参考資料

TEST DATA OF STMGFS804815

Regulated DC Power Supply
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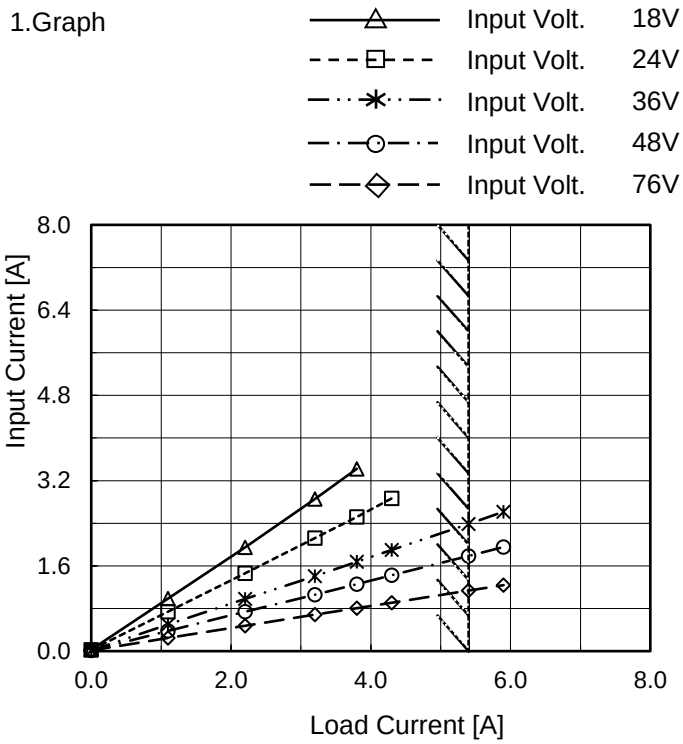
Item	Input Current (by Load Current)
Object	――――――

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	0.028	0.024	0.012	0.012	0.012
1.1	0.987	0.743	0.498	0.377	0.247
2.2	1.949	1.464	0.980	0.737	0.476
3.2	2.853	2.121	1.410	1.061	0.683
3.8	3.422	2.521	1.675	1.258	0.805
4.3	- ※1	2.866	1.898	1.423	0.908
5.4	- ※1	- ※2	2.388	1.786	1.134
5.9	- ※1	- ※2	2.616	1.955	1.239
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

※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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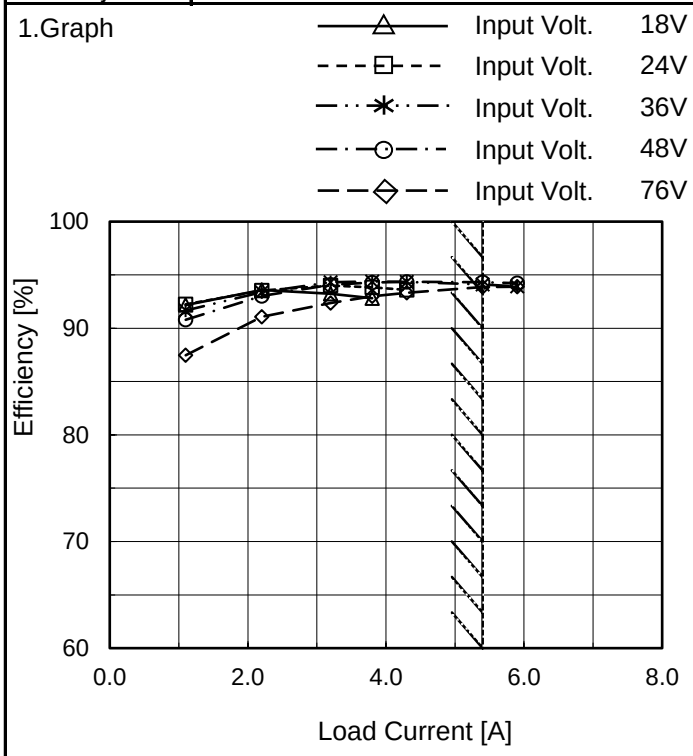
Model	STMGFS804815
Item	Efficiency (by Load Current)
Object	――――――

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	-	-	-	-	-
1.1	92.2	92.2	91.7	90.8	87.5
2.2	93.6	93.5	93.4	93.0	91.1
3.2	93.2	94.0	94.3	94.1	92.4
3.8	92.8	93.8	94.4	94.3	93.0
4.3	- ※1	93.6	94.3	94.4	93.3
5.4	- ※1	- ※2	94.1	94.3	93.9
5.9	- ※1	- ※2	93.9	94.2	93.9
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

※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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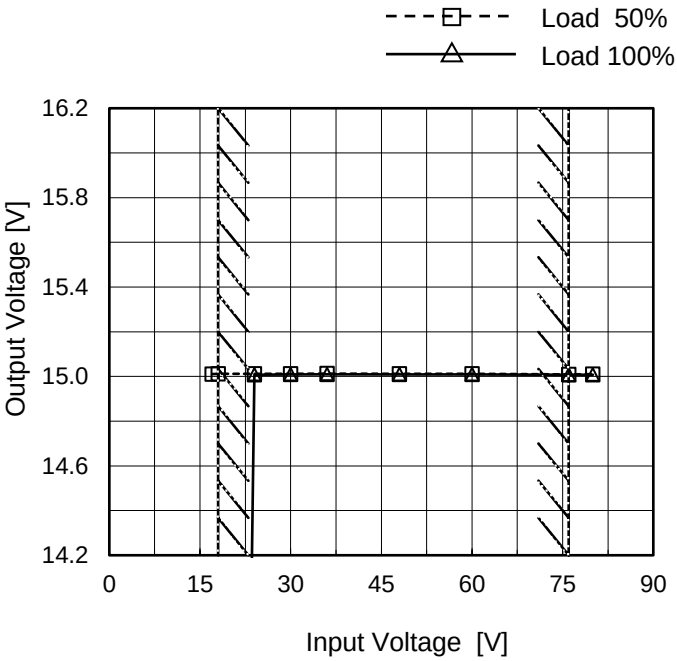
Model	STMGFS804815
Item	Line Regulation
Object	+15V5.4A

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	15.011	- ※1
18	15.011	- ※1
24	15.012	- ※2
30	15.013	15.009
36	15.013	15.010
48	15.012	15.009
60	15.011	15.009
76	15.009	15.008
80	15.010	15.008

※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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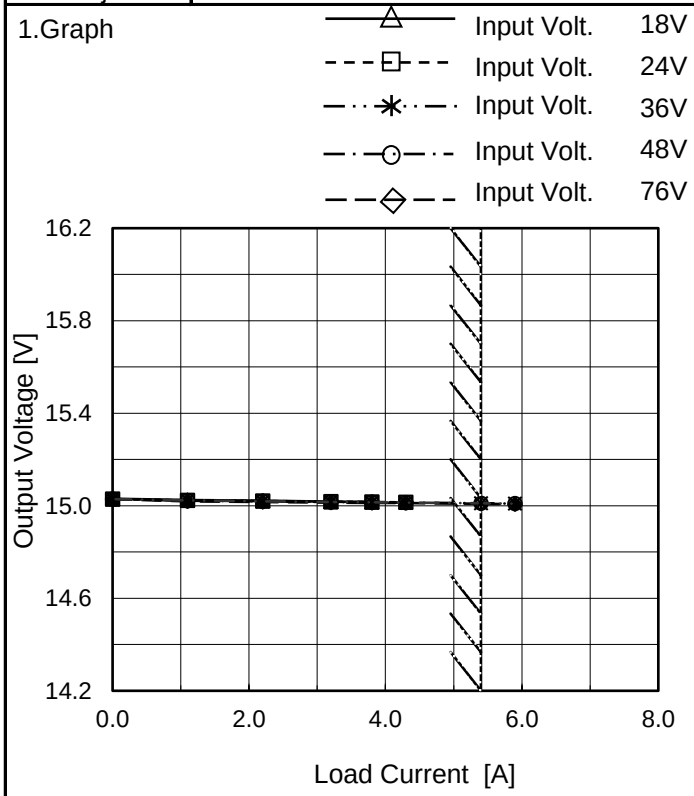
Model	STMGFS804815
Item	Load Regulation
Object	+15V5.4A

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	15.030	15.029	15.028	15.029	15.029
1.1	15.025	15.024	15.023	15.022	15.019
2.2	15.022	15.021	15.020	15.019	15.016
3.2	15.018	15.018	15.017	15.017	15.014
3.8	15.016	15.016	15.016	15.015	15.012
4.3	- ※1	15.014	15.014	15.014	15.012
5.4	- ※1	- ※2	15.011	15.010	15.009
5.9	- ※1	- ※2	15.009	15.009	15.007
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

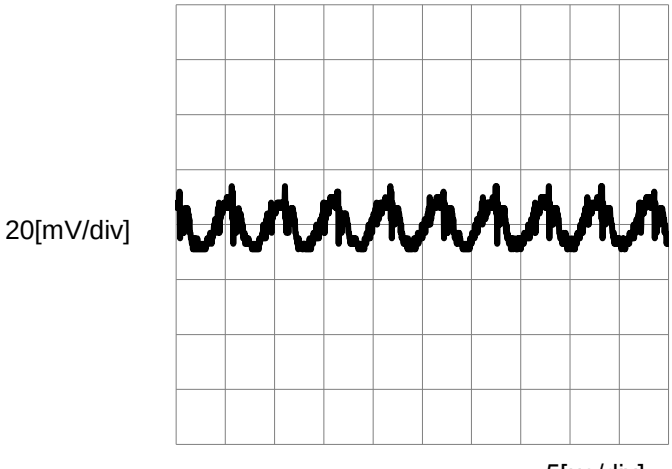
※1 Maximam output current at minimum input Voltage is 70% of rated load current.
※2 Maximam output current at 18V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

Item	Ripple-Noise
Object	+15V5.4A

Temperature 25°C
Testing Circuitry Figure B

1.Graph

Input Voltage 48V
Load 100%



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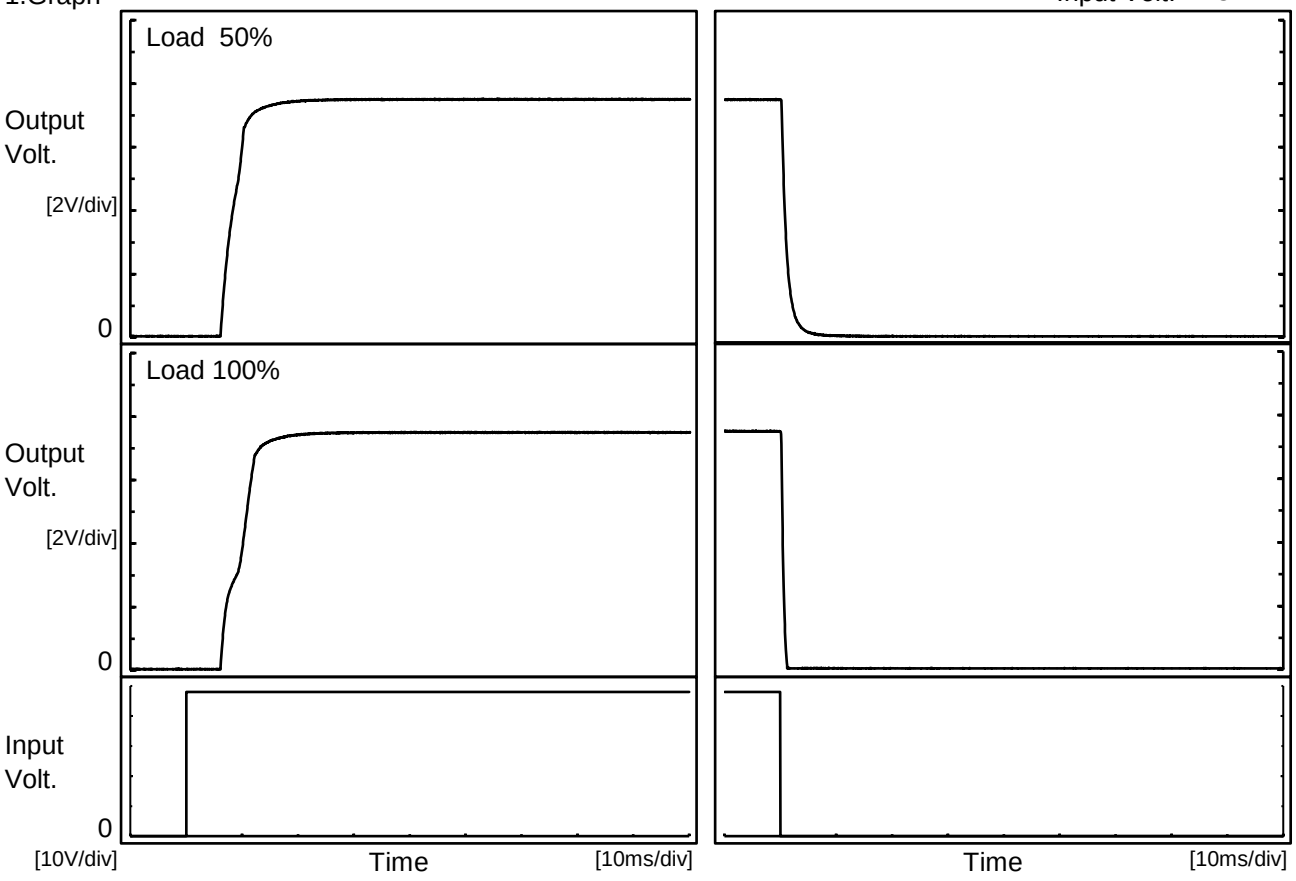
Model	STMGFS804815	
Item	Rise and Fall Time	Temperature 25°C Testing Circuitry Figure A
Object	+15V5.4A	

1.Graph

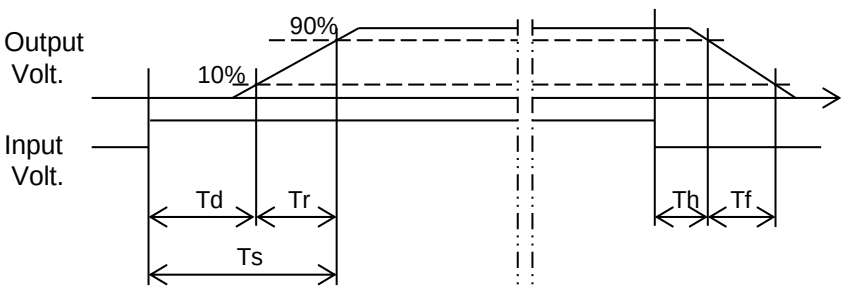
Input Volt. 48 V



2.Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	6.4	4.5	10.9	0.3	2.2
100 %	6.4	5.9	12.3	0.2	0.7



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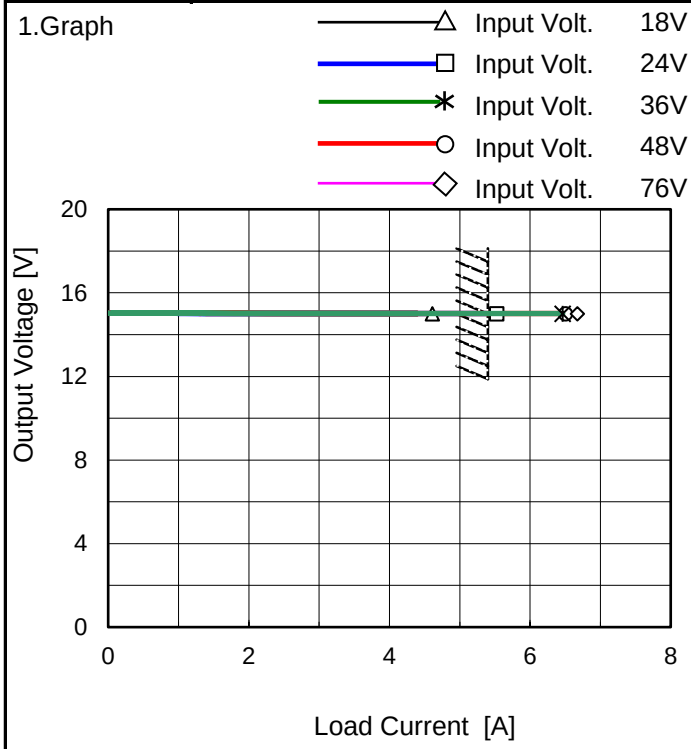
Model	STMGFS804815
Item	Overcurrent Protection
Object	+15V5.4A

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]
15.0	4.611	5.527	6.465	6.505	6.672
14.3	- ※1	- ※2	-	-	-
13.5	-	-	-	-	-
12.0	-	-	-	-	-
10.5	-	-	-	-	-
9.0	-	-	-	-	-
7.5	-	-	-	-	-
6.0	-	-	-	-	-
4.5	-	-	-	-	-
3.0	-	-	-	-	-
1.5	-	-	-	-	-
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	STMGFS804815	
Item	Ambient Temperature Drift	Testing Circuitry Figure A
Object	+15V5.4A	

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	14.970	14.976	14.966	14.966	14.965
25	15.010	15.012	15.007	15.007	15.005
50	15.019	15.019	15.014	15.014	15.012

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	+15V5.4A	

1.Values

Ambient Temperature[℃]	Input Voltage [V]	
	Load 50%	Load 70%
-20	15.1	15.1
25	15.2	15.1
50	15.2	15.1

Item	Overvoltage Protection	Testing Circuitry Figure A
Object	+15V5.4A	

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	18.84	18.84	18.84	18.86	18.86
25	18.98	18.98	18.98	19.00	19.00
50	18.98	18.98	18.98	18.99	18.99

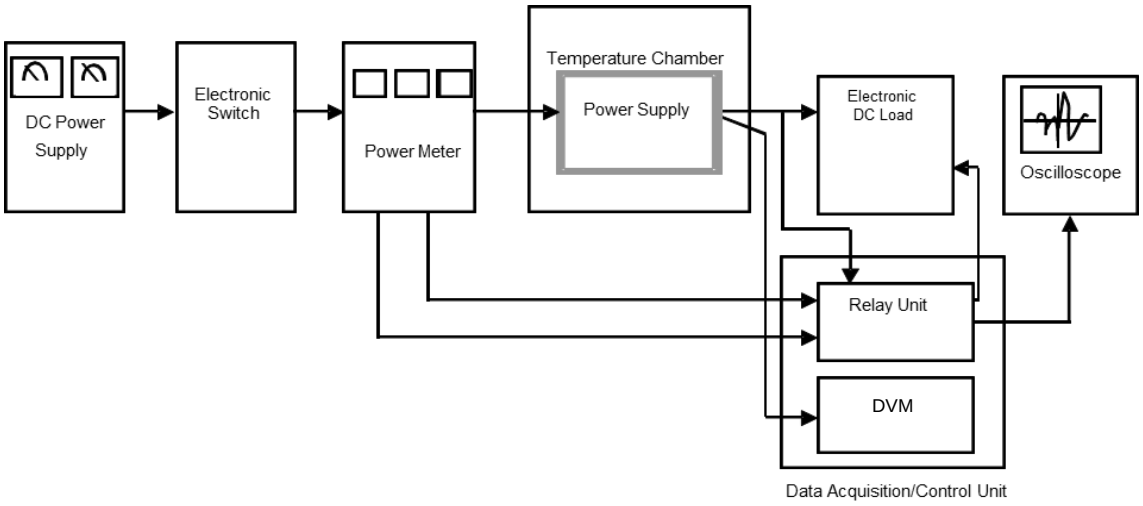

Figure A

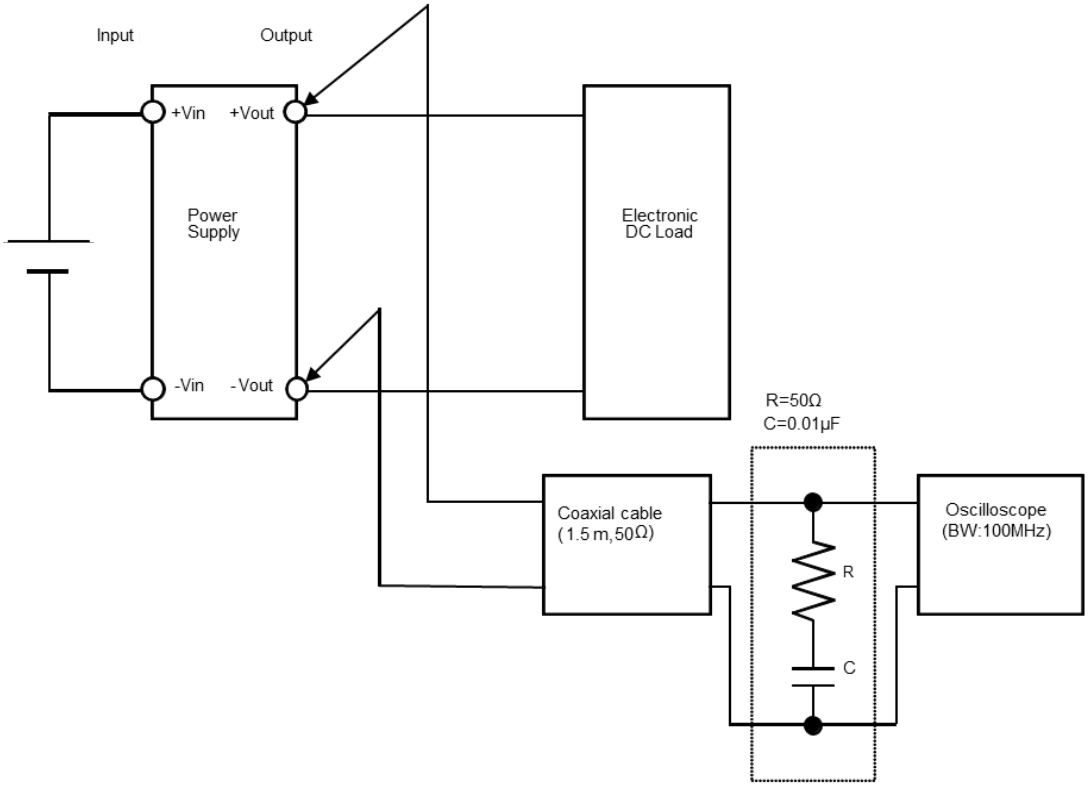

Figure B (Ripple noise Characteristic)