

Test Data

Model Number: mUZPT-120-15-JB0

Model Name: DC POWER SUPPLY

INPUT: 85V – 264V AC, 50 / 60 Hz

OUTPUT: 15V 6.7A (13.4A_{peak})

Minimum load : 0W
Rated load :100.5W
Peak output power: 201.0W

Approved by : *T. Ise* (QA manager)
Designed by : *Kazuhiko Yamada* (R&D engineer)
Tested by : *Hiroyuki Watanabe* (Evaluation test engineer)

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Model	mUZPT-120-15-JB0	Temperature: 25°C																																		
Item	Input Current (by Load Power)																																			
<p>Legend: - 85V AC (Blue diamonds) - 100V AC (Magenta squares) - 240V AC (Red triangles) - 264V AC (Green crosses)</p>		<table border="1"> <thead> <tr> <th rowspan="2">Load Power [W]</th> <th colspan="4">Input Current [A rms]</th> </tr> <tr> <th>Input Voltage 85V AC</th> <th>Input Voltage 100V AC</th> <th>Input Voltage 240V AC</th> <th>Input Voltage 264V AC</th> </tr> </thead> <tbody> <tr> <td>0.0</td> <td>0.06</td> <td>0.06</td> <td>0.07</td> <td>0.09</td> </tr> <tr> <td>25.1</td> <td>0.38</td> <td>0.33</td> <td>0.23</td> <td>0.20</td> </tr> <tr> <td>50.3</td> <td>0.71</td> <td>0.60</td> <td>0.37</td> <td>0.31</td> </tr> <tr> <td>75.4</td> <td>1.05</td> <td>0.89</td> <td>0.50</td> <td>0.43</td> </tr> <tr> <td>100.5</td> <td>1.39</td> <td>1.16</td> <td>0.62</td> <td>0.53</td> </tr> </tbody> </table>	Load Power [W]	Input Current [A rms]				Input Voltage 85V AC	Input Voltage 100V AC	Input Voltage 240V AC	Input Voltage 264V AC	0.0	0.06	0.06	0.07	0.09	25.1	0.38	0.33	0.23	0.20	50.3	0.71	0.60	0.37	0.31	75.4	1.05	0.89	0.50	0.43	100.5	1.39	1.16	0.62	0.53
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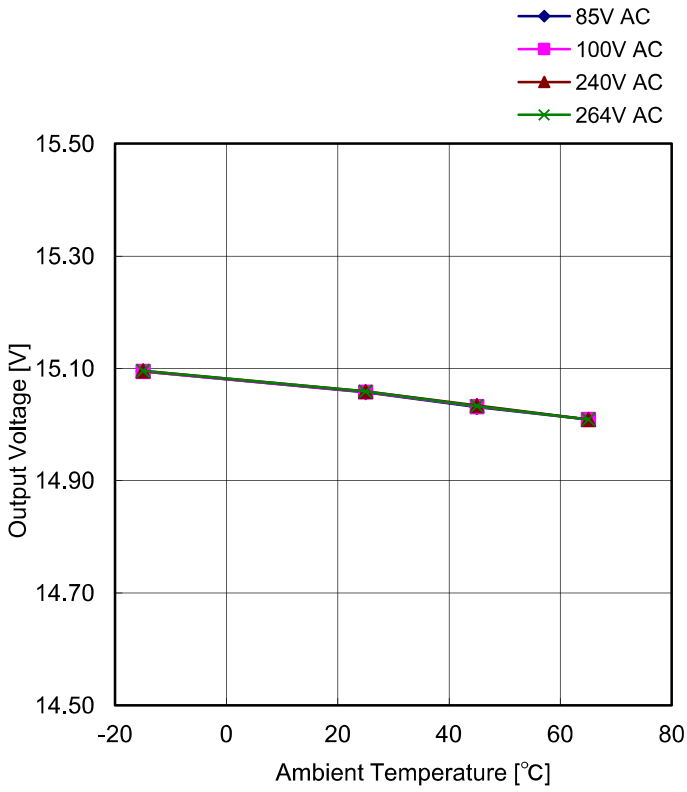
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Model	mUZPT-120-15-JB0	Temperature: 25°C																		
Item	Line Regulation																			
<p>The graph plots Output Voltage [V] on the y-axis (ranging from 14.80 to 15.20) against AC Input Voltage [V] on the x-axis (ranging from 50 to 300). A single data series labeled 'Rated load' is shown as a blue line with diamond markers. The output voltage remains very stable, fluctuating only slightly around 15.058V across the entire input range.</p>		<table border="1"> <thead> <tr> <th>AC Input Voltage [V]</th> <th>Output Voltage [V]</th> </tr> </thead> <tbody> <tr> <td>85</td> <td>15.057</td> </tr> <tr> <td>100</td> <td>15.058</td> </tr> <tr> <td>132</td> <td>15.058</td> </tr> <tr> <td>176</td> <td>15.058</td> </tr> <tr> <td>200</td> <td>15.058</td> </tr> <tr> <td>220</td> <td>15.058</td> </tr> <tr> <td>240</td> <td>15.059</td> </tr> <tr> <td>264</td> <td>15.059</td> </tr> </tbody> </table>	AC Input Voltage [V]	Output Voltage [V]	85	15.057	100	15.058	132	15.058	176	15.058	200	15.058	220	15.058	240	15.059	264	15.059
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Model mUZPT-120-15-JB0

Item Ambient Temperature Drift



Ambient Temp. (°C)	Output Voltage [V]			
	Input Voltage 85V AC	Input Voltage 100V AC	Input Voltage 240V AC	Input Voltage 264V AC
-15	15.095	15.095	15.096	15.096
25	15.057	15.058	15.059	15.059
45	15.031	15.032	15.034	15.033
65	15.009	15.009	15.009	15.009

Load Condition

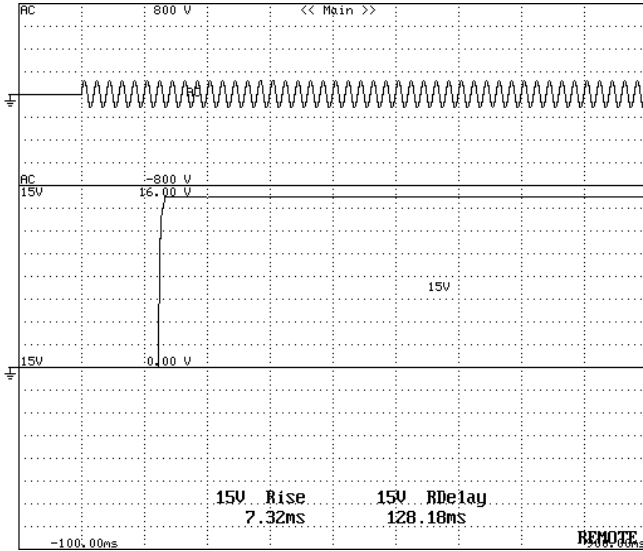
Ambient Temp. (°C)	Load Current [A]
	15V
-15	6.70
25	6.70
45	6.70
65	4.67

Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Output Rise Characteristics (at AC Power ON)	

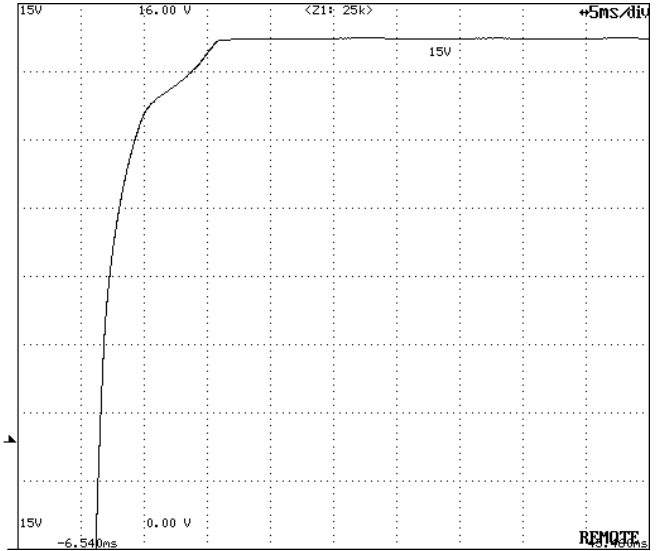
Input: 100V AC
Load: Rated Load

Timebase Range: 100ms/div

Vertical Sensitivity: 2V/div
Timebase Range: 5ms/div



All Output Start-up Sequence

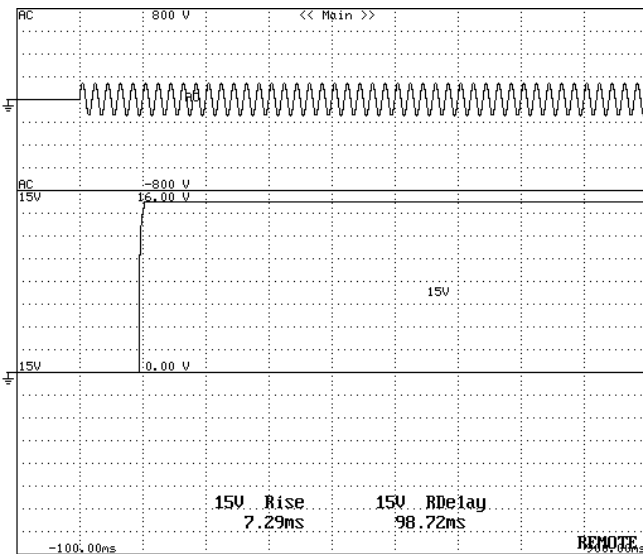


15V DC Output Rise Characteristics

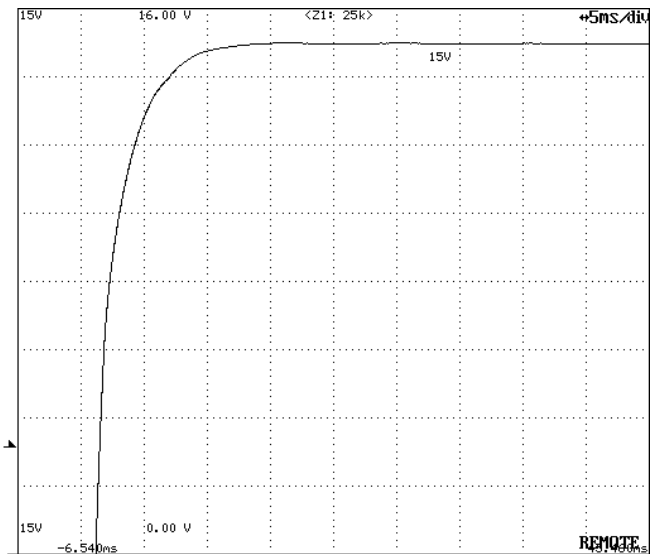
Input: 240V AC
Load: Rated Load

Timebase Range: 100ms/div

Vertical Sensitivity: 2V/div
Timebase Range: 5ms/div



All Output Start-up Sequence



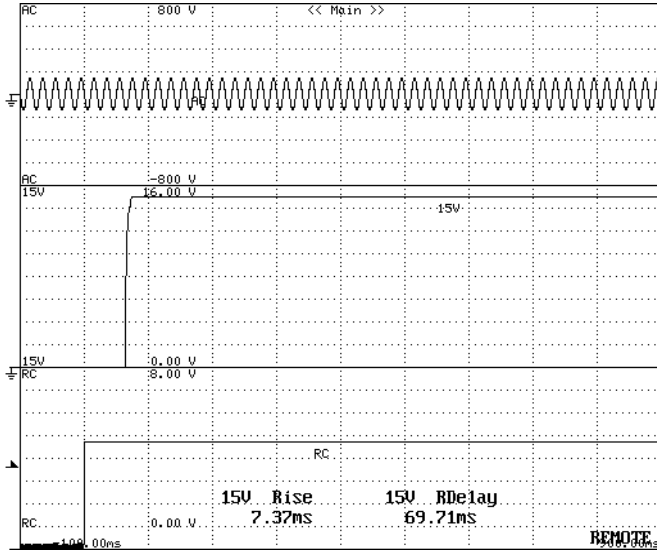
15V DC Output Rise Characteristics

Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Output Rise Characteristics (at Remote ON)	

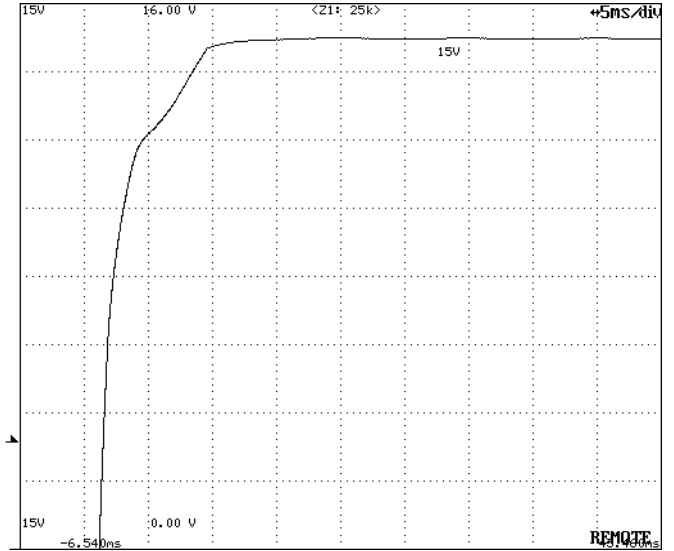
Input: 100V AC
Load: Rated Load

Timebase Range: 100ms/div

Vertical Sensitivity: 2V/div
Timebase Range: 5ms/div



All Output Start-up Sequence

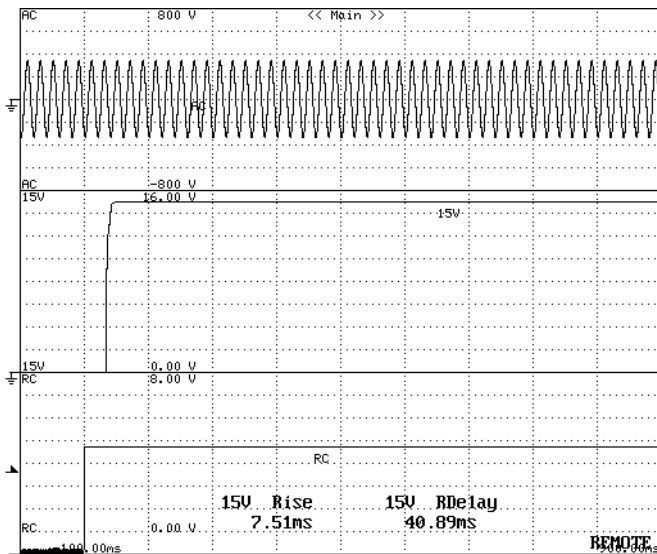


15V DC Output Rise Characteristics

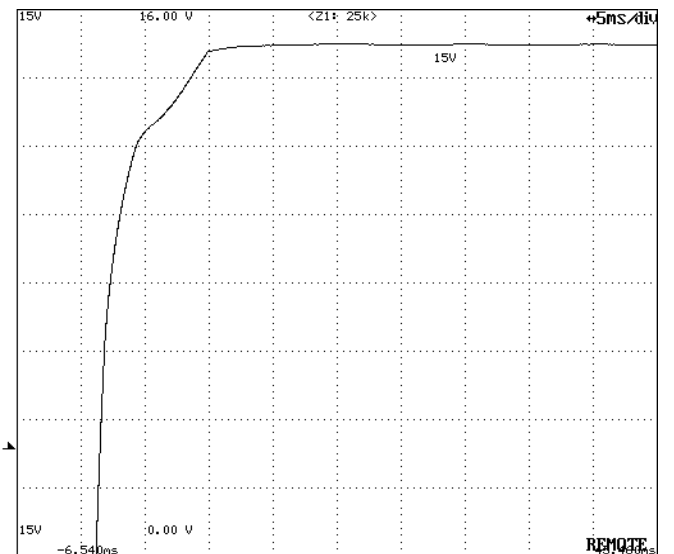
Input: 240V AC
Load: Rated Load

Timebase Range: 100ms/div

Vertical Sensitivity: 2V/div
Timebase Range: 5ms/div



All Output Start-up Sequence

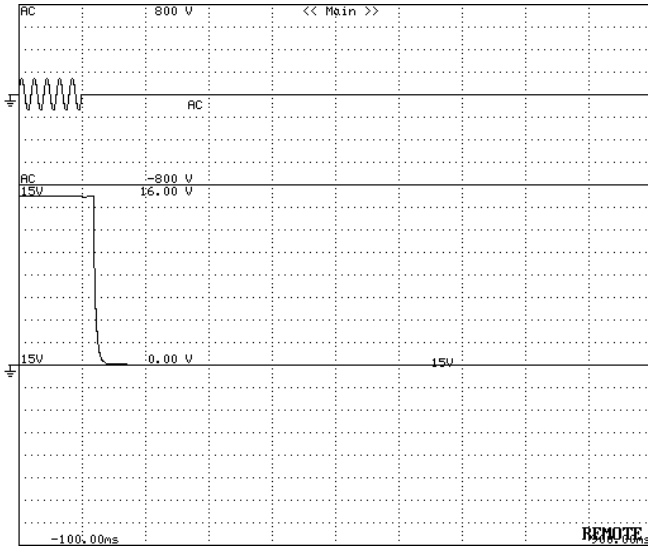


15V DC Output Rise Characteristics

Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Output Fall Characteristics (at AC Power OFF)	

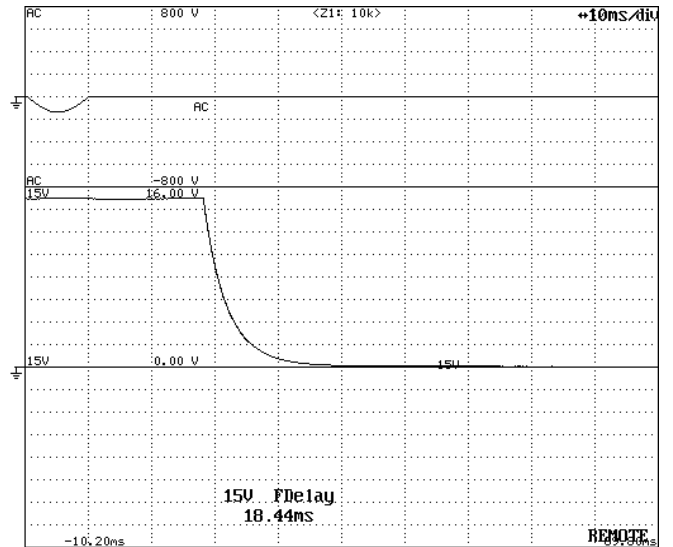
Input: 100V AC
Load: Rated Load

Timebase Range: 100ms/div



Output Fall Characteristics

Timebase Range: 10ms/div



Output Fall Characteristics (magnification)

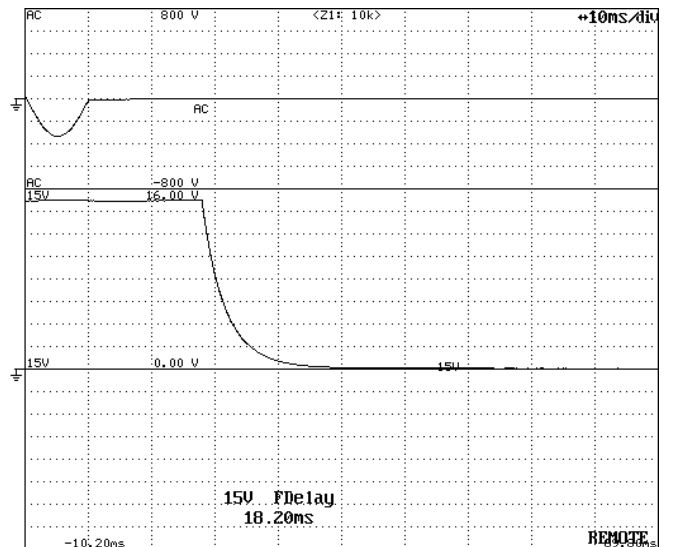
Input: 240V AC
Load: Rated Load

Timebase Range: 100ms/div



Output Fall Characteristics

Timebase Range: 10ms/div

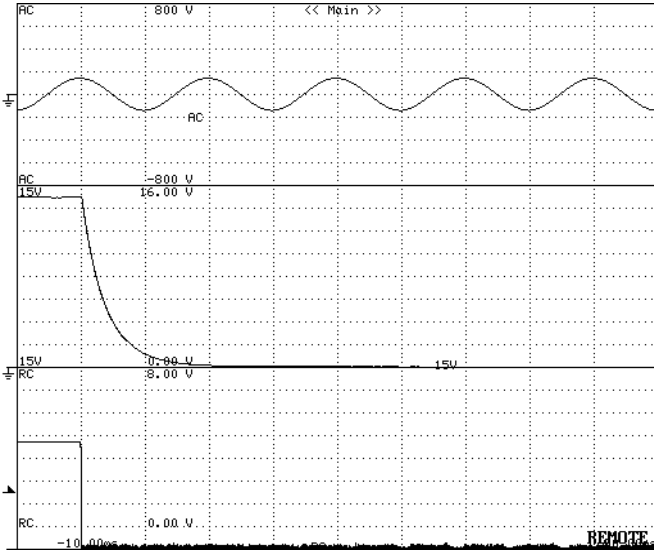


Output Fall Characteristics (magnification)

Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Output Fall Characteristics (at Remote OFF)	

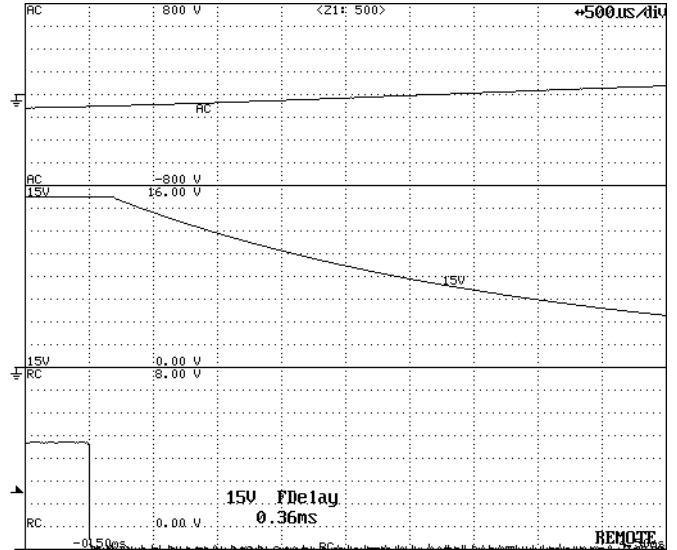
Input: 100V AC
Load: Rated Load

Timebase Range: 10ms/div



Output Fall Characteristics

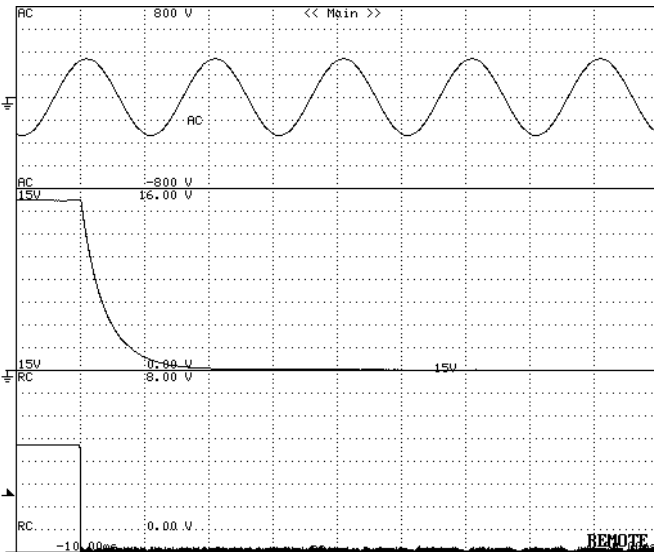
Timebase Range: 500µs/div



Output Fall Characteristics (magnification)

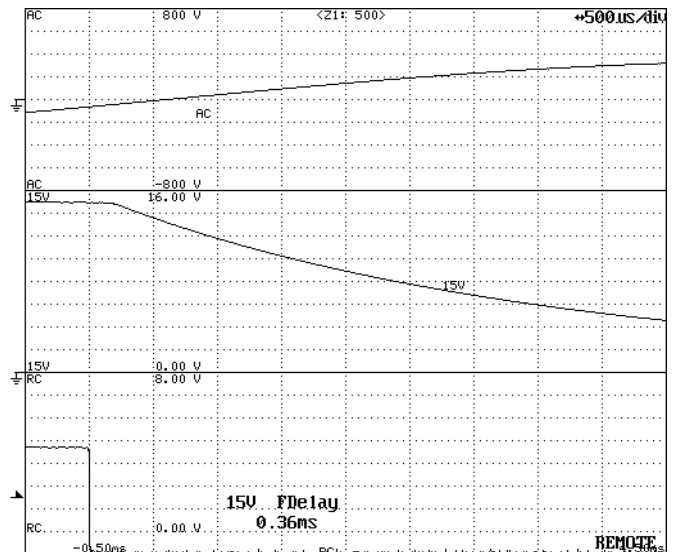
Input: 240V AC
Load: Rated Load

Timebase Range: 10ms/div



Output Fall Characteristics

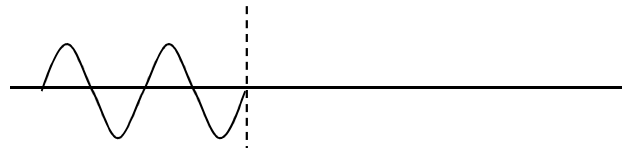
Timebase Range: 500µs/div



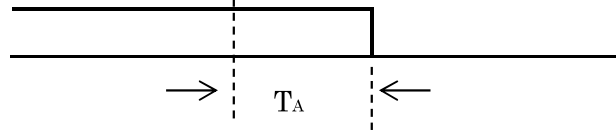
Output Fall Characteristics (magnification)

Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Instantaneous Interruption Compensation (by Load Power)	

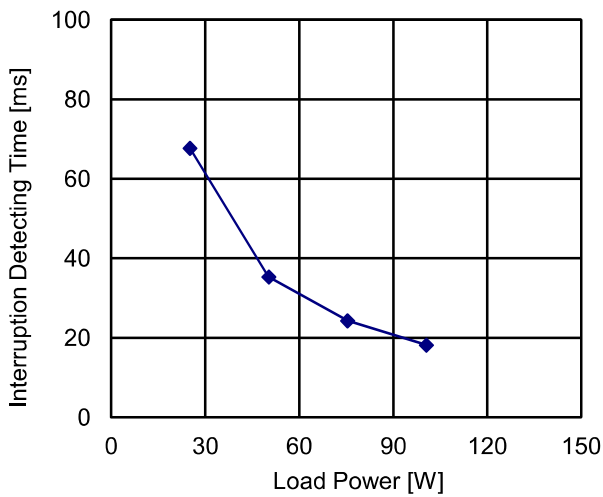
Input Voltage



Output Voltage

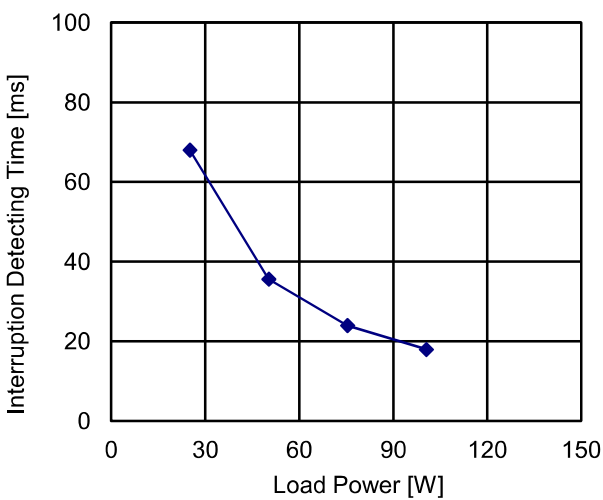


Input Voltage:100V AC



Load Power [W]	Interruption Detecting Time [ms]
	Ouput Voltage
	T _A
25.1	67.7
50.3	35.3
75.4	24.3
100.5	18.2

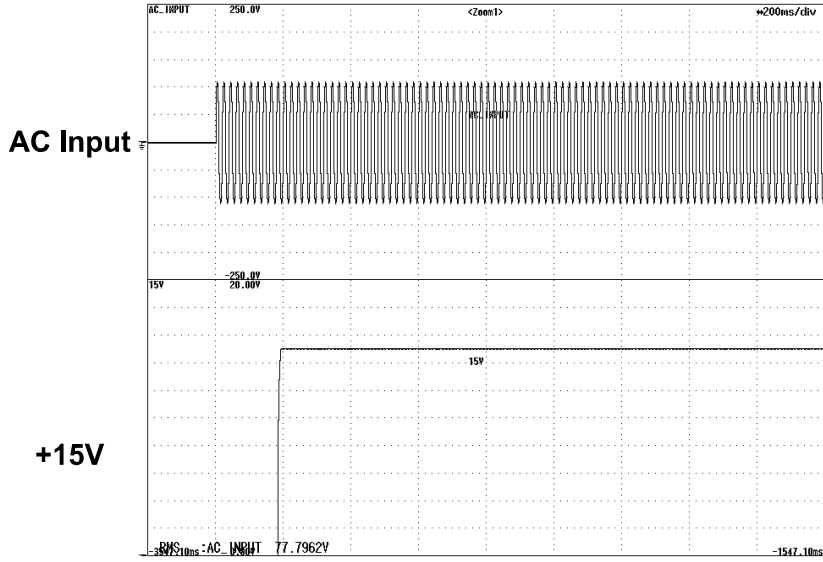
Input Voltage:240V AC



Load Power [W]	Interruption Detecting Time [ms]
	Ouput Voltage
	T _A
25.1	68.0
50.3	35.6
75.4	24.0
100.5	18.0

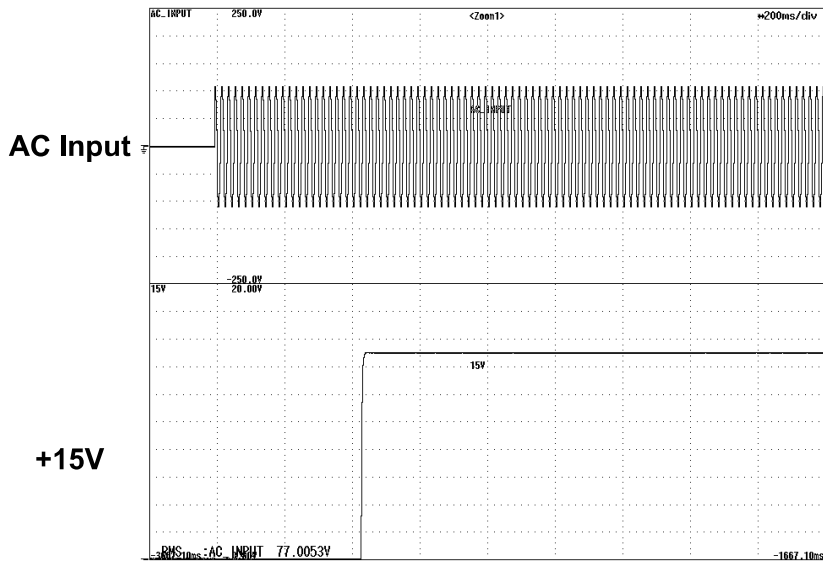
Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Start-Up Voltage	

**Timebase Range: 200ms/div
Load: Rated Load**



Start-up Voltage: 77.8V AC

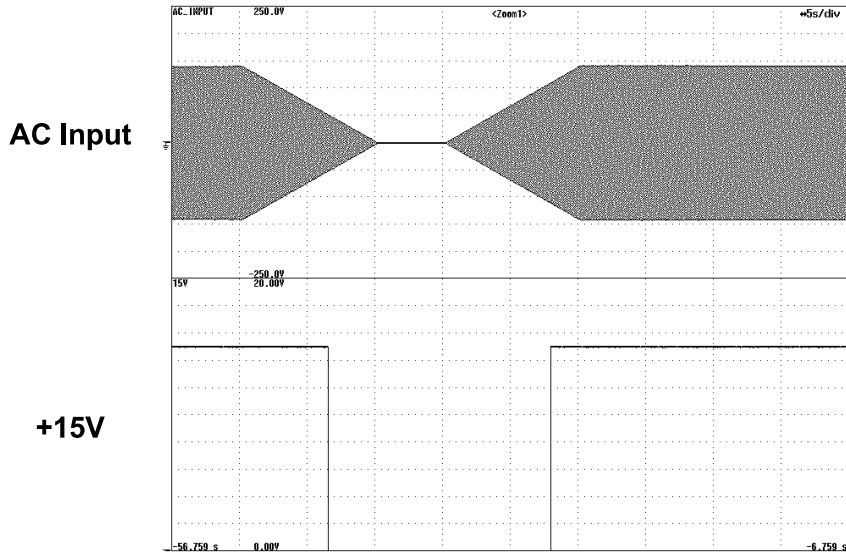
**Timebase Range: 200ms/div
Load: Minimum Load**



Start-up Voltage: 77.0V AC

Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Input Voltage Sweep Up/Down	

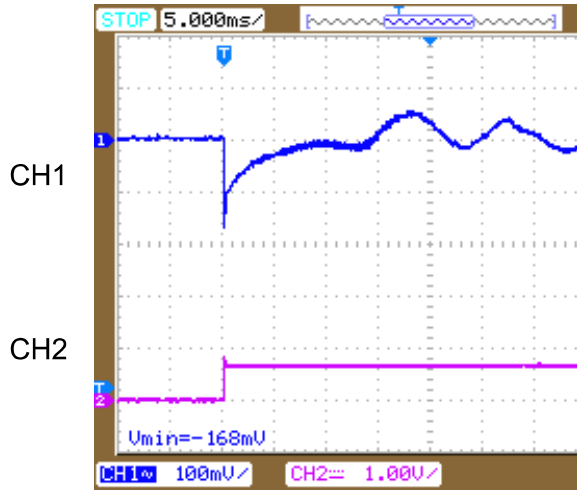
**Timebase Range: 5s/div
Load: Rated Load**



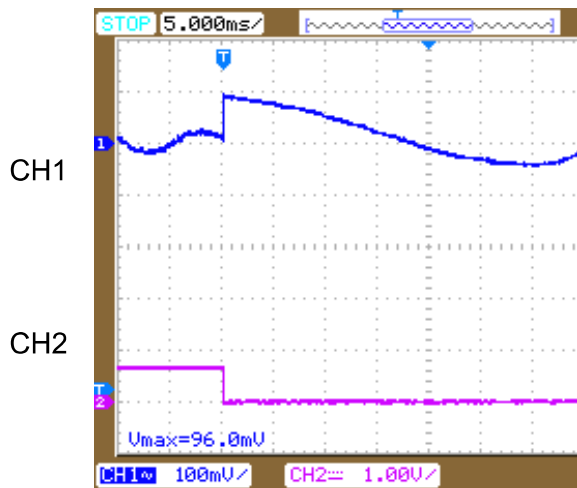
Sweep Rate: 10Vave/sec

Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Dynamic Load Response	

+15V DC Output Transient Response Waveforms

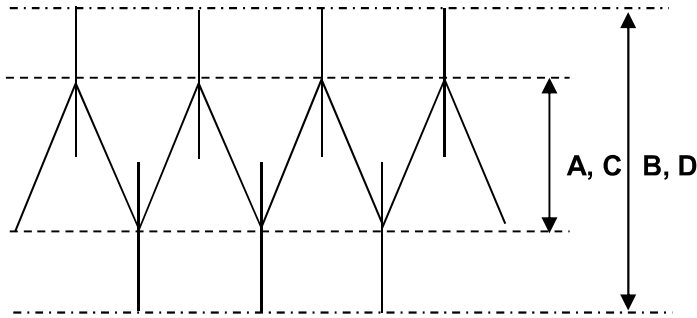


Waveform 1	
CH1	Measuring Point: DC Output Voltage
	Vertical Sensitivity: 100mV/div
CH2	Measuring Point: DC Output Current
	Vertical Sensitivity: 10A/div
Timebase Range	5ms/div
Condition	Input: 100V AC
Note: Minimum load(0A) → Rated Load(6.7A)	



Waveform 2	
CH1	Measuring Point: DC Output Voltage
	Vertical Sensitivity: 100mV/div
CH2	Measuring Point: DC Output Current
	Vertical Sensitivity: 10A/div
Timebase Range	5ms/div
Condition	Input: 100V AC
Note: Rated Load(6.7A) → Minimum load(0A)	

Model	mUZPT-120-15-JB0	Load: Rated Load
Item	Ripple / Noise Voltage	

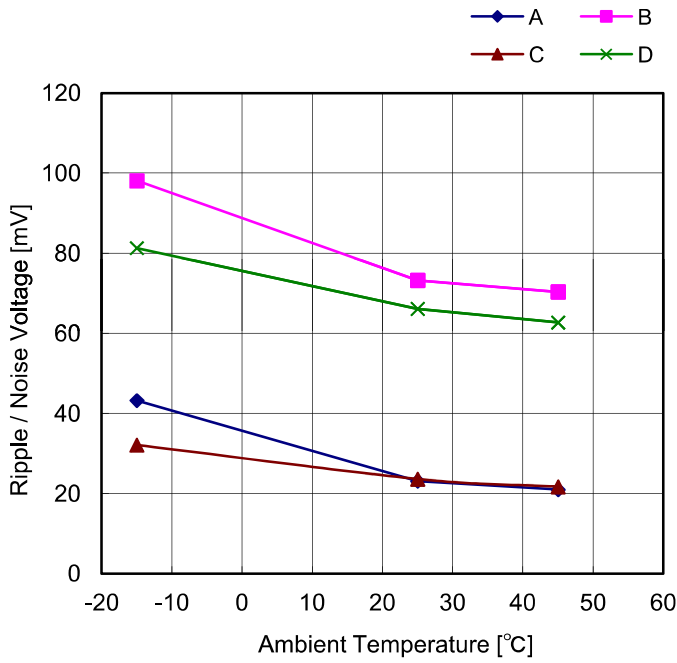


at 100V AC

A: Ripple Voltage (mV_{P-P})
 B: Noise Voltage (mV_{P-P})

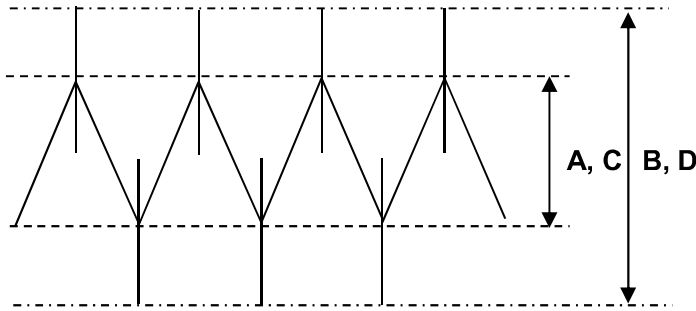
at 240V AC

C: Ripple Voltage (mV_{P-P})
 D: Noise Voltage (mV_{P-P})



Ambient Temp. [°C]	Ripple / Noise Voltage [mV]			
	A	B	C	D
-15	43.2	98.1	32.1	81.3
25	23.1	73.2	23.6	66.1
45	21.0	70.3	21.7	62.7

Model	mUZPT-120-15-JB0	Temperature : 25°C
Item	Ripple / Noise Voltage	



at 100V AC

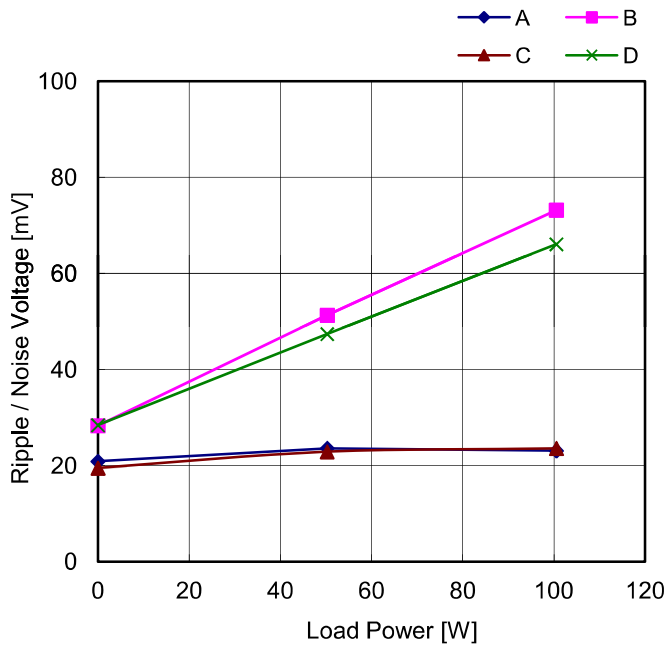
A: Ripple Voltage (mVP-P)

B: Noise Voltage (mVP-P)

at 240V AC

C: Ripple Voltage (mVP-P)

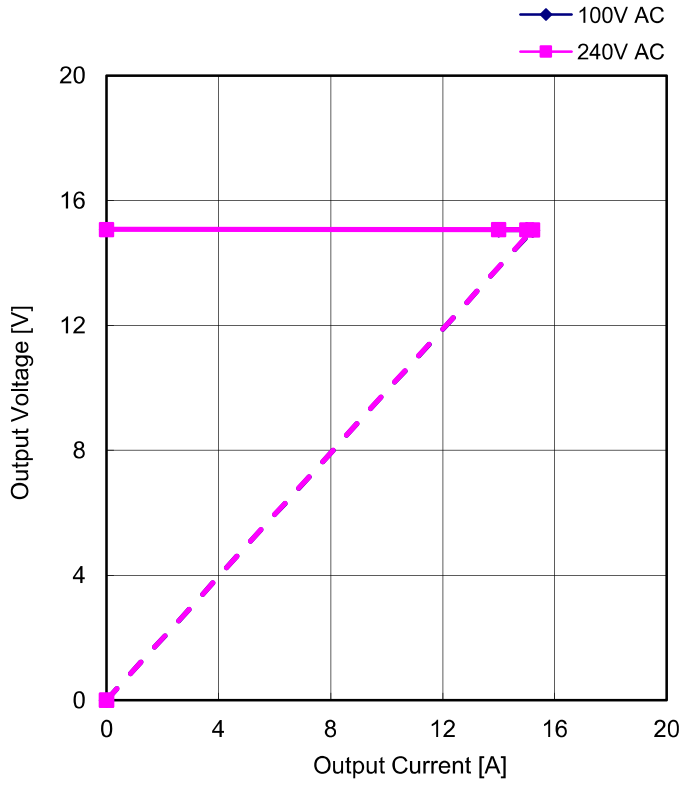
D: Noise Voltage (mVP-P)



Load Power [W]	Ripple / Noise Voltage [mV]			
	A	B	C	D
0	20.9	28.3	19.5	28.4
50.3	23.6	51.3	22.9	47.4
100.5	23.1	73.2	23.6	66.1

Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Over-Current Protection	

V-I Characteristics of 15V O.C.P



Input Voltage: 100V AC		Input Voltage: 240V AC	
Output Current [A]	Output Voltage [V]	Output Current [A]	Output Voltage [V]
0.00	15.07	0.00	15.07
14.00	15.06	14.00	15.07
15.00	15.06	15.00	15.06
15.21	15.05	15.21	15.05

Model	mUZPT-120-15-JB0	Load: Minimum Load
Item	Over-Voltage Protection	

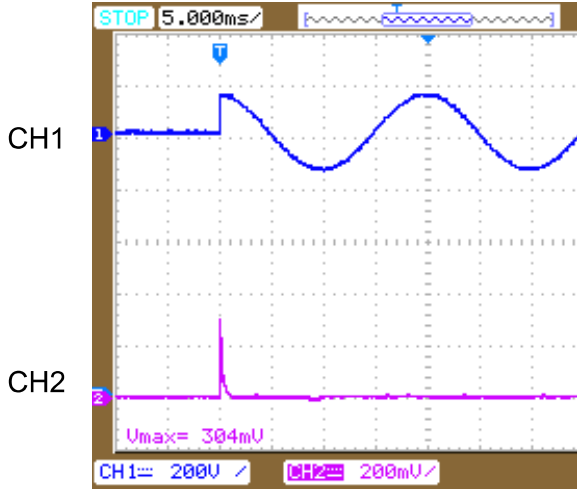
Legend:
◆ 100V AC
■ 240V AC

Ambient Temp. [°C]	100V AC [V]	240V AC [V]
-15	18.33	18.35
25	18.63	18.62
45	18.79	18.84
65	18.92	18.96

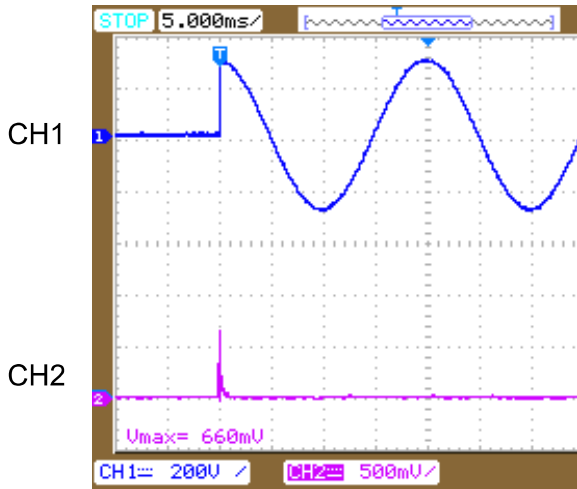
Ambient Temp. [°C]	Output Voltage [V]	
	100V AC	240V AC
-15	18.33	18.35
25	18.63	18.62
45	18.79	18.84
65	18.92	18.96

Model	mUZPT-120-15-JB0	Temperature: 25°C
Item	Inrush Current	Load: Rated Load

Inrush Current Waveforms



Waveform 1	
CH1	Measuring Point: AC Input Voltage
	Range: 200V/div
CH2	Measuring Point: AC Input Current
	Range: 10A/div
Timebase Range	5ms/div
Condition	Input: 100V AC Load: Rated Load
Note: Inrush Current: 15.2A	



Waveform 2	
CH1	Measuring Point: AC Input Voltage
	Range: 200V/div
CH2	Measuring Point: AC Input Current
	Range: 25A/div
Timebase Range	5ms/div
Condition	Input: 200V AC Load: Rated Load
Note: Inrush Current: 33.0A	

Model	mUZPT-120-15-JB0	Load: Rated Load																		
Item	Leakage Current																			
<p>The graph plots Leakage Current [mA] on the y-axis (0 to 1) against AC Input Voltage [V] on the x-axis (50 to 300). The data points show a slight upward trend in leakage current as the input voltage increases.</p>		<table border="1"> <thead> <tr> <th>AC Input Voltage [V]</th> <th>Leakage Current [mA]</th> </tr> </thead> <tbody> <tr> <td>85</td> <td>0.03</td> </tr> <tr> <td>100</td> <td>0.03</td> </tr> <tr> <td>132</td> <td>0.04</td> </tr> <tr> <td>176</td> <td>0.06</td> </tr> <tr> <td>200</td> <td>0.07</td> </tr> <tr> <td>220</td> <td>0.07</td> </tr> <tr> <td>240</td> <td>0.08</td> </tr> <tr> <td>264</td> <td>0.09</td> </tr> </tbody> </table>	AC Input Voltage [V]	Leakage Current [mA]	85	0.03	100	0.03	132	0.04	176	0.06	200	0.07	220	0.07	240	0.08	264	0.09
AC Input Voltage [V]	Leakage Current [mA]																			
85	0.03																			
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