

TEST DATA OF STMGFW152412

Regulated DC Power Supply
January 26, 2013

Approved by : Takahiro Yoneda
Takahiro Yoneda Design Manager

Prepared by : Satoshi Kinoshita
Satoshi Kinoshita Design Engineer

COSEL CO.,LTD.

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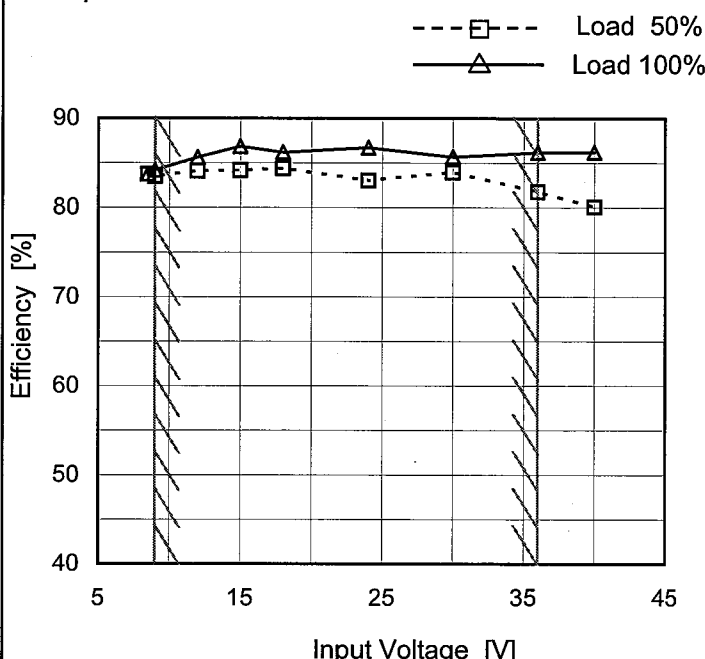
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Model		STMGEFW152412																																																																																
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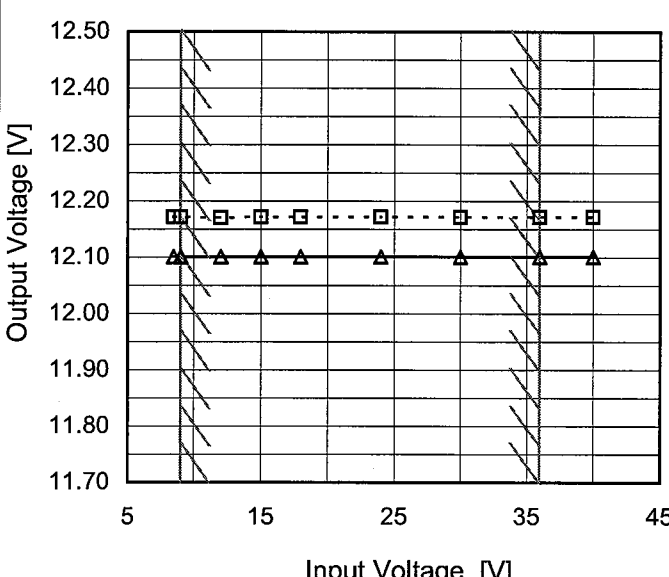
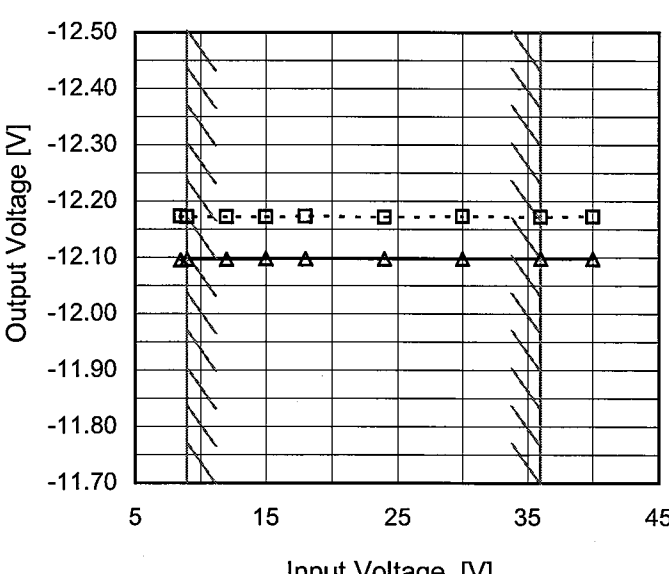
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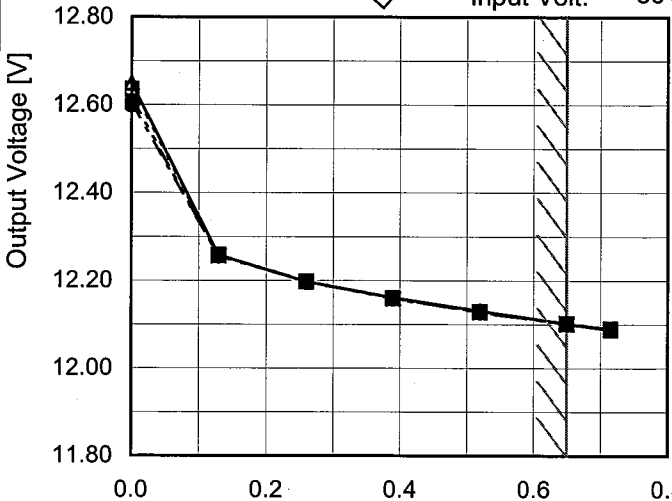
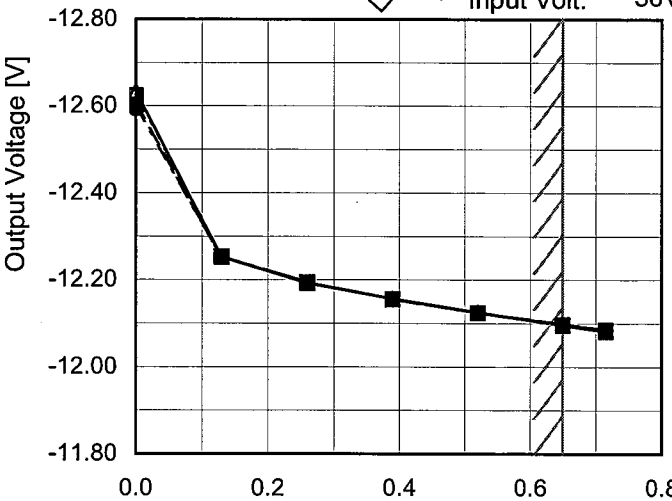
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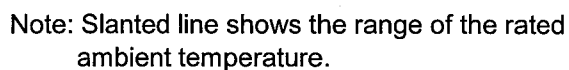
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Testing Circuitry Figure A



Ambient Temperature [°C]	Output Voltage [V]				
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
-40	12.061	12.062	12.063	12.063	12.063
-20	12.079	12.079	12.080	12.080	12.080
0	12.092	12.092	12.093	12.093	12.093
10	12.097	12.097	12.098	12.098	12.098
25	12.103	12.102	12.103	12.103	12.103
30	12.104	12.104	12.104	12.104	12.104
40	12.106	12.105	12.105	12.105	12.105
50	12.106	12.106	12.106	12.106	12.106
60	12.105	12.105	12.105	12.105	12.105
65	12.104	12.104	12.104	12.104	12.104
--	-	-	-	-	-

2.Values



Ambient Temperature [°C]	Output Voltage [V]				
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
-40	-12.055	-12.057	-12.058	-12.058	-12.059
-20	-12.073	-12.074	-12.075	-12.076	-12.076
0	-12.087	-12.088	-12.089	-12.089	-12.089
10	-12.092	-12.093	-12.093	-12.094	-12.094
25	-12.097	-12.098	-12.099	-12.099	-12.099
30	-12.098	-12.099	-12.100	-12.100	-12.100
40	-12.100	-12.101	-12.101	-12.101	-12.102
50	-12.100	-12.101	-12.102	-12.102	-12.102
60	-12.100	-12.100	-12.101	-12.101	-12.101
65	-12.099	-12.099	-12.100	-12.100	-12.100
--	-	-	-	-	-



		Testing Circuitry Figure A
Model	STMGFW152412	
Item	Output Voltage Accuracy	

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 - 60°C

Input Voltage : 9 - 36V

Load Current (AVR 1) : 0 - 0.65A (AVR 2) : 0 - 0.65A

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

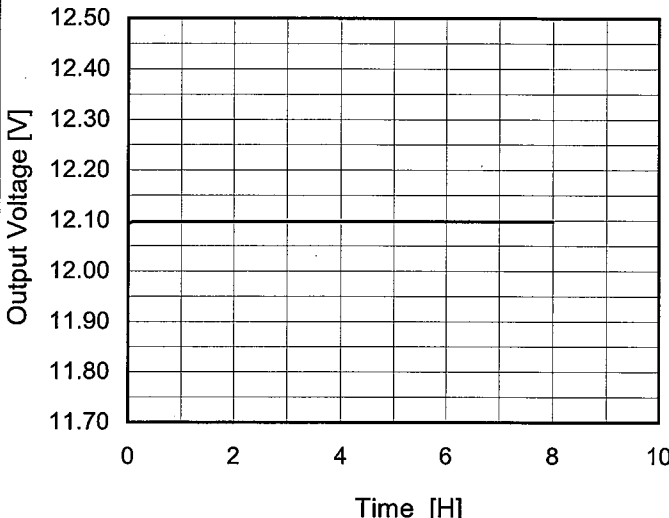
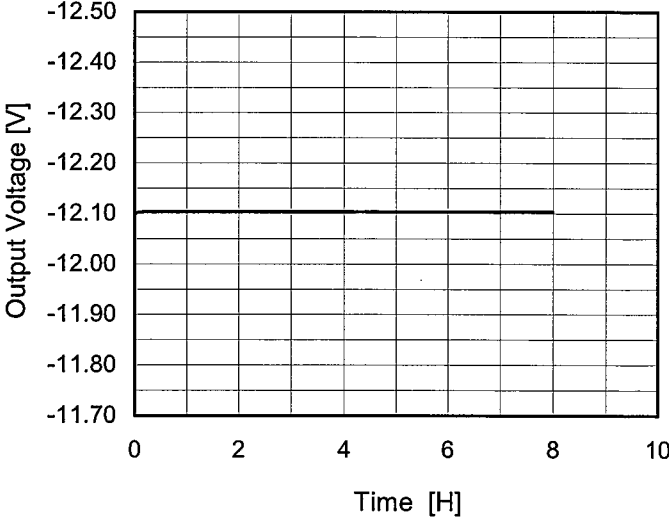
* Output Voltage Accuracy (Ration) = $\frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}} \times 100$

2. Values

Object		+12V0.65A				
Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	60	9	0	12.655	±545	±4.5
Minimum Voltage	60	9	0.65	11.566		

Object		-12V0.65A				
Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	60	9	0	-12.641	±545	±4.5
Minimum Voltage	60	9	0.65	-11.552		

COSEL

Model	STMGFW152412																								
Item	Time Lapse Drift	Temperature	25°C																						
Object	+12V0.65A	Testing Circuitry	Figure A																						
1.Graph		2.Values																							
<div></div> <p>Input Volt. 24V Load 100%</p>		<table><tr><th>Time since start [H]</th><th>Output Voltage [V]</th></tr><tr><td>0.0</td><td>12.091</td></tr><tr><td>0.5</td><td>12.098</td></tr><tr><td>1.0</td><td>12.098</td></tr><tr><td>2.0</td><td>12.098</td></tr><tr><td>3.0</td><td>12.098</td></tr><tr><td>4.0</td><td>12.098</td></tr><tr><td>5.0</td><td>12.098</td></tr><tr><td>6.0</td><td>12.098</td></tr><tr><td>7.0</td><td>12.098</td></tr><tr><td>8.0</td><td>12.098</td></tr></table>		Time since start [H]	Output Voltage [V]	0.0	12.091	0.5	12.098	1.0	12.098	2.0	12.098	3.0	12.098	4.0	12.098	5.0	12.098	6.0	12.098	7.0	12.098	8.0	12.098
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- 15 -

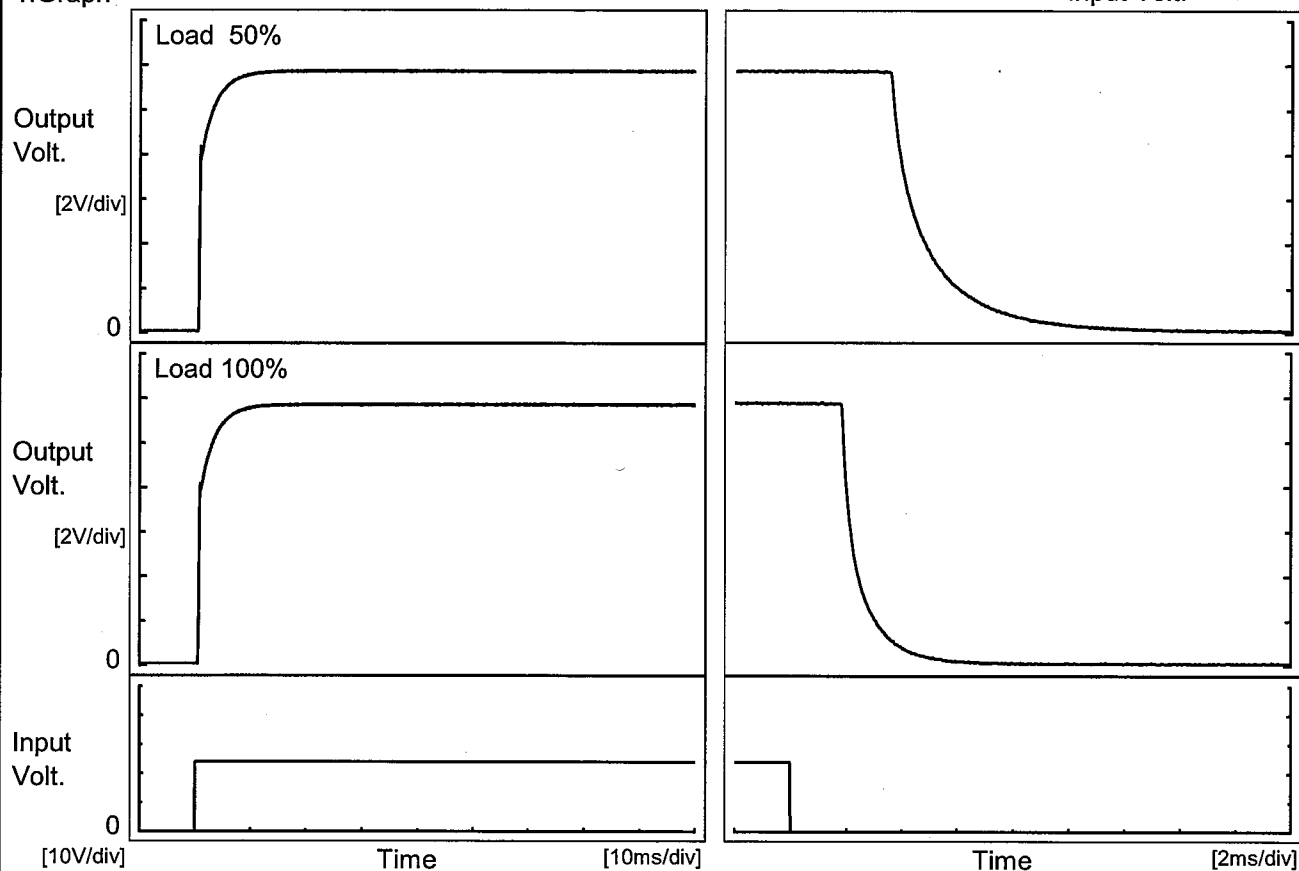
BC - 10727

COSEL

Model	STMGFW152412	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+12V0.65A		

1. Graph

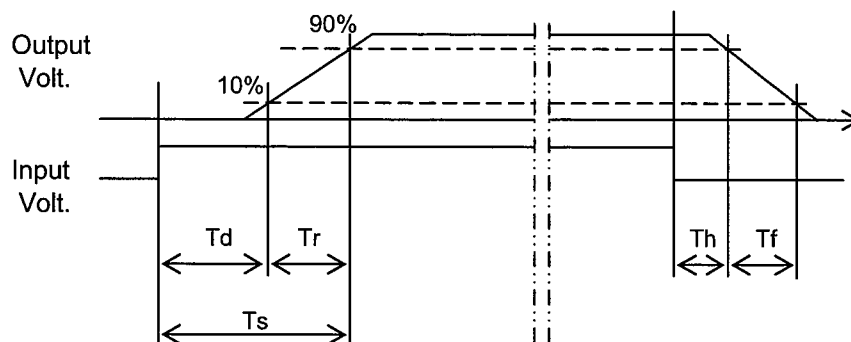
Input Volt. 24 V



2. Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	0.6	4.6	5.2	3.6	3.3
100 %	0.6	4.4	5.0	1.9	1.6

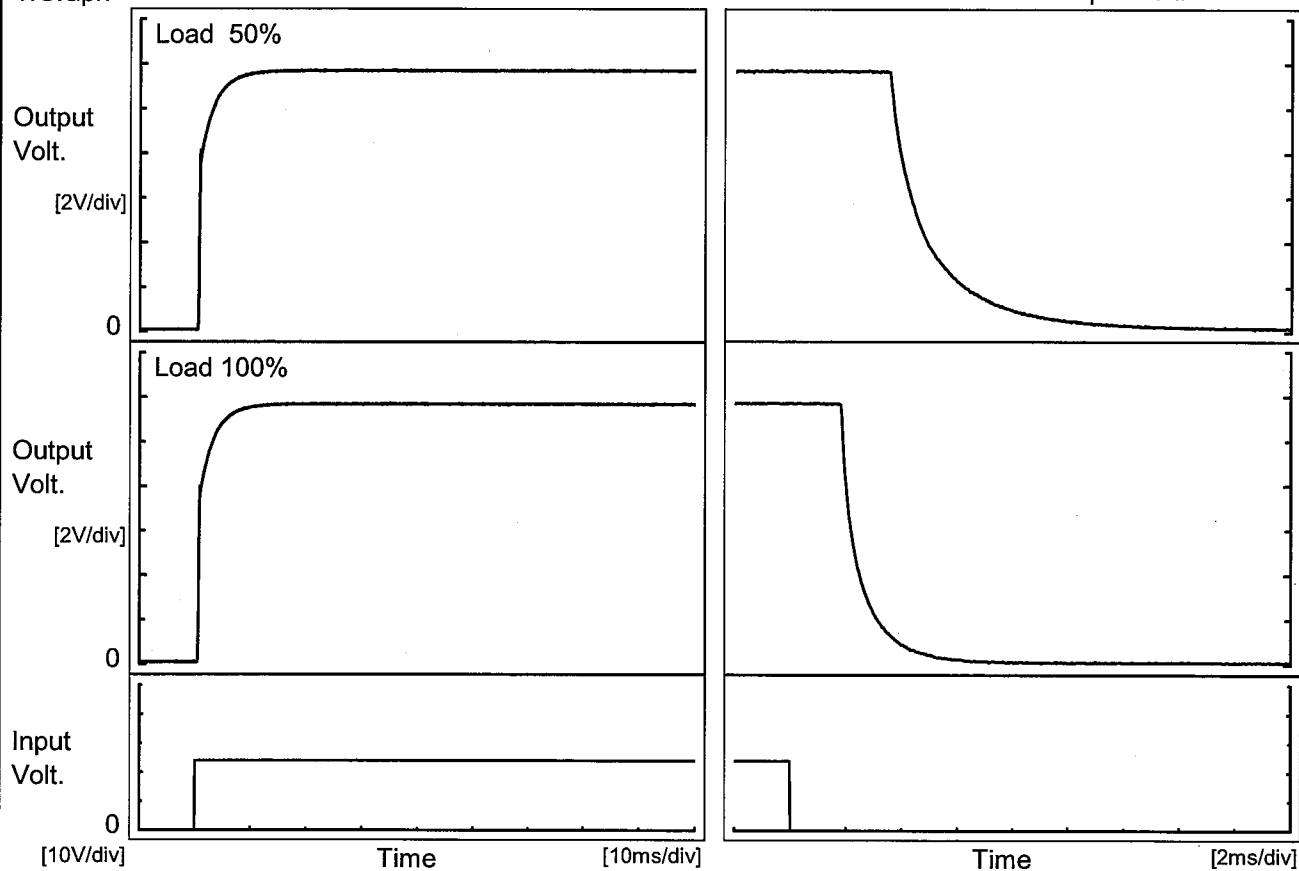


COSEL

Model	STMGFW152412	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	-12V0.65A		

1. Graph

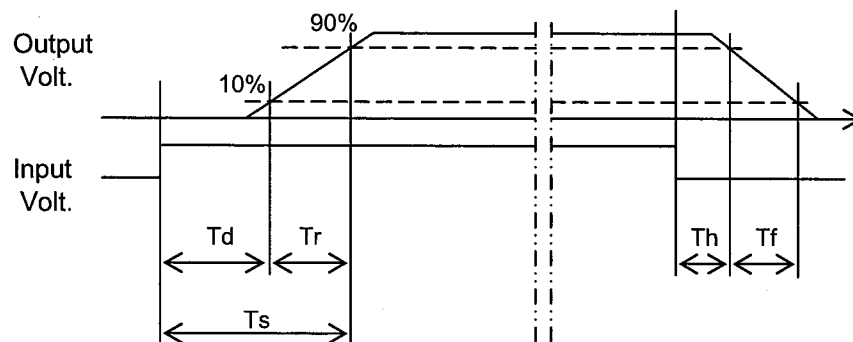
Input Volt. 24 V



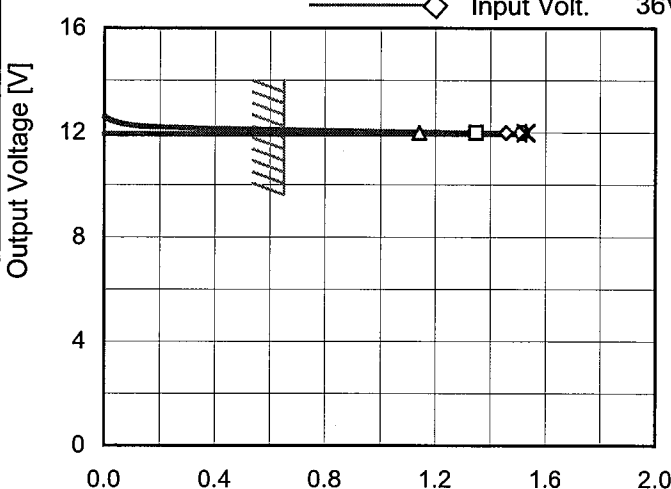
2. Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	0.6	4.6	5.2	3.6	3.7
100 %	0.6	4.6	5.2	1.9	1.8



Model		STMGEFW152412																																							
Item		Minimum Input Voltage for Regulated Output Voltage																																							
Object		+12V0.65A																																							
1.Graph		2.Values																																							
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Model	STMGEFW152412																																																																																								
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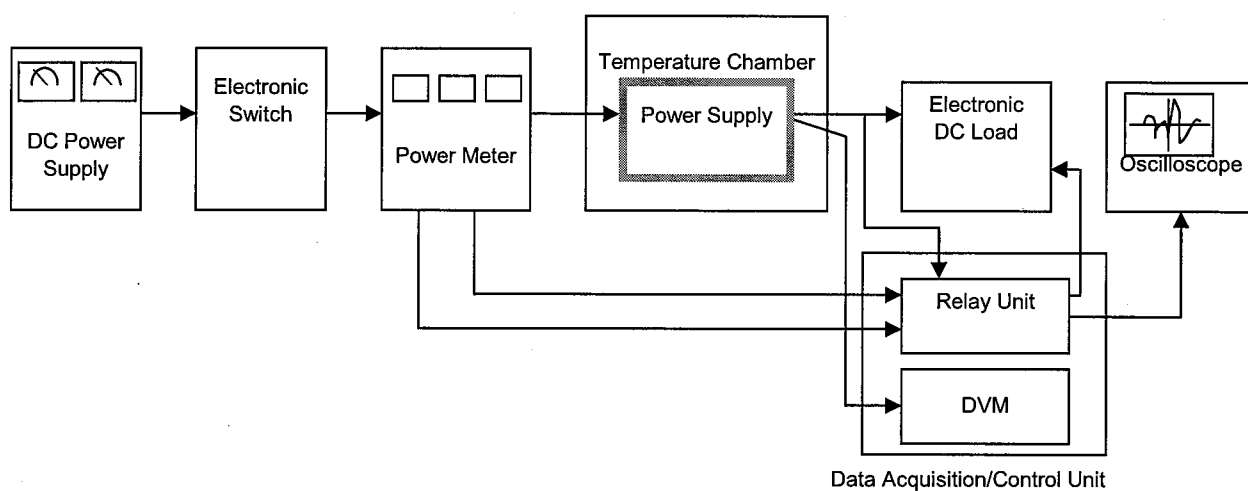


Figure A

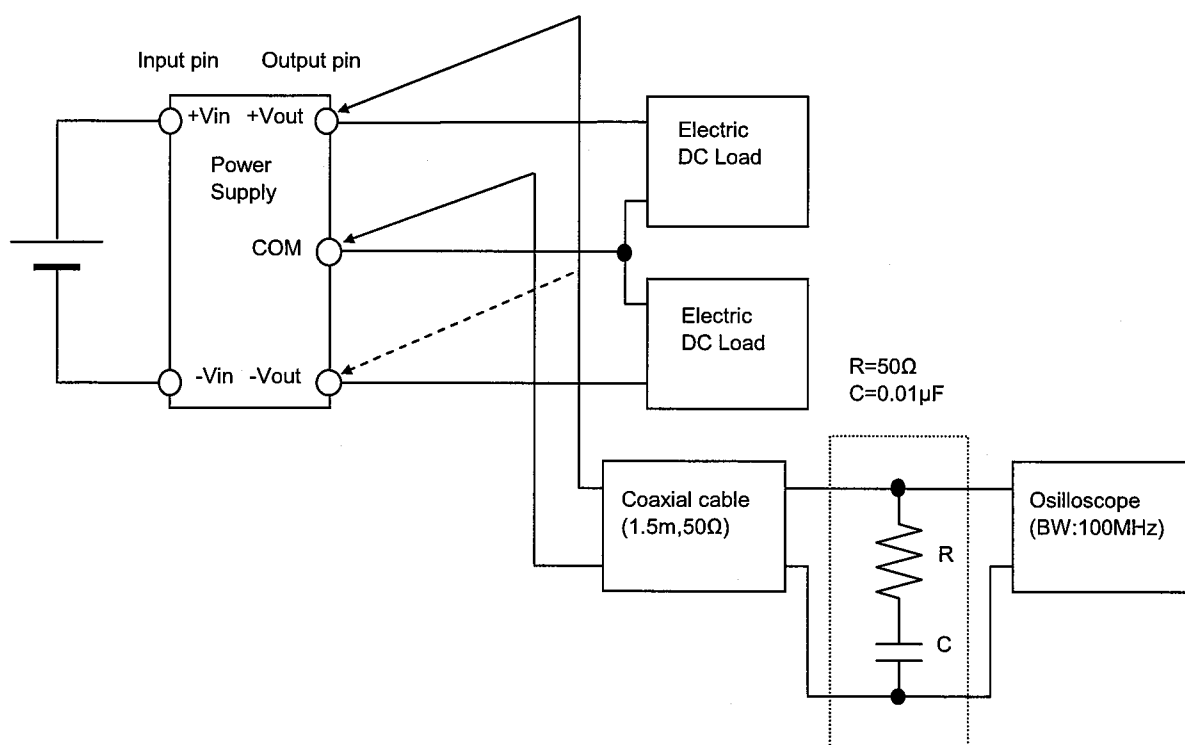


Figure B (Ripple and Ripple noise Characteristic)