

TEST DATA OF MUW104812

Regulated DC Power Supply
May.7. 2025

Approved by : Kenichi Tsukada
Design Manager

Prepared by : Yoshihiko Saeki
Design Engineer

COSEL CO.,LTD.

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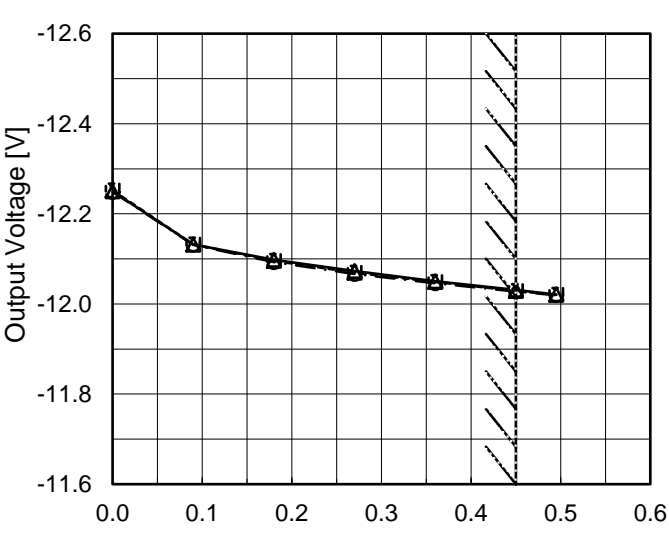
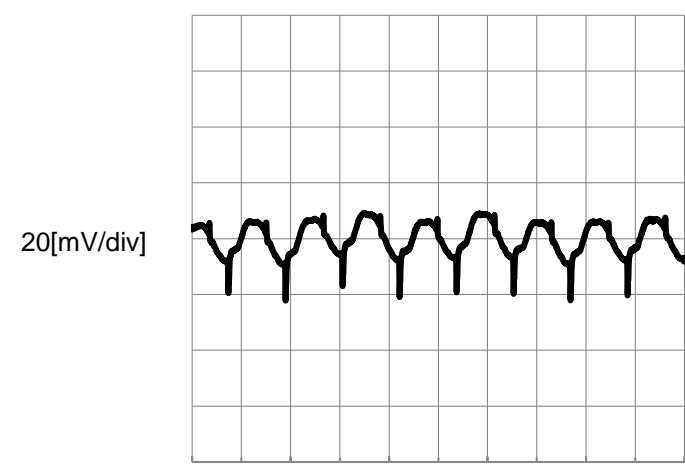
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BC-12152

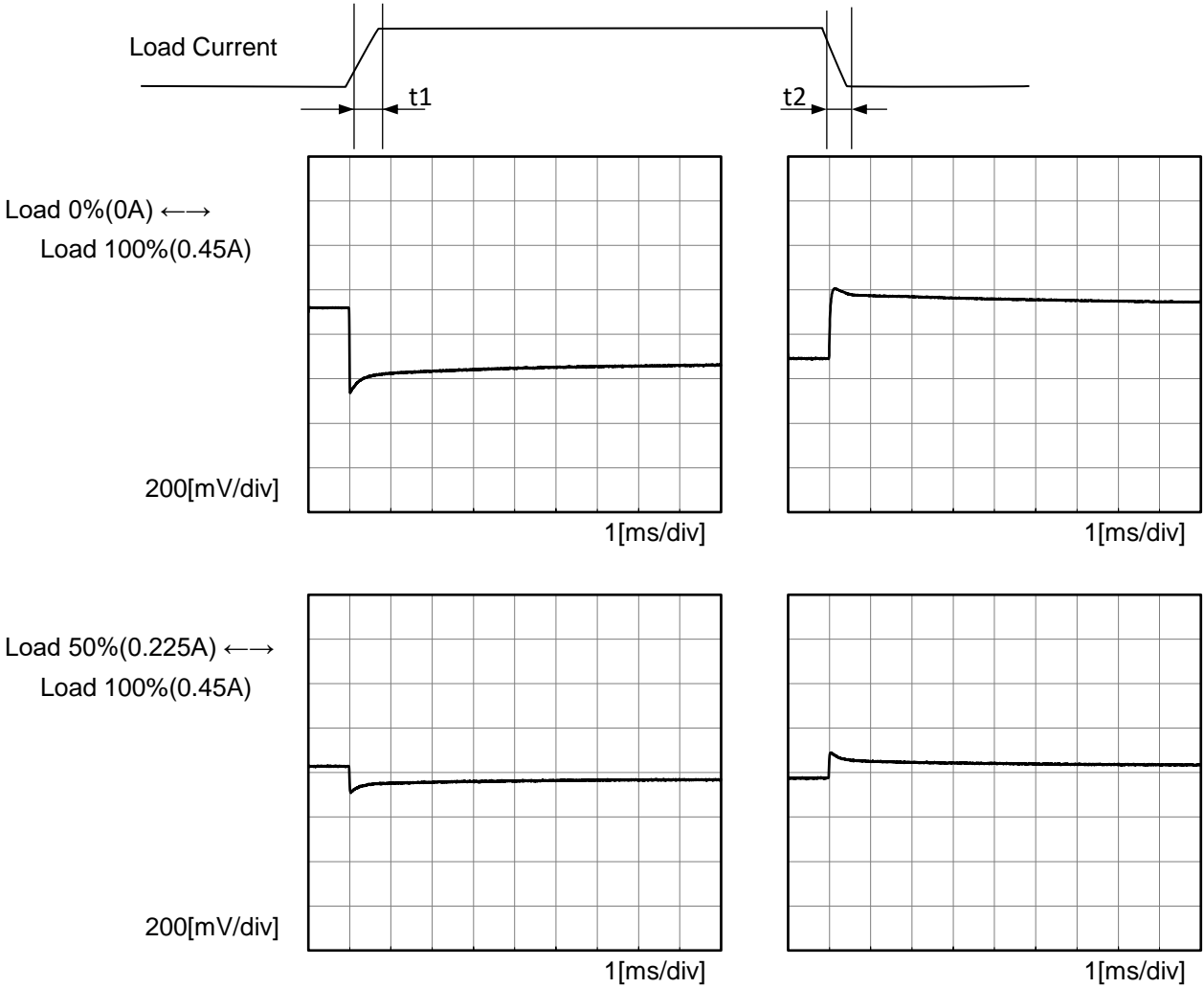
COSEL

COSEL																																																						
Model	MUW104812	Temperature	25°C																																																			
Item	Load Regulation	Testing Circuitry	Figure A																																																			
Object	-12V0.45A																																																					
1.Graph		2.Values																																																				
<div><div><div><div><div></div><div></div></div><div>Input Volt.</div><div>36V</div></div><div><div><div></div><div></div></div><div>Input Volt.</div><div>48V</div></div><div><div><div></div><div></div></div><div>Input Volt.</div><div>76V</div></div></div><div><p>Note: Slanted line shows the range of the rated load current.</p></div></div>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr><tr><td>0.000</td><td>-12.250</td><td>-12.252</td><td>-12.249</td></tr><tr><td>0.090</td><td>-12.132</td><td>-12.132</td><td>-12.131</td></tr><tr><td>0.180</td><td>-12.098</td><td>-12.095</td><td>-12.093</td></tr><tr><td>0.270</td><td>-12.073</td><td>-12.070</td><td>-12.066</td></tr><tr><td>0.360</td><td>-12.051</td><td>-12.049</td><td>-12.046</td></tr><tr><td>0.450</td><td>-12.031</td><td>-12.029</td><td>-12.027</td></tr><tr><td>0.495</td><td>-12.021</td><td>-12.021</td><td>-12.019</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> <div>+12V : Rated Load Current</div>		Load Current [A]	Output Voltage [V]			Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]	0.000	-12.250	-12.252	-12.249	0.090	-12.132	-12.132	-12.131	0.180	-12.098	-12.095	-12.093	0.270	-12.073	-12.070	-12.066	0.360	-12.051	-12.049	-12.046	0.450	-12.031	-12.029	-12.027	0.495	-12.021	-12.021	-12.019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Item	Ripple-Noise	Temperature	25°C																																																			
Object	-12V0.45A	Testing Circuitry	Figure B																																																			
1.Graph																																																						
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		BC-12152																																																				



Model		MUW104812	Temperature 25°C Testing Circuitry Figure A
Item		Dynamic Load Response	
Object		+12V0.45A	

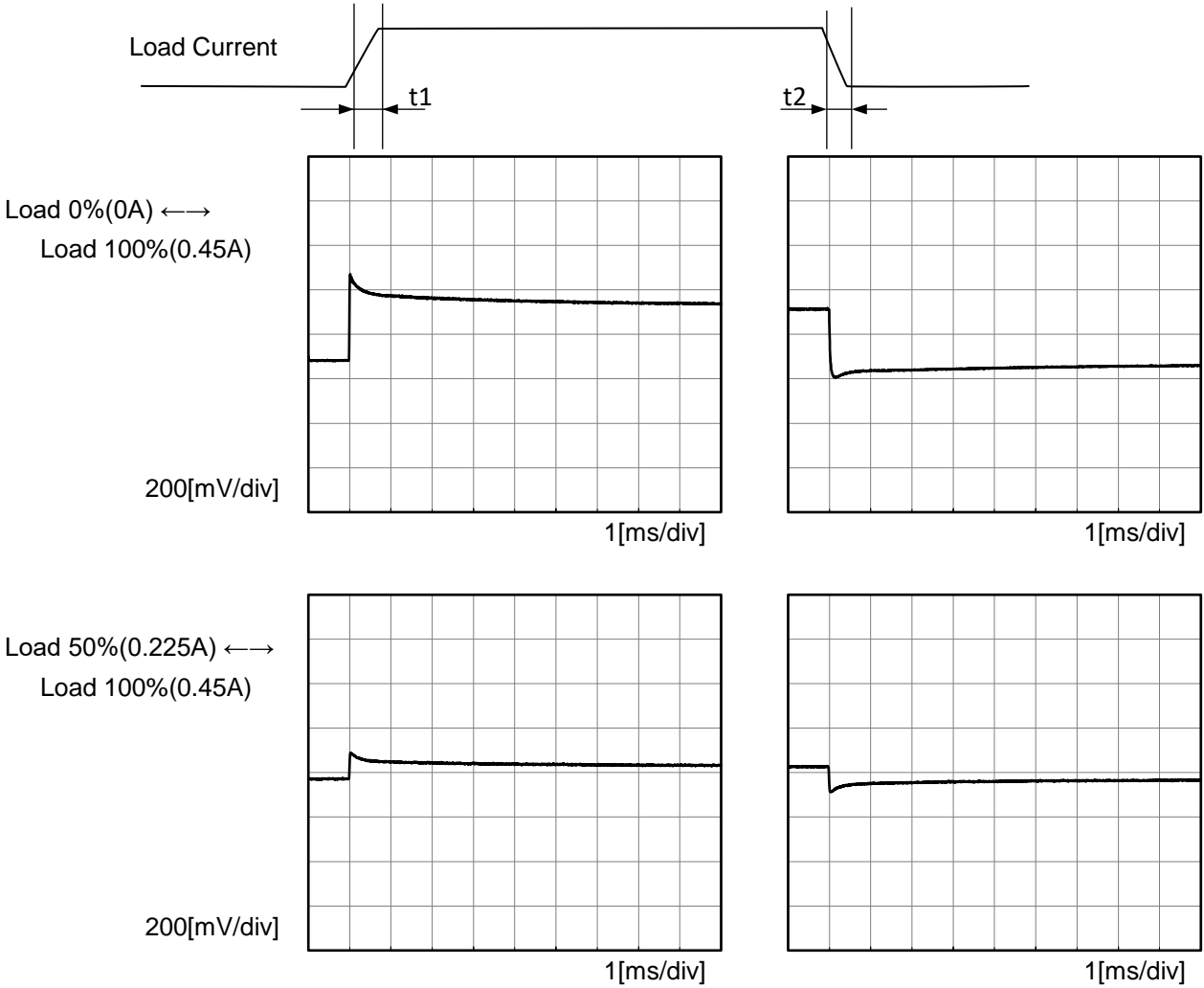
Input Volt. 48 V
-12V: Rated Load Current
Cycle 100 ms
Response. t1=t2=50μs. Typ





Model		MUW104812	Temperature 25°C Testing Circuitry Figure A
Item		Dynamic Load Response	
Object		-12V0.45A	

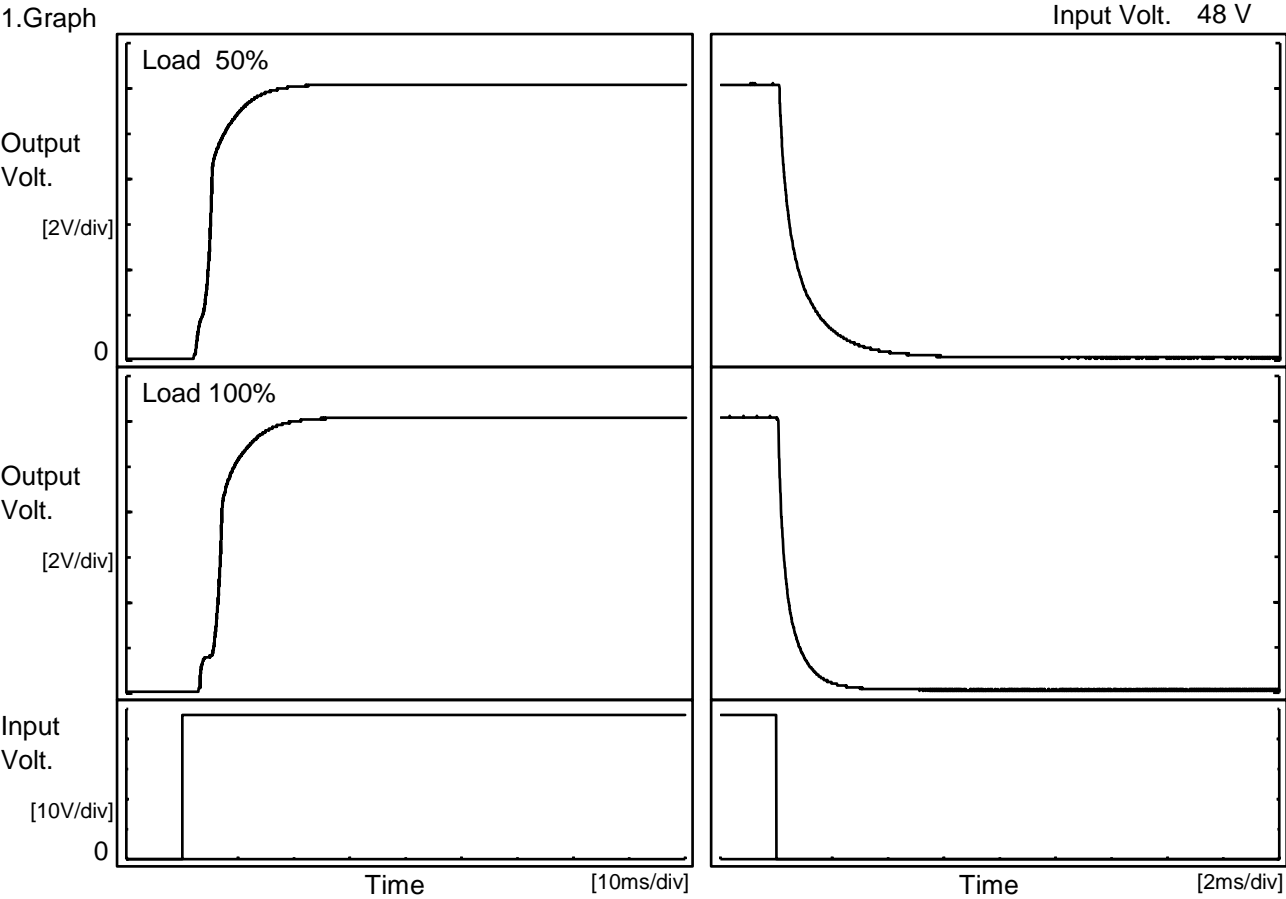
Input Volt. 48 V
+12V : Rated Load Current
Cycle 100 ms
Response. t1=t2=50μs. Typ





Model	MUW104812	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+12V0.45A		

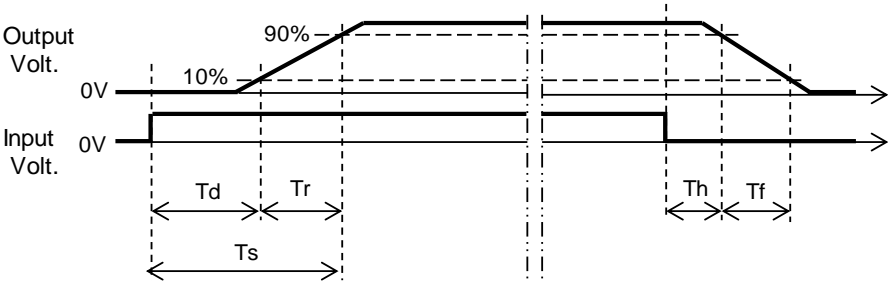
1.Graph



-12V:Load Current is same as +12V

2.Values

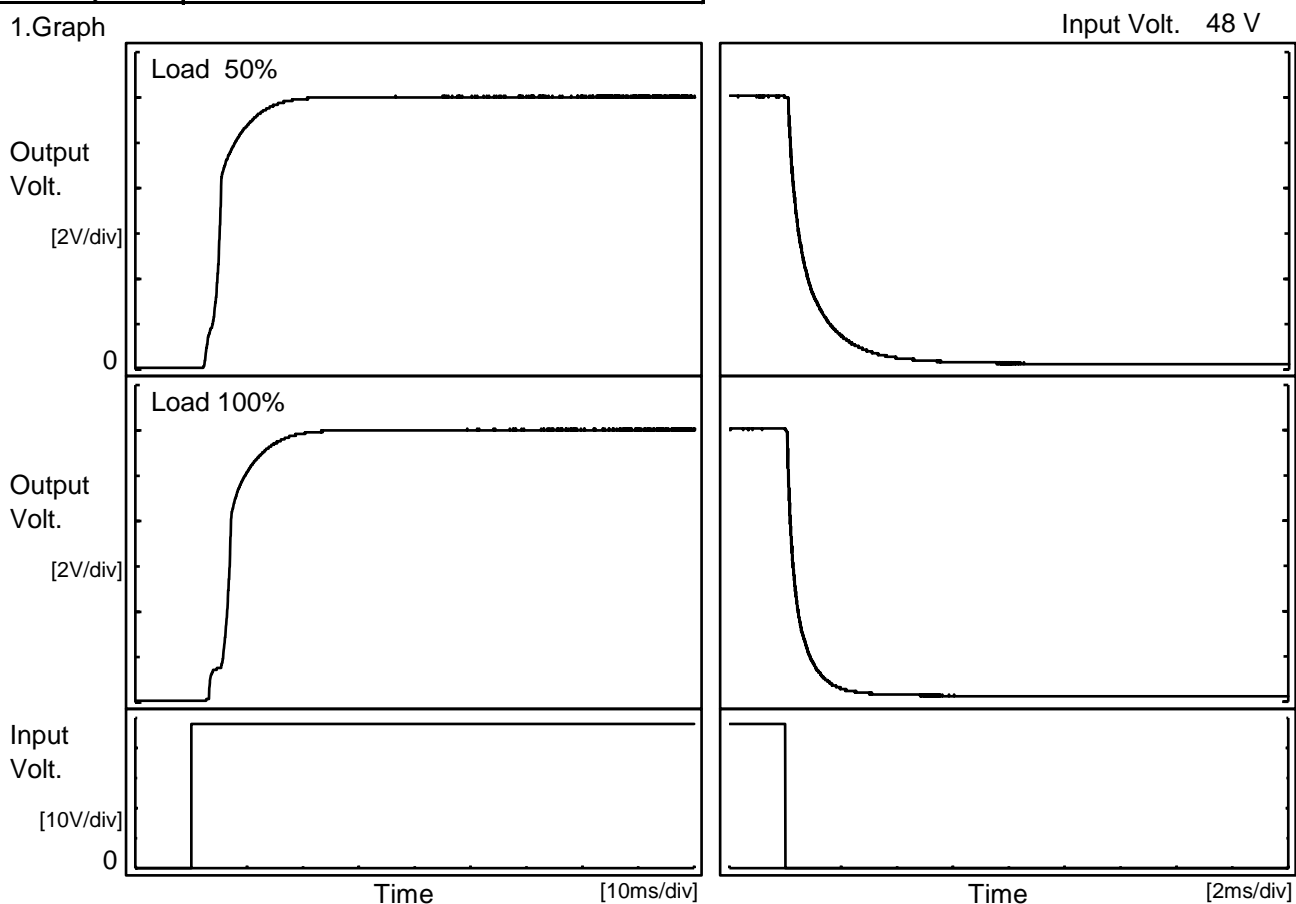
		[ms]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		2.9	6.9	9.8	0.1	1.9
100 %		3.6	8.0	11.6	0.1	1.0



COSEL

Model	MUW104812	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	-12V0.45A		

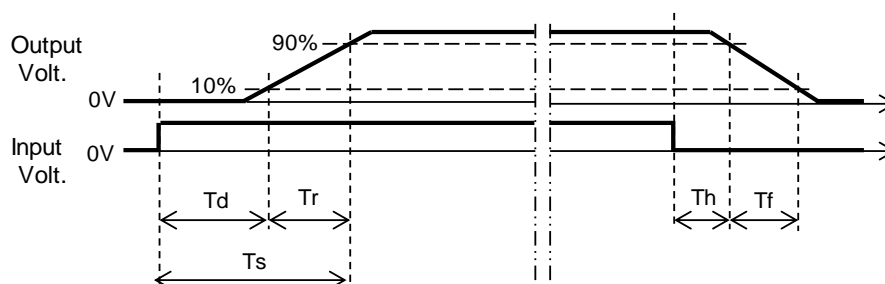
1.Graph



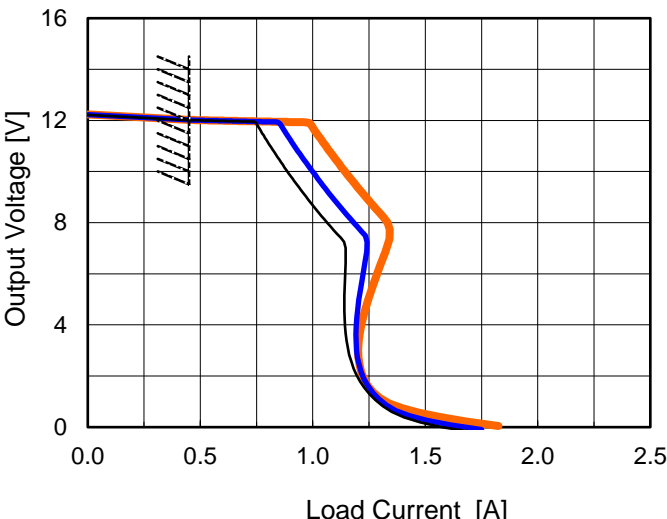
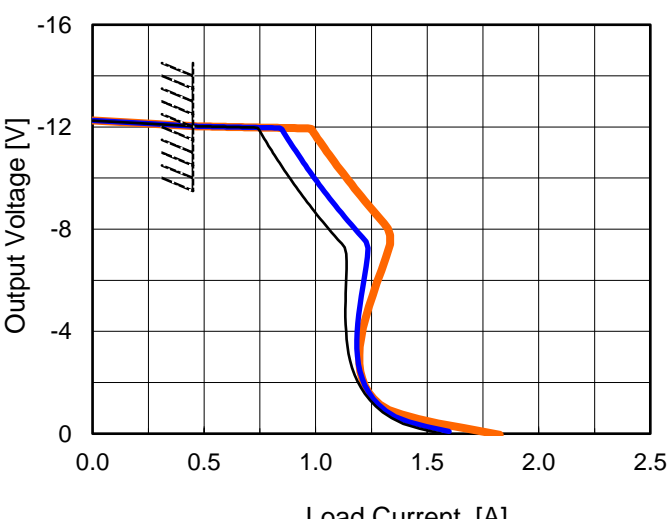
+12V:Load Current is same as -12V

2.Values

		[ms]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		3.0	7.3	10.3	0.1	2.0
100 %		3.8	8.3	12.1	0.1	1.1



COSEL

<div>COSEL</div>																																																										
Model	MUW104812	Temperature 25°C Testing Circuitry Figure A																																																								
Item	Overcurrent Protection																																																									
Object	+12V0.45A																																																									
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<div><div><div></div><div>Input Volt. 36V</div></div><div><div></div><div>Input Volt. 48V</div></div><div><div></div><div>Input Volt. 76V</div></div></div> 		<table><tr><th rowspan="2">Output Voltage [V]</th><th colspan="3">Load Current [A]</th></tr><tr><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr><tr><td>11.4</td><td>0.79</td><td>0.89</td><td>1.03</td></tr><tr><td>10.8</td><td>0.83</td><td>0.94</td><td>1.08</td></tr><tr><td>9.6</td><td>0.93</td><td>1.03</td><td>1.18</td></tr><tr><td>8.4</td><td>1.03</td><td>1.15</td><td>1.30</td></tr><tr><td>7.2</td><td>1.15</td><td>1.24</td><td>1.32</td></tr><tr><td>6.0</td><td>1.14</td><td>1.22</td><td>1.28</td></tr><tr><td>4.8</td><td>1.14</td><td>1.20</td><td>1.23</td></tr><tr><td>3.6</td><td>1.15</td><td>1.19</td><td>1.20</td></tr><tr><td>2.4</td><td>1.18</td><td>1.22</td><td>1.22</td></tr><tr><td>1.2</td><td>1.28</td><td>1.29</td><td>1.30</td></tr><tr><td>0.0</td><td>1.58</td><td>1.75</td><td>1.83</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table> <div>-12V : Rated Load Current</div>		Output Voltage [V]	Load Current [A]			Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]	11.4	0.79	0.89	1.03	10.8	0.83	0.94	1.08	9.6	0.93	1.03	1.18	8.4	1.03	1.15	1.30	7.2	1.15	1.24	1.32	6.0	1.14	1.22	1.28	4.8	1.14	1.20	1.23	3.6	1.15	1.19	1.20	2.4	1.18	1.22	1.22	1.2	1.28	1.29	1.30	0.0	1.58	1.75	1.83	--	-	-	-
Output Voltage [V]	Load Current [A]																																																									
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Output Voltage [V]	Load Current [A]																																																									
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Note: Slanted line shows the range of the rated load current.																																																										

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BC-12152

COSEL

		Testing Circuitry Figure A
Model	MUW104812	
Item	Ambient Temperature Drift	
Object	+12V0.45A	

1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 36V	Input Volt. 48V	Input Volt. 76V
-40	11.932	11.933	11.935
25	12.016	12.018	12.020
85	12.043	12.045	12.047

-12V : Load Current is same as +12V

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+12V0.45A	

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	28.5	28.5
25	28.6	28.6
85	28.6	28.7

-12V : Load Current is same as +12V

COSEL

		Testing Circuitry Figure A
Model	MUW104812	
Item	Ambient Temperature Drift	
Object	-12V0.45A	

1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 36V	Input Volt. 48V	Input Volt. 76V
-40	-11.944	-11.941	-11.940
25	-12.029	-12.028	-12.026
85	-12.060	-12.059	-12.056

+12V: Load Current is same as -12V

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	-12V0.45A	

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	28.5	28.5
25	28.6	28.6
85	28.6	28.7

+12V: Load Current is same as -12V

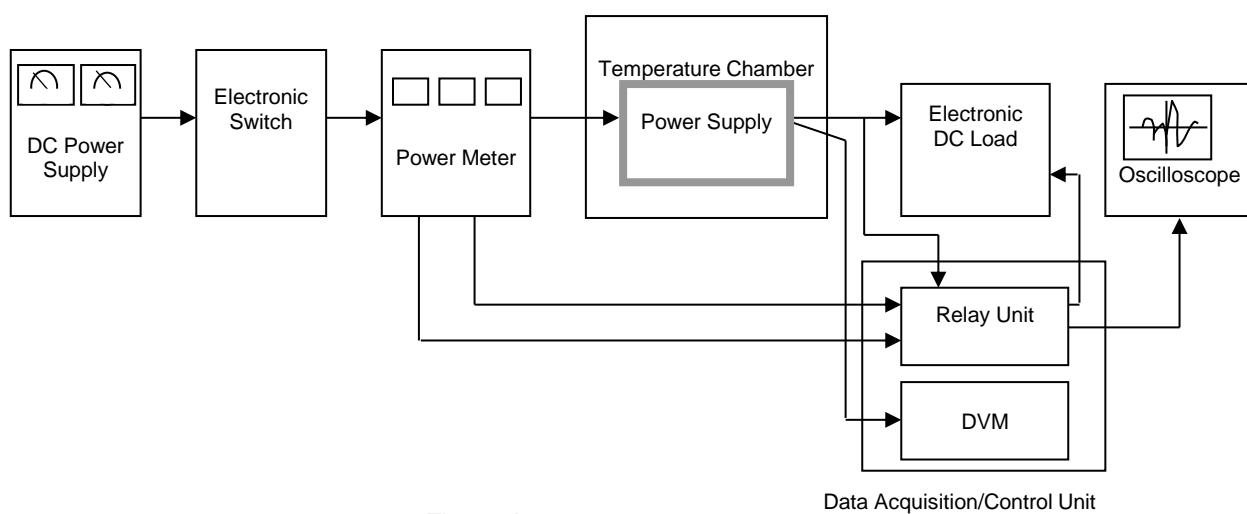


Figure A

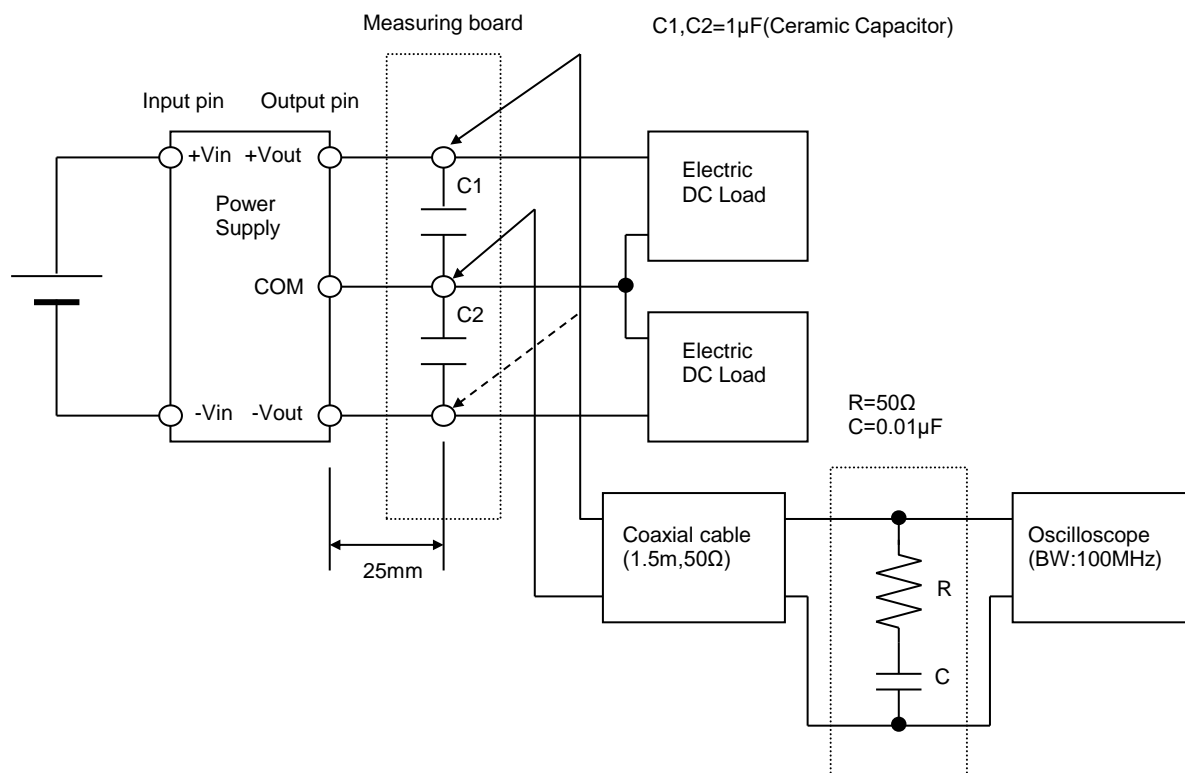


Figure B