



TEST DATA OF STA5000T

Regulated DC Power Supply

Jun. 19, 2000

Approved by : H. Kitamura
Design Manager

Prepared by : K. Tajima
Design Engineer

コーセル株式会社

COSEL CO., LTD.

CONTENTS

1. Input Current (by Load Power)	1
入力電流 (負荷特性)	
2. Efficiency (by Load Power)	2
効率 (負荷特性)	
3. Power Factor (by Load Power)	3
力率 (負荷特性)	
4. Inrush Current	4
突入電流	
5. Leakage Current	5
漏洩電流	
6. Line Noise Tolerance	6
入力雑音耐量	
7. Conducted Emission	7
雑音端子電圧	
8. Figure of Testing Circuitry	8
測定回路図	

(Final Page 9)

COSEL

Model		STA5000T		Temperature		25℃																																																								
Item		Input Current (by Load Power) 入力電流（負荷特性）		Testing Circuitry		Figure A																																																								
Output		_____																																																												
1. Graph				2. Values																																																										
<div><div><div>—△— Input Volt. 170V</div><div>- - -□- - - Input Volt. 200V</div><div>- - -○- - - Input Volt. 264V</div></div><div><p>Input Current [A]</p><p>Load Power [kW]</p></div><p>Note: Slanted line shows the range of the rated load power.</p><p>(注)斜線は定格出力電力範囲を示す。</p></div>				<table><tr><th rowspan="2">Load Power [W]</th><th colspan="3">Input Current [A]</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>0.230</td><td>0.260</td><td>0.350</td></tr><tr><td>1000</td><td>3.900</td><td>3.000</td><td>2.200</td></tr><tr><td>2000</td><td>7.600</td><td>6.200</td><td>4.500</td></tr><tr><td>3000</td><td>11.100</td><td>8.700</td><td>6.900</td></tr><tr><td>4000</td><td>14.500</td><td>12.000</td><td>8.800</td></tr><tr><td>5000</td><td>17.800</td><td>14.800</td><td>11.200</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><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 Current [A]			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	0	0.230	0.260	0.350	1000	3.900	3.000	2.200	2000	7.600	6.200	4.500	3000	11.100	8.700	6.900	4000	14.500	12.000	8.800	5000	17.800	14.800	11.200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Power [W]	Input Current [A]																																																													
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																											
0	0.230	0.260	0.350																																																											
1000	3.900	3.000	2.200																																																											
2000	7.600	6.200	4.500																																																											
3000	11.100	8.700	6.900																																																											
4000	14.500	12.000	8.800																																																											
5000	17.800	14.800	11.200																																																											
—	—	—	—																																																											
—	—	—	—																																																											
—	—	—	—																																																											
—	—	—	—																																																											
—	—	—	—																																																											
—	—	—	—																																																											

- 1 -

BC-3285

COSEL

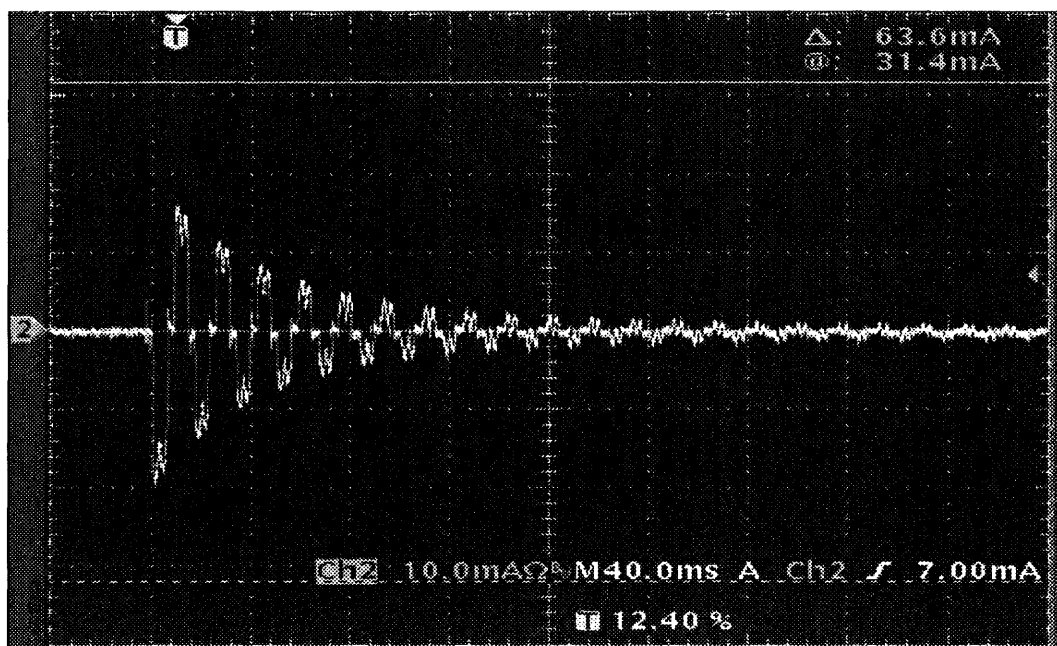
Model		STA5000T		Temperature		25℃																																																																																				
Item		Efficiency (by Load Power) 効率（負荷特性）		Testing Circuitry		Figure A																																																																																				
Output		_____																																																																																								
1. Graph				2. Values																																																																																						
<div><div><div>—△— Input Volt. 170V</div><div>---□--- Input Volt. 200V</div><div>---○--- Input Volt. 264V</div></div><div><div><div>Efficiency</div><div>[%]</div><div>100</div><div>90</div><div>80</div></div><div><table><thead><tr><th>Load Power [kW]</th><th>170V [%]</th><th>200V [%]</th><th>264V [%]</th></tr></thead><tbody><tr><td>1</td><td>98.0</td><td>98.2</td><td>98.3</td></tr><tr><td>2</td><td>97.7</td><td>98.1</td><td>98.2</td></tr><tr><td>3</td><td>97.4</td><td>97.9</td><td>97.9</td></tr><tr><td>4</td><td>96.8</td><td>97.4</td><td>97.3</td></tr><tr><td>5</td><td>96.3</td><td>97.0</td><td>97.0</td></tr></tbody></table><div><div>Load Power</div><div>[kW]</div><div>0</div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div></div></div></div></div>				Load Power [kW]	170V [%]	200V [%]	264V [%]	1	98.0	98.2	98.3	2	97.7	98.1	98.2	3	97.4	97.9	97.9	4	96.8	97.4	97.3	5	96.3	97.0	97.0	<table><thead><tr><th rowspan="2">Load Power [W]</th><th colspan="3">Efficiency [%]</th></tr><tr><th>Input Volt. 170[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 264[V]</th></tr></thead><tbody><tr><td>1000</td><td>98.0</td><td>98.2</td><td>98.3</td></tr><tr><td>2000</td><td>97.7</td><td>98.1</td><td>98.2</td></tr><tr><td>3000</td><td>97.4</td><td>97.9</td><td>97.9</td></tr><tr><td>4000</td><td>96.8</td><td>97.4</td><td>97.3</td></tr><tr><td>5000</td><td>96.3</td><td>97.0</td><td>97.0</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><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 Power [W]	Efficiency [%]			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	1000	98.0	98.2	98.3	2000	97.7	98.1	98.2	3000	97.4	97.9	97.9	4000	96.8	97.4	97.3	5000	96.3	97.0	97.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Power [kW]	170V [%]	200V [%]	264V [%]																																																																																							
1	98.0	98.2	98.3																																																																																							
2	97.7	98.1	98.2																																																																																							
3	97.4	97.9	97.9																																																																																							
4	96.8	97.4	97.3																																																																																							
5	96.3	97.0	97.0																																																																																							
Load Power [W]	Efficiency [%]																																																																																									
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																																																							
1000	98.0	98.2	98.3																																																																																							
2000	97.7	98.1	98.2																																																																																							
3000	97.4	97.9	97.9																																																																																							
4000	96.8	97.4	97.3																																																																																							
5000	96.3	97.0	97.0																																																																																							
—	—	—	—																																																																																							
—	—	—	—																																																																																							
—	—	—	—																																																																																							
—	—	—	—																																																																																							
—	—	—	—																																																																																							
—	—	—	—																																																																																							
—	—	—	—																																																																																							
—	—	—	—																																																																																							
<div>Note: Slanted line shows the range of the rated load power.</div> <div>(注)斜線は定格出力電力範囲を示す。</div>																																																																																										

COSEL

Model	STA5000T	Temperature	25°C																																																							
Item	Power Factor (by Load Current) 力率 (負荷特性)	Testing Circuitry	Figure A																																																							
Object	_____																																																									
1. Graph	<div> <div>—△—</div>Input Volt. 170V <div>---□---</div>Input Volt. 200V <div>---○---</div>Input Volt. 264V </div> <p>Power Factor</p> <p>Load [kW]</p> <p>Note: Slanted line shows the range of the rated load current.</p> <p>(注) 斜線は定格負荷電流範囲を示す。</p>	2. Values																																																								
		<table> <tr> <th rowspan="2">Load Current [A]</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>1000</td><td>0.93</td><td>0.92</td><td>0.91</td></tr> <tr><td>2000</td><td>0.94</td><td>0.93</td><td>0.92</td></tr> <tr><td>3000</td><td>0.95</td><td>0.94</td><td>0.92</td></tr> <tr><td>4000</td><td>0.95</td><td>0.95</td><td>0.93</td></tr> <tr><td>5000</td><td>0.96</td><td>0.95</td><td>0.93</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> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> </table>	Load Current [A]	Power Factor			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	1000	0.93	0.92	0.91	2000	0.94	0.93	0.92	3000	0.95	0.94	0.92	4000	0.95	0.95	0.93	5000	0.96	0.95	0.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Load Current [A]	Power Factor																																																									
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																							
1000	0.93	0.92	0.91																																																							
2000	0.94	0.93	0.92																																																							
3000	0.95	0.94	0.92																																																							
4000	0.95	0.95	0.93																																																							
5000	0.96	0.95	0.93																																																							
—	—	—	—																																																							
—	—	—	—																																																							
—	—	—	—																																																							
—	—	—	—																																																							
—	—	—	—																																																							
—	—	—	—																																																							
—	—	—	—																																																							

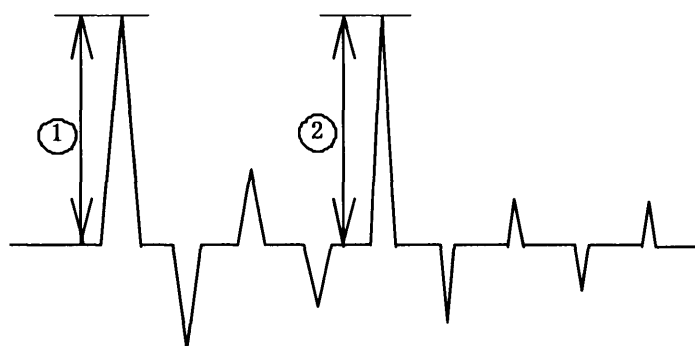
COSEL

Model	STA5000T	Temperature 25°C Testing Circuitry Figure A	
Item	Inrush Current 突入電流		
Object			



20A/DIV
40ms/DIV

Input Voltage 200 V
Frequency 60 Hz
Load 100 %
Inrush Current
① 40.00 [A]



COSEL

Model	STA5000T	Temperature	25℃
Item	Leakage Current 漏洩電流	Testing Circuitry	Figure B
Object	_____		

1. Results

Standards	Leakage Current [mA]		
	Input Volt. 170 [V]	Input Volt. 200 [V]	Input Volt. 264 [V]
(A) DENTORI	—	—	—
(B) IEC60950	—	—	—

Standards	Leakage Current [mA]		
	Input Volt. 170 [V]	Input Volt. 230 [V]	Input Volt. 264 [V]
(B) IEC60950	0.45	0.65	0.86

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	STA5000T	Temperature	25℃
Item	Line Noise Tolerance 入力雑音耐量	Testing Circuitry	Figure C
Object	_____		

1. Results

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

2. Conditions

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

COSEL

Model	STA5000T	Temperature	25°C
Item	Conducted Emission 雑音端子電圧	Testing Circuitry	Figure D
Object			

1. Graph

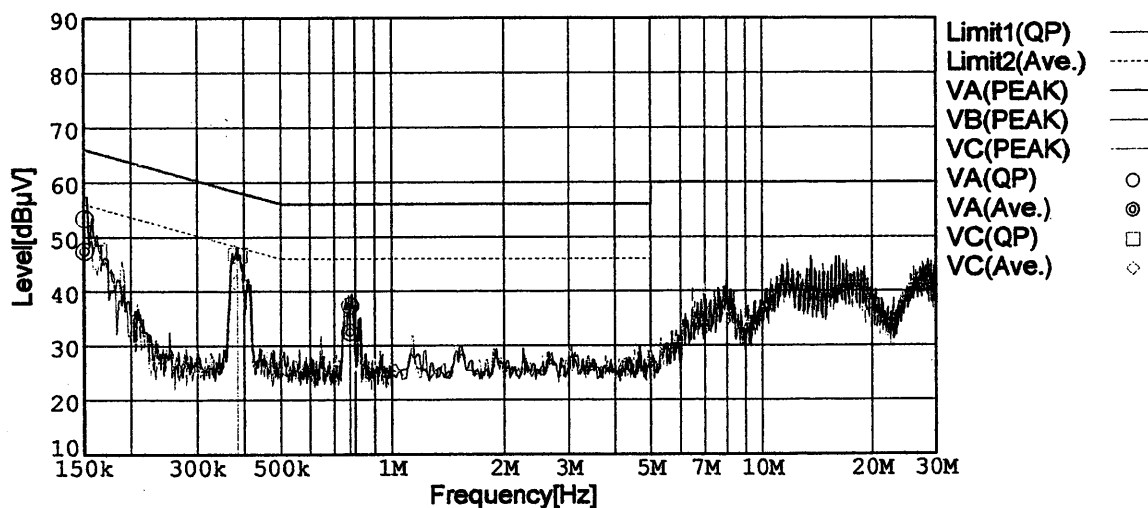
Remarks

Input Volt. 200 V (EN55022 Class B)

Load 100 %

Limit1: [EN 55022] Class B(QP)

Limit2: [EN 55022] Class B(Ave.)



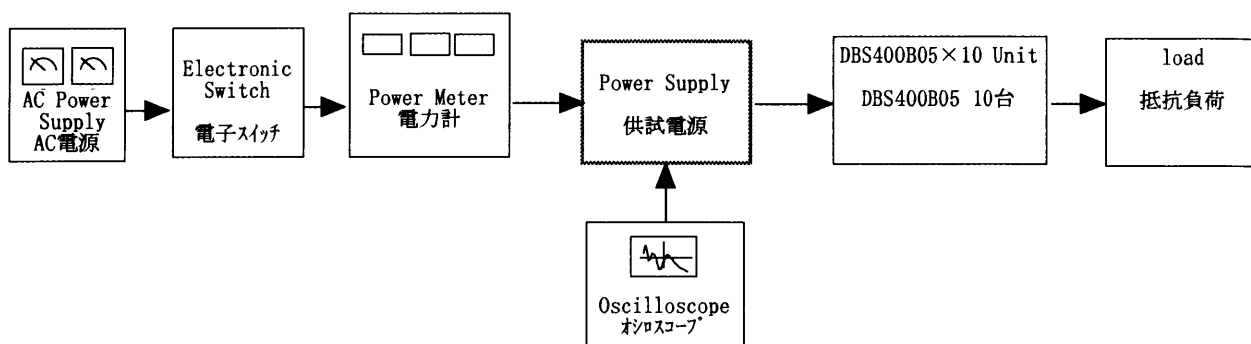


Figure A

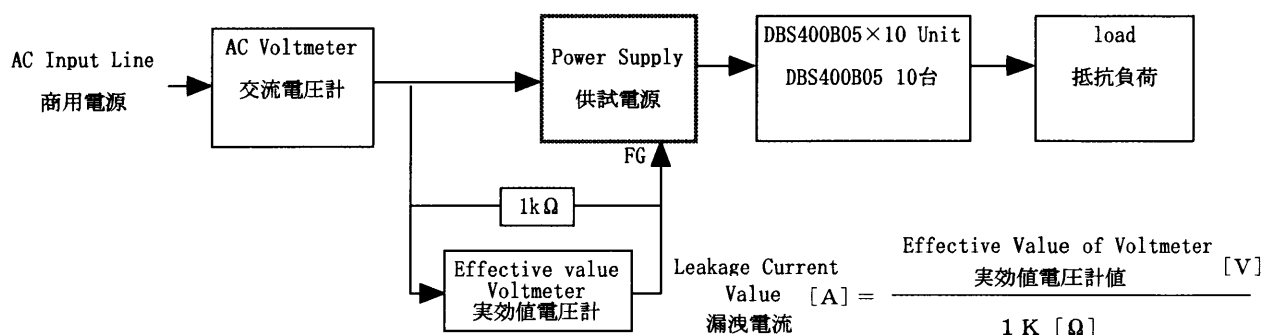


Figure B (DENTORI)

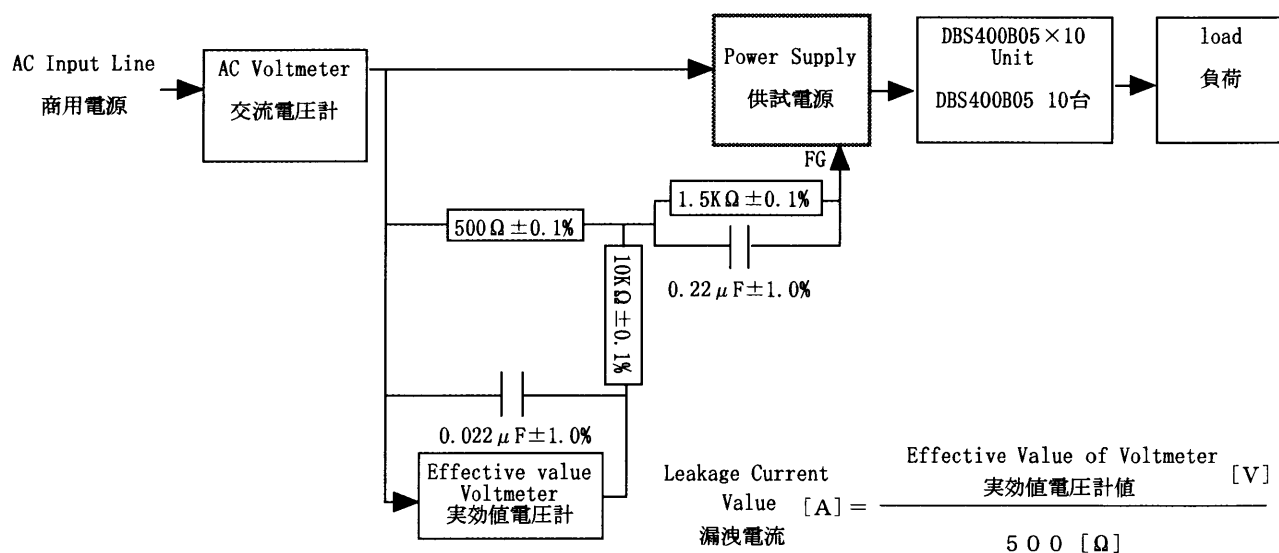


Figure B (I E C 6 0 9 5 0)

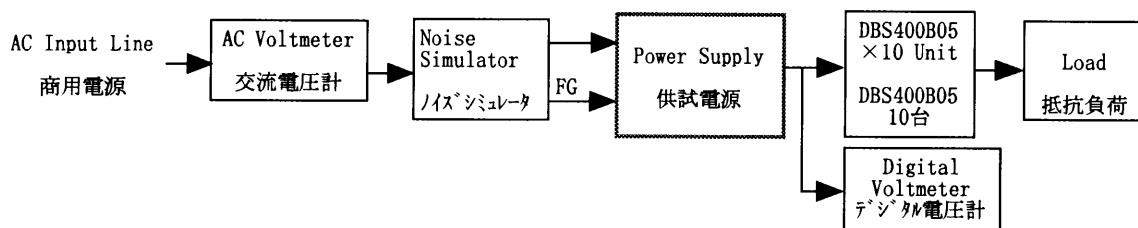


Figure C

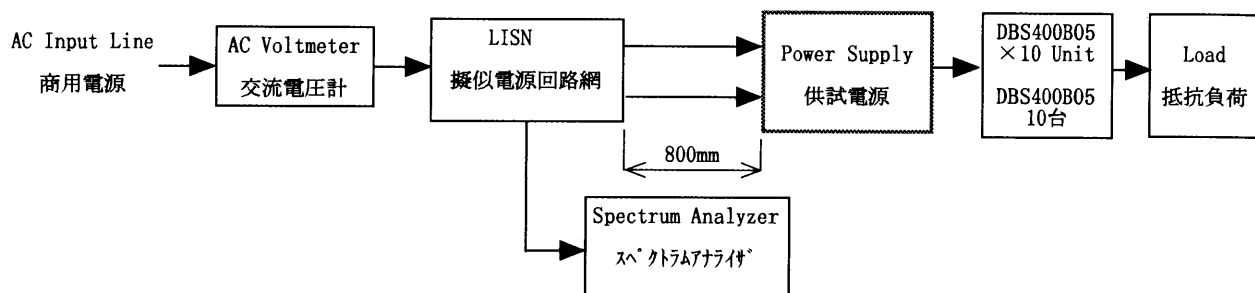


Figure D

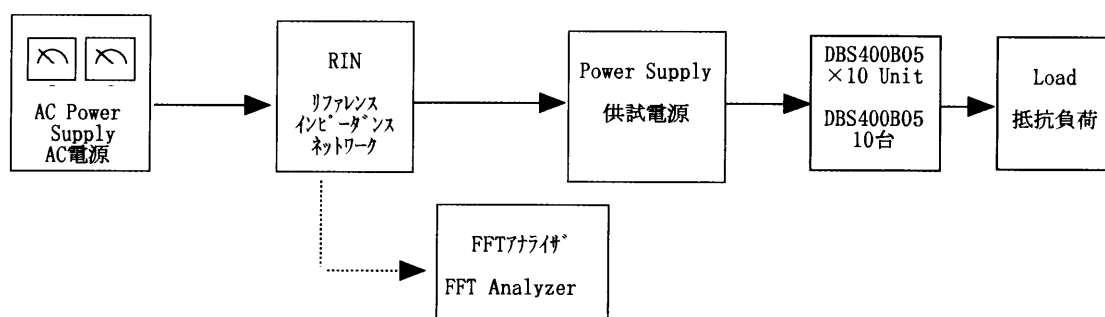


Figure E