

TEST DATA OF MODULE D

(ACE SERIES)

Regulated DC Power Supply
Jan.30.2004

Approved by : *K. Shibutani*
K.SHIBUTANI Design Manager

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M.HAMAGUCHI Design Engineer

COSEL CO.,LTD.

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Model		MODULE D	Temperature 25°C																																	
Item		Line Regulation	Testing Circuitry Figure A																																	
Object		+7.5V18A																																		
1. Graph			2. Values																																	
<p>Legend: ---□--- Load 50% ---△--- Load 100%</p>			<table border="1"> <thead> <tr> <th rowspan="2">Input Voltage [V]</th> <th colspan="2">Output Voltage [V]</th> </tr> <tr> <th>Load 50%</th> <th>Load 100%</th> </tr> </thead> <tbody> <tr> <td>85</td> <td>7.533</td> <td>7.529</td> </tr> <tr> <td>100</td> <td>7.534</td> <td>7.529</td> </tr> <tr> <td>120</td> <td>7.534</td> <td>7.529</td> </tr> <tr> <td>200</td> <td>7.535</td> <td>7.528</td> </tr> <tr> <td>230</td> <td>7.535</td> <td>7.528</td> </tr> <tr> <td>264</td> <td>7.535</td> <td>7.527</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>		Input Voltage [V]	Output Voltage [V]		Load 50%	Load 100%	85	7.533	7.529	100	7.534	7.529	120	7.534	7.529	200	7.535	7.528	230	7.535	7.528	264	7.535	7.527	--	-	-	--	-	-	--	-	-
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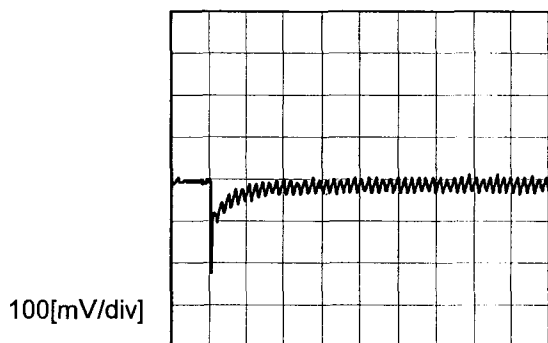
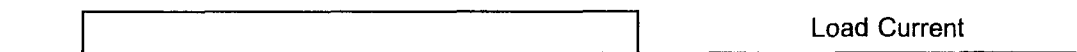
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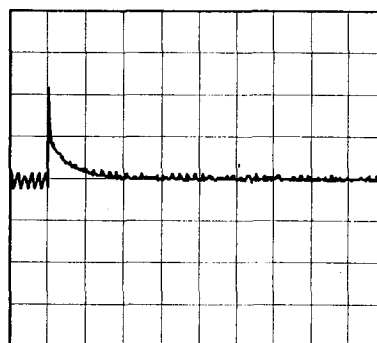
Model		MODULE D	Temperature 25°C Testing Circuitry Figure A
Item		Dynamic Load Response	
Object		+7.5V18A	

Input Volt. 100 V
Cycle 1000 ms

Min. Load (0 A) -- Load 100% (18 A)

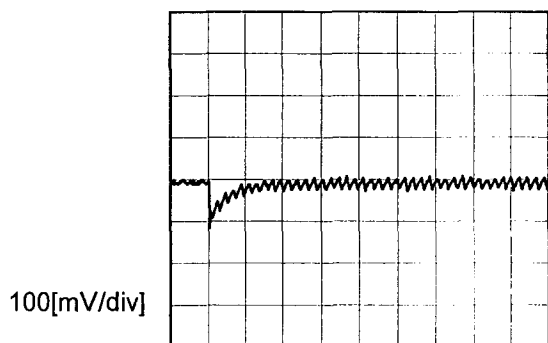
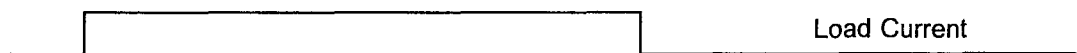


10[ms/div]

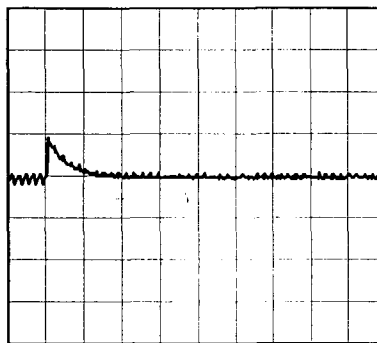


10[ms/div]

Min. Load (0 A) -- Load 50% (9 A)



10[ms/div]



10[ms/div]

* The characteristic of AC200V is equal.



COSEL																																									
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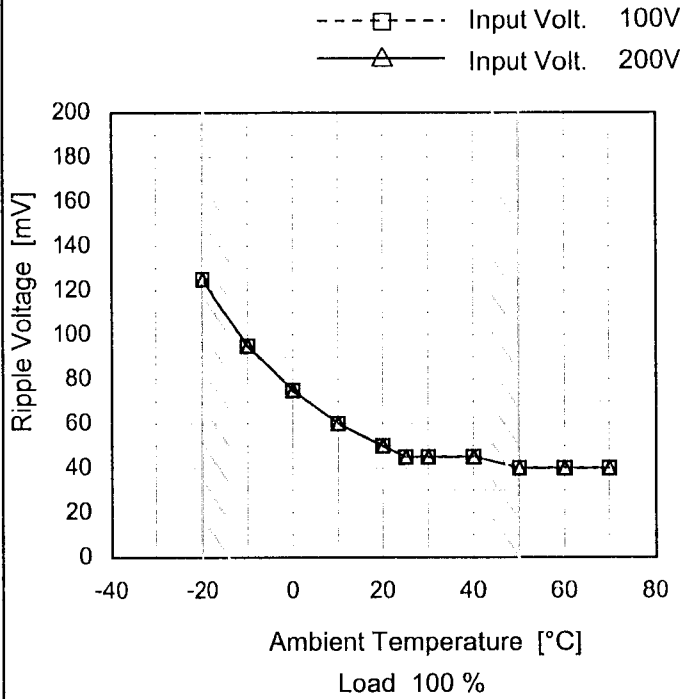
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Model	MODULE D
Item	Ripple Voltage (by Ambient Temp.)
Object	+7.5V18A

Testing Circuitry Figure A

1. Graph



2. Values

Ambient Temperature [°C]	Ripple Voltage [mV]	
	Input Volt. 100 [V]	Input Volt. 200 [V]
-20	125	125
-10	95	95
0	75	75
10	60	60
20	50	50
25	45	45
30	45	45
40	45	45
50	40	40
60	40	40
70	40	40

Measured by 20 MHz Oscilloscope.
 Note: Slanted line shows the range of the rated ambient temperature.



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COSEL		
Model	MODULE D	
Item	Output Voltage Accuracy	Testing Circuitry Figure A
Object	+7.5V18A	

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 : -20 - 50°C

Input Voltage : 85 - 264V

Load Current : 0 - 18A

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

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

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	25	264	0	7.550	±13	±0.2
Minimum Voltage	50	264	18	7.524		



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<p style="text-align: center;">Time [H]</p> <p>Input Volt. 100V Load 100%</p>		<table border="1"> <thead> <tr> <th>Time since start [H]</th> <th>Output Voltage [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>7.532</td></tr> <tr><td>0.5</td><td>7.526</td></tr> <tr><td>1.0</td><td>7.526</td></tr> <tr><td>2.0</td><td>7.526</td></tr> <tr><td>3.0</td><td>7.527</td></tr> <tr><td>4.0</td><td>7.527</td></tr> <tr><td>5.0</td><td>7.527</td></tr> <tr><td>6.0</td><td>7.527</td></tr> <tr><td>7.0</td><td>7.527</td></tr> <tr><td>8.0</td><td>7.527</td></tr> </tbody> </table>		Time since start [H]	Output Voltage [V]	0.0	7.532	0.5	7.526	1.0	7.526	2.0	7.526	3.0	7.527	4.0	7.527	5.0	7.527	6.0	7.527	7.0	7.527	8.0	7.527
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		<table border="1"> <thead> <tr> <th rowspan="2">Ambient Temperature [°C]</th> <th colspan="2">Operating Point [V]</th> </tr> <tr> <th>Input Volt. 100[V]</th> <th>Input Volt. 200[V]</th> </tr> </thead> <tbody> <tr><td>-20</td><td>9.83</td><td>9.77</td></tr> <tr><td>-10</td><td>9.89</td><td>9.89</td></tr> <tr><td>0</td><td>9.89</td><td>9.89</td></tr> <tr><td>10</td><td>9.95</td><td>9.95</td></tr> <tr><td>20</td><td>10.00</td><td>9.94</td></tr> <tr><td>25</td><td>10.00</td><td>10.00</td></tr> <tr><td>30</td><td>10.00</td><td>10.00</td></tr> <tr><td>40</td><td>10.06</td><td>10.06</td></tr> <tr><td>50</td><td>10.06</td><td>10.06</td></tr> <tr><td>60</td><td>10.11</td><td>10.11</td></tr> <tr><td>--</td><td>-</td><td>-</td></tr> </tbody> </table>	Ambient Temperature [°C]	Operating Point [V]		Input Volt. 100[V]	Input Volt. 200[V]	-20	9.83	9.77	-10	9.89	9.89	0	9.89	9.89	10	9.95	9.95	20	10.00	9.94	25	10.00	10.00	30	10.00	10.00	40	10.06	10.06	50	10.06	10.06	60	10.11	10.11	--	-	-	
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Note: Slanted line shows the range of the rated ambient temperature.																																									

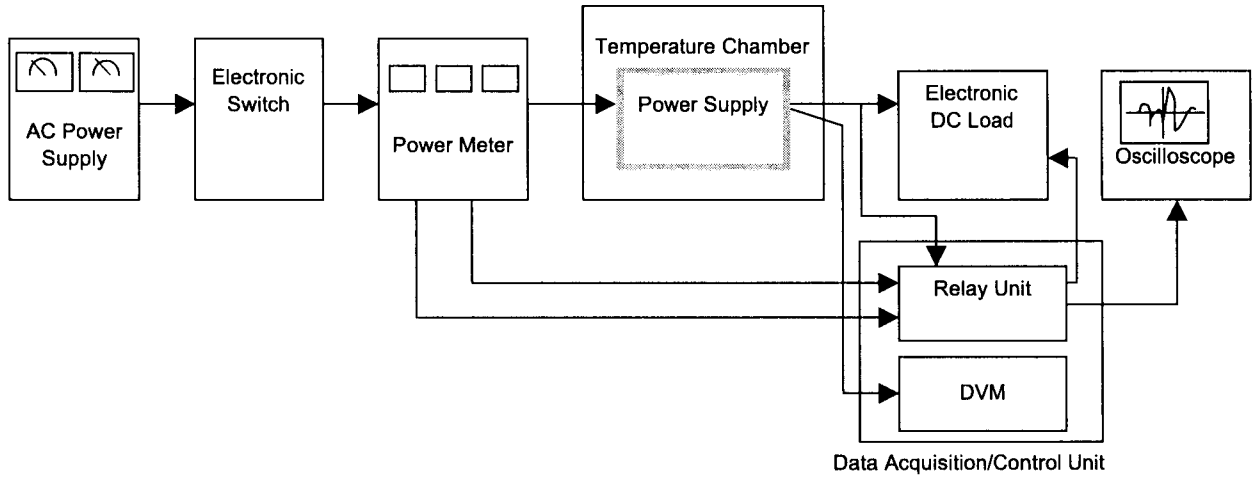


Figure A

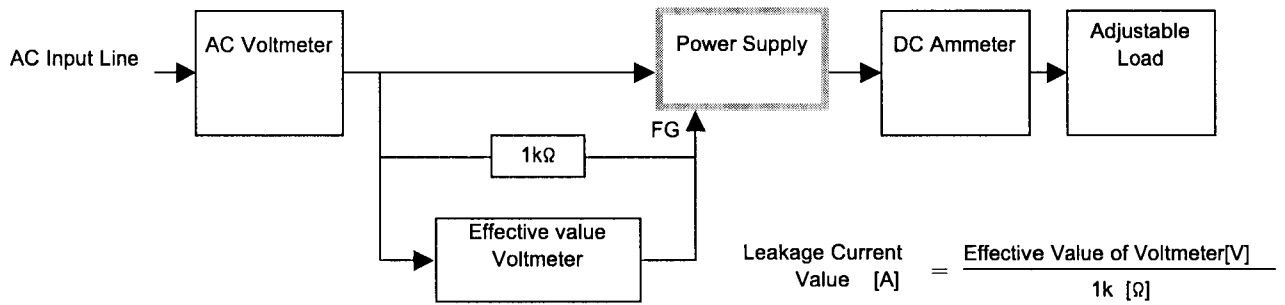


Figure B (DEN-AN)

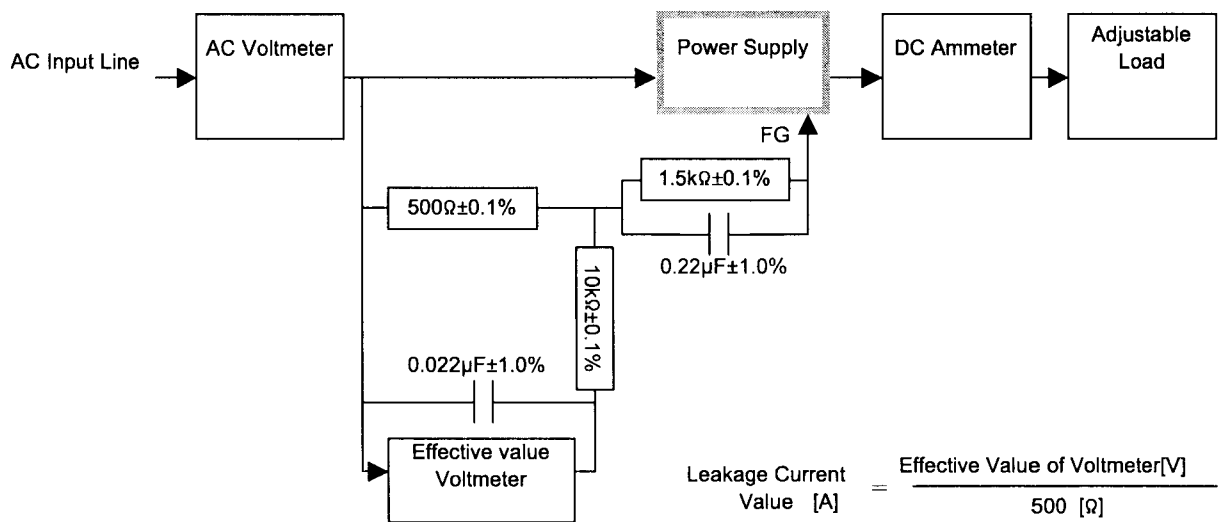


Figure B (IEC60950)