参考資料

TEST DATA OF STMGFS804812

Regulated DC Power Supply
May 20, 2021

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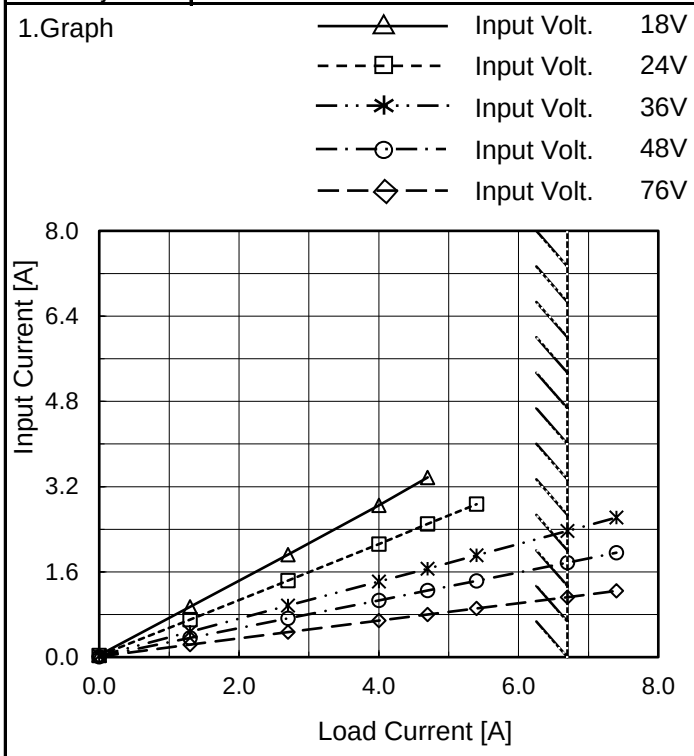
Model	STMGFS804812
Item	Input Current (by Load Current)
Object	――――――

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Input Current [A]				
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]
0.0	0.038	0.032	0.025	0.010	0.011
1.3	0.946	0.707	0.476	0.361	0.236
2.7	1.922	1.439	0.966	0.727	0.469
4.0	2.852	2.124	1.419	1.065	0.686
4.7	3.373	2.501	1.662	1.249	0.800
5.4	- ※1	2.870	1.909	1.433	0.915
6.7	- ※1	- ※2	2.367	1.774	1.127
7.4	- ※1	- ※2	2.619	1.960	1.243
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

※1 Maximam output current at minimum input Voltage is 70% of rated load current.
※2 Maximam output current at 24V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

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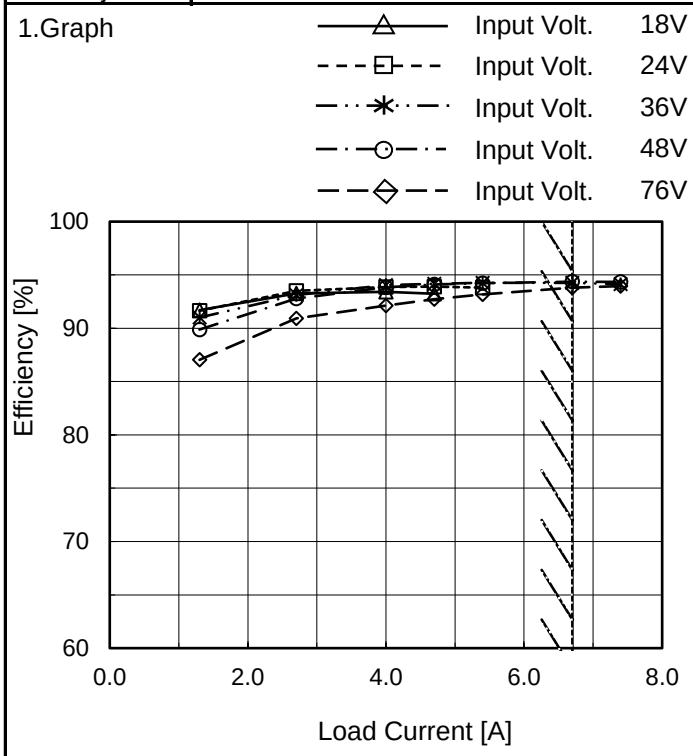
Model	STMGFS804812
Item	Efficiency (by Load Current)
Object	――――――

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Efficiency [%] Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]
0.0	-	-	-	-	-
1.3	91.7	91.6	91.0	89.9	87.0
2.7	93.3	93.5	93.1	92.8	90.9
4.0	93.4	93.9	94.0	93.8	92.1
4.7	93.2	93.9	94.2	94.1	92.7
5.4	- ※1	93.8	94.3	94.2	93.2
6.7	- ※1	- ※2	94.2	94.4	93.8
7.4	- ※1	- ※2	94.1	94.3	94.0
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

※1 Maximam output current at minimum input Voltage is 70% of rated load current.
※2 Maximam output current at 24V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

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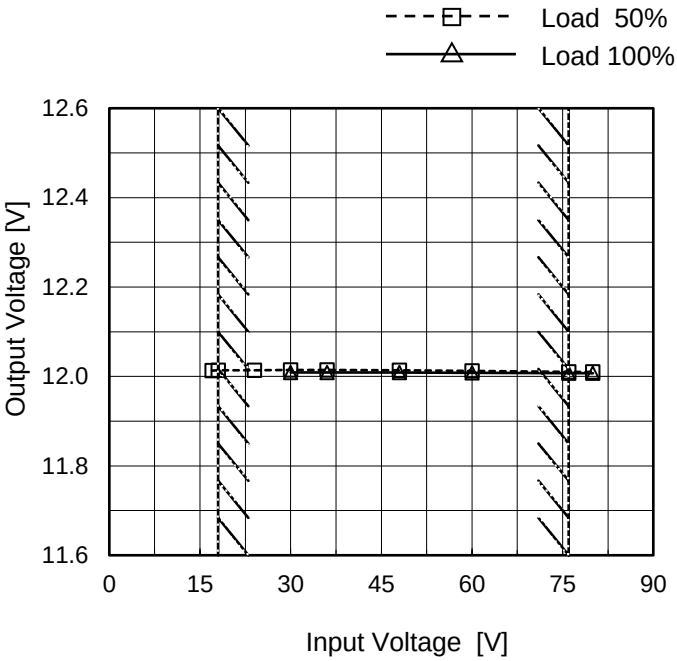
Model	STMGFS804812
Item	Line Regulation
Object	+12V6.7A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated input voltage.

2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
17	12.013	- ※1
18	12.014	- ※1
24	12.014	- ※2
30	12.015	12.009
36	12.014	12.009
48	12.014	12.009
60	12.012	12.008
76	12.011	12.007
80	12.010	12.007

※1 Maximam output current at minimum input Voltage is 70% of rated load current.
※2 Maximam output current at 24V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

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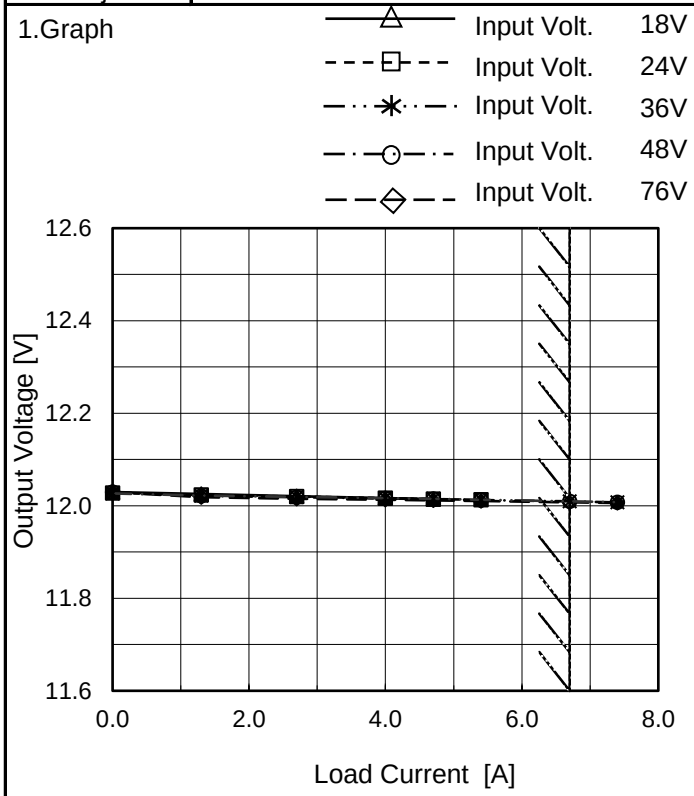
Model	STMGFS804812
Item	Load Regulation
Object	+12V6.7A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Output Voltage [V] Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]
0.0	12.030	12.028	12.027	12.030	12.029
1.3	12.025	12.023	12.022	12.022	12.019
2.7	12.021	12.020	12.019	12.018	12.015
4.0	12.017	12.017	12.017	12.016	12.013
4.7	12.015	12.015	12.015	12.015	12.012
5.4	- ※1	12.013	12.013	12.013	12.010
6.7	- ※1	- ※2	12.010	12.009	12.007
7.4	- ※1	- ※2	12.008	12.007	12.006
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

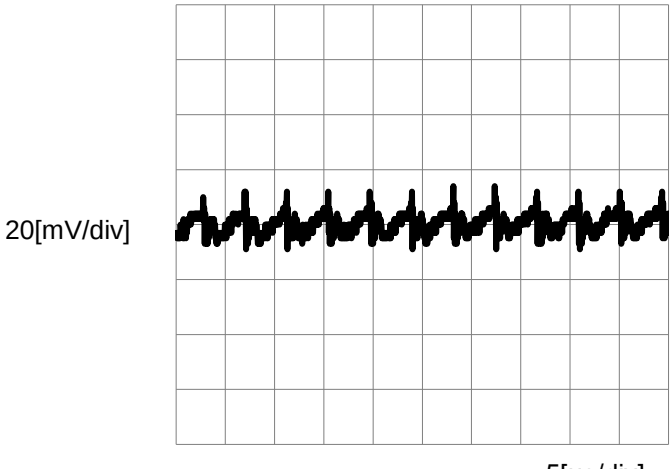
※1 Maximam output current at minimum input Voltage is 70% of rated load current.
※2 Maximam output current at 18V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

Item	Ripple-Noise
Object	+12V6.7A

Temperature 25°C
Testing Circuitry Figure B

1.Graph

Input Voltage 48V
Load 100%



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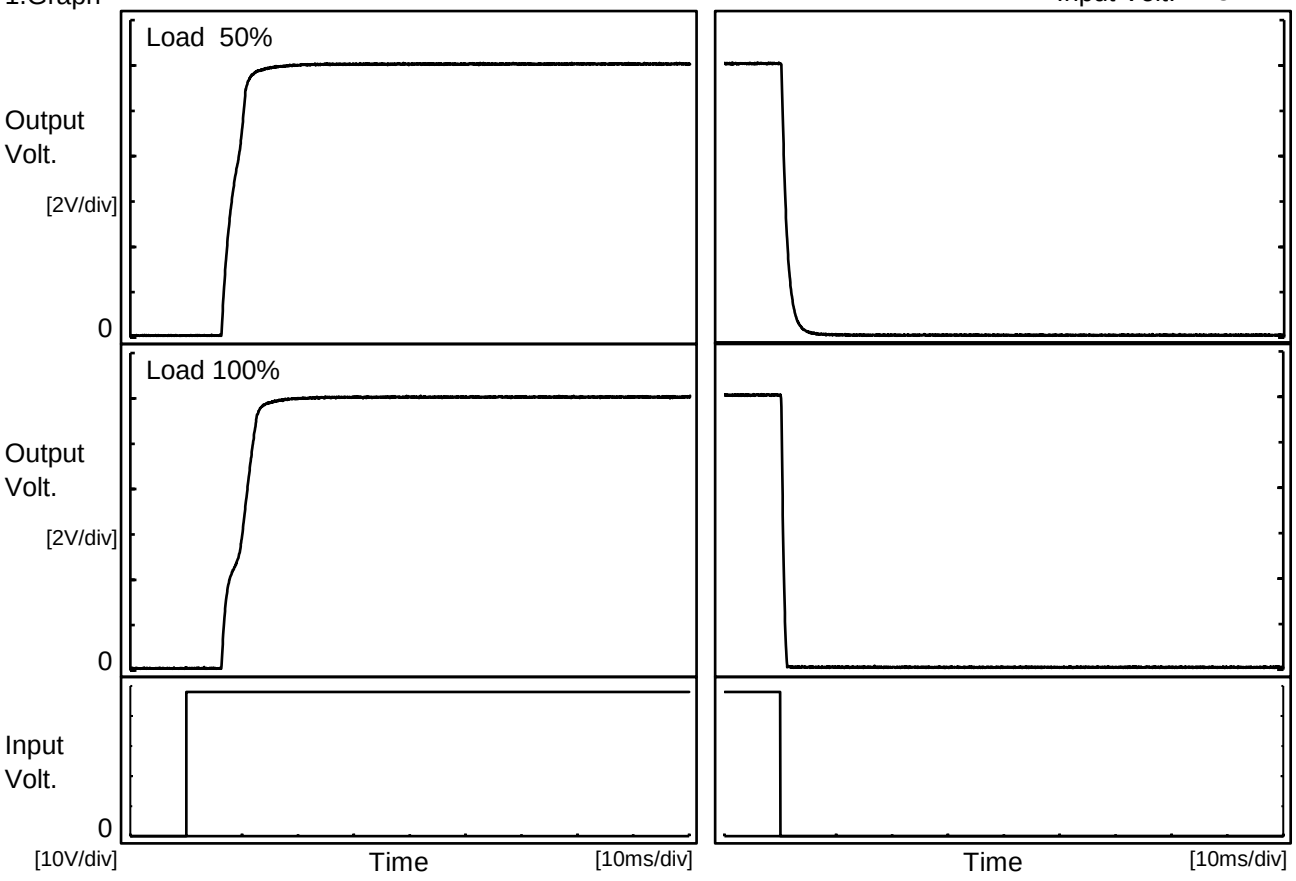
Model	STMGFS804812
Item	Rise and Fall Time
Object	+12V6.7A

Temperature 25°C
Testing Circuitry Figure A

1.Graph

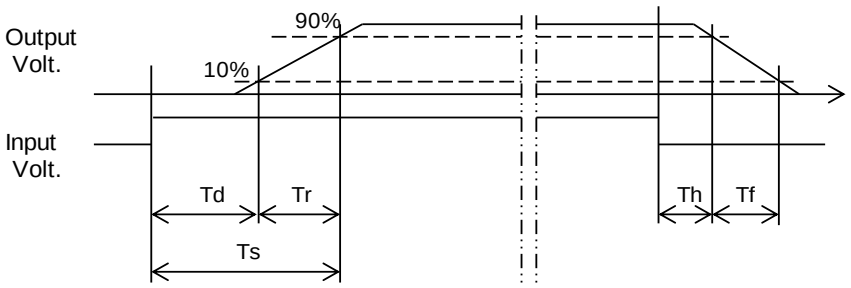
Input Volt. 48 V



2.Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	6.6	4.1	10.7	0.3	2.1
100 %	6.6	5.9	12.5	0.2	0.7



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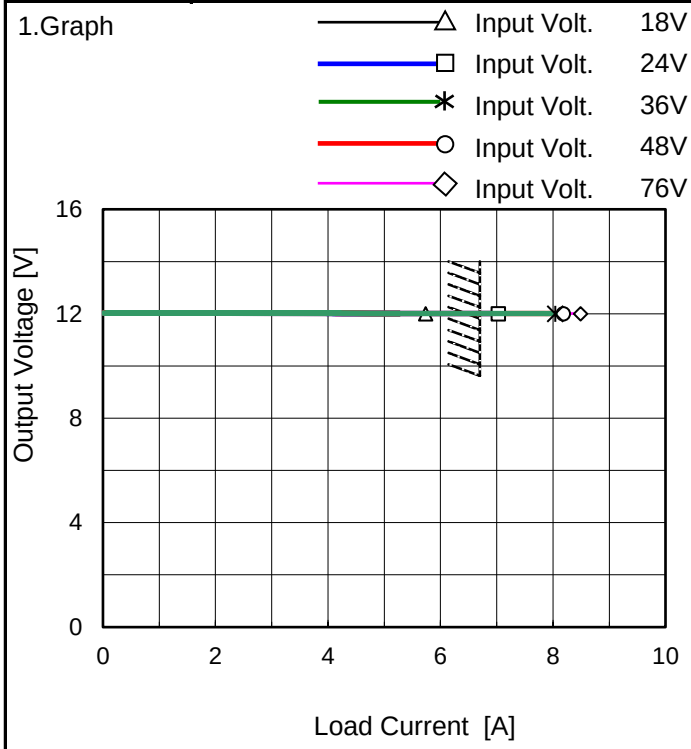
Model	STMGFS804812
Item	Overcurrent Protection
Object	+12V6.7A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

Intermittent operation occurs when overcurrent protection is activated.

2.Values

Output Voltage [V]	Load Current [A]				
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]
12.0	5.737	7.030	8.039	8.181	8.491
11.4	- ※1	- ※2	-	-	-
10.8	-	-	-	-	-
9.6	-	-	-	-	-
8.4	-	-	-	-	-
7.2	-	-	-	-	-
6.0	-	-	-	-	-
4.8	-	-	-	-	-
3.6	-	-	-	-	-
2.4	-	-	-	-	-
1.2	-	-	-	-	-
0.0	-	-	-	-	-

※1 Maximam output current at minimum input Voltage is 70% of rated load current.
※2 Maximam output current at 24V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

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Model	STMGFS804812	
Item	Ambient Temperature Drift	Testing Circuitry Figure A
Object	+12V6.7A	

1.Values

Load 100%

Ambient Temperature[℃]	Output Voltage [V]				
	Input Volt. 18V	Input Volt. 24V	Input Volt. 36V	Input Volt. 48V	Input Volt. 76V
-20	11.982	11.983	11.980	11.980	11.979
25	12.014	12.015	12.007	12.007	12.006
40	12.018	12.018	12.011	12.011	12.010

Note: In case of input Volt.18V, Load 70%. 24V, Load 80%.
Other case Load 100%.

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+12V6.7A	

1.Values

Ambient Temperature[℃]	Input Voltage [V]	
	Load 50%	Load 70%
-20	15.2	15.4
25	15.2	15.4
40	15.2	15.2

Item	Overvoltage Protection	Testing Circuitry Figure A
Object	+12V6.7A	

1.Values

Load 0%

Ambient Temperature[℃]	Operating Point [V]				
	Input Volt. 18V	Input Volt. 24V	Input Volt. 36V	Input Volt. 48V	Input Volt. 76V
-20	14.86	14.86	14.86	14.87	14.87
25	14.92	14.93	14.93	14.94	14.94
50	14.92	14.93	14.93	14.94	14.93

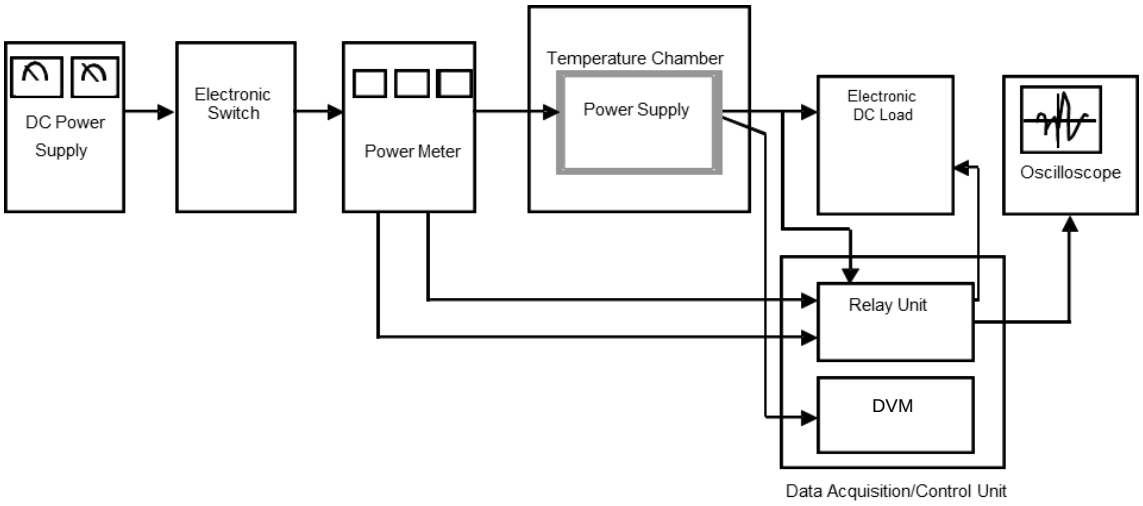

Figure A

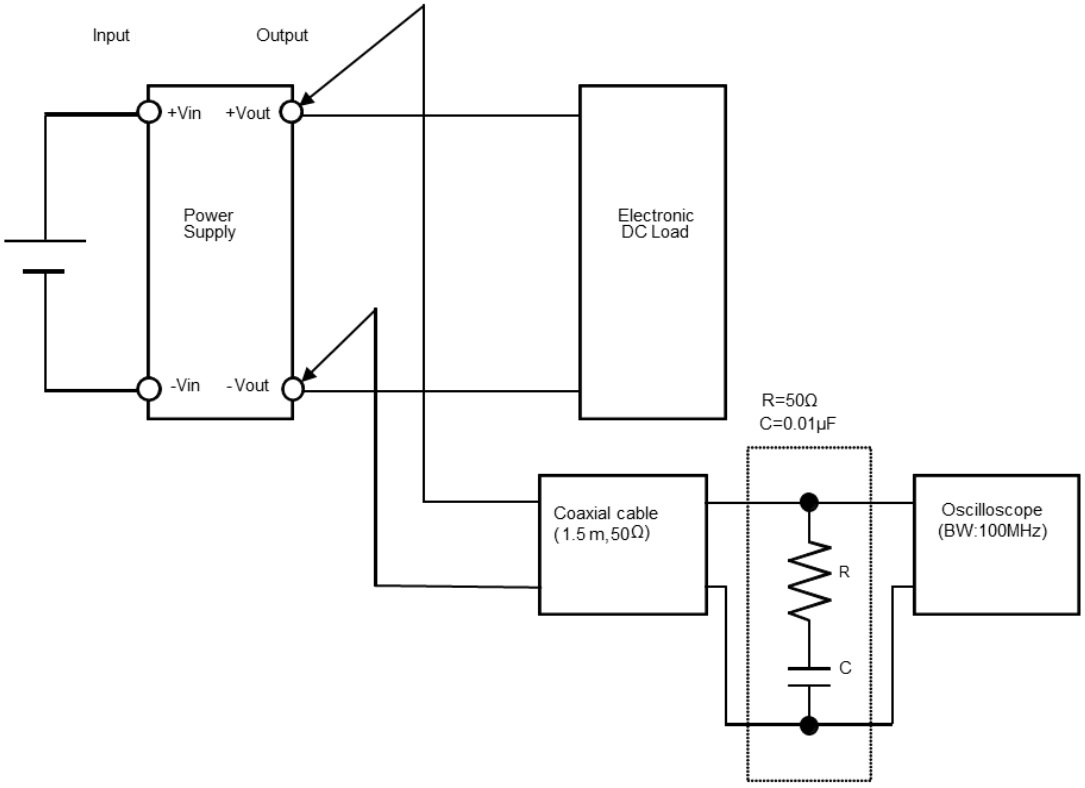

Figure B (Ripple noise Characteristic)