

TEST DATA OF STMGFS802405

Regulated DC Power Supply
May 18, 2021

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Hironobu Shimizu Design Manager

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COSEL CO.,LTD.



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Model	STMGFS802405	Temperature Testing Circuitry	25°C Figure A																																																																													
Item	Input Current (by Load Current)																																																																															
Object	_____																																																																															
1.Graph		<p>The graph shows the relationship between Input Current [A] on the Y-axis (0.0 to 16.0) and Load Current [A] on the X-axis (0 to 20). Five curves are plotted for different input voltages: 9V (solid line with open triangle), 12V (dashed line with open square), 18V (dash-dot line with asterisk), 24V (dash-dot-dot line with open circle), and 36V (dash-dot-dot-dot line with open diamond). All curves start at (0,0) and increase monotonically. A slanted line is drawn through the 12V curve, starting from approximately (3.2, 1.472) and ending at (16, 3.648), representing the rated load current range.</p>																																																																														
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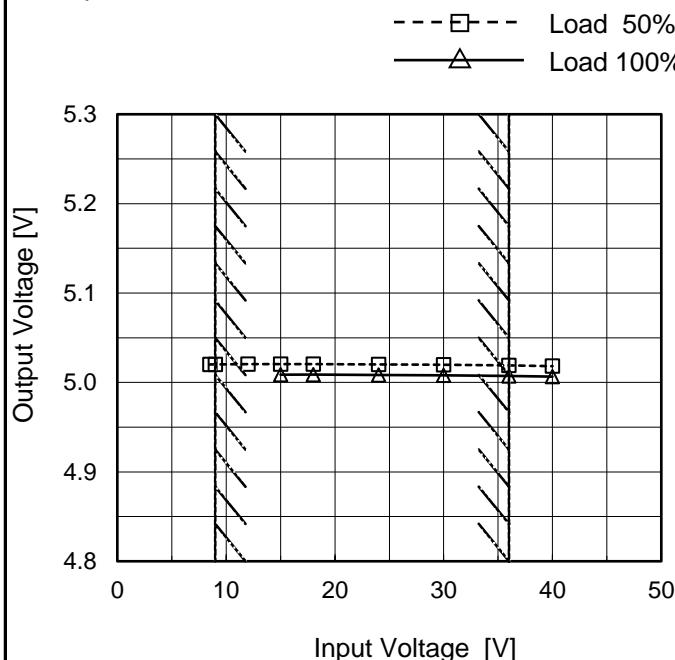
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Model	STMGFS802405
Item	Line Regulation
Object	+5V16A

 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%
8.5	5.020	-
9.0	5.020	-
12.0	5.020	-
15.0	5.020	5.009
18.0	5.021	5.009
24.0	5.020	5.009
30.0	5.020	5.008
36.0	5.019	5.007
40.0	5.018	5.007

※1 Maximum output current at minimum input Voltage is 70% of rated load current.

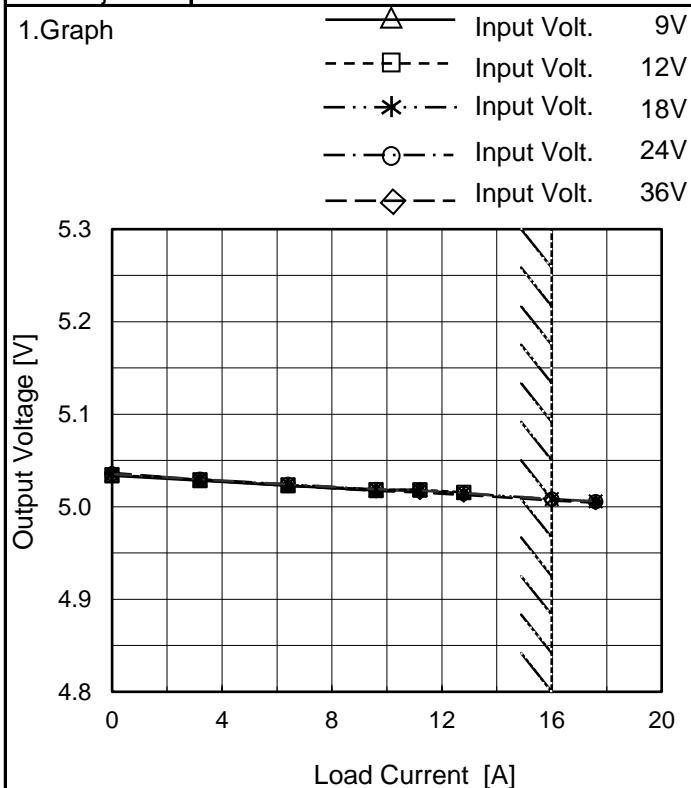
※2 Maximum output current at 12V input Voltage is 80% of rated load current.

Refer to instruction manuals for details of input derating.

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Model	STMGFS802405
Item	Load Regulation
Object	+5V16A

Temperature 25°C
Testing Circuitry Figure A



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

2.Values

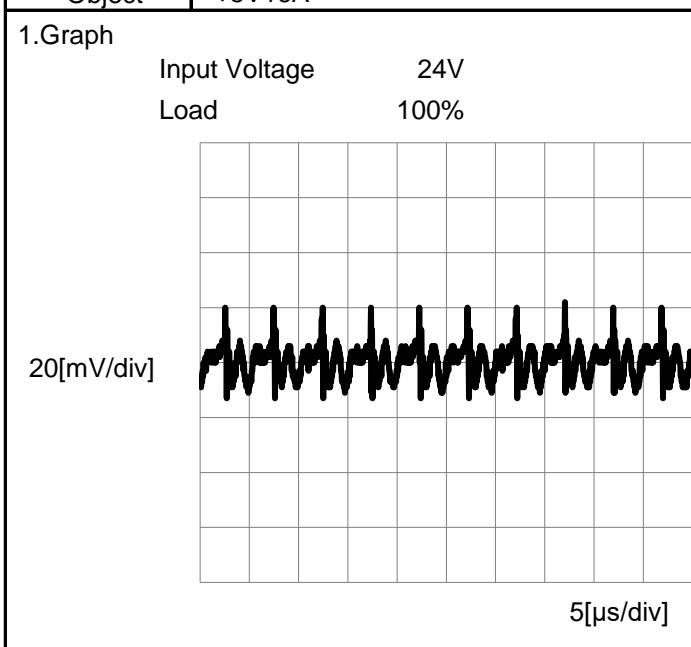
Load Current [A]	Output Voltage [V]				
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
0.0	5.034	5.034	5.035	5.035	5.037
3.2	5.028	5.029	5.030	5.030	5.029
6.4	5.023	5.024	5.024	5.024	5.023
9.6	5.018	5.018	5.019	5.019	5.017
11.2	5.019	5.018	5.018	5.017	5.016
12.8	-※1	5.016	5.015	5.015	5.013
16.0	-※1	-※2	5.008	5.008	5.007
17.6	-※1	-※2	5.006	5.006	5.004
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※1 Maximum output current at minimum input Voltage is 70% of rated load current.

※2 Maximum output current at 9V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

Item	Ripple-Noise
Object	+5V16A

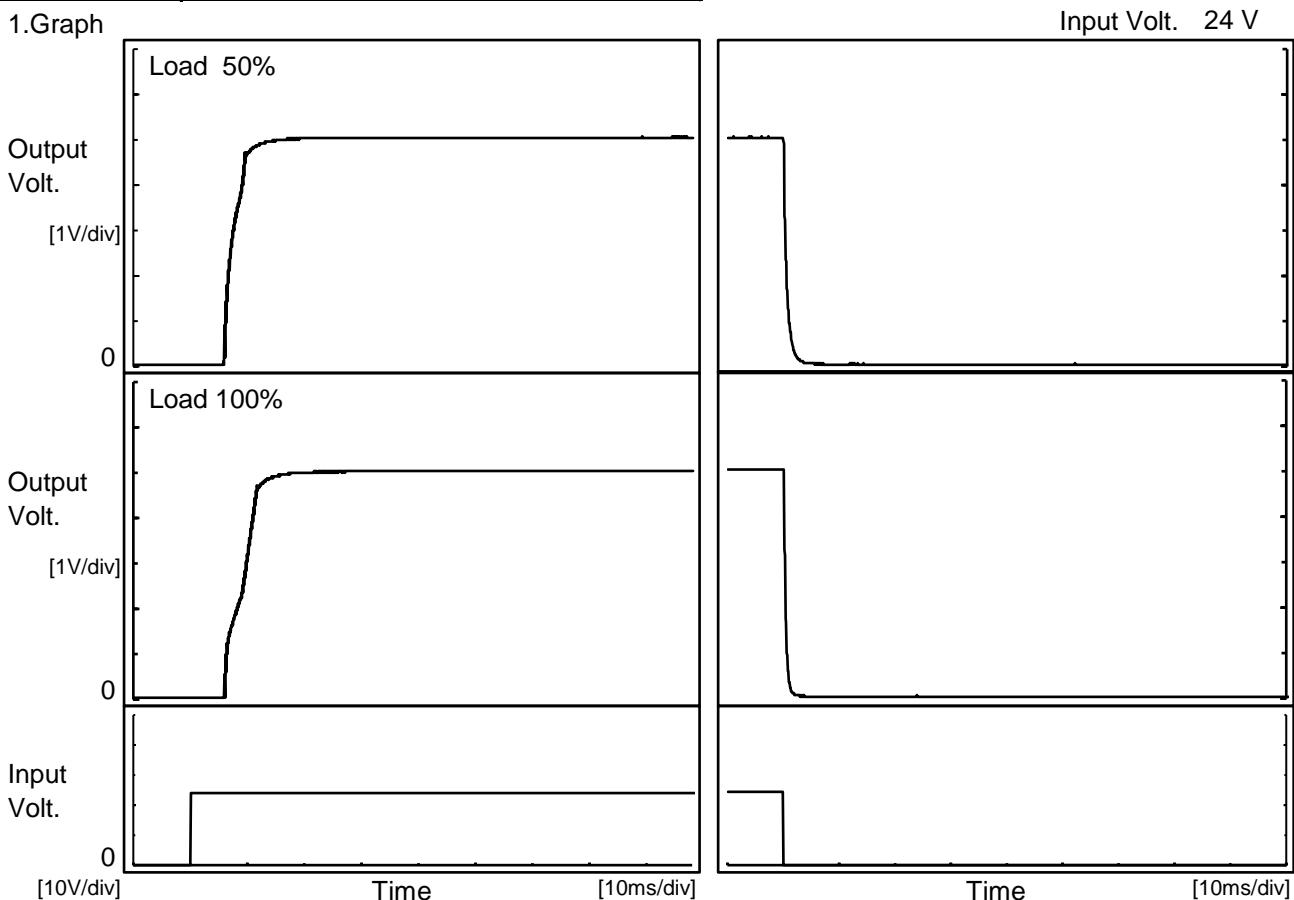
Temperature 25°C
Testing Circuitry Figure B



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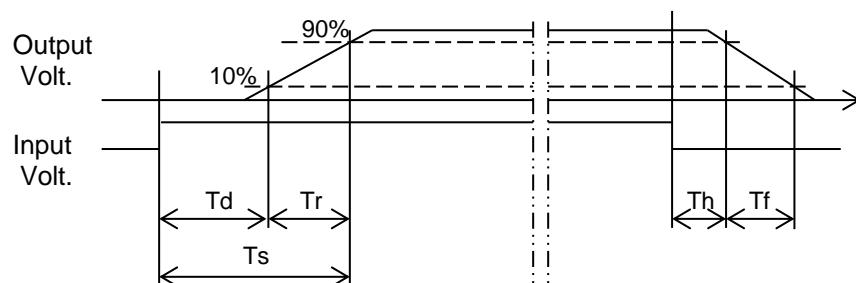
Model	STMGFS802405	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+5V16A		

1. Graph



2. Values

Load	Time	Td	Tr	Ts	Th	Tf	[ms]
50 %		6.3	3.5	9.8	0.2	1.5	
100 %		6.2	5.5	11.7	0.2	0.7	





Model	STMGFS802405	Temperature Testing Circuitry	25°C Figure A																																																																																			
Item	Overcurrent Protection																																																																																					
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※2 Maximum output current at 12V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.



Model	STMGFS802405	
Item	Ambient Temperature Drift	Testing Circuitry Figure A
Object	+5V16A	

1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]				
	Input Volt. 9V	Input Volt. 12V	Input Volt. 18V	Input Volt. 24V	Input Volt. 36V
-20	5.004	5.004	4.998	4.998	4.997
25	5.016	5.013	5.007	5.007	5.006
40	5.017	5.015	5.008	5.008	5.006

Note: In case of input Volt.9V, Load 70%. 12V, Load 80%.

Other case Load 100%.

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+5V16A	

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 70%
-20	7.6	7.7
25	7.6	7.7
40	7.7	7.7

Item	Overvoltage Protection	Testing Circuitry Figure A
Object	+5V16A	

1.Values

Load 0%

Ambient Temperature[°C]	Operating Point [V]				
	Input Volt. 9V	Input Volt. 12V	Input Volt. 18V	Input Volt. 24V	Input Volt. 36V
-20	6.22	6.22	6.22	6.22	6.22
25	6.29	6.29	6.29	6.29	6.29
40	6.29	6.29	6.29	6.29	6.29

COSEL

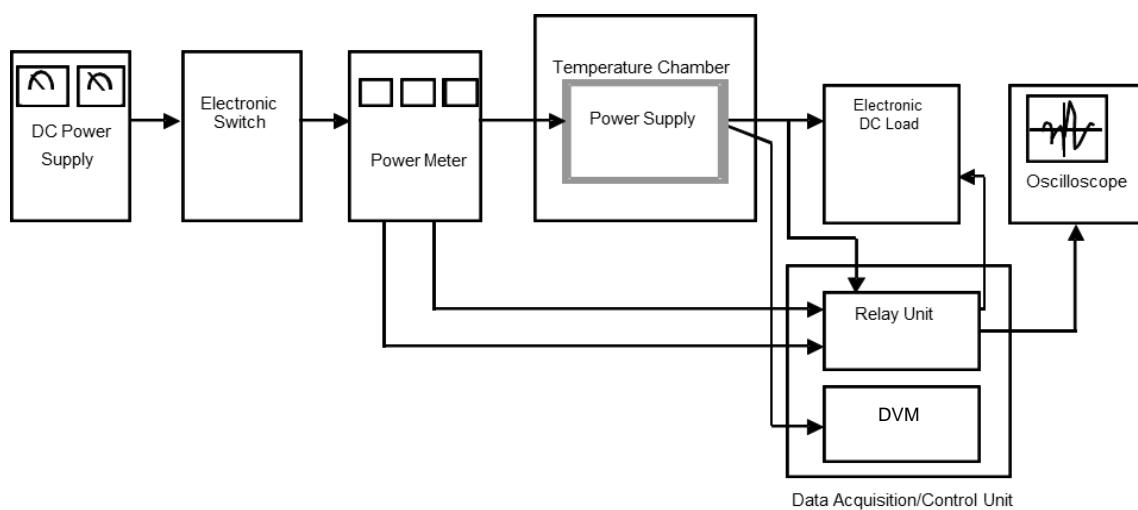


Figure A

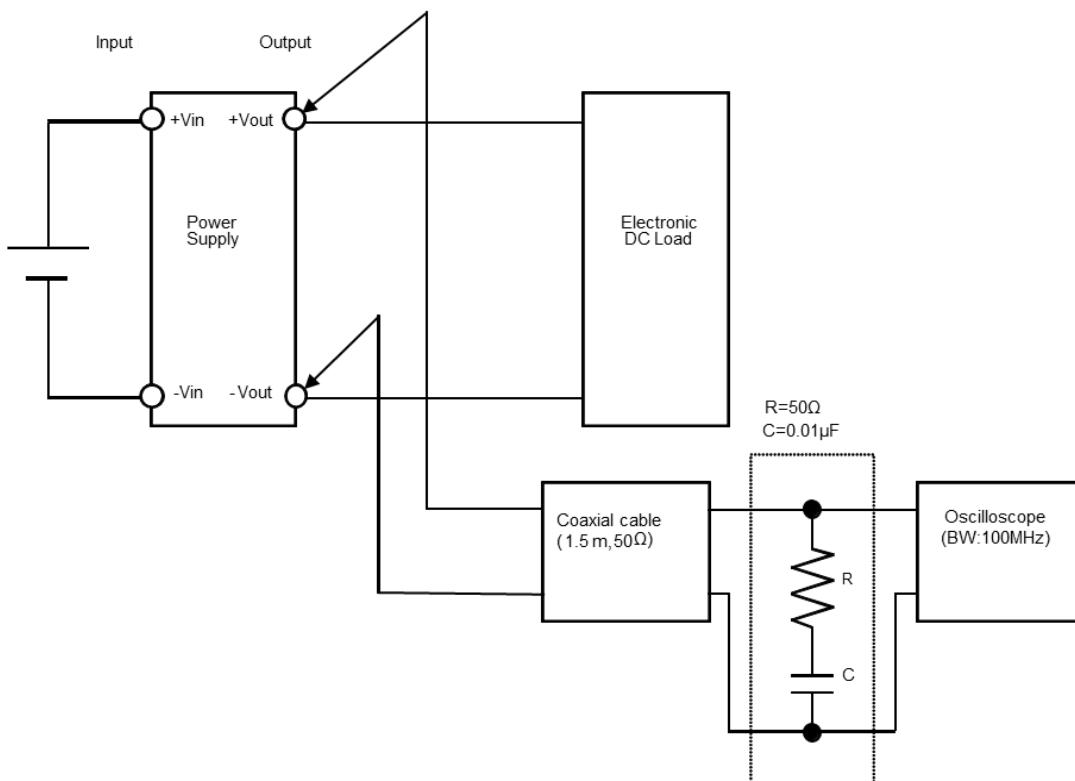


Figure B (Ripple noise Characteristic)