

Test Data


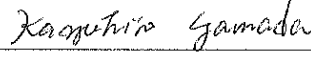
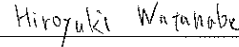
Model Number: mUZPT-120-12-JBH

Model Name: DC POWER SUPPLY

INPUT: 85V – 264V AC, 50 / 60 Hz

OUTPUT: 12V 10A (16.7 A_{peak})

Minimum load : 0W
Rated load :120W
Peak output power: 200.4W

Approved by :  (QA manager)
Designed by :  (R&D engineer)
Tested by :  (Evaluation test engineer)

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Model	mUZPT-120-12-JBH	Temperature: 25°C																																		
Item	Input Current (by Load Power)																																			
<p>Legend: ◆ 85V AC ■ 100V AC ▲ 240V AC × 264V AC</p>																																				
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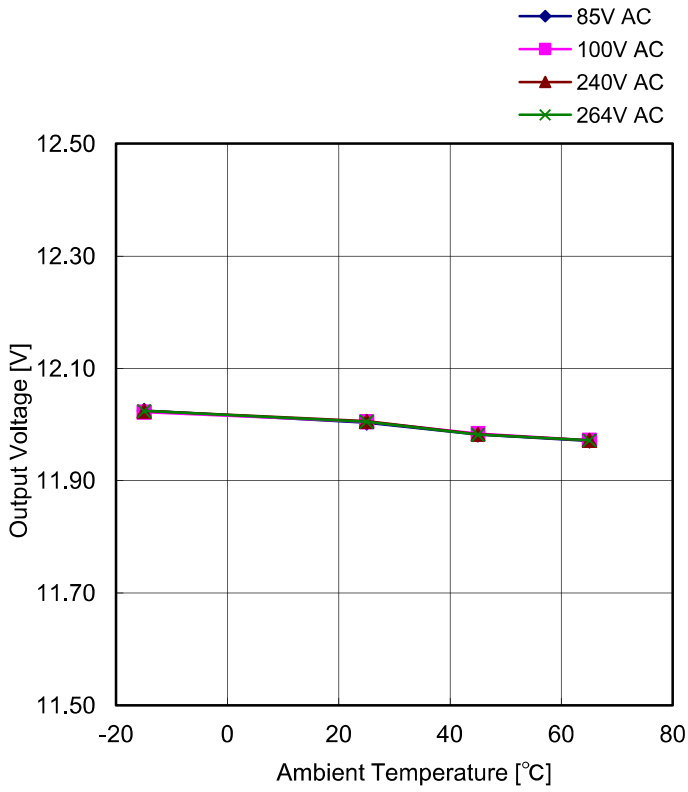
Model	mUZPT-120-12-JBH	Temperature: 25°C																													
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<p>■ Power Factor (by Input Voltage)</p> <p>Legend: 50% Load (Blue Diamond), Rated Load (Magenta Square)</p>		<table border="1"> <thead> <tr> <th rowspan="2">AC Input Voltage [V]</th> <th colspan="2">Power Factor [%]</th> </tr> <tr> <th>50% Load</th> <th>Rated Load</th> </tr> </thead> <tbody> <tr><td>85</td><td>98.6</td><td>98.9</td></tr> <tr><td>100</td><td>97.8</td><td>98.9</td></tr> <tr><td>132</td><td>94.0</td><td>98.4</td></tr> <tr><td>176</td><td>86.2</td><td>96.2</td></tr> <tr><td>200</td><td>81.3</td><td>92.6</td></tr> <tr><td>220</td><td>76.8</td><td>89.3</td></tr> <tr><td>240</td><td>73.4</td><td>86.4</td></tr> <tr><td>264</td><td>71.4</td><td>82.4</td></tr> </tbody> </table>	AC Input Voltage [V]	Power Factor [%]		50% Load	Rated Load	85	98.6	98.9	100	97.8	98.9	132	94.0	98.4	176	86.2	96.2	200	81.3	92.6	220	76.8	89.3	240	73.4	86.4	264	71.4	82.4
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Item	Line Regulation																					
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Model mUZPT-120-12-JBH

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	12.025	12.022	12.024	12.024
25	12.003	12.005	12.006	12.005
45	11.982	11.984	11.983	11.982
65	11.971	11.972	11.972	11.972

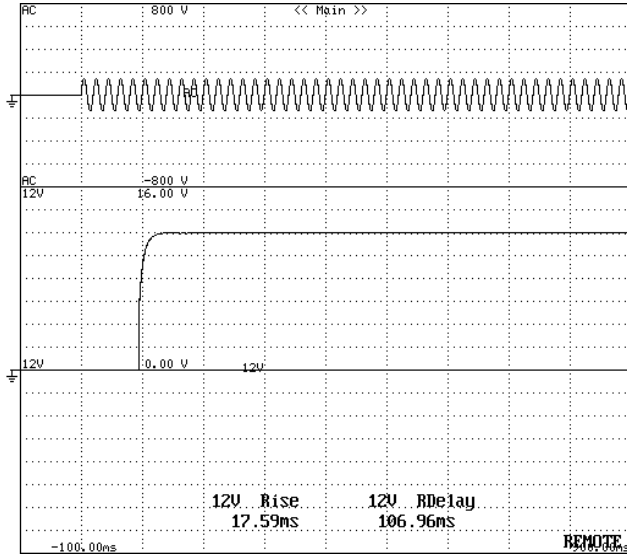
Load Condition

Ambient Temp. (°C)	Load Current [A]
	12V
-15	10.00
25	10.00
45	10.00
65	7.00

Model	mUZPT-120-12-JBH	Temperature: 25°C
Item	Output Rise Characteristics (at AC Power ON)	

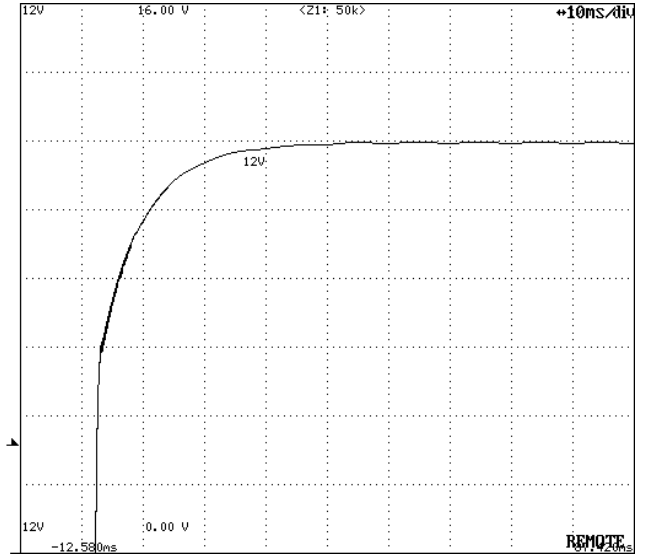
Input: 100V AC
Load: Rated Load

Timebase Range: 100ms/div



All Output Start-up Sequence

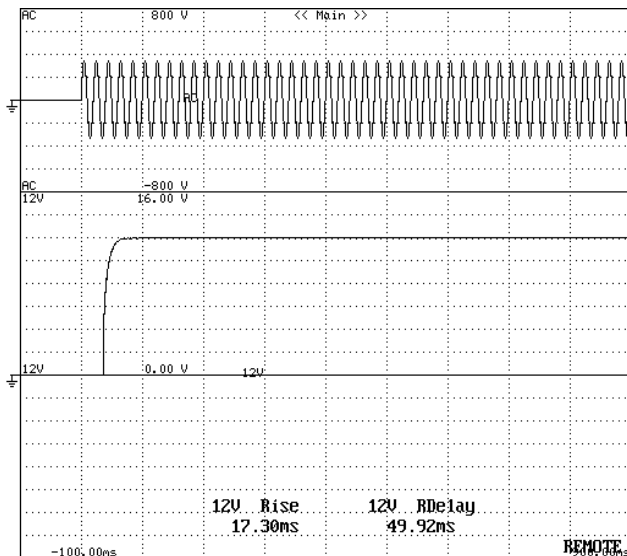
Vertical Sensitivity: 2V/div
Timebase Range: 10ms/div



12V DC Output Rise Characteristics

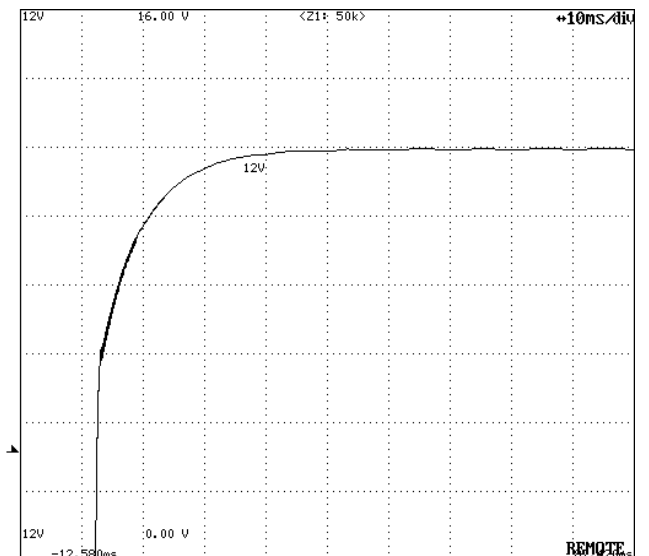
Input: 240V AC
Load: Rated Load

Timebase Range: 100ms/div



All Output Start-up Sequence

Vertical Sensitivity: 2V/div
Timebase Range: 10ms/div



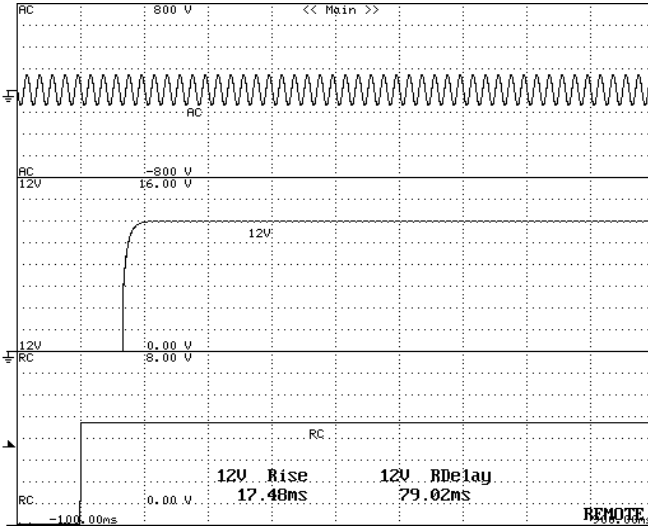
12V DC Output Rise Characteristics

Model	mUZPT-120-12	Temperature: 25°C
Item	Output Rise Characteristics (at Remote ON)	

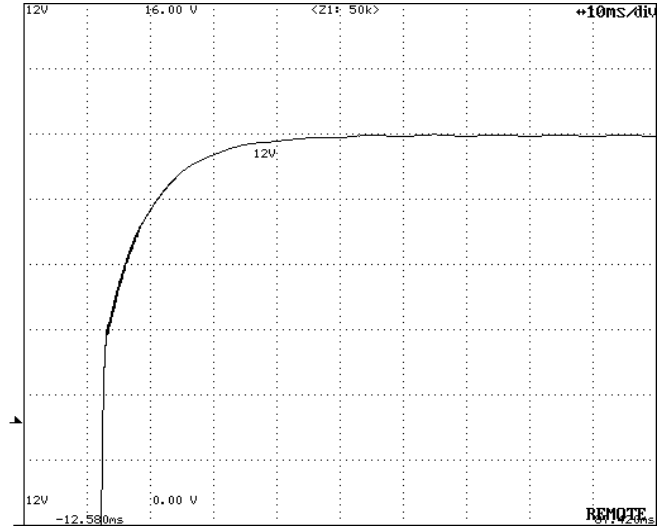
Input: 100V AC
Load: Rated Load

Timebase Range: 100ms/div

Vertical Sensitivity: 2V/div
Timebase Range: 10ms/div



All Output Start-up Sequence

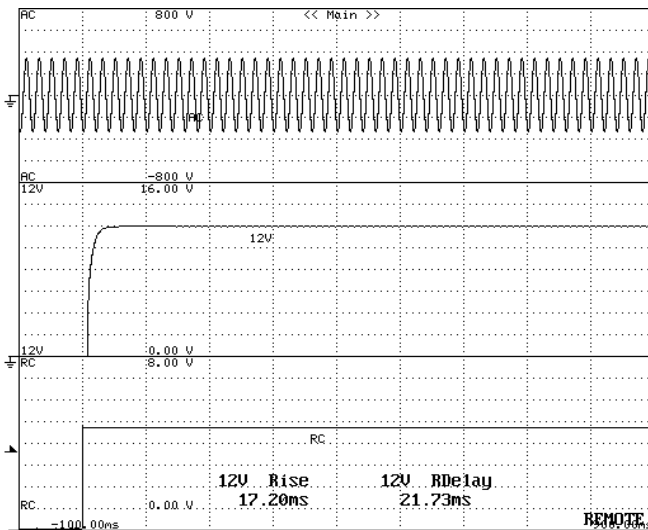


12V DC Output Rise Characteristics

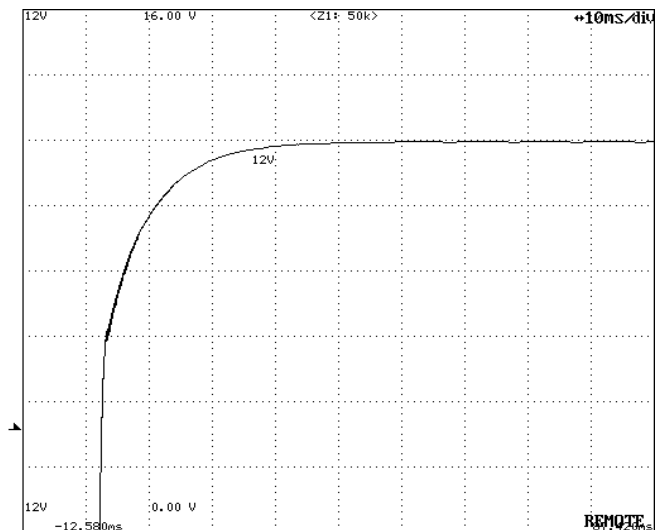
Input: 240V AC
Load: Rated Load

Timebase Range: 100ms/div

Vertical Sensitivity: 2V/div
Timebase Range: 10ms/div



All Output Start-up Sequence

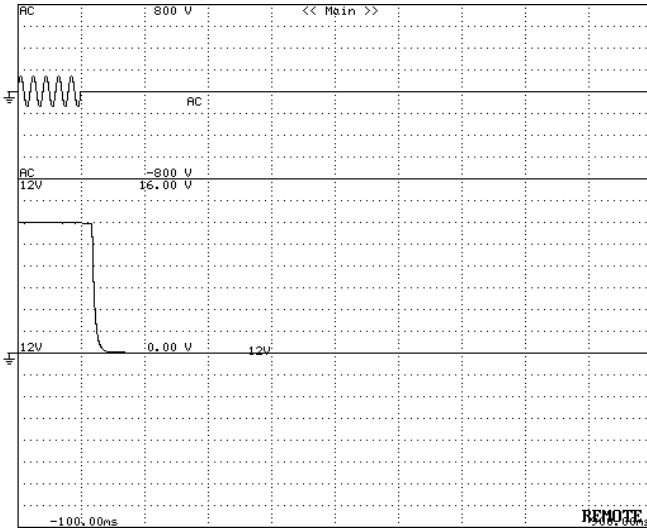


12V DC Output Rise Characteristics

Model	mUZPT-120-12-JBH	Temperature: 25°C
Item	Output Fall Characteristics (at AC Power OFF)	

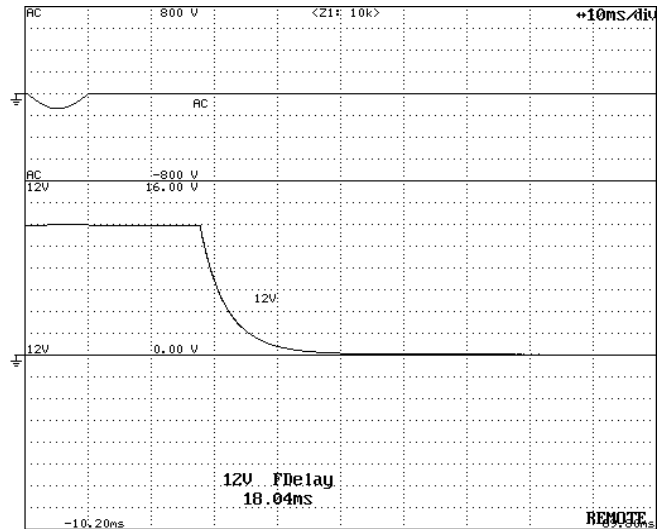
Input: 100V AC
Load: Rated Load

Timebase Range: 100ms/div



Output Fall Characteristics

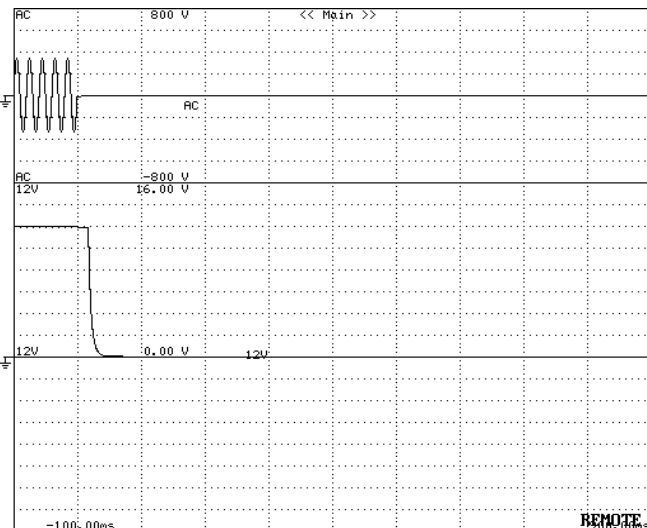
Timebase Range: 10ms/div



Output Fall Characteristics (magnification)

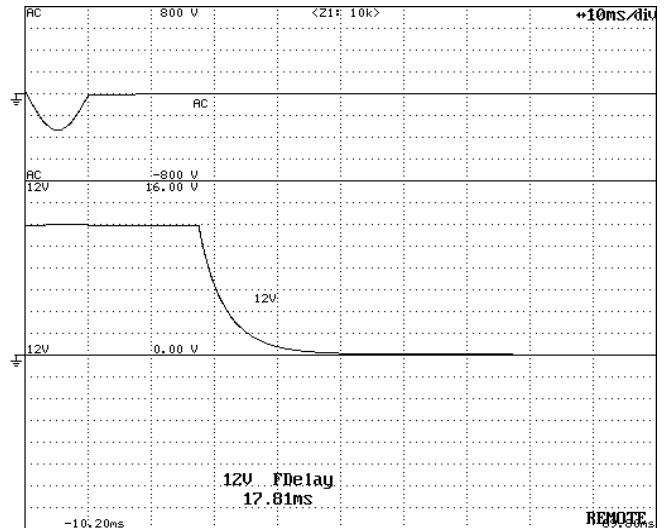
Input: 240V AC
Load: Rated Load

Timebase Range: 100ms/div



Output Fall Characteristics

Timebase Range: 10ms/div

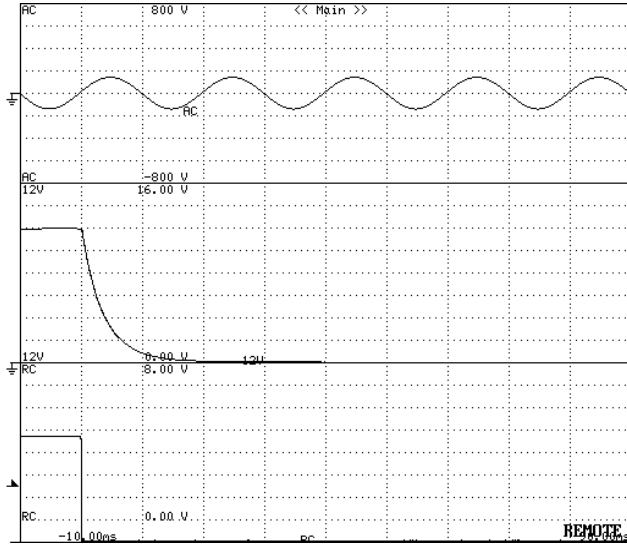


Output Fall Characteristics (magnification)

Model	mUZPT-120-12-JBH	Temperature: 25°C
Item	Output Fall Characteristics (at Remote OFF)	

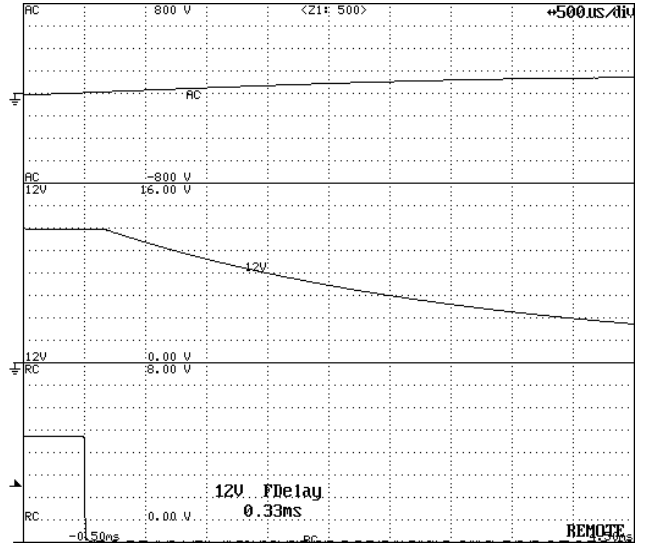
Input: 100V AC
Load: Rated Load

Timebase Range: 10ms/div



Output Fall Characteristics

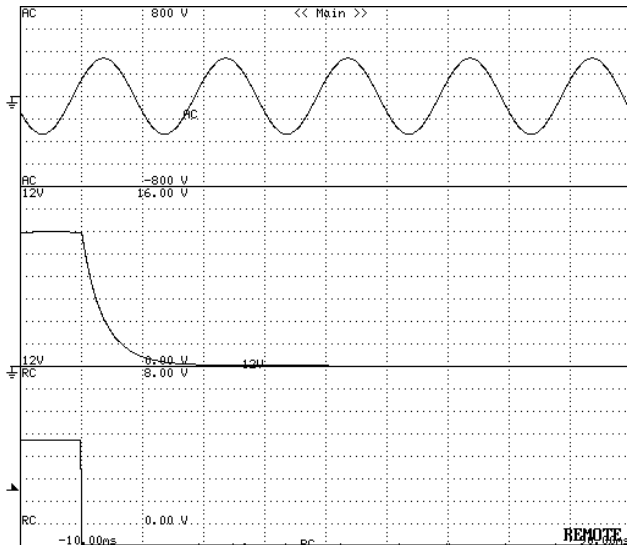
Timebase Range: 500µs/div



Output Fall Characteristics (magnification)

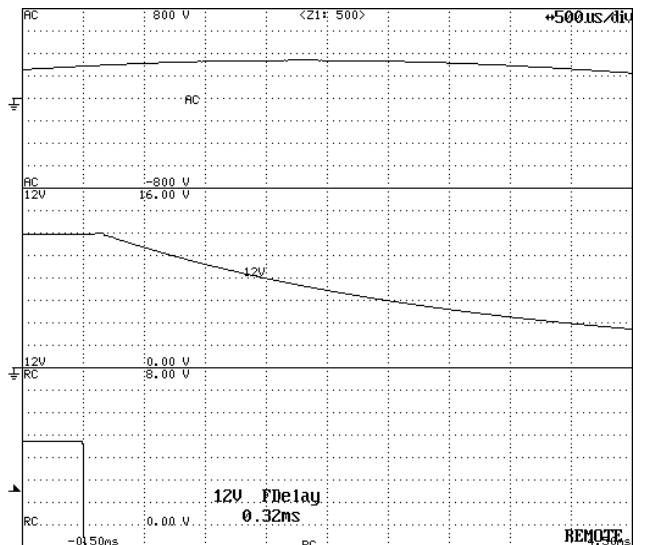
Input: 240V AC
Load: Rated Load

Timebase Range: 10ms/div



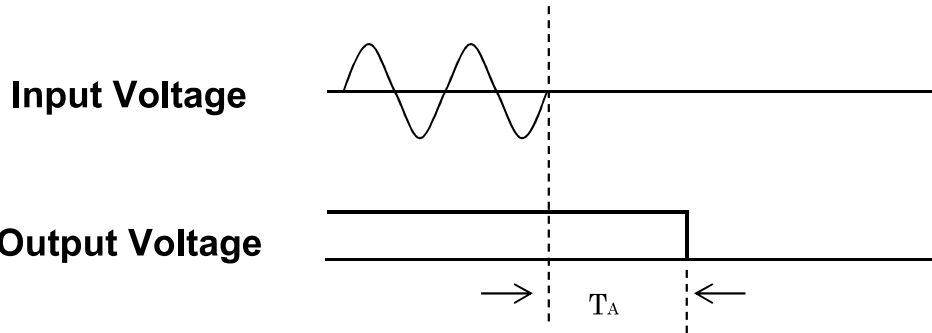
Output Fall Characteristics

Timebase Range: 500µs/div

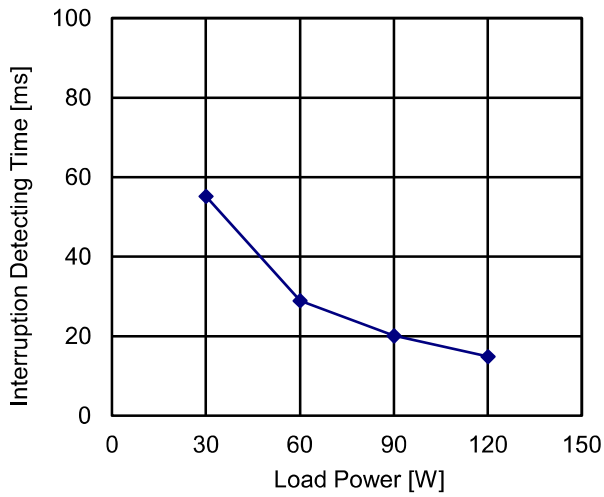


Output Fall Characteristics (magnification)

Model	mUZPT-120-12-JBH	Temperature: 25°C
Item	Instantaneous Interruption Compensation (by Load Power)	

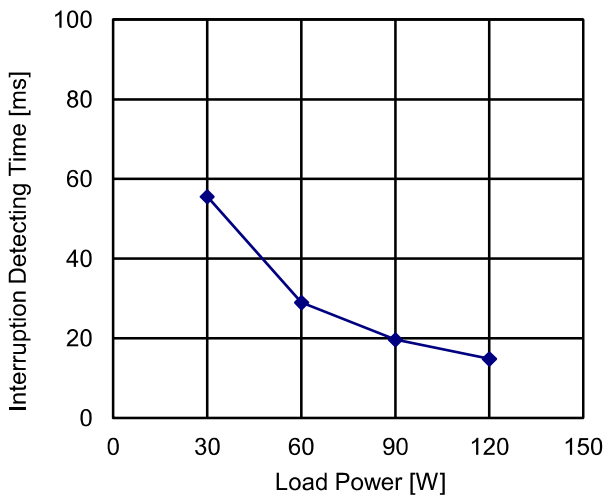


Input Voltage:100V AC



Load Power [W]	Interruption Detecting Time [ms]
	Output Voltage
	T_A
30.0	55.2
60.0	28.9
90.0	20.1
120.0	14.9

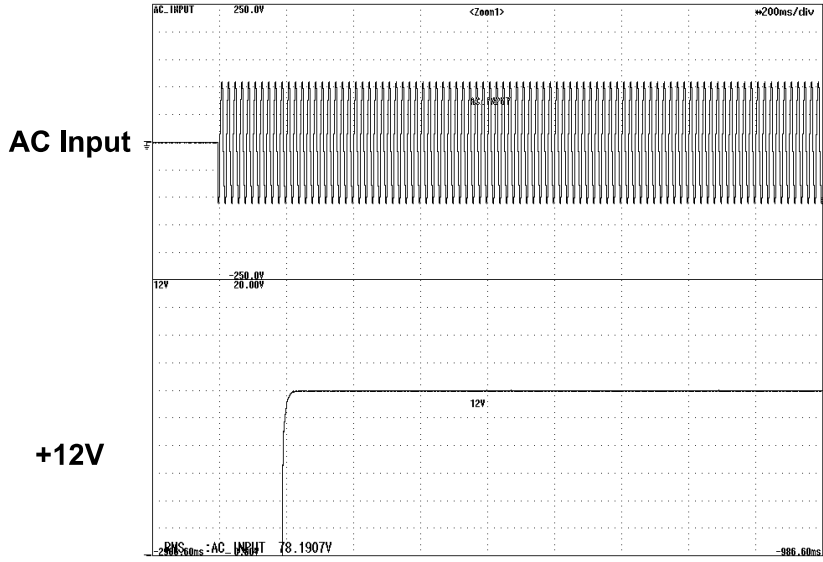
Input Voltage:240V AC



Load Power [W]	Interruption Detecting Time [ms]
	Output Voltage
	T_A
30.0	55.6
60.0	29.0
90.0	19.7
120.0	14.9

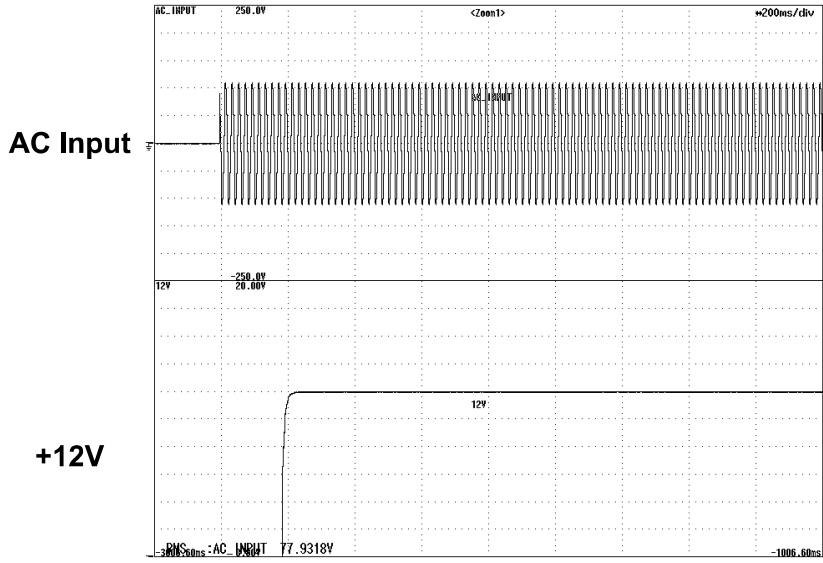
Model	mUZPT-120-12-JBH	Temperature: 25°C
Item	Start-Up Voltage	

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



Start-up Voltage: 78.2V AC

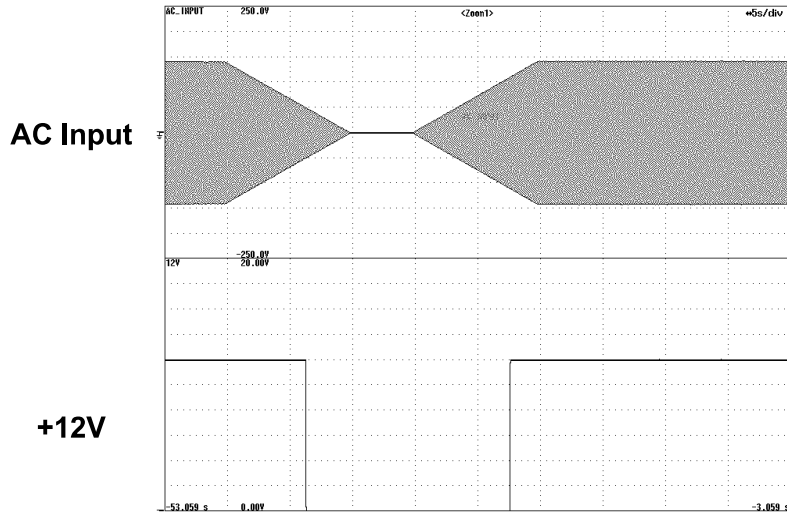
**Timebase Range: 200ms/div
Load: Minimum Load**



Start-up Voltage: 77.9V AC

Model	mUZPT-120-12-JBH	Temperature: 25°C
Item	Input Voltage Sweep Up/Down	

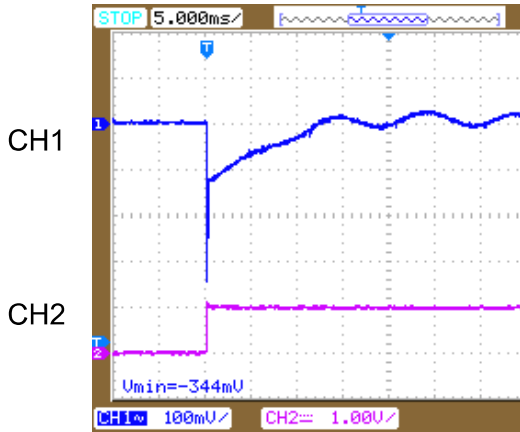
Timebase Range: 5s/div
Load: Rated Load



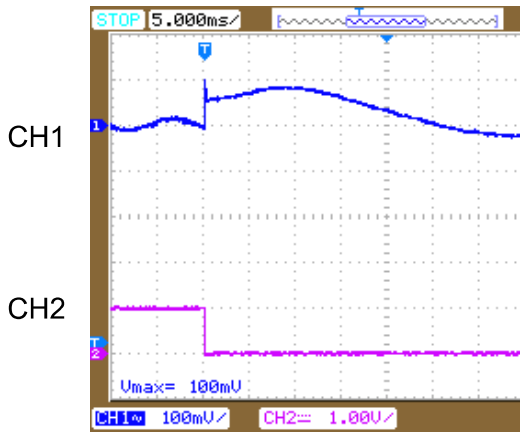
Sweep Rate: 10Vave/sec

Model	mUZPT-120-12-JBH	Temperature: 25°C
Item	Dynamic Load Response	

+12V DC Output Transient Response Waveforms

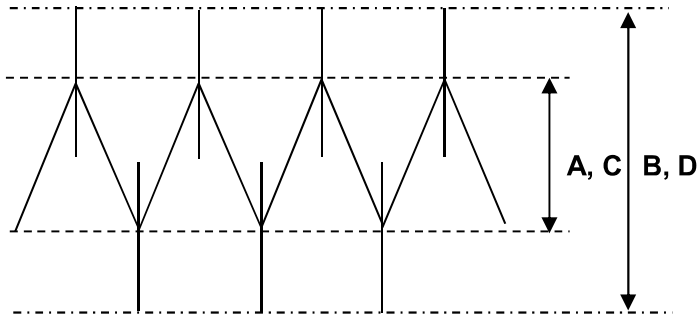


Waveform 1	
CH1	Measuring Point: DC Output Voltage
	Vertical Sensitivity: 100mV/div
CH2	Measuring Point: DC Output Current
	Vertical Sensitivity: 10A/div
Timebase Range	5ms/div
Condition	Input: 100V AC
Note: Minimum load(0A) → Rated Load(10A)	



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(10A) → Minimum load(0A)	

Model	mUZPT-120-12-JBH	Load: Rated Load
Item	Ripple / Noise Voltage	

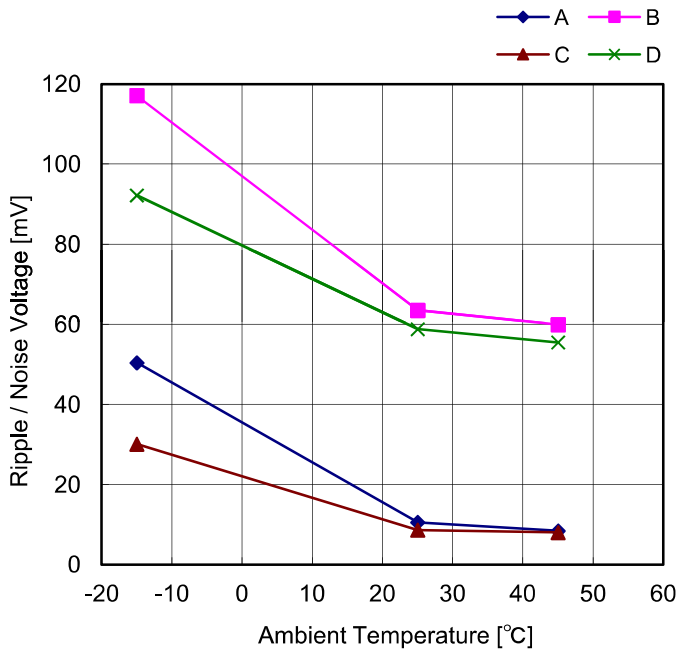


at 100V AC

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

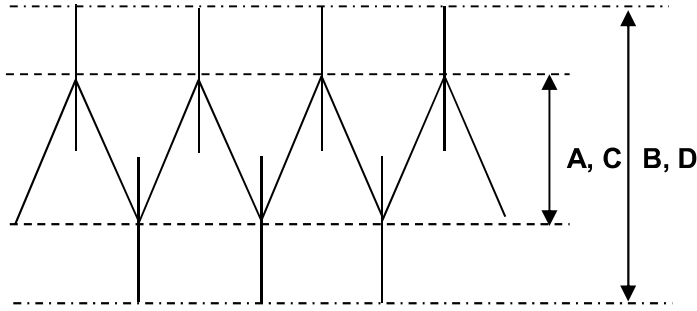
at 240V AC

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



Ambient Temp. [°C]	Ripple / Noise Voltage [mV]			
	A	B	C	D
-15	50.4	117.1	30.1	92.2
25	10.5	63.5	8.6	58.8
45	8.4	59.9	8.0	55.5

Model	mUZPT-120-12-JBH	Temperature : 25°C
Item	Ambient Temperature Drift	

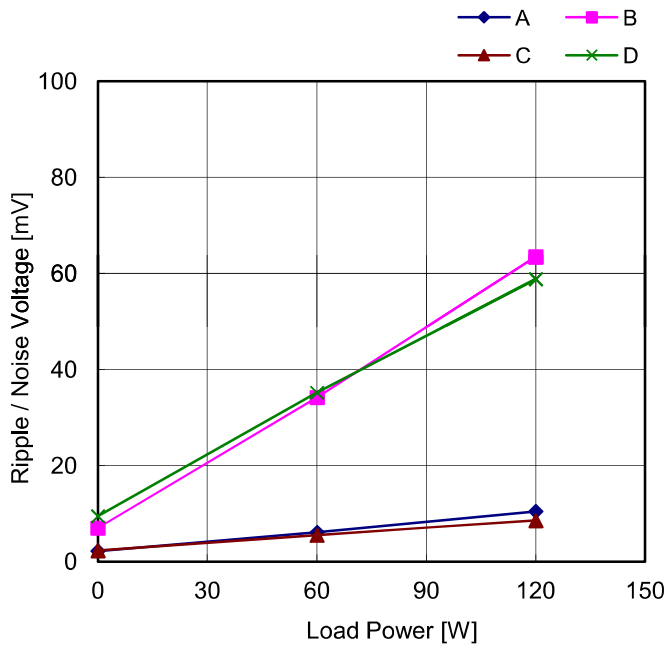


at 100V AC

A: Ripple Voltage (mVP-P)
B: Noise Voltage (mVP-P)

at 240V AC

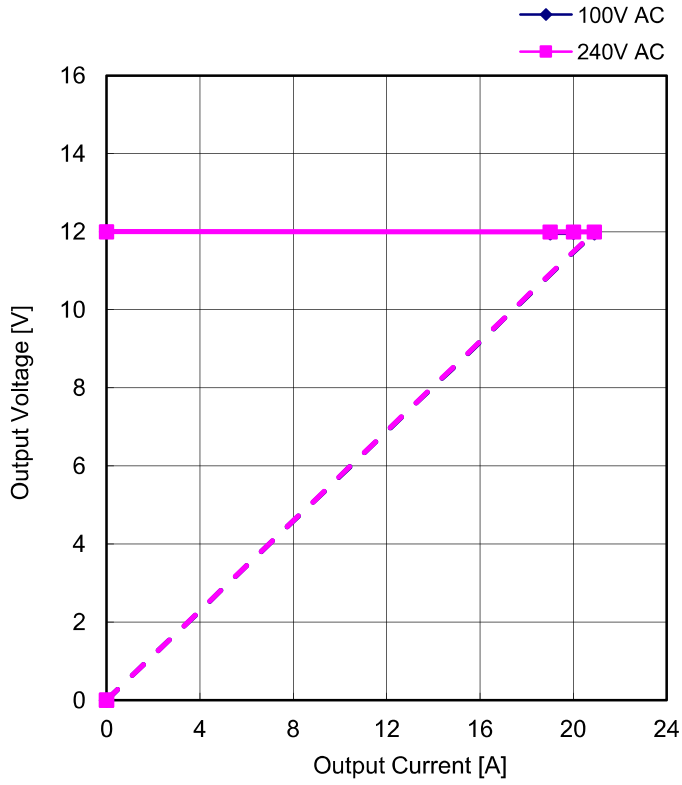
C: Ripple Voltage (mVP-P)
D: Noise Voltage (mVP-P)



Load Power [W]	Ripple / Noise Voltage [mV]			
	A	B	C	D
0	2.2	7.0	2.3	9.5
60.0	6.1	34.2	5.5	35.2
120.0	10.5	63.5	8.6	58.8

Model	mUZPT-120-12-JBH	Temperature: 25°C
Item	Over-Current Protection	

V-I Characteristics of 12V 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	12.00	0.00	12.00
19.00	11.98	19.00	11.99
20.00	11.98	20.00	11.99
20.89	11.98	20.89	11.99

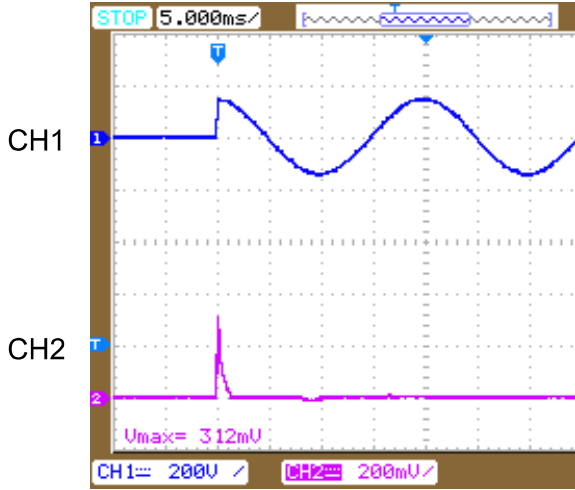
Model	mUZPT-120-12-JBH	Load: Minimum Load
Item	Over-Voltage Protection	

Legend:
◆ 100V AC
■ 240V AC

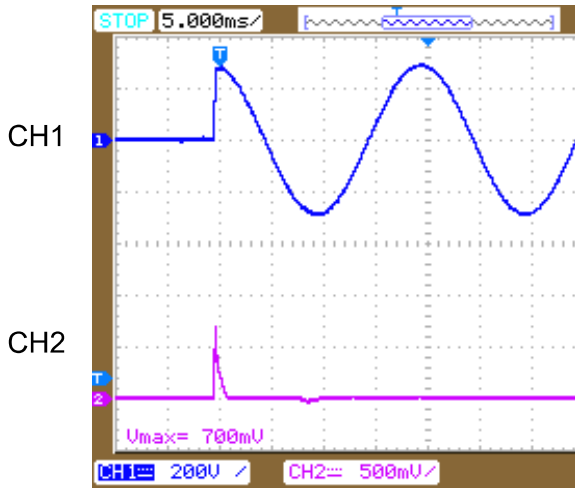
Ambient Temp. [°C]	Output Voltage [V]	
	100V AC	240V AC
-15	14.99	14.99
25	15.12	15.13
45	15.19	15.19
65	15.26	15.26

Model	mUZPT-120-12-JBH	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: 15.6A	



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: 35.0A	

Model	mUZPT-120-12-JBH	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																			
100	0.03																			
132	0.04																			
176	0.06																			
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