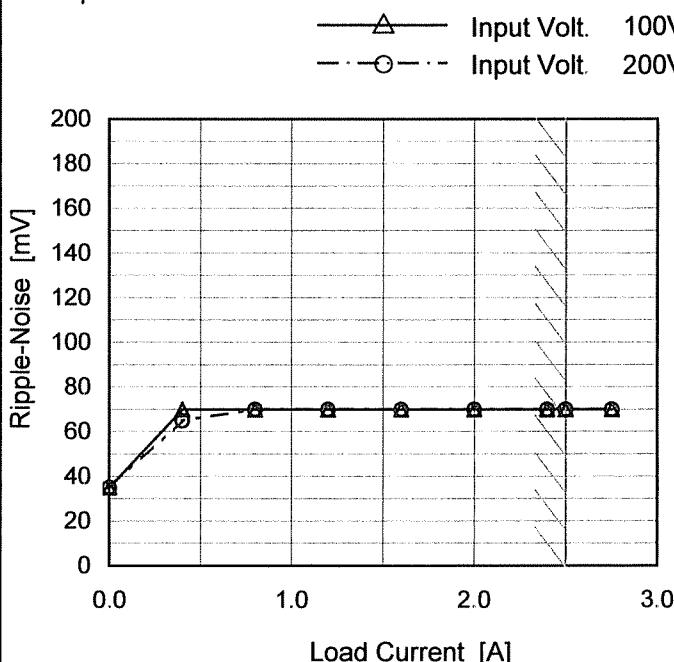
COSEL

Model	LEA75F-30	Temperature	25°C																																				
Item	Ripple Voltage (by Load Current)	Testing Circuitry	Figure A																																				
Object	+30V2.5A																																						
1.Graph	2.Values																																						
	<p>Graph showing Ripple Voltage [mV] vs Load Current [A]. The Y-axis ranges from 0 to 200 mV, and the X-axis ranges from 0.0 to 3.0 A. Two curves are plotted: one for Input Volt. 100V (solid line with open circles) and one for Input Volt. 200V (dashed line with open circles). Both curves show a slight increase in ripple voltage as load current increases. A slanted line indicates the rated load current range.</p> <table border="1"> <thead> <tr> <th>Load Current [A]</th> <th>Ripple Voltage [mV] (Input Volt. 100V)</th> <th>Ripple Voltage [mV] (Input Volt. 200V)</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>25</td><td>20</td></tr> <tr><td>0.40</td><td>45</td><td>50</td></tr> <tr><td>0.80</td><td>45</td><td>50</td></tr> <tr><td>1.20</td><td>45</td><td>50</td></tr> <tr><td>1.60</td><td>45</td><td>50</td></tr> <tr><td>2.00</td><td>45</td><td>50</td></tr> <tr><td>2.40</td><td>45</td><td>50</td></tr> <tr><td>2.50</td><td>45</td><td>50</td></tr> <tr><td>2.75</td><td>50</td><td>50</td></tr> <tr><td>--</td><td>-</td><td>-</td></tr> <tr><td>--</td><td>-</td><td>-</td></tr> </tbody> </table>			Load Current [A]	Ripple Voltage [mV] (Input Volt. 100V)	Ripple Voltage [mV] (Input Volt. 200V)	0.00	25	20	0.40	45	50	0.80	45	50	1.20	45	50	1.60	45	50	2.00	45	50	2.40	45	50	2.50	45	50	2.75	50	50	--	-	-	--	-	-
Load Current [A]	Ripple Voltage [mV] (Input Volt. 100V)	Ripple Voltage [mV] (Input Volt. 200V)																																					
0.00	25	20																																					
0.40	45	50																																					
0.80	45	50																																					
1.20	45	50																																					
1.60	45	50																																					
2.00	45	50																																					
2.40	45	50																																					
2.50	45	50																																					
2.75	50	50																																					
--	-	-																																					
--	-	-																																					
	<p>Measured by 20 MHz Oscilloscope. Ripple Voltage is shown as p-p in the figure below. Note: Slanted line shows the range of the rated load current.</p> <p>Fig. Complex Ripple Wave Form</p>																																						

COSEL

Model	LEA75F-30
Item	Ripple-Noise
Object	+30V2.5A

## 1. Graph



Measured by 20 MHz Oscilloscope.

Ripple-Noise is shown as p-p in the figure below.

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

Temperature 25°C  
Testing Circuitry Figure A

## 2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 100 [V]	Input Volt. 200 [V]
0.00	35	35
0.40	70	65
0.80	70	70
1.20	70	70
1.60	70	70
2.00	70	70
2.40	70	70
2.50	70	70
2.75	70	70
--	-	-
--	-	-

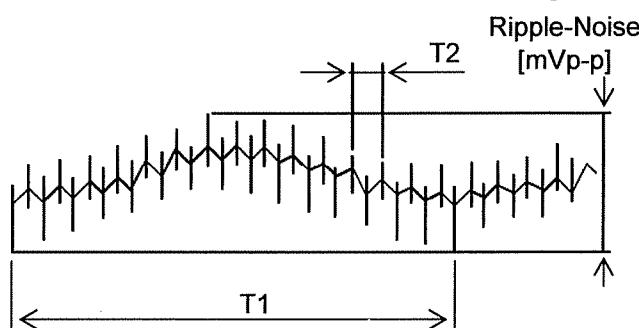
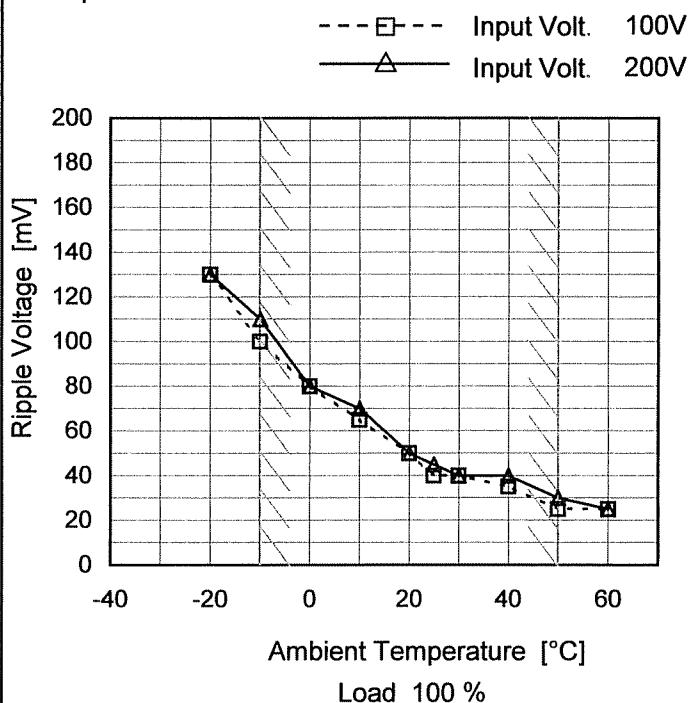
T1: Due to AC Input Line  
T2: Due to Switching

Fig. Complex Ripple Wave Form

**COSEL**

Model	LEA75F-30
Item	Ripple Voltage (by Ambient Temp.)
Object	+30V2.5A

## 1. Graph



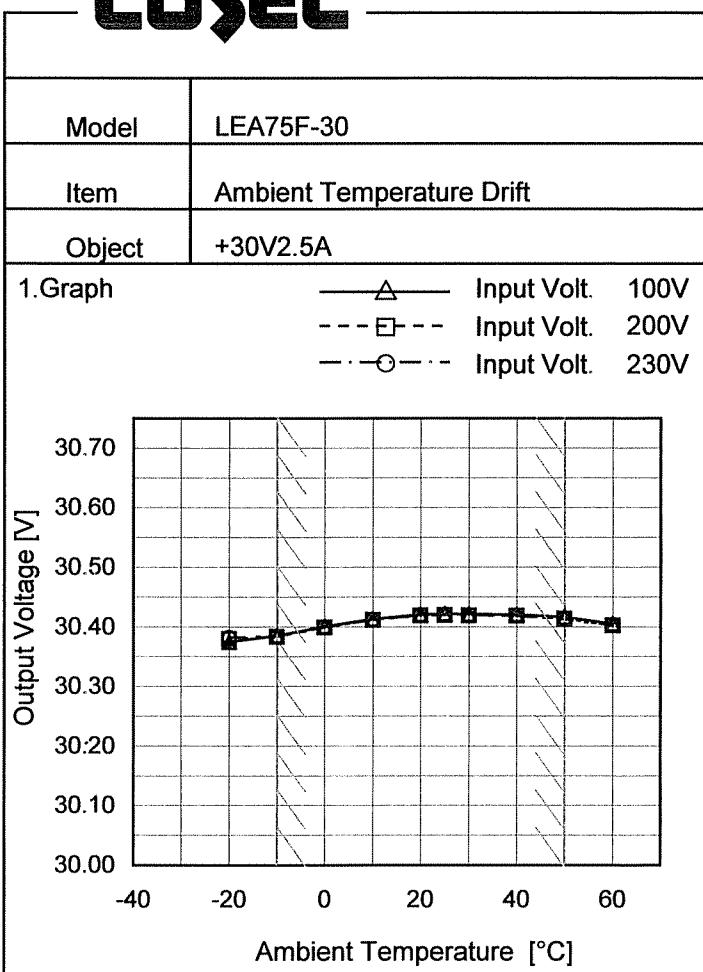
Measured by 20 MHz Oscilloscope.

Note: Slanted line shows the range of the rated ambient temperature.

## Testing Circuitry Figure A

## 2. Values

Ambient Temperature [°C]	Ripple Voltage [mV]	
	Input Volt. 100 [V]	Input Volt. 200 [V]
-20	130	130
-10	100	110
0	80	80
10	65	70
20	50	50
25	40	45
30	40	40
40	35	40
50	25	30
60	25	25
--	-	-

**COSEL**


Testing Circuitry Figure A

## 2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
-20	30.375	30.380	30.382
-10	30.385	30.384	30.384
0	30.401	30.399	30.400
10	30.413	30.412	30.412
20	30.421	30.419	30.420
25	30.422	30.420	30.420
30	30.421	30.419	30.419
40	30.421	30.419	30.419
50	30.417	30.414	30.413
60	30.405	30.403	30.402
--	-	-	-

Note: Slanted line shows the range of the rated ambient temperature.



Model	LEA75F-30	Testing Circuitry Figure A
Item	Output Voltage Accuracy	
Object	+30V2.5A	

### 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 - 2.5A

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

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

### 2. Values

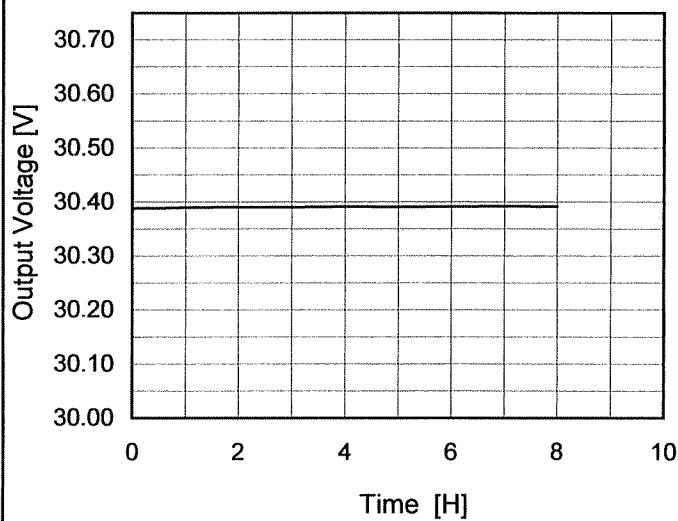
Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	25	85	0	30.436	±23	±0.1
Minimum Voltage	-10	200	2.5	30.390		

**COSEL**

Model	LEA75F-30
Item	Time Lapse Drift
Object	+30V2.5A

Temperature 25°C  
Testing Circuitry Figure A

## 1. Graph



Input Volt. 100V  
Load 100%

## 2. Values

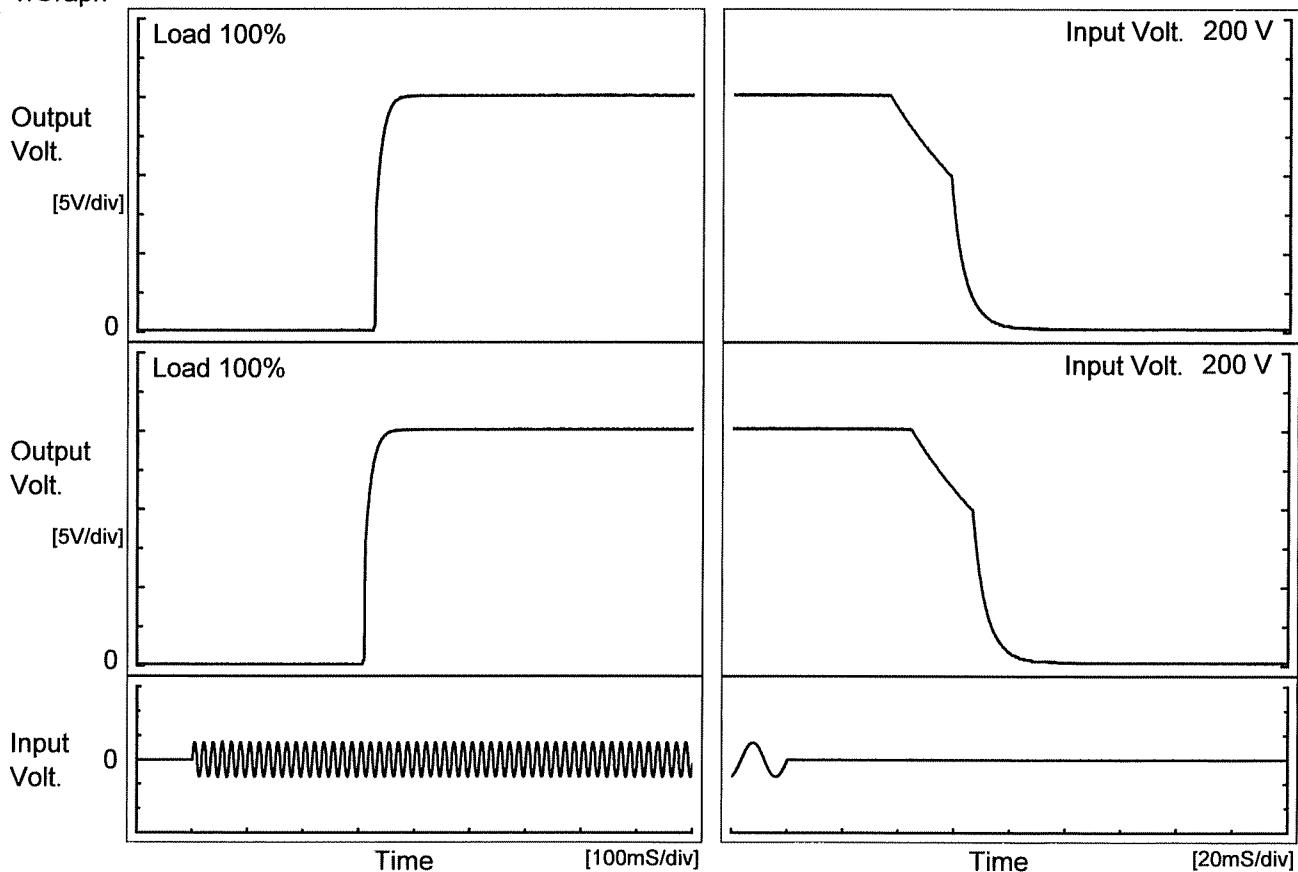
Time since start [H]	Output Voltage [V]
0.0	30.388
0.5	30.389
1.0	30.390
2.0	30.390
3.0	30.391
4.0	30.392
5.0	30.391
6.0	30.392
7.0	30.392
8.0	30.392

\* The characteristic of AC200V is equal.

COSEL

Model	LEA75F-30	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+30V2.5A		

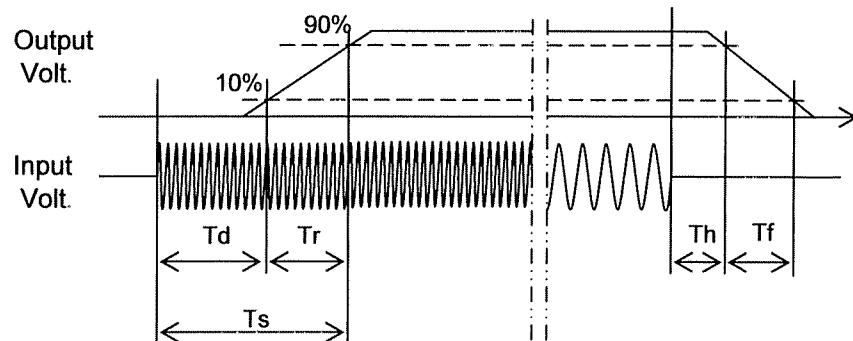
## 1. Graph



## 2. Values

[mS]

Input Volt.	Time	Td	Tr	Ts	Th	Tf
100 V		327.0	21.5	348.5	41.7	26.3
200 V		309.0	21.5	330.5	49.9	26.4

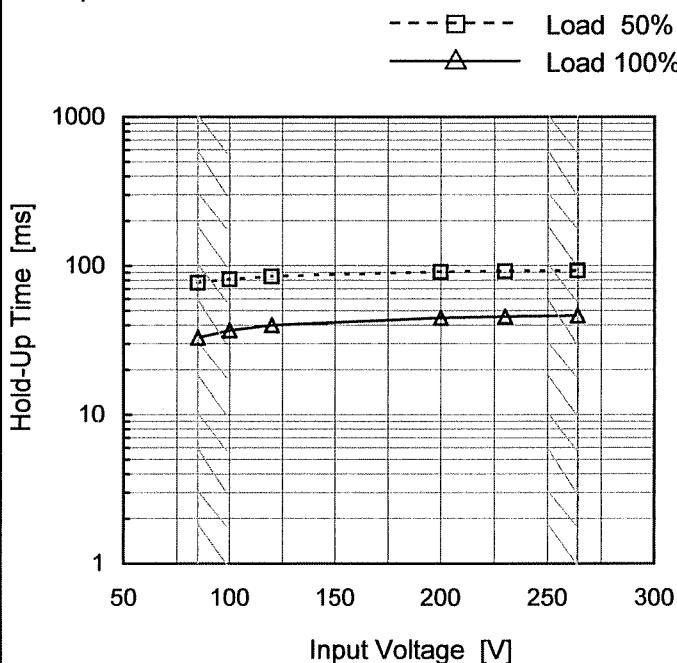


**COSEL**

Model	LEA75F-30
Item	Hold-Up Time
Object	+30V2.5A

 Temperature 25°C  
 Testing Circuitry Figure A

## 1. Graph



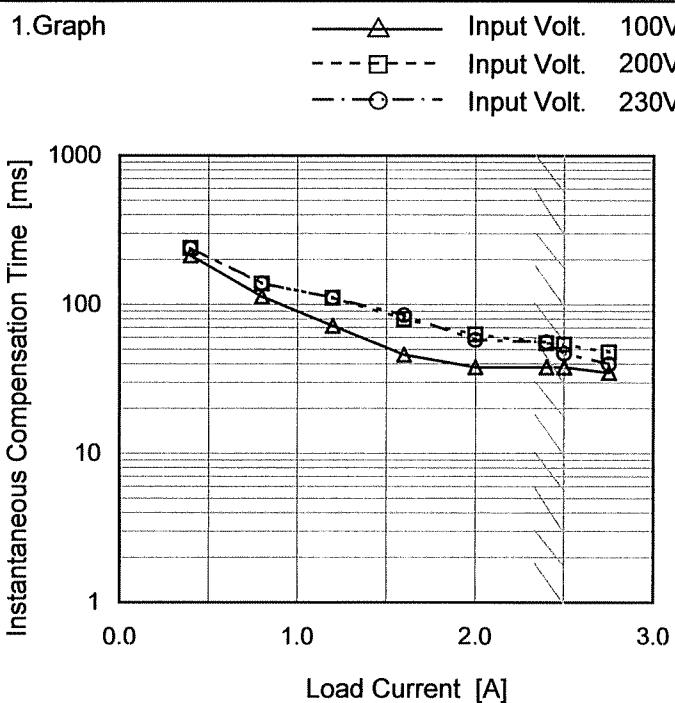
## 2. Values

Input Voltage [V]	Hold-Up Time [ms]	
	Load 50%	Load 100%
85	77	33
100	81	37
120	85	40
200	91	45
230	92	46
264	93	46
--	-	-
--	-	-
--	-	-

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.

**COSEL**

Model	LEA75F-30
Item	Instantaneous Interruption Compensation
Object	+30V2.5A


 Temperature 25°C  
 Testing Circuitry Figure A

## 2.Values

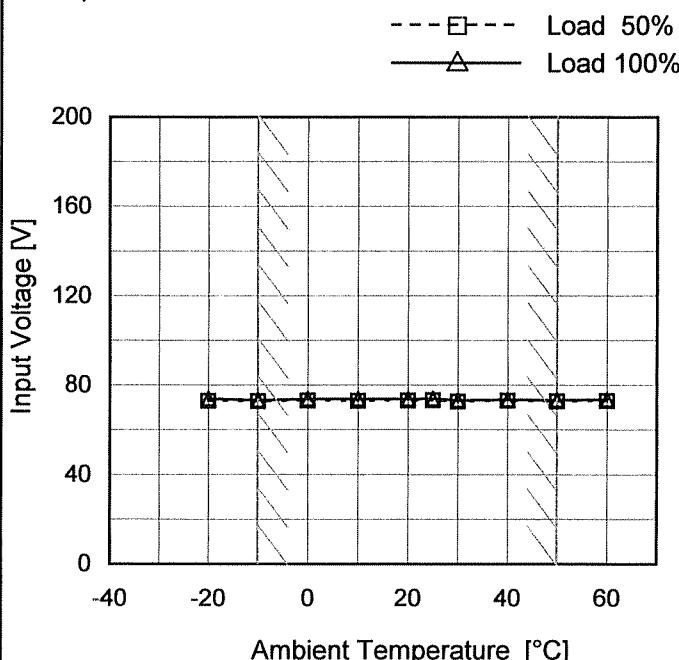
Load Current [A]	Time [ms]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.00	-	-	-
0.40	214	239	239
0.80	113	138	139
1.20	72	111	111
1.60	46	80	85
2.00	38	63	58
2.40	38	55	56
2.50	38	54	47
2.75	35	48	40
--	-	-	-
--	-	-	-

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

**COSEL**

Model	LEA75F-30
Item	Minimum Input Voltage for Regulated Output Voltage
Object	+30V2.5A

## 1. Graph



Note: Slanted line shows the range of the rated ambient temperature.

## Testing Circuitry Figure A

## 2. Values

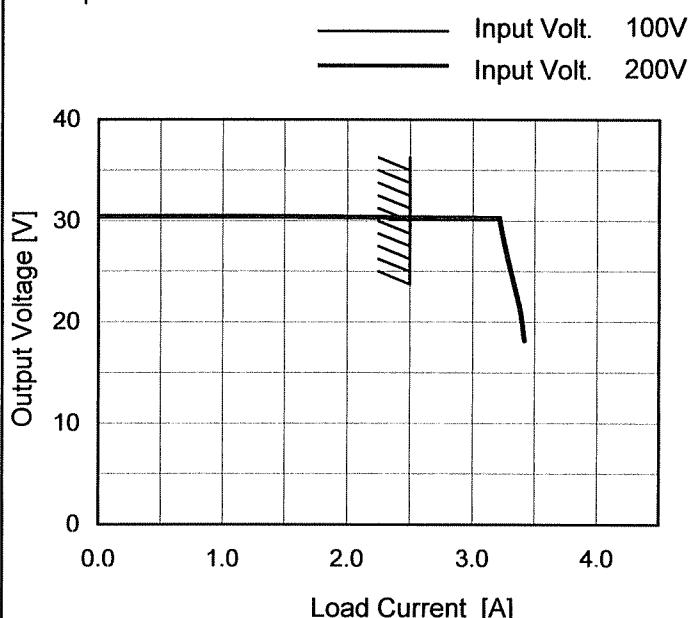
Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-20	73	74
-10	73	74
0	74	74
10	73	74
20	74	74
25	74	74
30	73	74
40	74	74
50	73	74
60	73	74
--	-	-

**COSEL**

Model	LEA75F-30
Item	Overcurrent Protection
Object	+30V2.5A

 Temperature 25°C  
 Testing Circuitry Figure A

## 1. Graph



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

Intermittent operation occurs when the output voltage is from 18V to 0V.

## 2. Values

Output Voltage [V]	Load Current [A]	
	Input Volt. 100[V]	Input Volt. 200[V]
30.0	3.22	3.22
28.5	3.25	3.24
27.0	3.27	3.27
24.0	3.33	3.33
21.0	3.39	3.39
18.0	3.43	3.42
--	-	-
--	-	-
--	-	-
--	-	-
--	-	-
--	-	-
--	-	-

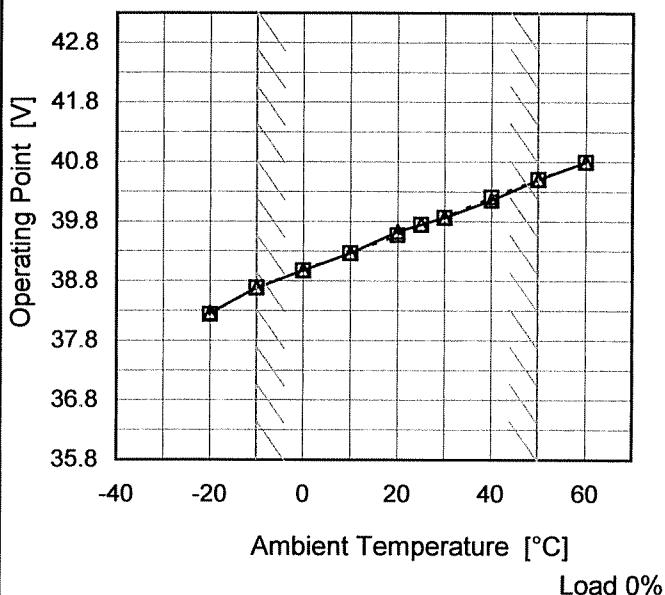
**COSEL**

Model	LEA75F-30
Item	Overvoltage Protection
Object	+30V2.5A

## Testing Circuitry Figure A

## 1. Graph

—△— Input Volt. 100V  
 - - - □ - - Input Volt. 200V



## 2. Values

Ambient Temperature [°C]	Operating Point [V]	
	Input Volt. 100[V]	Input Volt. 200[V]
-20	38.24	38.22
-10	38.67	38.67
0	38.96	38.96
10	39.25	39.25
20	39.61	39.55
25	39.73	39.73
30	39.85	39.85
40	40.14	40.19
50	40.49	40.49
60	40.78	40.78
--	-	-

Note: Slanted line shows the range of the rated ambient temperature.

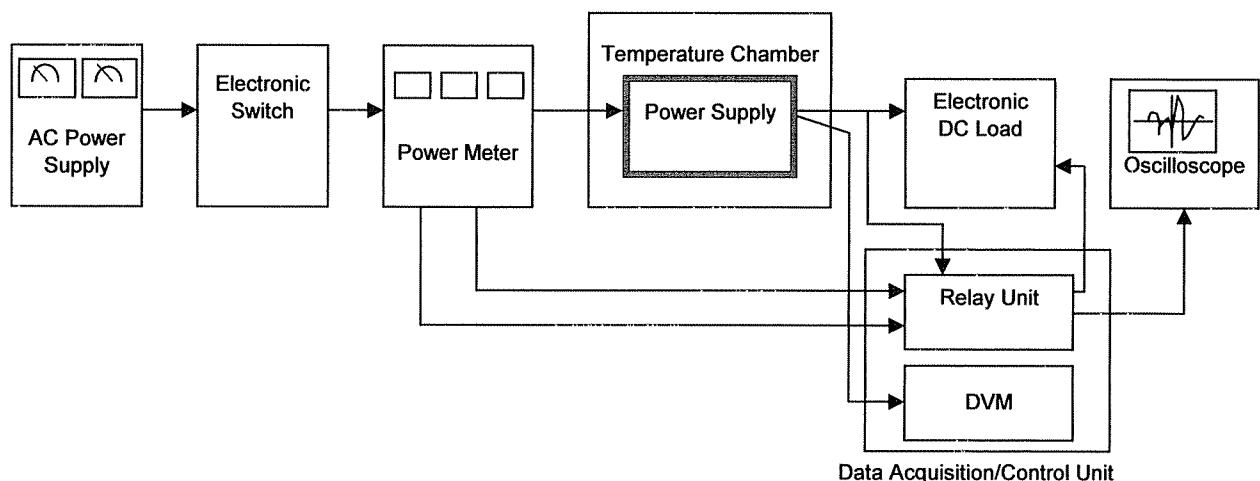


Figure A

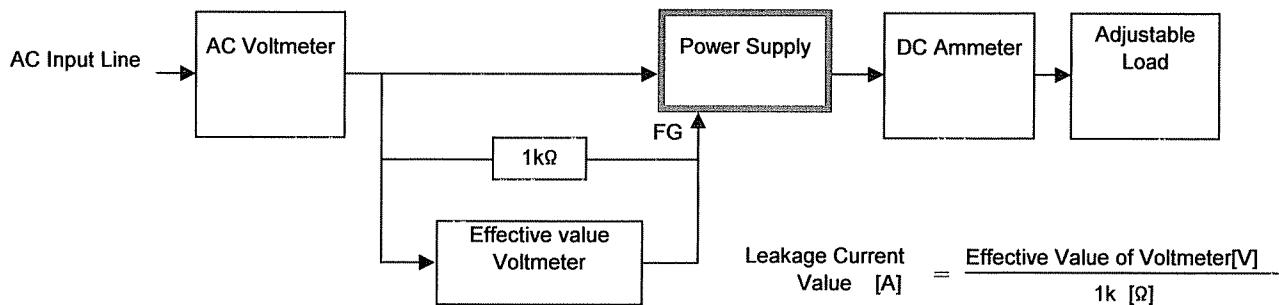


Figure B ( DEN-AN )

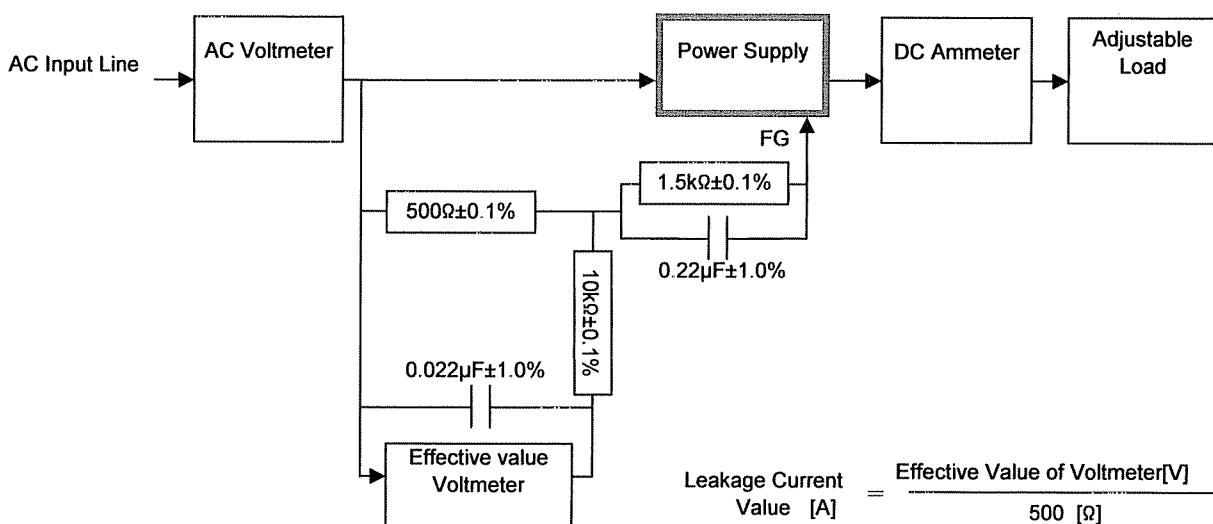


Figure B ( IEC60950 )