

# TEST DATA OF LEP240F-36

(200V INPUT)

Regulated DC Power Supply  
Jan 14, 2003

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**コーセル株式会社**  
**COSEL CO.,LTD.**

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Model	LEP240F-36																																
Item	Line Regulation 静の入力変動	Temperature	25℃																														
Object	+36V6.7A	Testing Circuitry	Figure A																														
1. Graph		2. Values																															
<div><div><div>---□---</div><div>Load 50%</div></div><div><div>---△---</div><div>Load 100%</div></div></div> <table><thead><tr><th>Input Voltage [V]</th><th>Output Voltage [V] (Load 50%)</th><th>Output Voltage [V] (Load 100%)</th></tr></thead><tbody><tr><td>150</td><td>36.284</td><td>36.282</td></tr><tr><td>160</td><td>36.284</td><td>36.281</td></tr><tr><td>170</td><td>36.284</td><td>36.281</td></tr><tr><td>180</td><td>36.284</td><td>36.280</td></tr><tr><td>200</td><td>36.285</td><td>36.279</td></tr><tr><td>220</td><td>36.285</td><td>36.279</td></tr><tr><td>240</td><td>36.284</td><td>36.279</td></tr><tr><td>264</td><td>36.285</td><td>36.279</td></tr><tr><td>280</td><td>36.285</td><td>36.279</td></tr></tbody></table>		Input Voltage [V]	Output Voltage [V] (Load 50%)	Output Voltage [V] (Load 100%)	150	36.284	36.282	160	36.284	36.281	170	36.284	36.281	180	36.284	36.280	200	36.285	36.279	220	36.285	36.279	240	36.284	36.279	264	36.285	36.279	280	36.285	36.279		
Input Voltage [V]	Output Voltage [V] (Load 50%)	Output Voltage [V] (Load 100%)																															
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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。																																	

Model

LEP240F-36

Item

Input Current (by Load Current)  
入力電流 (負荷特性)

Object

1. Graph

—△—

Input Volt. 170V

---□---

Input Volt. 200V

---○---

Input Volt. 264V

Input Current [A]

# COSEL

Model		LEP240F-36																																																				
Item	Input Power (by Load Current) 入力電力（負荷特性）																																																					
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<div><div><div>—△—</div><div>---□---</div><div>---○---</div></div><div><div>Input Volt. 170V</div><div>Input Volt. 200V</div><div>Input Volt. 264V</div></div></div> <div><div><div>500</div><div>400</div><div>300</div><div>200</div><div>100</div><div>0</div></div><div><div>0</div><div>2</div><div>4</div><div>6</div><div>8</div></div><div><div>Input Power [W]</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">Input Power [W]</th></tr><tr><th>Input Volt. 170[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 264[V]</th></tr><tr><td>0.00</td><td>8.7</td><td>8.9</td><td>11.2</td></tr><tr><td>1.00</td><td>50.8</td><td>50.6</td><td>51.0</td></tr><tr><td>2.00</td><td>92.2</td><td>91.7</td><td>91.8</td></tr><tr><td>3.00</td><td>131.7</td><td>130.9</td><td>130.5</td></tr><tr><td>4.00</td><td>170.2</td><td>169.9</td><td>169.6</td></tr><tr><td>5.00</td><td>211.0</td><td>210.0</td><td>209.0</td></tr><tr><td>6.00</td><td>252.0</td><td>249.8</td><td>248.8</td></tr><tr><td>6.70</td><td>280.0</td><td>277.7</td><td>276.4</td></tr><tr><td>7.37</td><td>307.0</td><td>304.6</td><td>302.8</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. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	0.00	8.7	8.9	11.2	1.00	50.8	50.6	51.0	2.00	92.2	91.7	91.8	3.00	131.7	130.9	130.5	4.00	170.2	169.9	169.6	5.00	211.0	210.0	209.0	6.00	252.0	249.8	248.8	6.70	280.0	277.7	276.4	7.37	307.0	304.6	302.8	--	--	--	--	--	--	--	--
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Temperature 25℃

Testing Circuitry Figure A

— 3 —

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Model		LEP240F-36	
Item		Efficiency (by Input Voltage) 効率（入力電圧特性）	
Object			

1. Graph

---□--- Load 50%

—△— Load 100%

Efficiency [%]

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%
150	81.8	85.4
160	82.1	85.9
170	82.3	85.9
180	82.2	85.9
200	82.4	86.5
220	82.8	86.7
240	82.6	86.8
264	82.8	86.9
280	83.6	87.4

2. Values

# COSEL

Model		LEP240F-36																																																				
Item		Efficiency (by Load Current) 効率 (負荷特性)																																																				
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<div><div>Efficiency [%]</div><div><div><div>100</div><div>92</div><div>84</div><div>76</div><div>68</div><div>60</div><div>52</div><div>44</div></div><div><div>0</div><div>2</div><div>4</div><div>6</div><div>8</div></div><div>Load Current [A]</div></div></div>		2. Values																																																				
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# COSEL

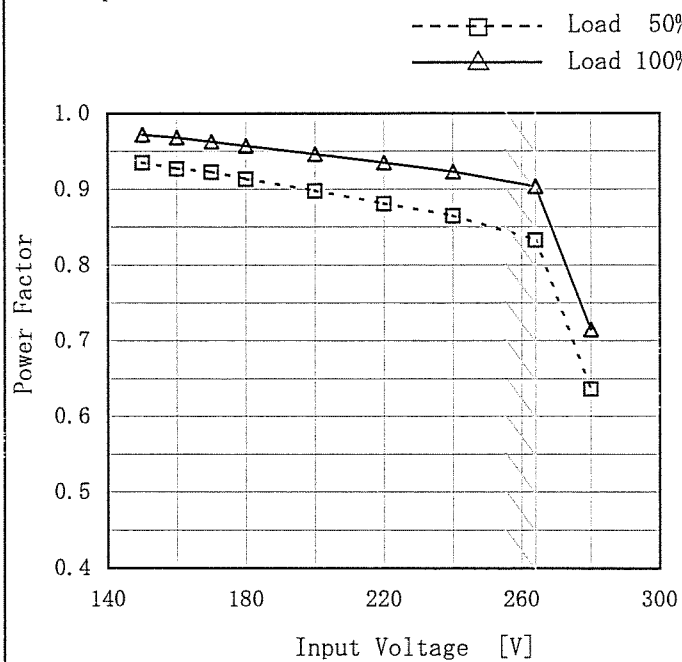
Model LEP240F-36

Item Power Factor (by Input Voltage)  
力率 (入力電圧特性)

Object

Temperature 25°C  
Testing Circuitry Figure A

## 1. Graph



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]	Power Factor	
	Load 50%	Load 100%
150	0.935	0.972
160	0.927	0.968
170	0.923	0.963
180	0.914	0.958
200	0.898	0.946
220	0.881	0.935
240	0.865	0.923
264	0.833	0.904
280	0.637	0.715

# COSEL

Model		LEP240F-36	
Item		Power Factor (by Load Current) 力率 (負荷特性)	
Object			
1. Graph		2. Values	

△

Input Volt. 170V

□

Input Volt. 200V

○

Input Volt. 264V

Power Factor

1.0

0.9

0.8

0.7

0.6

0.5

0.4

0.3

0

2

4

6

8

Load Current [A]

Load Current [A]	Power Factor		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0.00	0.544	0.459	0.386
1.00	0.819	0.782	0.699
2.00	0.885	0.855	0.789
3.00	0.916	0.889	0.820
4.00	0.933	0.912	0.855
5.00	0.947	0.929	0.879
6.00	0.958	0.940	0.895
6.70	0.962	0.946	0.903
7.37	0.968	0.951	0.908
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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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BC-0857

Model	LEP240F-36																																
Item	Hold-Up Time 出力保持時間	Temperature	25℃																														
Object	+36V6.7A	Testing Circuitry	Figure A																														
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<div><div><div>---□---</div><div>Load 50%</div></div><div><div>—△—</div><div>Load 100%</div></div></div> <table><thead><tr><th>Input Voltage [V]</th><th>Load 50% [mS]</th><th>Load 100% [mS]</th></tr></thead><tbody><tr><td>150</td><td>88</td><td>43</td></tr><tr><td>160</td><td>89</td><td>44</td></tr><tr><td>170</td><td>90</td><td>44</td></tr><tr><td>180</td><td>91</td><td>45</td></tr><tr><td>200</td><td>92</td><td>46</td></tr><tr><td>220</td><td>93</td><td>46</td></tr><tr><td>240</td><td>94</td><td>47</td></tr><tr><td>264</td><td>95</td><td>47</td></tr><tr><td>280</td><td>97</td><td>49</td></tr></tbody></table>		Input Voltage [V]	Load 50% [mS]	Load 100% [mS]	150	88	43	160	89	44	170	90	44	180	91	45	200	92	46	220	93	46	240	94	47	264	95	47	280	97	49		
Input Voltage [V]	Load 50% [mS]	Load 100% [mS]																															
150	88	43																															
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200	92	46																															
220	93	46																															
240	94	47																															
264	95	47																															
280	97	49																															
<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> <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範囲を保持しているところまでの時間。 (注) 斜線は定格入力電圧範囲を示す。</p>																																	

# COSEL

Model	LEP240F-36																																																						
Item	Instantaneous Interruption Compensation 瞬時停電保障	Temperature	25℃																																																				
Object	+36V6.7A	Testing Circuitry	Figure A																																																				
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<div><div>—△— Input Volt. 170V</div><div>---□--- Input Volt. 200V</div><div>---○--- Input Volt. 264V</div></div> <p>Instantaneous Compensation Time [mS]</p> <p>Load Current [A]</p>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Time [mS]</th></tr><tr><th>Input Volt. 170[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 264[V]</th></tr><tr><td>0.00</td><td>—</td><td>—</td><td>—</td></tr><tr><td>1.00</td><td>280</td><td>280</td><td>288</td></tr><tr><td>2.00</td><td>146</td><td>152</td><td>156</td></tr><tr><td>3.00</td><td>97</td><td>103</td><td>106</td></tr><tr><td>4.00</td><td>71</td><td>78</td><td>80</td></tr><tr><td>5.00</td><td>55</td><td>62</td><td>64</td></tr><tr><td>6.00</td><td>45</td><td>51</td><td>53</td></tr><tr><td>6.70</td><td>44</td><td>45</td><td>47</td></tr><tr><td>7.37</td><td>39</td><td>40</td><td>43</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. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	0.00	—	—	—	1.00	280	280	288	2.00	146	152	156	3.00	97	103	106	4.00	71	78	80	5.00	55	62	64	6.00	45	51	53	6.70	44	45	47	7.37	39	40	43	—	—	—	—	—	—	—	—
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1.00	36.290	36.290	36.289																																															
2.00	36.286	36.286	36.285																																															
3.00	36.286	36.286	36.285																																															
4.00	36.286	36.286	36.284																																															
5.00	36.285	36.285	36.283																																															
6.00	36.283	36.284	36.282																																															
6.70	36.282	36.282	36.281																																															
7.37	36.281	36.280	36.280																																															
--	—	—	—																																															

# COSEL

Model	LEP240F-36	Temperature	25°C
Item	Ripple Voltage (by Load Current) リップル電圧 (負荷特性)	Testing Circuitry	Figure A
Object	+36V6.7A		

1. Graph

—△— Input Volt. 170V  
 ---○--- Input Volt. 264V

Ripple Voltage [mV]

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

Fig. Complex Ripple Wave Form  
図 リップル波形詳細図

2. Values

Load Current [A]	Ripple Voltage [mV]	
	Input Volt. 170 [V]	Input Volt. 264 [V]
0.00	10	10
1.00	40	40
2.00	40	40
3.00	40	40
4.00	40	40
5.00	40	40
6.00	40	40
6.70	40	40
7.37	40	40
--	—	—
--	—	—

# COSEL

Model	LEP240F-36	Temperature	25°C
Item	Ripple-Noise リップルノイズ	Testing Circuitry	Figure A
Object	+36V6.7A		

1. Graph

—△— Input Volt. 170V

---○--- Input Volt. 264V

Ripple-Noise [mV]

Load Current [A]

Ripple-Noise is shown as p-p in the figure below.  
Note: Slanted line shows the range of the rated load current.

リップルノイズは、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-Noise [mVp-p]

T1

T2

Fig. Complex Ripple Wave Form  
図 リップル波形詳細図

2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 170 [V]	Input Volt. 264 [V]
0.00	70	70
1.00	70	70
2.00	90	90
3.00	90	90
4.00	90	90
5.00	90	90
6.00	95	95
6.70	100	100
7.37	105	105
--	--	--
--	--	--

# COSEL

Model

LEP240F-36

Item

Overcurrent Protection  
過電流保護

Object

+36V6.7A

1. Graph

—————

Input Volt. 170V

- - - - -

Input Volt. 200V

.....

Input Volt. 264V

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。

Intermittent operation occurs when the output voltage is from 22V to 0V.

22V～0V間は、間欠モードとなる。

Temperature

25℃

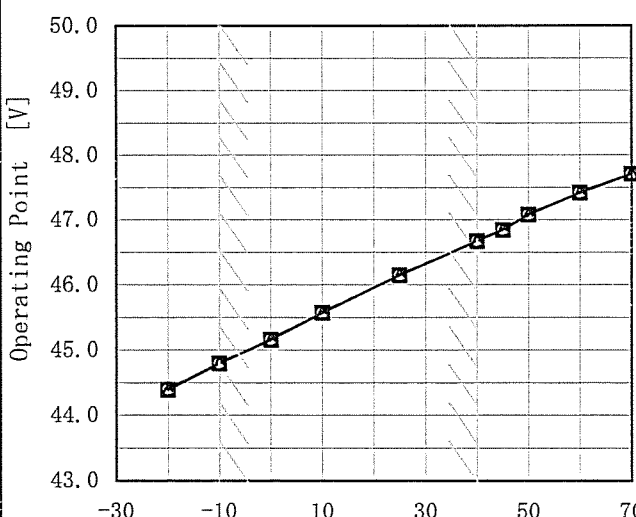
Testing Circuitry

Figure A

2. Values

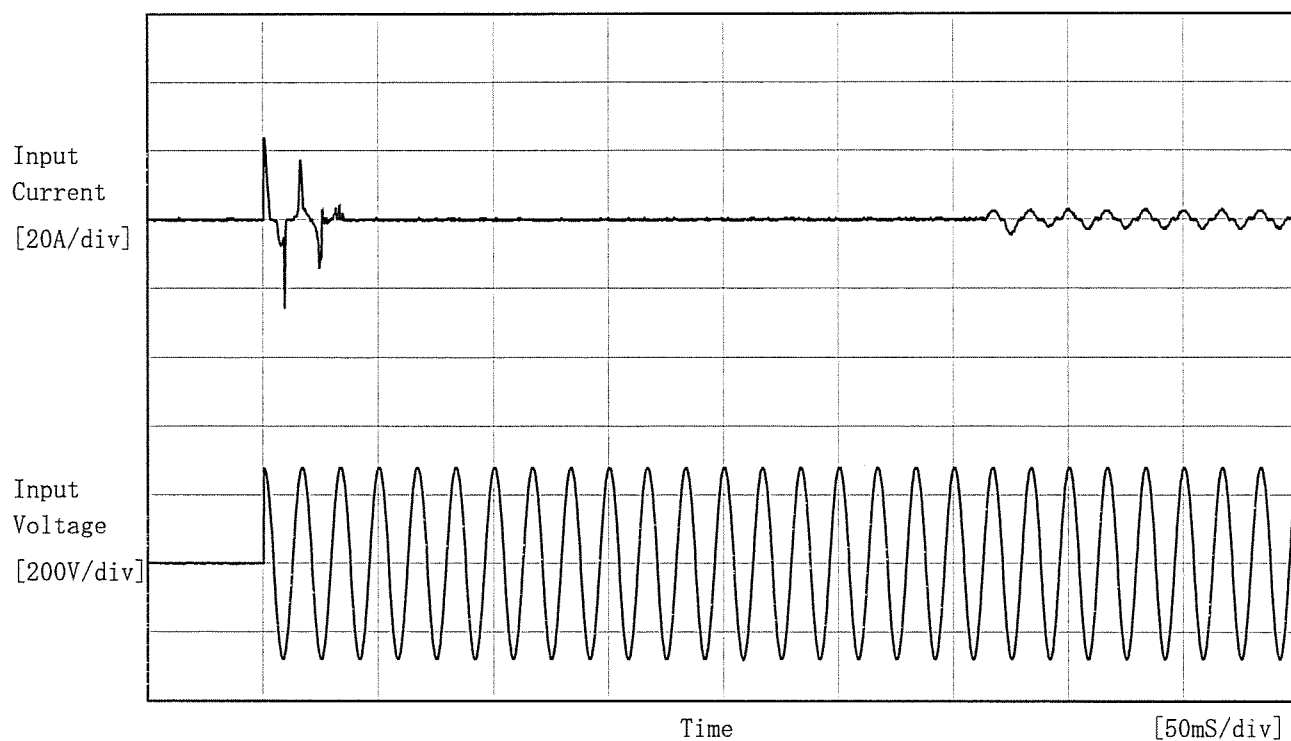
Output Voltage [V]	Load Current [A]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
36.0	15.34	13.46	15.35
34.2	15.40	15.41	15.40
32.4	15.46	15.48	15.47
28.8	15.62	15.63	15.64
25.2	15.80	15.79	15.78
--	--	--	--
--	--	--	--
--	--	--	--
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# COSEL

Model	LEP240F-36																																																						
Item	Overvoltage Protection 過電圧保護	Testing Circuitry      Figure A																																																					
Object	+36V6.7A																																																						
1. Graph		2. Values																																																					
<div><div>—△—</div><div>Input Volt. 170V</div></div> <div><div>---□---</div><div>Input Volt. 200V</div></div> <div><div>---○---</div><div>Input Volt. 264V</div></div>  <p>Operating Point [V]</p> <p>Ambient Temperature [°C]</p> <p>Load 0%</p>		<table><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="3">Operating Point [V]</th></tr><tr><th>Input Volt. 170[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 264[V]</th></tr><tr><td>-20</td><td>44.39</td><td>44.39</td><td>44.40</td></tr><tr><td>-10</td><td>44.80</td><td>44.80</td><td>44.80</td></tr><tr><td>0</td><td>45.16</td><td>45.16</td><td>45.16</td></tr><tr><td>10</td><td>45.57</td><td>45.57</td><td>45.57</td></tr><tr><td>25</td><td>46.15</td><td>46.15</td><td>46.15</td></tr><tr><td>40</td><td>46.67</td><td>46.67</td><td>46.67</td></tr><tr><td>45</td><td>46.84</td><td>46.84</td><td>46.84</td></tr><tr><td>50</td><td>47.08</td><td>47.08</td><td>47.08</td></tr><tr><td>60</td><td>47.42</td><td>47.42</td><td>47.42</td></tr><tr><td>70</td><td>47.71</td><td>47.71</td><td>47.71</td></tr><tr><td>--</td><td>—</td><td>—</td><td>—</td></tr></table>			Ambient Temperature [°C]	Operating Point [V]			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	-20	44.39	44.39	44.40	-10	44.80	44.80	44.80	0	45.16	45.16	45.16	10	45.57	45.57	45.57	25	46.15	46.15	46.15	40	46.67	46.67	46.67	45	46.84	46.84	46.84	50	47.08	47.08	47.08	60	47.42	47.42	47.42	70	47.71	47.71	47.71	--	—	—	—
Ambient Temperature [°C]	Operating Point [V]																																																						
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																				
-20	44.39	44.39	44.40																																																				
-10	44.80	44.80	44.80																																																				
0	45.16	45.16	45.16																																																				
10	45.57	45.57	45.57																																																				
25	46.15	46.15	46.15																																																				
40	46.67	46.67	46.67																																																				
45	46.84	46.84	46.84																																																				
50	47.08	47.08	47.08																																																				
60	47.42	47.42	47.42																																																				
70	47.71	47.71	47.71																																																				
--	—	—	—																																																				
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。																																																							

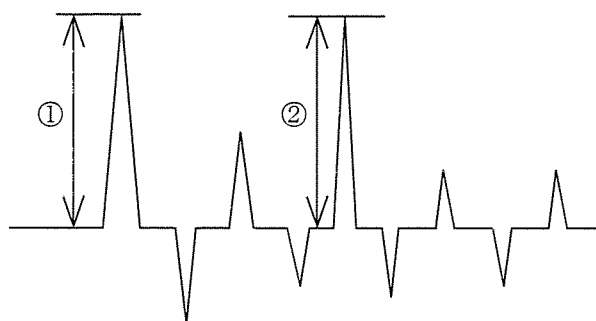
**COSEL**

Model	LEP240F-36	Temperature 25°C Testing Circuitry Figure A
Item	Inrush Current 突入電流	
Object		



Input Voltage 200 V  
Frequency 60 Hz  
Load 100 %  
Inrush Current

- ① 25.6 [A]  
② 17.4 [A]



# COSEL

Model	LEP240F-36	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response 動的負荷変動	
Object	+36V6.7A	

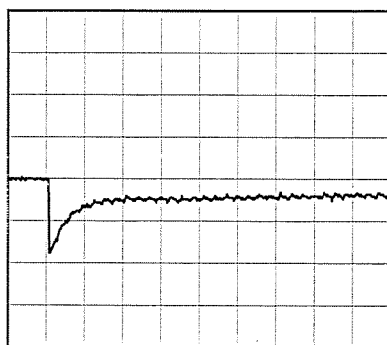
Input Volt. 200 V  
Cycle 1000 ms

Load Current

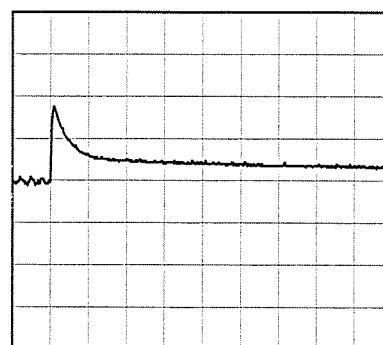
Min. Load (0A)  $\longleftrightarrow$

Load 100% (6.7A)

100 mV/div



10 ms/div

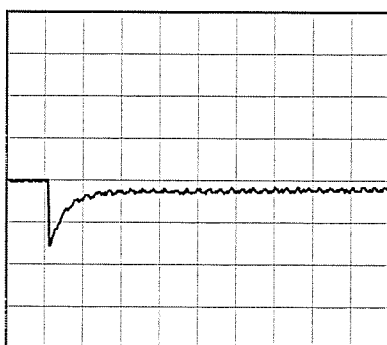


10 ms/div

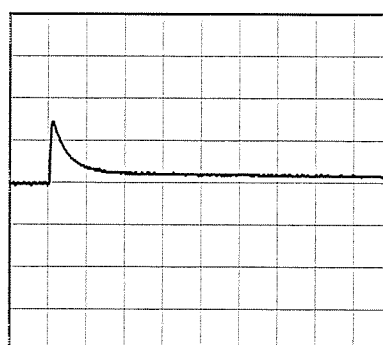
Min. Load (0A)  $\longleftrightarrow$

Load 50% (3.35A)

100 mV/div



10 ms/div



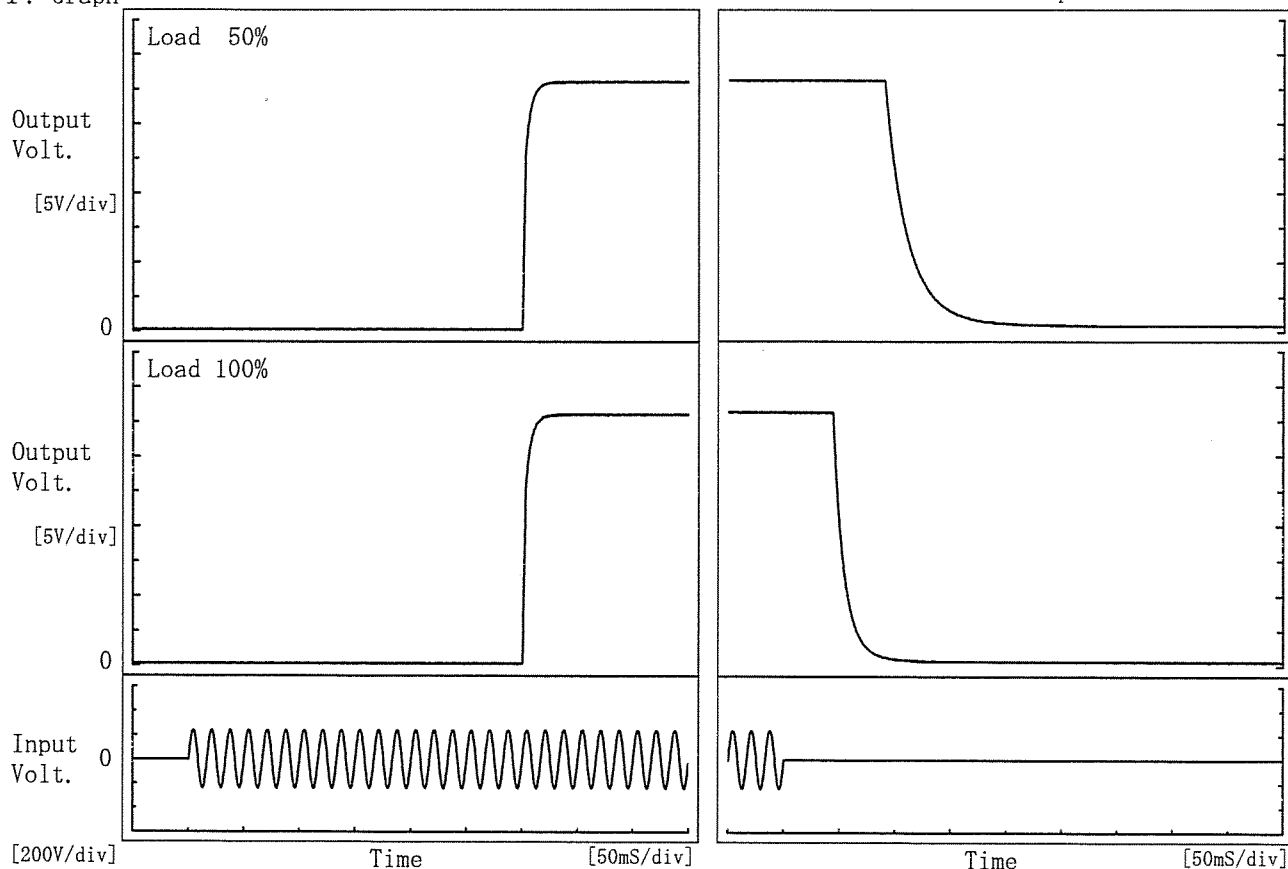
10 ms/div

# COSEL

Model	LEP240F-36	Temperature	25°C
Item	Rise and Fall Time 立上り、立下り時間	Testing Circuitry	Figure A
Object	+36V6.7A		

## 1. Graph

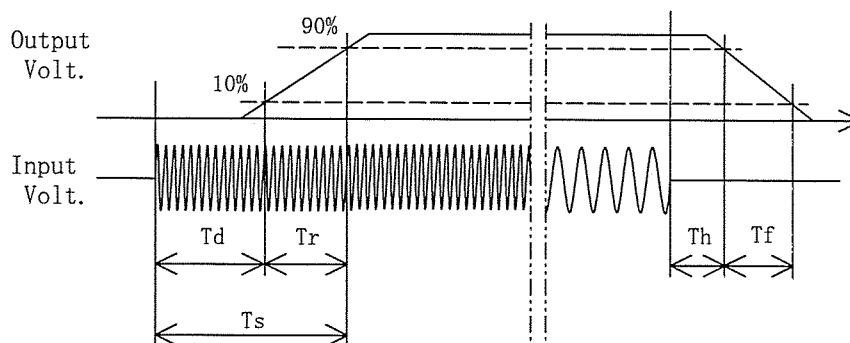
Input Volt. 170 V



## 2. Values

[mS]

Load \ Time	T d	T r	T s	T h	T f
50 %	300.5	8.0	308.5	92.3	50.0
100 %	300.8	8.0	308.8	45.3	24.5



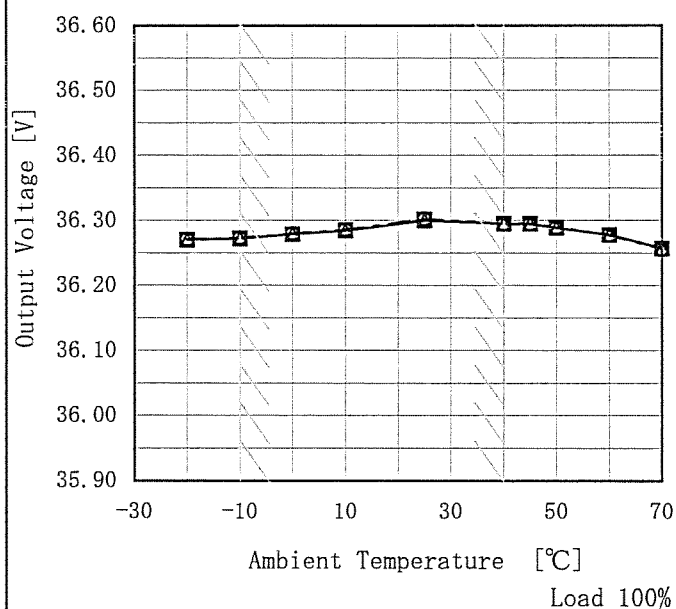
Model LEP240F-36

Item Ambient Temperature Drift  
周囲温度変動

Object +36V6.7A

## 1. Graph

—△— Input Volt. 170V  
 ---□--- Input Volt. 200V  
 ---○--- Input Volt. 264V



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. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-20	36.270	36.270	36.271
-10	36.272	36.272	36.272
0	36.279	36.279	36.280
10	36.284	36.285	36.285
25	36.300	36.302	36.302
40	36.295	36.295	36.294
45	36.295	36.295	36.294
50	36.289	36.289	36.288
60	36.278	36.278	36.277
70	36.257	36.257	36.255
--	—	—	—

# COSEL

Model

LEP240F-36

Item

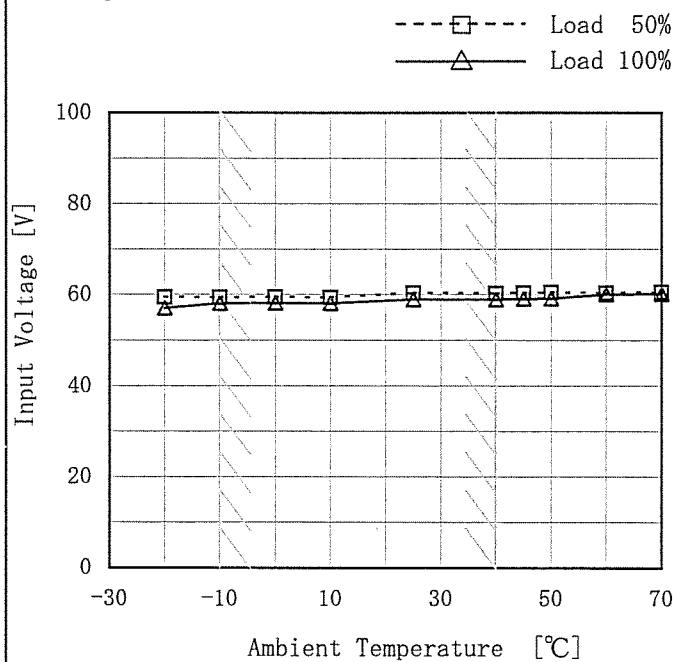
Minimum Input Voltage for Regulated Output Voltage  
最低レギュレーション電圧

Object

+36V6.7A

Testing Circuitry Figure A

## 1. Graph



## 2. Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-20	60	58
-10	60	59
0	60	59
10	60	59
25	61	59
40	61	59
45	61	60
50	61	60
60	61	61
70	61	61
--	—	—

# COSEL

Model

LEP240F-36

Item

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

Object

+36V6.7A

1. Graph

---□---

Load 50%

—△—

Load 100%

Ripple Voltage [mV]

200

180

160

140

120

100

80

60

40

20

0

-30

-10

10

30

50

70

Ambient Temperature [°C]

Input Volt. 200V

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 Voltage [mV]	
	Load 50%	Load 100%
-20	65	80
-10	55	60
0	50	55
10	40	45
25	40	40
40	35	40
45	35	40
50	35	40
60	35	40
70	30	35
--	—	—

# COSEL

Model	LEP240F-36		
Item	Time Lapse Drift 経時ドリフト	Temperature	25℃
Object	+36V6.7A	Testing Circuitry	Figure A
1. Graph		2. Values	
<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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		Testing Circuitry      Figure A
Model	LEP240F-36	
Item	Output Voltage Accuracy 定電圧精度	
Object	+36V6.7A	

### 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 ~ 40°C

Input Voltage : 170 ~ 264V

Load Current : 0 ~ 6.7A

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

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

### 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 ~ 40°C

入力電圧 : 170 ~ 264V

負荷電流 : 0 ~ 6.7A

\* 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		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	25	264	0	36.315	±21	±0.1
Minimum Voltage	-10	200	6.7	36.274		

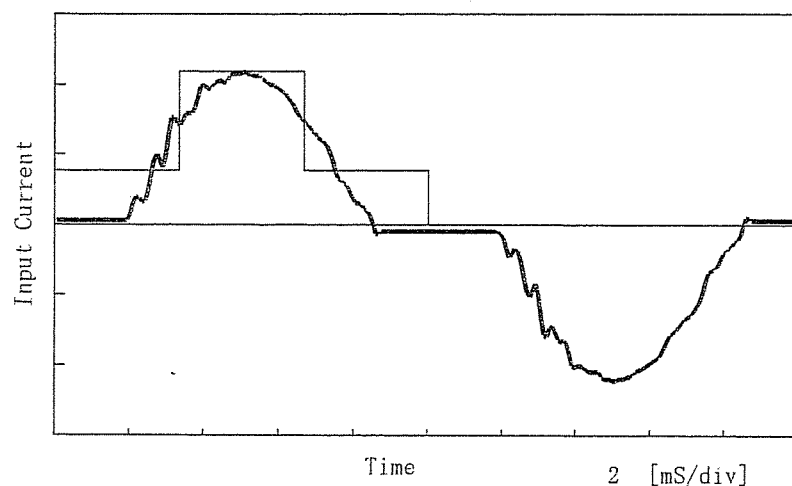
**COSEL**

Model	LEP240F-36	Temperature	25°C
Item	Harmonic Current 高調波電流	Testing Circuitry	Figure E
Object			

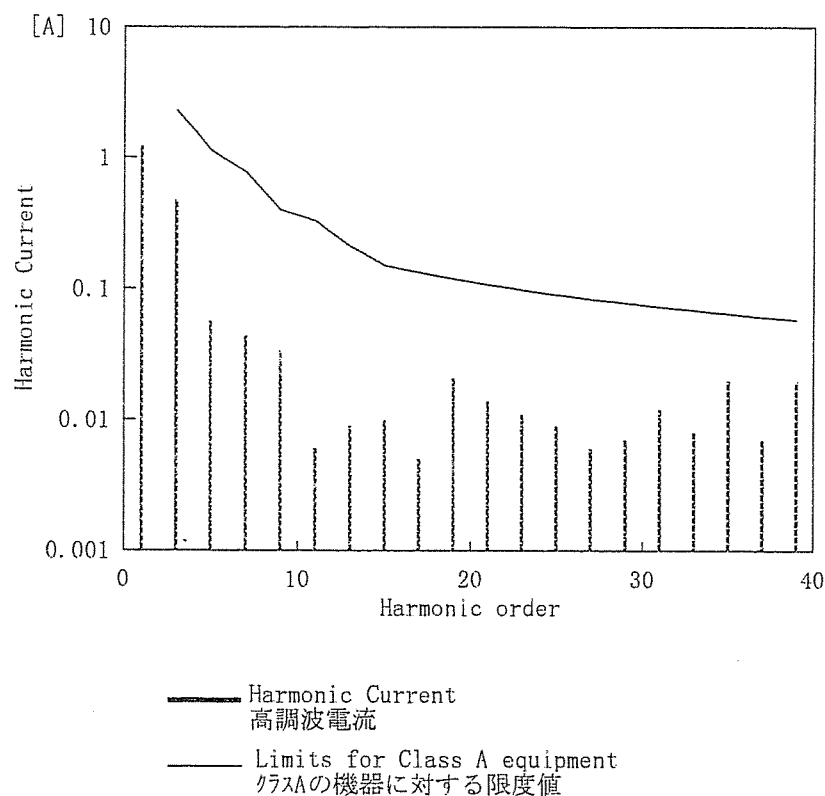
## 1. Input Current Waveform

— 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]	230.6
Input Current [A]	1.308
Active Power [W]	278.9
Apparent Power [VA]	301.7
Frequency [Hz]	50
Power Factor	0.924
Output Power [W]	240

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	1.21600
2	—	0.00100
3	2.29402	0.47100
4	—	0.00000
5	1.13703	0.05700
6	—	0.00000
7	0.76800	0.04400
8	—	0.00000
9	0.39896	0.03400
10	—	0.00000
11	0.32914	0.00600
12	—	0.00000
13	0.20945	0.00900
14	—	0.00000
15	0.14961	0.01000
16	—	0.00000
17	0.13201	0.00500
18	—	0.00000
19	0.11811	0.02100
20	—	0.00000
21	0.10686	0.01400
22	—	0.00000
23	0.09757	0.01100
24	—	0.00000
25	0.08977	0.00900
26	—	0.00000
27	0.08312	0.00600
28	—	0.00000
29	0.07738	0.00700
30	—	0.00000
31	0.07239	0.01200
32	—	0.00000
33	0.06800	0.00800
34	—	0.00000
35	0.06412	0.02000
36	—	0.00000
37	0.06065	0.00700
38	—	0.00000
39	0.05754	0.02000
40	—	0.00000

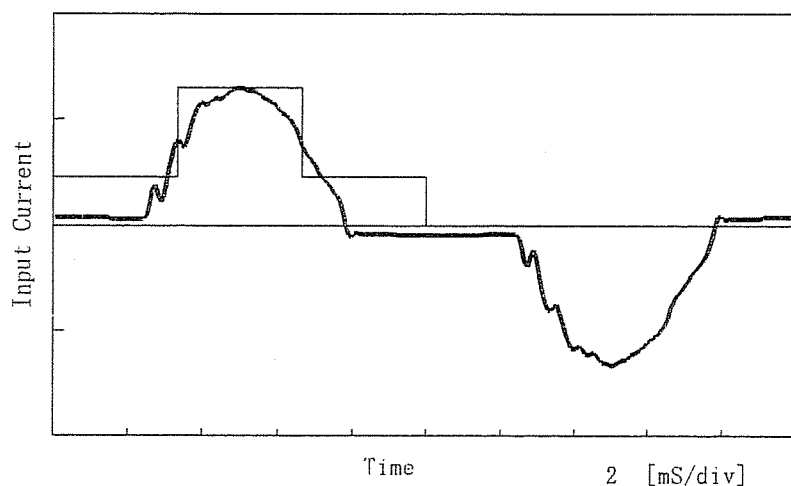
**COSEL**

Model	LEP240F-36	Temperature	25°C
Item	Harmonic Current 高調波電流	Testing Circuitry	Figure E
Object			

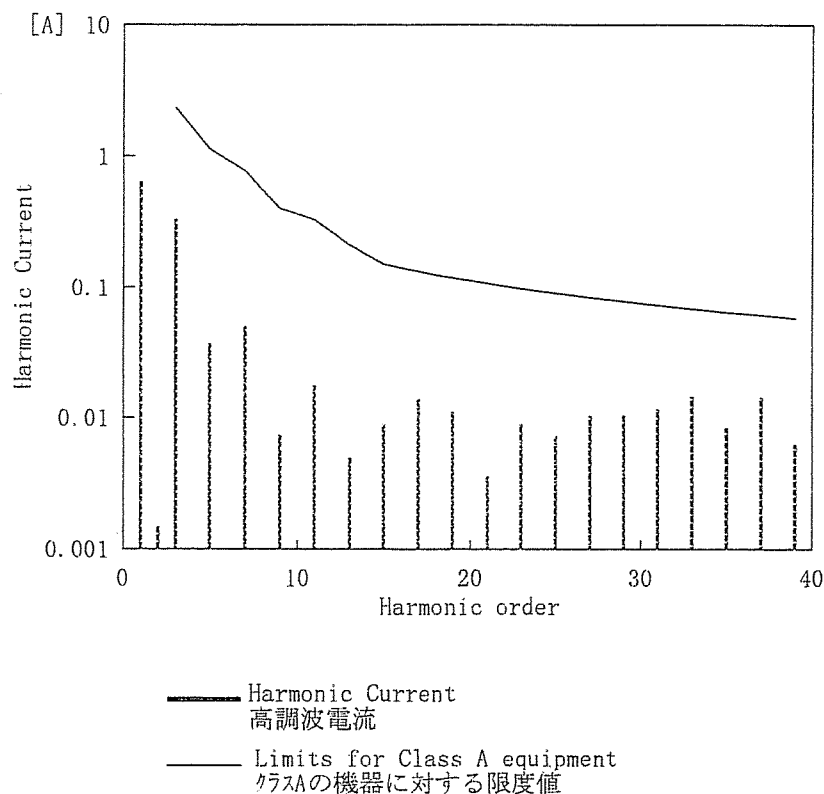
## 1. Input Current Waveform

— 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]	230.9
Input Current [A]	0.724
Active Power [W]	145.8
Apparent Power [VA]	167.3
Frequency [Hz]	50
Power Factor	0.871
Output Power [W]	120

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	0.63850
2	—	0.00150
3	2.29104	0.33250
4	—	0.00010
5	1.13556	0.03700
6	—	0.00030
7	0.76700	0.05020
8	—	0.00030
9	0.39844	0.00730
10	—	0.00030
11	0.32871	0.01760
12	—	0.00000
13	0.20918	0.00500
14	—	0.00030
15	0.14942	0.00900
16	—	0.00010
17	0.13184	0.01390
18	—	0.00000
19	0.11796	0.01110
20	—	0.00010
21	0.10673	0.00360
22	—	0.00030
23	0.09744	0.00900
24	—	0.00040
25	0.08965	0.00720
26	—	0.00010
27	0.08301	0.01040
28	—	0.00010
29	0.07728	0.01040
30	—	0.00040
31	0.07230	0.01160
32	—	0.00000
33	0.06792	0.01460
34	—	0.00010
35	0.06404	0.00840
36	—	0.00010
37	0.06057	0.01430
38	—	0.00000
39	0.05747	0.00630
40	—	0.00030

# COSEL

Model	LEP240F-36		
Item	Leakage Current 漏洩電流	Temperature	25°C
Object		Testing Circuitry	Figure B

## 1. Results

Standards	Leakage Current [mA]		
	Input Volt.	Input Volt.	Input Volt.
	85 [V]	100 [V]	132 [V]
(A) DEN-AN	—	—	—
(B) IEC60950	—	—	—

Standards	Leakage Current [mA]		
	Input Volt.	Input Volt.	Input Volt.
	170 [V]	230 [V]	264 [V]
(B) IEC60950	0.31	0.43	0.51

## 2. Condition

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

交流入力の一相について測定し、その大きい方を漏洩電流測定値とする。

**COSEL**

Model	LEP240F-36	Temperature      25°C Testing Circuitry    Figure C
Item	Line Noise Tolerance 入力雑音耐量	
Object	+36V6.7A	

## 1. Conditions

- Input Voltage      :    200 V
- Pulse Voltage      :   2000 V
- Pulse Cycle        :     10 mS
- Pulse Input Duration : 1 min. or more
- Load                :    100 %

## 2. Results

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

# COSEL

Model	LEP240F-36	Temperature	25°C
Item	Conducted Emission 雑音端子電圧	Testing Circuitry	Figure D
Object			

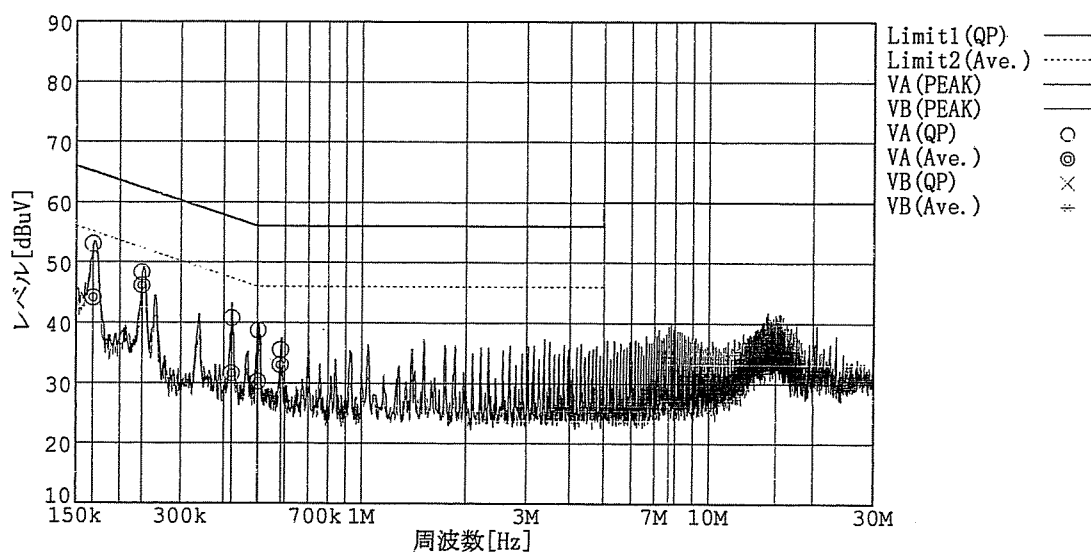
## 1. Graph

## Remarks

Input Volt. 230V ( CISPR Pub22 Class B )

Load 100%

規格 1 : [EN 55022] Class B(QP)  
規格 2 : [EN 55022] Class B(平均値)



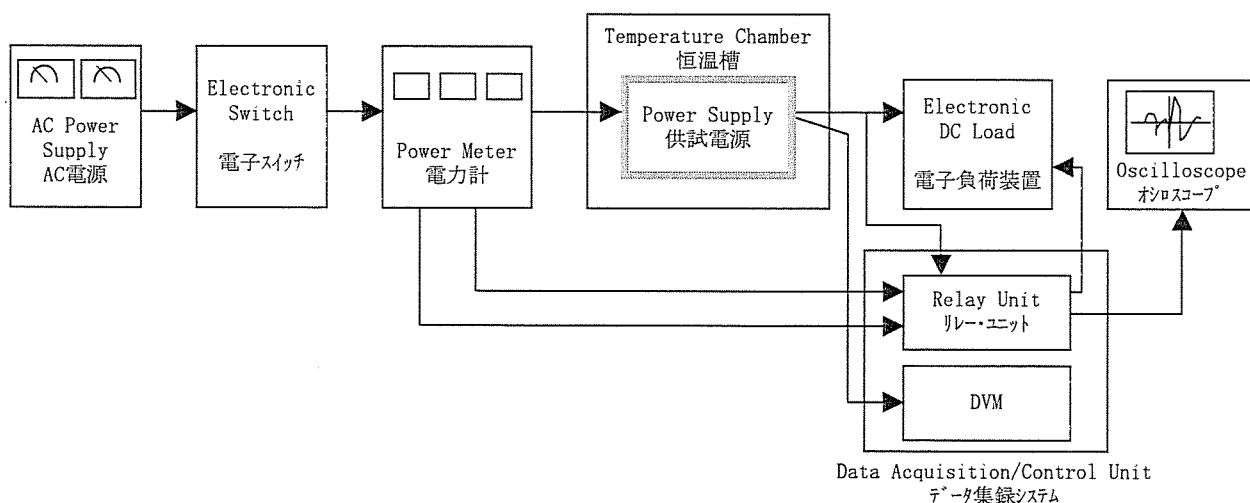


Figure A

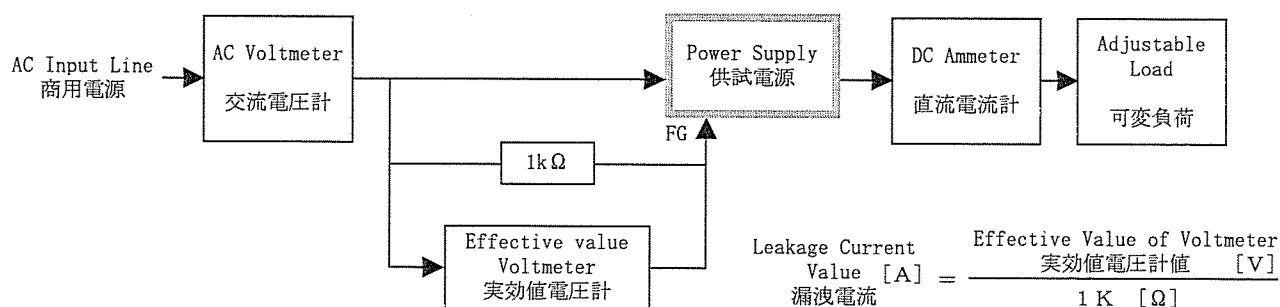


Figure B ( DEN-AN )

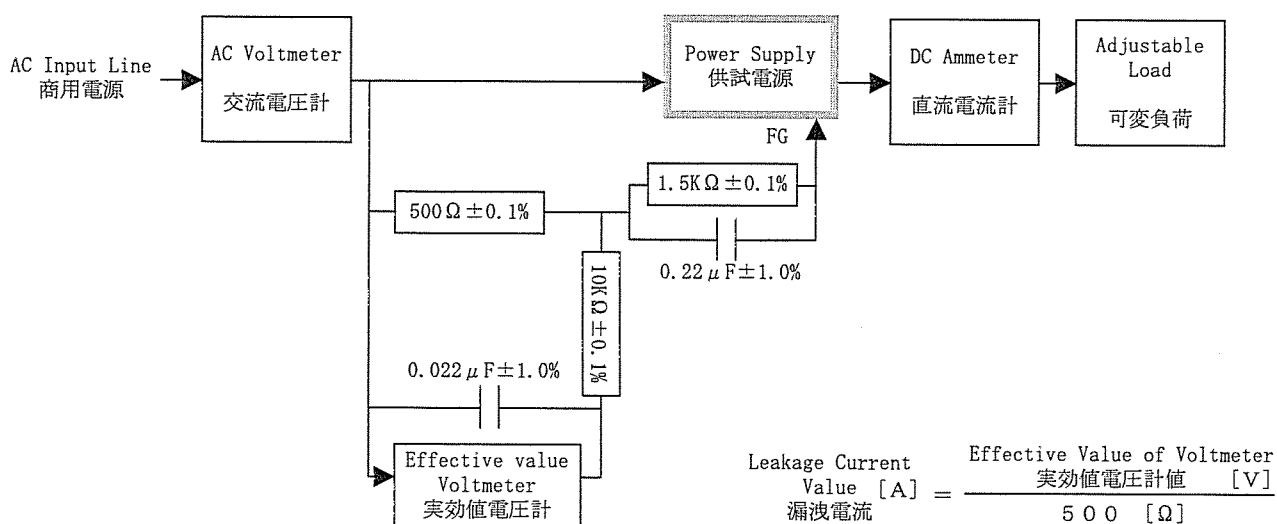


Figure B ( IEC60950 )

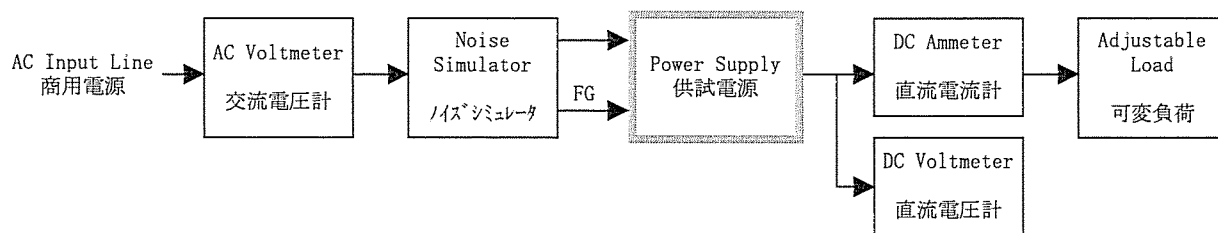


Figure C

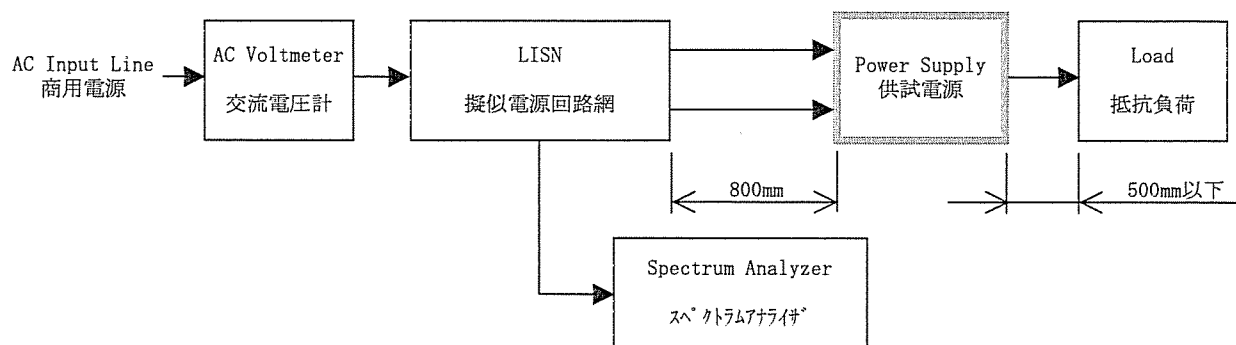


Figure D

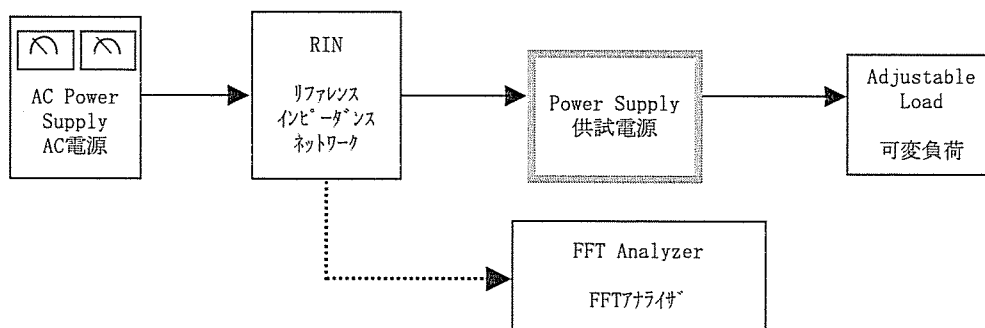


Figure E