



TEST DATA OF LEA50F-48 (100V INPUT)

Regulated DC Power Supply

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コーセル株式会社
COSEL CO., LTD.

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Model		LEA50F-48	Temperature Testing Circuitry	25℃ Figure A																																
Item		Line Regulation 静的入力変動																																		
Object		+48.0V1.1A																																		
1. Graph		<div><div>□</div>Load 50%</div> <div><div>△</div>Load 100%</div> <div><p>Note: Slanted line shows the range of the rated input voltage.</p><p>(注)斜線は定格入力電圧範囲を示す。</p></div>	2. Values																																	
			<table><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><tr><td>75</td><td>48.345</td><td>48.347</td></tr><tr><td>80</td><td>48.345</td><td>48.347</td></tr><tr><td>85</td><td>48.346</td><td>48.347</td></tr><tr><td>90</td><td>48.346</td><td>48.346</td></tr><tr><td>100</td><td>48.346</td><td>48.347</td></tr><tr><td>110</td><td>48.346</td><td>48.346</td></tr><tr><td>120</td><td>48.346</td><td>48.346</td></tr><tr><td>132</td><td>48.346</td><td>48.345</td></tr><tr><td>140</td><td>48.347</td><td>48.345</td></tr></table>		Input Voltage [V]	Output Voltage [V]		Load 50%	Load 100%	75	48.345	48.347	80	48.345	48.347	85	48.346	48.347	90	48.346	48.346	100	48.346	48.347	110	48.346	48.346	120	48.346	48.346	132	48.346	48.345	140	48.347	48.345
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Model		LEA50F-48		Temperature		25℃	
Item		Input Current (by Load Current) 入力電流（負荷特性）		Testing Circuitry		Figure A	
Output		_____					
1. Graph				2. Values			

—△—

Input Volt. 85V

—□—

Input Volt. 100V

—○—

Input Volt. 132V

Input Current

[A]

1

0.8

0.6

0.4

0.2

0

0

0.2

0.4

0.6

0.8

1

1.2

1.4

Load Current

[A]

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

(注)斜線は定格負荷電流範囲を示す。

Load Current [A]	Input Current [A]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.00	0.065	0.060	0.055
0.20	0.196	0.170	0.137
0.40	0.331	0.283	0.222
0.60	0.456	0.388	0.299
0.80	0.582	0.494	0.378
1.00	0.712	0.603	0.460
1.10	0.776	0.657	0.498
1.21	0.852	0.720	0.545
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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Model		LEA50F-48																																																								
Item		Input Power (by Load Current) 入力電力 (負荷特性)																																																								
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1. Graph		2. Values																																																								
<div><div><div>—△—</div><div>Input Volt. 85V</div></div><div><div>—□—</div><div>Input Volt. 100V</div></div><div><div>—○—</div><div>Input Volt. 132V</div></div></div> <div><div>Input Power [W]</div><div>100</div><div>80</div><div>60</div><div>40</div><div>20</div><div>0</div></div> <div><div>Load Current [A]</div><div>0</div><div>0.2</div><div>0.4</div><div>0.6</div><div>0.8</div><div>1</div><div>1.2</div><div>1.4</div></div> <div>Note: Slanted line shows the range of the rated load current</div> <div>(注)斜線は定格負荷電流範囲を示す。</div>		<div>Temperature25℃</div> <div>Testing CircuitryFigure A</div> <table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Input Power [W]</th></tr><tr><th>Input Volt. 85 [V]</th><th>Input Volt. 100 [V]</th><th>Input Volt. 132 [V]</th></tr><tr><td>0.00</td><td>4.42</td><td>4.44</td><td>4.49</td></tr><tr><td>0.20</td><td>15.64</td><td>15.59</td><td>15.57</td></tr><tr><td>0.40</td><td>27.27</td><td>27.13</td><td>26.98</td></tr><tr><td>0.60</td><td>38.04</td><td>37.81</td><td>37.49</td></tr><tr><td>0.80</td><td>48.94</td><td>48.58</td><td>48.07</td></tr><tr><td>1.00</td><td>60.14</td><td>59.62</td><td>59.02</td></tr><tr><td>1.10</td><td>65.63</td><td>65.05</td><td>64.26</td></tr><tr><td>1.21</td><td>72.12</td><td>71.41</td><td>70.50</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><tr><td>—</td><td>—</td><td>—</td><td>—</td></tr></table>		Load Current [A]	Input Power [W]			Input Volt. 85 [V]	Input Volt. 100 [V]	Input Volt. 132 [V]	0.00	4.42	4.44	4.49	0.20	15.64	15.59	15.57	0.40	27.27	27.13	26.98	0.60	38.04	37.81	37.49	0.80	48.94	48.58	48.07	1.00	60.14	59.62	59.02	1.10	65.63	65.05	64.26	1.21	72.12	71.41	70.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Input Power [W]																																																									
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Note: Slanted line shows the range of the rated load current

(注) 斜線は定格負荷電流範囲を示す。

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Model		LEA50F-48	
Item		Efficiency (by Input Voltage) 効率（入力電圧特性）	
Object			
1. Graph		2. Values	

-----□-----

Load 50%

-----△-----

Load 100%

Efficiency

[%]

86

82

78

74

70

66

62

0

0

80

90

100

110

120

130

140

150

Input Voltage

[V]

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

(注)斜線は定格入力電圧範囲を示す。

Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
75	76.1	80.5
80	76.4	81.4
85	76.4	81.9
90	76.9	82.4
100	76.9	82.7
110	77.5	83.2
120	77.3	83.5
132	77.7	83.7
140	78.0	83.8

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Model		LEA50F-48		Temperature		25℃																																																								
Item		Efficiency (by Load Current) 効率（負荷特性）		Testing Circuitry		Figure A																																																								
Output		_____																																																												
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Model		LEA50F-48		Temperature25℃ Testing CircuitryFigure A																																
Item		Power Factor (by Input Voltage) 力率（入力電圧特性）																																		
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<table><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><tr><td>75</td><td>0.98</td><td>0.99</td></tr><tr><td>80</td><td>0.98</td><td>0.99</td></tr><tr><td>85</td><td>0.98</td><td>0.99</td></tr><tr><td>90</td><td>0.97</td><td>0.99</td></tr><tr><td>100</td><td>0.97</td><td>0.99</td></tr><tr><td>110</td><td>0.96</td><td>0.98</td></tr><tr><td>120</td><td>0.95</td><td>0.98</td></tr><tr><td>132</td><td>0.94</td><td>0.97</td></tr><tr><td>140</td><td>0.93</td><td>0.97</td></tr></table>					Input Voltage [V]	Power Factor		Load 50%	Load 100%	75	0.98	0.99	80	0.98	0.99	85	0.98	0.99	90	0.97	0.99	100	0.97	0.99	110	0.96	0.98	120	0.95	0.98	132	0.94	0.97	140	0.93	0.97
Input Voltage [V]	Power Factor																																			
	Load 50%	Load 100%																																		
75	0.98	0.99																																		
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Model		LEA50F-48	
Item		Power Factor (by Load Current) 力率（負荷特性）	
Output		_____	

1. Graph

Input Volt. 85V

Input Volt. 100V

Input Volt. 132V

Power Factor

1.0

0.9

0.8

0.7

0.6

0.5

0.4

0.3

0

0

0.2

0.4

0.6

0.8

1

1.2

1.4

</

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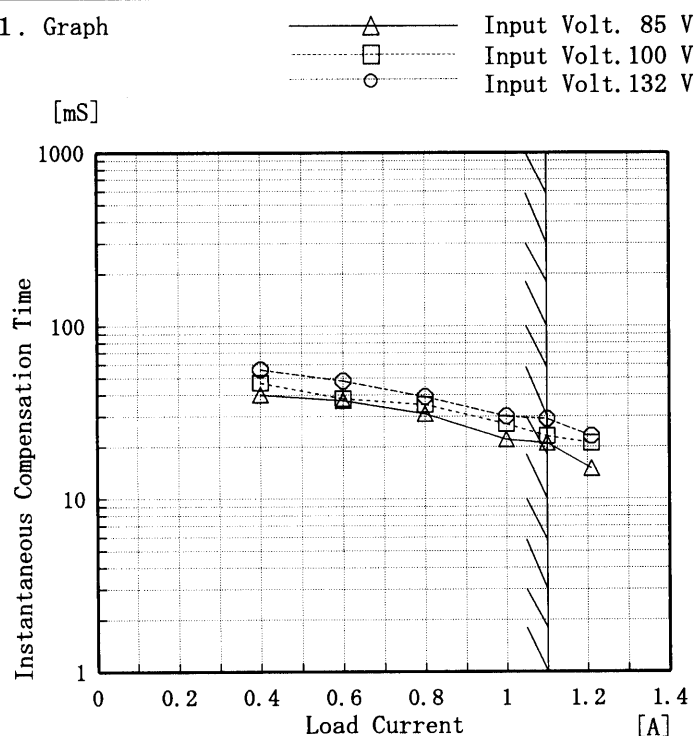
Model		LEA50F-48																																
Item		Hold-Up Time 出力保持時間																																
Object		+48.0V1.1A																																
1. Graph		<div> <div> <div>□</div> <div>Load 50%</div> </div> <div> <div>△</div> <div>Load 100%</div> </div> </div> <div> <div> <div>[mS]</div> <div>1000</div> <div>100</div> <div>10</div> <div>1</div> </div> <div> <div>Hold-Up Time</div> <div>80</div> <div>90</div> <div>100</div> <div>110</div> <div>120</div> <div>130</div> <div>140</div> <div>150</div> </div> <div> <div>Input Voltage</div> <div>[V]</div> </div> </div> <p>This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.</p> <p>Note: Slanted line shows the range of the rated input voltage.</p> <p>出力保持時間とは、入力電圧断から出力電圧が、定電圧精度の規格範囲を保持しているところまでの時間。</p> <p>(注)斜線は定格入力電圧範囲を示す。</p>																																
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Input Voltage [V]	Hold-Up Time [mS]																																	
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Model	LEA50F-48
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	+48.0V1.1A

Temperature 25°C
Testing Circuitry Figure A

1. Graph



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 load current.

瞬時停電保障時間とは、出力電圧が定電圧精度の規格範囲を保持している瞬時停電時間をいう。

(注) 斜線は定格負荷電流範囲を示す。

2. Values

Load Current [A]	Time [mS]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.00	—	—	—
0.20	—	—	—
0.40	40	47	56
0.60	37	38	48
0.80	31	35	39
1.00	22	27	30
1.10	21	23	29
1.21	15	21	23
—	—	—	—
—	—	—	—
—	—	—	—

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Model		LEA50F-48		Temperature		25℃																																																
Item		Load Regulation 静的負荷変動		Testing Circuitry		Figure A																																																
Object		+48.0V1.1A																																																				
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<div><div><div>△</div><div>□</div><div>○</div></div><div>Input Volt. 85 V</div><div>Input Volt. 100 V</div><div>Input Volt. 132 V</div></div> <div><div><div>[V]</div><div>48.490</div><div>48.450</div><div>48.410</div><div>48.370</div><div>48.330</div><div>48.290</div><div>48.250</div><div>0</div></div><div><div>0</div><div>0.2</div><div>0.4</div><div>0.6</div><div>0.8</div><div>1</div><div>1.2</div><div>1.4</div></div><div><div>Output Voltage</div><div>Load Current [A]</div></div></div> <div><div>Note: Slanted line shows the range of the rated load current.</div><div>(注)斜線は定格負荷電流範囲を示す。</div></div>				<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 85[V]</th><th>Input Volt. 100[V]</th><th>Input Volt. 132[V]</th></tr><tr><td>0.00</td><td>48.353</td><td>48.353</td><td>48.353</td></tr><tr><td>0.20</td><td>48.351</td><td>48.350</td><td>48.350</td></tr><tr><td>0.40</td><td>48.349</td><td>48.349</td><td>48.349</td></tr><tr><td>0.60</td><td>48.349</td><td>48.349</td><td>48.348</td></tr><tr><td>0.80</td><td>48.349</td><td>48.349</td><td>48.349</td></tr><tr><td>1.00</td><td>48.349</td><td>48.349</td><td>48.349</td></tr><tr><td>1.10</td><td>48.349</td><td>48.349</td><td>48.349</td></tr><tr><td>1.21</td><td>48.349</td><td>48.349</td><td>48.348</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]	Output Voltage [V]			Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]	0.00	48.353	48.353	48.353	0.20	48.351	48.350	48.350	0.40	48.349	48.349	48.349	0.60	48.349	48.349	48.348	0.80	48.349	48.349	48.349	1.00	48.349	48.349	48.349	1.10	48.349	48.349	48.349	1.21	48.349	48.349	48.348	—	—	—	—	—	—	—	—
Load Current [A]	Output Voltage [V]																																																					
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0.60	48.349	48.349	48.348																																																			
0.80	48.349	48.349	48.349																																																			
1.00	48.349	48.349	48.349																																																			
1.10	48.349	48.349	48.349																																																			
1.21	48.349	48.349	48.348																																																			
—	—	—	—																																																			
—	—	—	—																																																			

COSEL

Model		LEA50F-48	
Item		Ripple Voltage (by Load Current) リップル電圧 (負荷特性)	
Object		+48.0V 1.1A	

1. Graph

—△—

Input Volt. 85V

---○---

Input Volt. 132V

Ripple Voltage

[mV]

200

180

160

140

120

100

80

60

40

20

0

0

0.2

0.4

0.6

0.8

1

1.2

1.4

Load Current

[A]

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

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

リップル電圧は、下図 p-p 値で示される。

(注)斜線は定格負荷電流範囲を示す。

T1: Due to AC Input Line
入力商用周期

T2: Due to Switching
スイッチング周期

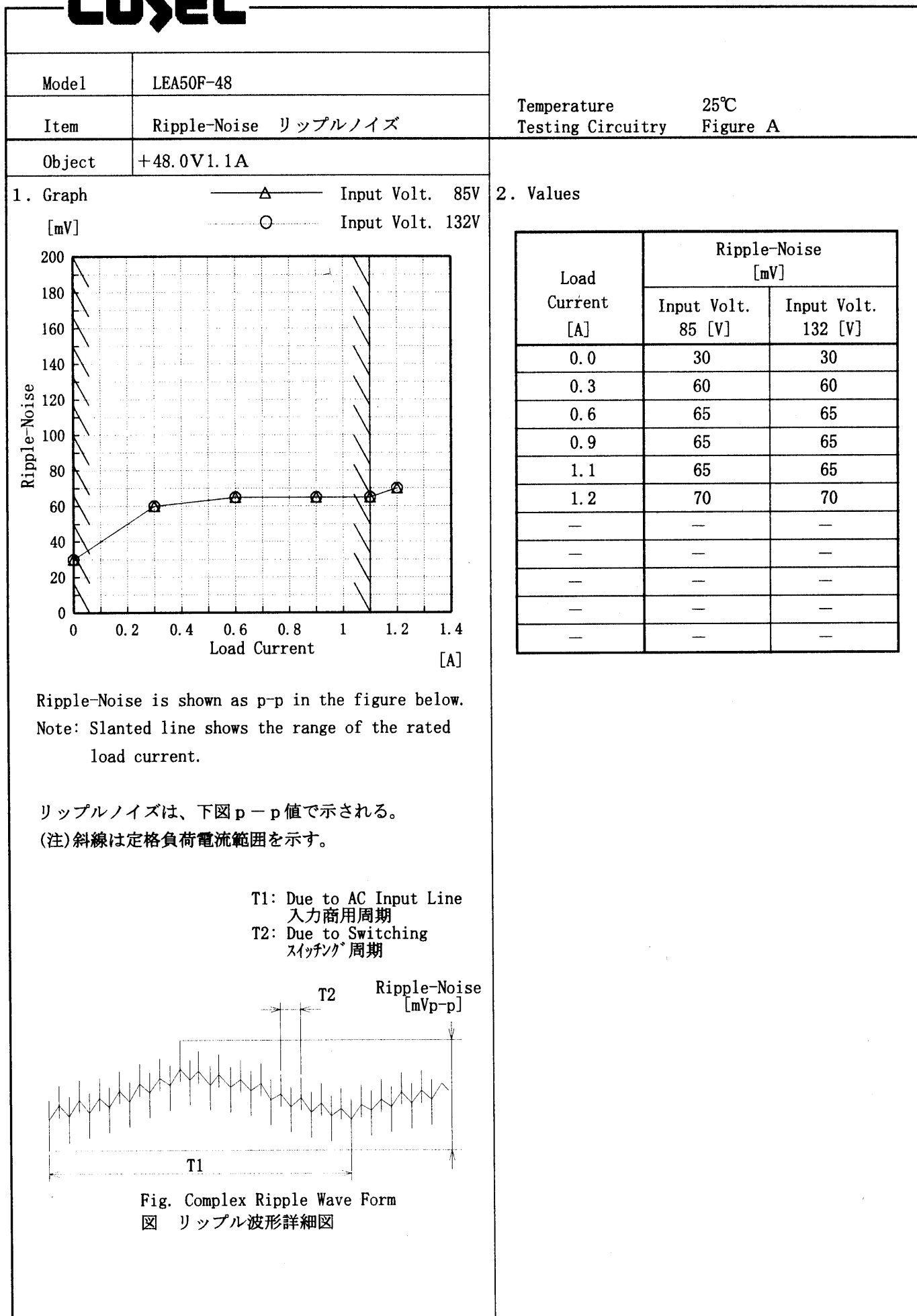
Ripple [mVp-p]

Fig. Complex Ripple Wave Form

図 リップル波形詳細図

Load Current [A]	Ripple Output Voltage [mV]	
	Input Volt. 85 [V]	Input Volt. 132 [V]
0.0	20	20
0.3	50	50
0.6	50	50
0.9	50	50
1.1	50	50
1.2	50	50
—	—	—
—	—	—
—	—	—
—	—	—
—	—	—

COSEL



COSEL

Model		LEA50F-48		Temperature Testing Circuitry	25℃ Figure A
Item		Overcurrent Protection 過電流保護			
Object		+48.0V1.1A			

1. Graph

Input Volt. 85 V

Input Volt. 100 V

Input Volt. 132 V

[V]

80.0

60.0

40.0

20.0

0.0

0

0.5

1

1.5

2

Output Voltage

Load Current

[A]

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

Intermittent operation occurs when the output voltage is from 23V to 0V.

(注)斜線は定格負荷電流範囲を示す。

23V～0V間は、間欠モードとなる。

2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
	48.00	1.360	1.360
45.60	1.371	1.372	1.371
43.20	1.383	1.385	1.385
38.40	1.413	1.415	1.415
33.60	1.448	1.450	1.452
28.80	1.480	1.481	1.482
24.00	1.494	1.496	1.494
19.20	—	—	—
14.40	—	—	—
9.60	—	—	—
4.80	—	—	—
0.00	—	—	—

COSEL

Model		LEA50F-48
Item		Overvoltage Protection 過電圧保護
Object		+48.0V1.1A

1. Graph

△

Input Volt. 85 V

□

Input Volt. 100 V

○

Input Volt. 132 V

[V]

62.000

61.000

60.000

59.000

58.000

57.000

56.000

0

Operating Point

-30

-10

10

30

50

70

Ambient Temperature

[°C]

Load 0%

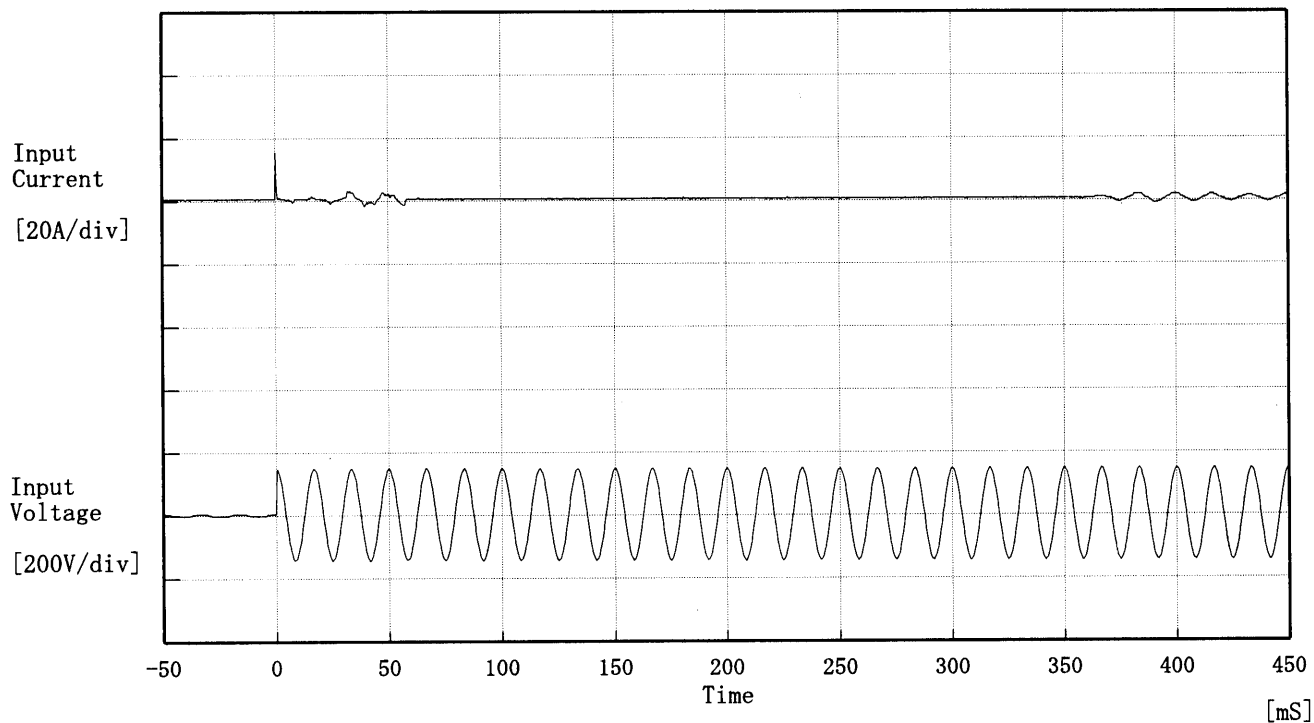
Note: Slanted line shows the range of the rated ambient temperature.

(注)斜線は定格周囲温度範囲を示す。

Ambient Temperature [°C]	Operating Point [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	59.48	59.54	59.54
-10	59.55	59.55	59.55
0	59.54	59.54	59.54
10	59.54	59.54	59.54
20	59.54	59.54	59.54
25	59.55	59.55	59.55
30	59.55	59.55	59.55
40	59.55	59.55	59.55
50	59.56	59.56	59.56
60	59.55	59.55	59.55
—	—	—	—

COSEL

Model	LEA50F-48	Temperature	25°C
Item	Inrush Current 突入電流	Testing Circuitry	Figure A
Object	_____		



Input Voltage 100 V

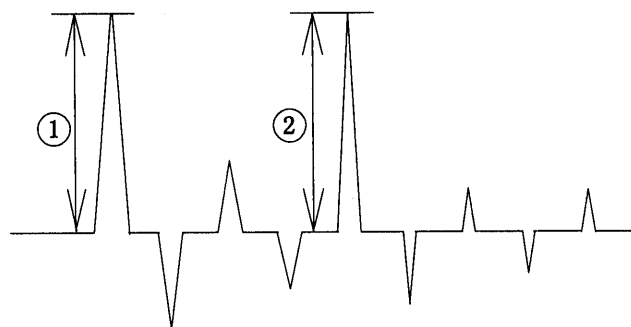
Frequency 60 Hz

Load 100 %

Inrush Current

① 15.56 [A]

② 2.36 [A]



COSEL

Model	LEA50F-48	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Responce 動的負荷変動	
Object	+48.0V1.1A	

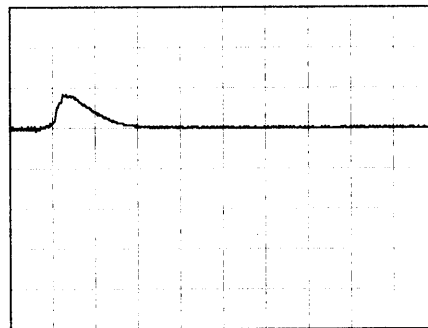
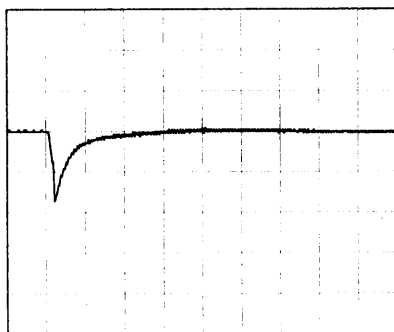
Input Volt. 100 V

Cycle 1000 mS

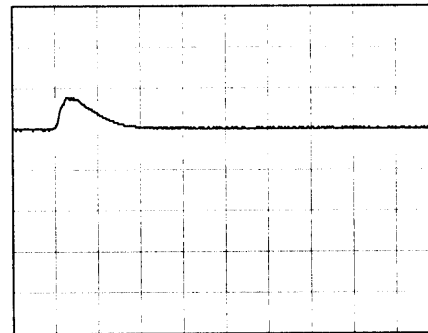
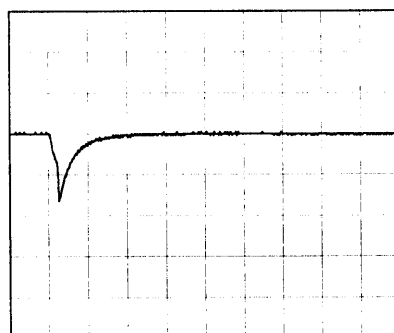
Load Current

Min. Load \longleftrightarrow

Load 100 %

Min. Load \longleftrightarrow

Load 50 %



100 mV/div

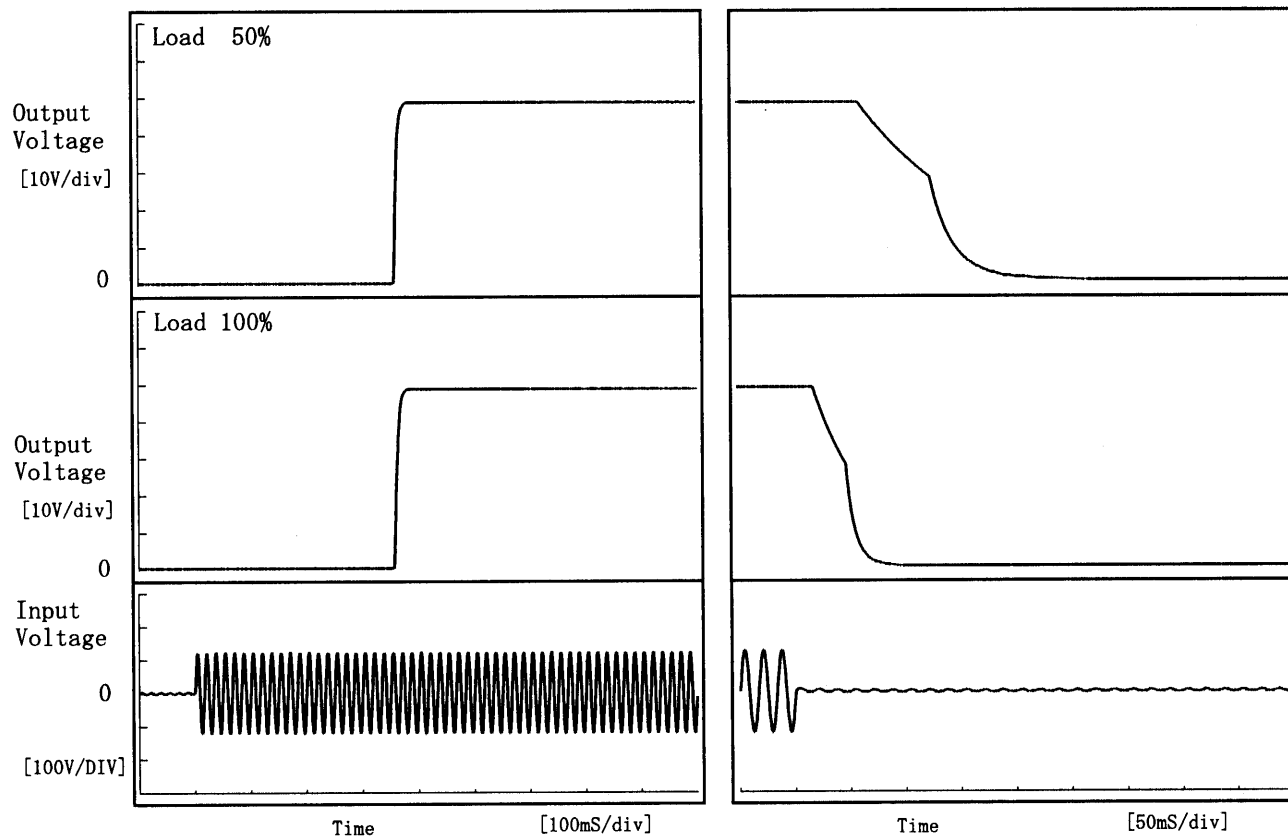
10 mS/div

COSEL

Model	LEA50F-48	Temperature	25°C
Item	Rise and Fall Time 立上り、立下り時間	Testing Circuitry	Figure A
Object	+48.0V1.1A		

1. Graph

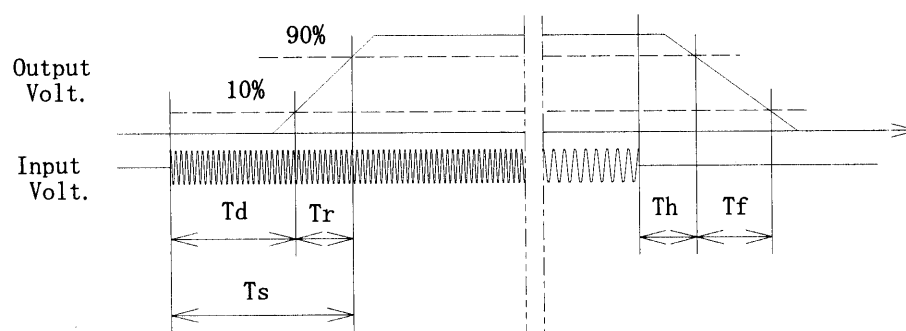
Input Volt. 85 V



2. Values

[mS]

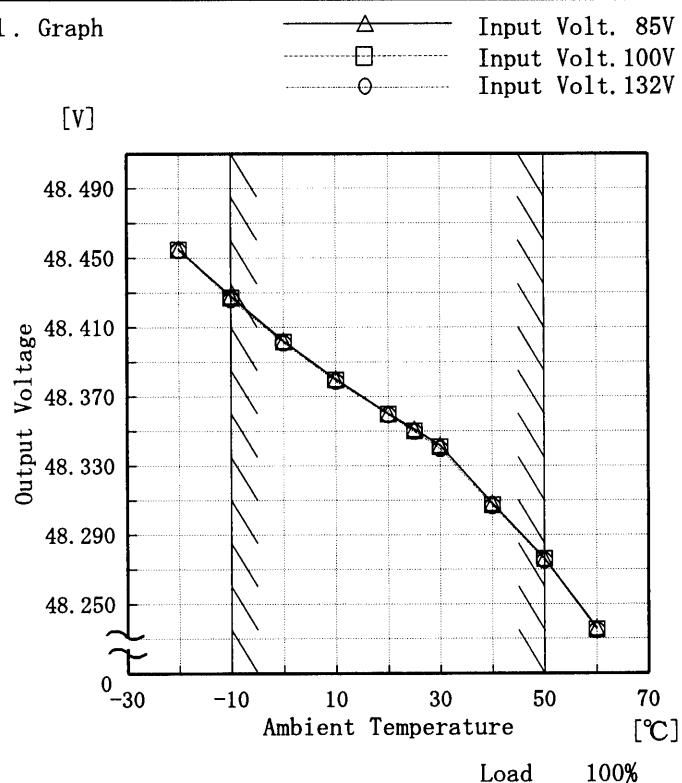
Load \ Time	T d	T r	T s	T h	T f
50 %	357.5	9.0	366.5	72.0	92.8
100 %	357.5	11.0	368.5	23.8	39.0



COSEL

Model	LEA50F-48
Item	Ambient Temperature Drift 周囲温度変動
Object	+48.0V1.1A

1. Graph



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

(注) 斜線は定格周囲温度範囲を示す。

Testing Circuitry Figure A

2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	48.455	48.455	48.454
-10	48.428	48.427	48.426
0	48.402	48.402	48.401
10	48.380	48.380	48.379
20	48.360	48.360	48.359
25	48.351	48.350	48.350
30	48.342	48.341	48.340
40	48.308	48.307	48.307
50	48.276	48.276	48.275
60	48.236	48.235	48.235
—	—	—	—

COSEL

Model		LEA50F-48																																						
Item		Minimum Input Voltage for Regulated Output Voltage 最低レギュレーション電圧																																						
Object		+48.0V1.1A																																						
1. Graph		<div> <div> <div>□</div> <div>Load 50%</div> </div> <div> <div>△</div> <div>Load 100%</div> </div> </div> <p>Input Voltage [V]</p> <p>Ambient Temperature [°C]</p> <p>Note: Slanted line shows the range of the rated ambient temperature.</p> <p>(注)斜線は定格周囲温度範囲を示す。</p>																																						
2. Values		<table border="1"> <thead> <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> </thead> <tbody> <tr><td>-20</td><td>73</td><td>73</td></tr> <tr><td>-10</td><td>73</td><td>73</td></tr> <tr><td>0</td><td>73</td><td>73</td></tr> <tr><td>10</td><td>73</td><td>73</td></tr> <tr><td>20</td><td>73</td><td>73</td></tr> <tr><td>25</td><td>73</td><td>73</td></tr> <tr><td>30</td><td>73</td><td>73</td></tr> <tr><td>40</td><td>73</td><td>73</td></tr> <tr><td>50</td><td>73</td><td>73</td></tr> <tr><td>60</td><td>73</td><td>73</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>	Ambient Temperature [°C]	Input Voltage [V]		Load 50%	Load 100%	-20	73	73	-10	73	73	0	73	73	10	73	73	20	73	73	25	73	73	30	73	73	40	73	73	50	73	73	60	73	73	—	—	—
Ambient Temperature [°C]	Input Voltage [V]																																							
	Load 50%	Load 100%																																						
-20	73	73																																						
-10	73	73																																						
0	73	73																																						
10	73	73																																						
20	73	73																																						
25	73	73																																						
30	73	73																																						
40	73	73																																						
50	73	73																																						
60	73	73																																						
—	—	—																																						

COSEL

Model		LEA50F-48	
Item		Ripple Voltage (by Ambient Temp.) リップル電圧 (周囲温度特性)	
Object		+48.0V1.1A	

1. Graph

□

Load 50%

△

Load 100%

[mV]

160

140

120

100

80

60

40

20

0

Ripple Voltage

-30

-10

10

30

50

70

Ambient Temperature

[°C]

Input Volt. 100 V

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

(注)斜線は定格周囲温度範囲を示す。

2. Values

Ambient Temperature [°C]	Ripple Output Voltage [mV]	
	Load 50%	Load 100%
-20	140	140
-10	130	130
0	95	95
10	85	85
20	70	70
25	60	65
30	55	55
40	50	50
50	45	45
60	40	45
—	—	—

COSEL

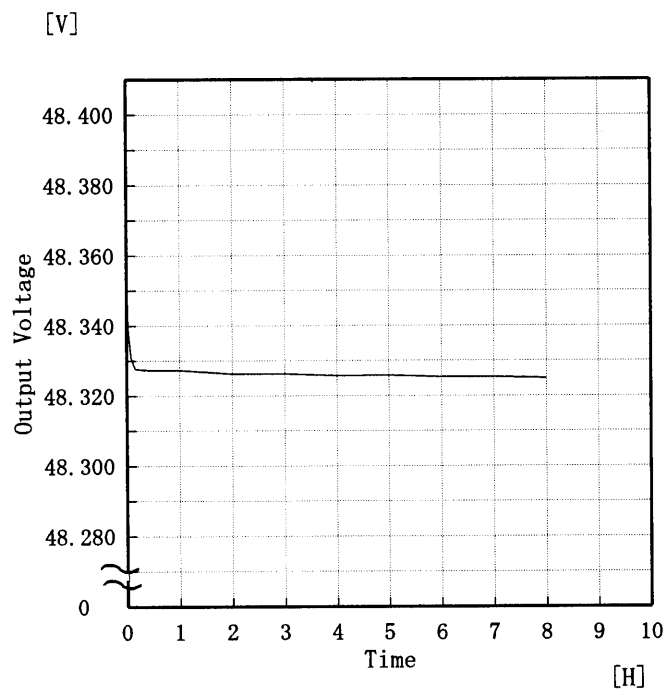
Model LEA50F-48

Item Time Lapse Drift 経時ドリフト

Temperature 25°C
Testing Circuitry Figure A

Object +48.0V1.1A

1. Graph



2. Values

Time since start [H]	Output Voltage [V]
0.0	48.366
0.5	48.327
1.0	48.327
2.0	48.326
3.0	48.326
4.0	48.326
5.0	48.326
6.0	48.325
7.0	48.325
8.0	48.325

COSEL

Model		LEA50F-48
Item	Output Voltage Accuracy 定電圧精度	Testing Circuitry Figure A
Object	+48.0V1.1A	

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 : 85~132 V

Load Current : 0~1.1 A

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

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

1. 定電圧精度

周囲温度、入力電圧、負荷電流を下記仕様内で、任意に変動させたときの出力電圧の変動をいう。

周囲温度 -10~50 °C

入力電圧 85~132 V

負荷電流 0~1.1 A

* 定電圧精度(変動値) = $\pm (\text{出力電圧の最高値} - \text{出力電圧の最低値}) / 2$

* 定電圧精度(変動率) = $\frac{\text{変動値}}{\text{定格出力電圧}} \times 100$

2. Values

Item	Temperature [°C]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration) [%]
Maximum Voltage	-10	132	0.0	48.434	±86	±0.2
Minimum Voltage	50	132	1.1	48.262		

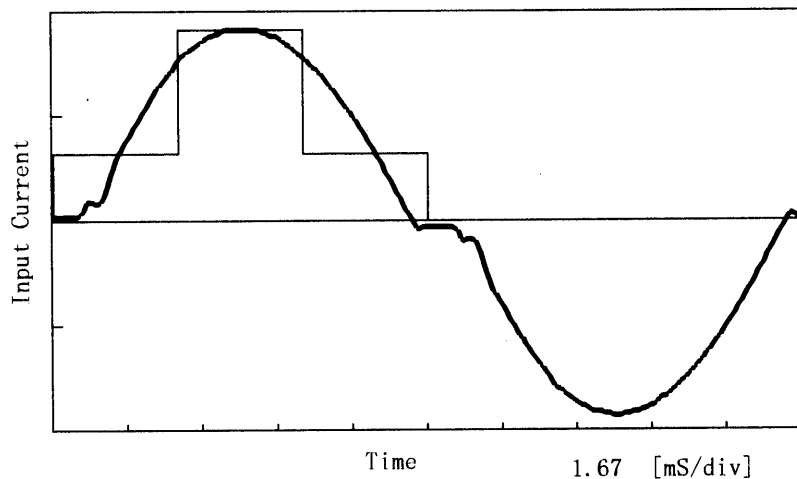
COSEL

Model	LEA50F-48	Temperature	25°C
Item	Harmonic Current 高調波電流	Testing Circuitry	Figure E
Object			

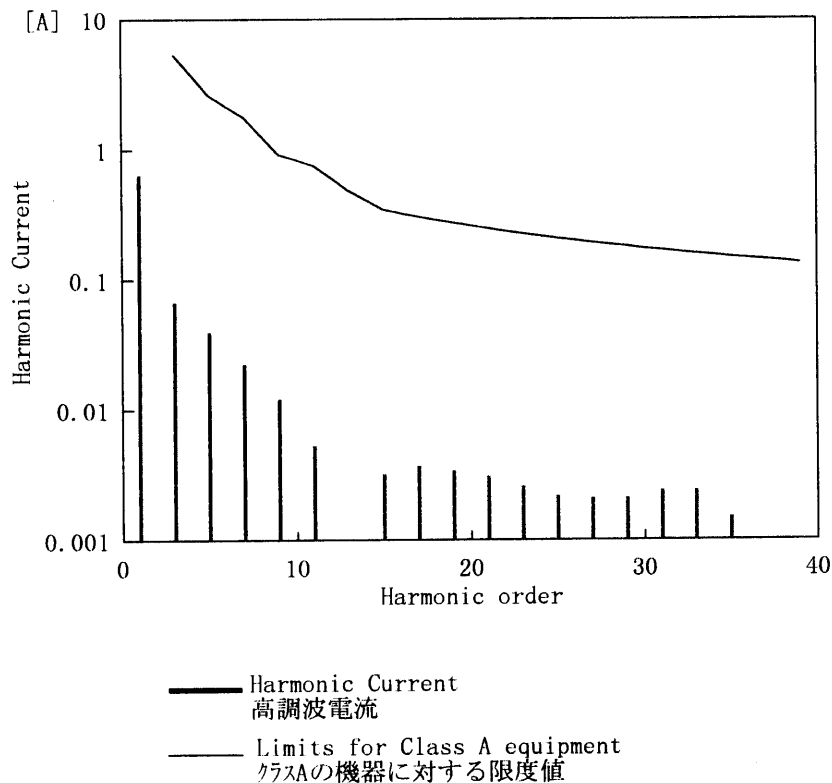
1. Input Current Waveform

— Input Current
— Envelope of the input current to classify equipment as Class D
クラスDの機器を決定するための入力電流包絡線

0.5 A/div



2. Harmonic Current



Conditions	Values
Input Voltage [V]	100.3
Input Current [A]	0.649
Active Power [W]	64.5
Apparent Power [VA]	65.1
Frequency [Hz]	60
Power Factor	0.991
Output Power [W]	52.8

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	0.64370
2	—	0.00030
3	5.27418	0.06710
4	—	0.00010
5	2.61416	0.03980
6	—	0.00010
7	1.76570	0.02250
8	—	0.00010
9	0.91725	0.01200
10	—	0.00010
11	0.75673	0.00530
12	—	0.00010
13	0.48156	0.00060
14	—	0.00010
15	0.34397	0.00320
16	—	0.00000
17	0.30350	0.00370
18	—	0.00000
19	0.27155	0.00340
20	—	0.00000
21	0.24569	0.00310
22	—	0.00000
23	0.22433	0.00260
24	—	0.00000
25	0.20638	0.00220
26	—	0.00010
27	0.19109	0.00210
28	—	0.00010
29	0.17791	0.00210
30	—	0.00010
31	0.16644	0.00240
32	—	0.00000
33	0.15635	0.00240
34	—	0.00000
35	0.14741	0.00150
36	—	0.00000
37	0.13945	0.00060
38	—	0.00000
39	0.13230	0.00050
40	—	0.00010

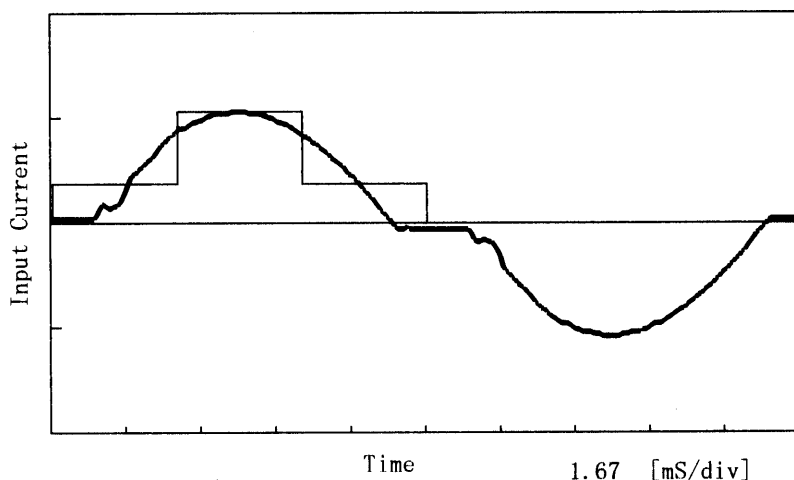
COSEL

Model	LEA50F-48	Temperature	25°C
Item	Harmonic Current 高調波電流	Testing Circuitry	Figure E
Object			

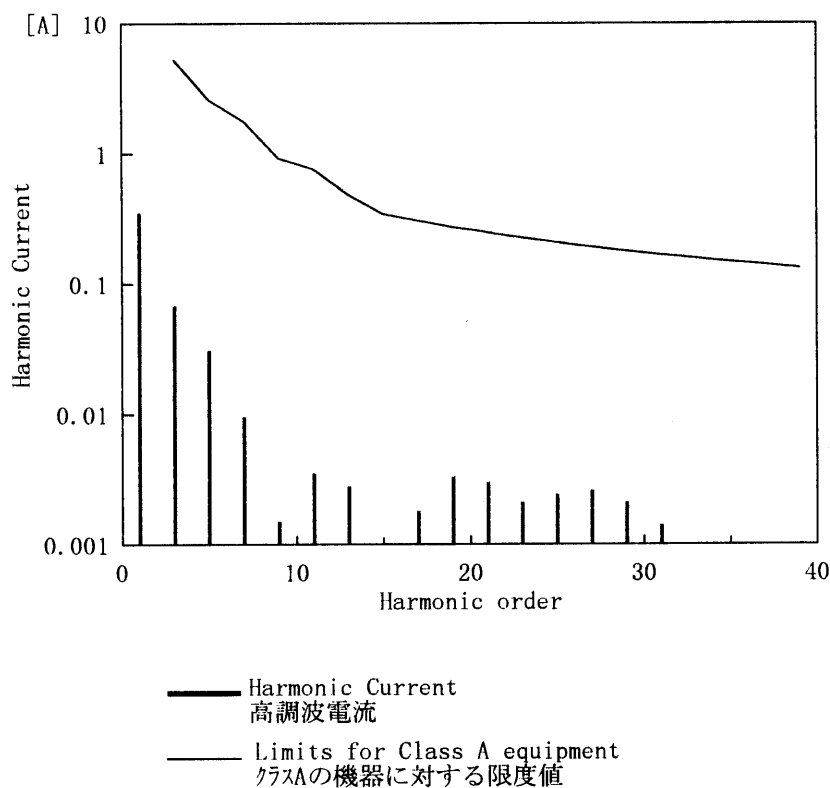
1. Input Current Waveform

— Input Current
 — Envelope of the input current to classify equipment as Class D
 クラスDの機器を決定するための入力電流包絡線

0.5 A/div



2. Harmonic Current



Conditions	Values
Input Voltage [V]	100.5
Input Current [A]	0.358
Active Power [W]	35.1
Apparent Power [VA]	36
Frequency [Hz]	60
Power Factor	0.975
Output Power [W]	26.4

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	0.35020
2	—	0.00030
3	5.26368	0.06820
4	—	0.00010
5	2.60896	0.03100
6	—	0.00010
7	1.76219	0.00960
8	—	0.00000
9	0.91542	0.00150
10	—	0.00000
11	0.75522	0.00350
12	—	0.00010
13	0.48060	0.00280
14	—	0.00010
15	0.34328	0.00100
16	—	0.00000
17	0.30290	0.00180
18	—	0.00010
19	0.27101	0.00330
20	—	0.00010
21	0.24520	0.00300
22	—	0.00010
23	0.22388	0.00210
24	—	0.00000
25	0.20597	0.00240
26	—	0.00010
27	0.19071	0.00260
28	—	0.00010
29	0.17756	0.00210
30	—	0.00010
31	0.16610	0.00140
32	—	0.00010
33	0.15604	0.00100
34	—	0.00010
35	0.14712	0.00100
36	—	0.00000
37	0.13917	0.00100
38	—	0.00000
39	0.13203	0.00060
40	—	0.00000

COSEL

LUCEL

		Testing Circuitry Figure A
Model	LEA50F-48	
Item	Condensation 結露特性	
Object	+48.0V1.1A	

1. Condensation test

Testing procedure is as follows.

① Keeping and cooling the unit in a tank at -10℃ for an hour with the input off.

② Taking it out of the tank and dewing itself in a room where the temperature is 25℃ and the humidity is 40%RH.

③ Testing electrical characteristics of the unit to confirm there be no fault.

1. 結露特性試験

入力を切った状態で、恒温槽で－10℃に冷却しておき、約1時間後に恒温槽から取り出し、室温25℃、湿度40%RHの状態におき結露させ、その電気的特性の測定を行い、異常のないことを確認する。

2. Values

Item	Data	Testing Conditions
Output Voltage [V]	48.345	Input Volt. : 100V, Load Current:1.1A
Line Regulation [mV]	2	Input Volt. : 85～132V, Load Current:1.1A
Load Regulation [mV]	8	Input Volt. : 100V, Load Current:0.0～1.1A

COSEL

Model	LEA50F-48	Temperature	25℃
Item	Leakage Current 漏洩電流	Testing Circuitry	Figure A
Object	_____		

1. Results

Standards	Leakage Current [mA]		
	Input Volt. 85 [V]	Input Volt. 100 [V]	Input Volt. 132 [V]
(A) DENTORI	0.16	0.18	0.24
(B) IEC60950	0.16	0.18	0.24

Standards	Leakage Current [mA]		
	Input Volt. 170 [V]	Input Volt. 230 [V]	Input Volt. 264 [V]
(B) IEC60950	—	—	—

2. Condition

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

交流入力 of 両相について測定し、その大きい方を漏洩電流測定値とする。

COSEL

		Temperature Testing Circuitry		25℃ Figure A	
Model	LEA50F-48				
Item	Line Noise Tolerance 入力雑音耐量				
Object	+48.0V1.1A				

1. Results

Pulse Width [nS]	MODE	No protection failure should occur 保護回路の誤動作がない	DC-like Regulation of Output Voltage 出力電圧の直流的変動
50	COMMON	OK	no fluctuation
	NORMAL	OK	no fluctuation
1000	COMMON	OK	no fluctuation
	NORMAL	OK	no fluctuation

2. Conditions

Input Voltage : 100 V
 Pulse Voltage : 2000 V
 Pulse Cycle : 10 mS
 Pulse Input Duration : 1 min. or more
 Load : 100 %

COSEL

Model	LEA50F-48	Temperature Testing Circuitry	25°C Figure D
Item	Conducted Emission 雑音端子電圧		
Object			

1. Graph

Remarks

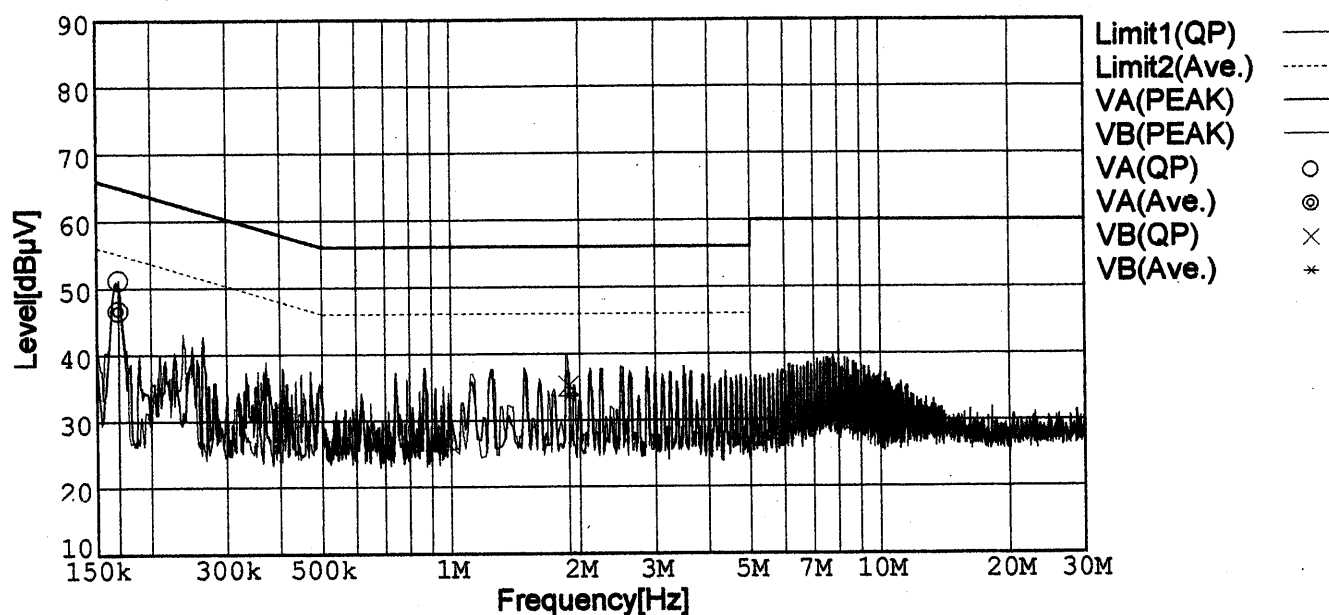
Input Volt. 100 V (VCCI Class B)

120 V (FCC Class B)

Load 100 %

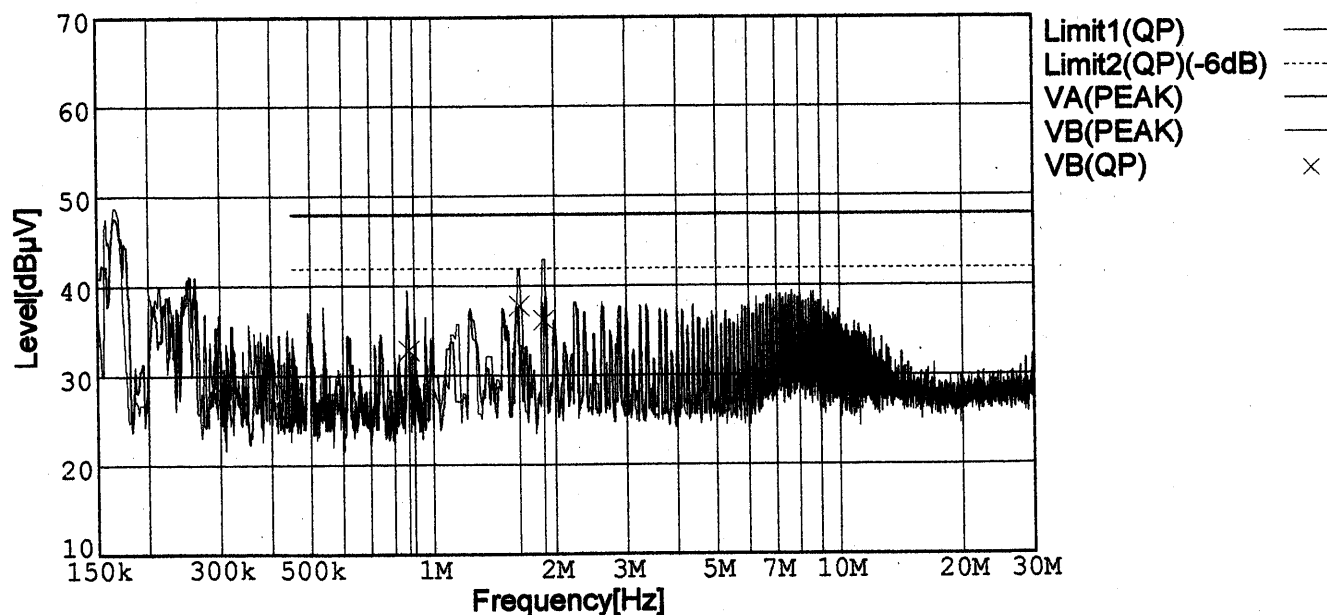
Limit1: [VCCI] Class B(QP)

Limit2: [VCCI] Class B(Ave.)



Limit1: [FCC Part15] Class B

Limit2: [FCC Part15] Class B(-6dB)



COSEL

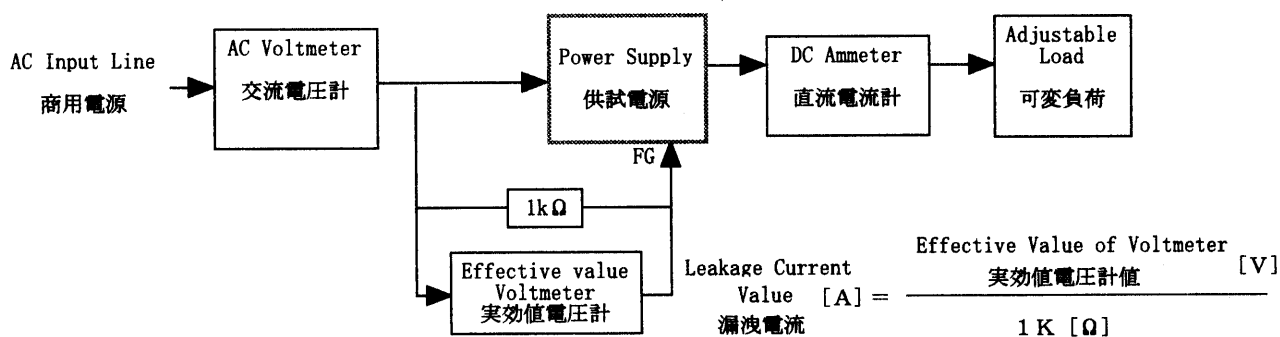
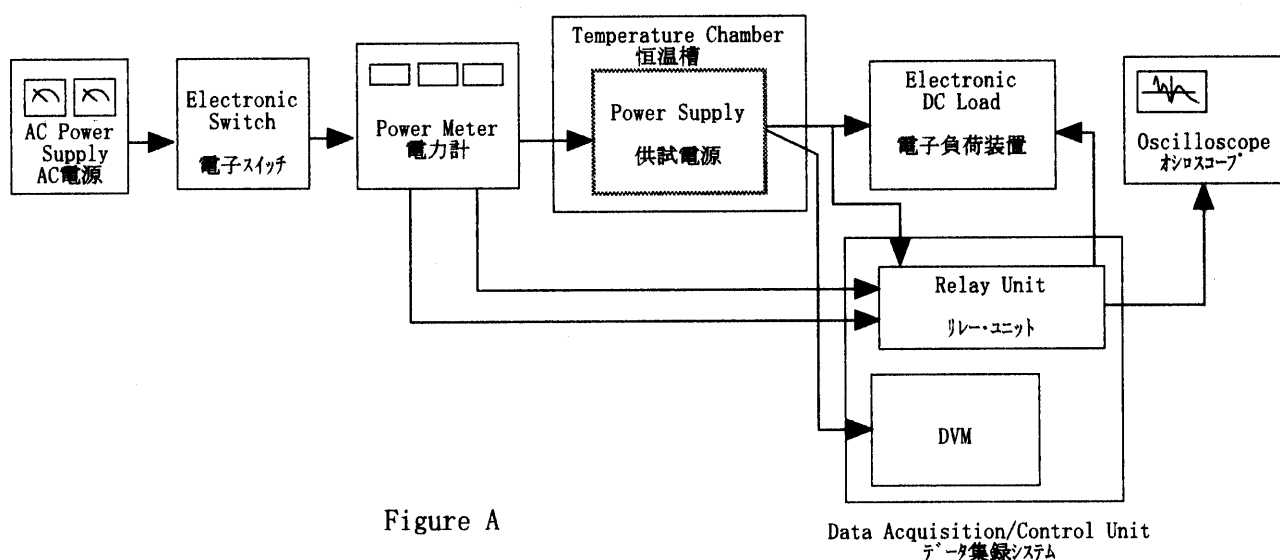


Figure B (DENTORI)

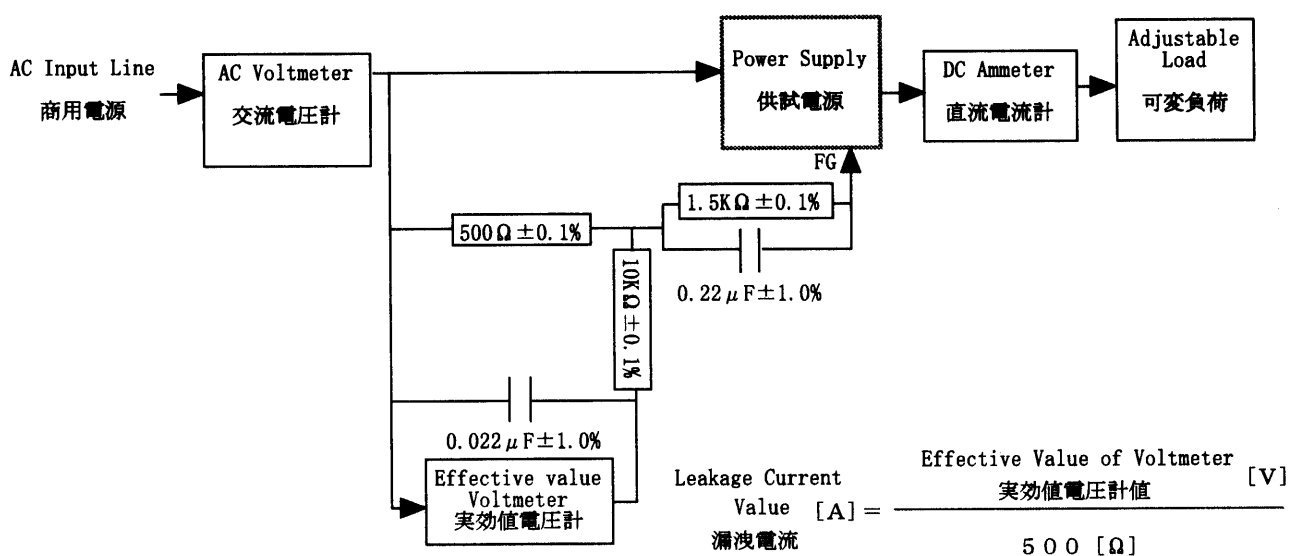


Figure B (IEC 60950)

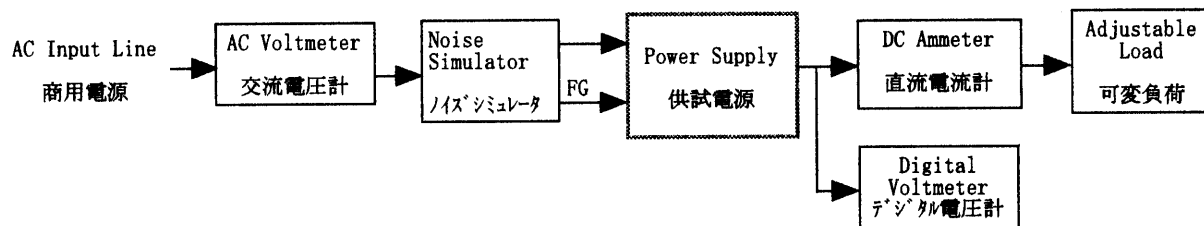


Figure C

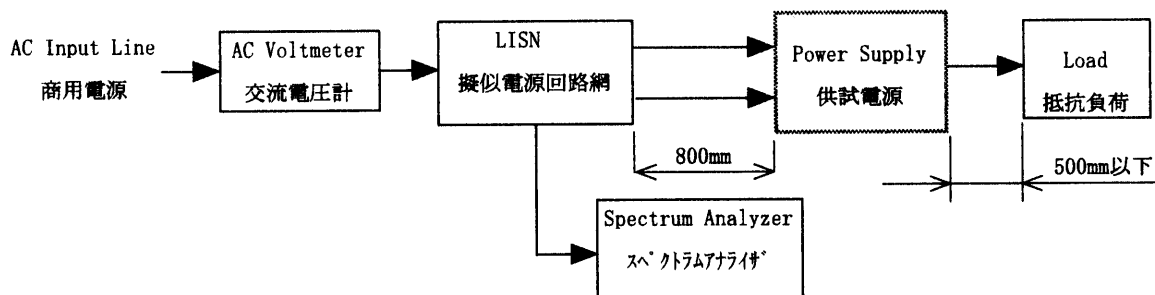


Figure D

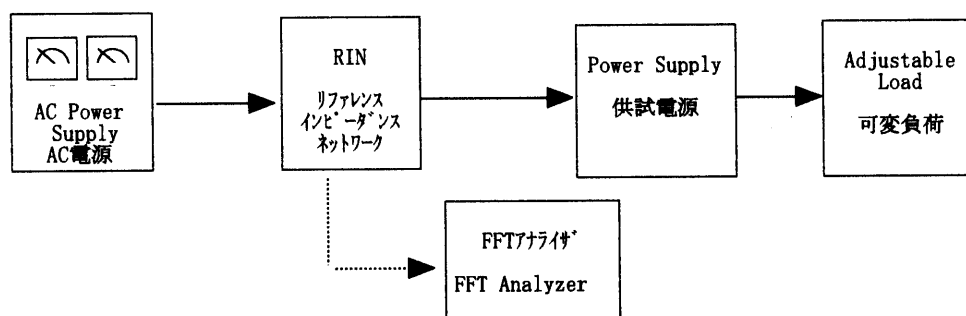


Figure E