

TEST DATA OF MHFS6483R3

Regulated DC Power Supply
October 27, 2021

Approved by : _____ Kenichi Tsukada

Design Manager

Prepared by : _____ Yoshihiko Saeki

Design Engineer

COSEL CO.,LTD.

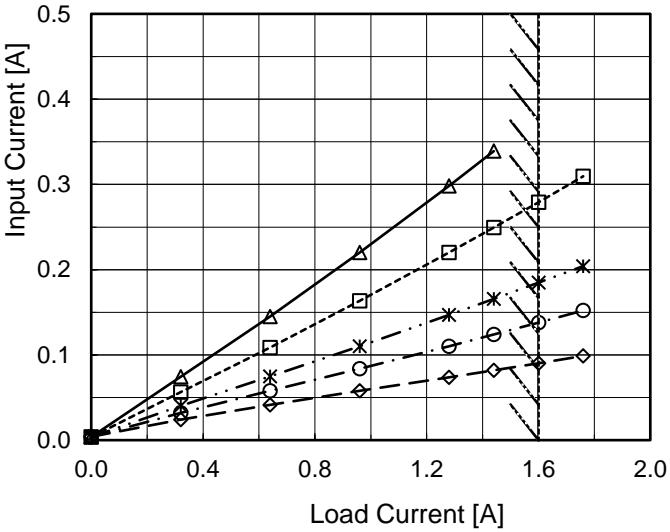


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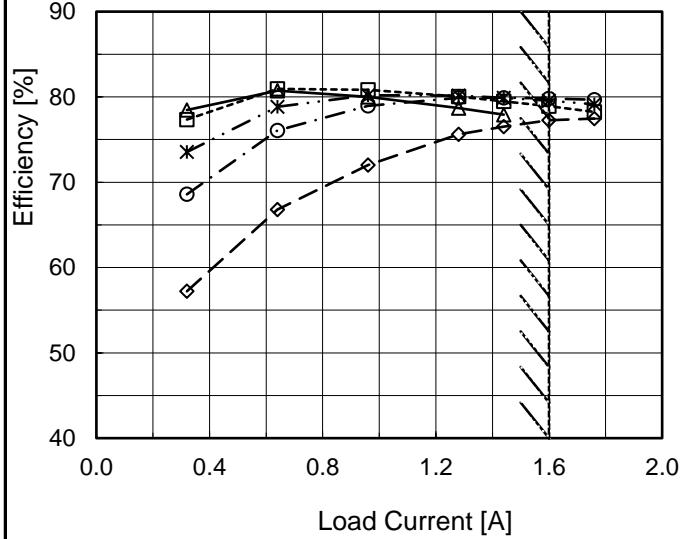
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Model	MHFS6483R3	Temperature Testing Circuitry	25°C Figure A																																																																													
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Note: Slanted line shows the range of the rated load current.

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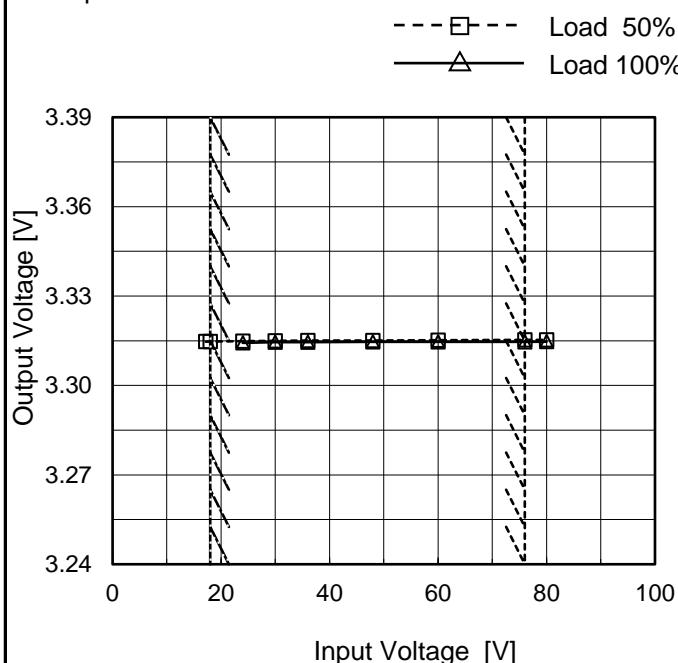
Note: Slanted line shows the range of the rated load current.

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Model	MHFS6483R3
Item	Line Regulation
Object	+3.3V1.6A

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%
17.2	3.315	*1
18.0	3.315	*1
24.0	3.315	3.314
30.0	3.315	3.315
36.0	3.315	3.315
48.0	3.315	3.315
60.0	3.315	3.315
76.0	3.315	3.315
80.0	3.315	3.315

*1 Maximum output current at 18V input
Voltage is 80% of rated load current.
Refer to instruction manuals for details of
input derating.

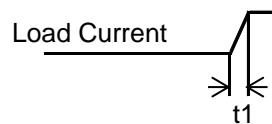
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Item	Ripple-Noise	Temperature	25°C																																																																													
Object	+3.3V1.6A	Testing Circuitry	Figure B																																																																													
1.Graph	<p>Input Voltage 48V Load 100%</p> <p>10[mV/div]</p> <p>1[μs/div]</p>																																																																															

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Model	MHFS6483R3	Temperature	25°C
Item	Dynamic Load Response	Testing Circuitry	Figure A
Object	+3.3V1.6A		

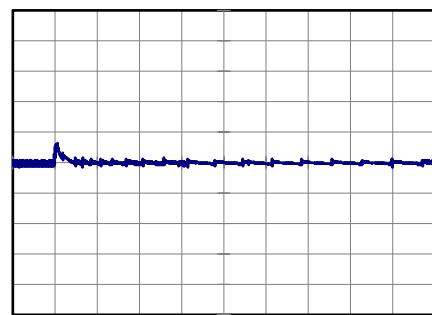
Input Volt. 48 V
 Cycle 100 ms

Response. $t_1=t_2=50\mu s$. Typ

Min.Load (0A)↔
 Load 100% (1.6A)

200 mV/div

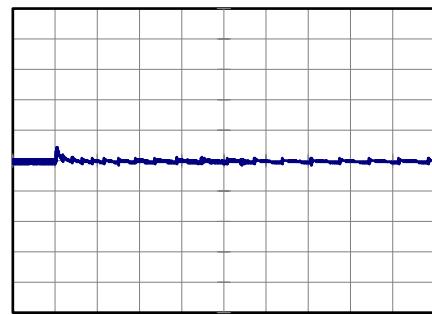
1 ms/div



Min.Load (0A)↔
 Load 50% (0.8A)

200 mV/div

1 ms/div

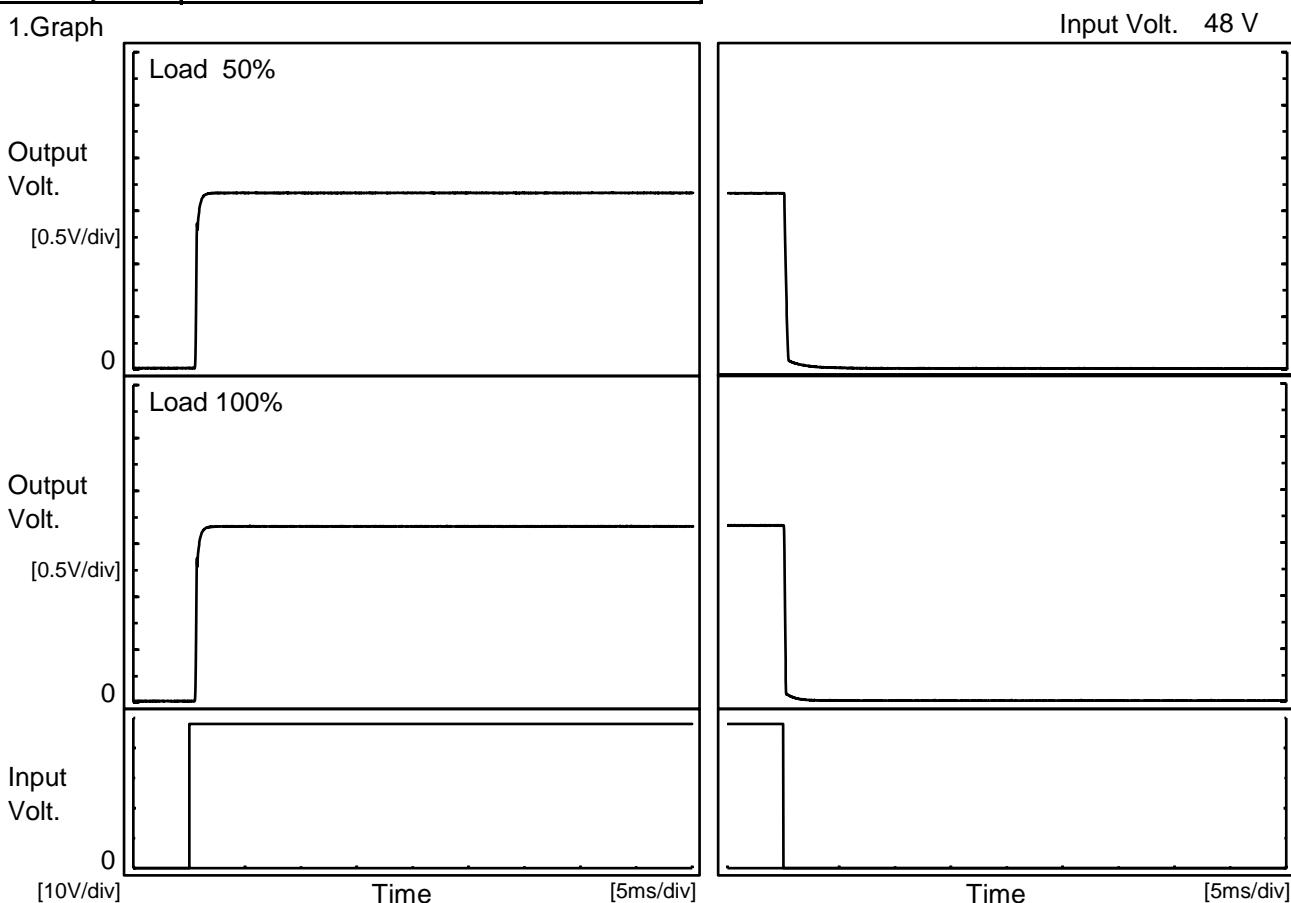


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Model	MHFS6483R3
Item	Rise and Fall Time
Object	+3.3V1.6A

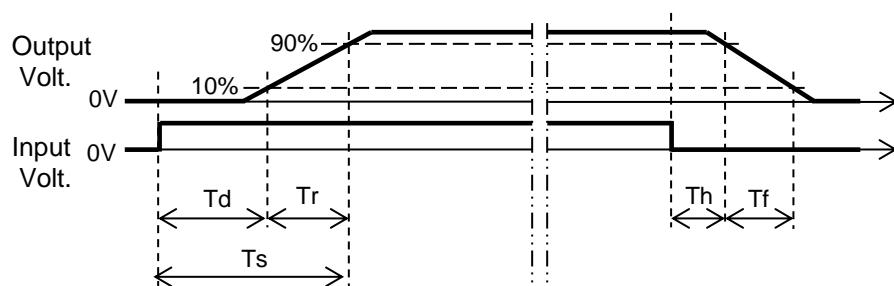
Temperature 25°C
Testing Circuitry Figure A

1. Graph



2. Values

Load	Time	Td	Tr	Ts	Th	Tf	[ms]
50 %		0.6	0.3	0.9	0.1	0.3	
100 %		0.6	0.3	0.9	0.1	0.1	



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Item	Overcurrent Protection																																																																																					
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1.Graph	<p>The graph plots Output Voltage [V] on the Y-axis (0.0 to 4.0) against Load Current [A] on the X-axis (0.0 to 4.0). Five curves represent different input voltages: 18V (black), 24V (blue), 36V (green), 48V (red), and 76V (magenta). A slanted line at approximately 2.5A indicates the range of the rated load current.</p> <table border="1"> <thead> <tr> <th>Input Volt.</th> <th>18V</th> <th>24V</th> <th>36V</th> <th>48V</th> <th>76V</th> </tr> </thead> <tbody> <tr> <td>Output Voltage [V]</td> <td>3.3</td> <td>3.3</td> <td>3.3</td> <td>3.3</td> <td>3.3</td> </tr> <tr> <td>Load Current [A]</td> <td>2.5</td> <td>2.5</td> <td>2.5</td> <td>2.5</td> <td>2.5</td> </tr> </tbody> </table>			Input Volt.	18V	24V	36V	48V	76V	Output Voltage [V]	3.3	3.3	3.3	3.3	3.3	Load Current [A]	2.5	2.5	2.5	2.5	2.5																																																																	
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Model	MHFS6483R3	
Item	Ambient Temperature Drift	Testing Circuitry Figure A
Object	+3.3V1.6A	

1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]				
	Input Volt. 18V*1	Input Volt. 24V	Input Volt. 36V	Input Volt. 48V	Input Volt. 76V
-40	3.310	3.310	3.310	3.310	3.310
25	3.313	3.313	3.313	3.314	3.314
55	3.316	3.316	3.316	3.316	3.316

*1 Load 80%

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+3.3V1.6A	

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 80%
-40	14.7	14.7
25	14.4	14.6
55	14.2	14.4

COSEL

Model	MHFS6483R3	Temperature Testing Circuitry	25°C Figure A																																																																													
Item	Switching frequency (by Load Current)																																																																															
Object	+3.3V1.6A																																																																															
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COSEL

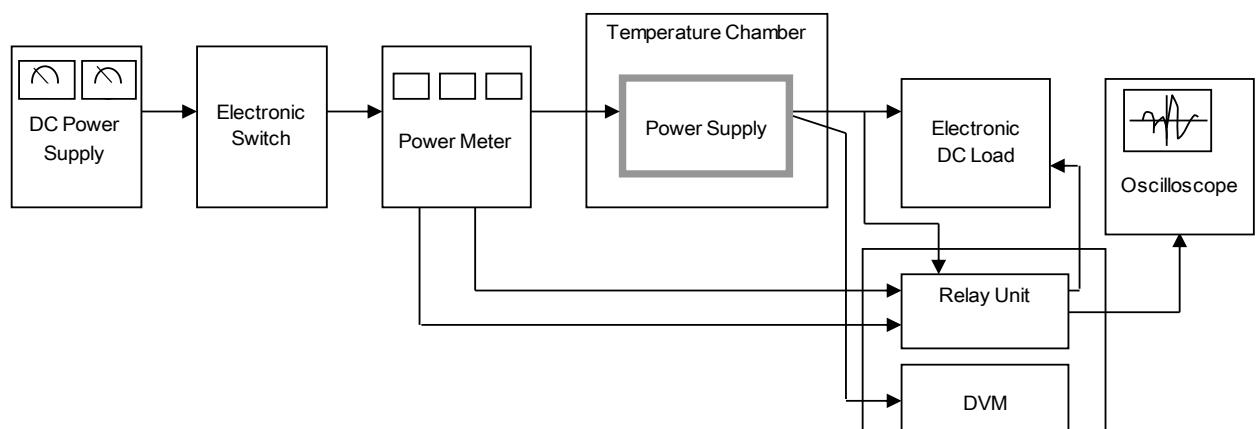


Figure A

Data Acquisition/Control Unit

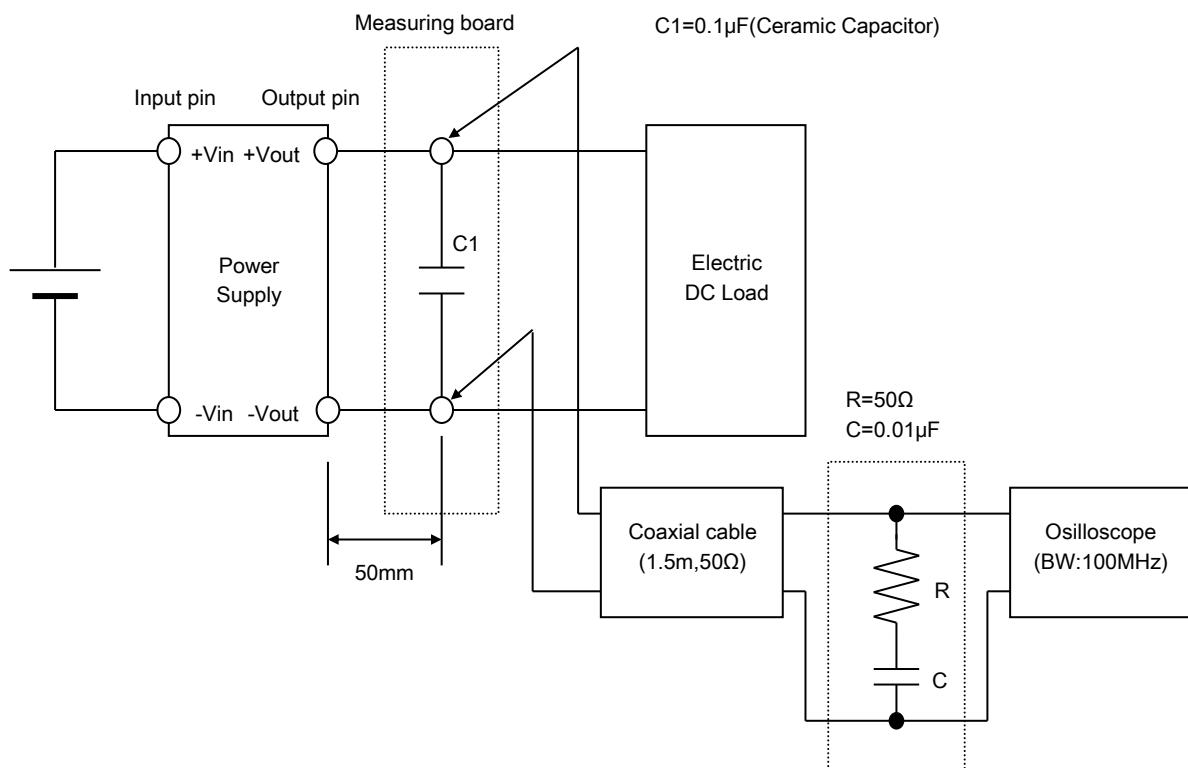


Figure B