



TEST DATA OF ADA600F

ADA600F-48
(200V INPUT)

Regulated DC power supply
Mar. 11, 2003

Approved by : Kuniaki Nagahara
Kuniaki Nagahara Design Manager

Prepared by : Koji Todo
Koji Todo Design Engineer

INPUT : AC 170~264V

OUTPUT : V1: 48V 12.5A

コーセル株式会社
COSEL CO.,LTD.

CONTENTS

1. Line Regulation	1
静的入力変動	
2. Input Current (by Load Power)	2
入力電流 (負荷電力特性)	
3. Input Power (by Load Power)	3
入力電力 (負荷電力特性)	
4. Efficiency (by Input Voltage)	4
効率 (入力電圧特性)	
5. Efficiency (by Load Power)	5
効率 (負荷電力特性)	
6. Power Factor (by Input Voltage)	6
力率 (入力電圧特性)	
7. Power Factor (by Load Power)	7
力率 (負荷電力特性)	
8. Hold-Up Time (by Load Power)	8
出力保持時間 (負荷電力特性)	
9. Instantaneous Interruption Compensation (by Load Power)	9
瞬時停電保障 (負荷電力特性)	
10. Load Regulation	10
静的負荷変動	
11. Ripple Voltage (by Load Current)	11
リップル電圧 (負荷電流特性)	
12. Ripple-Noise	12
リップルノイズ	
13. Overcurrent Protection	13
過電流保護	
14. Overvoltage Protection	14
過電圧保護	
15. Inrush Current	15
突入電流	
16. Rise and Fall Time	16
立上り、立下り時間	
17. Ambient Temperature Drift	17
周囲温度変動	
18. Minimum Input Voltage for Regulated Output Voltage	18
最低レギュレーション電圧	
19. Ripple Voltage (by Ambient Temperature)	19
リップル電圧 (周囲温度特性)	
20. Time Lapse Drift	20
経時ドリフト	
21. Output Voltage Accuracy	21
定電圧精度	
22. Leakage Current	22
漏洩電流	
23. Figure of Testing Circuitry	23
測定回路図	

(Final Page 23)

COSEL

Model		ADA600F (ADA600F-48)	
Item		Line Regulation 静の入力変動	
Object		V1:+48V12.5A	

1. Graph

---□---

Load 50%

—△—

Load 100%

Output Voltage [V]

48.40

48.30

48.20

48.10

48.00

47.90

47.80

47.70

140

180

220

260

300

48.063

48.064

48.063

48.064

48.065

48.066

48.066

48.066

150

160

170

180

200

220

240

264

280

Input Voltage [V]

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

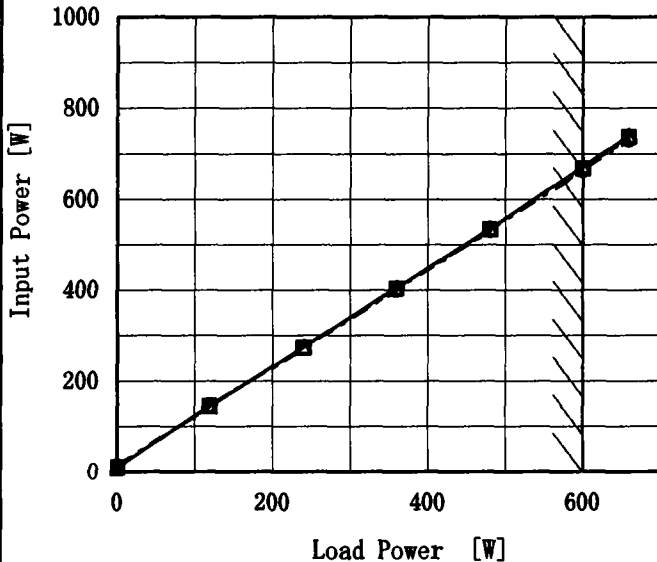
(注) 斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
150	48.063	48.052
160	48.064	48.053
170	48.063	48.055
180	48.064	48.054
200	48.065	48.054
220	48.065	48.054
240	48.066	48.053
264	48.066	48.053
280	48.066	48.053

BC-3480

COSEL

Model		ADA600F (ADA600F-48)		Temperature		25℃																																																				
Item		Input Power (by Load Power) 入力電力 (負荷電力特性)		Testing Circuitry		Figure A																																																				
Object																																																										
1. Graph		—△— Input Volt. 170 V ---□--- Input Volt. 200 V ---○--- Input Volt. 264 V		2. Values																																																						
<div><div>Input Power [W]</div><div></div><div>Load Power [W]</div></div>				<table><tr><th rowspan="2">Load Power [W]</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</td><td>9.2</td><td>9.7</td><td>11.4</td></tr><tr><td>120</td><td>145.2</td><td>145.0</td><td>144.5</td></tr><tr><td>240</td><td>275.0</td><td>273.2</td><td>272.2</td></tr><tr><td>360</td><td>405.0</td><td>403.0</td><td>401.0</td></tr><tr><td>480</td><td>536.0</td><td>534.0</td><td>531.0</td></tr><tr><td>600</td><td>672.0</td><td>667.0</td><td>664.0</td></tr><tr><td>660</td><td>740.0</td><td>736.0</td><td>731.0</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 Power [W]	Input Power [W]			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	0	9.2	9.7	11.4	120	145.2	145.0	144.5	240	275.0	273.2	272.2	360	405.0	403.0	401.0	480	536.0	534.0	531.0	600	672.0	667.0	664.0	660	740.0	736.0	731.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Power [W]	Input Power [W]																																																									
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																							
0	9.2	9.7	11.4																																																							
120	145.2	145.0	144.5																																																							
240	275.0	273.2	272.2																																																							
360	405.0	403.0	401.0																																																							
480	536.0	534.0	531.0																																																							
600	672.0	667.0	664.0																																																							
660	740.0	736.0	731.0																																																							
—	—	—	—																																																							
—	—	—	—																																																							
—	—	—	—																																																							
—	—	—	—																																																							
Note: Slanted line shows the range of the rated load power.																																																										
(注) 斜線は定格電力範囲を示す。																																																										

COSEL

Model		ADA600F (ADA600F-48)		Temperature 25℃ Testing Circuitry Figure A
Item		Efficiency (by Input Voltage) 効率 (入力電圧特性)		
Object				

1. Graph

---□--- Load 50%

---△--- Load 100%

Efficiency [%]

100

96

92

88

84

80

76

72

140

180

220

260

300

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。

2. Values

Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
150	86.9	87.9
160	87.2	88.2
170	87.4	88.4
180	87.4	88.6
200	87.9	88.8
220	88.1	89.0
240	88.2	89.1
264	88.3	89.3
280	88.2	89.5

COSEL

Model		ADA600F (ADA600F-48)		Temperature		25℃	
Item		Efficiency (by Load Power) 効率 (負荷電力特性)		Testing Circuitry		Figure A	
Object							

1. Graph

—△— Input Volt. 170 V

---□--- Input Volt. 200 V

---○--- Input Volt. 264 V

Efficiency [%]

100

96

92

88

84

80

76

72

0

200

400

600

Load Power [W]

2. Values

Load Power [W]	Efficiency [%]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0	—	—	—
120	81.5	81.7	81.9
240	86.3	86.8	87.1
360	87.9	88.3	88.8
480	88.5	88.8	89.3
600	88.2	88.9	89.3
660	88.1	88.6	89.2
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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

(注) 斜線は定格電力範囲を示す。

COSEL

Model		ADA600F (ADA600F-48)		Temperature		25℃																																	
Item		Power Factor (by Input Voltage) 力率 (入力電圧特性)		Testing Circuitry		Figure A																																	
Object																																							
1. Graph				2. Values																																			
<div><div><div>---</div><div>□</div><div>---</div></div><div>Load 50%</div></div> <div><div>---</div><div>△</div><div>---</div></div> <div>Load 100%</div> <table><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>150</td><td>0.972</td><td>0.990</td></tr><tr><td>160</td><td>0.969</td><td>0.987</td></tr><tr><td>170</td><td>0.966</td><td>0.985</td></tr><tr><td>180</td><td>0.963</td><td>0.984</td></tr><tr><td>200</td><td>0.954</td><td>0.981</td></tr><tr><td>220</td><td>0.944</td><td>0.978</td></tr><tr><td>240</td><td>0.936</td><td>0.972</td></tr><tr><td>264</td><td>0.923</td><td>0.965</td></tr><tr><td>280</td><td>0.680</td><td>0.746</td></tr></tbody></table>				Input Voltage [V]	Power Factor		Load 50%	Load 100%	150	0.972	0.990	160	0.969	0.987	170	0.966	0.985	180	0.963	0.984	200	0.954	0.981	220	0.944	0.978	240	0.936	0.972	264	0.923	0.965	280	0.680	0.746				
Input Voltage [V]	Power Factor																																						
	Load 50%	Load 100%																																					
150	0.972	0.990																																					
160	0.969	0.987																																					
170	0.966	0.985																																					
180	0.963	0.984																																					
200	0.954	0.981																																					
220	0.944	0.978																																					
240	0.936	0.972																																					
264	0.923	0.965																																					
280	0.680	0.746																																					
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。																																							

COSEL

Model		ADA600F (ADA600F-48)		Temperature		25℃																																																		
Item		Power Factor (by Load Power) 力率 (負荷電力特性)		Testing Circuitry		Figure A																																																		
Object																																																								
1. Graph		<div><div>—△—</div>Input Volt. 170 V</div> <div><div>---□---</div>Input Volt. 200 V</div> <div><div>---○---</div>Input Volt. 264 V</div>		2. Values																																																				
<div><div><div>Power Factor</div><div>1.0</div><div>0.9</div><div>0.8</div><div>0.7</div><div>0.6</div><div>0.5</div><div>0.4</div><div>0.3</div><div>0.2</div></div><div><div>0200400600</div><div>Load Power [W]</div></div></div>		<table><tr><th rowspan="2">Load Power [W]</th><th colspan="3">Power Factor</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</td><td>0.362</td><td>0.296</td><td>0.211</td></tr><tr><td>120</td><td>0.913</td><td>0.892</td><td>0.827</td></tr><tr><td>240</td><td>0.955</td><td>0.940</td><td>0.905</td></tr><tr><td>360</td><td>0.974</td><td>0.964</td><td>0.937</td></tr><tr><td>480</td><td>0.980</td><td>0.974</td><td>0.953</td></tr><tr><td>600</td><td>0.988</td><td>0.981</td><td>0.967</td></tr><tr><td>660</td><td>0.988</td><td>0.984</td><td>0.969</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 Power [W]	Power Factor			Input Volt. 170 [V]	Input Volt. 200 [V]	Input Volt. 264 [V]	0	0.362	0.296	0.211	120	0.913	0.892	0.827	240	0.955	0.940	0.905	360	0.974	0.964	0.937	480	0.980	0.974	0.953	600	0.988	0.981	0.967	660	0.988	0.984	0.969	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Power [W]	Power Factor																																																							
	Input Volt. 170 [V]	Input Volt. 200 [V]	Input Volt. 264 [V]																																																					
0	0.362	0.296	0.211																																																					
120	0.913	0.892	0.827																																																					
240	0.955	0.940	0.905																																																					
360	0.974	0.964	0.937																																																					
480	0.980	0.974	0.953																																																					
600	0.988	0.981	0.967																																																					
660	0.988	0.984	0.969																																																					
—	—	—	—																																																					
—	—	—	—																																																					
—	—	—	—																																																					
—	—	—	—																																																					
Note: Slanted line shows the range of the rated load power.																																																								
(注) 斜線は定格電力範囲を示す。																																																								

COSEL

Model		ADA600F (ADA600F-48)		Temperature		25℃																																																				
Item		Hold-Up Time (by Load Power) 出力保持時間 (負荷電力特性)		Testing Circuitry		Figure A																																																				
Object																																																										
1. Graph				2. Values																																																						
<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> <p>Hold-Up Time [mS]</p> <p>Load Power [W]</p>				<table><tr><th rowspan="2">Load Power [W]</th><th colspan="3">Hold-Up 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</td><td>—</td><td>—</td><td>—</td></tr><tr><td>120</td><td>171</td><td>174</td><td>177</td></tr><tr><td>240</td><td>86</td><td>88</td><td>91</td></tr><tr><td>360</td><td>55</td><td>57</td><td>60</td></tr><tr><td>480</td><td>40</td><td>42</td><td>44</td></tr><tr><td>600</td><td>31</td><td>32</td><td>34</td></tr><tr><td>660</td><td>27</td><td>29</td><td>31</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 Power [W]	Hold-Up Time [mS]			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	0	—	—	—	120	171	174	177	240	86	88	91	360	55	57	60	480	40	42	44	600	31	32	34	660	27	29	31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Power [W]	Hold-Up Time [mS]																																																									
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																							
0	—	—	—																																																							
120	171	174	177																																																							
240	86	88	91																																																							
360	55	57	60																																																							
480	40	42	44																																																							
600	31	32	34																																																							
660	27	29	31																																																							
—	—	—	—																																																							
—	—	—	—																																																							
—	—	—	—																																																							
—	—	—	—																																																							
<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 load power.</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。</p> <p>(注) 斜線は定格電力範囲を示す。</p>																																																										

COSEL

Model		ADA600F (ADA600F-48)		Temperature		25℃	
Item		Instantaneous Interruption Compensation (by Load Power)		Testing Circuitry		Figure A	
Object		瞬時停電保障 (負荷電力特性)					

1. Graph

—△—

Input Volt. 170V

---□---

Input Volt. 200V

-○-

Input Volt. 264V

Instantaneous Compensation Time [mS]

1000

100

10

1

0200400600

Load Power [W]

2. Values

Load Power [W]	Time [mS]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0	—	—	—
120	153	171	173
240	81	86	89
360	54	56	59
480	39	40	43
600	30	31	33
660	26	28	30
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

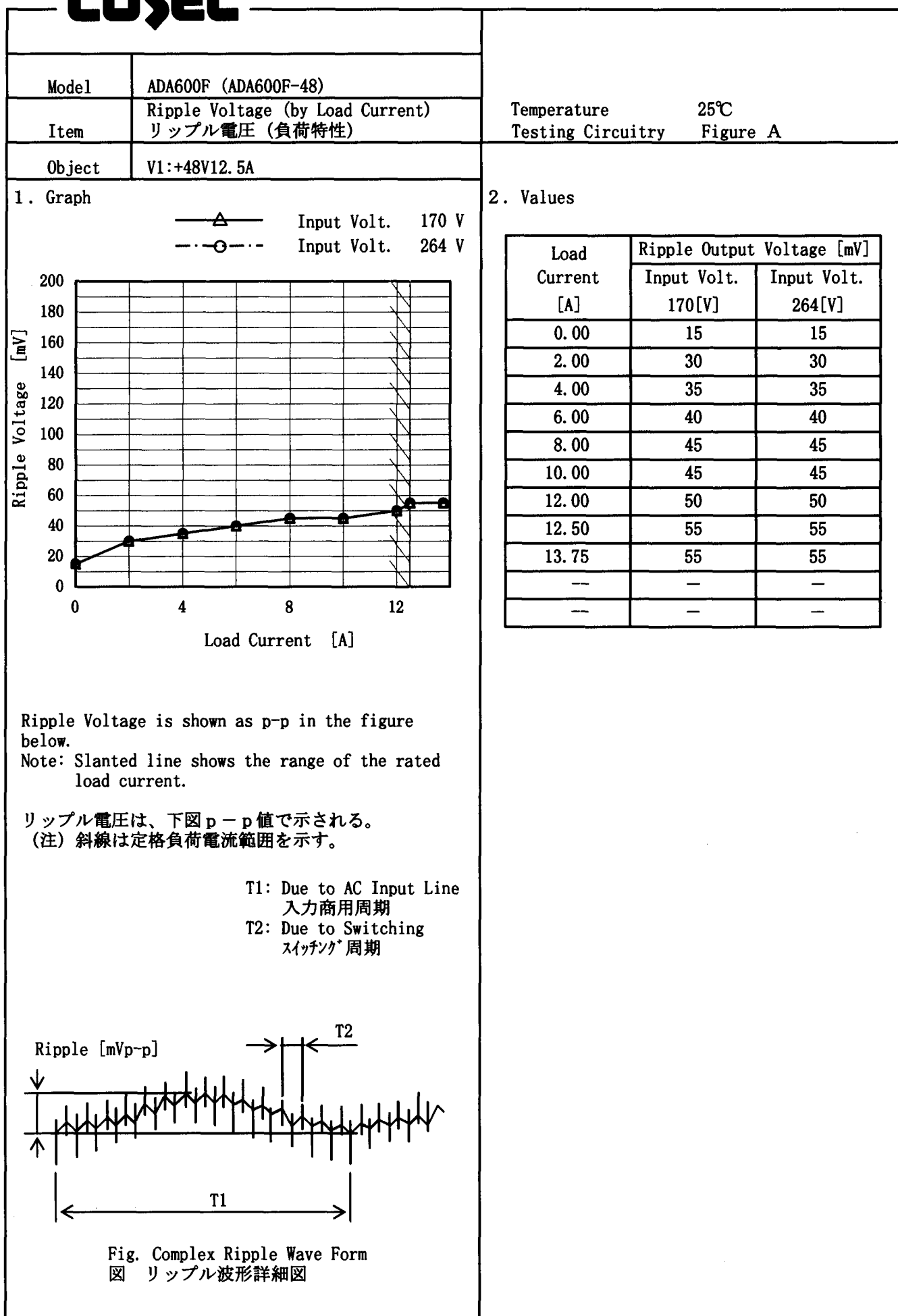
Note: Slanted line shows the range of the rated load power.

(注) 斜線は定格電力範囲を示す。

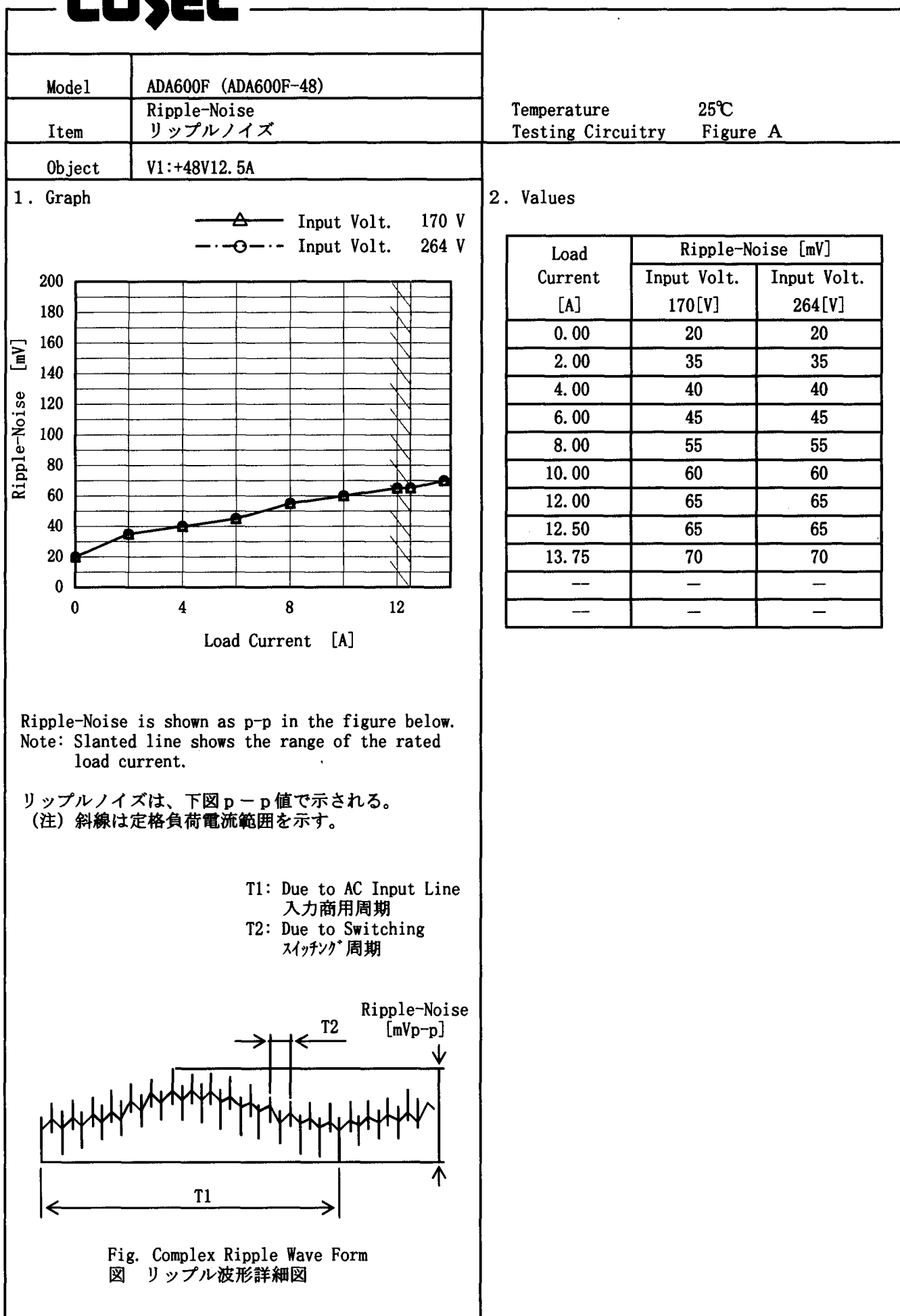
COSEL

Model	ADA600F (ADA600F-48)																																																		
Item	Load Regulation 静的負荷変動																																																		
Object	V1:+48V12.5A																																																		
1. Graph		2. Values																																																	
<div><div><div>—△— Input Volt. 170 V</div><div>---□--- Input Volt. 200 V</div><div>---○--- Input Volt. 264 V</div></div><table><thead><tr><th>Load Current [A]</th><th>Input Volt. 170[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 264[V]</th></tr></thead><tbody><tr><td>0.00</td><td>48.095</td><td>48.094</td><td>48.093</td></tr><tr><td>2.00</td><td>48.069</td><td>48.069</td><td>48.066</td></tr><tr><td>4.00</td><td>48.064</td><td>48.065</td><td>48.064</td></tr><tr><td>6.00</td><td>48.061</td><td>48.062</td><td>48.062</td></tr><tr><td>8.00</td><td>48.057</td><td>48.058</td><td>48.058</td></tr><tr><td>10.00</td><td>48.054</td><td>48.055</td><td>48.054</td></tr><tr><td>12.00</td><td>48.050</td><td>48.051</td><td>48.052</td></tr><tr><td>12.50</td><td>48.049</td><td>48.051</td><td>48.051</td></tr><tr><td>13.75</td><td>48.047</td><td>48.048</td><td>48.049</td></tr><tr><td>—</td><td>—</td><td>—</td><td>—</td></tr><tr><td>—</td><td>—</td><td>—</td><td>—</td></tr></tbody></table></div>		Load Current [A]	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	0.00	48.095	48.094	48.093	2.00	48.069	48.069	48.066	4.00	48.064	48.065	48.064	6.00	48.061	48.062	48.062	8.00	48.057	48.058	48.058	10.00	48.054	48.055	48.054	12.00	48.050	48.051	48.052	12.50	48.049	48.051	48.051	13.75	48.047	48.048	48.049	—	—	—	—	—	—	—	—		
Load Current [A]	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																
0.00	48.095	48.094	48.093																																																
2.00	48.069	48.069	48.066																																																
4.00	48.064	48.065	48.064																																																
6.00	48.061	48.062	48.062																																																
8.00	48.057	48.058	48.058																																																
10.00	48.054	48.055	48.054																																																
12.00	48.050	48.051	48.052																																																
12.50	48.049	48.051	48.051																																																
13.75	48.047	48.048	48.049																																																
—	—	—	—																																																
—	—	—	—																																																
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。																																																			

COSEL



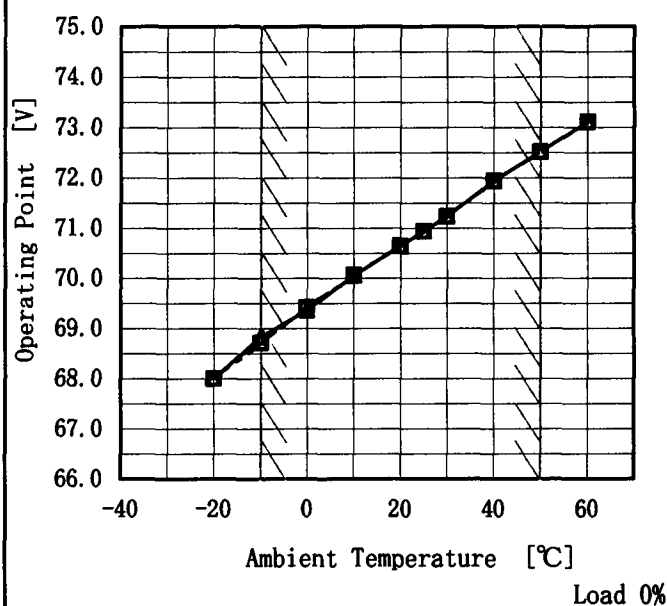
COSEL



COSEL

Model	ADA600F (ADA600F-48)
Item	Overvoltage Protection 過電圧保護
Object	V1:+48V12.5A

1. Graph
- △— Input Volt. 170 V
 ---□--- Input Volt. 200 V
 -·-○-·- Input Volt. 264 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。

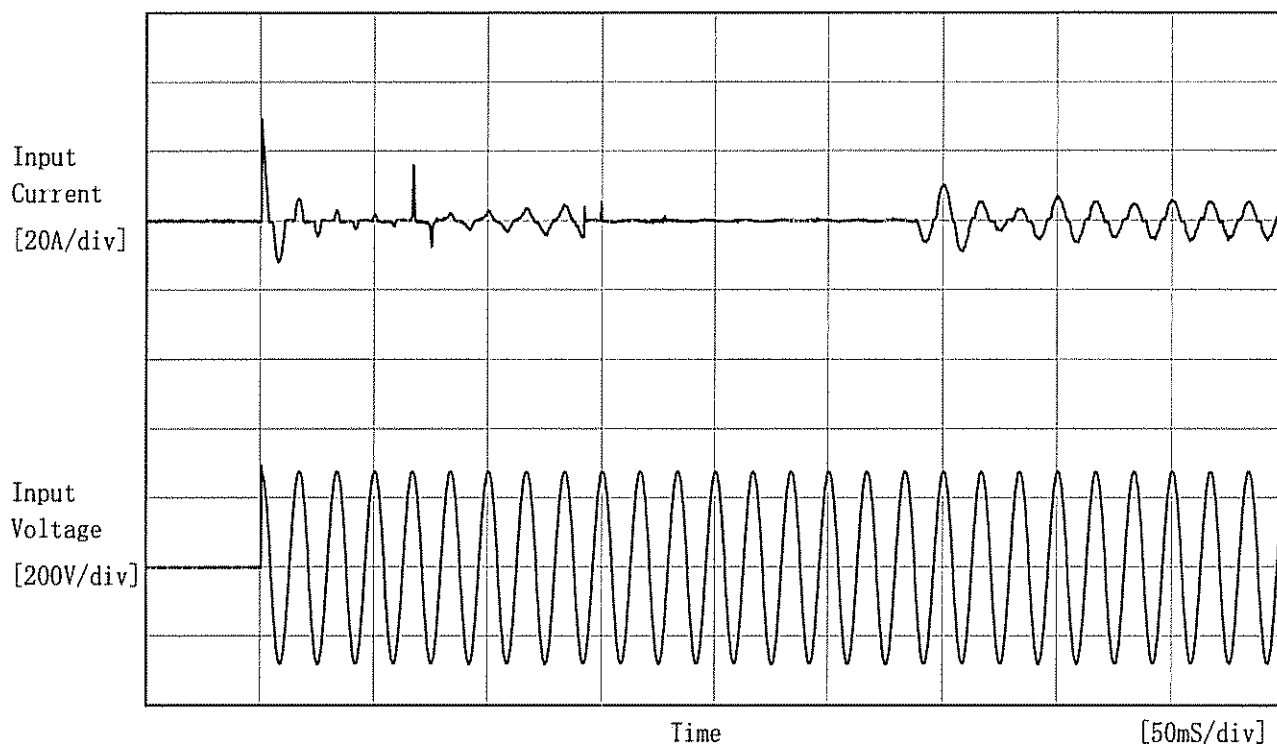
Testing Circuitry Figure A

2. Values

Ambient Temperature [°C]	Operating Point [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-20	68.01	68.01	68.01
-10	68.84	68.72	68.72
0	69.36	69.42	69.42
10	70.06	70.07	70.06
20	70.65	70.65	70.65
25	70.94	70.94	70.94
30	71.23	71.23	71.23
40	71.94	71.94	71.94
50	72.52	72.52	72.52
60	73.11	73.11	73.11
—	—	—	—

COSEL

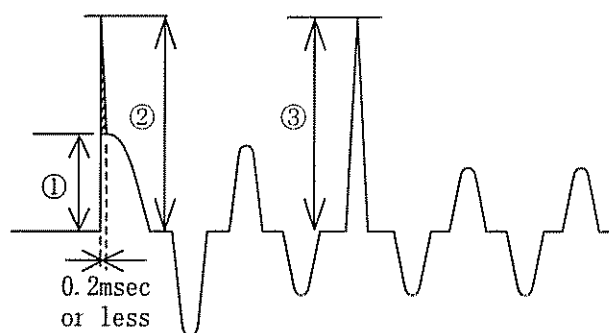
Model	ADA600F (ADA600F-48)	Temperature	25°C
Item	Inrush Current 突入電流	Testing Circuitry	Figure A
Object	_____		



Input Voltage 200 V
Frequency 60 Hz
Load 100 %

Inrush Current

- ① 24.6 [A]
- ② 29.1 [A] (0.2msec or less)*1
- ③ 15.9 [A]



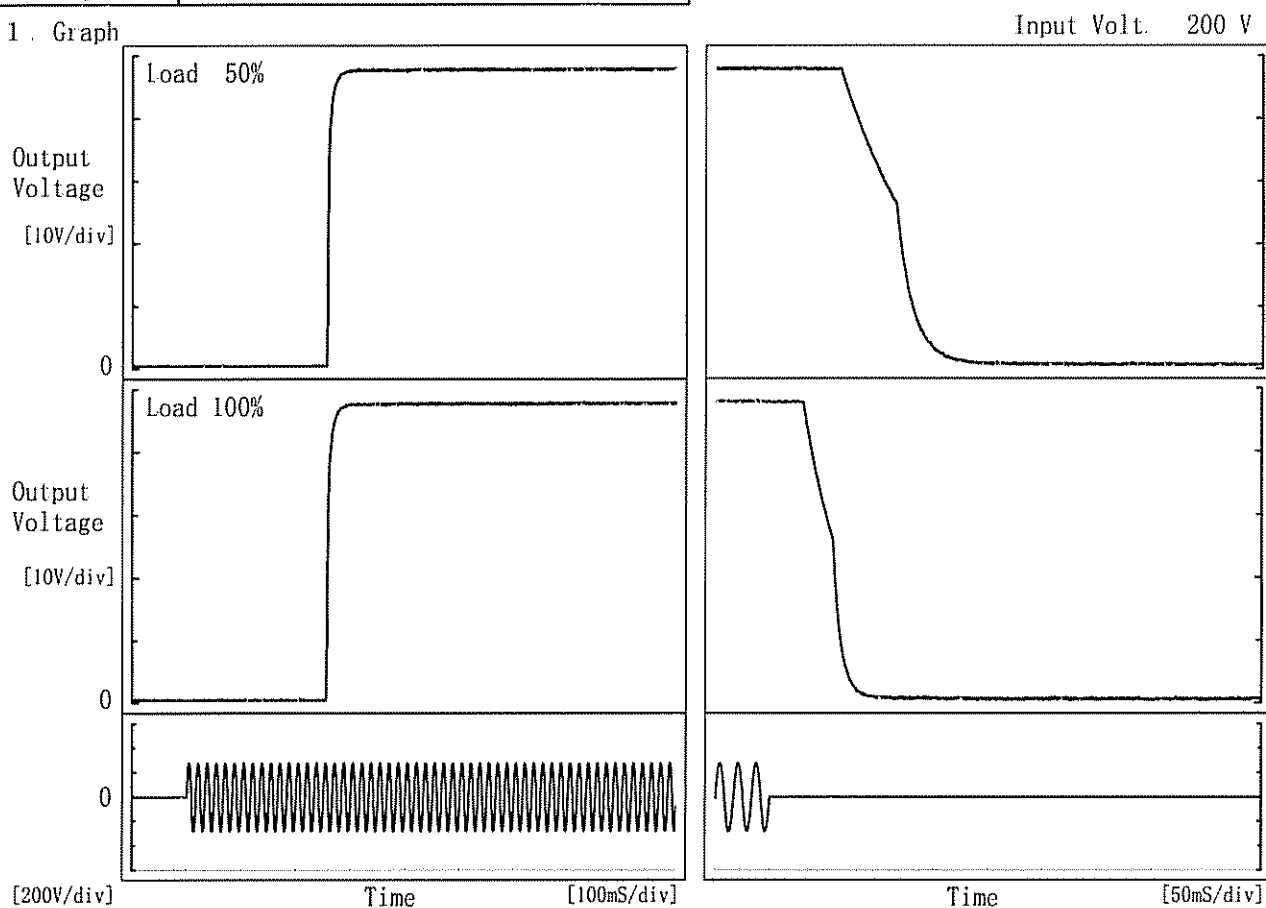
*1 The specification of the inrush current (primary surge) means that the surge current to a built-in noise filter (0.2msec or less : waveform ②) is excluded.

本製品の突入電流(1次サージ)の仕様は、内蔵ノイズフィルタ部へのサージ電流(0.2msec以下:波形②)を除きます。

COSEL

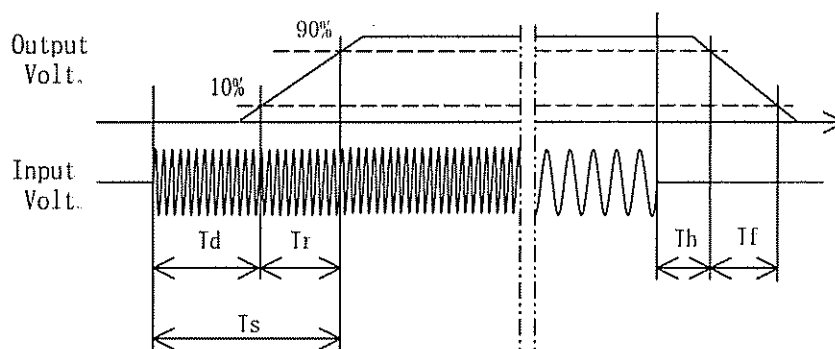
Model	ADA600F (ADA600F-48)	Temperature	25°C
Item	Rise and Fall Time 立上り、立下り時間	Testing Circuitry	Figure A
Object	V1:+48V12.5A		

1. Graph



2. Values

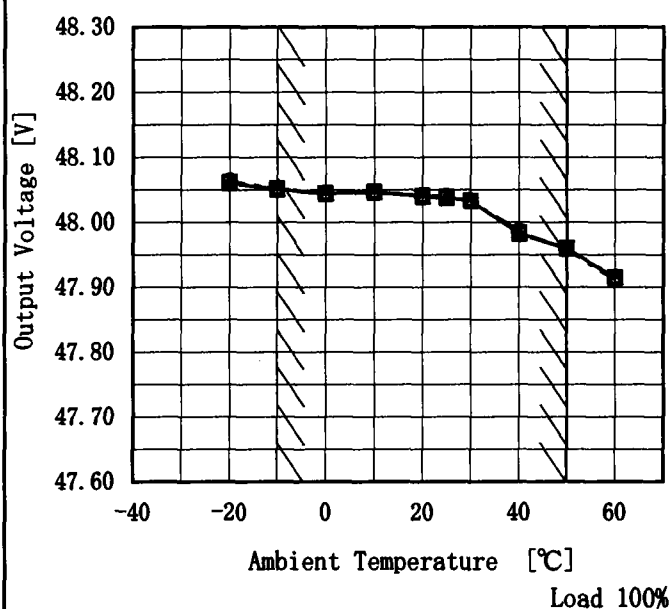
		[ms]				
Load	Time	T _d	T _r	T _s	T _h	T _f
	50 %	256.5	10.5	267.0	72.0	69.3
	100 %	256.0	11.5	267.5	34.5	36.5



COSEL

Model	ADA600F (ADA600F-48)
Item	Ambient Temperature Drift 周囲温度変動
Object	V1:+48V12.5A

1. Graph
- △— Input Volt. 170 V
 ---□--- Input Volt. 200 V
 ---○--- Input Volt. 264 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 Temperature [°C]	Output Voltage [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-20	48.060	48.061	48.064
-10	48.051	48.052	48.052
0	48.044	48.045	48.045
10	48.046	48.047	48.047
20	48.040	48.041	48.040
25	48.038	48.039	48.041
30	48.033	48.033	48.034
40	47.983	47.984	47.986
50	47.959	47.960	47.959
60	47.915	47.915	47.910
—	—	—	—

COSEL

		Testing Circuitry Figure A																																				
Model	ADA600F (ADA600F-48)																																					
Item	Minimum Input Voltage for Regulated Output Voltage 最低レギュレーション電圧																																					
Object	V1:+48V12.5A																																					
1. Graph		2. Values																																				
<div>-----□----- Load 50%</div> <div>-----△----- Load 100%</div> <table><thead><tr><th>Ambient Temperature [°C]</th><th>Load 50% [V]</th><th>Load 100% [V]</th></tr></thead><tbody><tr><td>-20</td><td>67</td><td>68</td></tr><tr><td>-10</td><td>67</td><td>68</td></tr><tr><td>0</td><td>67</td><td>68</td></tr><tr><td>10</td><td>67</td><td>68</td></tr><tr><td>20</td><td>67</td><td>68</td></tr><tr><td>25</td><td>67</td><td>68</td></tr><tr><td>30</td><td>67</td><td>68</td></tr><tr><td>40</td><td>67</td><td>68</td></tr><tr><td>50</td><td>67</td><td>68</td></tr><tr><td>60</td><td>67</td><td>68</td></tr><tr><td>—</td><td>—</td><td>—</td></tr></tbody></table>			Ambient Temperature [°C]	Load 50% [V]	Load 100% [V]	-20	67	68	-10	67	68	0	67	68	10	67	68	20	67	68	25	67	68	30	67	68	40	67	68	50	67	68	60	67	68	—	—	—
Ambient Temperature [°C]	Load 50% [V]		Load 100% [V]																																			
-20	67		68																																			
-10	67	68																																				
0	67	68																																				
10	67	68																																				
20	67	68																																				
25	67	68																																				
30	67	68																																				
40	67	68																																				
50	67	68																																				
60	67	68																																				
—	—	—																																				
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	ADA600F (ADA600F-48)		
Item	Ripple Voltage (by Ambient Temp.) リップル電圧 (周囲温度特性)	Testing Circuitry	Figure A
Object	V1:+48V12. 5A		
1. Graph		2. Values	
<div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><</div></div></div></div>			

COSEL

Model

ADA600F (ADA600F-48)

Item

Time Lapse Drift
経時ドリフト

Object

V1:+48V12. 5A

Temperature

25℃

Testing Circuitry

Figure A

1. Graph

Output Voltage [V]

48.30

48.20

48.10

48.00

47.90

47.80

47.70

47.60

0

2

4

6

8

10

Time [H]

Input Volt.

200V

Load

100%

2. Values

Time since start [H]	Output Voltage [V]
0.0	48.070
0.5	48.050
1.0	48.050
2.0	48.051
3.0	48.051
4.0	48.051
5.0	48.051
6.0	48.052
7.0	48.052
8.0	48.052

COSEL

		Testing Circuitry Figure A
Model	ADA600F (ADA600F-48)	
Item	Output Voltage Accuracy 定電圧精度	
Object	V1:+48V12.5A	

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℃

Input Voltage : 170 ~ 264V

Load Current : 0 ~ 12.5A

* 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℃

入力電圧 : 170 ~ 264V

負荷電流 : 0 ~ 12.5A

* 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 [℃]	Input Voltage [V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	-10	170	0	48.084	±64	±0.1
Minimum Voltage	50	170	12.5	47.956		

COSEL

Model	ADA600F (ADA600F-48)				
Item	Leakage Current 漏洩電流			Temperature Testing Circuitry	25°C Figure B
Object	_____				

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]	240 [V]	264 [V]
(B) IEC60950	0.31	0.44	0.51

2. Condition

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

交流入力各相について測定し、その大きい方を漏洩電流測定値とする。

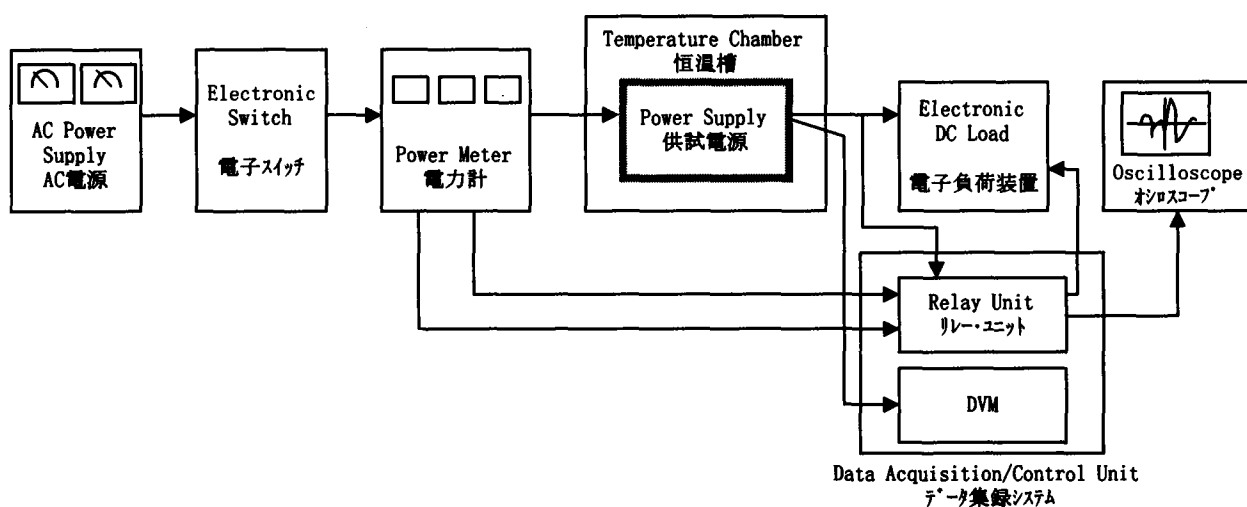


Figure A

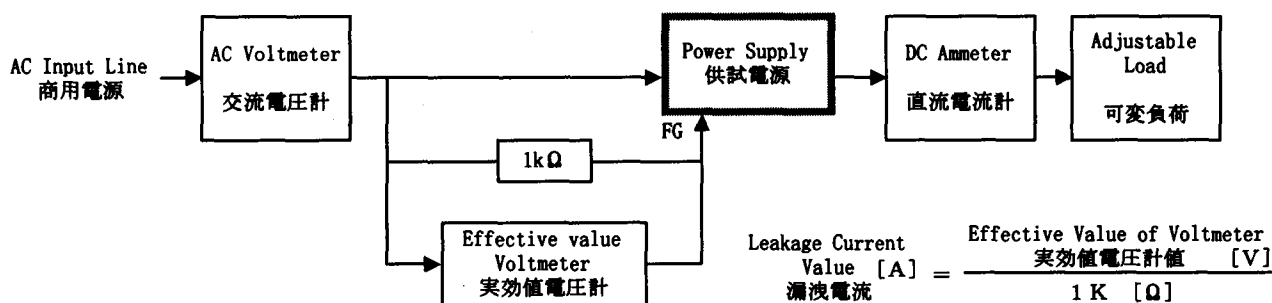


Figure B (DEN-AN)

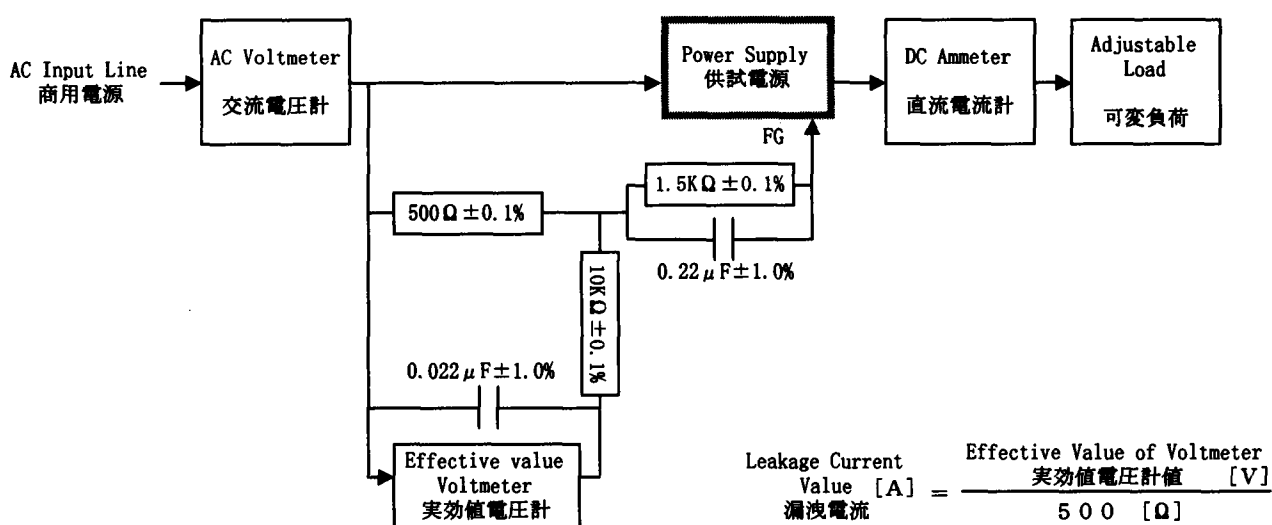


Figure B (IEC60950)