



TEST DATA OF LEA150F-5

(100V INPUT)

Regulated DC Power Supply

Date : Feb. 5. 1999

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コーセル株式会社

COSEL CO., LTD.

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COSEL

Model LEA150F-5

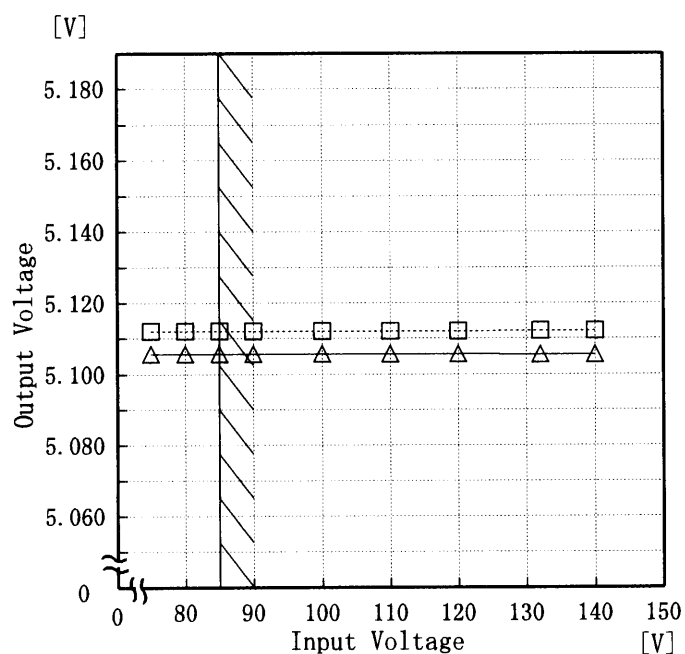
Item Line Regulation 静的入力変動

Object +5.0V 30.00A

Temperature 25°C
Testing Circuitry Figure A

1. Graph

-----□----- Load 50%
 -----△----- Load 100%



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。

2. Values

Input Voltage [V]	Load 50%	Load 100%
	Output Volt. [V]	Output Volt. [V]
75	5.112	5.106
80	5.112	5.106
85	5.112	5.106
90	5.112	5.106
100	5.112	5.106
110	5.112	5.106
120	5.112	5.106
132	5.112	5.106
140	5.112	5.106

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Model		LEA150F-5	Temperature	25℃
Item		Input Current (by Load Current) 入力電流（負荷特性）	Humidity	40%RH
Output		_____	Testing Circuitry	Figure A

1. Graph

—△— Input Volt. 85V

- - -□- - - Input Volt. 100V

- - -○- - - Input Volt. 132V

[A]

5

4

3

2

1

0

0 10 20 30 40

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。

2. Values

Load Current [A]	Input Current [A]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0	0.10	0.09	0.07
6	0.56	0.48	0.38
12	1.00	0.85	0.65
18	1.45	1.22	0.93
24	1.91	1.61	1.22
30	2.39	2.01	1.51
33	2.63	2.21	1.66
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model		LEA150F-5	Temperature	25℃
Item		Input Power (by Load Current) 入力電力（負荷特性）	Humidity	40%RH
Output		_____	Testing Circuitry	Figure A

1. Graph

—△—

Input Volt. 85V

---□---

Input Volt. 100V

---○---

Input Volt. 132V

[W]

500

400

300

200

100

0

0

10

20

30

40

Input Power

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。

2. Values

Load Current [A]	Input Power [W]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0	7	7	6
6	45	45	44
12	82	82	81
18	121	120	118
24	161	159	157
30	202	199	196
33	223	220	216
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model		LEA150F-5	Temperature 25℃ Testing Circuitry Figure A																														
Item		Efficiency (by Input Voltage) 効率 (入力電圧特性)																															
Object			2. Values																														
1. Graph		<div><div>□ Load 50%</div><div>△ Load 100%</div></div> <p>Efficiency [%]</p> <p>Input Voltage [V]</p>																															
Note: Slanted line shows the range of the rated input voltage.			<table><tr><th>Input Voltage [V]</th><th>Load 50% Efficiency [%]</th><th>Load 100% Efficiency [%]</th></tr><tr><td>75</td><td>74.87</td><td>74.90</td></tr><tr><td>80</td><td>75.00</td><td>75.21</td></tr><tr><td>85</td><td>75.61</td><td>75.74</td></tr><tr><td>90</td><td>75.62</td><td>76.21</td></tr><tr><td>100</td><td>76.38</td><td>76.71</td></tr><tr><td>110</td><td>76.83</td><td>77.54</td></tr><tr><td>120</td><td>77.14</td><td>78.01</td></tr><tr><td>132</td><td>77.53</td><td>78.21</td></tr><tr><td>140</td><td>77.93</td><td>79.17</td></tr></table>	Input Voltage [V]	Load 50% Efficiency [%]	Load 100% Efficiency [%]	75	74.87	74.90	80	75.00	75.21	85	75.61	75.74	90	75.62	76.21	100	76.38	76.71	110	76.83	77.54	120	77.14	78.01	132	77.53	78.21	140	77.93	79.17
Input Voltage [V]	Load 50% Efficiency [%]	Load 100% Efficiency [%]																															
75	74.87	74.90																															
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90	75.62	76.21																															
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140	77.93	79.17																															
(注) 斜線は定格入力電圧範囲を示す。																																	

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Model		LEA150F-5	Temperature	25℃
Item		Efficiency (by Load Current) 効率 (負荷特性)	Humidity	40%RH
Output		—————	Testing Circuitry	Figure A

1. Graph

—△— Input Volt. 85V

- - - □ - - - Input Volt. 100V

- - - ○ - - - Input Volt. 132V

Efficiency [%]

Load Current [A]	85V [%]	100V [%]	132V [%]
6	67.6	68.2	69.0
12	74.3	74.9	75.9
18	75.6	76.6	77.5
24	76.0	76.9	77.8
30	75.7	76.7	78.2
33	75.4	76.6	77.7

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。

2. Values

Load Current [A]	Efficiency [%]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
6	67.6	68.2	69.0
12	74.3	74.9	75.9
18	75.6	76.6	77.5
24	76.0	76.9	77.8
30	75.7	76.7	78.2
33	75.4	76.6	77.7
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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Model		LEA150F-5	Temperature25℃ Humidity40%RH Testing CircuitryFigure A																																
Item		Power Factor (by Input Voltage) 力率(入力電圧特性)																																	
Object																																			
1. Graph		<div><div>□</div>load 50%</div> <div><div>△</div>load 100%</div> <p>Power Factor</p> <p>Input Voltage [V]</p>	2. Values																																
		<table><tr><th rowspan="2">Input Voltage [V]</th><th>load 50%</th><th>load 100%</th></tr><tr><th>Power Factor</th><th>Power Factor</th></tr><tr><td>75</td><td>0.98</td><td>1.00</td></tr><tr><td>80</td><td>0.98</td><td>1.00</td></tr><tr><td>85</td><td>0.98</td><td>0.99</td></tr><tr><td>90</td><td>0.98</td><td>0.99</td></tr><tr><td>100</td><td>0.97</td><td>0.99</td></tr><tr><td>110</td><td>0.97</td><td>0.99</td></tr><tr><td>120</td><td>0.96</td><td>0.98</td></tr><tr><td>132</td><td>0.95</td><td>0.98</td></tr><tr><td>140</td><td>0.94</td><td>0.97</td></tr></table>	Input Voltage [V]	load 50%	load 100%	Power Factor	Power Factor	75	0.98	1.00	80	0.98	1.00	85	0.98	0.99	90	0.98	0.99	100	0.97	0.99	110	0.97	0.99	120	0.96	0.98	132	0.95	0.98	140	0.94	0.97	
Input Voltage [V]	load 50%	load 100%																																	
	Power Factor	Power Factor																																	
75	0.98	1.00																																	
80	0.98	1.00																																	
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90	0.98	0.99																																	
100	0.97	0.99																																	
110	0.97	0.99																																	
120	0.96	0.98																																	
132	0.95	0.98																																	
140	0.94	0.97																																	
Note: Slanted line shows the range of the rated input voltage.																																			
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Model		LEA150F-5		Temperature25℃ Testing CircuitryFigure A
Item		Power Factor (by Load Current) 力率 (負荷電流特性)		
Output		_____		

1. Graph

—△—Input Volt. 85V

- - -□- - -Input Volt. 100V

- - -○- - -Input Volt. 132V

Power Factor

1

0.9

0.8

0.7

0.6

0.5

0.4

0.3

0.2

0.1

0

0

10

20

30

40

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。

2. Values

Load Current	Power Factor		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0	0.79	0.74	0.64
6	0.94	0.92	0.89
12	0.97	0.96	0.94
18	0.98	0.98	0.96
24	0.99	0.98	0.97
30	0.99	0.99	0.98
33	0.99	0.99	0.98
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model		LEA150F-5		Temperature		25℃																															
Item		Hold-Up Time 出力保持時間		Testing Circuitry		Figure A																															
Object		+5.0V30A																																			
1. Graph				2. Values																																	
<div><div><div>—△—</div><div>Load 50%</div></div><div><div>- - -□- - -</div><div>Load 100%</div></div></div> <div><div>Hold-Up Time</div><div>[mS]</div><div><div>Input Voltage</div><div>[V]</div></div></div> <div><div>This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.</div><div>Note: Slanted line shows the range of the rated input voltage.</div><div>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。</div><div>(注)斜線は定格入力電圧範囲を示す。</div></div>				<table><tr><th>Input Voltage [V]</th><th>Load 50% Hold-Up Time [mS]</th><th>Load 100% Hold-Up Time [mS]</th></tr><tr><td>75</td><td>—</td><td>—</td></tr><tr><td>80</td><td>52</td><td>20</td></tr><tr><td>85</td><td>54</td><td>21</td></tr><tr><td>90</td><td>55</td><td>22</td></tr><tr><td>100</td><td>58</td><td>23</td></tr><tr><td>110</td><td>59</td><td>25</td></tr><tr><td>120</td><td>61</td><td>26</td></tr><tr><td>132</td><td>62</td><td>27</td></tr><tr><td>140</td><td>63</td><td>28</td></tr></table>				Input Voltage [V]	Load 50% Hold-Up Time [mS]	Load 100% Hold-Up Time [mS]	75	—	—	80	52	20	85	54	21	90	55	22	100	58	23	110	59	25	120	61	26	132	62	27	140	63	28
Input Voltage [V]	Load 50% Hold-Up Time [mS]	Load 100% Hold-Up Time [mS]																																			
75	—	—																																			
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Model	LEA150F-5	Temperature	25°C																																																			
Item	Instantaneous Interruption Compensation 瞬時停電保障	Testing Circuitry	Figure A																																																			
Object	+5V30A																																																					
1. Graph <div style="float: right; margin-top: -20px;"> —△— Input Volt. 85V - -□- - Input Volt. 100V - -○- - Input Volt. 132V </div> <p>Instantaneous Compensation Time [mS]</p> <p>Load Current [A]</p> <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 load current.</p> <p>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。</p>		2. Values <table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th><th>Input Volt. 85[V]</th><th>Input Volt. 100[V]</th><th>Input Volt. 132[V]</th></tr> <tr> <th colspan="3">Time [mS]</th></tr> </thead> <tbody> <tr><td>0</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>6</td><td>128</td><td>139</td><td>148</td></tr> <tr><td>12</td><td>55</td><td>64</td><td>73</td></tr> <tr><td>18</td><td>37</td><td>38</td><td>45</td></tr> <tr><td>24</td><td>28</td><td>31</td><td>35</td></tr> <tr><td>30</td><td>19</td><td>22</td><td>26</td></tr> <tr><td>33</td><td>15</td><td>19</td><td>22</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> </tbody> </table>		Load Current [A]	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]	Time [mS]			0	—	—	—	6	128	139	148	12	55	64	73	18	37	38	45	24	28	31	35	30	19	22	26	33	15	19	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]																																																			
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24	28	31	35																																																			
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COSEL

Model LEA150F-5

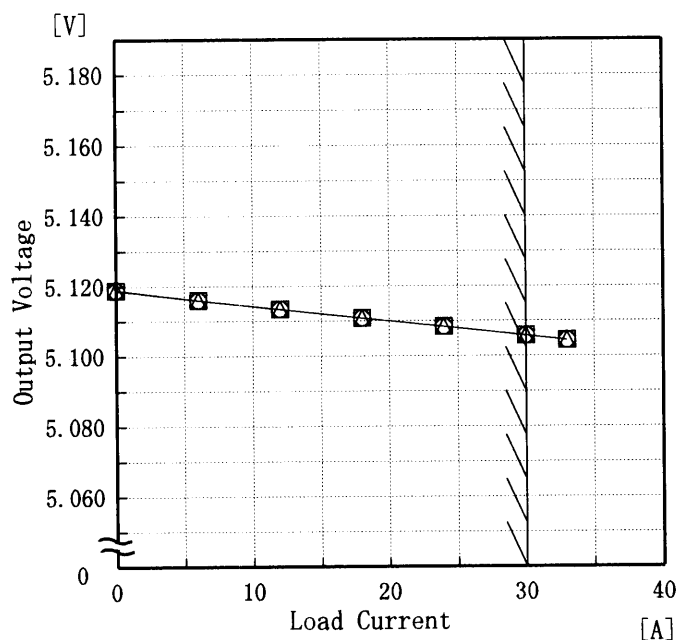
Item Load Regulation 静的負荷変動

Object +5.0V30.00A

Temperature 25℃
Testing Circuitry Figure A

1. Graph

—△— Input Volt. 85V
 - - -□- - - Input Volt. 100V
 - - -○- - - Input Volt. 132V



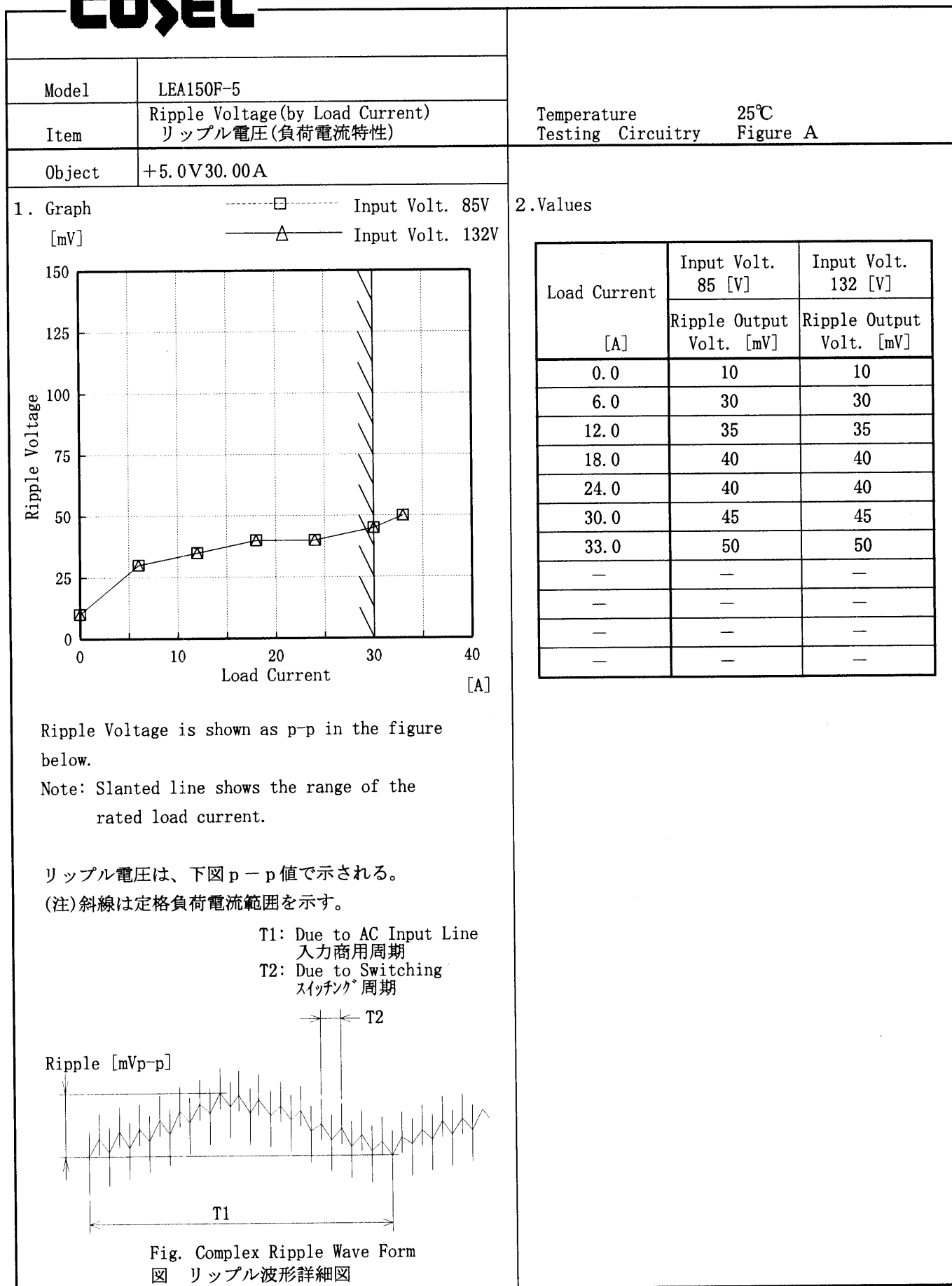
Note: Slanted line shows the range of the rated load current.

(注)斜線は定格負荷電流範囲を示す。

2. Values

Load Current [A]	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
	Output Volt. [V]	Output Volt. [V]	Output Volt. [V]
0.0	5.119	5.119	5.119
6.0	5.116	5.116	5.116
12.0	5.114	5.113	5.113
18.0	5.111	5.111	5.111
24.0	5.108	5.108	5.108
30.0	5.106	5.106	5.106
33.0	5.105	5.105	5.105
—	—	—	—
—	—	—	—
—	—	—	—

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2. Values

Load Current [A]	Input Volt. 85 [V]	Input Volt. 132 [V]
	Ripple Output Volt. [mV]	Ripple Output Volt. [mV]
0.0	10	10
6.0	30	30
12.0	35	35
18.0	40	40
24.0	40	40
30.0	45	45
33.0	50	50
—	—	—
—	—	—
—	—	—
—	—	—

COSEL

Model		LEA150F-5		Temperature		25℃																																					
Item		Ripple-Noise リップルノイズ		Testing Circuitry		Figure A																																					
Object		+5.0V30.00A																																									
1. Graph				2. Values																																							
<div><div>□-----</div>Input Volt. 85V</div> <div><div>△-----</div>Input Volt. 132V</div> <table><thead><tr><th>Load current [A]</th><th>Input Volt. 85 [V] Ripple-Noise [mV]</th><th>Input Volt. 132 [V] Ripple-Noise [mV]</th></tr></thead><tbody><tr><td>0.0</td><td>15</td><td>15</td></tr><tr><td>6.0</td><td>40</td><td>40</td></tr><tr><td>12.0</td><td>40</td><td>40</td></tr><tr><td>18.0</td><td>50</td><td>50</td></tr><tr><td>24.0</td><td>50</td><td>50</td></tr><tr><td>30.0</td><td>55</td><td>55</td></tr><tr><td>33.0</td><td>60</td><td>60</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>				Load current [A]	Input Volt. 85 [V] Ripple-Noise [mV]	Input Volt. 132 [V] Ripple-Noise [mV]	0.0	15	15	6.0	40	40	12.0	40	40	18.0	50	50	24.0	50	50	30.0	55	55	33.0	60	60	—	—	—	—	—	—	—	—	—	—	—	—				
Load current [A]	Input Volt. 85 [V] Ripple-Noise [mV]	Input Volt. 132 [V] Ripple-Noise [mV]																																									
0.0	15	15																																									
6.0	40	40																																									
12.0	40	40																																									
18.0	50	50																																									
24.0	50	50																																									
30.0	55	55																																									
33.0	60	60																																									
—	—	—																																									
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—	—	—																																									
—	—	—																																									
<p>Ripple-Noise is shown as p-p in the figure below.</p> <p>Note: Slanted line shows the range of the rated load current.</p> <p>リップルノイズは、下図 p - p 値で示される。</p> <p>(注)斜線は定格負荷電流範囲を示す。</p> <div><div>T1: Due to AC Input Line 入力商用周期</div><div>T2: Due to Switching スイッチング周期</div><p>Fig. Complex Ripple Wave Form</p><p>図 リップル波形詳細図</p></div>																																											

COSEL

Model

LEA150F-5

Item

Overcurrent Protection
過電流保護

Object

+5.0V30.00A

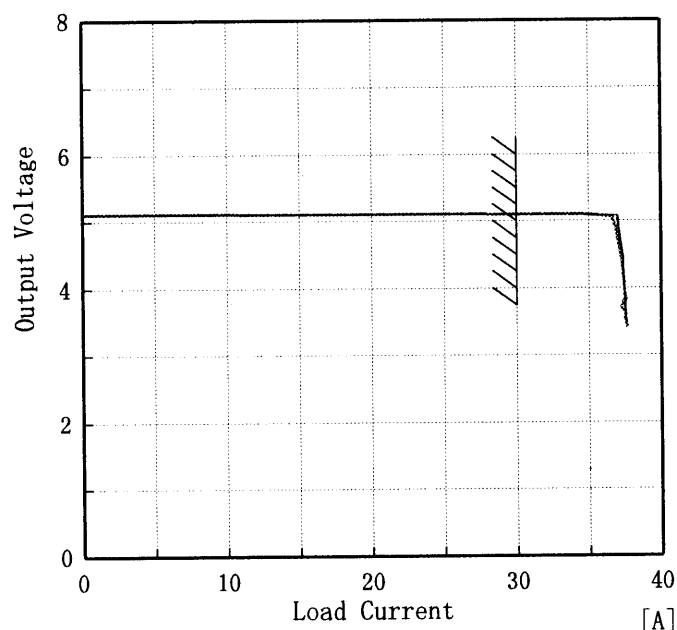
Temperature

25°C

Testing Circuitry Figure A

1. Graph

[V]



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。

3.5V以下は間欠状態。

2. Values

Output Voltage [V]	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
	Load Current [A]	Load Current [A]	Load Current [A]
5.00	36.66	36.94	37.01
4.75	36.97	37.11	37.15
4.50	37.21	37.30	37.34
4.00	37.46	37.48	37.45
3.50	37.59	37.57	37.58
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

COSEL

Model		LEA150F-5	
Item		Overvoltage Protection 過電圧保護	
Object		+5.0V30A	

1. Graph

△

Input Volt. 85 V

□

Input Volt. 100 V

○

Input Volt. 132 V

[V]

9.71

8.71

7.71

6.71

5.71

4.71

3.71

0

Operating Point

-30

-10

10

30

50

70

Ambient Temperature

[°C]

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 Temp.	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
[°C]	Operating Point [V]		
-20	6.55	6.55	6.55
-10	6.51	6.51	6.51
0	6.51	6.51	6.51
10	6.50	6.50	6.50
20	6.50	6.50	6.50
25	6.50	6.50	6.50
30	6.50	6.50	6.50
40	6.50	6.50	6.50
50	6.49	6.49	6.49
60	6.48	6.48	6.48
—	—	—	—

COSEL

Model

LEA150F-5

Item

Inrush Current 突入電流

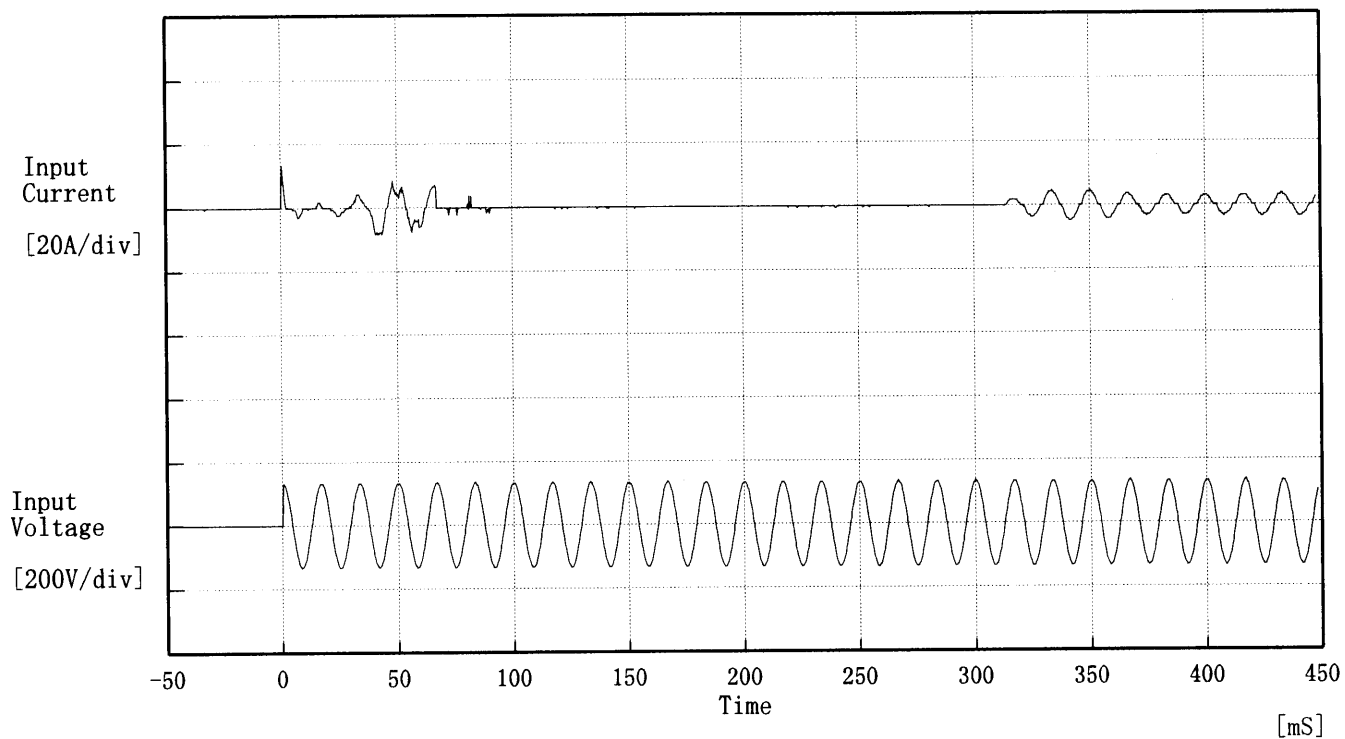
Temperature

25°C

Testing Circuitry

Figure A

Object



Input Voltage 100 V

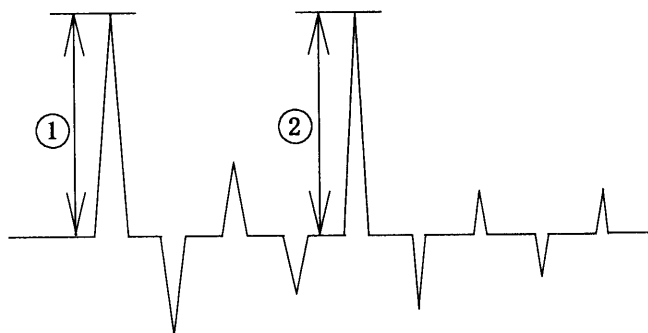
Frequency 60 Hz

Load 100 %

Inrush Current

① 13.20 [A]

② 7.80 [A]



COSEL

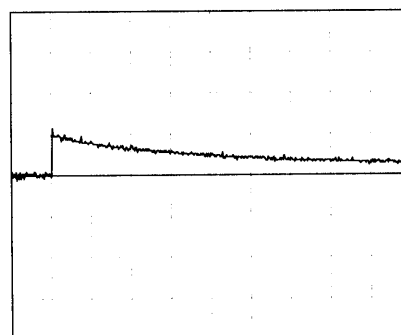
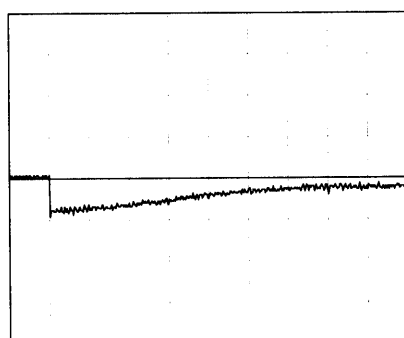
Model	LEA150F-5	Temperature 25℃ Testing Circuitry Figure A
Item	Dynamic Load Responce 動的負荷変動	
Object	+5V30A	

Input Volt. 100 V
Cycle 1000 mS

Load Current

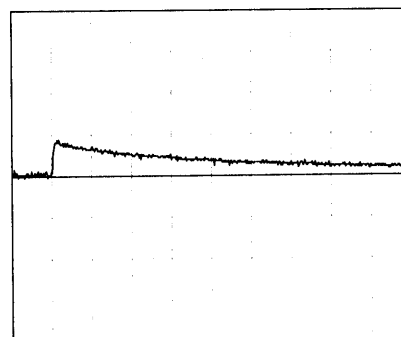
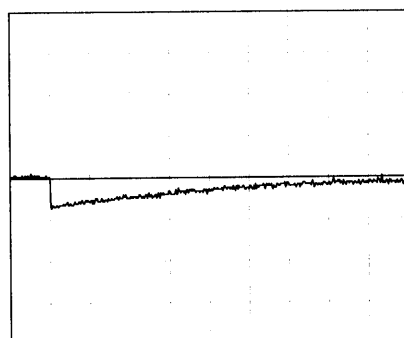
Min. Load \longleftrightarrow

Load 100 %



Min. Load \longleftrightarrow

Load 50 %



50 mV/div

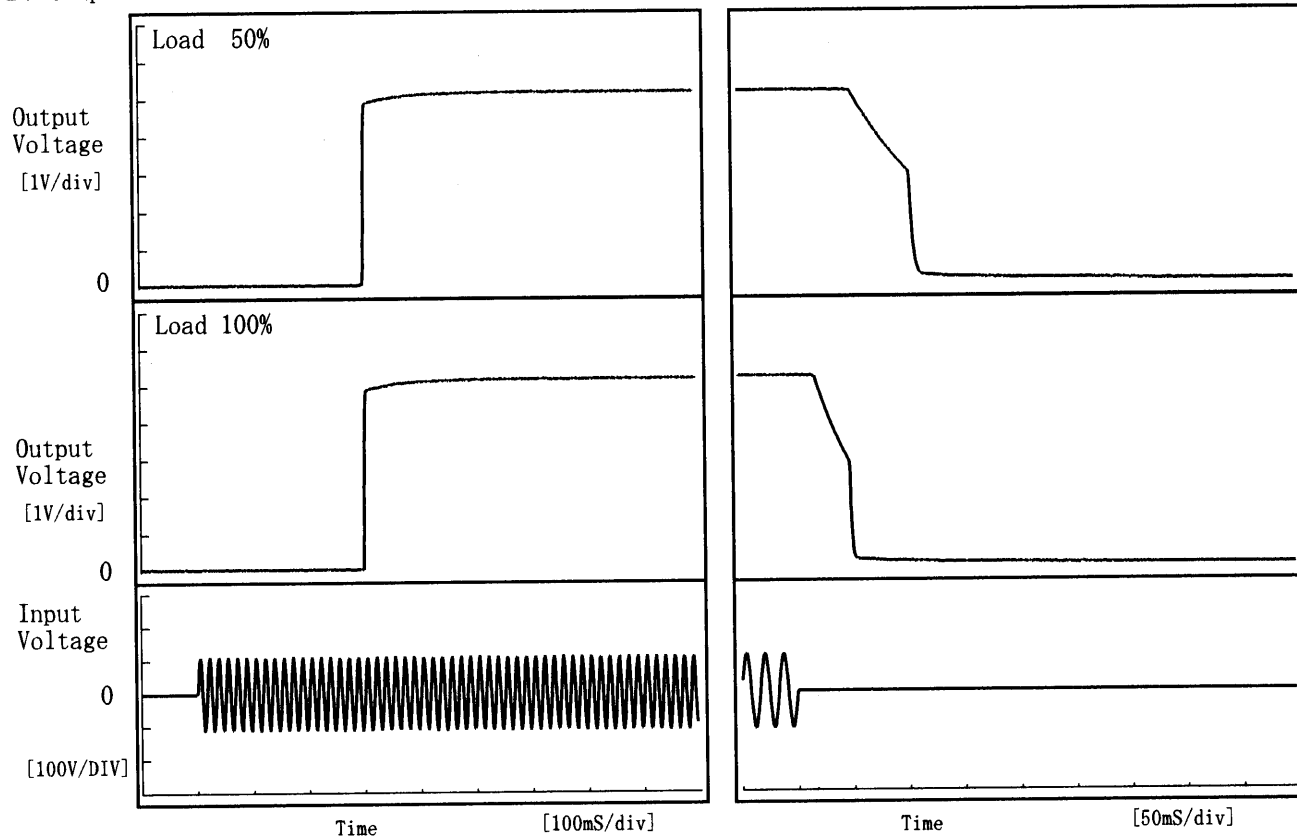
10 ms/div

COSEL

Model	LEA150F-5	Temperature	25°C
Item	Rise and Fall Time 立上り、立下り時間	Testing Circuitry	Figure A
Object	+5.0V30.00A		

1. Graph

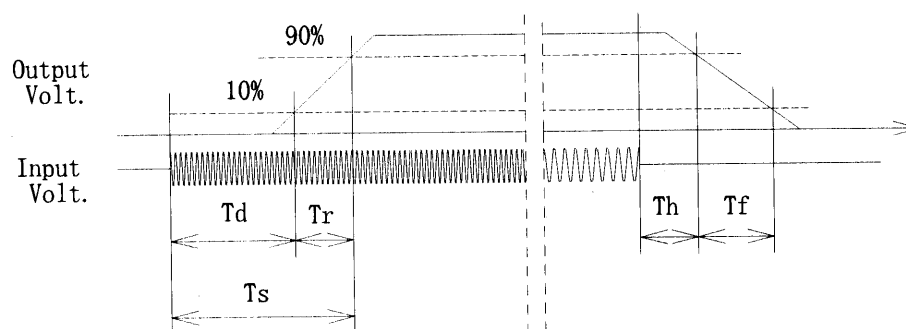
Input Volt. 85 V



2. Values

[mS]

Load \ Time	T d	T r	T s	T h	T f
50 %	301.5	2.0	303.5	63.5	46.8
100 %	300.5	3.0	303.5	24.3	28.0



COSEL

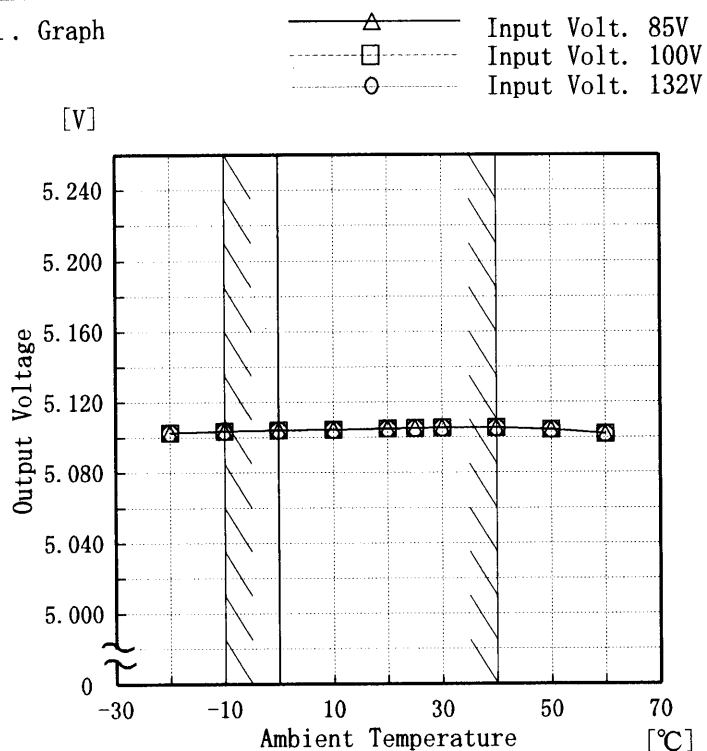
Model LEA150F-5

Item Ambient Temperature Drift
周囲温度変動

Object +5.0V30.00A

Testing Circuitry Figure A

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。

2. Values

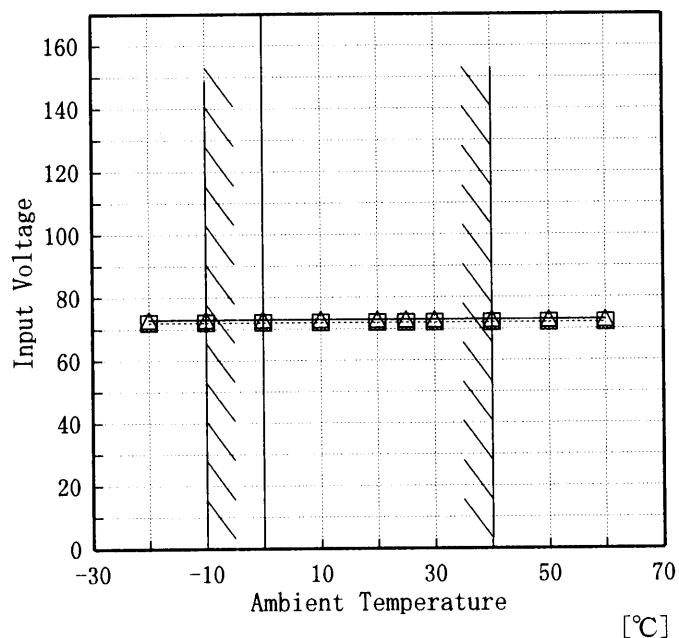
Temperature [°C]	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
	Output Volt. [V]	Output Volt. [V]	Output Volt. [V]
-20	5.103	5.103	5.103
-10	5.104	5.104	5.104
0	5.104	5.104	5.104
10	5.104	5.104	5.105
20	5.105	5.105	5.105
25	5.105	5.105	5.105
30	5.106	5.106	5.106
40	5.106	5.106	5.106
50	5.104	5.104	5.104
60	5.102	5.102	5.102
—	—	—	—

COSEL

Model	LEA150F-5
Item	Minimum Input Voltage for Regulated Output Voltage 最低レギュレーション電圧
Object	+5V30A

1. Graph

[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。

Testing Circuitry Figure A

2. Values

Ambient Temp. [°C]	Load 50%	Load 100%
	Input Volt. [V]	Input Volt. [V]
-20	72	73
-10	72	73
0	72	73
10	72	73
20	72	73
25	72	73
30	72	73
40	72	73
50	72	73
60	72	73
—	—	—

COSEL

Model

LEA150F-5

Item

Ripple Voltage (by Ambient Temp.)
リップル電圧 (周囲温度特性)

Object

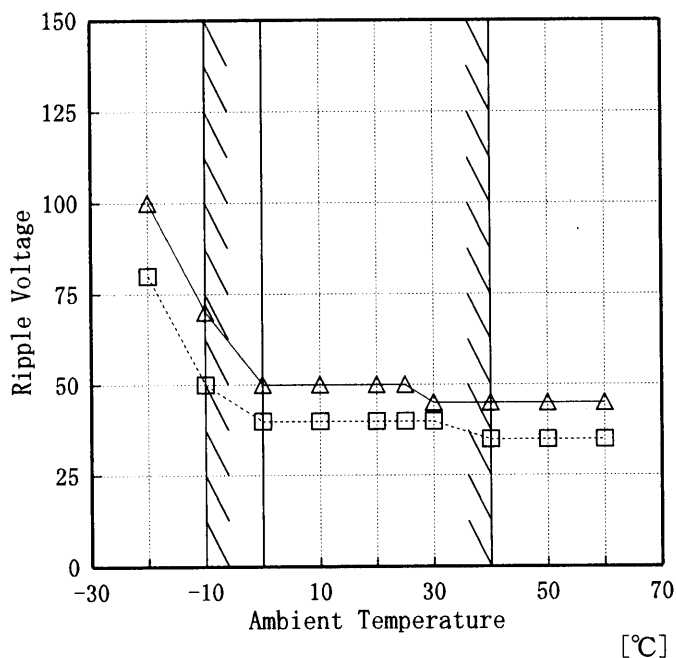
+5.0V 30.00A

Testing Circuitry

Figure A

1. Graph

[mV]



2. Values

Ambient Temp. [°C]	Load 50%	Load 100%
	Ripple Output Volt. [mV]	Ripple Output Volt. [mV]
-20	80	100
-10	50	70
0	40	50
10	40	50
20	40	50
25	40	50
30	40	45
40	35	45
50	35	45
60	35	45
—	—	—

COSEL

Model

LEA150F-5

Item

Time Lapse Drift 経時ドリフト

Object

+5.0V30.00A

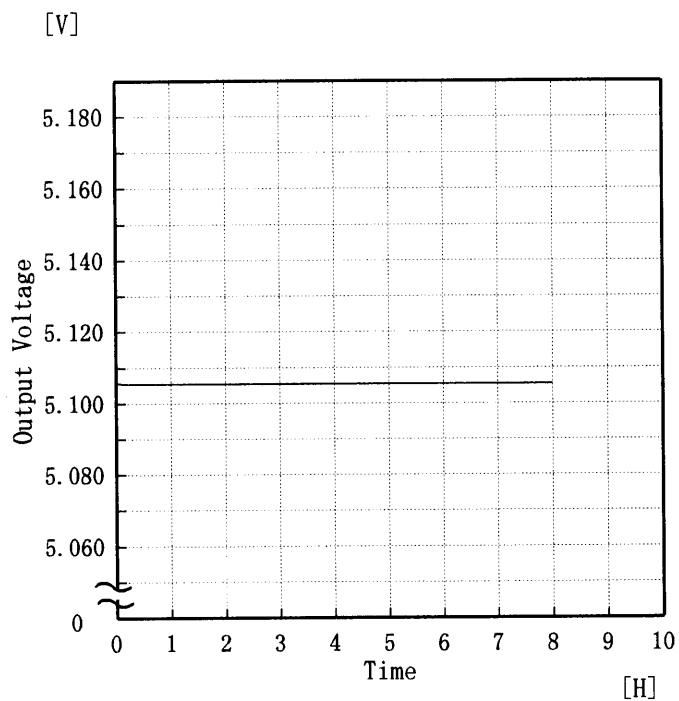
Temperature

25 °C

Testing Circuitry

Figure A

1. Graph



2.Values

Time since start [H]	Output Voltage [V]
0.0	5.106
0.5	5.105
1.0	5.105
2.0	5.105
3.0	5.105
4.0	5.105
5.0	5.105
6.0	5.105
7.0	5.105
8.0	5.105

COSEL

Model	LEA150F-5	Testing Circuitry Figure A
Item	Output Voltage Accuracy 定電圧精度	
Object	+5.0V30.00A	

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 : -10~40 °C

Input Voltage : 85~132 V

Load Current : 0.00~30.00 A

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

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

定電圧精度

周囲温度、入力電圧、負荷を下記仕様内で、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 : -10~40 °C

入力電圧 : 85~132 V

負荷電流 : 0.00~30.00 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) = $\frac{\text{変動値}}{\text{定格出力電圧}} \times 100$

Item	Temperature [°C]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy (Ration) [%]
Maximum Voltage	40	85	0.00	5.120	±8	±0.2
Minimum Voltage	-10	132	30.00	5.104		

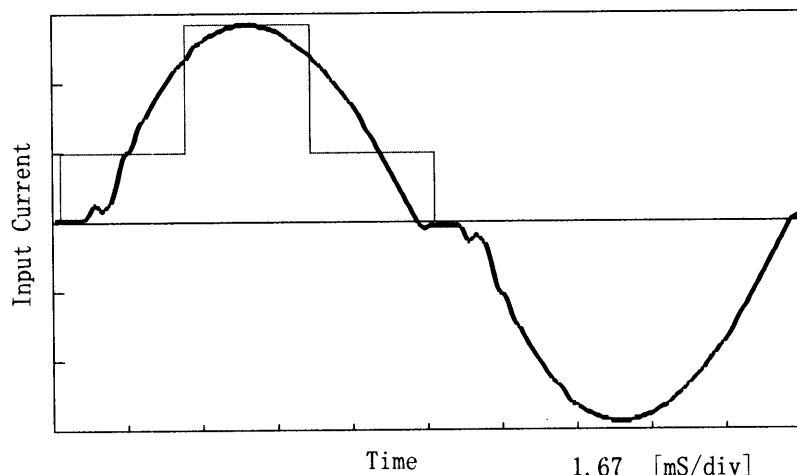
COSEL

Model	LEA150F-5	Temperature	25°C
Item	Harmonic Current 高調波電流	Testing Circuitry	Figure E
Object	_____		

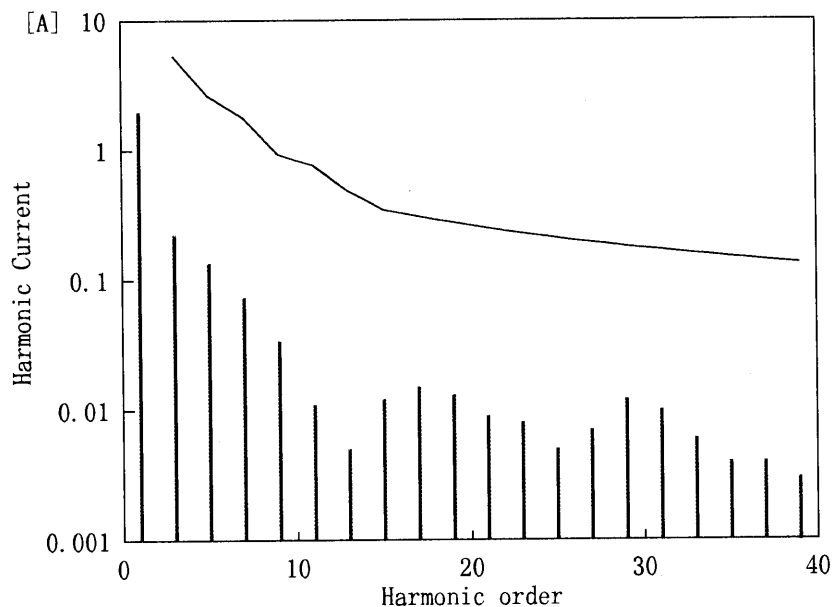
1. Input Current Waveform

— 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

1 A/div



2. Harmonic Current



— Harmonic Current
 高調波電流
 — Limits for Class A equipment
 クラスAの機器に対する限度値

Conditions	Values
Input Voltage [V]	99.6
Input Current [A]	2.007
Active Power [W]	198
Apparent Power [VA]	200
Frequency [Hz]	60
Power Factor	0.990
Output Power [W]	150

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	1.98700
2	—	0.00100
3	5.31124	0.22400
4	—	0.00100
5	2.63253	0.13500
6	—	0.00000
7	1.77811	0.07400
8	—	0.00000
9	0.92369	0.03400
10	—	0.00000
11	0.76205	0.01100
12	—	0.00000
13	0.48494	0.00500
14	—	0.00000
15	0.34639	0.01200
16	—	0.00000
17	0.30563	0.01500
18	—	0.00000
19	0.27346	0.01300
20	—	0.00000
21	0.24742	0.00900
22	—	0.00000
23	0.22590	0.00800
24	—	0.00000
25	0.20783	0.00500
26	—	0.00000
27	0.19244	0.00700
28	—	0.00000
29	0.17916	0.01200
30	—	0.00000
31	0.16761	0.01000
32	—	0.00000
33	0.15745	0.00600
34	—	0.00000
35	0.14845	0.00400
36	—	0.00000
37	0.14043	0.00400
38	—	0.00000
39	0.13323	0.00300
40	—	0.00000

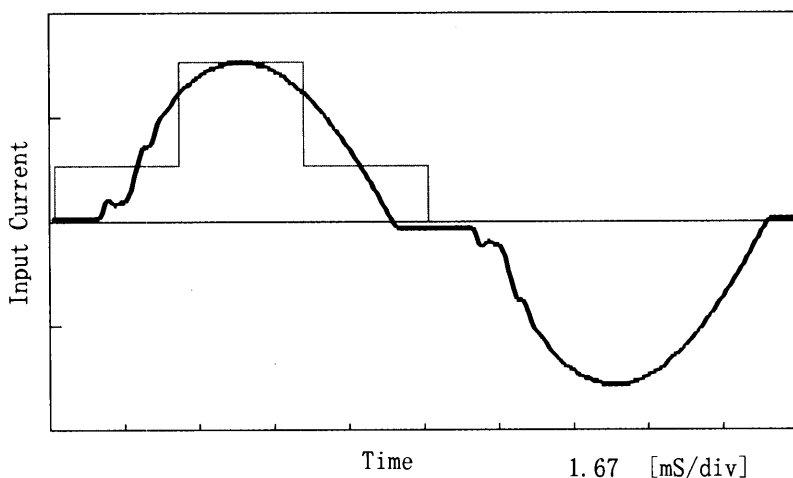
COSEL

Model	LEA150F-5	Temperature	25°C
Item	Harmonic Current 高調波電流	Testing Circuitry	Figure E
Object			

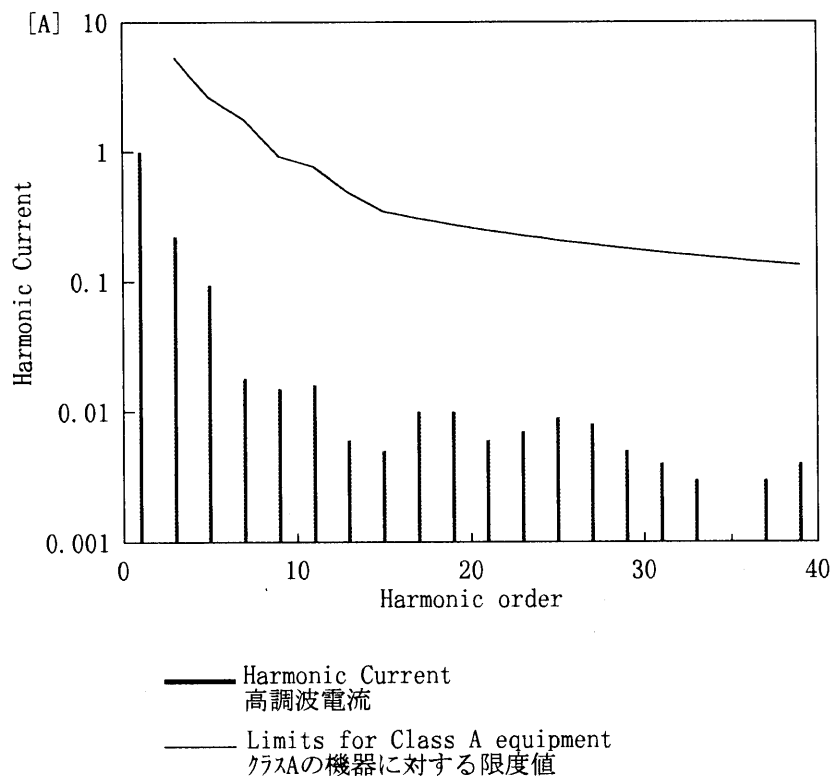
1. Input Current Waveform

— 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

1 A/div



2. Harmonic Current



Conditions	Values
Input Voltage [V]	100
Input Current [A]	1.029
Active Power [W]	99.8
Apparent Power [VA]	102.9
Frequency [Hz]	60
Power Factor	0.970
Output Power [W]	75

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	0.99900
2	—	0.00100
3	5.29000	0.22300
4	—	0.00000
5	2.62200	0.09400
6	—	0.00000
7	1.77100	0.01800
8	—	0.00000
9	0.92000	0.01500
10	—	0.00000
11	0.75900	0.01600
12	—	0.00000
13	0.48300	0.00600
14	—	0.00000
15	0.34500	0.00500
16	—	0.00000
17	0.30441	0.01000
18	—	0.00000
19	0.27237	0.01000
20	—	0.00000
21	0.24643	0.00600
22	—	0.00000
23	0.22500	0.00700
24	—	0.00000
25	0.20700	0.00900
26	—	0.00000
27	0.19167	0.00800
28	—	0.00000
29	0.17845	0.00500
30	—	0.00000
31	0.16694	0.00400
32	—	0.00000
33	0.15682	0.00300
34	—	0.00000
35	0.14786	0.00100
36	—	0.00000
37	0.13986	0.00300
38	—	0.00000
39	0.13269	0.00400
40	—	0.00000

COSEL

COSEL

		Testing Circuitry Figure A
Model	LEA150F-5	
Item	Condensation 結露特性	
Object	+5V30A	

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]	5.106	Input Volt.: 100V, Load Current:30A
Line Regulation [mV]	1	Input Volt.: 85～100V, Load Current:30A
Load Regulation [mV]	13	Input Volt.: 100V, Load Current:0～30A

COSEL

Model	LEA150F-5	Temperature 25°C Testing Circuitry Figure B
Item	Leakage Current 漏洩電流	
Object	_____	

1. Results

Standards	Leakage Current [mA]		
	Input Volt. 85 [V]	Input Volt. 100 [V]	Input Volt. 132 [V]
(A) DENTORI	0.15	0.18	0.24
(B) IEC60950	0.15	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

Model	LEA150F-5	Temperature Testing Circuitry	25°C Figure C
Item	Line Noise Tolerance 入力雑音耐量		
Object	+5V30A		

1. Results

Pulse Width [n S]	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

Conditions

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

COSEL

Model	LEA150F-5	Temperature	25°C
Item	Conducted Emission 雑音端子電圧	Testing Circuitry	Figure D
Object			

1. Graph

Remarks

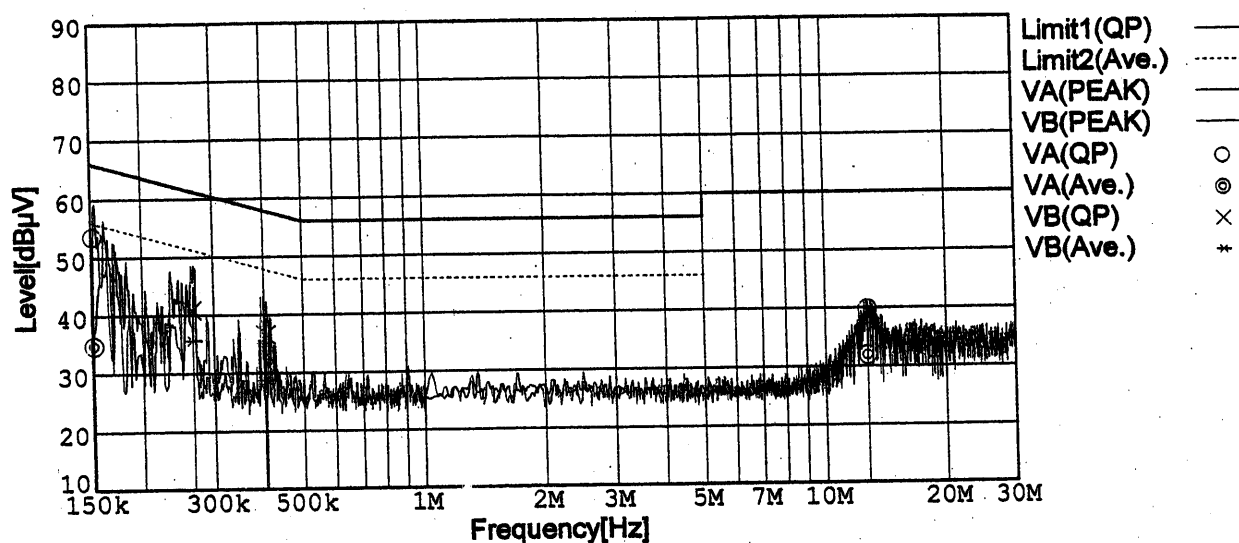
Input Volt. 100V (VCCI Class B)

120V (FCC Class B)

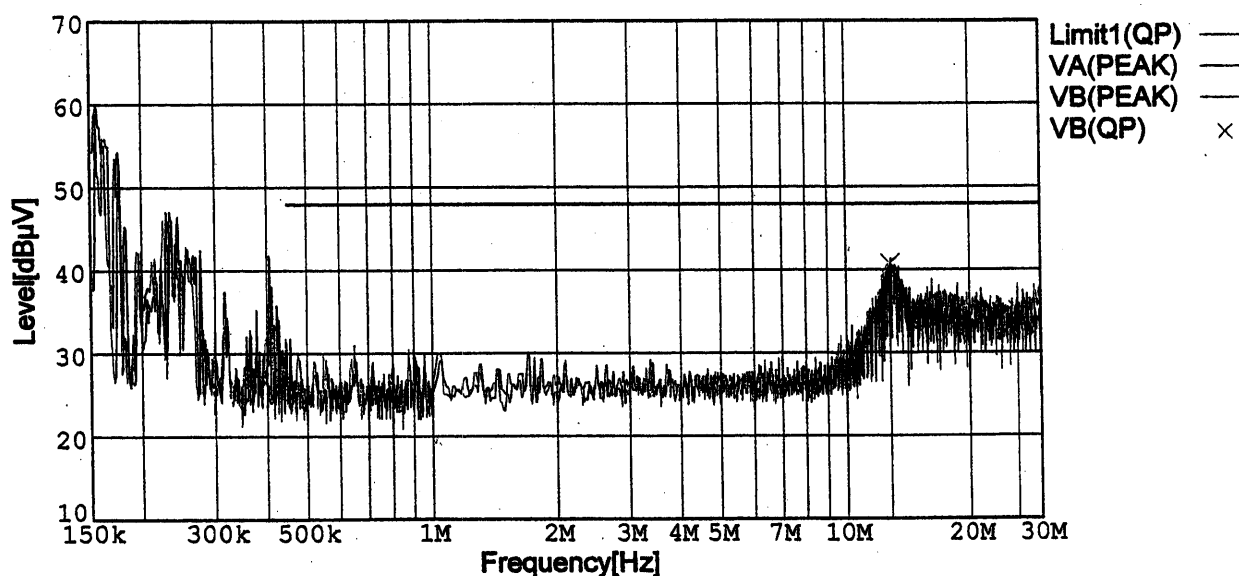
Load 100 %

Limit1: [VCCI] Class B(QP)

Limit2: [VCCI] Class B(Ave.)



Limit1: [FCC Part15] Class B



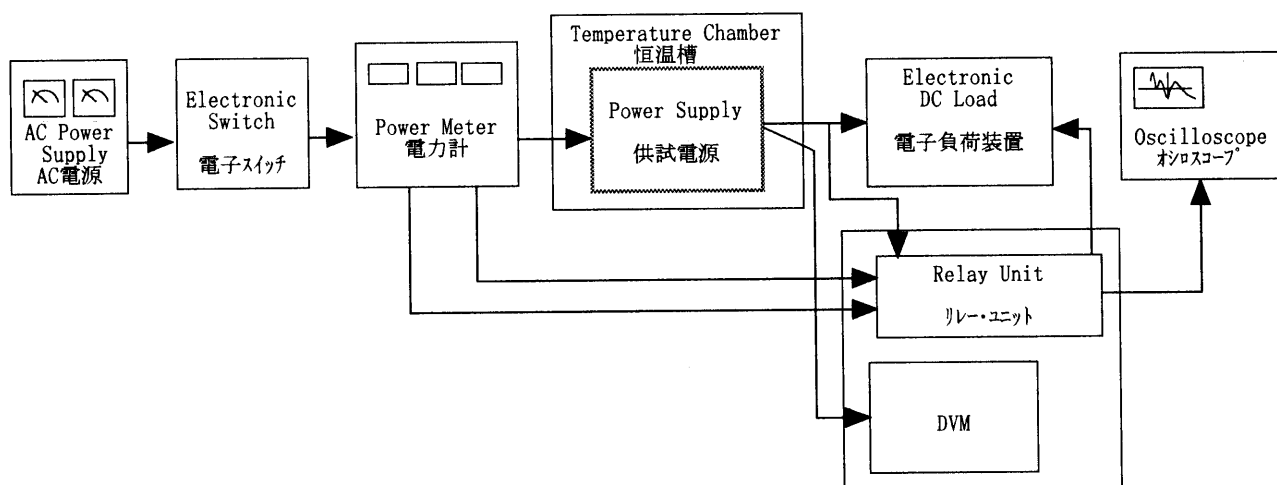


Figure A

Data Acquisition/Control Unit
データ集録システム

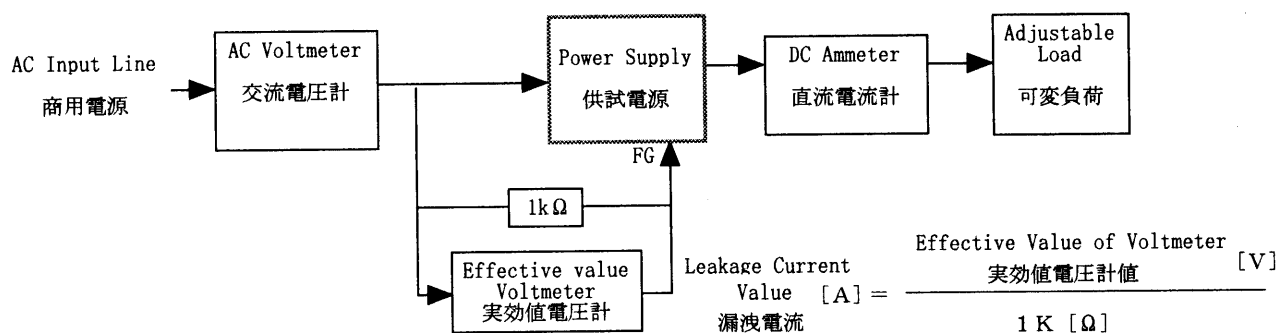


Figure B (DENTORI)

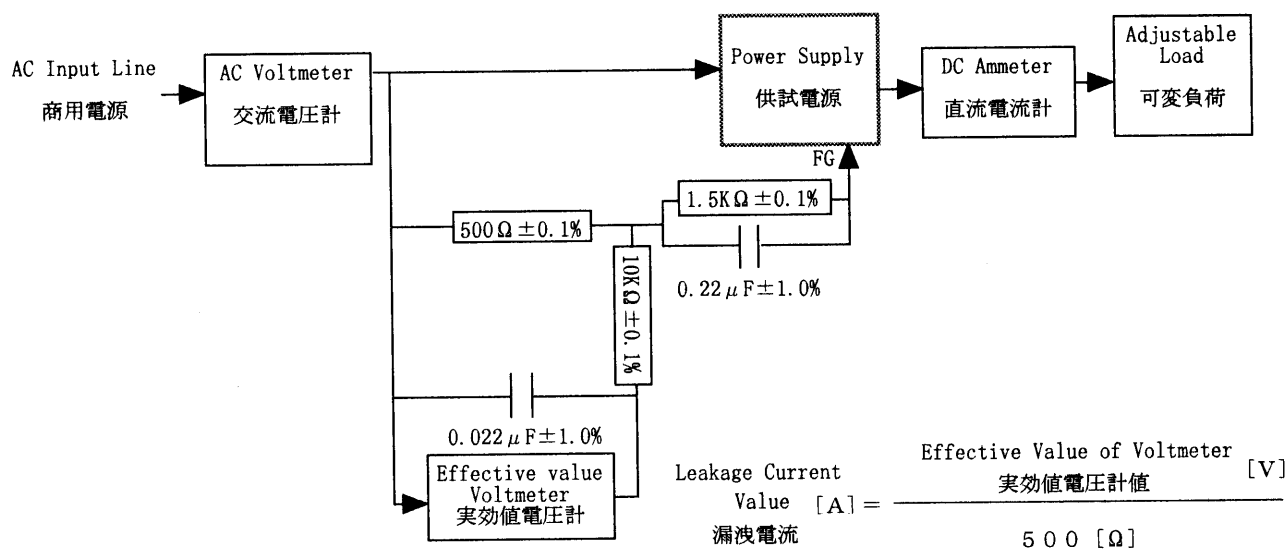


Figure B (IEC60950)

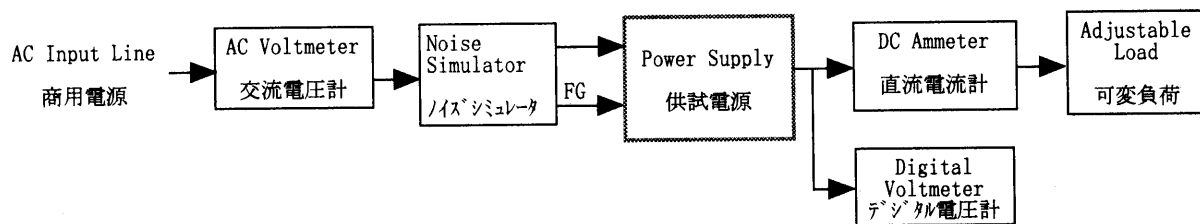


Figure C

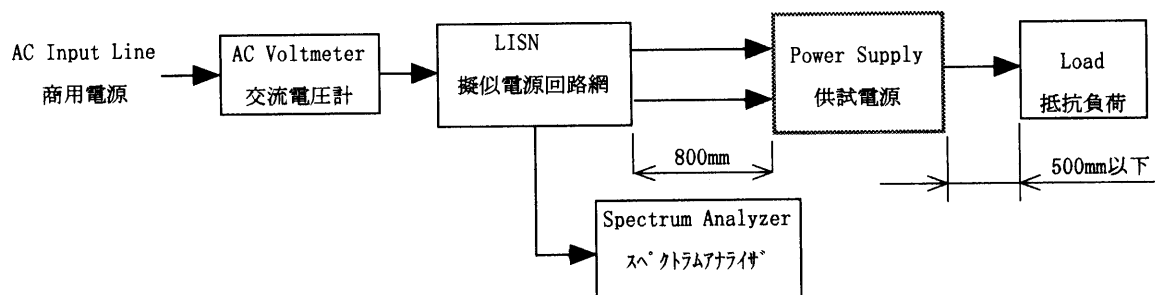


Figure D

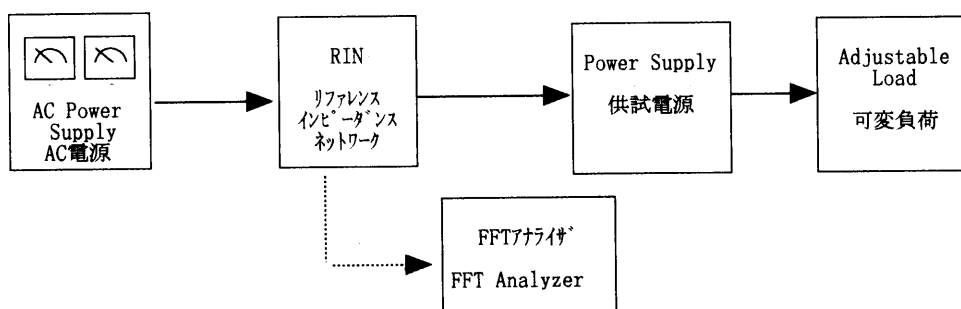


Figure E