



# TEST DATA OF SFS30483R3/SFCS30483R3

Regulated DC Power Supply  
Jun.1. 2007

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Toshiyuki Tsufi Design Manager

Prepared by : K. Shibutani  
Kenichi Shibutani Design Engineer

**COSEL CO.,LTD.**

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Model		SFS30483R3/SFCS30483R3		Temperature	25°C																																																																							
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<p>The graph plots Input Current [A] on the y-axis (0.0 to 1.5) against Load Current [A] on the x-axis (0 to 10). Three data series are shown: 36V (solid line with triangles), 48V (dashed line with squares), and 76V (dotted line with circles). A slanted line is drawn from the origin to approximately (9.2, 0.914), indicating the rated load current range.</p>																																																								
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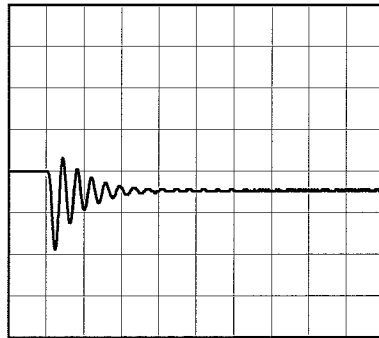
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Input Volt. 48 V  
Cycle 1000 mS

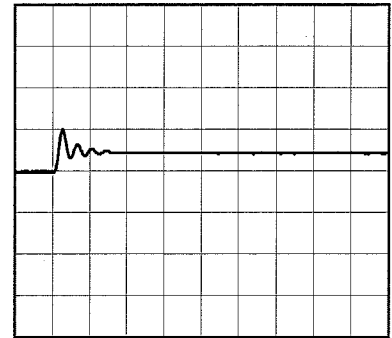
Load Current 9A / 200 μ sec

Min. Load (0A) ←→  
Load 100% (9A)

200mV/div



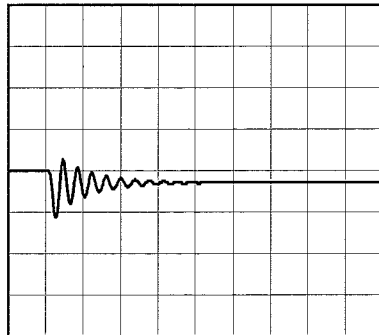
200 μs/div



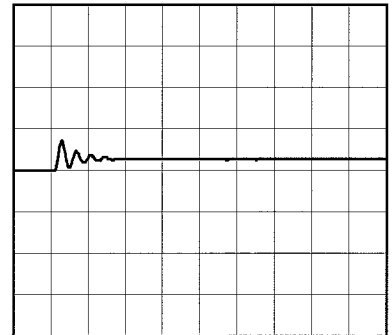
200 μs/div

Min. Load (0A) ←→  
Load 50% (4.5A)

200mV/div



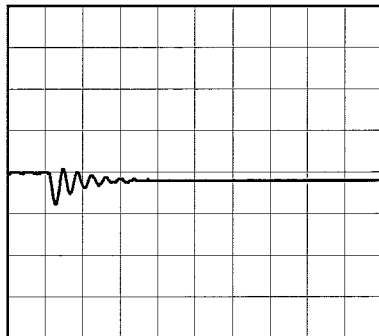
200 μs/div



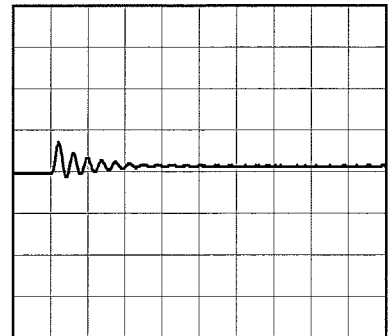
200 μs/div

Load 50% (4.5A) ←→  
Load 100% (9A)

200mV/div



200 μs/div



200 μs/div



<p>Model SFS30483R3/SFCS30483R3</p>		<p>Temperature 25°C Testing Circuitry Figure C</p>																																						
<p>Item Ripple Voltage (by Load Current)</p>																																								
<p>Object +3.3V9A</p>																																								
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Model		SFS30483R3/SFCS30483R3		Temperature 25°C																																							
Item		Ripple-Noise		Testing Circuitry Figure C																																							
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Model		SFS30483R3/SFCS30483R3		Testing Circuitry Figure A																																																			
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<b>COSEL</b>		
Model	SFS30483R3/SFCS30483R3	
Item	Output Voltage Accuracy	Testing Circuitry Figure A
Object	+3.3V9A	

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 : -40 - 85°C

Input Voltage : 36 - 76V

Load Current : 0 - 9A

\* 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	85	48	0	3.386	±49	±1.5
Minimum Voltage	85	76	9	3.289		



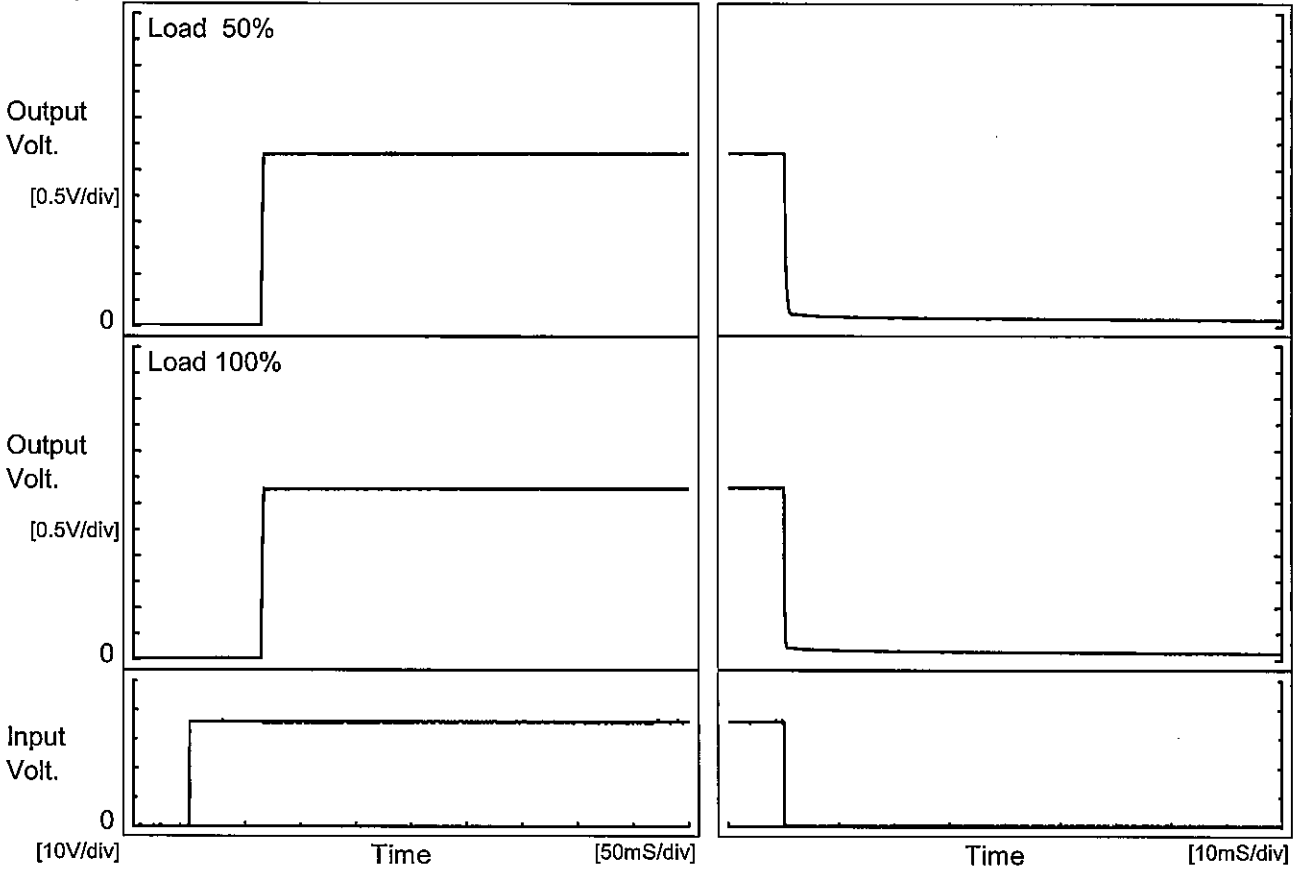
<b>COSEL</b>																								
Model	SFS30483R3/SFCS30483R3	Temperature 25°C Testing Circuitry Figure A																						
Item	Time Lapse Drift																							
Object	+3.3V9A																							
1.Graph		2.Values																						
<p style="text-align: center;">Time [H]</p> <p>Input Volt. 48V 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>3.308</td></tr> <tr><td>0.5</td><td>3.308</td></tr> <tr><td>1.0</td><td>3.308</td></tr> <tr><td>2.0</td><td>3.308</td></tr> <tr><td>3.0</td><td>3.308</td></tr> <tr><td>4.0</td><td>3.308</td></tr> <tr><td>5.0</td><td>3.308</td></tr> <tr><td>6.0</td><td>3.308</td></tr> <tr><td>7.0</td><td>3.308</td></tr> <tr><td>8.0</td><td>3.308</td></tr> </tbody> </table>	Time since start [H]	Output Voltage [V]	0.0	3.308	0.5	3.308	1.0	3.308	2.0	3.308	3.0	3.308	4.0	3.308	5.0	3.308	6.0	3.308	7.0	3.308	8.0	3.308
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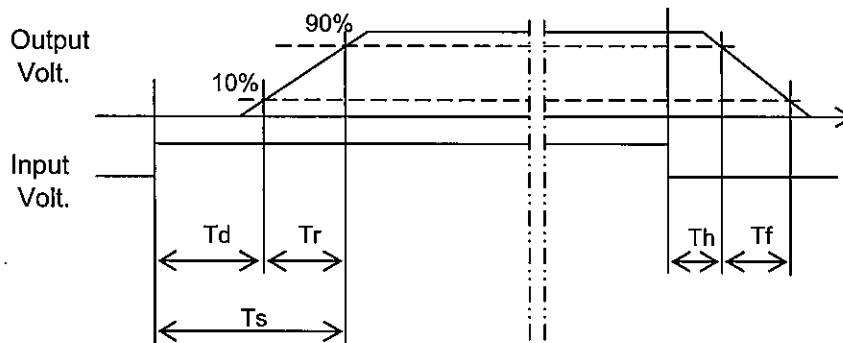
Model	SFS30483R3/SFCS30483R3	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+3.3V9A		

1. Graph



2. Values

		[mS]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		65.0	0.5	65.5	0.1	0.8
100 %		65.0	0.5	65.5	0.1	0.4





<p>Model SFS30483R3/SFCS30483R3</p> <p>Item Minimum Input Voltage for Regulated Output Voltage</p> <p>Object +3.3V9A</p>		<p>Testing Circuitry Figure A</p>																																						
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		<table border="1"> <thead> <tr> <th rowspan="2">Ambient Temperature [°C]</th> <th colspan="3">Operating Point [V]</th> </tr> <tr> <th>Input Volt. 48[V]</th> <th>Input Volt.</th> <th>Input Volt.</th> </tr> </thead> <tbody> <tr> <td>-40</td> <td>4.18</td> <td>-</td> <td>-</td> </tr> <tr> <td>25</td> <td>4.15</td> <td>-</td> <td>-</td> </tr> <tr> <td>85</td> <td>4.11</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> <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>	Ambient Temperature [°C]	Operating Point [V]			Input Volt. 48[V]	Input Volt.	Input Volt.	-40	4.18	-	-	25	4.15	-	-	85	4.11	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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<p>Note: Slanted line shows the range of the rated ambient temperature.</p>																																																													

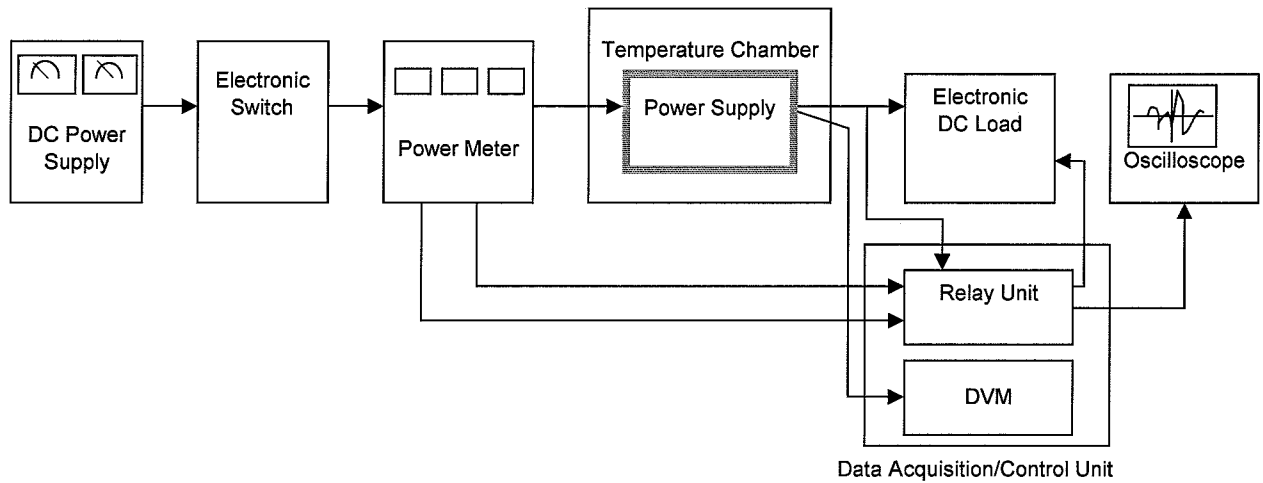


Figure A

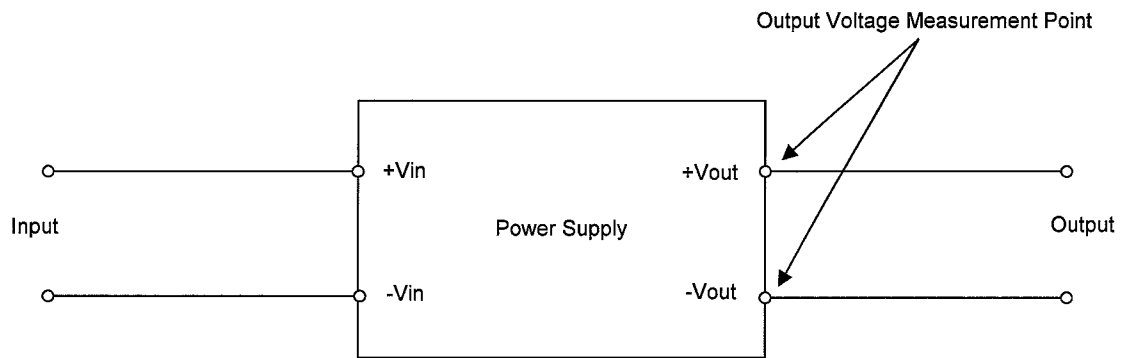


Figure B (General Electric Characteristic)

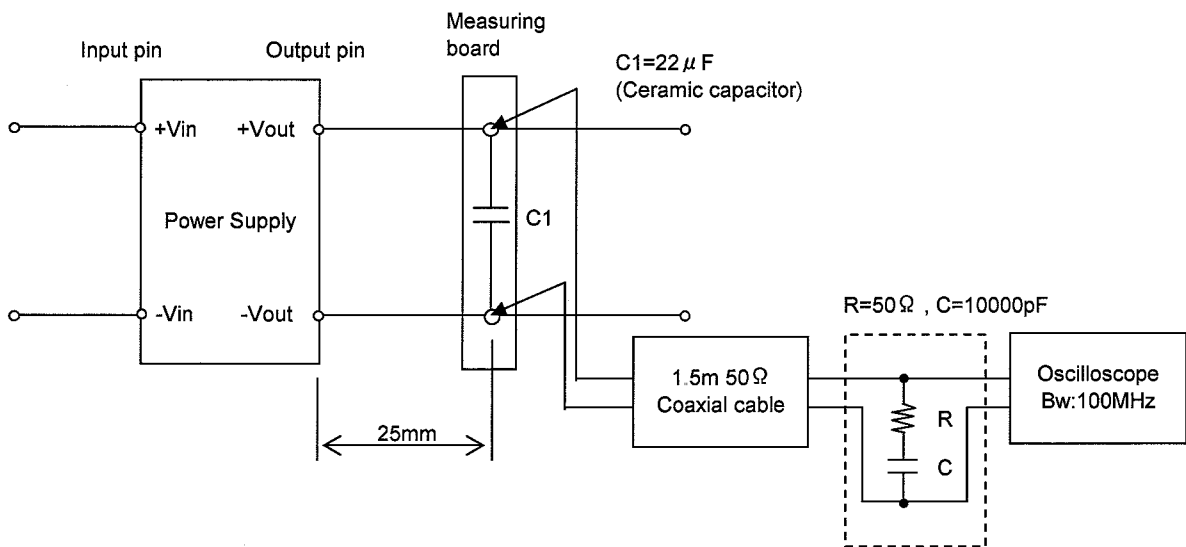


Figure C (Ripple and Ripple noise Characteristic)