

# TEST DATA OF MGFS404815

Regulated DC Power Supply  
December 7, 2018

Approved by : Junichi Hatagishi  
Junichi Hatagishi Design Manager

Prepared by : Shohei Mukaide  
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**COSEL CO.,LTD.**

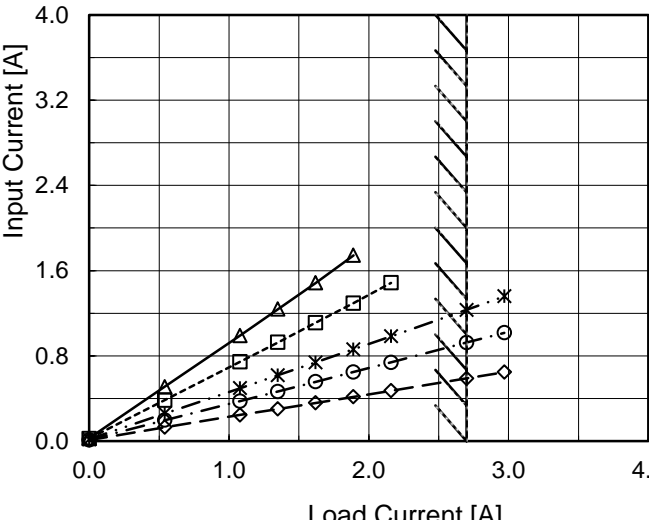
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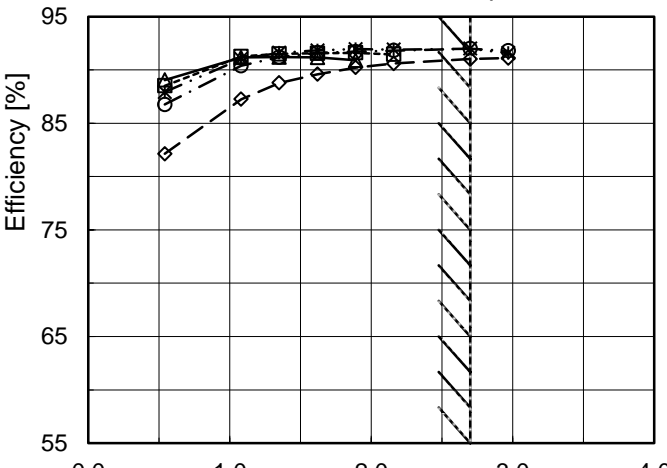
Model		MGFS404815		Temperature		25°C	
Item		Input Current (by Input Voltage)		Testing Circuitry		Figure A	
Object							
1.Graph				2.Values			
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**COSEL**

Model		MGFS404815		Temperature 25°C																																																																														
Item		Input Current (by Load Current)		Testing Circuitry Figure A																																																																														
Object																																																																																		
1.Graph		<div><div><div>—△—</div><div>Input Volt.</div><div>18V</div></div><div><div>---□---</div><div>Input Volt.</div><div>24V</div></div><div><div>-·-·*-·-·-</div><div>Input Volt.</div><div>36V</div></div><div><div>-·-○-·-·-</div><div>Input Volt.</div><div>48V</div></div><div><div>---◇---</div><div>Input Volt.</div><div>76V</div></div></div> <div></div> <div>Note: Slanted line shows the range of the rated load current.</div>		2.Values																																																																														
		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="5">Input Current [A]</th></tr><tr><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr><tr><td>0.00</td><td>0.029</td><td>0.024</td><td>0.019</td><td>0.012</td><td>0.011</td></tr><tr><td>0.54</td><td>0.510</td><td>0.385</td><td>0.259</td><td>0.197</td><td>0.131</td></tr><tr><td>1.08</td><td>0.992</td><td>0.745</td><td>0.497</td><td>0.376</td><td>0.246</td></tr><tr><td>1.35</td><td>1.239</td><td>0.927</td><td>0.618</td><td>0.465</td><td>0.302</td></tr><tr><td>1.62</td><td>1.485</td><td>1.112</td><td>0.739</td><td>0.556</td><td>0.359</td></tr><tr><td>1.89</td><td>1.744</td><td>1.294</td><td>0.862</td><td>0.649</td><td>0.415</td></tr><tr><td>2.16</td><td>- ※1</td><td>1.485</td><td>0.983</td><td>0.739</td><td>0.473</td></tr><tr><td>2.70</td><td>- ※1</td><td>- ※2</td><td>1.231</td><td>0.925</td><td>0.588</td></tr><tr><td>2.97</td><td>- ※1</td><td>- ※2</td><td>1.359</td><td>1.017</td><td>0.647</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>		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]	0.00	0.029	0.024	0.019	0.012	0.011	0.54	0.510	0.385	0.259	0.197	0.131	1.08	0.992	0.745	0.497	0.376	0.246	1.35	1.239	0.927	0.618	0.465	0.302	1.62	1.485	1.112	0.739	0.556	0.359	1.89	1.744	1.294	0.862	0.649	0.415	2.16	- ※1	1.485	0.983	0.739	0.473	2.70	- ※1	- ※2	1.231	0.925	0.588	2.97	- ※1	- ※2	1.359	1.017	0.647	--	-	-	-	-	-	--	-	-	-	-	-	<div>※1 Maximum output current at minimum input Voltage is 70% of rated load current.</div> <div>※2 Maximum output current at 24V input Voltage is 80% of rated load current.</div> <div>Refer to instruction manuals for details of input derating.</div>	
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Object			
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Model		MGFS404815		Temperature 25°C																																	
Item		Efficiency (by Input Voltage)		Testing Circuitry Figure A																																	
Object		_____																																			
1.Graph				2.Values																																	
<div><div><div>---□---</div><div>Load 50%</div></div><div><div>—△—</div><div>Load 100%</div></div></div> <table><thead><tr><th rowspan="2">Input Voltage [V]</th><th colspan="2">Efficiency [%]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr></thead><tbody><tr><td>17</td><td>91.1</td><td>90.8 ※1</td></tr><tr><td>18</td><td>91.2</td><td>90.9 ※1</td></tr><tr><td>24</td><td>91.5</td><td>91.4 ※2</td></tr><tr><td>30</td><td>91.7</td><td>91.5</td></tr><tr><td>36</td><td>91.6</td><td>92.0</td></tr><tr><td>48</td><td>91.2</td><td>92.0</td></tr><tr><td>60</td><td>90.2</td><td>91.5</td></tr><tr><td>76</td><td>88.8</td><td>91.0</td></tr><tr><td>80</td><td>88.3</td><td>90.8</td></tr></tbody></table>				Input Voltage [V]	Efficiency [%]		Load 50%	Load 100%	17	91.1	90.8 ※1	18	91.2	90.9 ※1	24	91.5	91.4 ※2	30	91.7	91.5	36	91.6	92.0	48	91.2	92.0	60	90.2	91.5	76	88.8	91.0	80	88.3	90.8		
Input Voltage [V]	Efficiency [%]																																				
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18	91.2	90.9 ※1																																			
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76	88.8	91.0																																			
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Note: Slanted line shows the range of the rated input voltage.				※1: Load 70% ※2: Load 80%																																	

Model		MGFS404815		Temperature 25°C																																																																														
Item		Efficiency (by Load Current)		Testing Circuitry Figure A																																																																														
Object																																																																																		
1.Graph		<div><div>—△—</div>Input Volt. 18V</div>		2.Values																																																																														
		<div>---□---</div> Input Volt. 24V		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="5">Efficiency [%]</th></tr><tr><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr><tr><td>0.00</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>0.54</td><td>89.0</td><td>88.5</td><td>87.9</td><td>86.8</td><td>82.1</td></tr><tr><td>1.08</td><td>91.2</td><td>91.3</td><td>91.0</td><td>90.4</td><td>87.2</td></tr><tr><td>1.35</td><td>91.2</td><td>91.5</td><td>91.6</td><td>91.2</td><td>88.8</td></tr><tr><td>1.62</td><td>91.2</td><td>91.6</td><td>91.8</td><td>91.6</td><td>89.6</td></tr><tr><td>1.89</td><td>90.9</td><td>91.6</td><td>92.0</td><td>91.7</td><td>90.2</td></tr><tr><td>2.16</td><td>- ※1</td><td>91.4</td><td>91.9</td><td>91.8</td><td>90.6</td></tr><tr><td>2.70</td><td>- ※1</td><td>- ※2</td><td>92.0</td><td>92.0</td><td>91.0</td></tr><tr><td>2.97</td><td>- ※1</td><td>- ※2</td><td>91.6</td><td>91.8</td><td>91.1</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>		Load Current [A]	Efficiency [%]					Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]	0.00	-	-	-	-	-	0.54	89.0	88.5	87.9	86.8	82.1	1.08	91.2	91.3	91.0	90.4	87.2	1.35	91.2	91.5	91.6	91.2	88.8	1.62	91.2	91.6	91.8	91.6	89.6	1.89	90.9	91.6	92.0	91.7	90.2	2.16	- ※1	91.4	91.9	91.8	90.6	2.70	- ※1	- ※2	92.0	92.0	91.0	2.97	- ※1	- ※2	91.6	91.8	91.1	--	-	-	-	-	-	--	-	-	-	-	-
Load Current [A]	Efficiency [%]																																																																																	
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Note: Slanted line shows the range of the rated load current.				<div>※1 Maximum output current at minimum input Voltage is 70% of rated load current.</div>																																																																														
				<div>※2 Maximum output current at 24V input Voltage is 80% of rated load current.</div>																																																																														
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Model		MGFS404815	
Item		Line Regulation	
Object		+15V2.7A	
1.Graph		2.Values	

---		□	---		Load 50%
---		△	---		Load 100%

Output Voltage [V]	16.2	15.8	15.4	15.0	14.6	14.2	0	15	30	45	60	75	90	Input Voltage [V]

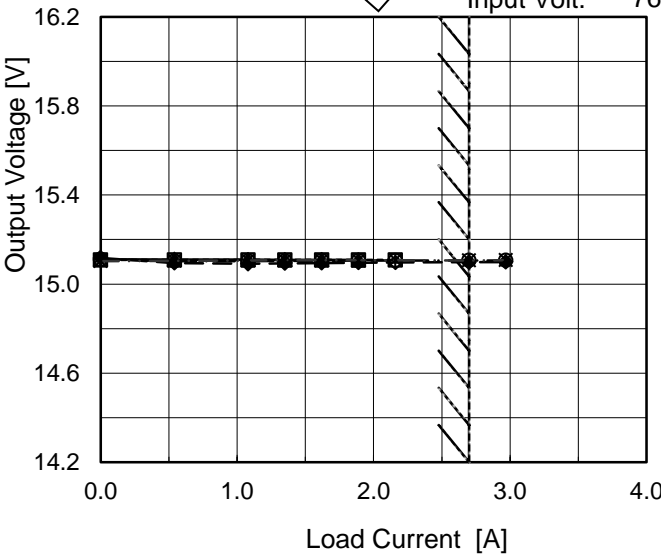
Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
17	15.108	- ※1
18	15.109	- ※1
24	15.108	- ※2
30	15.107	15.106
36	15.106	15.106
48	15.104	15.106
60	15.099	15.102
76	15.093	15.098
80	15.090	15.097

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

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



**COSEL**

Model		MGFS404815		Temperature 25°C																																																																															
Item		Load Regulation		Testing Circuitry Figure A																																																																															
Object		+15V2.7A																																																																																	
1.Graph		<div><div><div>—△—</div><div>Input Volt.</div><div>18V</div></div><div><div>---□---</div><div>Input Volt.</div><div>24V</div></div><div><div>-··*·-·-</div><div>Input Volt.</div><div>36V</div></div><div><div>-··○-·-</div><div>Input Volt.</div><div>48V</div></div><div><div>---◇---</div><div>Input Volt.</div><div>76V</div></div></div> <div></div>		2.Values																																																																															
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Note: Slanted line shows the range of the rated load current.		<div>※1 Maximum output current at minimum input Voltage is 70% of rated load current.</div> <div>※2 Maximum output current at 24V input Voltage is 80% of rated load current.</div> <div>Refer to instruction manuals for details of input derating.</div>																																																																																	

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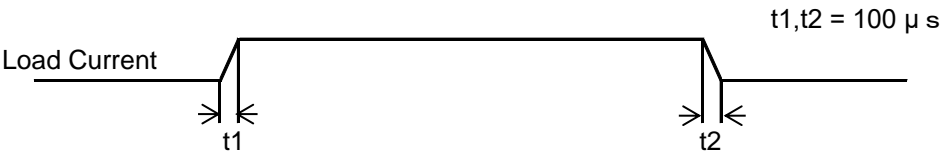
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BC-11324

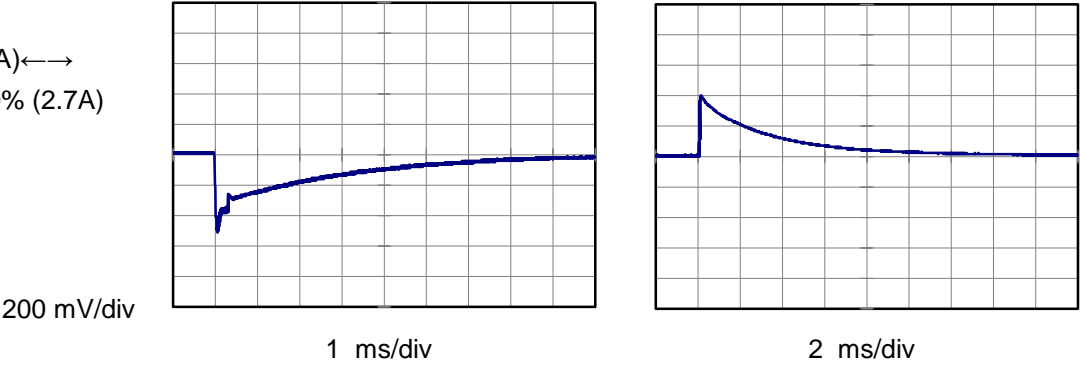


Model	MGFS404815		
Item	Dynamic Load Response	Temperature	25°C
Object	+15V2.7A	Testing Circuitry	Figure A

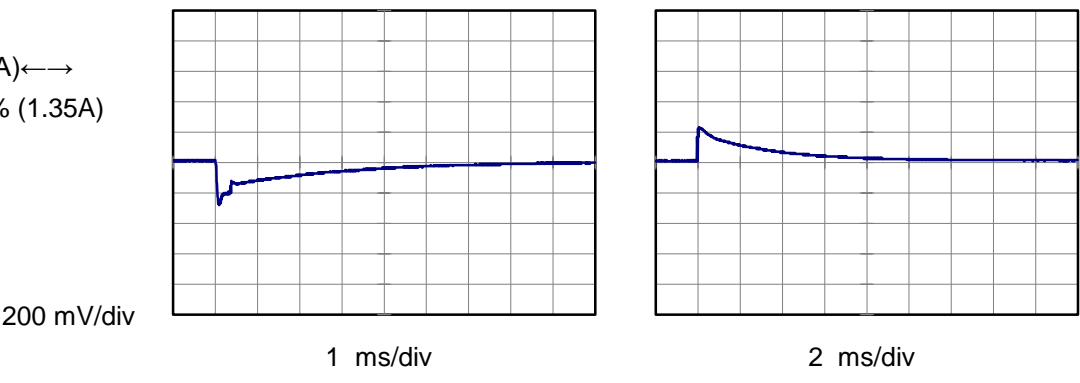
Input Volt. 48 V  
Cycle 100 ms



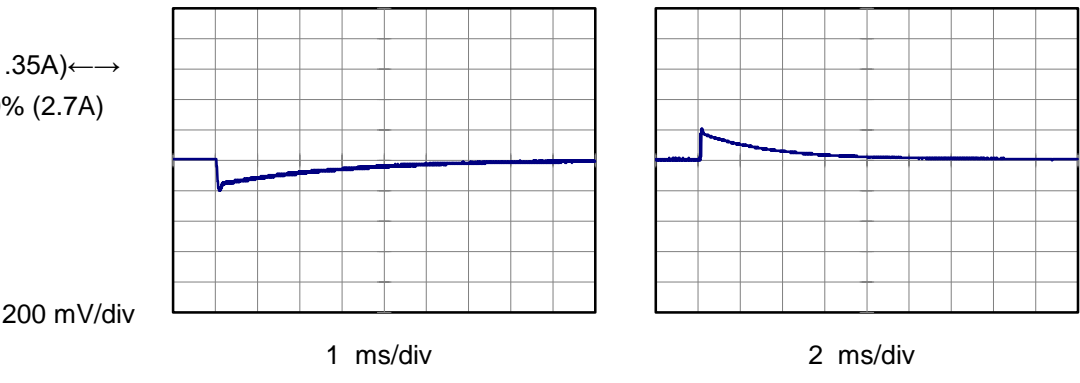
Min.Load (0A) $\longleftrightarrow$   
Load 100% (2.7A)



Min.Load (0A) $\longleftrightarrow$   
Load 50% (1.35A)



Load 50% (1.35A) $\longleftrightarrow$   
Load 100% (2.7A)

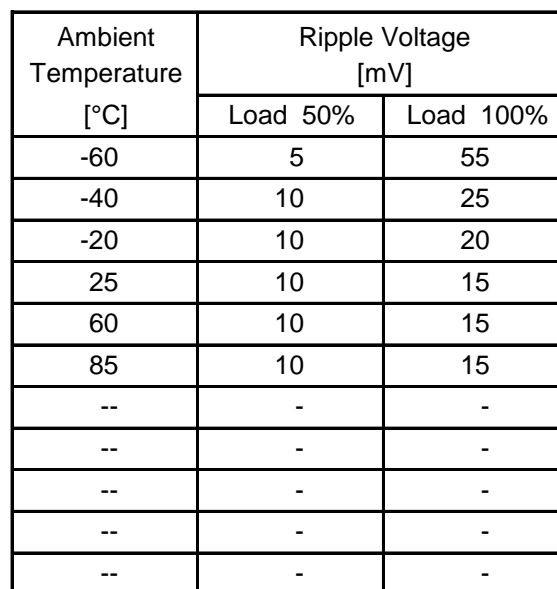


Model		MGFS404815		Temperature 25°C																																							
Item		Ripple Voltage (by Load Current)		Testing Circuitry Figure B																																							
Object		+15V2.7A																																									
1.Graph				2.Values																																							
<div><div><div>—△— Input Volt. 18V</div><div>- -○- - Input Volt. 76V</div></div><p>Measured by 100 MHz Oscilloscope. Ripple Voltage is shown as p-p in the figure below. Note: Slanted line shows the range of the rated load current.</p></div>				<table><tr><th rowspan="2">Load Current [A]</th><th colspan="2">Ripple Voltage [mV]</th></tr><tr><th>Input Volt. 18 [V]</th><th>Input Volt. 76 [V]</th></tr><tr><td>0.00</td><td>15</td><td>25</td></tr><tr><td>0.54</td><td>10</td><td>10</td></tr><tr><td>1.08</td><td>10</td><td>10</td></tr><tr><td>1.62</td><td>25</td><td>15</td></tr><tr><td>1.89</td><td>40</td><td>15</td></tr><tr><td>2.16</td><td>- ※</td><td>10</td></tr><tr><td>2.70</td><td>- ※</td><td>10</td></tr><tr><td>2.97</td><td>- ※</td><td>10</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Load Current [A]	Ripple Voltage [mV]		Input Volt. 18 [V]	Input Volt. 76 [V]	0.00	15	25	0.54	10	10	1.08	10	10	1.62	25	15	1.89	40	15	2.16	- ※	10	2.70	- ※	10	2.97	- ※	10	--	-	-	--	-	-	--	-	-
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Model		MGFS404815																																							
Item		Ripple-Noise																																							
Object		+15V2.7A																																							
1.Graph		2.Values																																							
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Testing Circuitry Figure B

## 2.Values



Note: Slanted line shows the range of the rated ambient temperature.

Model		MGFS404815																																																																														
Item		Ambient Temperature Drift																																																																														
Object		+15V2.7A																																																																														
1.Graph		<div><div><div>—△—</div>Input Volt. 18V</div><div><div>---□---</div>Input Volt. 24V</div><div><div>-·*·-</div>Input Volt. 36V</div><div><div>-·○-</div>Input Volt. 48V</div><div><div>---◇---</div>Input Volt. 76V</div></div> <div><p>Output Voltage [V]</p><p>Ambient Temperature [°C]</p><p>Load 100%</p><p>Note: Slanted line shows the range of the rated ambient temperature.</p></div>																																																																														
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Model		MGFS404815	Testing Circuitry Figure A
Item		Output Voltage Accuracy	
Object		+15V2.7A	

### 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 : -40 - 65°C

Input Voltage : 18 - 76V

Load Current : 0 - 2.7A

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

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

### 2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	65	76	0	15.126	±47	±0.3
Minimum Voltage	-40	76	2.7	15.032		



Model		MGFS404815	Temperature 25°C Testing Circuitry Figure A
Item		Time Lapse Drift	
Object		+15V2.7A	
1.Graph			2.Values
<div><div><div><div>Output Voltage [V]</div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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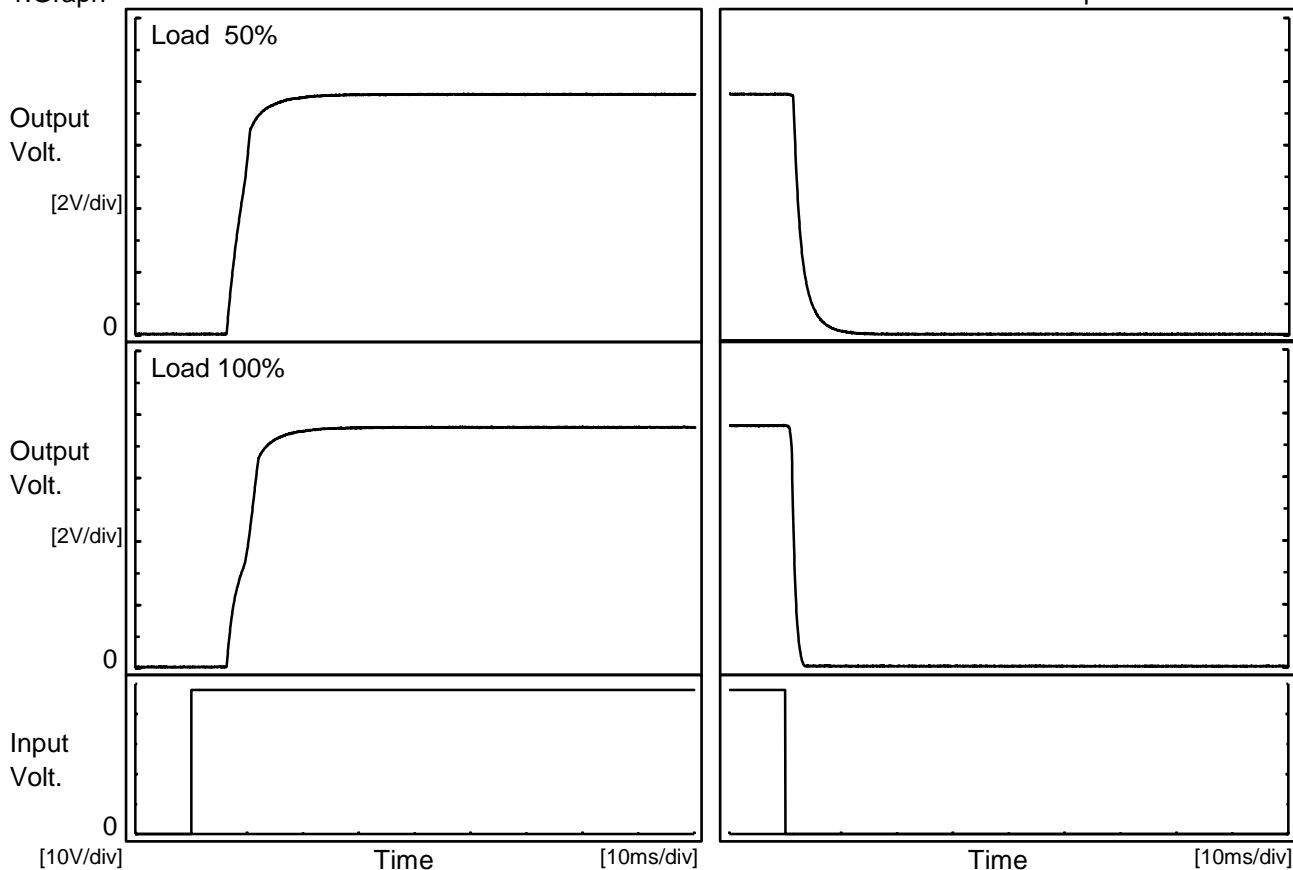




Model	MGFS404815	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+15V2.7A		

# 1.Graph

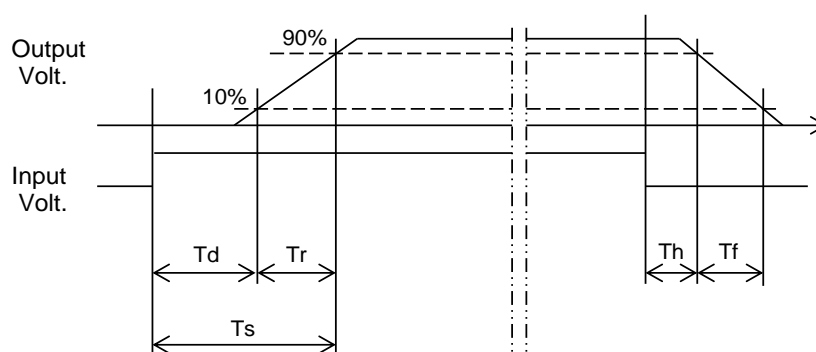
Input Volt. 48 V



# 2.Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	6.7	4.8	11.5	1.6	3.7
100 %	6.7	5.8	12.5	1.2	1.3



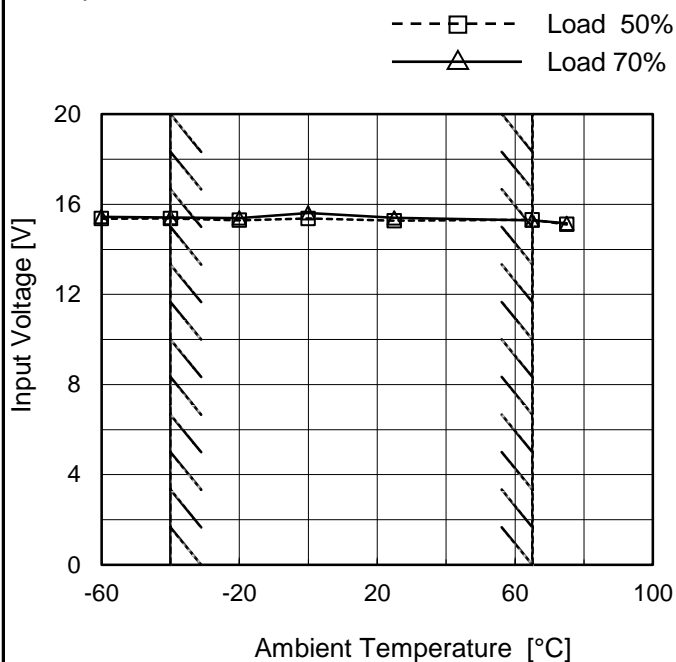
Model MGFS404815

Item Minimum Input Voltage  
for Regulated Output Voltage

Object +15V2.7A

Testing Circuitry Figure A

# 1.Graph

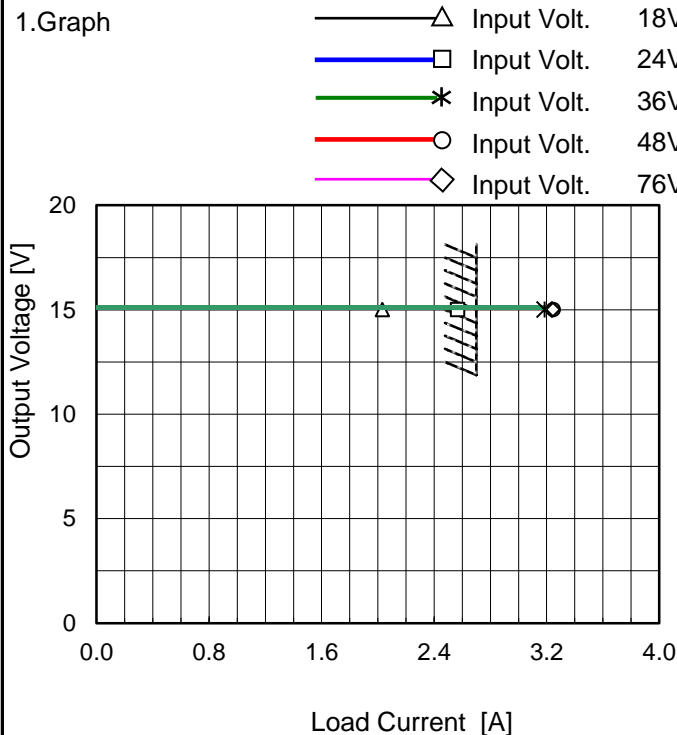


Note: Slanted line shows the range of the rated ambient temperature.

# 2.Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 70%
-60	15.4	15.5
-40	15.4	15.4
-20	15.3	15.4
0	15.4	15.7
25	15.3	15.4
65	15.4	15.3
75	15.2	15.2
--	-	-
--	-	-
--	-	-
--	-	-

Model		MGFS404815		Temperature 25°C																																																																																				
Item		Overcurrent Protection		Testing Circuitry Figure A																																																																																				
Object		+15V2.7A																																																																																						
1.Graph		<div><div><div>△</div><div>Input Volt.</div><div>18V</div></div><div><div>□</div><div>Input Volt.</div><div>24V</div></div><div><div>*</div><div>Input Volt.</div><div>36V</div></div><div><div>○</div><div>Input Volt.</div><div>48V</div></div><div><div>◇</div><div>Input Volt.</div><div>76V</div></div></div> <div><table><thead><tr><th>Input Volt.</th><th>Load Current [A]</th></tr></thead><tbody><tr><td>18V</td><td>2.034</td></tr><tr><td>24V</td><td>2.568</td></tr><tr><td>36V</td><td>3.187</td></tr><tr><td>48V</td><td>3.249</td></tr><tr><td>76V</td><td>3.245</td></tr></tbody></table></div>		Input Volt.	Load Current [A]	18V	2.034	24V	2.568	36V	3.187	48V	3.249	76V	3.245	2.Values																																																																								
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		<table><thead><tr><th rowspan="2">Output Voltage [V]</th><th colspan="5">Load Current [A]</th></tr><tr><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr></thead><tbody><tr><td>15.0</td><td>2.034</td><td>2.568</td><td>3.187</td><td>3.249</td><td>3.245</td></tr><tr><td>14.3</td><td>- ※1</td><td>- ※2</td><td>-</td><td>-</td><td>-</td></tr><tr><td>13.5</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>12.0</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>10.5</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>9.0</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>7.5</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>6.0</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>4.5</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>3.0</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>1.5</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>0.0</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></tbody></table>				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	2.034	2.568	3.187	3.249	3.245	14.3	- ※1	- ※2	-	-	-	13.5	-	-	-	-	-	12.0	-	-	-	-	-	10.5	-	-	-	-	-	9.0	-	-	-	-	-	7.5	-	-	-	-	-	6.0	-	-	-	-	-	4.5	-	-	-	-	-	3.0	-	-	-	-	-	1.5	-	-	-	-	-	0.0	-	-	-	-	-
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Note: Slanted line shows the range of the rated load current.																																																																																								
Intermittent operation activates when overcurrent protection is activated.																																																																																								
		※1 Maximum output current at minimum input Voltage is 70% of rated load current.																																																																																						
		※2 Maximum output current at 24V input Voltage is 80% of rated load current.																																																																																						
		Refer to instruction manuals for details of input derating.																																																																																						

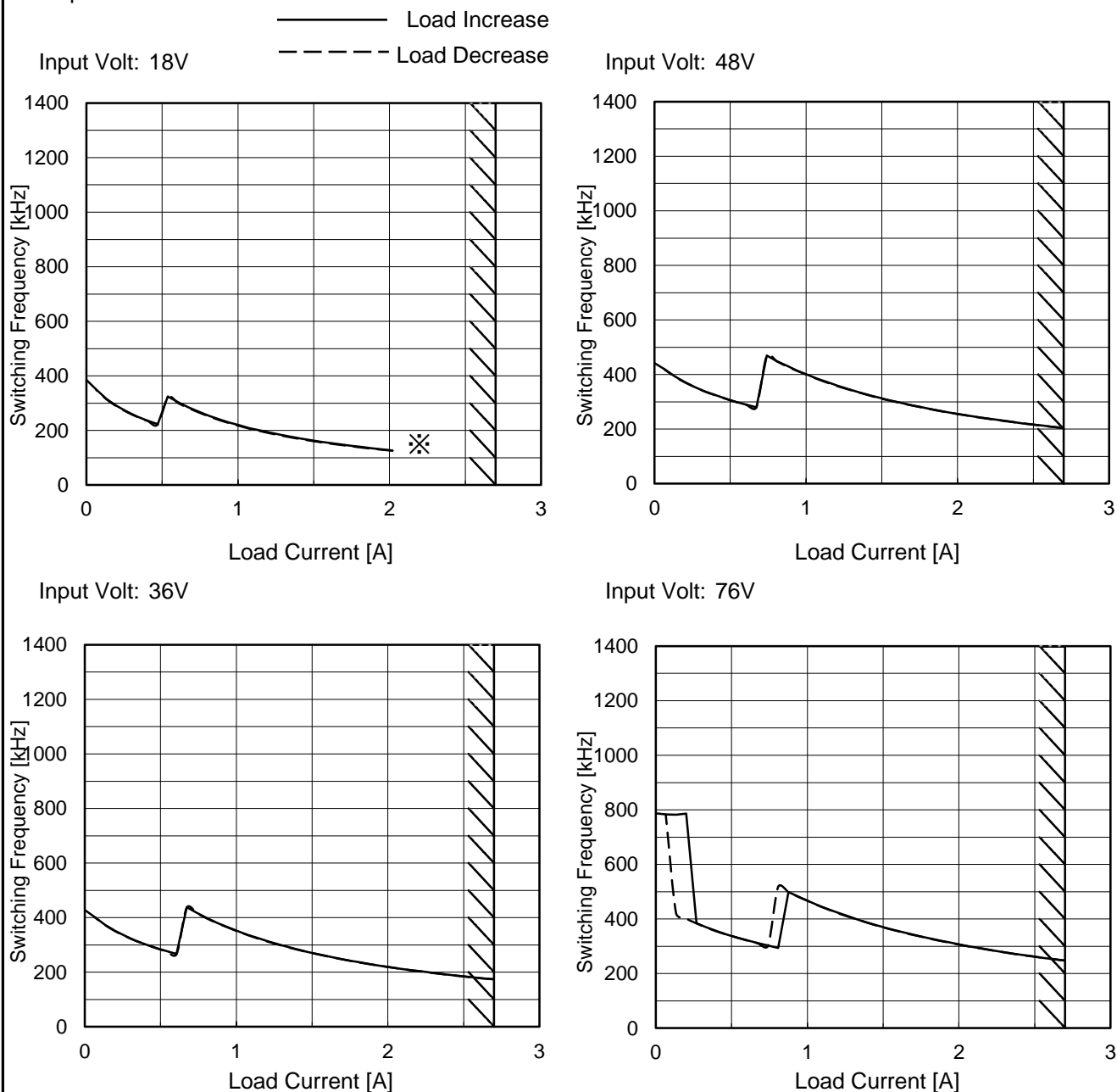


Model	MGFS404815		
Item	Overvoltage Protection	Temperature	25°C
Object	+15V2.7A	Testing Circuitry	Figure A
<p>1.Graph</p> <p> <span style="display: inline-block; width: 20px; border-bottom: 1px solid black; margin-right: 5px;"></span>△<span style="display: inline-block; width: 20px; border-bottom: 1px dashed black; margin-right: 5px;"></span>□<span style="display: inline-block; width: 20px; border-bottom: 1px dash-dot black; margin-right: 5px;"></span>*<span style="display: inline-block; width: 20px; border-bottom: 1px solid black; margin-right: 5px;"></span> </p> <p> <span style="display: inline-block; width: 20px; border-bottom: 1px solid black; margin-right: 5px;"></span>△<span style="display: inline-block; width: 20px; border-bottom: 1px dashed black; margin-right: 5px;"></span>□<span style="display: inline-block; width: 20px; border-bottom: 1px dash-dot black; margin-right: 5px;"></span>*<span style="display: inline-block; width: 20px; border-bottom: 1px solid black; margin-right: 5px;"></span> </p> <p> <span style="display: inline-block; width: 20px; border-bottom: 1px solid black; margin-right: 5px;"></span>△<span style="display: inline-block; 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# COSEL

Model	MGFS404815	Temperature	25°C
Item	Switching frequency (by Load Current)	Testing Circuitry	Figure A
Object	15V2.7A		

## 1. Graph



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

-switching frequency of MG40 changes depending on load current and input voltage.  
When load current is low, switching frequency becomes high and step down to low frequency at certain point.  
There is hysteresis, so characteristic is different between load increase (sweep from 0% to 100%) and load decrease (sweep from 100% to 0%).

-When load current is low, MG40 operates intermittently, so switching frequency can not be stable.

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

Refer to instruction manuals for details of input derating.

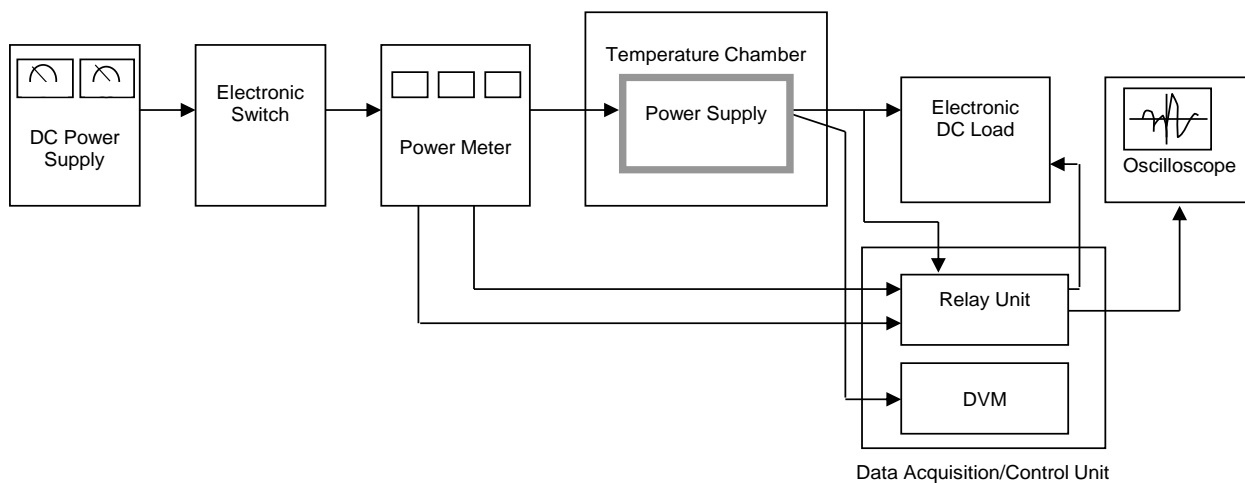


Figure A

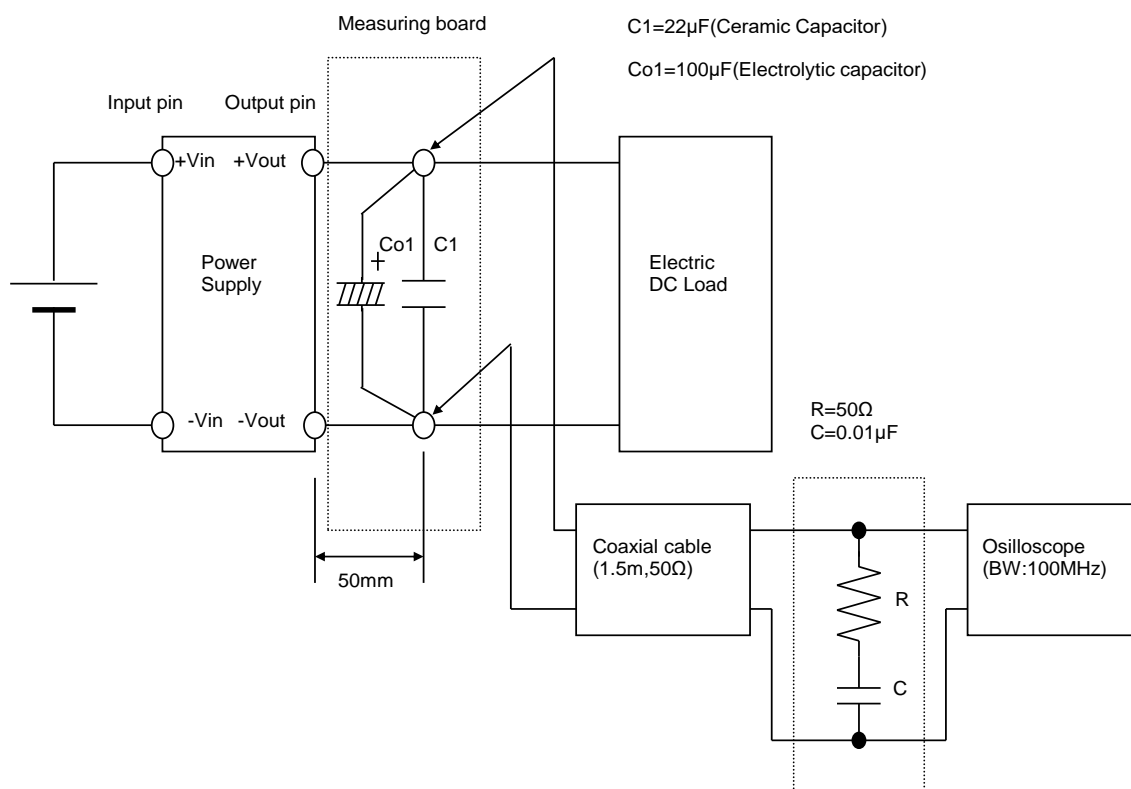


Figure B (Ripple and Ripple noise Characteristic)