参考資料

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# TEST DATA OF MHFS34805

Regulated DC Power Supply
May 29, 2020

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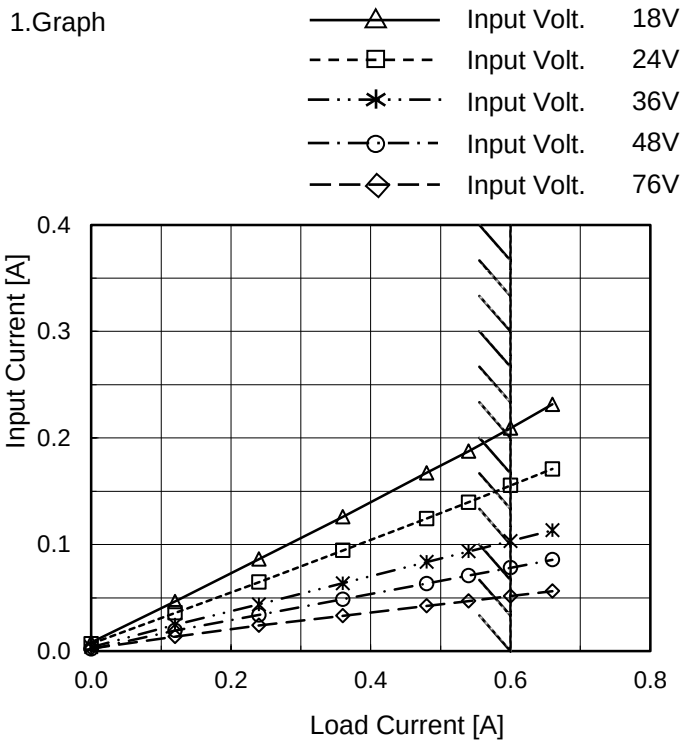
| | |
|---|---|
| Model | MHFS34805 |
| Item | Input Current (by Load Current) |
| Object | ——————— |

Temperature 25°C
Testing Circuitry Figure A

1.Graph




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

2.Values

| 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 | 0.008 | 0.007 | 0.004 | 0.002 | 0.003 |
| 0.12 | 0.047 | 0.036 | 0.025 | 0.019 | 0.014 |
| 0.24 | 0.086 | 0.065 | 0.044 | 0.034 | 0.024 |
| 0.36 | 0.126 | 0.094 | 0.064 | 0.049 | 0.033 |
| 0.48 | 0.167 | 0.124 | 0.084 | 0.063 | 0.043 |
| 0.54 | 0.188 | 0.140 | 0.094 | 0.071 | 0.047 |
| 0.60 | 0.209 | 0.155 | 0.103 | 0.078 | 0.052 |
| 0.66 | 0.232 | 0.171 | 0.113 | 0.086 | 0.056 |
| -- | - | - | - | - | - |
| -- | - | - | - | - | - |
| -- | - | - | - | - | - |

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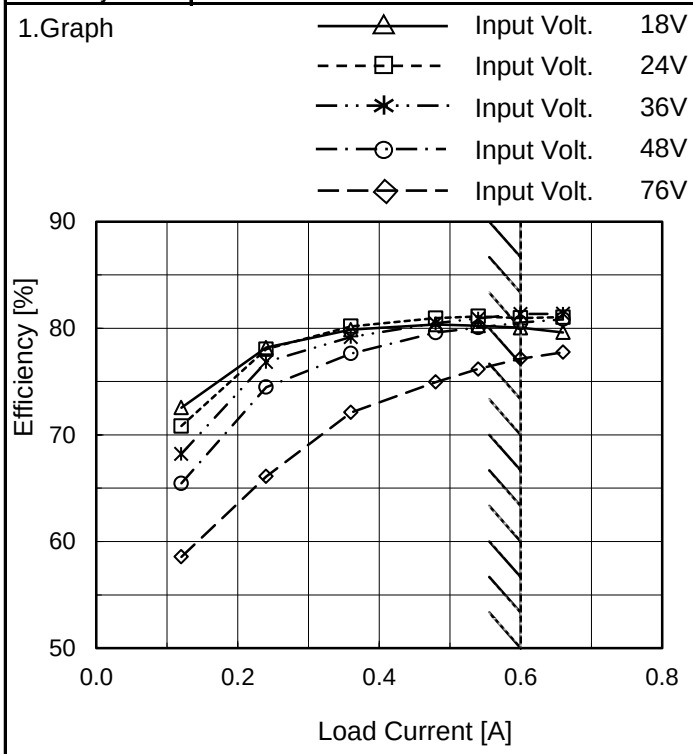
| | |
|---|---|
| Model | MHFS34805 |
| Item | Efficiency (by Load Current) |
| Object | ———————— |

Temperature 25°C
Testing Circuitry Figure A

1.Graph




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

2.Values

| 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 | - | - | - | - | - |
| 0.12 | 72.6 | 70.8 | 68.2 | 65.5 | 58.6 |
| 0.24 | 78.2 | 78.0 | 76.8 | 74.5 | 66.1 |
| 0.36 | 79.9 | 80.2 | 79.2 | 77.6 | 72.1 |
| 0.48 | 80.3 | 80.9 | 80.5 | 79.6 | 75.0 |
| 0.54 | 80.2 | 81.1 | 80.9 | 80.1 | 76.2 |
| 0.60 | 80.0 | 81.0 | 81.3 | 80.5 | 77.1 |
| 0.66 | 79.6 | 81.0 | 81.4 | 80.8 | 77.7 |
| -- | - | - | - | - | - |
| -- | - | - | - | - | - |
| -- | - | - | - | - | - |

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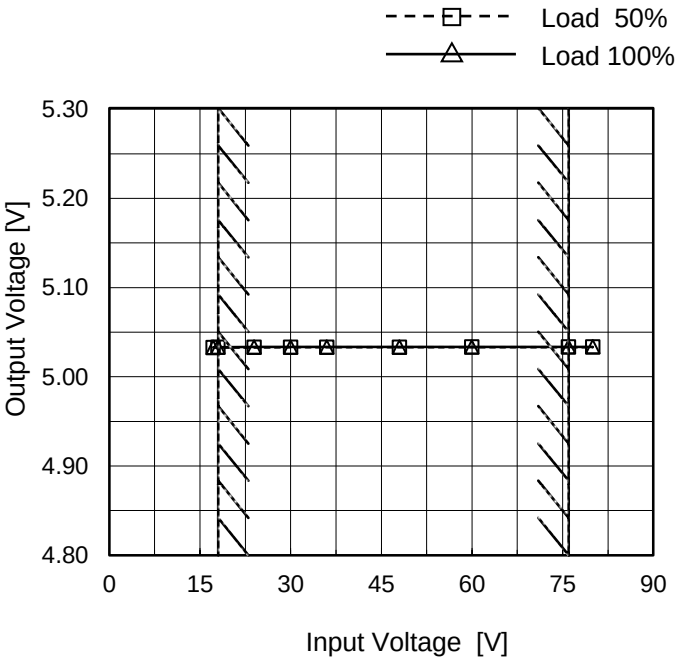
|---|---|
| Model | MHFS34805 |
| Item | Line Regulation |
| Object | +5V0.6A |

Temperature 25°C
Testing Circuitry Figure A

1.Graph




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

2.Values

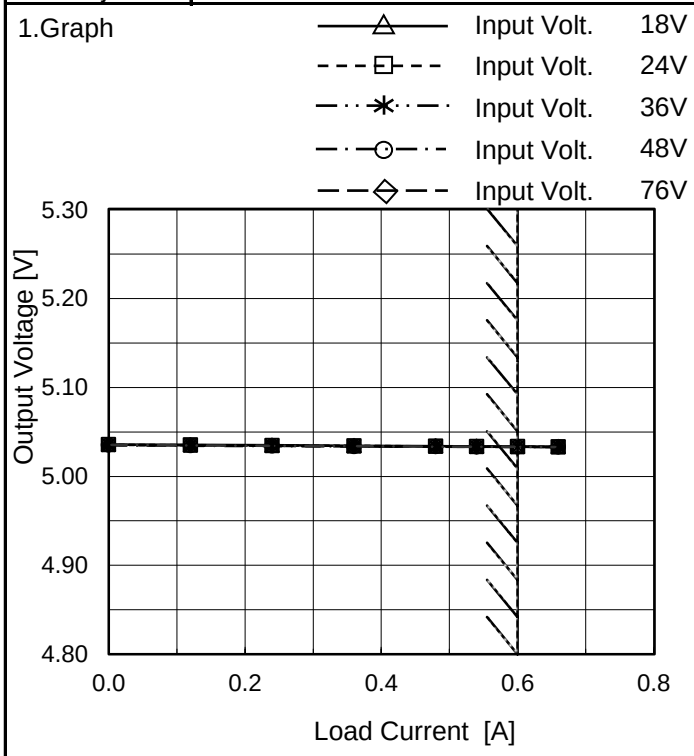
| Input Voltage [V] | Output Voltage [V] | |
|---|---|---|
| | Load 50% | Load 100% |
| 17.2 | 5.033 | 5.033 |
| 18.0 | 5.033 | 5.033 |
| 24.0 | 5.033 | 5.033 |
| 30.0 | 5.033 | 5.033 |
| 36.0 | 5.033 | 5.034 |
| 48.0 | 5.033 | 5.034 |
| 60.0 | 5.033 | 5.034 |
| 76.0 | 5.033 | 5.034 |
| 80.0 | 5.033 | 5.034 |

COSEL

| | |
|---|---|
| Model | MHFS34805 |
| Item | Load Regulation |
| Object | +5V0.6A |

Temperature 25°C
Testing Circuitry Figure A

1.Graph




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

2.Values

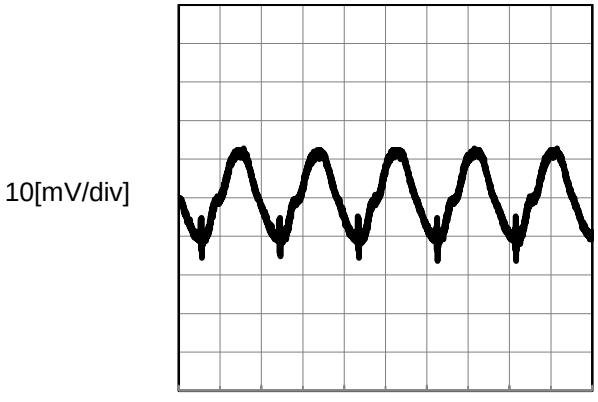
| Load Current [A] | Output Voltage [V] Input Volt. 18[V] | Input Volt. 24[V] | Input Volt. 36[V] | Input Volt. 48[V] | Input Volt. 76[V] |
|---|---|---|---|---|---|
| 0.00 | 5.036 | 5.036 | 5.036 | 5.035 | 5.035 |
| 0.12 | 5.035 | 5.035 | 5.035 | 5.035 | 5.035 |
| 0.24 | 5.035 | 5.035 | 5.034 | 5.034 | 5.035 |
| 0.36 | 5.035 | 5.034 | 5.034 | 5.034 | 5.034 |
| 0.48 | 5.034 | 5.034 | 5.034 | 5.033 | 5.034 |
| 0.54 | 5.034 | 5.034 | 5.033 | 5.033 | 5.033 |
| 0.60 | 5.034 | 5.033 | 5.033 | 5.033 | 5.033 |
| 0.66 | 5.033 | 5.033 | 5.033 | 5.033 | 5.033 |
| -- | - | - | - | - | - |
| -- | - | - | - | - | - |
| -- | - | - | - | - | - |

| | |
|---|---|
| Item | Ripple-Noise |
| Object | +5V0.6A |

Temperature 25°C
Testing Circuitry Figure B

1.Graph

Input Voltage 48V
Load 100%



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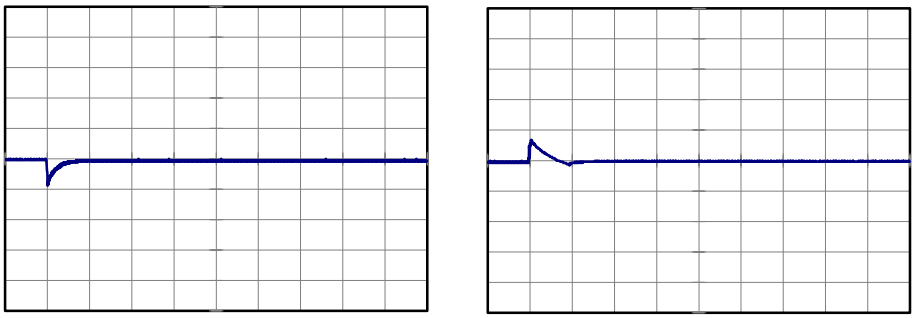
| | | |
|---|---|---|
| Model | MHFS34805 | |
| Item | Dynamic Load Response | Temperature 25°C<br>Testing Circuitry Figure A |
| Object | +5V0.6A | |

Input Volt. 48 V
Cycle 100 ms

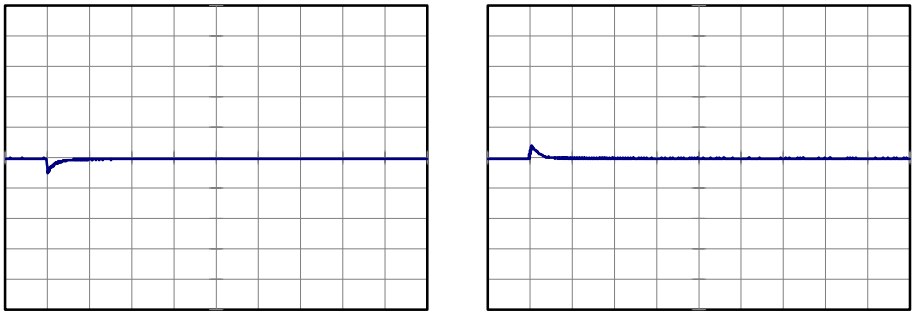

Min.Load (0A)←→
Load 100% (0.6A)



200 mV/div

1 ms/div 1 ms/div

Min.Load (0A)←→
Load 50% (0.3A)



200 mV/div

1 ms/div 1 ms/div

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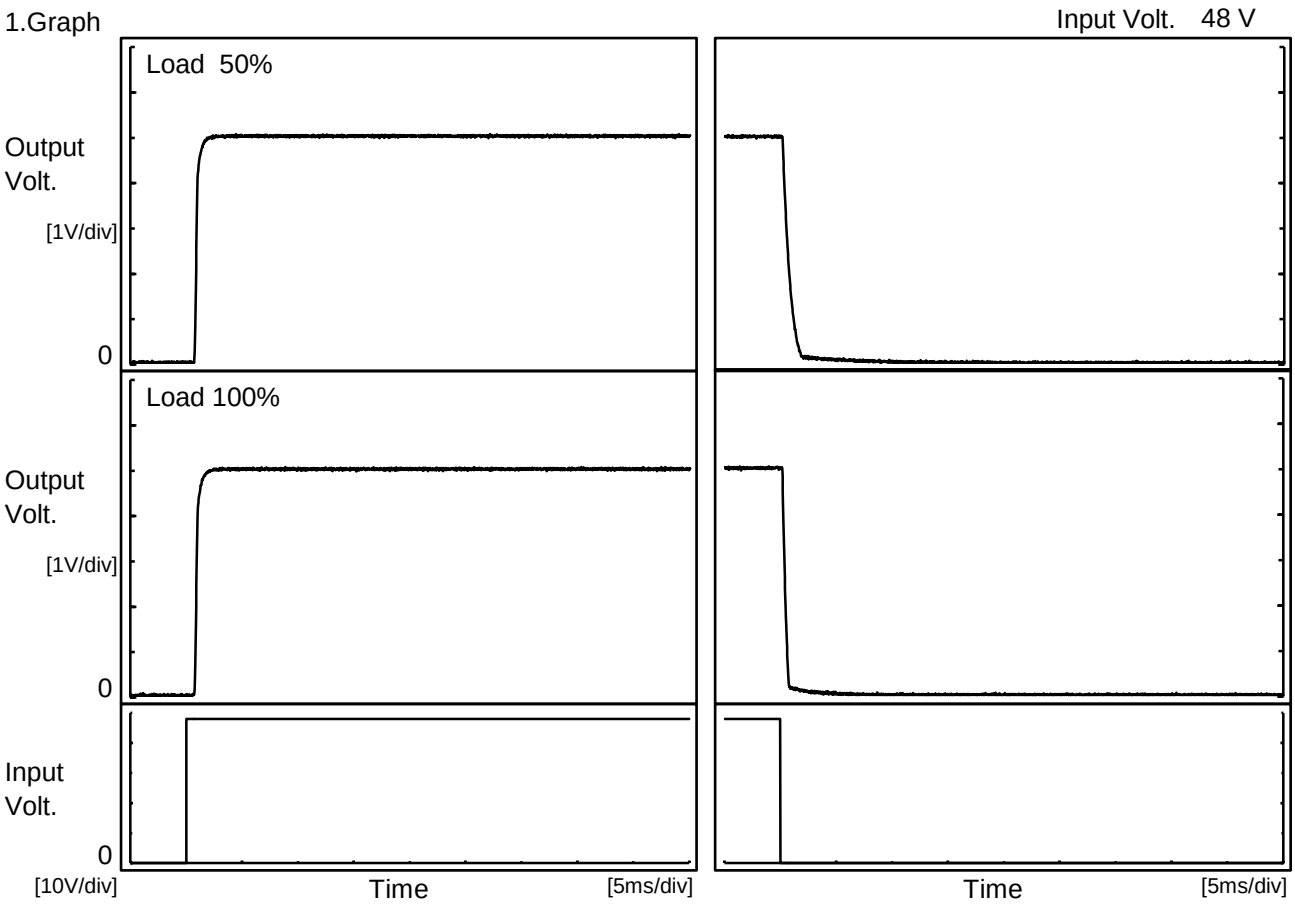
| | | |
|---|---|---|
| Model | MHFS34805 | |
| Item | Rise and Fall Time | Temperature 25°C<br>Testing Circuitry Figure A |
| Object | +5V0.6A | |

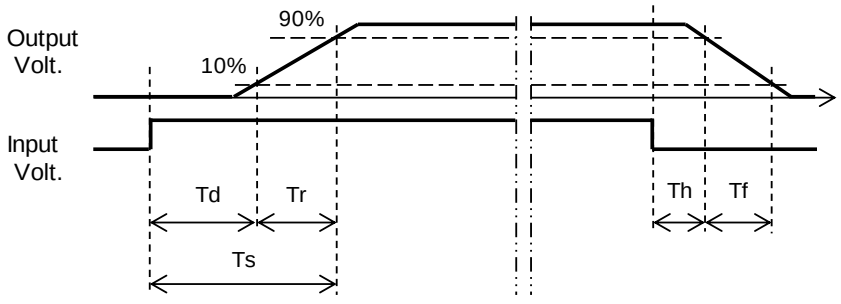
1.Graph




2.Values

[ms]

| Load \ Time | Td | Tr | Ts | Th | Tf |
|---|---|---|---|---|---|
| 50 % | 0.8 | 0.4 | 1.2 | 0.3 | 1.2 |
| 100 % | 0.8 | 0.4 | 1.2 | 0.2 | 0.5 |

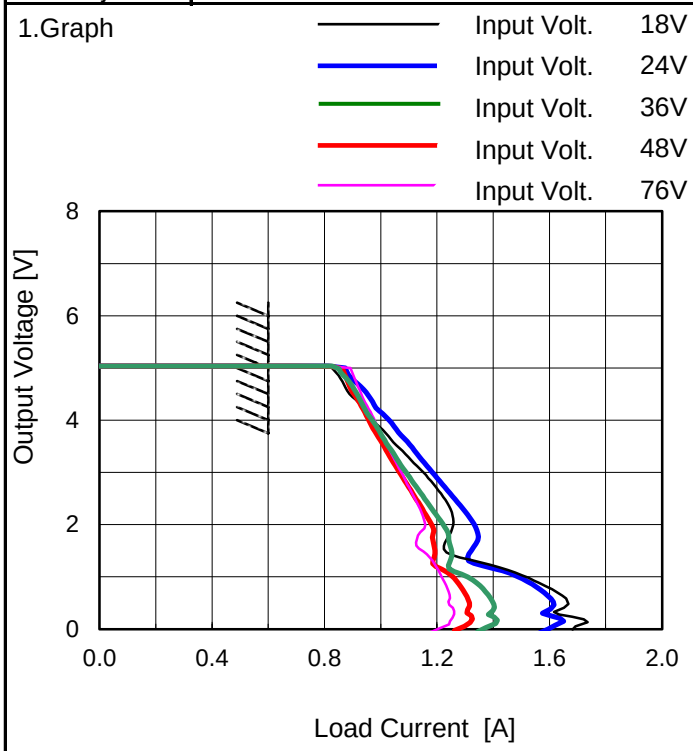


COSEL

| | |
|---|---|
| Model | MHFS34805 |
| Item | Overcurrent Protection |
| Object | +5V0.6A |

Temperature 25°C
Testing Circuitry Figure A

1.Graph




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

2.Values

| 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] |
| 4.75 | 0.864 | 0.904 | 0.886 | 0.882 | 0.911 |
| 4.50 | 0.889 | 0.948 | 0.915 | 0.904 | 0.929 |
| 4.00 | 0.965 | 1.030 | 0.965 | 0.955 | 0.975 |
| 3.50 | 1.055 | 1.103 | 1.020 | 1.006 | 1.020 |
| 3.00 | 1.151 | 1.182 | 1.087 | 1.066 | 1.072 |
| 2.50 | 1.223 | 1.256 | 1.149 | 1.120 | 1.118 |
| 2.00 | 1.258 | 1.331 | 1.220 | 1.180 | 1.157 |
| 1.50 | 1.225 | 1.322 | 1.251 | 1.193 | 1.136 |
| 1.00 | 1.504 | 1.484 | 1.287 | 1.250 | 1.216 |
| 0.50 | 1.659 | 1.614 | 1.397 | 1.315 | 1.241 |
| 0.00 | 1.682 | 1.564 | 1.345 | 1.262 | 1.172 |
| -- | - | - | - | - | - |



BC-11618

COSEL

| | | |
|---|---|---|
| Model | MHFS34805 | |
| Item | Ambient Temperature Drift | Testing Circuitry Figure A |
| Object | +5V0.6A | |

1.Values

| Ambient Temperature[℃] | Output Voltage [V] | | | | |
|---|---|---|---|---|---|
| | Input Volt. 18V | Input Volt. 24V | Input Volt. 36V | Input Volt. 48V | Input Volt. 76V |
| -40 | 5.008 | 5.008 | 5.009 | 5.010 | 5.010 |
| 25 | 5.032 | 5.032 | 5.033 | 5.033 | 5.033 |
| 75 | 5.035 | 5.035 | 5.035 | 5.035 | 5.035 |

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

1.Values

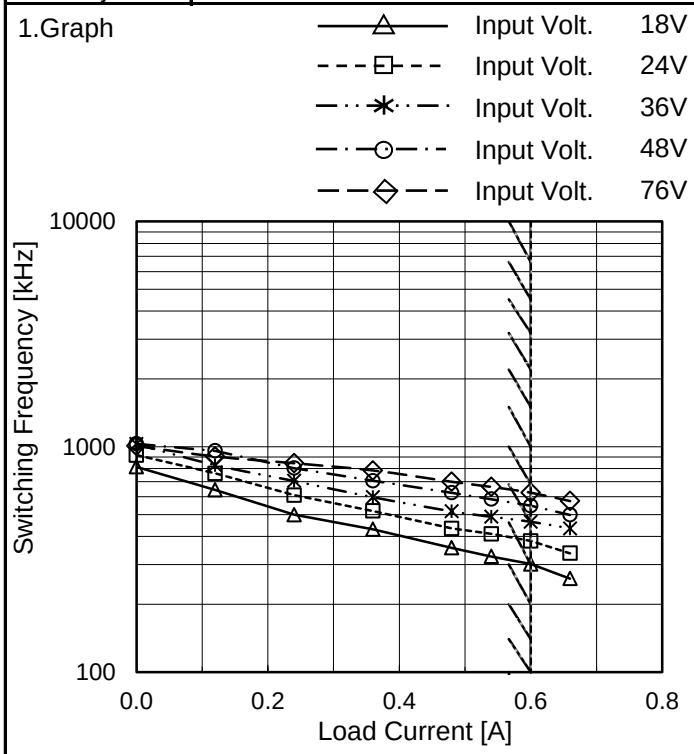
| Ambient Temperature[℃] | Input Voltage [V] | |
|---|---|---|
| | Load 50% | Load 100% |
| -40 | 14.3 | 14.6 |
| 25 | 14.3 | 14.4 |
| 75 | 13.8 | 13.9 |

COSEL

| | |
|---|---|
| Model | MHFS34805 |
| Item | Switching frequency (by Load Current) |
| Object | +5V0.6A |

Temperature 25°C
Testing Circuitry Figure A

1.Graph




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

| Load Current [A] | Switching Frequency [kHz] | | | | |
|---|---|---|---|---|---|
| | Input Volt. 18[V] | Input Volt. 24[V] | Input Volt. 36[V] | Input Volt. 48[V] | Input Volt. 76[V] |
| 0.00 | 815 | 918 | 1027 | 1031 | 1008 |
| 0.12 | 644 | 762 | 829 | 959 | 906 |
| 0.24 | 499 | 610 | 705 | 804 | 845 |
| 0.36 | 431 | 519 | 597 | 707 | 785 |
| 0.48 | 356 | 434 | 517 | 625 | 699 |
| 0.54 | 326 | 411 | 489 | 586 | 664 |
| 0.60 | 302 | 382 | 465 | 548 | 626 |
| 0.66 | 260 | 337 | 434 | 499 | 574 |
| -- | - | - | - | - | - |
| -- | - | - | - | - | - |
| -- | - | - | - | - | - |

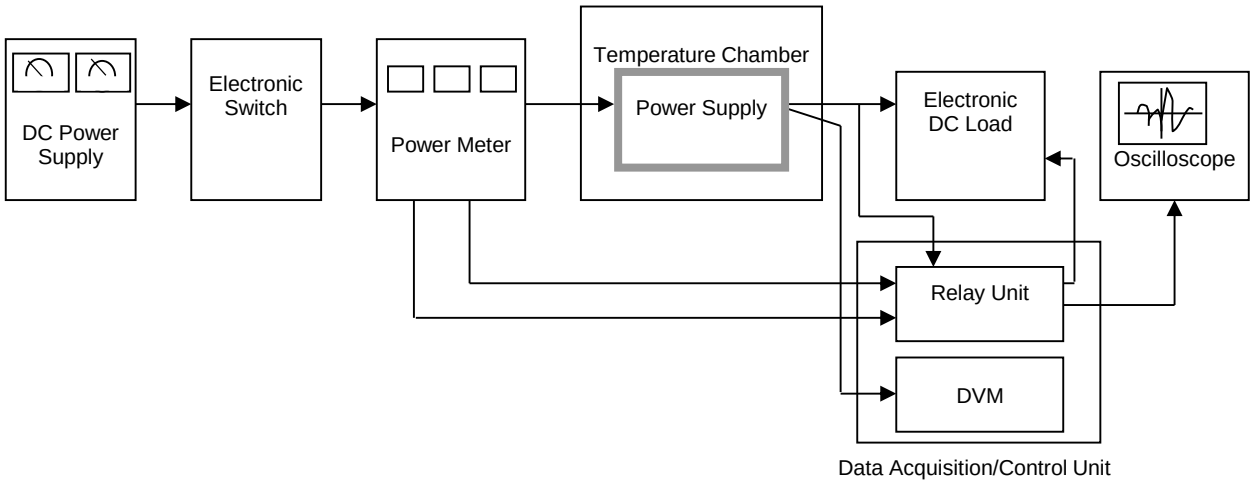



Figure A

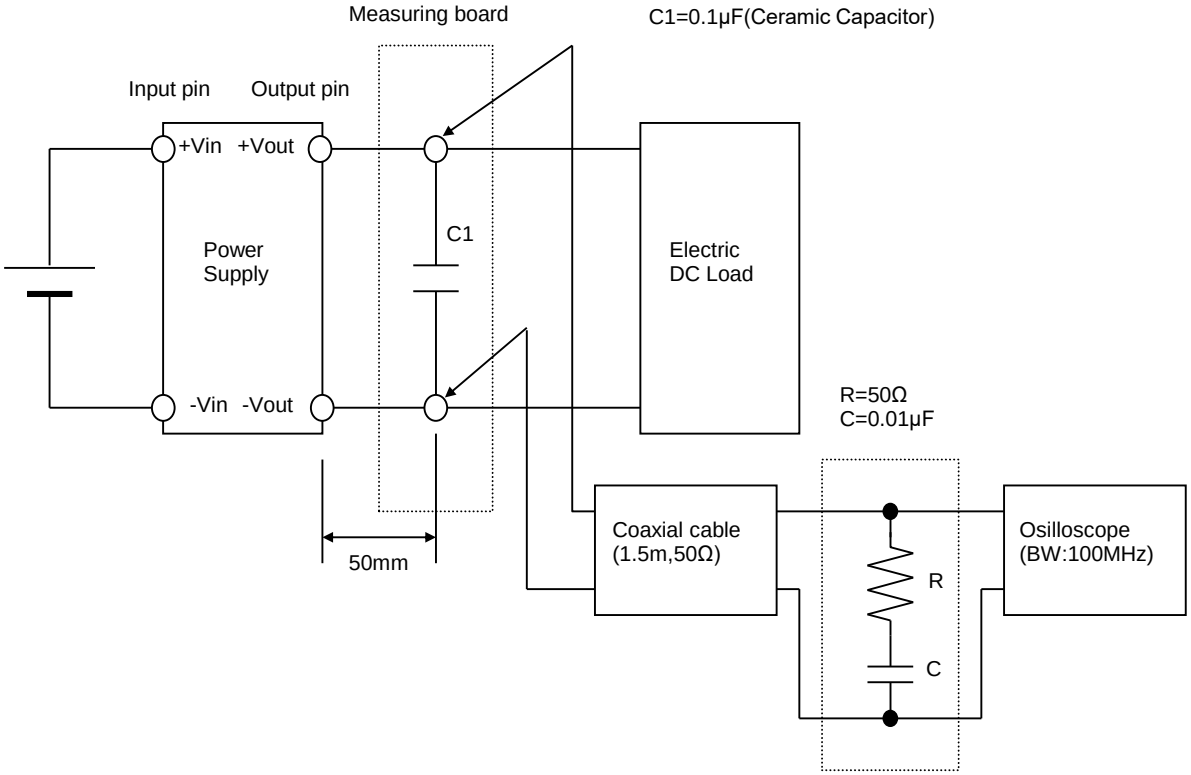



Figure B