

TEST DATA OF MHFS62415

Regulated DC Power Supply
October 26, 2021

Approved by : Kenichi Tsukada
Design Manager

Prepared by : Yoshihiko Saeki
Design Engineer

COSEL CO.,LTD.

CONTENTS

1.Input Current (by Load Current)	1
2.Efficiency (by Load Current)	2
3.Line Regulation	3
4.Load Regulation	4
5.Ripple-Noise	4
6.Dynamic Load Response	5
7.Rise and Fall Time	6
8.Overcurrent Protection	7
9.Ambient Temperature Drift	8
10.Minimum Input Voltage for Regulated Output Voltage	8
11.Switching frequency (by Load Current)	9
12.Figure of Testing Circuitry	10

(Final Page 10)

LUSEL																																																																																		
Model	MHFS62415																																																																																	
Item	Input Current (by Load Current)	Temperature Testing Circuitry	25°C Figure A																																																																															
Object																																																																																		
1.Graph		2.Values																																																																																
<div><div><div>—△— Input Volt. 9V ---□-- Input Volt. 12V -·-*·- Input Volt. 18V -·-○-·- Input Volt. 24V --◇-- Input Volt. 36V</div><p>The graph plots Input Current [A] on the y-axis (0.0 to 1.0) against Load Current [A] on the x-axis (0.00 to 0.50). Six linear data series are shown for different input voltages: 9V (triangles), 12V (squares), 18V (asterisks), 24V (circles), and 36V (diamonds). All series originate from approximately (0.02, 0.03). The slope increases with higher input voltage. A vertical slanted dashed line indicates the rated load current range, starting around 0.38A.</p></div><p>Note: Slanted line shows the range of the rated load current.</p></div>		<table><thead><tr><th rowspan="2">Load Current [A]</th><th colspan="5">Input Current [A]</th></tr><tr><th>9[V]</th><th>12[V]</th><th>18[V]</th><th>24[V]</th><th>36[V]</th></tr></thead><tbody><tr><td>0.00</td><td>0.034</td><td>0.029</td><td>0.022</td><td>0.018</td><td>0.006</td></tr><tr><td>0.08</td><td>0.181</td><td>0.138</td><td>0.094</td><td>0.073</td><td>0.051</td></tr><tr><td>0.16</td><td>0.330</td><td>0.248</td><td>0.167</td><td>0.128</td><td>0.088</td></tr><tr><td>0.24</td><td>0.489</td><td>0.364</td><td>0.242</td><td>0.183</td><td>0.124</td></tr><tr><td>0.32</td><td>0.651</td><td>0.483</td><td>0.321</td><td>0.241</td><td>0.162</td></tr><tr><td>0.36</td><td>0.733</td><td>0.542</td><td>0.361</td><td>0.270</td><td>0.181</td></tr><tr><td>0.40</td><td>*1</td><td>0.602</td><td>0.398</td><td>0.300</td><td>0.201</td></tr><tr><td>0.44</td><td>*1</td><td>0.663</td><td>0.437</td><td>0.328</td><td>0.221</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><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></tbody></table> <p>*1 Maximum output current at 9V input Voltage is 80% of rated load current. Refer to instruction manuals for details of input derating.</p>				Load Current [A]	Input Current [A]					9[V]	12[V]	18[V]	24[V]	36[V]	0.00	0.034	0.029	0.022	0.018	0.006	0.08	0.181	0.138	0.094	0.073	0.051	0.16	0.330	0.248	0.167	0.128	0.088	0.24	0.489	0.364	0.242	0.183	0.124	0.32	0.651	0.483	0.321	0.241	0.162	0.36	0.733	0.542	0.361	0.270	0.181	0.40	*1	0.602	0.398	0.300	0.201	0.44	*1	0.663	0.437	0.328	0.221	--	-	-	-	-	-	--	-	-	-	-	-	--	-	-	-	-	-
Load Current [A]	Input Current [A]																																																																																	
	9[V]	12[V]	18[V]	24[V]	36[V]																																																																													
0.00	0.034	0.029	0.022	0.018	0.006																																																																													
0.08	0.181	0.138	0.094	0.073	0.051																																																																													
0.16	0.330	0.248	0.167	0.128	0.088																																																																													
0.24	0.489	0.364	0.242	0.183	0.124																																																																													
0.32	0.651	0.483	0.321	0.241	0.162																																																																													
0.36	0.733	0.542	0.361	0.270	0.181																																																																													
0.40	*1	0.602	0.398	0.300	0.201																																																																													
0.44	*1	0.663	0.437	0.328	0.221																																																																													
--	-	-	-	-	-																																																																													
--	-	-	-	-	-																																																																													
--	-	-	-	-	-																																																																													

Model		MHFS62415		Temperature 25°C																																																																														
Item		Efficiency (by Load Current)		Testing Circuitry Figure A																																																																														
Object																																																																																		
1.Graph		<div><div><div>—△—</div>Input Volt. 9V</div><div><div>---□---</div>Input Volt. 12V</div><div><div>-·-*·-</div>Input Volt. 18V</div><div><div>-·-○-</div>Input Volt. 24V</div><div><div>--◇--</div>Input Volt. 36V</div></div> <div>Efficiency [%]</div> <div>Load Current [A]</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">Efficiency [%]</th></tr><tr><th>Input Volt. 9[V]</th><th>Input Volt. 12[V]</th><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th></tr><tr><td>0.00</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>0.08</td><td>73.8</td><td>72.8</td><td>70.8</td><td>69.0</td><td>65.5</td></tr><tr><td>0.16</td><td>80.9</td><td>80.6</td><td>79.8</td><td>78.5</td><td>75.6</td></tr><tr><td>0.24</td><td>81.8</td><td>82.4</td><td>82.6</td><td>82.2</td><td>80.5</td></tr><tr><td>0.32</td><td>82.1</td><td>82.9</td><td>83.1</td><td>83.2</td><td>82.5</td></tr><tr><td>0.36</td><td>81.8</td><td>83.0</td><td>83.1</td><td>83.4</td><td>82.8</td></tr><tr><td>0.40</td><td>*1</td><td>83.1</td><td>83.6</td><td>83.4</td><td>83.0</td></tr><tr><td>0.44</td><td>*1</td><td>82.9</td><td>83.7</td><td>83.8</td><td>83.0</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><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>		Load Current [A]	Efficiency [%]					Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	0.00	-	-	-	-	-	0.08	73.8	72.8	70.8	69.0	65.5	0.16	80.9	80.6	79.8	78.5	75.6	0.24	81.8	82.4	82.6	82.2	80.5	0.32	82.1	82.9	83.1	83.2	82.5	0.36	81.8	83.0	83.1	83.4	82.8	0.40	*1	83.1	83.6	83.4	83.0	0.44	*1	82.9	83.7	83.8	83.0	--	-	-	-	-	-	--	-	-	-	-	-	--	-	-	-	-	-
Load Current [A]	Efficiency [%]																																																																																	
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]																																																																													
0.00	-	-	-	-	-																																																																													
0.08	73.8	72.8	70.8	69.0	65.5																																																																													
0.16	80.9	80.6	79.8	78.5	75.6																																																																													
0.24	81.8	82.4	82.6	82.2	80.5																																																																													
0.32	82.1	82.9	83.1	83.2	82.5																																																																													
0.36	81.8	83.0	83.1	83.4	82.8																																																																													
0.40	*1	83.1	83.6	83.4	83.0																																																																													
0.44	*1	82.9	83.7	83.8	83.0																																																																													
--	-	-	-	-	-																																																																													
--	-	-	-	-	-																																																																													
--	-	-	-	-	-																																																																													
				<div>*1 Maximum output current at 9V input Voltage is 80% of rated load current. Refer to instruction manuals for details of input derating.</div>																																																																														



Model		MHFS62415		Temperature 25°C																																	
Item		Line Regulation		Testing Circuitry Figure A																																	
Object		+15V0.4A																																			
1.Graph				2.Values																																	
<div><div><div><div><div></div><div></div></div><div></div><div></div></div><div><div></div><div></div></div><div>Load 50%</div></div><div><div><div><div></div><div></div></div><div></div><div></div></div><div></div><div></div></div><div>Load 100%</div></div> <div><div><div><div>16.20</div><div>15.80</div><div>15.40</div><div>15.00</div><div>14.60</div><div>14.20</div></div><div><div>0</div><div>10</div><div>20</div><div>30</div><div>40</div><div>50</div></div></div><div><div>Output Voltage [V]</div><div>Input Voltage [V]</div></div></div>				<table><tr><th rowspan="2">Input Voltage [V]</th><th colspan="2">Output Voltage [V]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr><tr><td>8.6</td><td>14.967</td><td>*1</td></tr><tr><td>9.0</td><td>14.968</td><td>*1</td></tr><tr><td>12.0</td><td>14.969</td><td>14.974</td></tr><tr><td>15.0</td><td>14.969</td><td>14.975</td></tr><tr><td>18.0</td><td>14.969</td><td>14.975</td></tr><tr><td>24.0</td><td>14.969</td><td>14.975</td></tr><tr><td>30.0</td><td>14.969</td><td>14.975</td></tr><tr><td>36.0</td><td>14.969</td><td>14.975</td></tr><tr><td>40.0</td><td>14.969</td><td>14.975</td></tr></table>		Input Voltage [V]	Output Voltage [V]		Load 50%	Load 100%	8.6	14.967	*1	9.0	14.968	*1	12.0	14.969	14.974	15.0	14.969	14.975	18.0	14.969	14.975	24.0	14.969	14.975	30.0	14.969	14.975	36.0	14.969	14.975	40.0	14.969	14.975
Input Voltage [V]	Output Voltage [V]																																				
	Load 50%	Load 100%																																			
8.6	14.967	*1																																			
9.0	14.968	*1																																			
12.0	14.969	14.974																																			
15.0	14.969	14.975																																			
18.0	14.969	14.975																																			
24.0	14.969	14.975																																			
30.0	14.969	14.975																																			
36.0	14.969	14.975																																			
40.0	14.969	14.975																																			
<div>Note: Slanted line shows the range of the rated input voltage.</div>				<div>*1 Maximum output current at 9V input Voltage is 80% of rated load current. Refer to instruction manuals for details of input derating.</div>																																	



Model		MHFS62415	Temperature25°C																																																																														
Item		Load Regulation	Testing CircuitryFigure A																																																																														
Object		+15V0.4A																																																																															
1.Graph		<div><div><div>—△—</div><div>Input Volt.</div><div>9V</div></div><div><div>---□---</div><div>Input Volt.</div><div>12V</div></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><p>Note: Slanted line shows the range of the rated load current.</p></div>	2.Values																																																																														
		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="5">Output Voltage [V]</th></tr><tr><th>Input Volt. 9[V]</th><th>Input Volt. 12[V]</th><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th></tr><tr><td>0.00</td><td>14.984</td><td>14.983</td><td>14.982</td><td>14.981</td><td>14.982</td></tr><tr><td>0.08</td><td>14.983</td><td>14.982</td><td>14.981</td><td>14.979</td><td>14.978</td></tr><tr><td>0.16</td><td>14.982</td><td>14.981</td><td>14.980</td><td>14.978</td><td>14.977</td></tr><tr><td>0.24</td><td>14.981</td><td>14.981</td><td>14.979</td><td>14.978</td><td>14.976</td></tr><tr><td>0.32</td><td>14.980</td><td>14.980</td><td>14.978</td><td>14.977</td><td>14.975</td></tr><tr><td>0.36</td><td>14.980</td><td>14.979</td><td>14.978</td><td>14.977</td><td>14.975</td></tr><tr><td>0.40</td><td>*1</td><td>14.979</td><td>14.978</td><td>14.976</td><td>14.975</td></tr><tr><td>0.44</td><td>*1</td><td>14.978</td><td>14.977</td><td>14.976</td><td>14.975</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><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table> <p>*1 Maximum output current at 9V input Voltage is 80% of rated load current. Refer to instruction manuals for details of input derating.</p>	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]	0.00	14.984	14.983	14.982	14.981	14.982	0.08	14.983	14.982	14.981	14.979	14.978	0.16	14.982	14.981	14.980	14.978	14.977	0.24	14.981	14.981	14.979	14.978	14.976	0.32	14.980	14.980	14.978	14.977	14.975	0.36	14.980	14.979	14.978	14.977	14.975	0.40	*1	14.979	14.978	14.976	14.975	0.44	*1	14.978	14.977	14.976	14.975	--	-	-	-	-	-	--	-	-	-	-	-	--	-	-	-	-	-		
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]																																																																												
0.00	14.984	14.983	14.982	14.981	14.982																																																																												
0.08	14.983	14.982	14.981	14.979	14.978																																																																												
0.16	14.982	14.981	14.980	14.978	14.977																																																																												
0.24	14.981	14.981	14.979	14.978	14.976																																																																												
0.32	14.980	14.980	14.978	14.977	14.975																																																																												
0.36	14.980	14.979	14.978	14.977	14.975																																																																												
0.40	*1	14.979	14.978	14.976	14.975																																																																												
0.44	*1	14.978	14.977	14.976	14.975																																																																												
--	-	-	-	-	-																																																																												
--	-	-	-	-	-																																																																												
--	-	-	-	-	-																																																																												
Item		Ripple-Noise	Temperature25°C																																																																														
Object		+15V0.4A	Testing CircuitryFigure B																																																																														
1.Graph		<div><div>Input Voltage24V</div><div>Load100%</div></div> <div><p>10[mV/div]</p><p>1[μs/div]</p></div>																																																																															

-4-

BC-11828



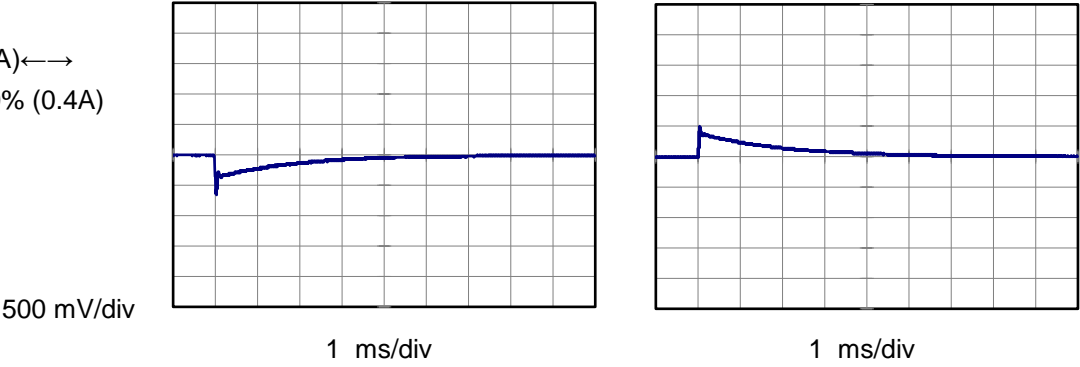
Model		MHFS62415	Temperature 25°C Testing Circuitry Figure A
Item		Dynamic Load Response	
Object		+15V0.4A	

Input Volt. 24 V
Cycle 100 ms

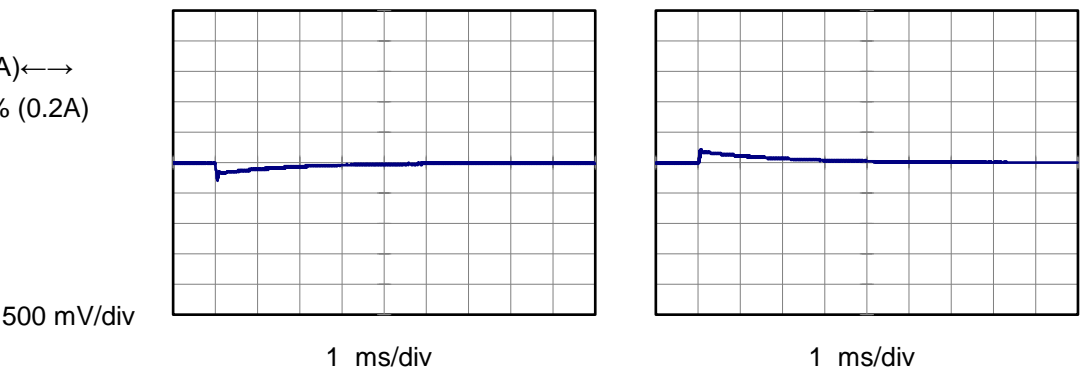
Response. t1=t2=50μs. Typ



Min.Load (0A)←→
Load 100% (0.4A)



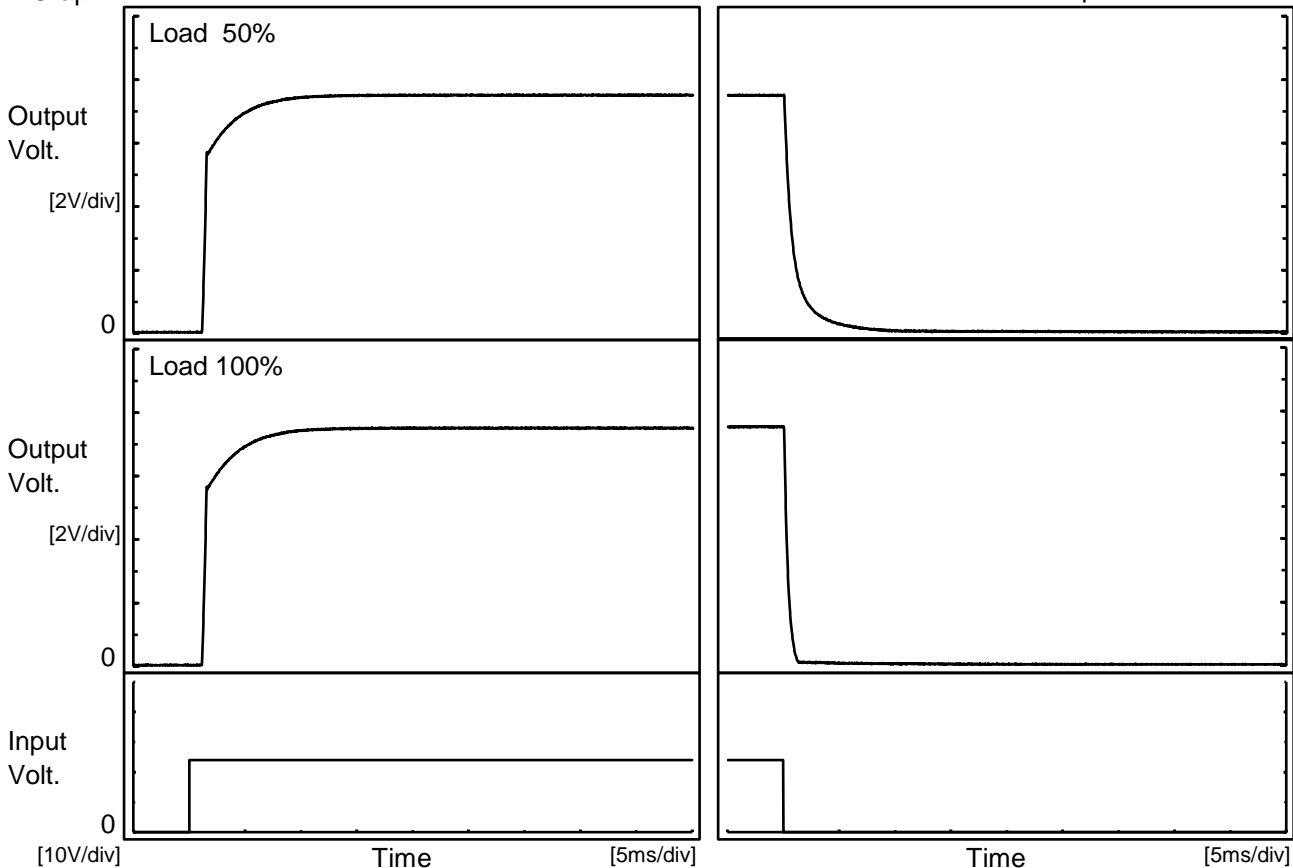
Min.Load (0A)←→
Load 50% (0.2A)





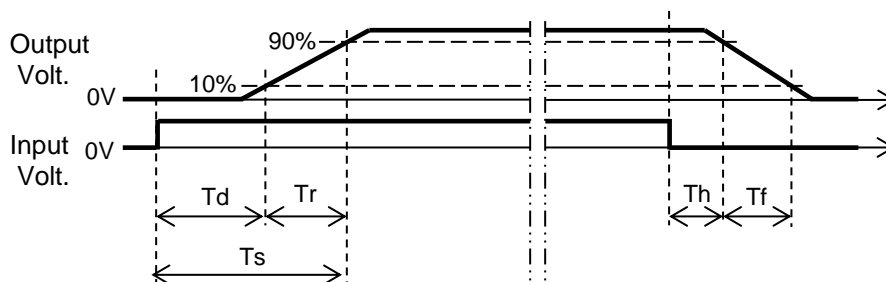
Model	MHFS62415	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+15V0.4A		

1.Graph



2.Values

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	1.2	3.1	4.3	0.1	2.4
100 %	1.2	3.2	4.4	0.1	0.8



Model		MHFS62415		Temperature		25°C																																																																																				
Item		Overcurrent Protection		Testing Circuitry		Figure A																																																																																				
Object		+15V0.4A																																																																																								
1.Graph				2.Values																																																																																						
<div><div><div></div><div>Input Volt. 9V</div></div><div><div></div><div>Input Volt. 12V</div></div><div><div></div><div>Input Volt. 18V</div></div><div><div></div><div>Input Volt. 24V</div></div><div><div></div><div>Input Volt. 36V</div></div></div> <div><div>Output Voltage [V]</div><div><div>20</div><div>16</div><div>12</div><div>8</div><div>4</div><div>0</div></div><div><div>0.0</div><div>0.4</div><div>0.8</div><div>1.2</div></div><div>Load Current [A]</div></div>				<table><tr><th rowspan="2">Output Voltage [V]</th><th colspan="5">Load Current [A]</th></tr><tr><th>Input Volt. 9[V]</th><th>Input Volt. 12[V]</th><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th></tr><tr><td>14.3</td><td>0.409</td><td>0.462</td><td>0.496</td><td>0.504</td><td>0.514</td></tr><tr><td>13.5</td><td>0.426</td><td>0.480</td><td>0.513</td><td>0.526</td><td>0.529</td></tr><tr><td>12.0</td><td>0.465</td><td>0.522</td><td>0.555</td><td>0.564</td><td>0.558</td></tr><tr><td>10.5</td><td>0.509</td><td>0.573</td><td>0.605</td><td>0.607</td><td>0.591</td></tr><tr><td>9.0</td><td>0.564</td><td>0.625</td><td>0.654</td><td>0.643</td><td>0.622</td></tr><tr><td>7.5</td><td>0.623</td><td>0.685</td><td>0.704</td><td>0.682</td><td>0.654</td></tr><tr><td>6.0</td><td>0.698</td><td>0.758</td><td>0.758</td><td>0.727</td><td>0.691</td></tr><tr><td>4.5</td><td>0.774</td><td>0.825</td><td>0.810</td><td>0.772</td><td>0.729</td></tr><tr><td>3.0</td><td>0.852</td><td>0.898</td><td>0.863</td><td>0.818</td><td>0.767</td></tr><tr><td>1.5</td><td>0.966</td><td>0.986</td><td>0.928</td><td>0.868</td><td>0.805</td></tr><tr><td>0.0</td><td>0.934</td><td>0.910</td><td>0.807</td><td>0.733</td><td>0.665</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>				Output Voltage [V]	Load Current [A]					Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	14.3	0.409	0.462	0.496	0.504	0.514	13.5	0.426	0.480	0.513	0.526	0.529	12.0	0.465	0.522	0.555	0.564	0.558	10.5	0.509	0.573	0.605	0.607	0.591	9.0	0.564	0.625	0.654	0.643	0.622	7.5	0.623	0.685	0.704	0.682	0.654	6.0	0.698	0.758	0.758	0.727	0.691	4.5	0.774	0.825	0.810	0.772	0.729	3.0	0.852	0.898	0.863	0.818	0.767	1.5	0.966	0.986	0.928	0.868	0.805	0.0	0.934	0.910	0.807	0.733	0.665	--	-	-	-	-	-
Output Voltage [V]	Load Current [A]																																																																																									
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]																																																																																					
14.3	0.409	0.462	0.496	0.504	0.514																																																																																					
13.5	0.426	0.480	0.513	0.526	0.529																																																																																					
12.0	0.465	0.522	0.555	0.564	0.558																																																																																					
10.5	0.509	0.573	0.605	0.607	0.591																																																																																					
9.0	0.564	0.625	0.654	0.643	0.622																																																																																					
7.5	0.623	0.685	0.704	0.682	0.654																																																																																					
6.0	0.698	0.758	0.758	0.727	0.691																																																																																					
4.5	0.774	0.825	0.810	0.772	0.729																																																																																					
3.0	0.852	0.898	0.863	0.818	0.767																																																																																					
1.5	0.966	0.986	0.928	0.868	0.805																																																																																					
0.0	0.934	0.910	0.807	0.733	0.665																																																																																					
--	-	-	-	-	-																																																																																					
<p>Note: Slanted line shows the range of the rated load current.</p> <p>Maximum output current at 9V input Voltage is 80% of rated load current.</p> <p>Refer to instruction manuals for details of input derating.</p>																																																																																										

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

Maximum output current at 9V input Voltage is 80% of rated load current.

Refer to instruction manuals for details of input derating.

COSEL

		Testing Circuitry Figure A
Model	MHFS62415	
Item	Ambient Temperature Drift	
Object	+15V0.4A	

1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]				
	Input Volt. 9V*1	Input Volt. 12V	Input Volt. 18V	Input Volt. 24V	Input Volt. 36V
-40	14.863	14.865	14.867	14.870	14.871
25	14.968	14.968	14.969	14.969	14.969
55	14.989	14.988	14.988	14.988	14.988

*1 Load 80%

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+15V0.4A	

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 80%
-40	7.3	7.2
25	7.2	7.2
55	7.0	7.0

Model		MHFS62415		Temperature 25°C																																																																														
Item		Switching frequency (by Load Current)		Testing Circuitry Figure A																																																																														
Object		+15V0.4A																																																																																
1.Graph		<div><div><div>—△—</div><div>Input Volt.</div><div>9V</div></div><div><div>---□---</div><div>Input Volt.</div><div>12V</div></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>Switching Frequency [kHz]</div><div>10000</div><div>1000</div><div>100</div></div><div><div>0.00</div><div>0.10</div><div>0.20</div><div>0.30</div><div>0.40</div><div>0.50</div></div><div><div>Load Current [A]</div></div></div>		2.Values																																																																														
		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="5">Switching Frequency [kHz]</th></tr><tr><th>Input Volt. 9[V]</th><th>Input Volt. 12[V]</th><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th></tr><tr><td>0.00</td><td>694</td><td>788</td><td>901</td><td>968</td><td>1027</td></tr><tr><td>0.08</td><td>456</td><td>561</td><td>702</td><td>782</td><td>865</td></tr><tr><td>0.16</td><td>343</td><td>430</td><td>565</td><td>645</td><td>730</td></tr><tr><td>0.24</td><td>270</td><td>349</td><td>470</td><td>549</td><td>633</td></tr><tr><td>0.32</td><td>220</td><td>294</td><td>404</td><td>476</td><td>563</td></tr><tr><td>0.36</td><td>203</td><td>273</td><td>375</td><td>452</td><td>533</td></tr><tr><td>0.40</td><td>*1</td><td>253</td><td>353</td><td>421</td><td>505</td></tr><tr><td>0.44</td><td>*1</td><td>236</td><td>333</td><td>400</td><td>480</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><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>		Load Current [A]	Switching Frequency [kHz]					Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	0.00	694	788	901	968	1027	0.08	456	561	702	782	865	0.16	343	430	565	645	730	0.24	270	349	470	549	633	0.32	220	294	404	476	563	0.36	203	273	375	452	533	0.40	*1	253	353	421	505	0.44	*1	236	333	400	480	--	-	-	-	-	-	--	-	-	-	-	-	--	-	-	-	-	-		
Load Current [A]	Switching Frequency [kHz]																																																																																	
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]																																																																													
0.00	694	788	901	968	1027																																																																													
0.08	456	561	702	782	865																																																																													
0.16	343	430	565	645	730																																																																													
0.24	270	349	470	549	633																																																																													
0.32	220	294	404	476	563																																																																													
0.36	203	273	375	452	533																																																																													
0.40	*1	253	353	421	505																																																																													
0.44	*1	236	333	400	480																																																																													
--	-	-	-	-	-																																																																													
--	-	-	-	-	-																																																																													
--	-	-	-	-	-																																																																													
<div>Note: Slanted line shows the range of the rated load current.</div> <div>When load current is low, MH operates intermittently, so switching frequency would not become constant.</div>				<div>*1 Maximum output current at 9V input Voltage is 80% of rated load current. Refer to instruction manuals for details of input derating.</div>																																																																														

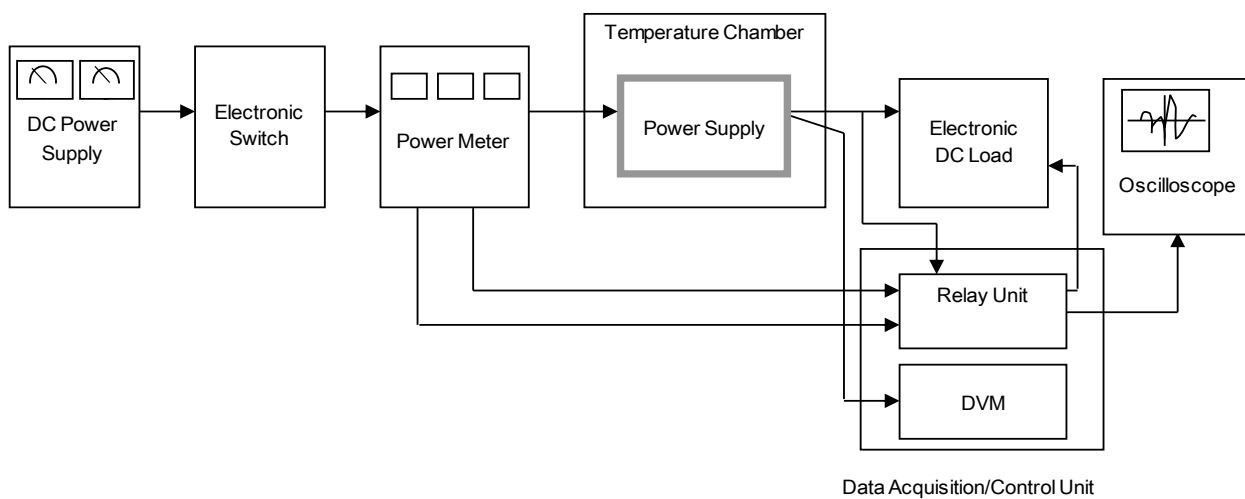


Figure A

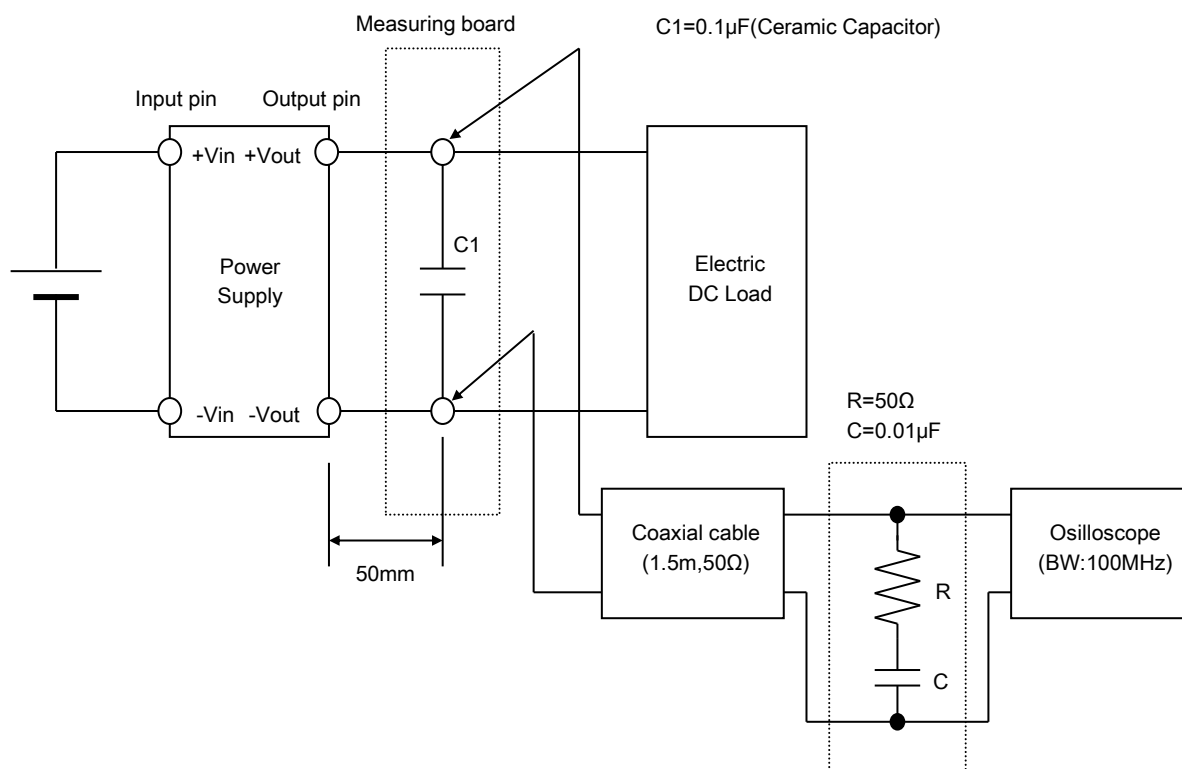


Figure B