参考資料

TEST DATA OF MODULE V

(AME series)

Regulated DC Power Supply
September 22, 2021

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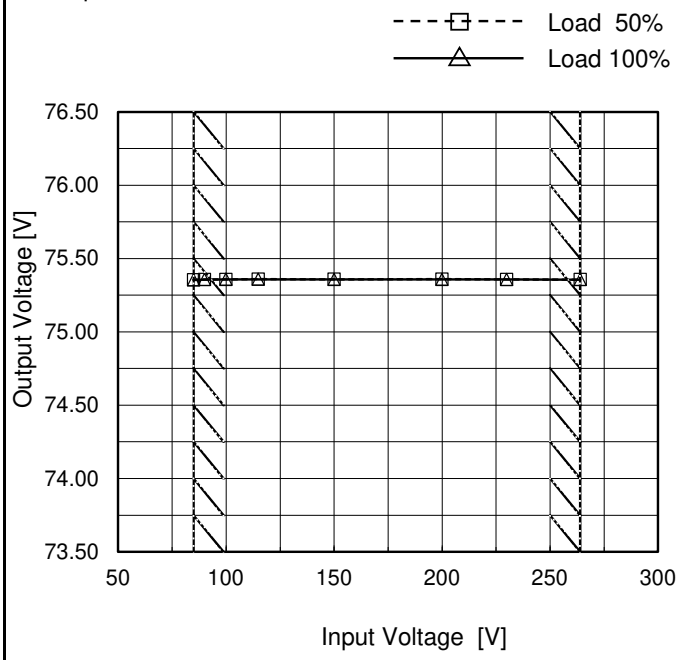

Note:
Hatched line shows the input voltage range.

2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
85	75.354	75.355
90	75.357	75.356
100	75.358	75.358
115	75.359	75.358
150	75.359	75.358
200	75.359	75.357
230	75.357	75.357
264	75.356	75.356
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BC-11804

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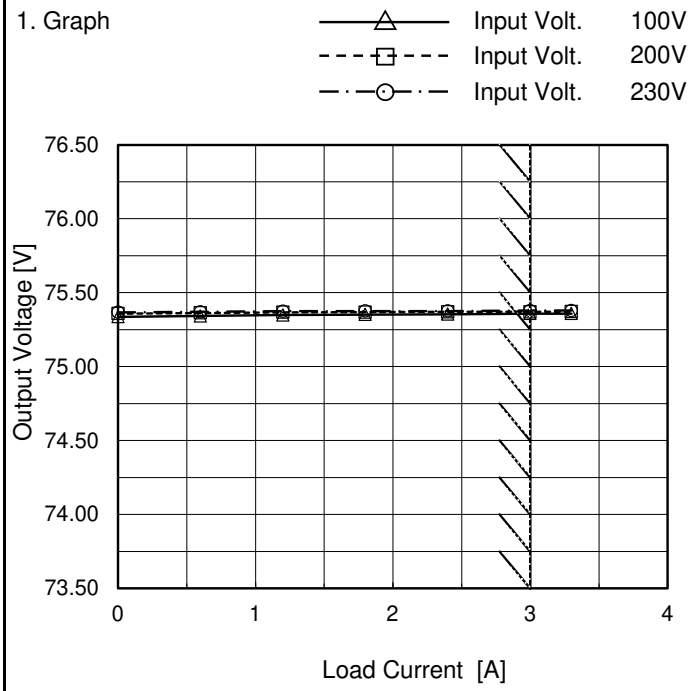
Model	MODULE V
Item	Load Regulation
Object	+75V3A

Temperature 25°C
Testing Circuitry Figure A

1. Graph



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

2. Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.0	75.337	75.359	75.367
0.6	75.342	75.363	75.371
1.2	75.348	75.367	75.375
1.8	75.352	75.369	75.376
2.4	75.354	75.370	75.375
3.0	75.358	75.371	75.379
3.3	75.359	75.372	75.379
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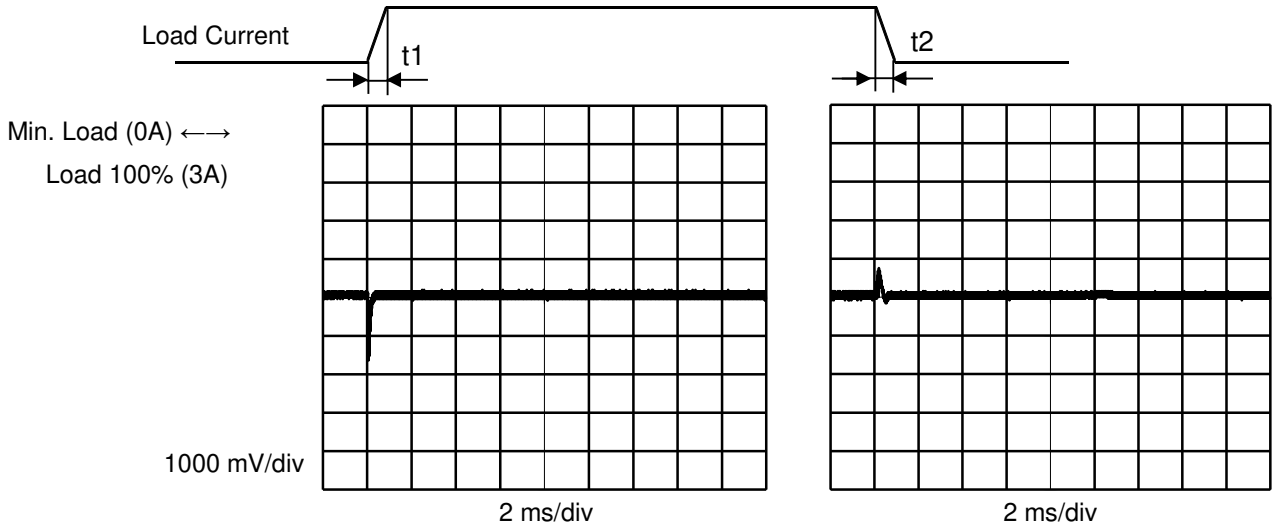
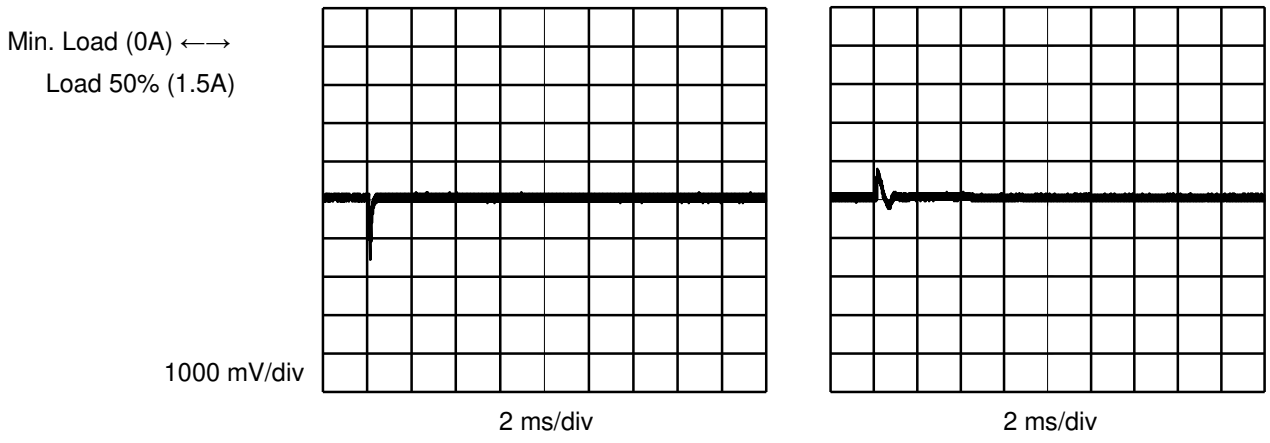
COSEL

Model	MODULE V		
Item	Dynamic Load Response	Temperature Testing Circuitry	25° C Figure A
Object	+75V3A		

Input Volt. 100 V
Cycle 1000 ms

Response t1=t2=50us. Typ





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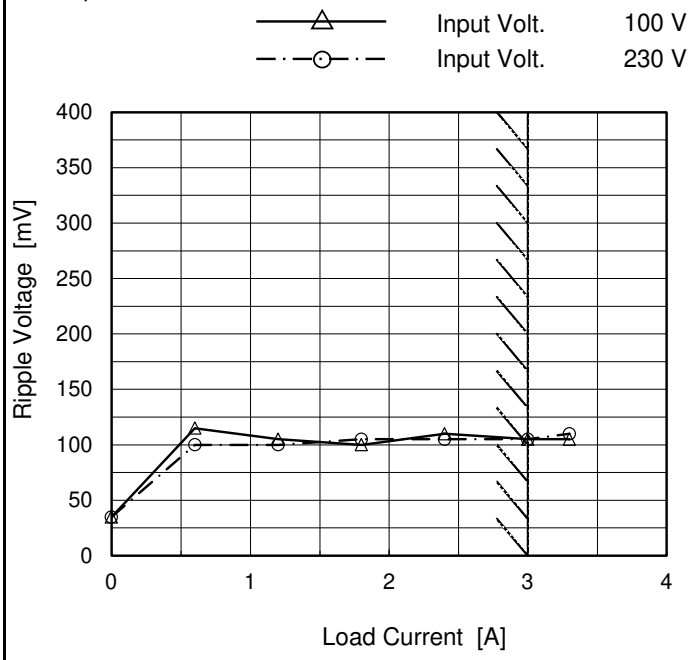
Model	MODULE V
Item	Ripple Voltage (by Load Current)
Object	+75V3A

Temperature 25°C
Testing Circuitry Figure B

1. Graph



2. Values

Load Current [A]	Ripple Voltage [mV]	
	Input Volt. 100[V]	Input Volt. 230[V]
0.0	35	35
0.6	115	100
1.2	105	100
1.8	100	105
2.4	110	105
3.0	105	105
3.3	105	110
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Note:
Measured by 20MHz Oscilloscope.

Ripple Voltage is shown as p-p in the figure below.

Hatched line shows the range of the rated load current.

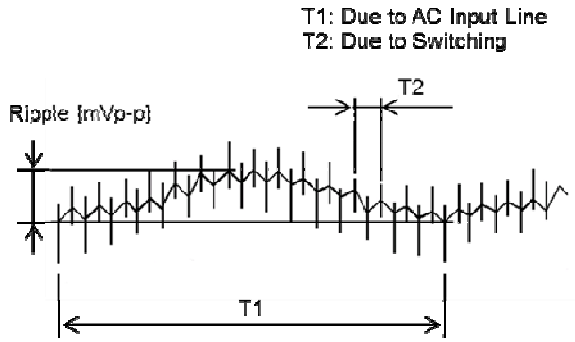

Fig. Complex Ripple Wave Form

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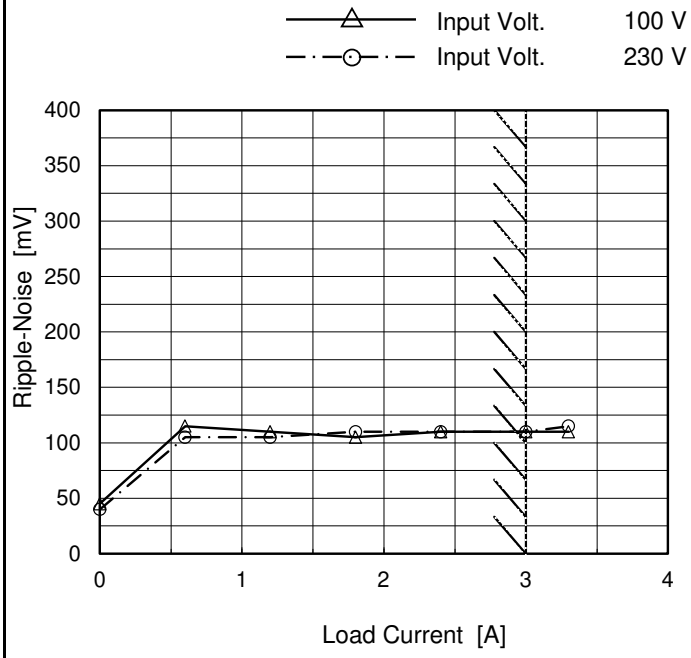
Model	MODULE V
Item	Ripple Noise
Object	+75V3A

Temperature 25°C
Testing Circuitry Figure B

1. Graph



2. Values

Load Current [A]	Ripple Noise [mV]	
	Input Volt. 100[V]	Input Volt. 230[V]
0.00	45	40
0.60	115	105
1.20	110	105
1.80	105	110
2.40	110	110
3.00	110	110
3.30	110	115
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Note:
Measured by 20MHz Oscilloscope.

Ripple Noise is shown as p-p in the figure below.

Hatched line shows the range of the rated load current.

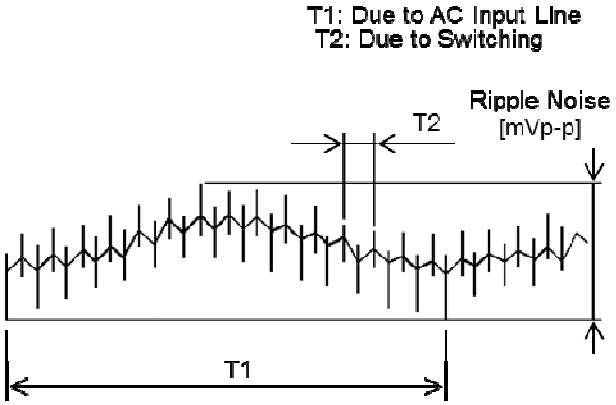

Fig. Complex Ripple Wave Form

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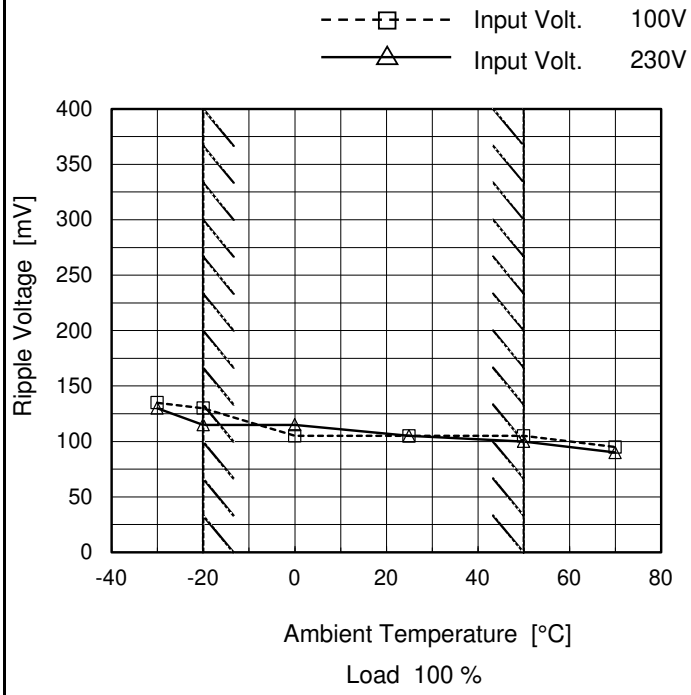
Model	MODULE V
Item	Ripple Voltage (by Ambient Temp.)
Object	+75V3A

Testing Circuitry Figure B

1. Graph



Load 100 %

Note:
Measured by 20MHz Oscilloscope.

Hatched line shows the range of the rated operating temperature.

2. Values

Ambient Temperature [°C]	Ripple Voltage [mV]	
	Input Volt. 100 [V]	Input Volt. 230 [V]
-30	135	130
-20	130	115
0	105	115
25	105	105
50	105	100
70	95	90
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--	-	-
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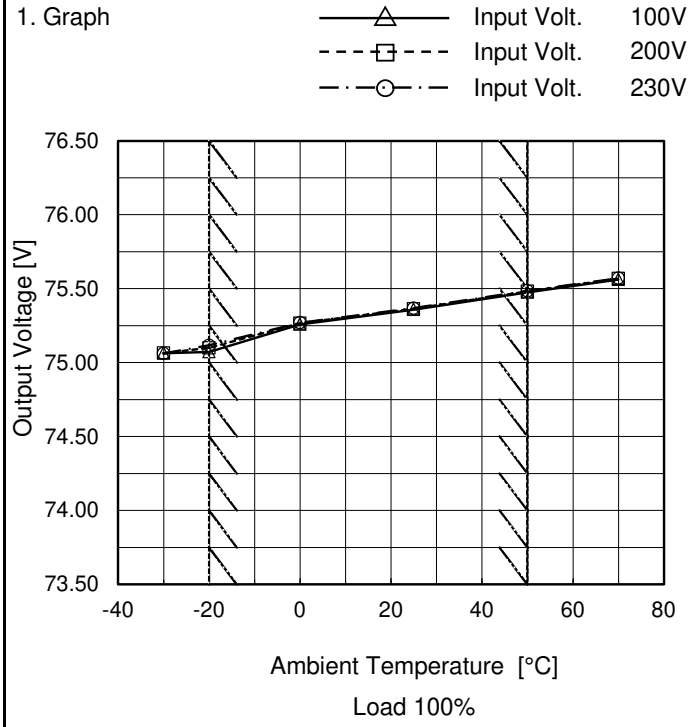
Model	MODULE V
Item	Ambient Temperature Drift
Object	+75V3A

Testing Circuitry Figure A

1. Graph



Note:
Hatched line shows the range of the rated operating temperature.

2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
-30	75.064	75.064	75.062
-20	75.073	75.100	75.117
0	75.259	75.267	75.270
25	75.358	75.364	75.368
50	75.475	75.482	75.485
70	75.563	75.569	75.571
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COSEL

Model	MODULE V	
Item	Output Voltage Accuracy	Testing Circuitry Figure A
Object	+75V3A	

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 : -20 - 50°C
Input Voltage : 85 - 264V
Load Current : 0 - 3A

* Output Voltage Accuracy = ±(Maximum of Output Voltage - Minimum of Output Voltage) / 2

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

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	50	230	3.0	75.485	±220	±0.3
Minimum Voltage	-20	85	0.0	75.045		

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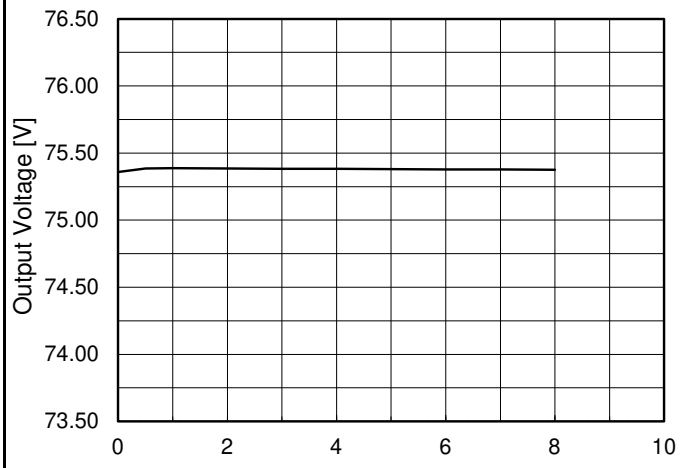
Model	MODULE V
Item	Time Lapse Drift
Object	+75V3A

Temperature 25°C
Testing Circuitry Figure A

1. Graph



Input Volt. 100V
Load 100%

2. Values

Time since start [H]	Output Voltage [V]
0.0	75.358
0.5	75.386
1.0	75.387
2.0	75.386
3.0	75.382
4.0	75.383
5.0	75.380
6.0	75.378
7.0	75.378
8.0	75.376

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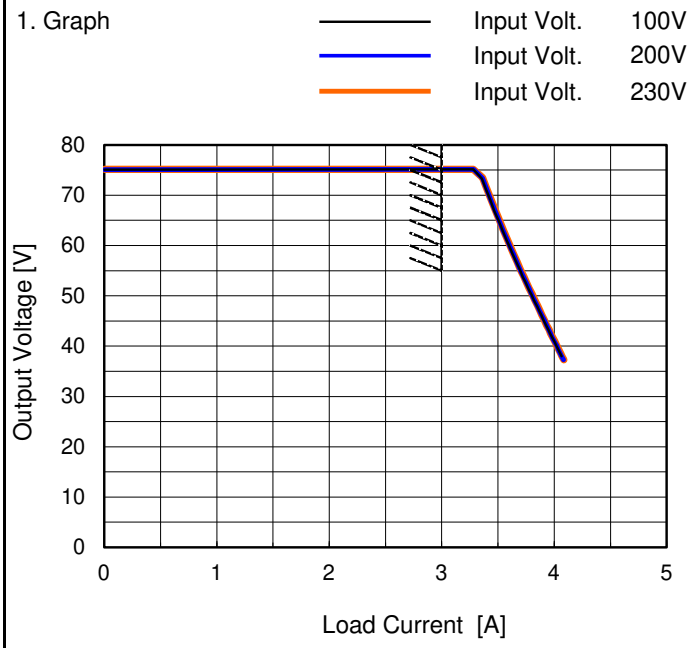
Model	MODULE V
Item	Overcurrent Protection
Object	+75V3A

Temperature 25°C
Testing Circuitry Figure A

1. Graph



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

Hiccup mode activates when the output voltage is below 37.5V.

2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
71.3	3.39	3.39	3.40
67.5	3.47	3.47	3.48
60.0	3.60	3.61	3.61
52.5	3.74	3.75	3.75
45.0	3.91	3.91	3.91
37.5	4.07	4.07	4.07
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--	-	-	-
--	-	-	-
--	-	-	-
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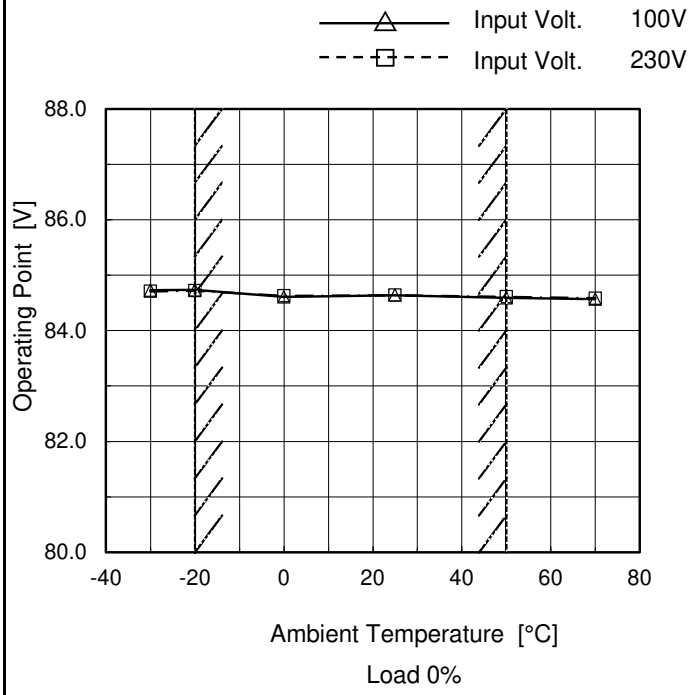
Model	MODULE V
Item	Overvoltage Protection
Object	+75V3A

Testing Circuitry Figure A

1. Graph



Note:
Hatched line shows the range of the rated operating temperature.

2. Values

Ambient Temperature [°C]	Operating Point [V]	
	Input Volt. 100[V]	Input Volt. 230[V]
-30	84.73	84.71
-20	84.74	84.72
0	84.61	84.63
25	84.64	84.64
50	84.59	84.61
70	84.57	84.58
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--	-	-
--	-	-
--	-	-
--	-	-

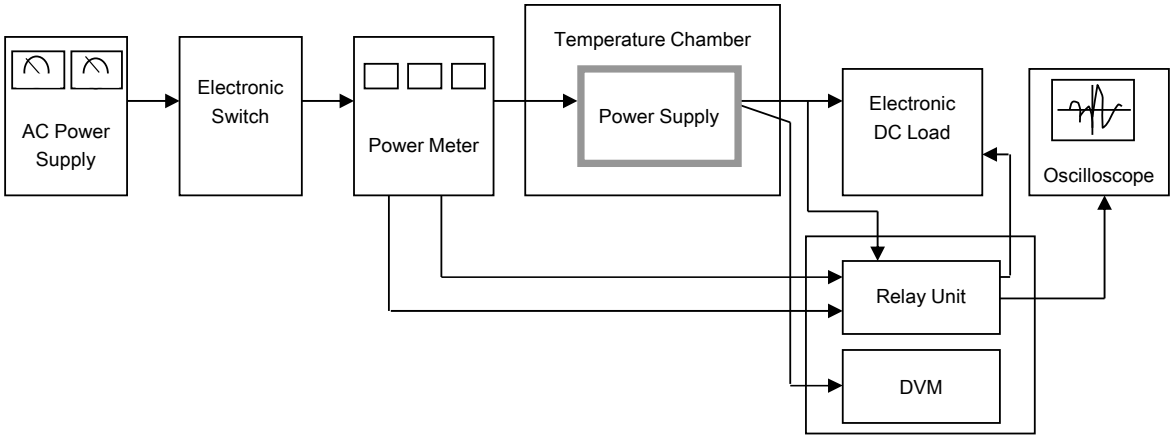
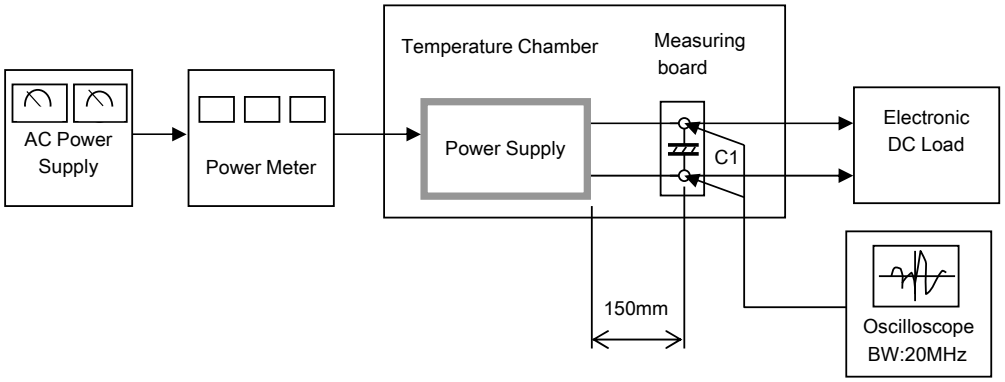


Figure A



C1= 22 μF
(Electrolytic capacitor)

Figure B