



TEST DATA OF MHFS32405

Regulated DC Power Supply
May 27, 2020

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COSEL CO.,LTD.

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Model		MHFS32405		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>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>0.60</div><div>0.45</div><div>0.30</div><div>0.15</div><div>0.00</div></div><div>Input Current [A]</div><div><div>0.0</div><div>0.2</div><div>0.4</div><div>0.6</div><div>0.8</div></div><div>Load Current [A]</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. 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>0.019</td><td>0.016</td><td>0.005</td><td>0.004</td><td>0.004</td></tr><tr><td>0.12</td><td>0.096</td><td>0.073</td><td>0.051</td><td>0.040</td><td>0.028</td></tr><tr><td>0.24</td><td>0.173</td><td>0.132</td><td>0.089</td><td>0.069</td><td>0.049</td></tr><tr><td>0.36</td><td>0.253</td><td>0.190</td><td>0.129</td><td>0.098</td><td>0.068</td></tr><tr><td>0.48</td><td>0.333</td><td>0.250</td><td>0.167</td><td>0.128</td><td>0.088</td></tr><tr><td>0.54</td><td>0.376</td><td>0.278</td><td>0.187</td><td>0.142</td><td>0.097</td></tr><tr><td>0.60</td><td>0.419</td><td>0.310</td><td>0.207</td><td>0.156</td><td>0.107</td></tr><tr><td>0.66</td><td>0.458</td><td>0.341</td><td>0.227</td><td>0.171</td><td>0.117</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]	Input Current [A]					Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	0.00	0.019	0.016	0.005	0.004	0.004	0.12	0.096	0.073	0.051	0.040	0.028	0.24	0.173	0.132	0.089	0.069	0.049	0.36	0.253	0.190	0.129	0.098	0.068	0.48	0.333	0.250	0.167	0.128	0.088	0.54	0.376	0.278	0.187	0.142	0.097	0.60	0.419	0.310	0.207	0.156	0.107	0.66	0.458	0.341	0.227	0.171	0.117	--	-	-	-	-	-	--	-	-	-	-	-	--	-	-	-	-	-		
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Model

MHFS32405

Item

Efficiency (by Load Current)

Object

1.Graph

—△—

Input Volt.

9V

---□---

Input Volt.

12V

-·-·*-·-

Input Volt.

18V

-·-○-·-

Input Volt.

24V

---◇---

Input Volt.

36V

Efficiency [%]

90

80

70

60

50

0.0

0.2

0.4

0.6

0.8

Load Current [A]

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

2.Values

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	-	-	-	-	-
0.12	69.8	68.4	65.6	63.5	58.9
0.24	77.1	76.6	75.0	73.2	68.8
0.36	79.6	79.1	78.2	77.2	74.0
0.48	80.4	80.6	80.1	79.0	76.5
0.54	80.4	81.0	80.7	80.0	77.6
0.60	80.2	81.1	81.1	80.5	78.5
0.66	80.1	81.1	81.4	81.0	79.1
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

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Model		MHFS32405	Temperature		25°C																																
Item		Line Regulation	Testing Circuitry		Figure A																																
Object		+5V0.6A																																			
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><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><div></div></div></div><div>Load 100%</div></div> <table><thead><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></thead><tbody><tr><td>8.6</td><td>5.053</td><td>5.053</td></tr><tr><td>9.0</td><td>5.053</td><td>5.053</td></tr><tr><td>12.0</td><td>5.053</td><td>5.053</td></tr><tr><td>15.0</td><td>5.053</td><td>5.053</td></tr><tr><td>18.0</td><td>5.053</td><td>5.053</td></tr><tr><td>24.0</td><td>5.053</td><td>5.053</td></tr><tr><td>30.0</td><td>5.053</td><td>5.053</td></tr><tr><td>36.0</td><td>5.053</td><td>5.054</td></tr><tr><td>40.0</td><td>5.053</td><td>5.054</td></tr></tbody></table> <p>Note: Slanted line shows the range of the rated input voltage.</p>			Input Voltage [V]	Output Voltage [V]		Load 50%	Load 100%	8.6	5.053	5.053	9.0	5.053	5.053	12.0	5.053	5.053	15.0	5.053	5.053	18.0	5.053	5.053	24.0	5.053	5.053	30.0	5.053	5.053	36.0	5.053	5.054	40.0	5.053	5.054			
Input Voltage [V]	Output Voltage [V]																																				
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BC-11611

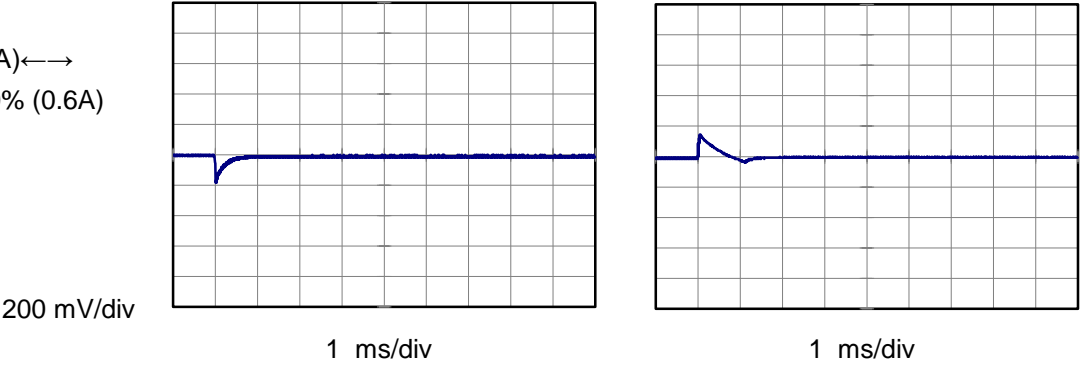


Model	MHFS32405		
Item	Dynamic Load Response	Temperature	25°C
		Testing Circuitry	Figure A
Object	+5V0.6A		

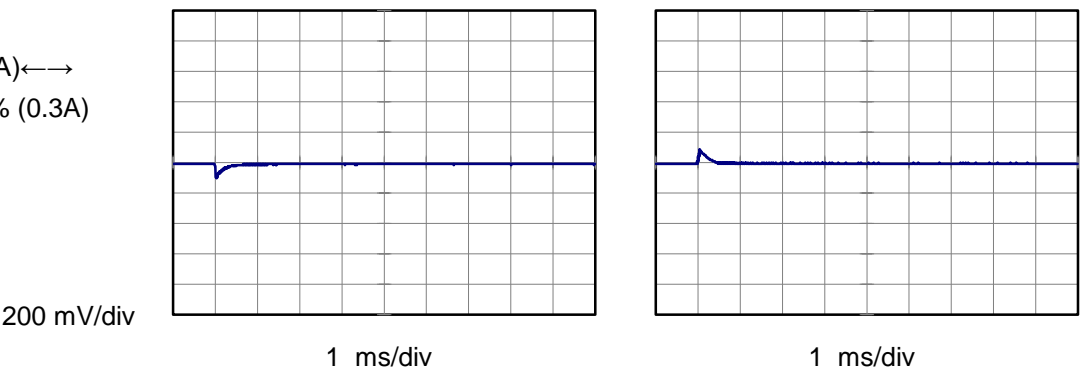
Input Volt. 24 V
Cycle 100 ms



Min.Load (0A) ←→
Load 100% (0.6A)



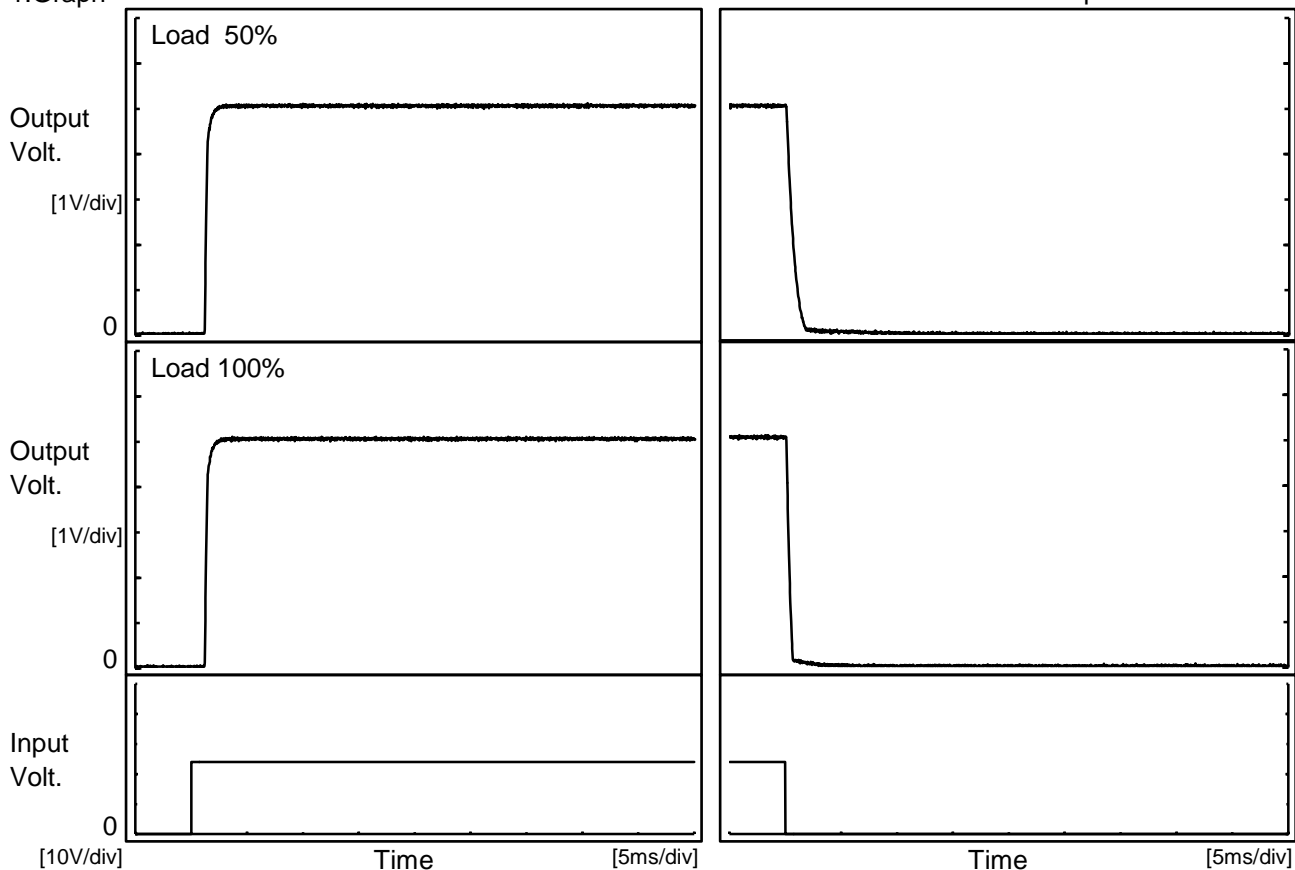
Min.Load (0A) ←→
Load 50% (0.3A)





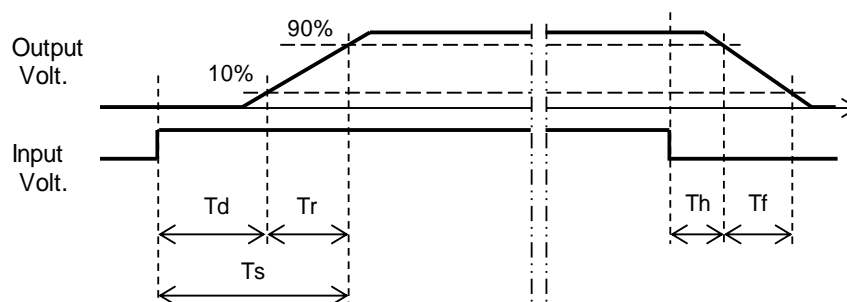
Model	MHFS32405	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+5V0.6A		

1.Graph



2.Values

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	1.2	0.4	1.6	0.2	1.2
100 %	1.2	0.4	1.6	0.1	0.4



Model	MHFS32405																																																																																								
Item	Overcurrent Protection	Temperature		25°C																																																																																					
Object	+5V0.6A	Testing Circuitry		Figure A																																																																																					
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		Testing Circuitry Figure A
Model	MHFS32405	
Item	Ambient Temperature Drift	
Object	+5V0.6A	

1.Values

Ambient Temperature[°C]	Output Voltage [V]				
	Input Volt. 9V	Input Volt. 12V	Input Volt. 18V	Input Volt. 24V	Input Volt. 36V
-40	5.028	5.029	5.030	5.030	5.031
25	5.052	5.053	5.053	5.053	5.053
75	5.054	5.054	5.054	5.054	5.054

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+5V0.6A	

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	7.3	7.3
25	7.2	7.2
75	6.9	7.0

Model		MHFS32405		Temperature 25°C	
Item		Switching frequency (by Load Current)		Testing Circuitry Figure A	
Object		+5V0.6A			
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>Switching Frequency [kHz]</div> <div>Load Current [A]</div>			
Note: Slanted line shows the range of the rated load current.					
When load current is low, MH operates intermittently, so switching frequency would not become constant.					
2.Values					

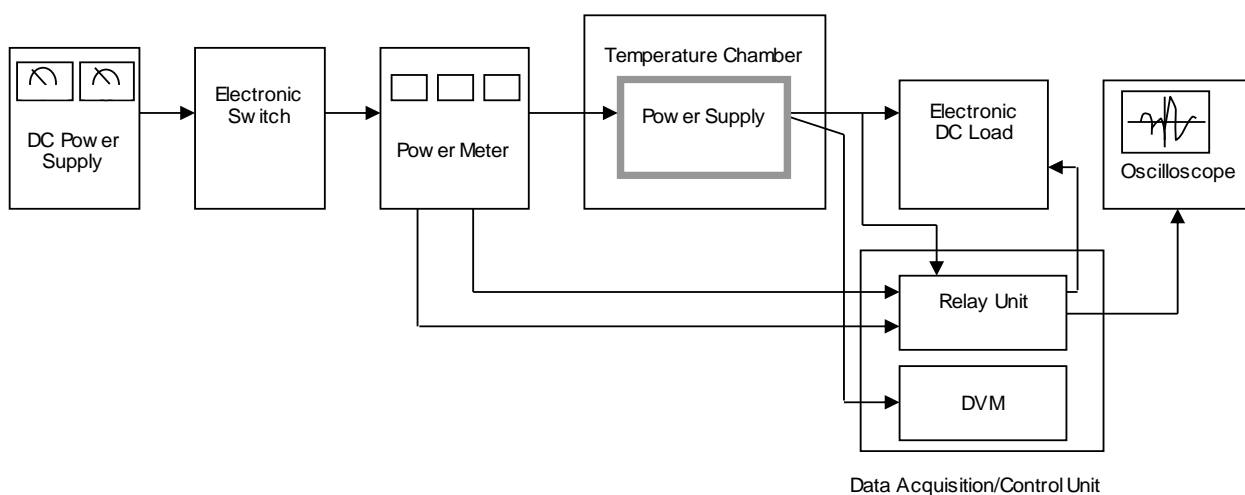


Figure A

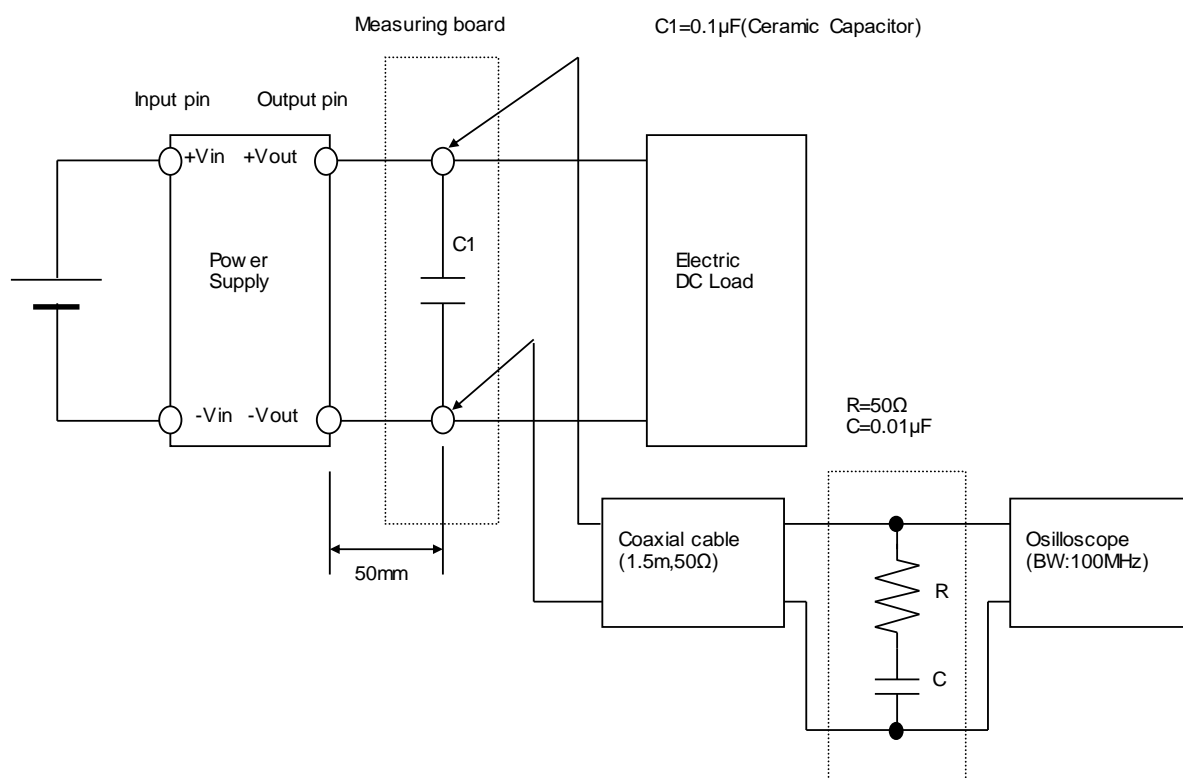


Figure B