

GEN750 SERIES EVALUATION DATA

DWG: IA584-53-01

 **NEMIC-LAMBDA LTD.**

INDEX

PAGE

1. EVALUATION METHOD	
1-1. Circuits used for determination	T-1~6
(1) Steady state data	
(2) Warm up voltage drift characteristics	
(3) Over voltage protection (OVP) characteristics	
(4) Output rise characteristics	
(5) Output fall characteristics	
(6) Dynamic line response characteristics	
(7) Dynamic load response characteristics	
(8) Inrush current characteristics	
(9) Leakage current characteristics	
(10) Output ripple and noise waveform 6V to 100V models	
(11) Output ripple and noise waveform 600V model	
(12) Ripple RMS current	
1-2. List of equipment used	T-7
2. CHARACTERISTICS	
2-1. Steady state data	
(1) Regulation-line and load, temp. drift	T-8~11
(2) Output voltage and ripple voltage v.s. input voltage	T-12,13
(3) Efficiency and input current v.s. input voltage	T-14~17
2-2. Warm up voltage drift characteristics	T-18~21
2-3. Over voltage protection (OVP) characteristics	T- 22,23
2-4. Output rise characteristics	T-24~31
2-5. Output fall characteristics	T-32~39
2-6. Hold up time characteristic	T-40,41
2-7. Dynamic line response characteristics	T-42~49
2-8. Dynamic load response characteristics	T-50~57
2-9. Response to brown out characteristics	T-58~61
2-10. Inrush current characteristics	T-62,63
2-11. Inrush current waveform	T-64~69
2-12. Input current waveform	T-70
2-13. Leakage current characteristics	T-71,72
2-14. Output ripple & noise	T-73~76

TERMINOLOGY USED

Definition

V _{in}	Input voltage
V _{out}	Output voltage
I _{in}	Input current
I _{out}	Output current
T _a	Ambient temperature

NEMIC-LAMBDA

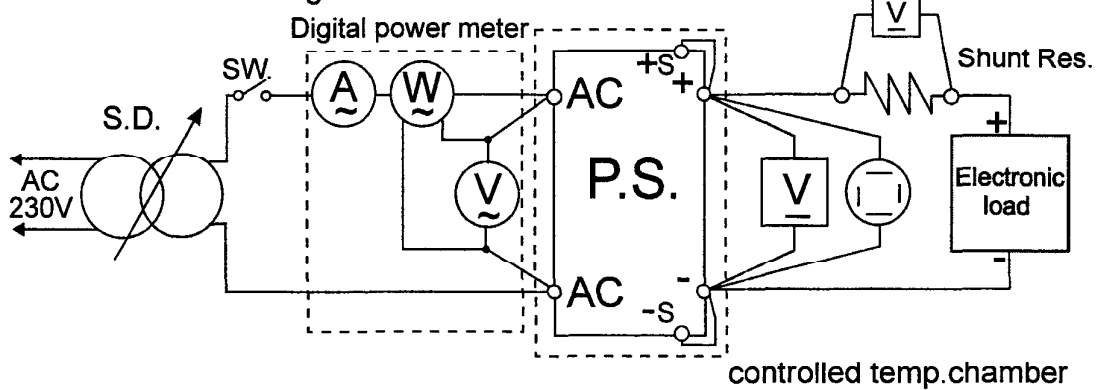
1.EVALUATION METHOD

GEN750

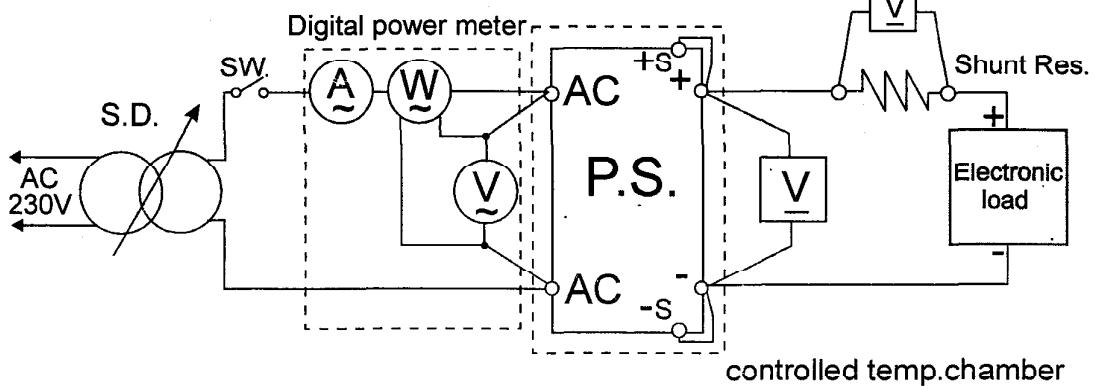
1-1.Circuits used for determination

(1) Steady state data

Constant Voltage Mode

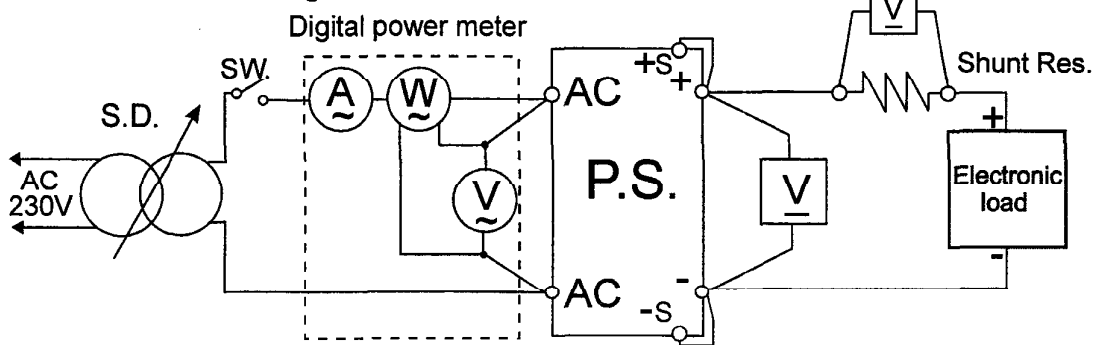


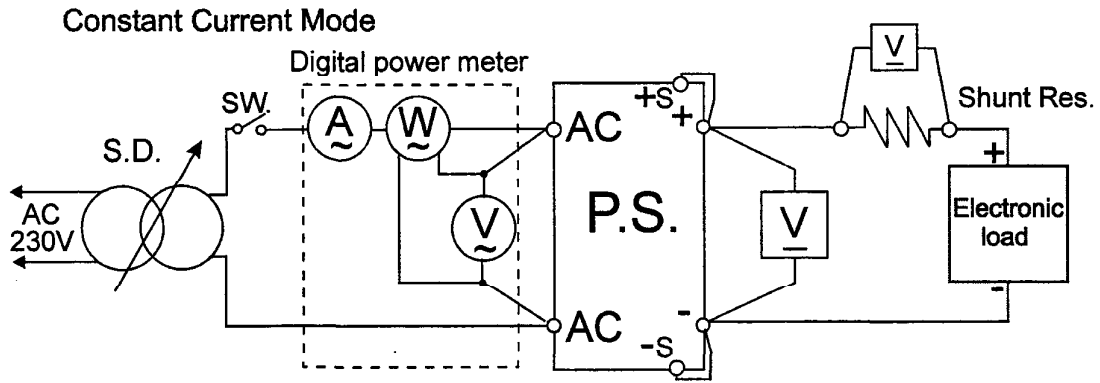
Constant Current Mode



(2) Warm up voltage drift characteristics

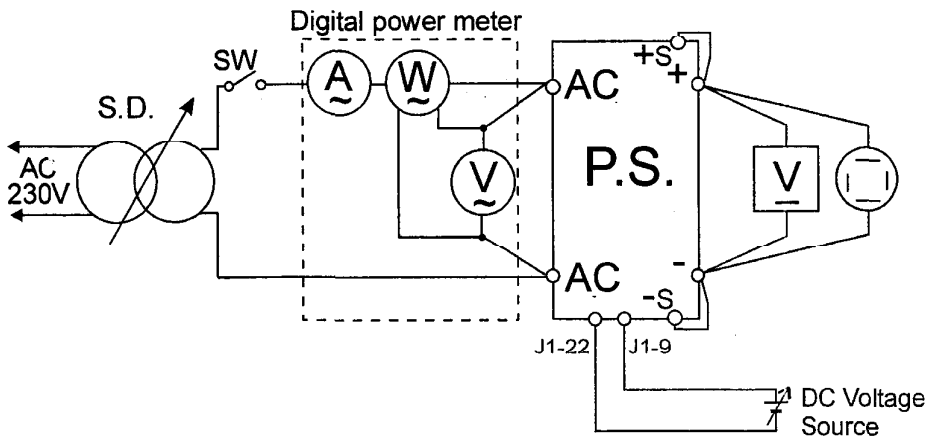
Constant Voltage Mode





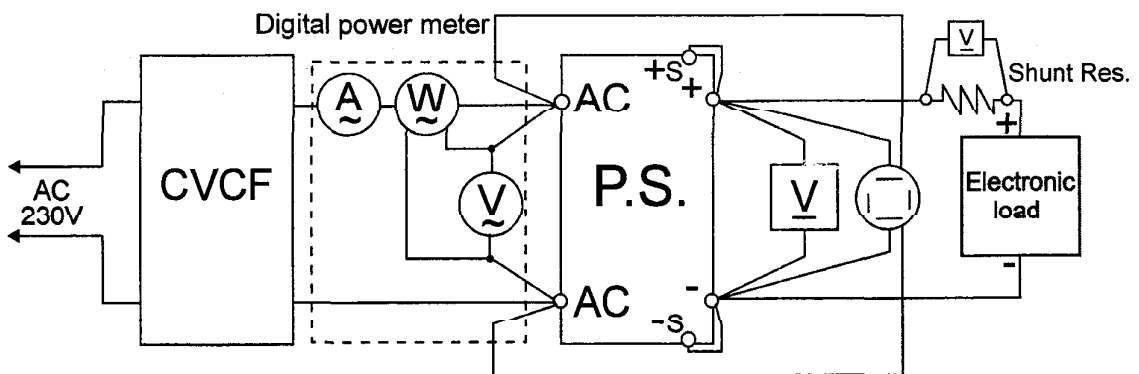
(3) Over voltage protection (OVP) characteristics

Constant Voltage Mode

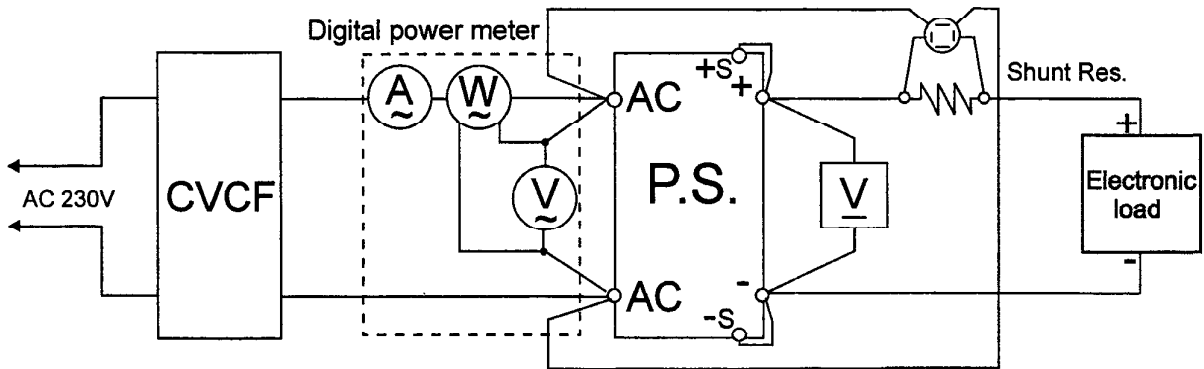


(4) Output rise characteristics

Constant Voltage Mode

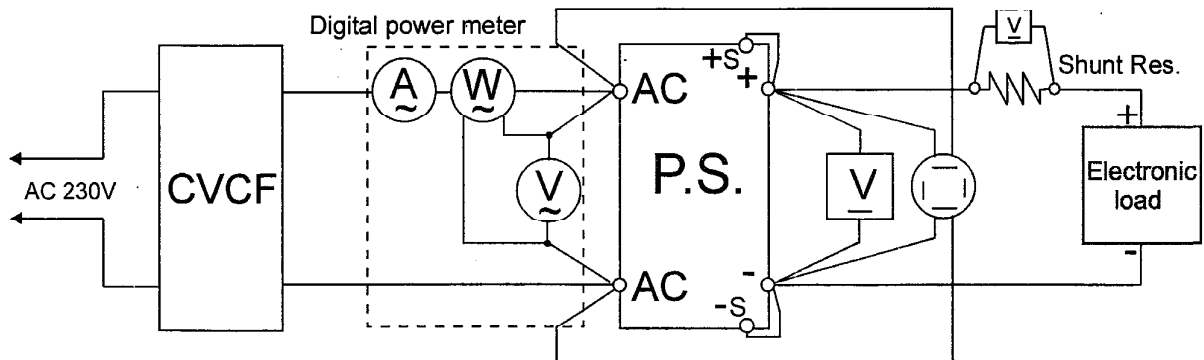


Constant Current Mode

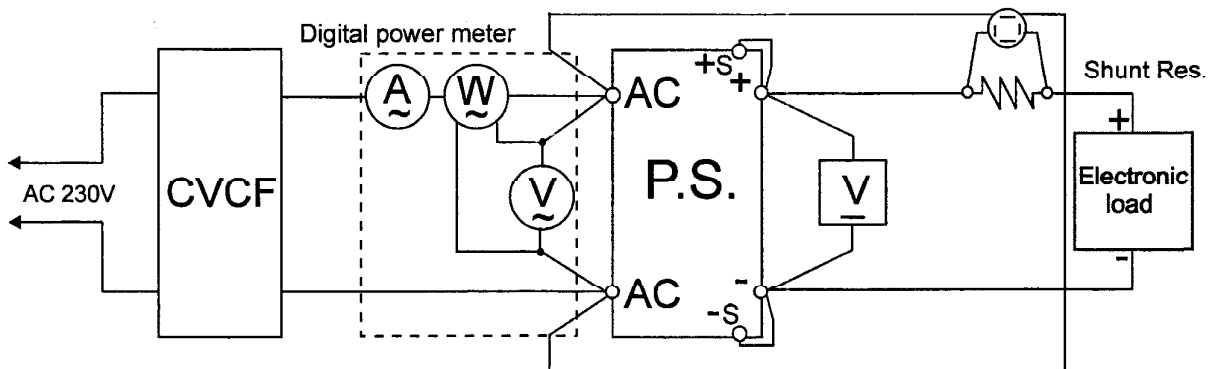


(5) Output fall characteristics
Same as output rise characteristics

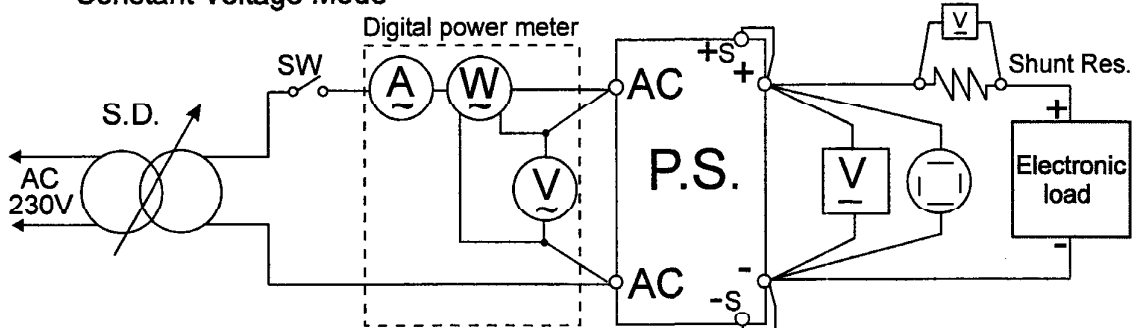
(6) Dynamic line response characteristics
Constant Voltage Mode



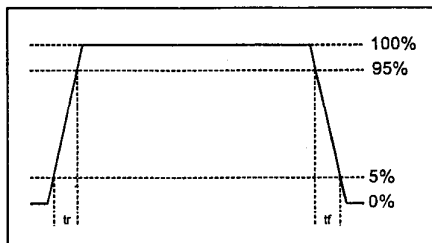
Constant Current Mode



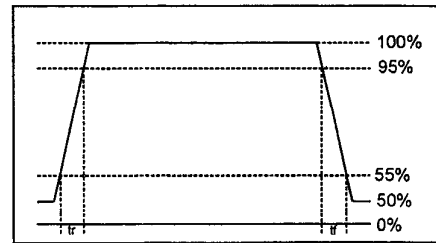
(7) Dynamic load response characteristics
Constant Voltage Mode



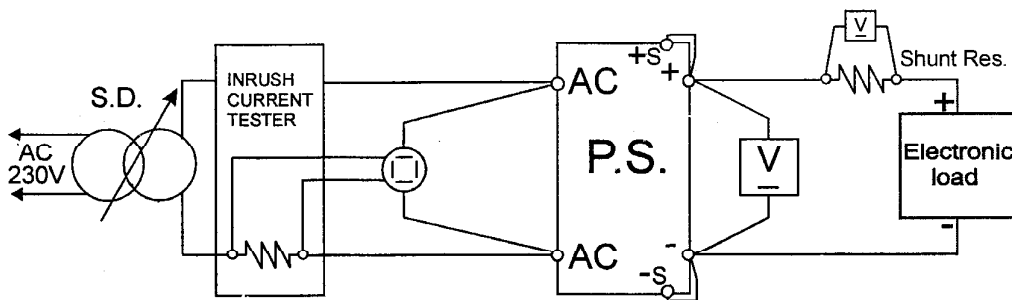
Output current waveform
I_{out} 0% ↔ 100%



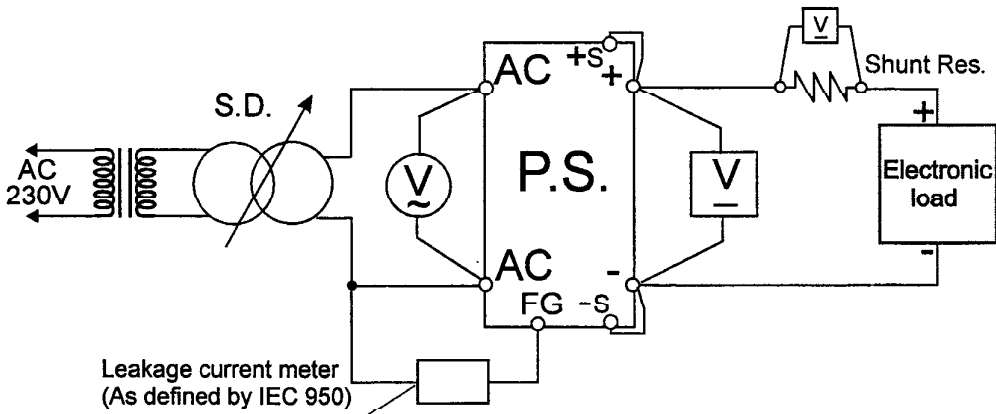
Output current waveform
I_{out} 50% ↔ 100%



(8) Inrush current characteristics
Constant Voltage Mode

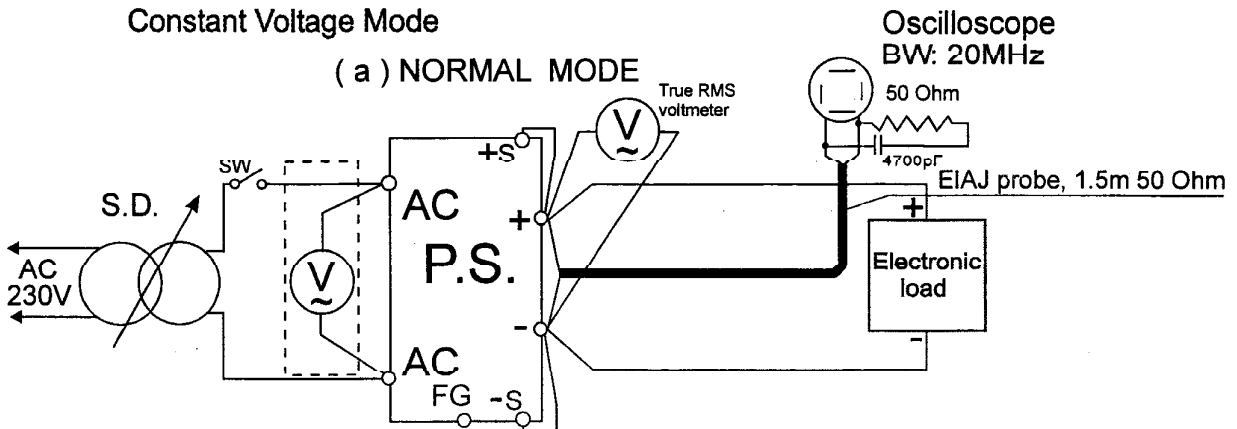


(9) Leakage current characteristics

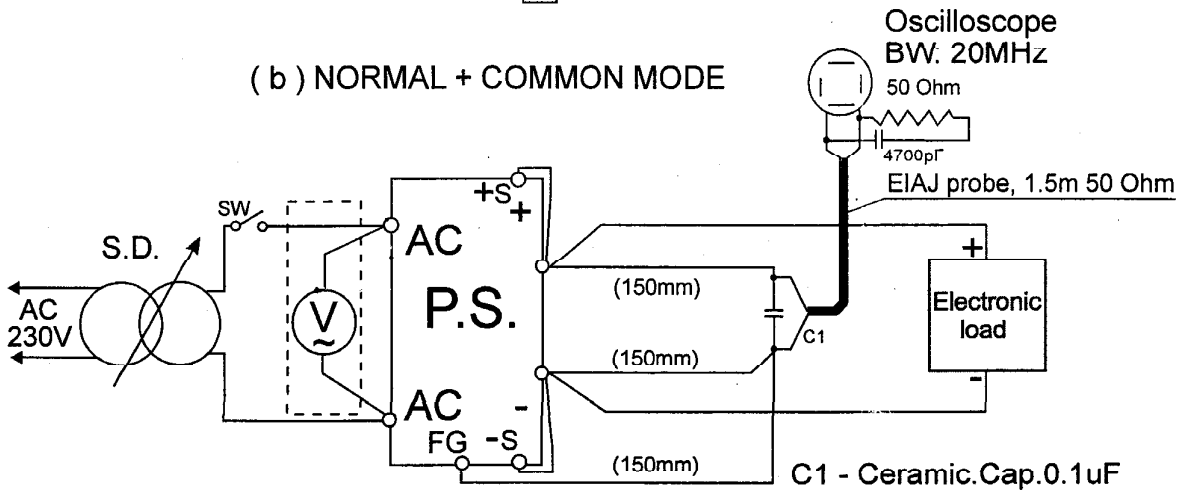


(10) Output ripple & noise waveform 6V to 100V models
Constant Voltage Mode

(a) NORMAL MODE

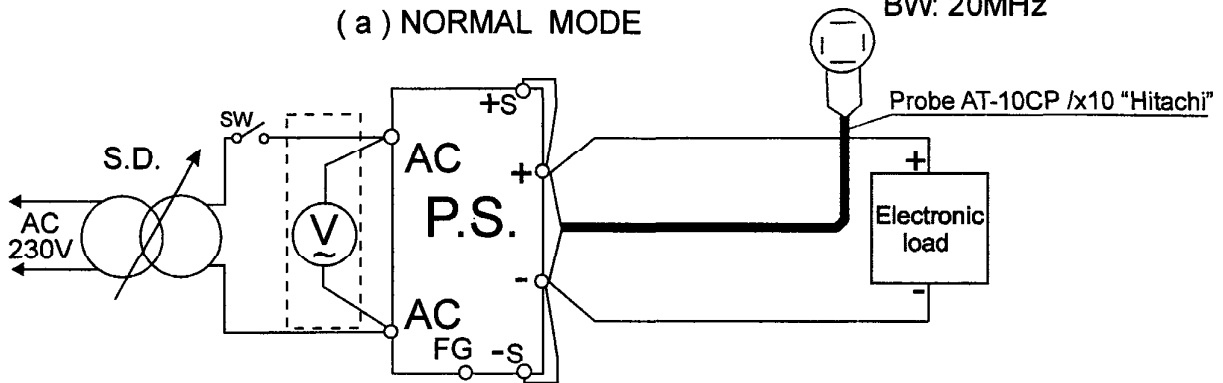


(b) NORMAL + COMMON MODE

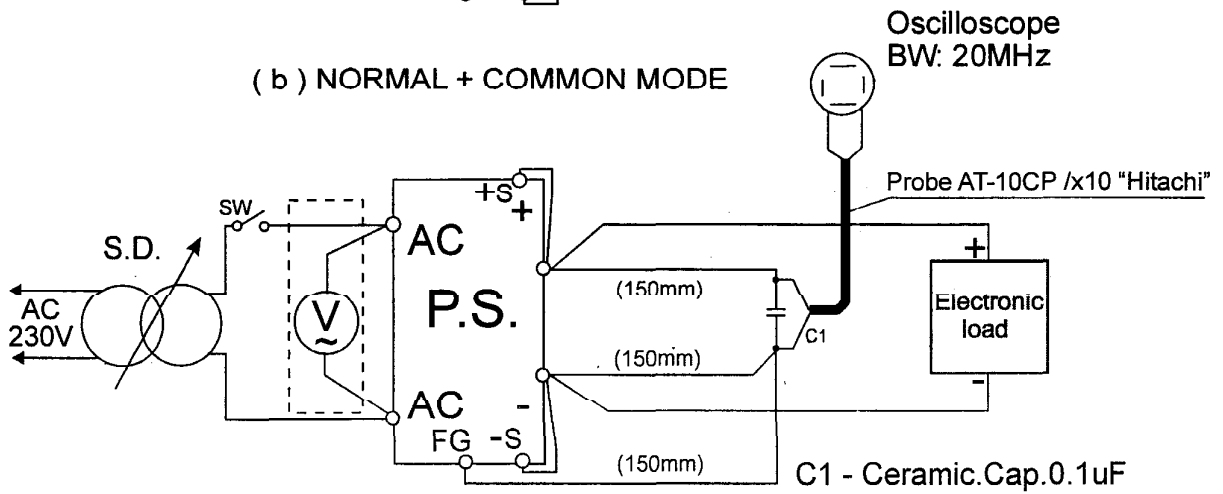


(11) Output ripple & noise waveform 600V model
Constant Voltage Mode

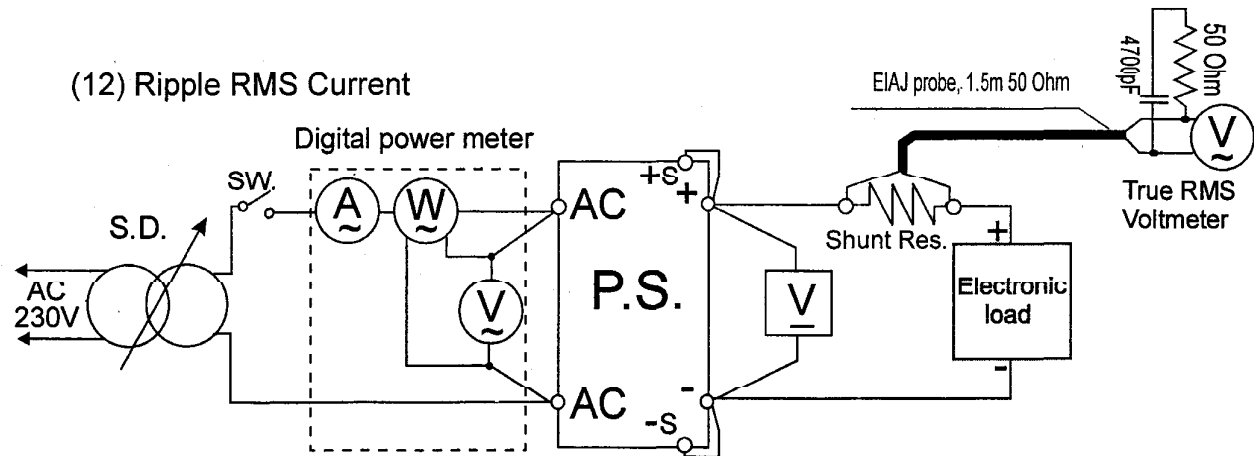
(a) NORMAL MODE



(b) NORMAL + COMMON MODE



(12) Ripple RMS Current



1-2 List of equipment used

	EQUIPMENT USED	MANUFACTURER	MODEL NO.
1	Storage oscilloscope	YOKOGAWA	DL7100
2	Storage oscilloscope	YOKOGAWA	DL1540
3	Analog Oscilloscope	HITACHI	V-1565
4	Digital multimeter	HP	34401A
5	Digital power meter	YOKOGAWA	WT110
6	Autotransformer	VOLTAC	B15
7	Dynamic electronic load	KIKUSUI	PLZ1003W
8	Electronic DC load	TAKASAGO	FK-1000H
9	Controlled temp. Chamber	THERMOTRON	SE-600-5-5
10	AC power supply (CVCF)	KIKUSUI	PCR4000L
11	Analyzing AC power supply	TAKASAGO	AA2000XG
12	Inrush current tester	TAKAMISAWA	PSA-210
13	Leakage current tester	HIOKI	3155
14	Current probe	TEKTRONIX	P6021
15	RMS voltmeter	HP	3400A

2.CHARACTERISTICS

GEN750

2-1.Steady state data

(1).REGULATION - Line & Load,temperature drift

Constant Voltage Mode

1.Regulation - Line & Load

Condition Ta: 25°C

iout \ Vin	AC 85V	AC 100V	AC 200V	AC 265V	Line Regulation	
	0%	6.0820 v	6.0820 v	6.0820 v	6.0820 v	0 mv
50%	6.0817 v	6.0817 v	6.0817 v	6.0817 v	0 mv	0 %
100%	6.0815 v	6.0815 v	6.0815 v	6.0815 v	0 mv	0 %
Load	0.5 mv	0.5 mv	0.5 mv	0.5 mv		
Regulation	0.008%	0.008%	0.008%	0.008%		

2.Temperature drift

Ta	0 °C	25°C	50 °C	Temp. Stability	
Vout	6.0075 v	6.0077 v	6.0091 v	1.6 mv	0.027 %

Conditions:
Vin : 100VAC
Iout : 100%

1.Regulation - Line & Load

Condition Ta: 25°C

iout \ Vin	AC 85V	AC 100V	AC 200V	AC 265V	Line Regulation	
	0%	60.028 v	60.028 v	60.028 v	60.028 v	0 mv
50%	60.028 v	60.028 v	60.028 v	60.028 v	0 mv	0 %
100%	60.028 v	60.028 v	60.028 v	60.028 v	0 mv	0 %
Load	0 mv	0 mv	0 mv	0 mv		
Regulation	0 %	0 %	0 %	0 %		

2.Temperature drift

Ta	0 °C	25°C	50 °C	Temp. Stability	
Vout	60.016 v	60.021 v	60.033 v	17 mv	0.028 %

Conditions:
Vin : 100VAC
Iout : 100%

GEN750(1).REGULATION - Line & Load,temperature drift
Constant Voltage Mode

1.Regulation - Line & Load

Condition Ta: 25°C

lout	Vin	AC 85V	AC 100V	AC 200V	AC 265V	Line Regulation	
	0%	100.008v	100.008v	100.008v	100.008v	0 mv	0 %
50%	100.009v	100.009v	100.009v	100.009v	0 mv	0 %	
100%	100.011v	100.011v	100.011v	100.011v	0 mv	0 %	
Load	3 mv	3 mv	3 mv	3 mv			
Regulation	0.003%	0.003%	0.003%	0.003%			

2.Temperature drift

Ta	0 °C	25 °C	50 °C	Temp. Stability	
Vout	100.130v	100.133v	100.149v	19 mv	0.019 %

Conditions:
Vin : 100VAC
Iout : 100%

1.Regulation - Line & Load

Condition Ta: 25°C

lout	Vin	AC 85V	AC 100V	AC 200V	AC 265V	Line Regulation	
	0%	600.455v	600.455v	600.455v	600.453v	2 mv	0.0003%
50%	600.461v	600.461v	600.461v	600.463v	2 mv	0.0003%	
100%	600.473v	600.475v	600.475v	600.475v	2 mv	0.0003%	
Load	18 mv	20 mV	20 mv	22 mv			
Regulation	0.003 %	0.0033 %	0.0033 %	0.0037 %			

2.Temperature drift

Ta	0 °C	25 °C	50 °C	Temp. Stability	
Vout	600.310v	600.575v	600.623v	313 mv	0.052 %

Conditions:
Vin : 100VAC
Iout : 100%

(1).REGULATION - Line & Load,temperature drift

GEN750

Constant Current Mode

1.Regulation - Line & Load

Condition Ta: 25°C

GEN6-100

Vout \ Vin	AC 85V	AC 100V	AC 200V	AC 265V	Line Regulation	
SHORT	100.176A	100.176A	100.174A	100.174A	2 mA	0.002 %
50%	100.168A	100.168A	100.164A	100.164A	4 mA	0.004 %
100%	100.174A	100.174A	100.172A	100.172A	2 mA	0.002 %
Load	8 mA	8 mA	10 mA	10 mA		
Regulation	0.008 %	0.008 %	0.01 %	0.01 %		

2.Temperature drift

Ta	0 °C	25 °C	50 °C	Temp. Stability	
Iout	100.272A	100.290A	100.280A	18 mA	0.018%

Conditions:
Vin : 100VAC
Vout : 100%

1.Regulation - Line & Load

Condition Ta: 25°C

GEN60-12.5

Vout \ Vin	AC 85V	AC 100V	AC 200V	AC 265V	Line Regulation	
SHORT	12.536A	12.536A	12.536A	12.536 A	0 mA	0%
50%	12.539A	12.539A	12.539A	12.538 A	1 mA	0.008 %
100%	12.538A	12.538A	12.538A	12.537 A	1 mA	0.008 %
Load	3 mA	3 mA	3 mA	2 mA		
Regulation	0.024 %	0.024 %	0.024 %	0.016 %		

2.Temperature drift

Ta	0 °C	25 °C	50 °C	Temp. Stability	
Iout	12.512A	12.511A	12.515A	4 mA	0.032%

Conditions:
Vin : 100VAC
Vout : 100%

(1).REGULATION - Line & Load,temperature drift

GEN750

Constant Current Mode

1.Regulation - Line & Load

Condition Ta: 25°C

GEN100-7.5	Vout \ Vin	AC 85V	AC 100V	AC 200V	AC 265V	Line Regulation	
	SHORT	7.501 A	7.501 A	7.501 A	7.501 A	0 mA	0 %
	50%	7.501 A	7.501 A	7.501 A	7.501 A	0 mA	0 %
	100%	7.500 A	7.500 A	7.500 A	7.500 A	0 mA	0 %
	Load	1 mA	1 mA	1 mA	1 mA		
	Regulation	0.013 %	0.013 %	0.013 %	0.013 %		

2.Temperature drift

Ta	0 °C	25°C	50 °C	Temp. Stability	
Iout	7.8787 A	7.8761 A	7.8798 A	3.7 mA	0.049%

Conditions:
Vin : 100VAC
Vout : 100%

1.Regulation - Line & Load

Condition Ta: 25°C

GEN600-1.3	Vout \ Vin	AC 85V	AC 100V	AC 200V	AC 265V	Line Regulation	
	SHORT	1.3109A	1.3109A	1.3110A	1.3110A	0.1 mA	0.008 %
	50%	1.3108A	1.3108A	1.3109A	1.3109A	0.1 mA	0.008 %
	100%	1.3075A	1.3075A	1.3077A	1.3078A	0.3 mA	0.023 %
	Load	3.3 mA	3.3 mA	3.3 mA	3.3 mA		
	Regulation	0.253 %	0.253 %	0.253 %	0.253 %		

2.Temperature drift

Ta	0 °C	25°C	50 °C	Temp. Stability	
Iout	1.3619 A	1.3615 A	1.3613 A	0.6 mA	0.046%

Conditions:
Vin : 100VAC
Vout : 100%

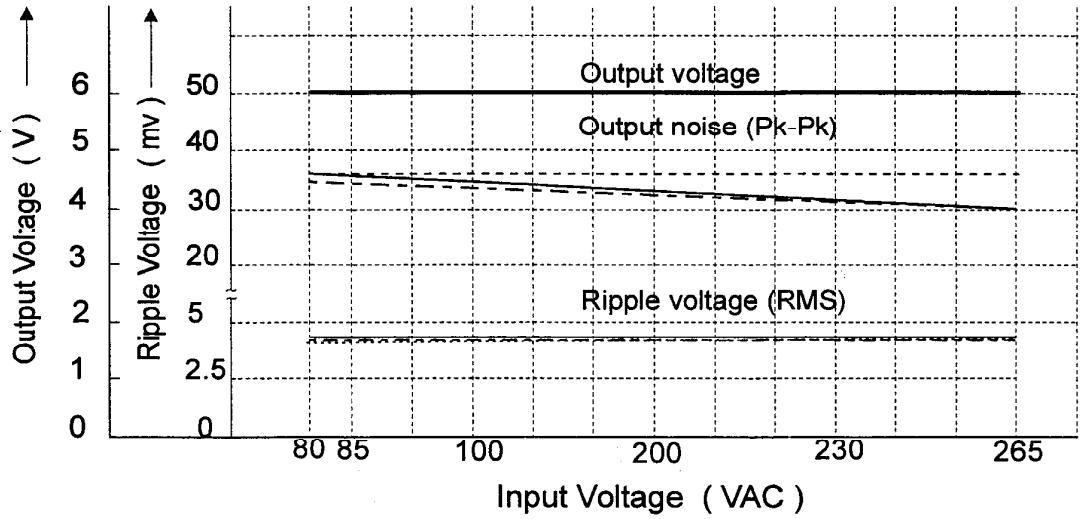
(2). Output voltage and ripple voltage v.s. input voltage

GEN750

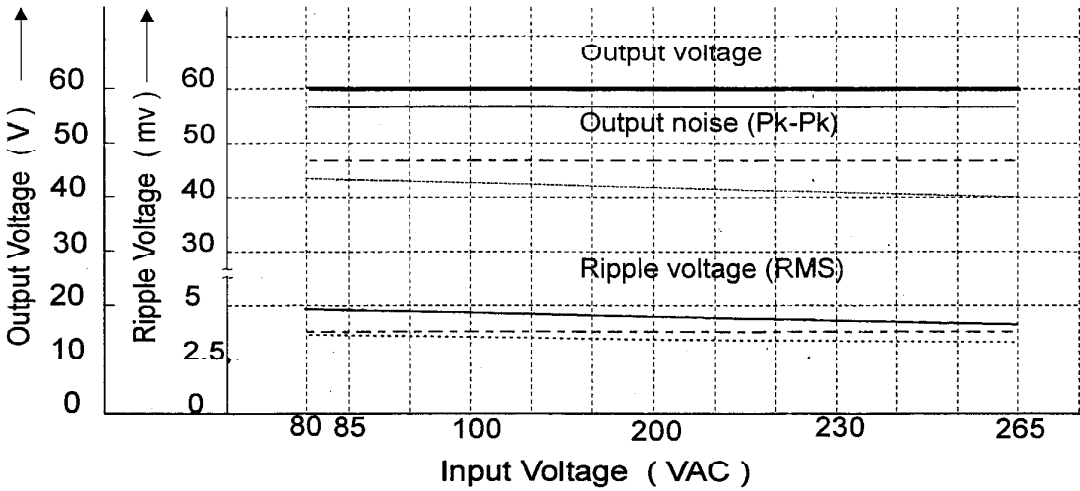
Constant Voltage Mode

Conditions $I_{out} : 100\%$
 $T_a : 0^\circ\text{C}$ -----
 25°C -----
 50°C _____

GEN6-100



GEN60-12.5

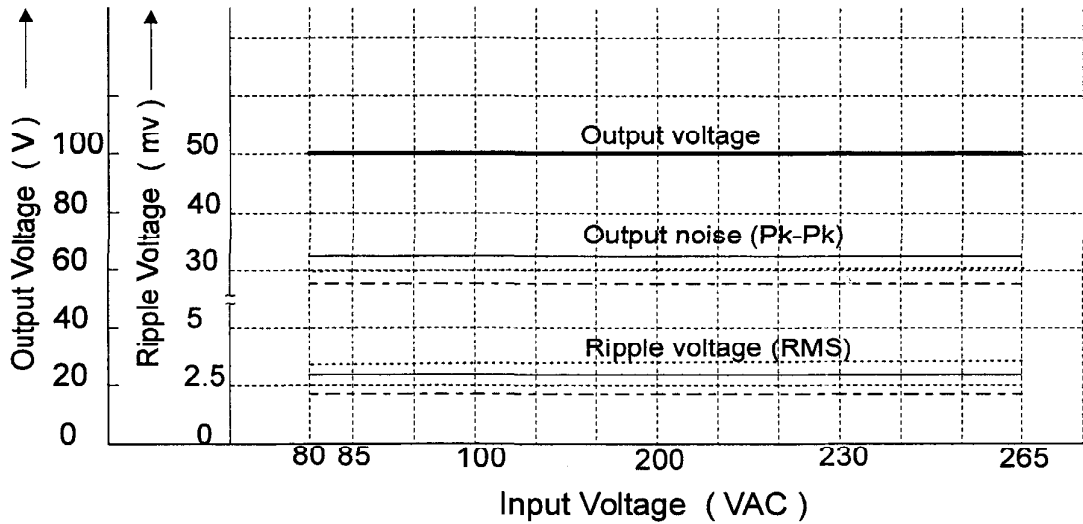


(2). Output voltage and ripple voltage v.s.input voltage
 Constant Voltage Mode

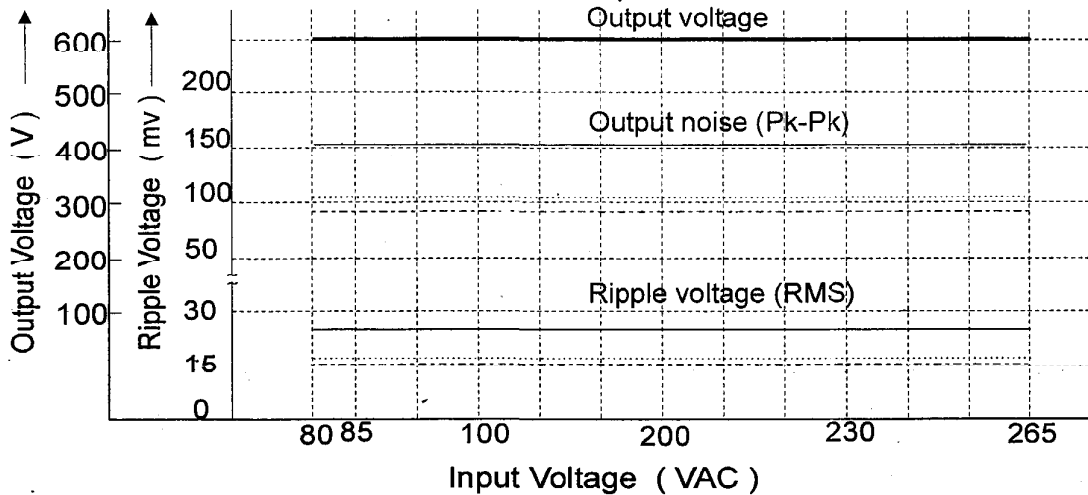
GEN750

Conditions $I_{out} : 100\%$
 $T_a : 0^\circ\text{C}$ -----
 25°C -----
 50°C -----

GEN100-7.5



GEN600-1.3



(3).Efficiency and Input current v.s. Output current

Constant Voltage Mode

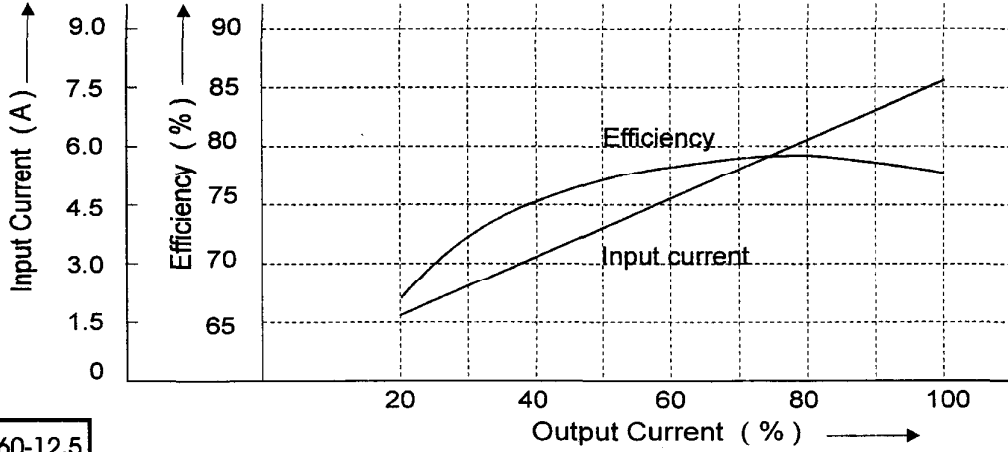
GEN750

Condition Vin : AC 100 V

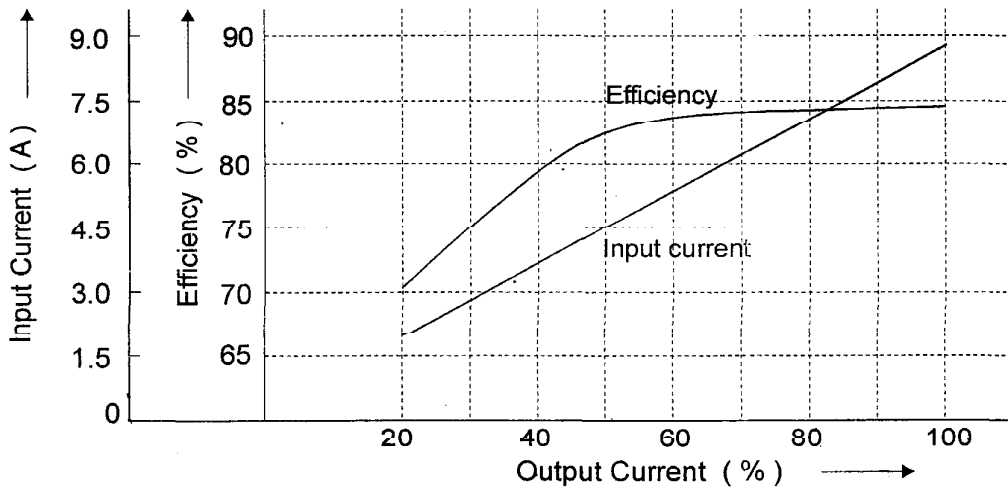
Vout:100%

Ta: 25°C

GEN6-100



GEN60-12.5

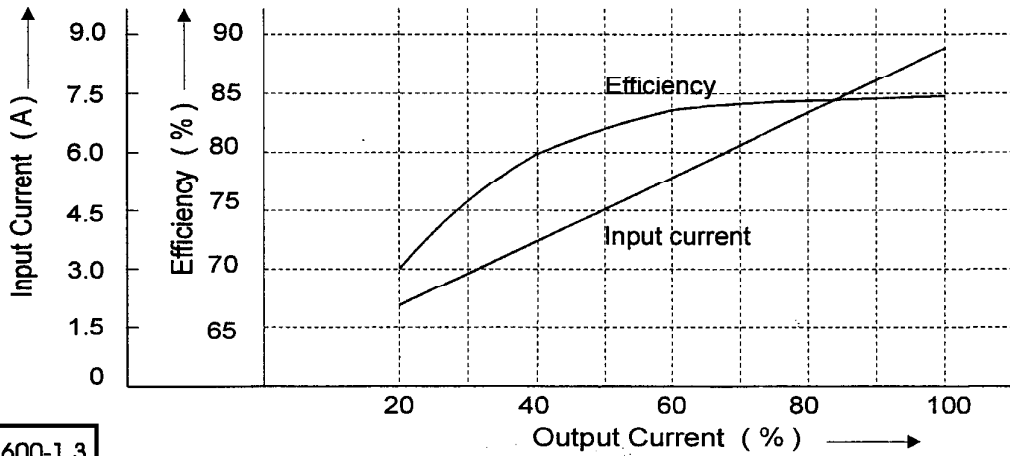


(3). Efficiency and Input current v.s. Output current
Constant Voltage Mode

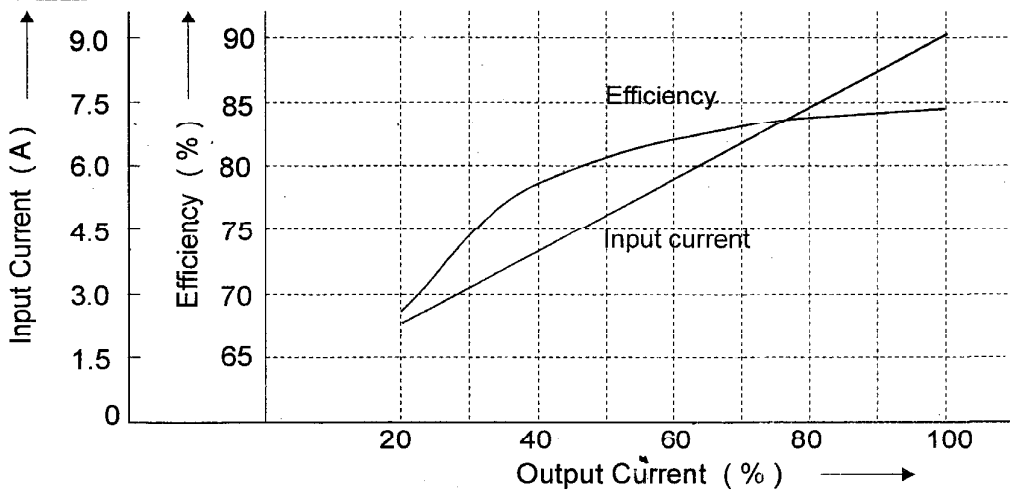
GEN750

Condition Vin : AC 100 V
Vout: 100%
Ta: 25°C

GEN100-7.5



GEN600-1.3



(3). Efficiency and Input current v.s. Output current

Constant Voltage Mode

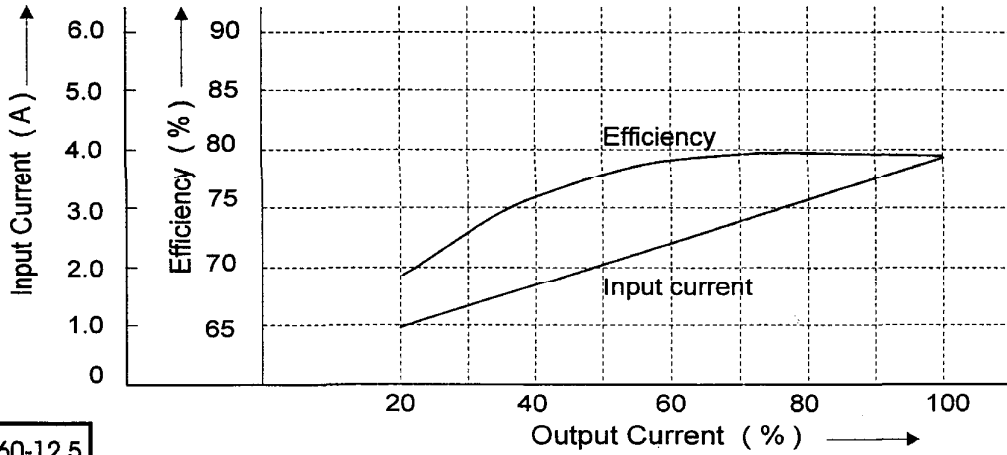
GEN750

Condition V_{in} : AC 200 V

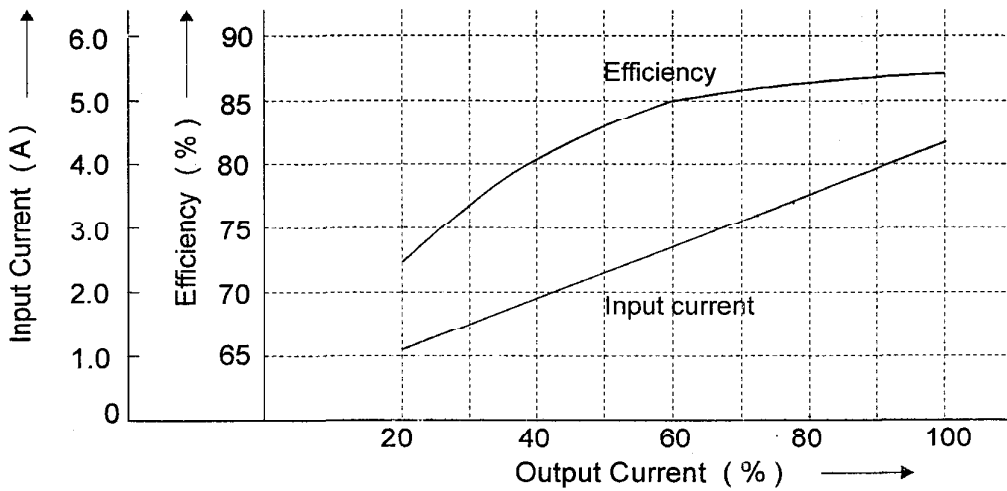
V_{out} : 100%

T_a : 25°C

GEN6-100



GEN60-12.5



(3). Efficiency and Input current v.s. Output current

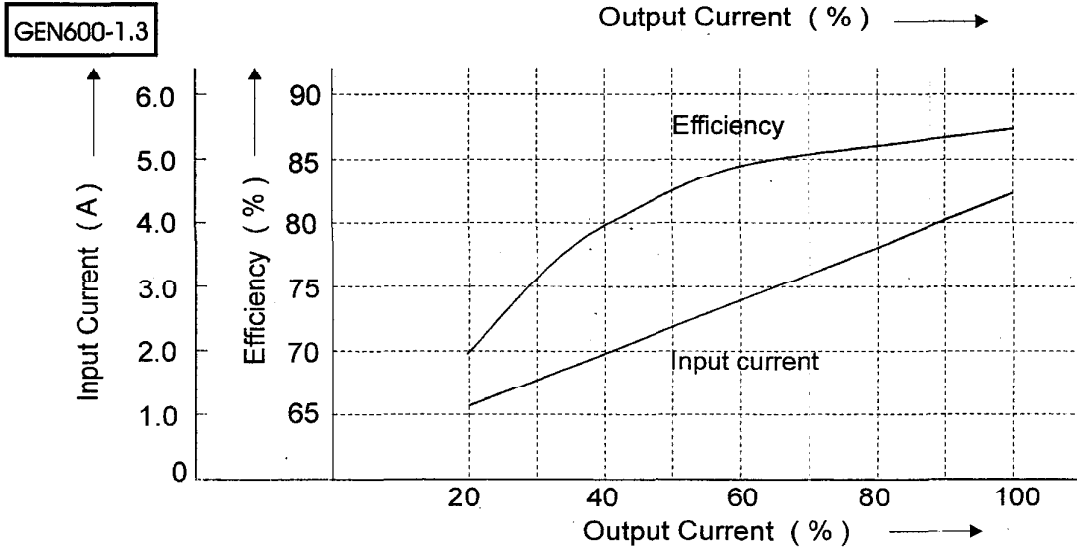
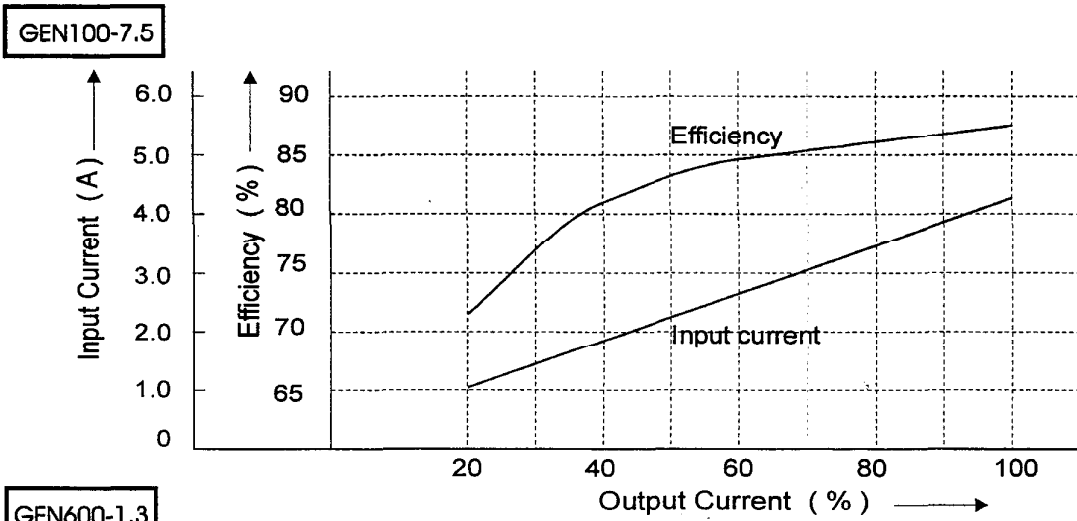
Constant Voltage Mode

GEN750

Condition V_{in} : AC 200 V

V_{out} : 100%

T_a : 25°C



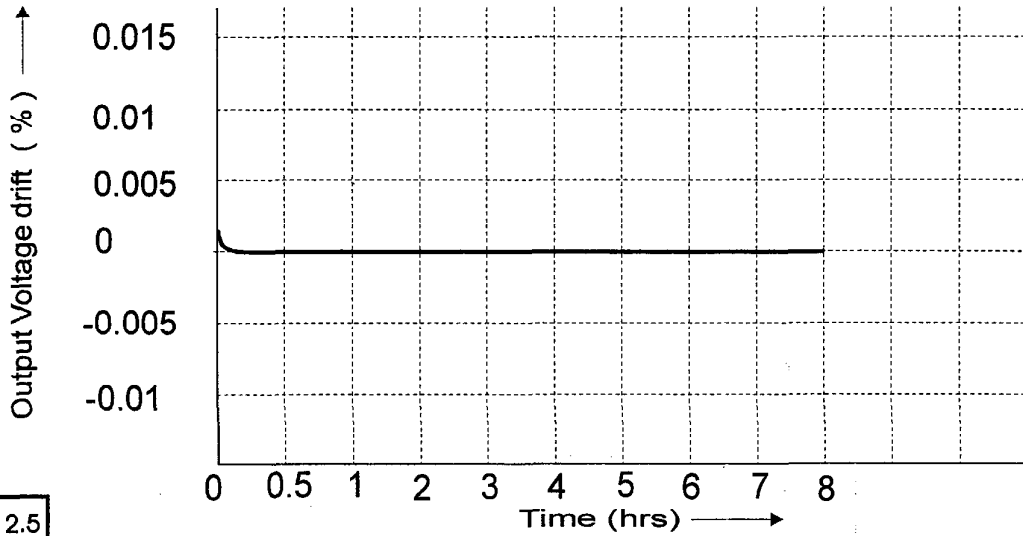
2-2. Warm up voltage drift characteristics

GEN750

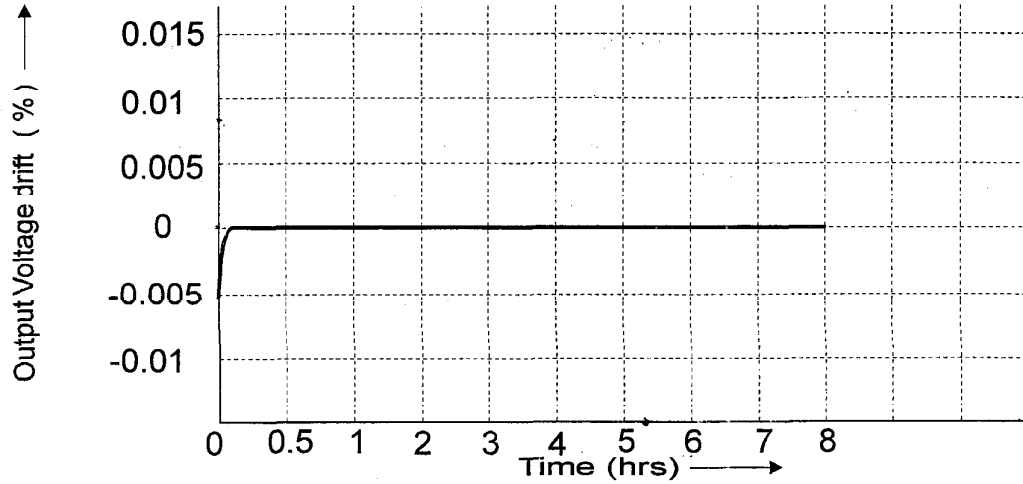
Constant Voltage Mode

Conditions Vin: 100VAC
Vout : 100%
Iout : 100%
Ta : 25°C

GEN6-100



GEN60-12.5



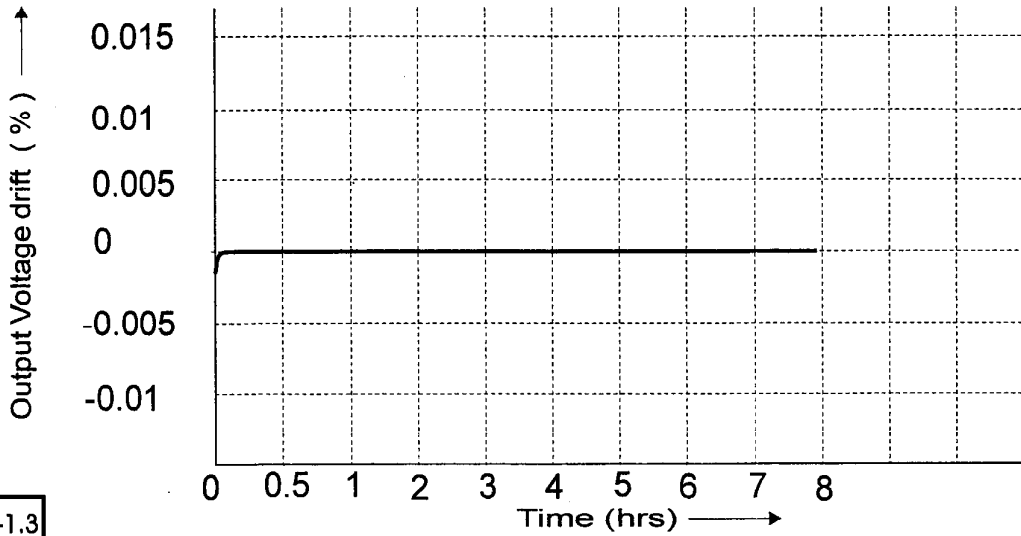
Warm up voltage drift characteristics

GEN750

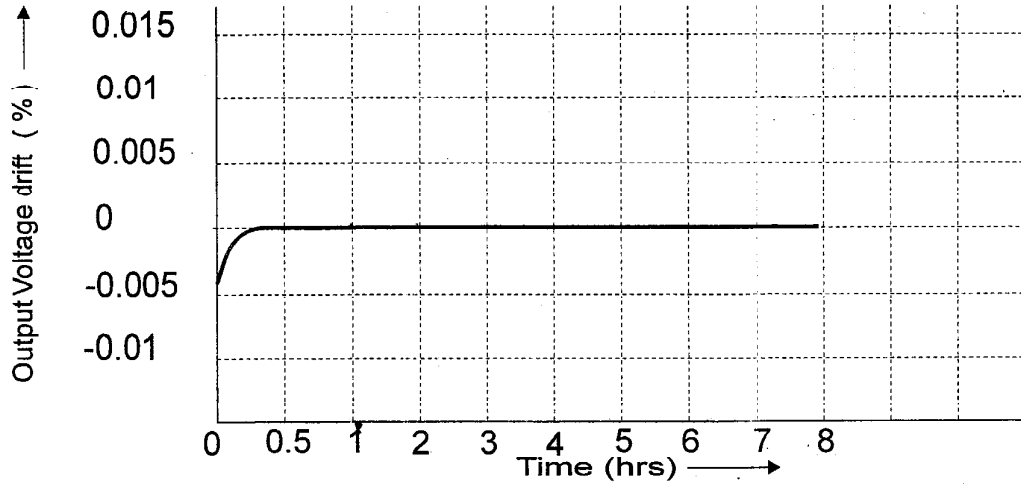
Constant Voltage Mode

Conditions Vin: 100VAC
Vout : 100%
Iout : 100%
Ta : 25°C

GEN100-7.5



GEN600-1.3



Warm up current drift characteristics

Constant Current Mode

GEN750

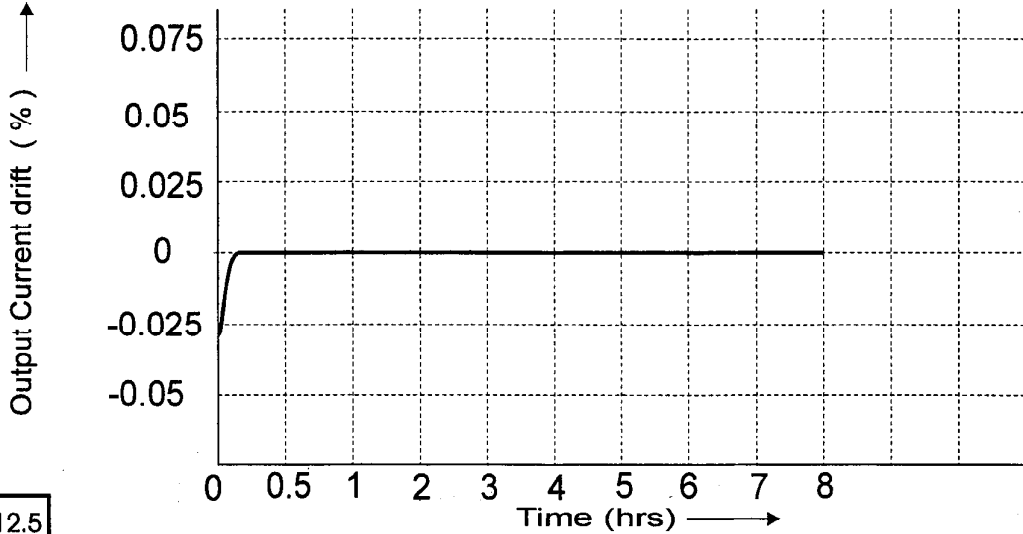
Conditions Vin: 100VAC

Vout : 100%

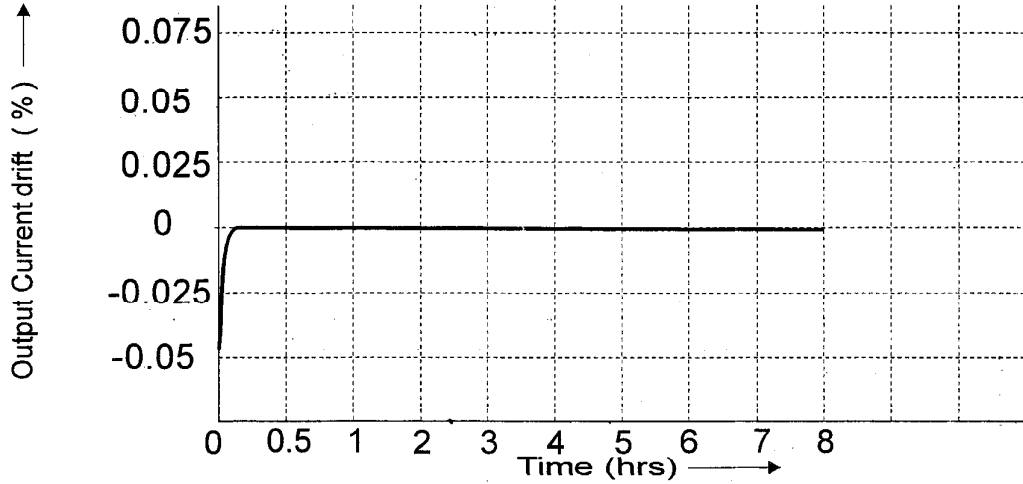
Iout : 100%

Ta : 25°C

GEN6-100



GEN60-12.5



Warm up current drift characteristics

Constant Current Mode

GEN750

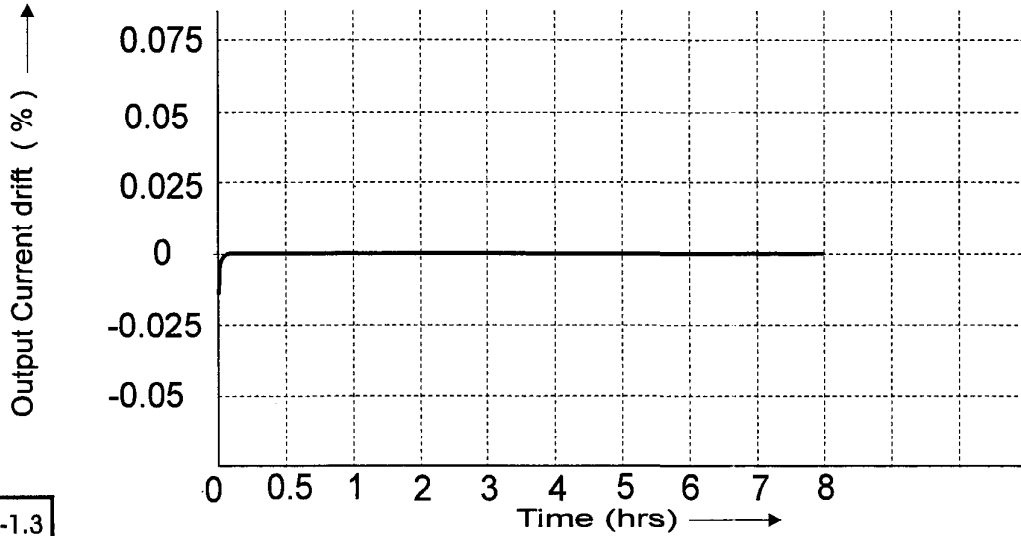
Conditions Vin: 100VAC

Vout : 100%

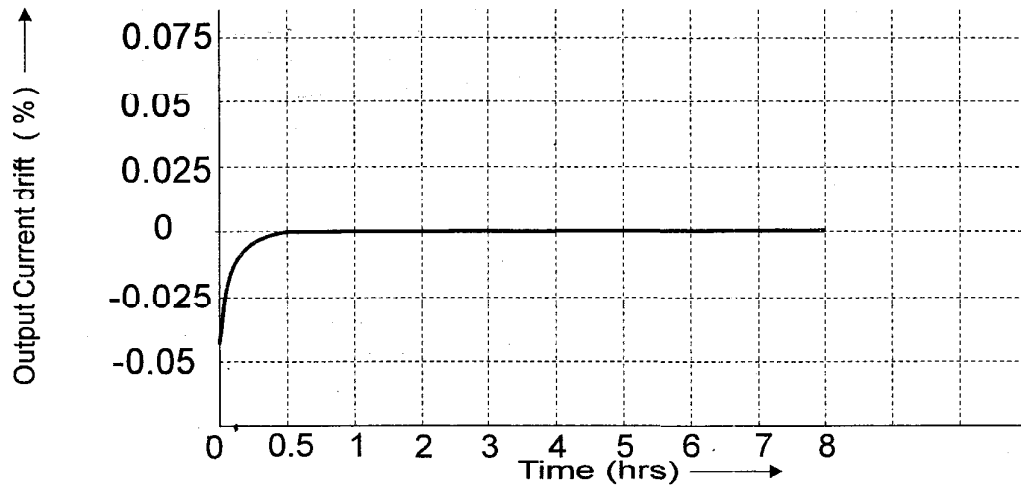
Iout : 100%

Ta : 25°C

GEN100-7.5



GEN600-1.3

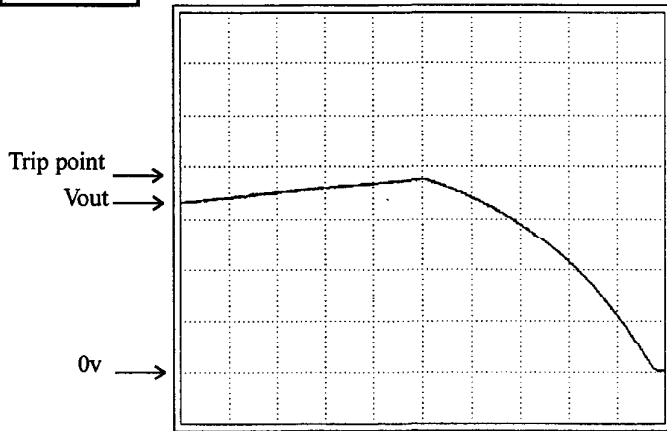


2-3. Over voltage protection (OVP) Characteristics
Constant Voltage Mode

GEN750

Conditions Vin: 100VAC
Iout:0%
Ta:25°C

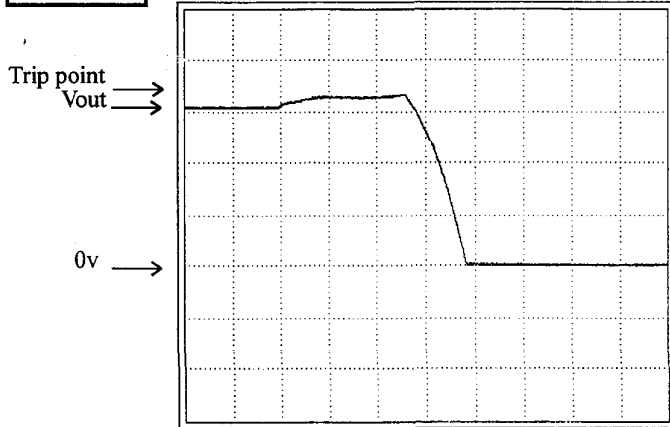
GEN6-100



OVP setting:7.5V

2V/DIV 50ms/DIV

GEN60-12.5



OVP setting:66V

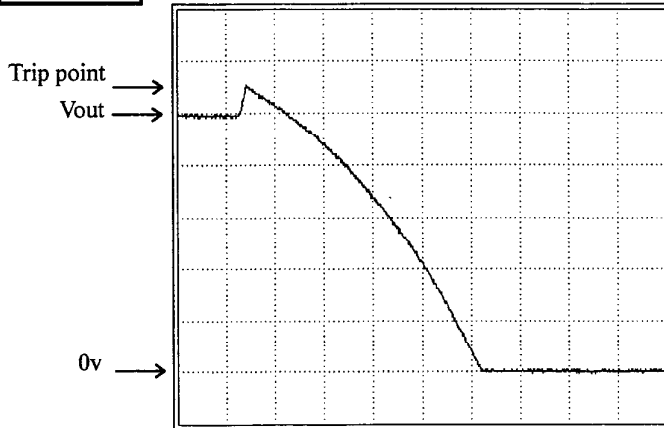
20V/DIV 500ms/DIV

Over voltage protection (OVP) Characteristics
Constant Voltage Mode

GEN750

Conditions Vin: 100VAC
Iout:0%
Ta:25°C

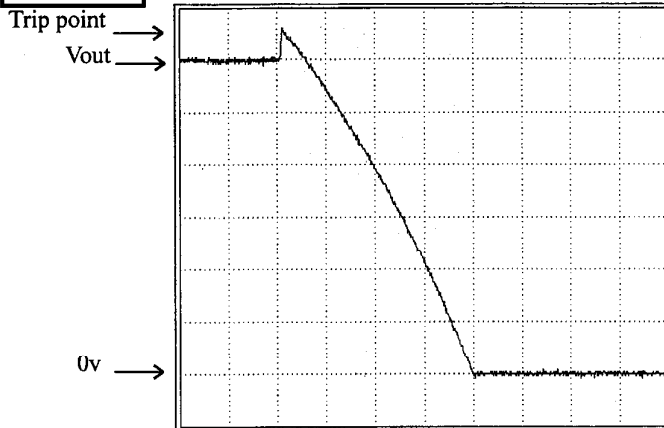
GEN100-7.5



OVP setting:110V

20V/DIV 200ms/DIV

GEN600-1.3



OVP setting:660V

100V/DIV 200ms/DIV

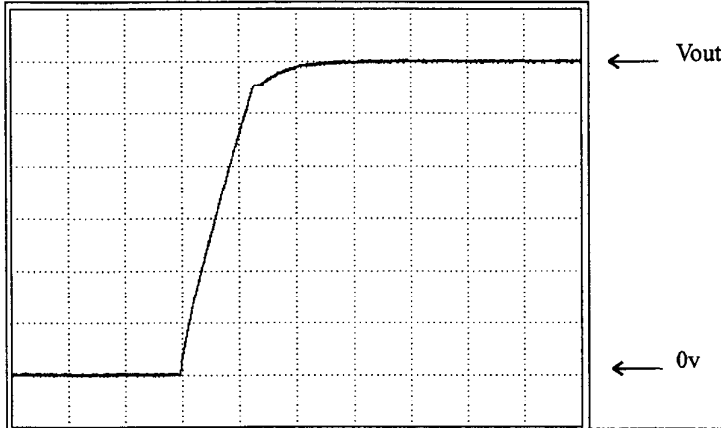
2-4. Output Rise Characteristics

Constant Voltage Mode

GEN750

Conditions V_{in} : 100VAC
 V_{out} : 100%
 I_{out} : 0%
 T_a : 25°C

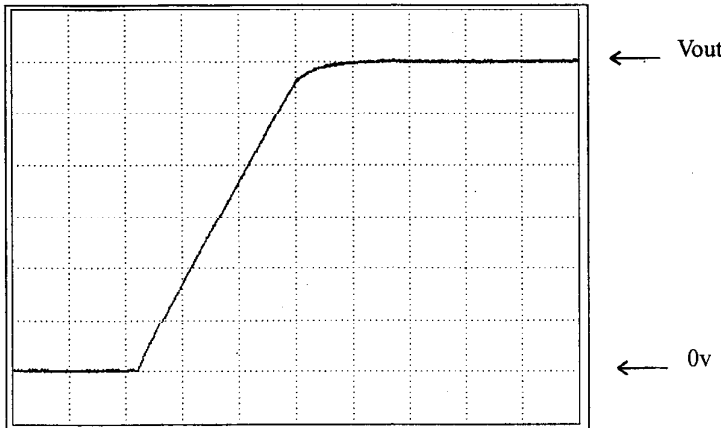
GEN6-100



1V/DIV

2ms/DIV

GEN60-12.5



10V/DIV

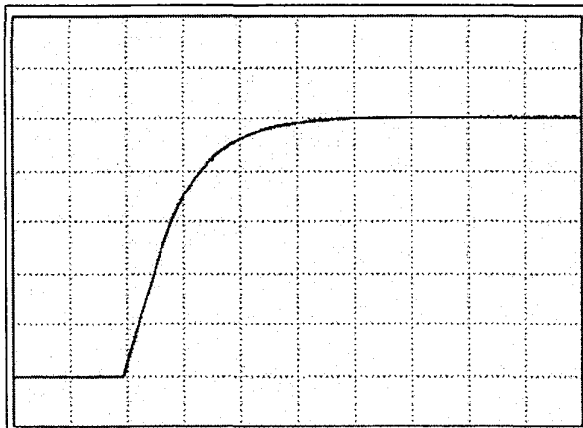
5ms/DIV

Output Rise Characteristics
Constant Voltage Mode

GEN750

Conditions Vin: 100VAC
Vout: 100%
Iout: 0%
Ta: 25°C

GEN100-7.5

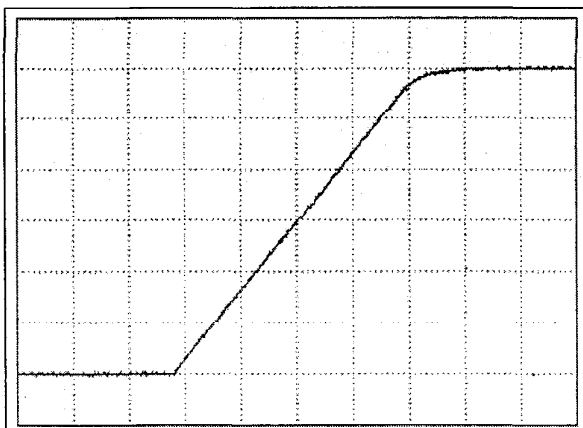


← Vout

← 0v

20V/DIV 10ms/DIV

GEN600-1.3



← Vout

← 0v

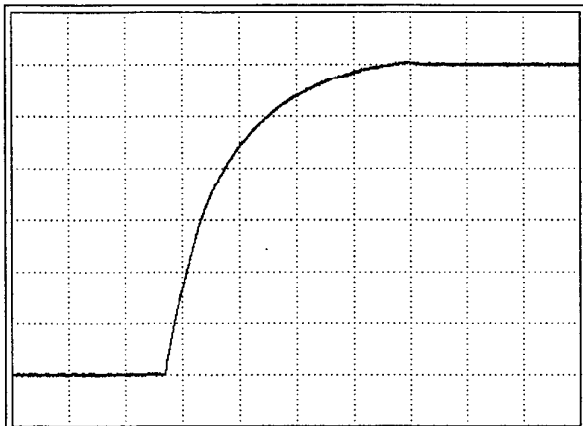
100V/DIV 20ms/DIV

Output Rise Characteristics Constant Voltage Mode

GEN750

Conditions Vin: 100VAC
Vout: 100%
Iout: 100%
Ta: 25°C

GEN6-100



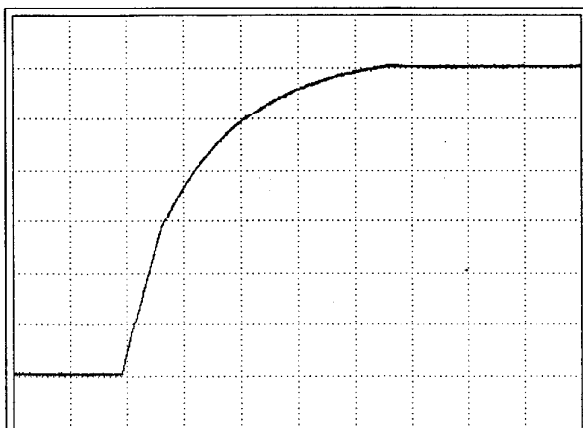
← Vout

← 0v

1V/DIV

2ms/DIV

GEN60-12.5



← Vout

← 0v

10V/DIV

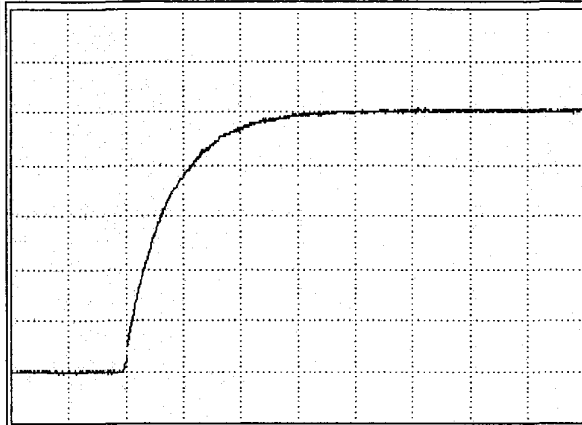
10ms/DIV

Output Rise Characteristics
Constant Voltage Mode

GEN750

Conditions Vin: 100VAC
Vout: 100%
Iout: 100%
Ta: 25°C

GEN100-7.5



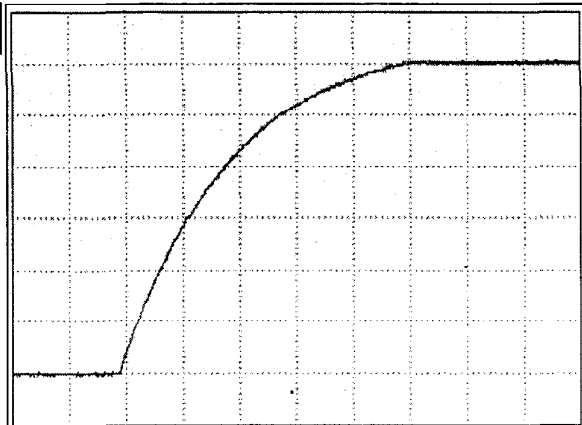
← Vout

← 0v

20V/DIV

20ms/DIV

GEN600-1.3



← Vout

← 0v

100V/DIV

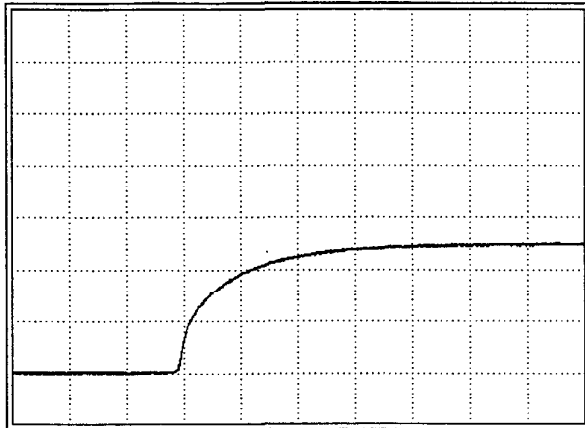
50ms/DIV

Output Rise Characteristics
Constant Current Mode

GEN750

Conditions Vin: 100VAC
Vout:100%
Iout:100%
Load:Constant Resistance
Ta:25°C

GEN6-100



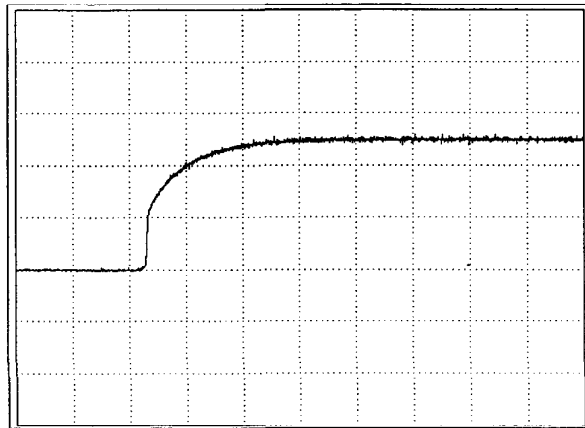
← Iout

← 0A

40A/DIV

2ms/DIV

GEN60-12.5



← Iout

← 0A

5A/DIV

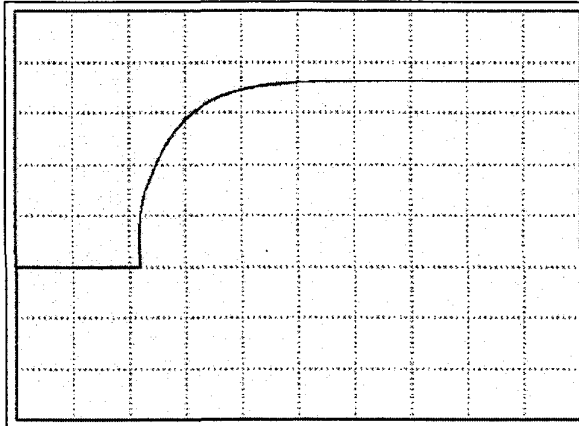
20ms/DIV

Output Rise Characteristics
Constant Current Mode

GEN750

Conditions V_{in} : 100VAC
 V_{out} : 100%
 I_{out} : 100%
Load: Constant Resistance
 T_a : 25°C

GEN100-7.5



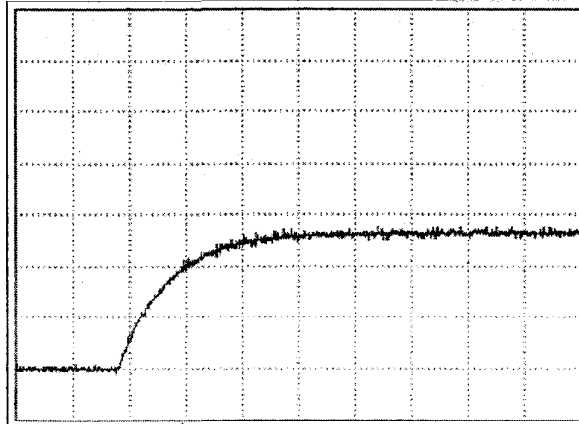
← I_{out}

← 0A

2A/DIV

20ms/DIV

GEN600-1.3



← I_{out}

← 0A

0.5A/DIV

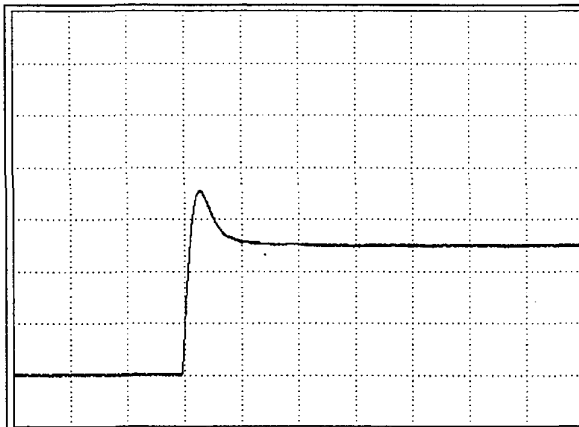
100ms/DIV

Output Rise Characteristics
Constant Current Mode

GEN750

Conditions V_{in} : 100VAC
Start to short circuit
 I_{out} : 100%
 T_a : 25°C

GEN6-100



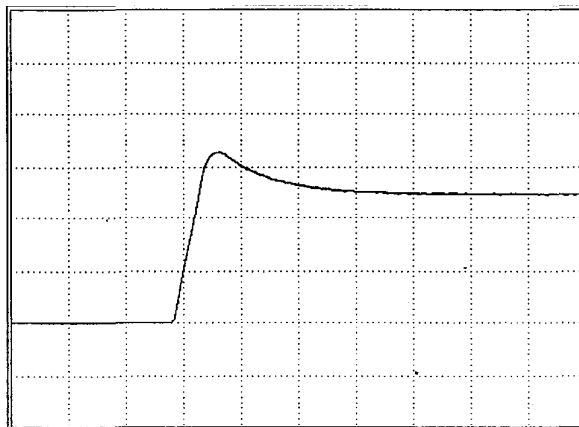
← I_{out}

← 0A

40A/DIV

2ms/DIV

GEN60-12.5



← I_{out}

← 0A

5A/DIV

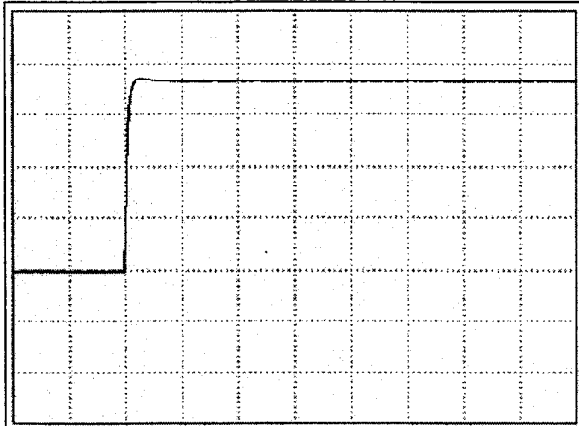
0.5ms/DIV

Output Rise Characteristics
Constant Current Mode

GEN750

Conditions V_{in} : 100VAC
Start to short circuit
 I_{out} : 100%
 T_a : 25°C

GEN100-7.5



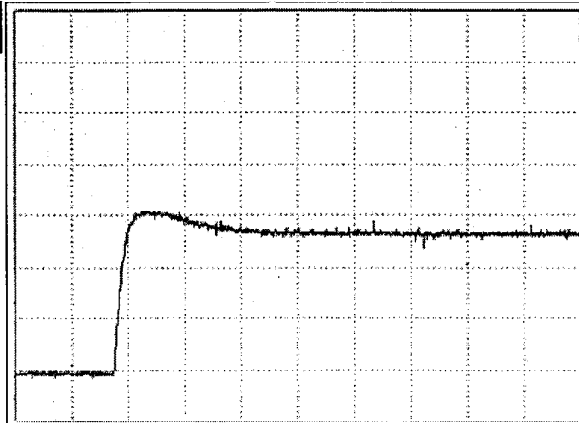
← Iout

← 0A

2A/DIV

5ms/DIV

GEN600-1.3



← Iout

← 0A

0.5A/DIV

1ms/DIV

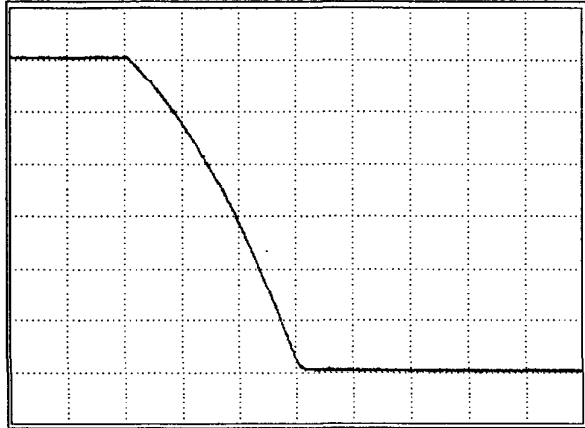
2-5. Output Fall Characteristics

Constant Voltage Mode

GEN750

Conditions Vin: 100VAC
Vout: 100%
Iout: 0%
Ta: 25°C

GEN6-100



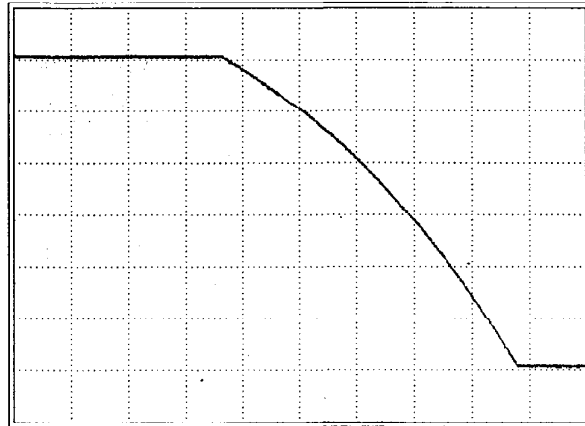
← Vout

← 0v

1V/DIV

50ms/DIV

GEN60-12.5



← Vout

← 0v

10V/DIV

100ms/DIV

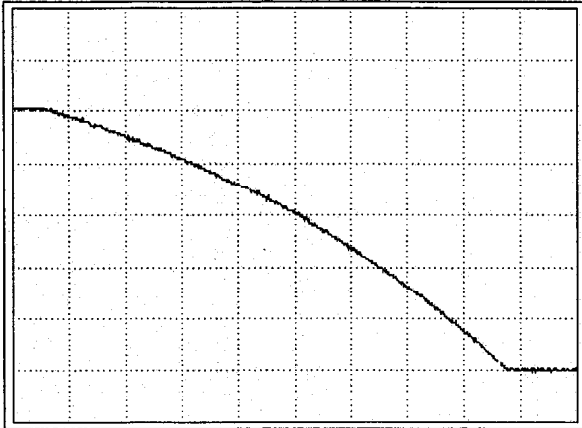
Output Fall Characteristics

Constant Voltage Mode

GEN750

Conditions Vin: 100VAC
Vout: 100%
Iout: 0%
Ta: 25°C

GEN100-7.5

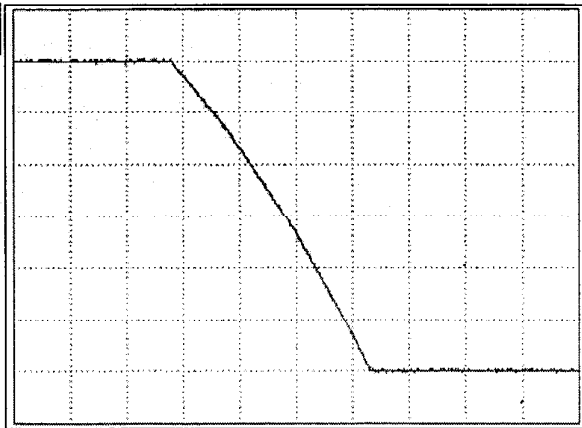


← Vout

← 0v

20V/DIV 100ms/DIV

GEN600-1.3



← Vout

← 0v

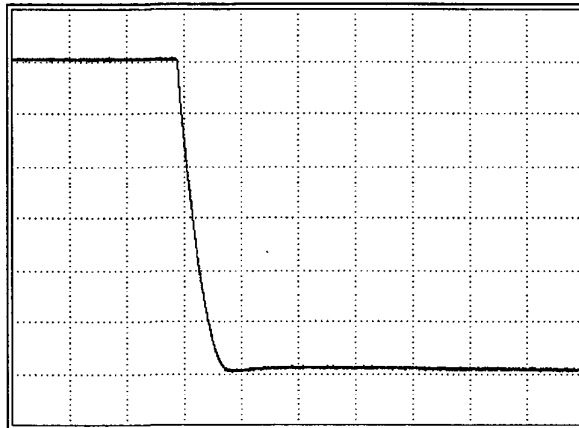
100V/DIV 1s/DIV

Output Fall Characteristics
Constant Voltage Mode

GEN750

Conditions V_{in} : 100VAC
 V_{out} : 100%
 I_{out} : 100%
 T_a : 25°C

GEN6-100



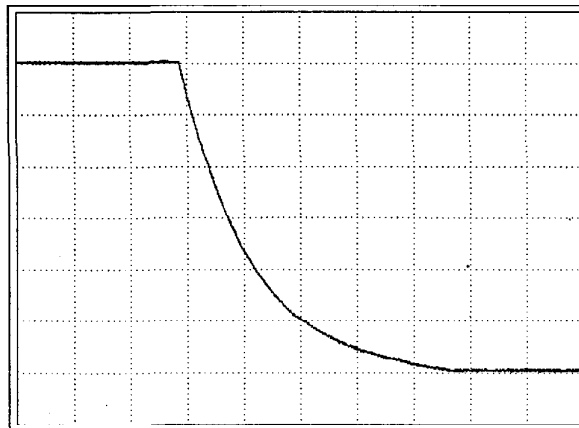
← Vout

← 0v

1V/DIV

1ms/DIV

GEN60-12.5



← Vout

← 0v

10V/DIV

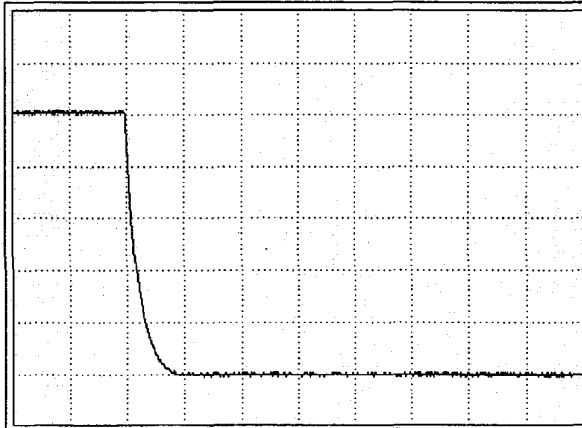
2ms/DIV

Output Fall Characteristics
Constant Voltage Mode

GEN750

Conditions Vin: 100VAC
Vout: 100%
Iout: 100%
Ta: 25°C

GEN100-7.5

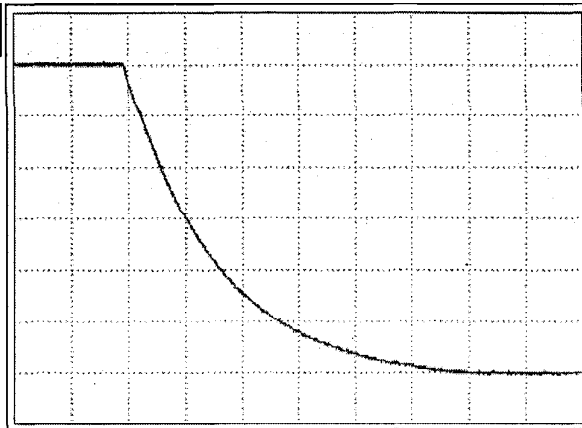


← Vout

← 0v

20V/DIV 50ms/DIV

GEN600-1.3



← Vout

← 0v

100V/DIV 50ms/DIV

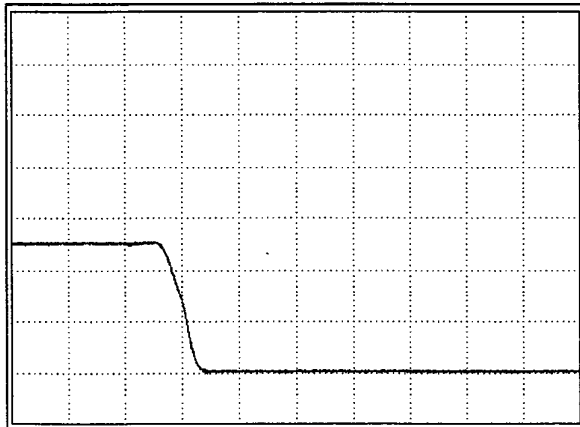
Output Fall Characteristics

Constant Current Mode

GEN750

Conditions Vin: 100VAC
Vout: 100%
Iout: 100%
Load: Constant Resistance
Ta: 25°C

GEN6-100

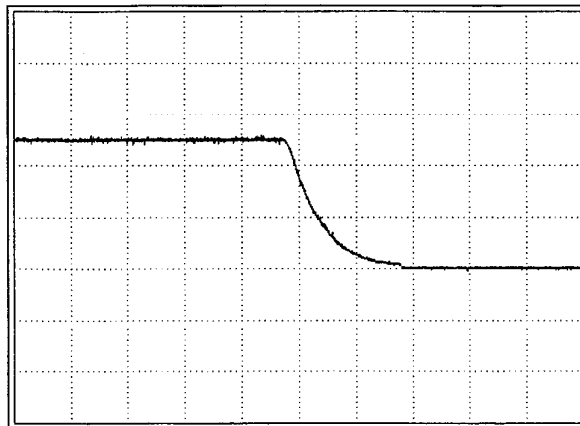


← Iout

← 0A

40A/DIV 2ms/DIV

GEN60-12.5



← Iout

← 0A

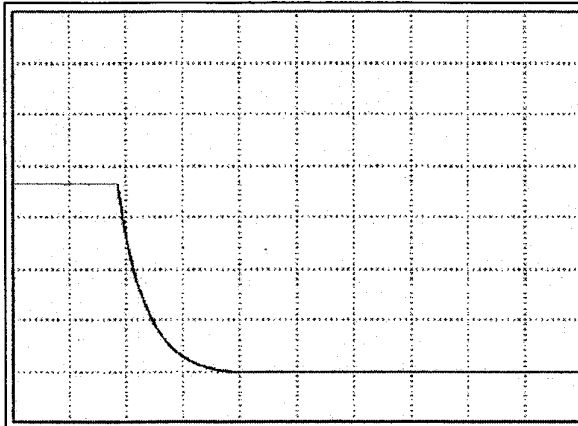
5A/DIV 10ms/DIV

Output Fall Characteristics
Constant Current Mode

GEN750

Conditions V_{in} : 100VAC
 V_{out} : 100%
 I_{out} : 100%
Load: Constant Resistance
 T_a : 25°C

GEN100-7.5



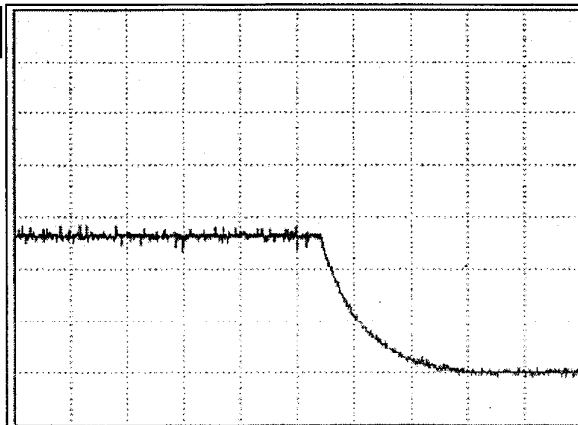
← I_{out}

← 0A

2A/DIV

20ms/DIV

GEN600-1.3



← I_{out}

← 0A

0.5A/DIV

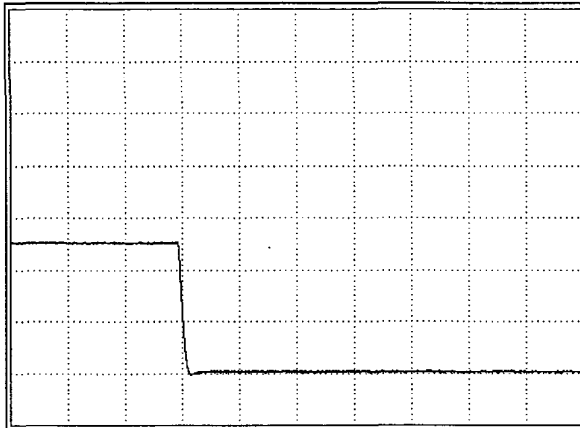
100ms/DIV

Output Fall Characteristics
Constant Current Mode

GEN750

Conditions V_{in} : 100VAC
Fall to short circuit
 I_{out} : 100%
 T_a : 25°C

GEN6-100



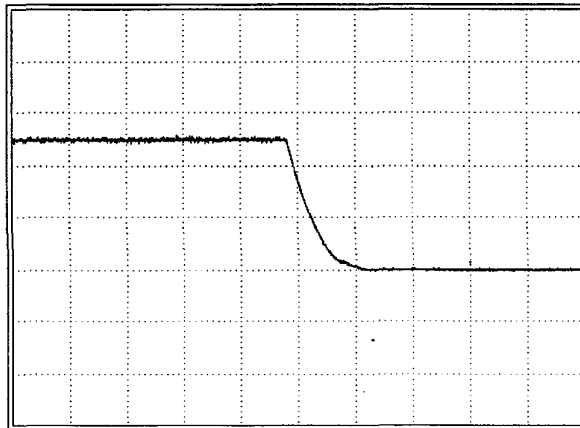
← I_{out}

← 0A

40A/DIV

2ms/DIV

GEN60-12.5



← I_{out}

← 0A

5A/DIV

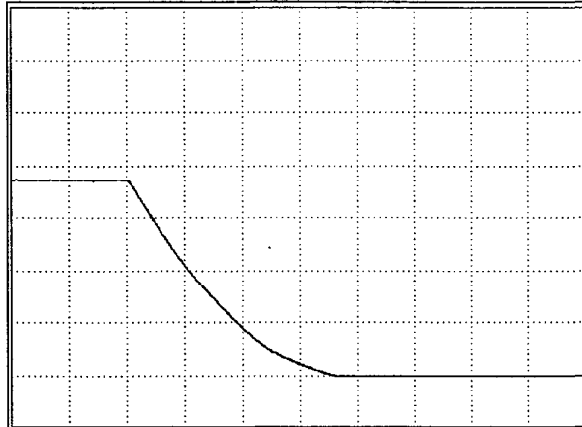
1ms/DIV

Output Fall Characteristics
Constant Current Mode

GEN750

Conditions V_{in} : 100VAC
Fall to short circuit
 I_{out} : 100%
 T_a : 25°C

GEN100-7.5



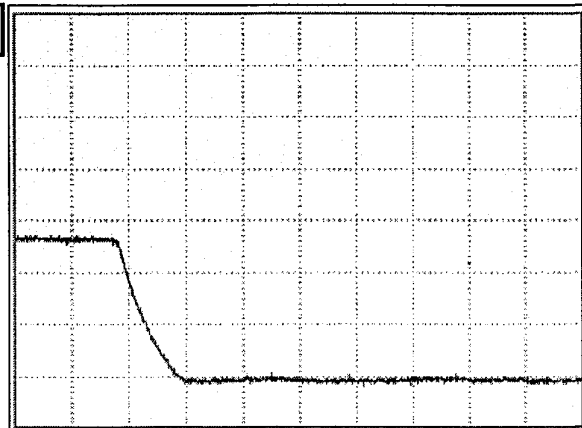
← Iout

← 0A

2A/DIV

0.5ms/DIV

GEN600-1.3



← Iout

← 0A

0.5A/DIV

1ms/DIV

2-6. Hold Up Time Characteristics

Constant Voltage Mode

GEN750

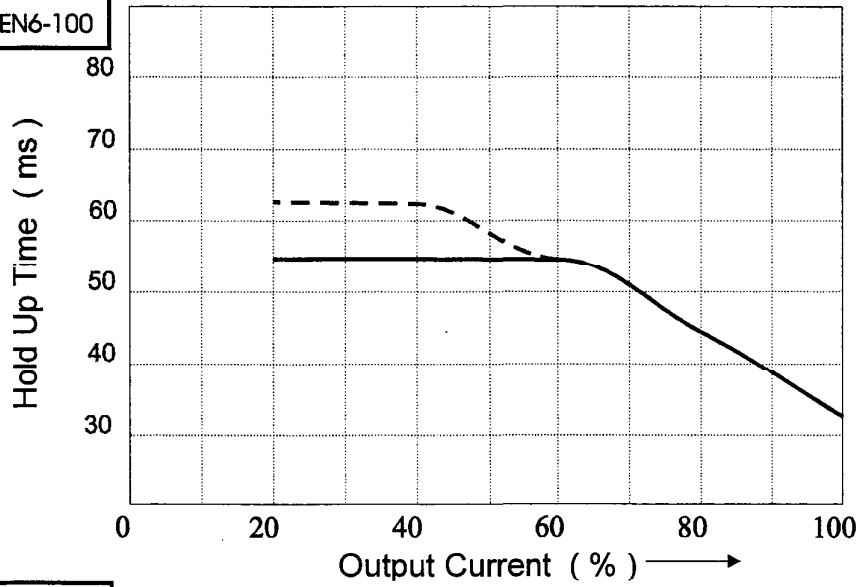
Conditions: Vout: 100%

AC 100 V ———

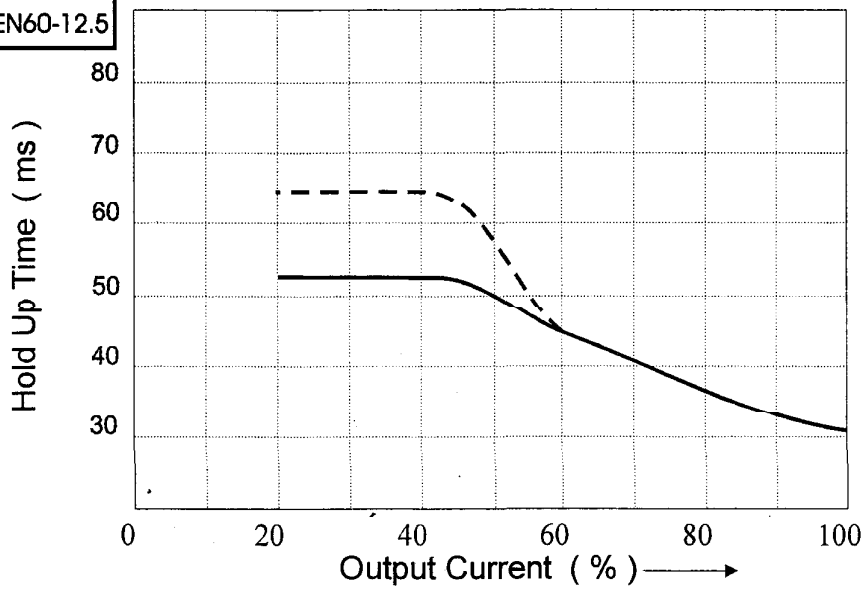
AC 200V - - - - -

Ta : 25°C

GEN6-100



GEN60-12.5



Hold Up Time Characteristics

Constant Voltage Mode

GEN750

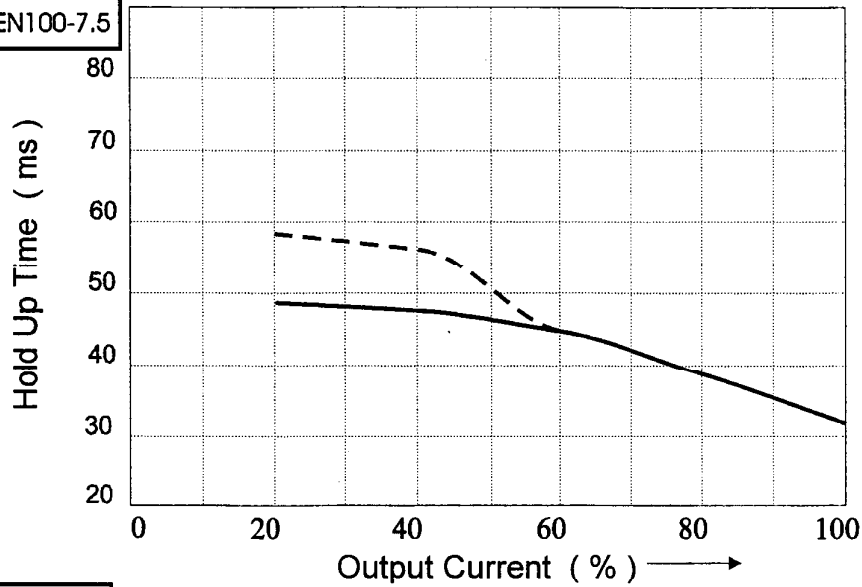
Conditions: Vout: 100%

AC 100 V ———

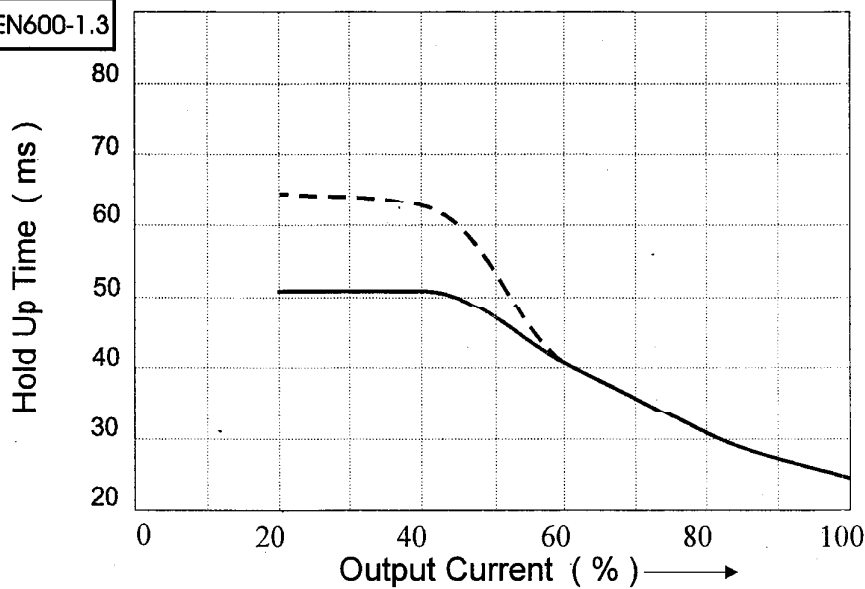
AC 200V - - - - -

Ta : 25°C

GEN100-7.5



GEN600-1.3

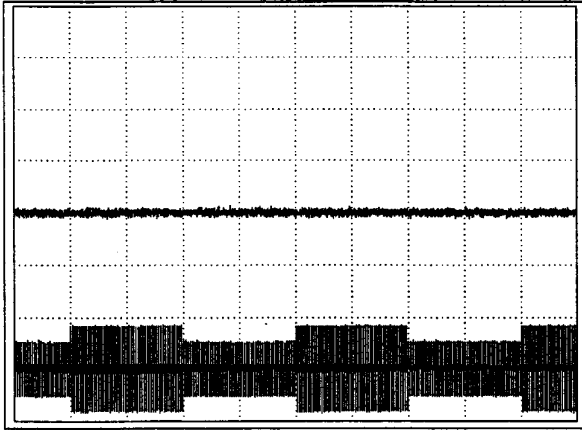


2-7. Dynamic Line Response
Constant Voltage Mode

GEN750

Conditions : Vout:100%
Iout:100%
Vin: 85 \longleftrightarrow 132 VAC
Ta : 25°C

GEN6-100

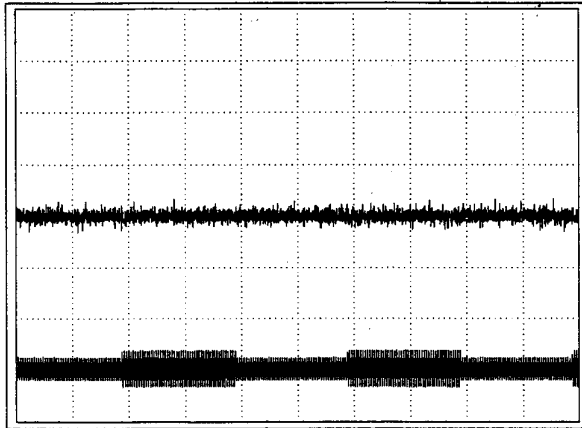


← Vout

← Vin

50mV/DIV | 500mS / DIV

GEN60-12.5



← Vout

← Vin

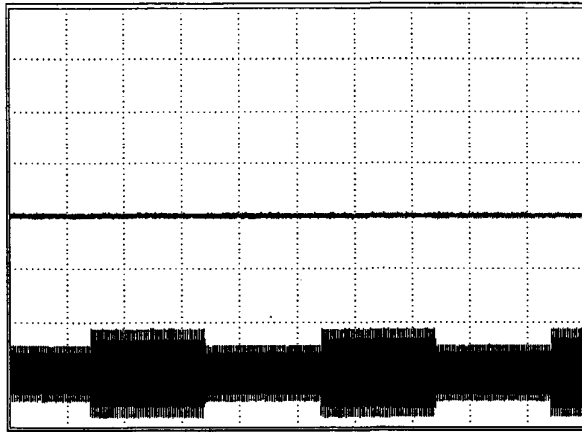
50mV/DIV | 500mS / DIV

Dynamic Line Response
Constant Voltage Mode

GEN750

Conditions : Vout:100%
Iout:100%
Vin: 85 \longleftrightarrow 132 VAC
Ta : 25°C

GEN100-7.5

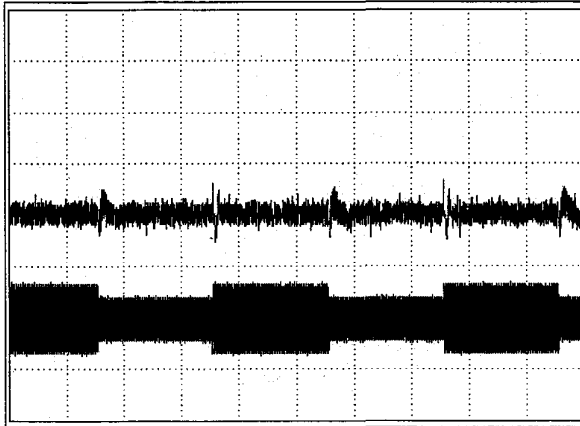


← Vout

← Vin

50mV/DIV | 500mS / DIV

GEN600-1.3



← Vout

← Vin

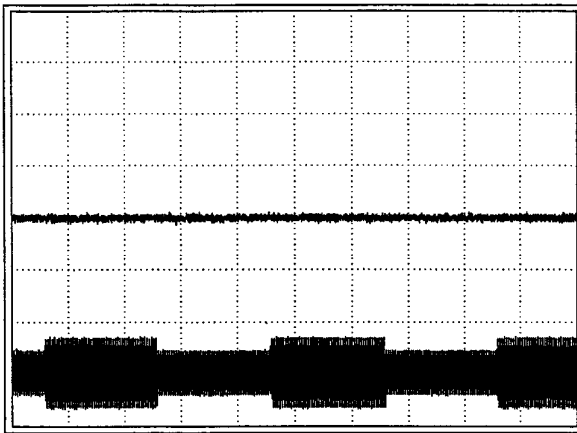
100mV/DIV | 500mS / DIV

Dynamic Line Response
Constant Voltage Mode

GEN750

Conditions : Vout:100%
Iout:100%
Vin:170 \longleftrightarrow 265VAC
Ta : 25°C

GEN6-100

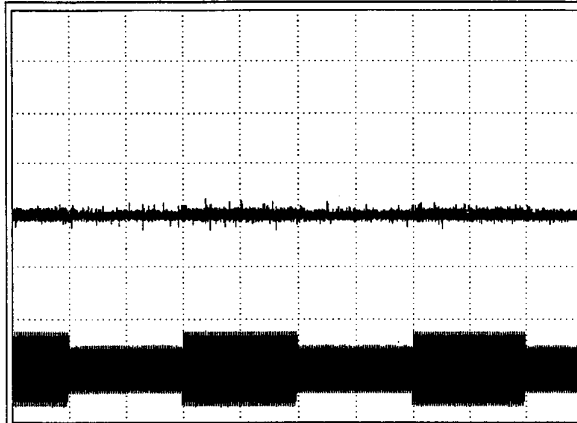


← Vout

← Vin

50mV/DIV 500mS / DIV

GEN60-12.5



← Vout

← Vin

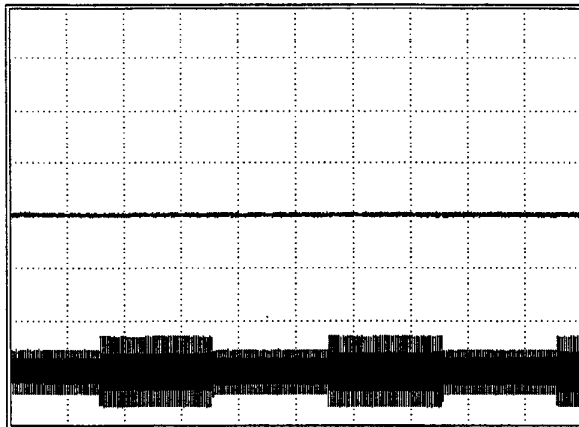
50mV/DIV 500mS / DIV

Dynamic Line Response
Constant Voltage Mode

GEN750

Conditions : Vout:100%
Iout:100%
Vin:170 \longleftrightarrow 265VAC
Ta : 25°C

GEN100-7.5

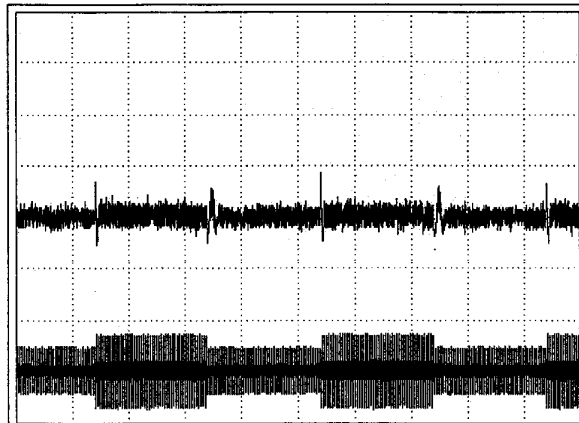


← Vout

← Vin

50mV/DIV 500mS / DIV

GEN600-1.3



← Vout

← Vin

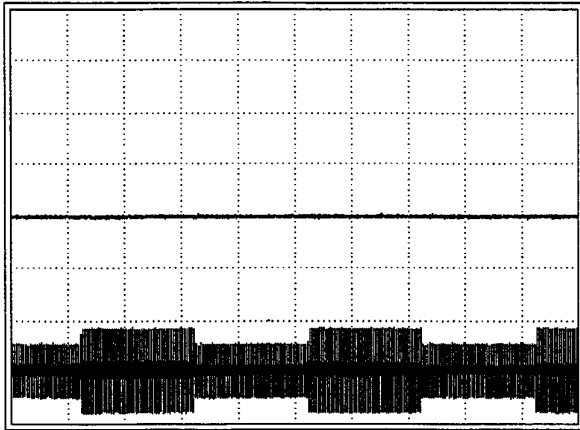
100mV/DIV 500mS / DIV

Dynamic Line Response
Constant Current Mode

GEN750

Conditions : Iout:100%
Vout:90%
Vin: 85 \longleftrightarrow 132 VAC
Ta : 25°C

GEN6-100

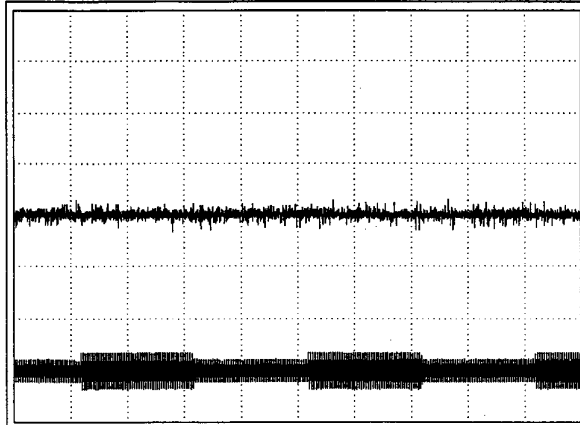


← Iout

← Vin

4A/DIV 500mS / DIV

GEN60-12.5



← Iout

← Vin

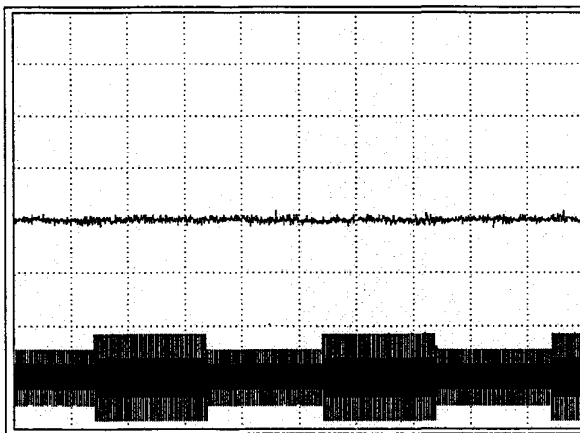
500mA/DIV 500mS / DIV

Dynamic Line Response
Constant Current Mode

GEN750

Conditions : Iout:100%
Vout:90%
Vin: 85 \longleftrightarrow 132 VAC
Ta : 25°C

GEN100-7.5

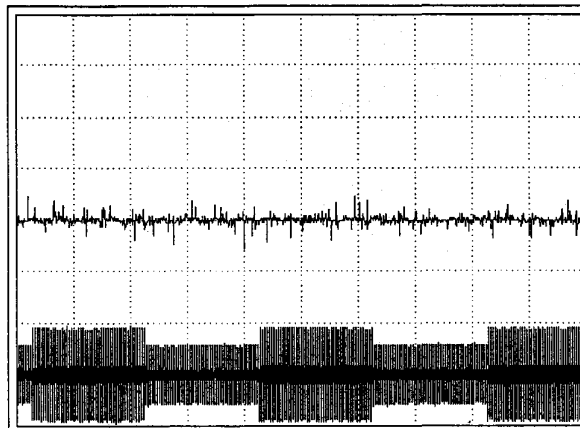


← Iout

← Vin

50mA/DIV 500mS / DIV

GEN600-1.3



← Iout

← Vin

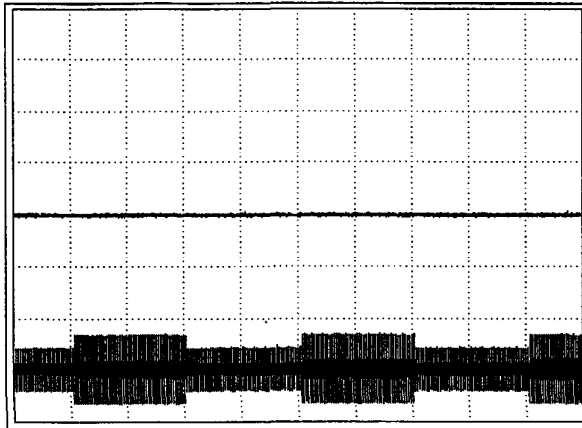
50mA/DIV 500mS / DIV

Dynamic Line Response
Constant Current Mode

GEN750

Conditions : Iout:100%
Vout:90%
Vin:170 \longleftrightarrow 265 VAC
Ta : 25°C

GEN6-100



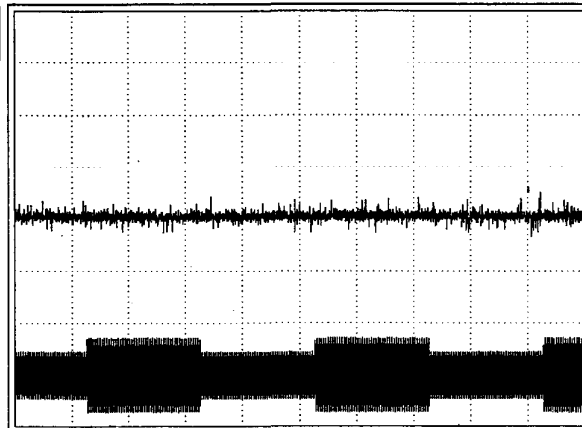
← Iout

← Vin

4A/DIV

500mS / DIV

GEN60-12.5



← Iout

← Vin

500mA/DIV

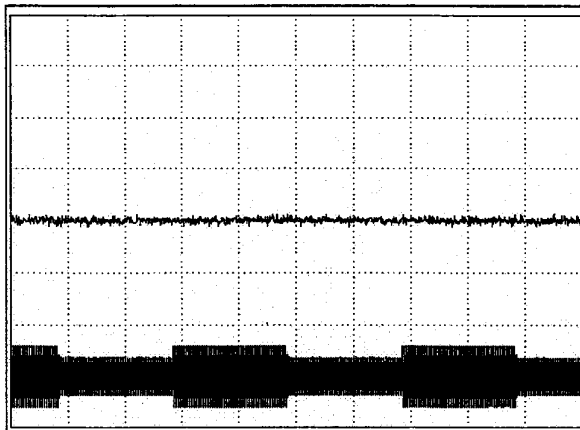
500mS / DIV

Dynamic Line Response
Constant Current Mode

GEN750

Conditions : Iout:100%
Vout:90%
Vin:170 \longleftrightarrow 265 VAC
Ta : 25°C

GEN100-7.5

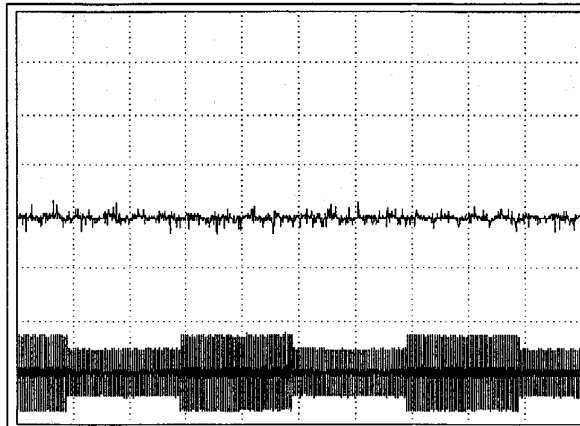


← Iout

← Vin

50mA/DIV 500mS / DIV

GEN600-1.3



← Iout

← Vin

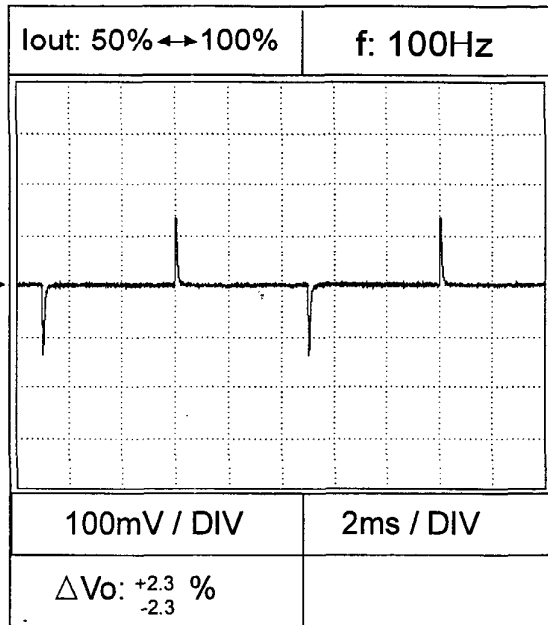
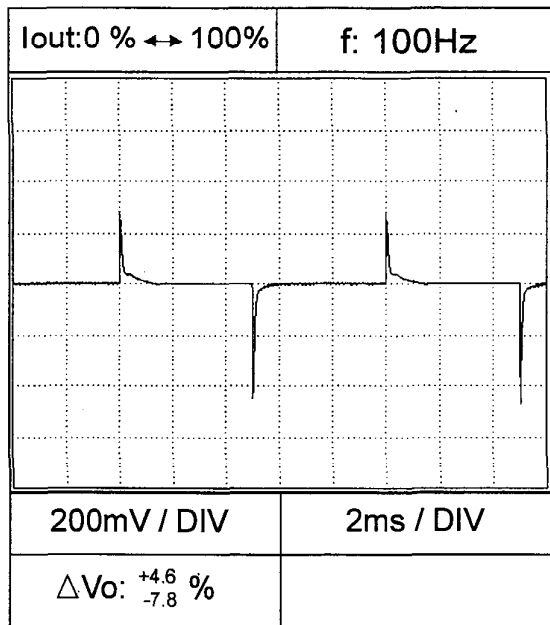
50mA/DIV 500mS / DIV

2-8.Dynamic Load Response Characteristics
Constant Voltage Mode

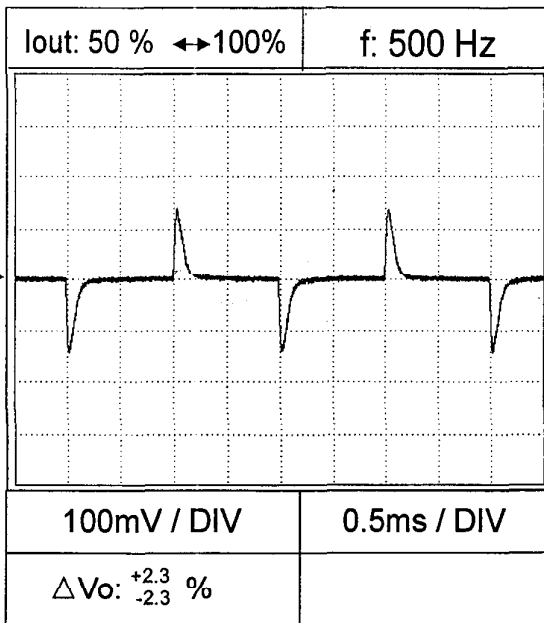
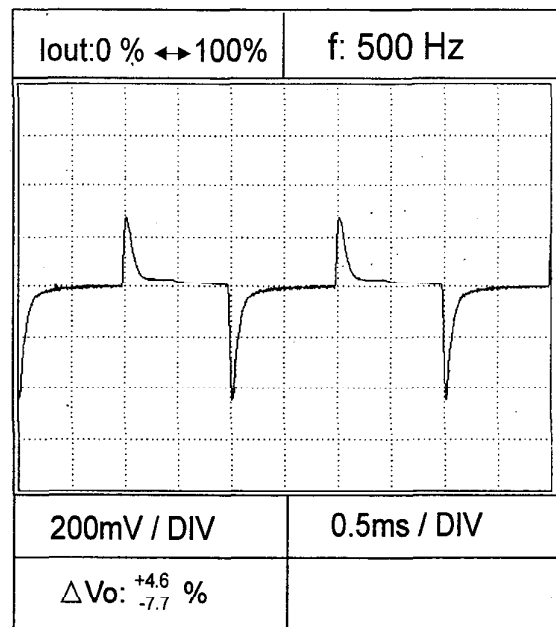
GEN750

Conditions : V_{in} : 100VAC
 V_{out} : 100%
Load current $t_r = t_f = 100\mu s$
 T_a : 25°C

GEN6-100



V_{out}



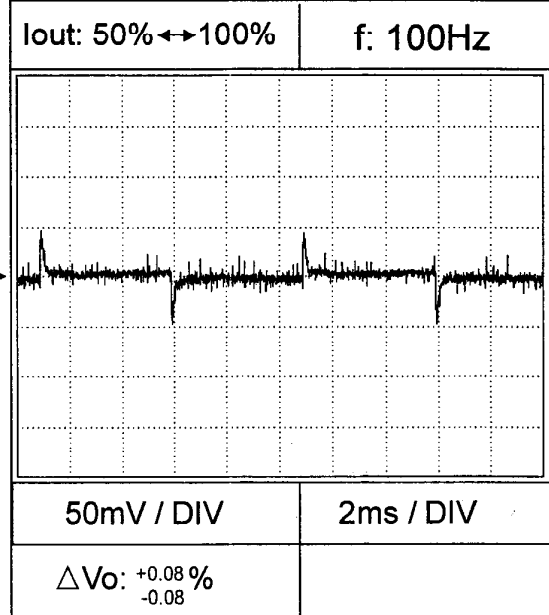
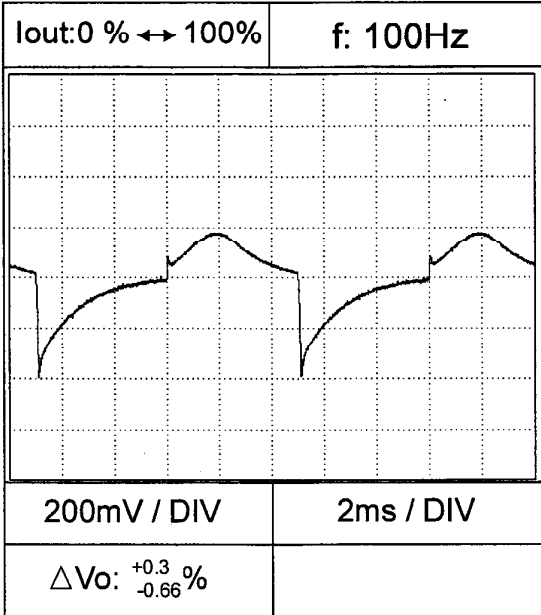
V_{out}

Dynamic Load Response Characteristics
Constant Voltage Mode

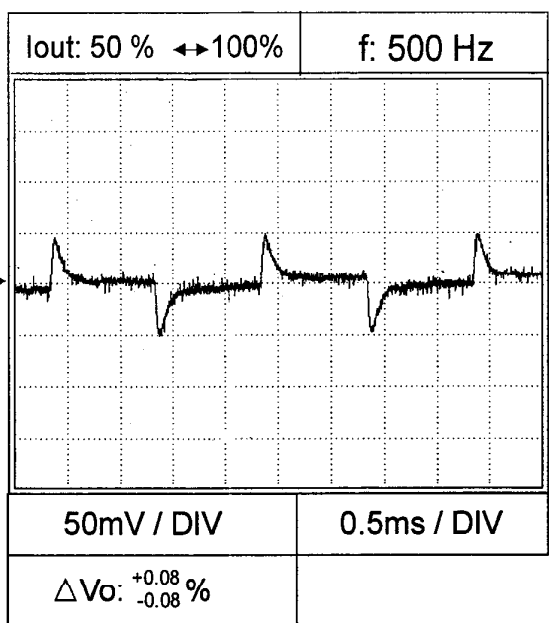
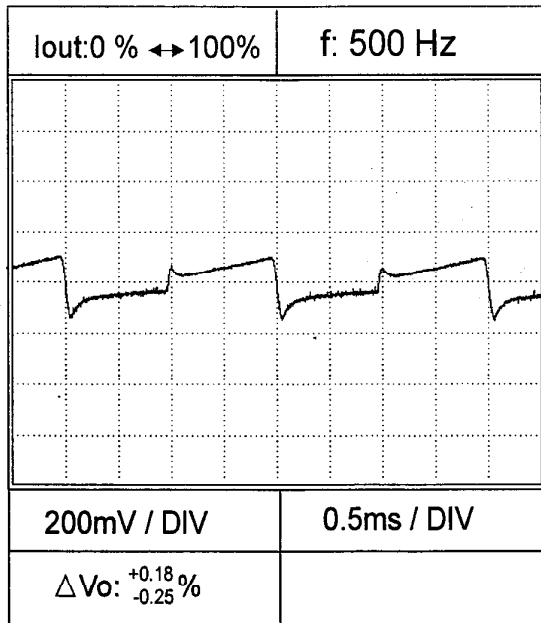
GEN750

Conditions : V_{in} :100VAC
 V_{out} :100%
 Load current $t_r = t_f = 100\mu s$
 T_a :25°C

GEN60-12.5



↔ V_{out}



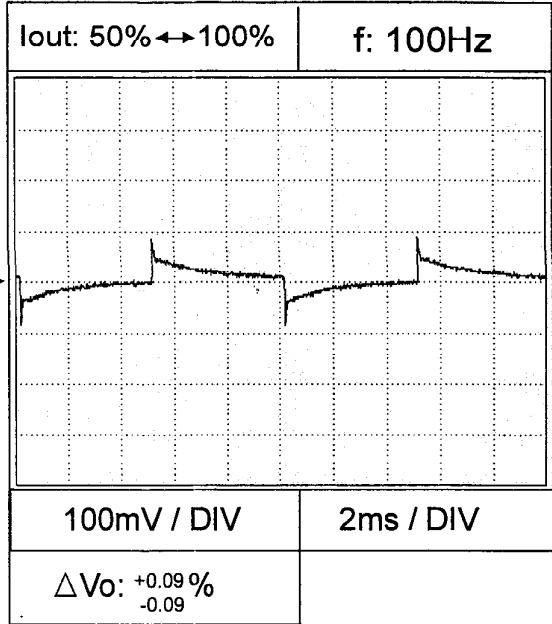
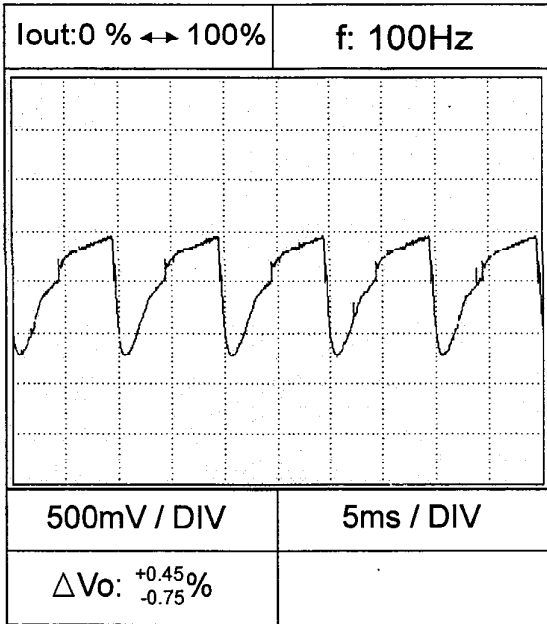
↔ V_{out}

Dynamic Load Response Characteristics
Constant Voltage Mode

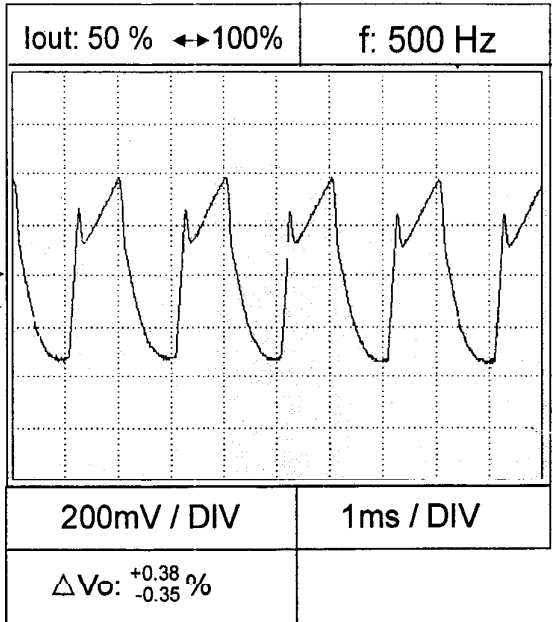
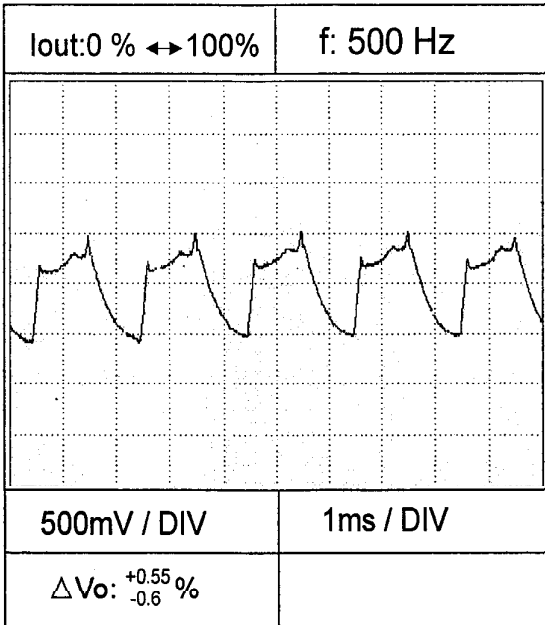
GEN750

Conditions : V_{in} : 100VAC
 V_{out} : 100%
 Load current $t_r = t_f = 100\mu s$
 T_a : 25°C

GEN100-7.5



Vout



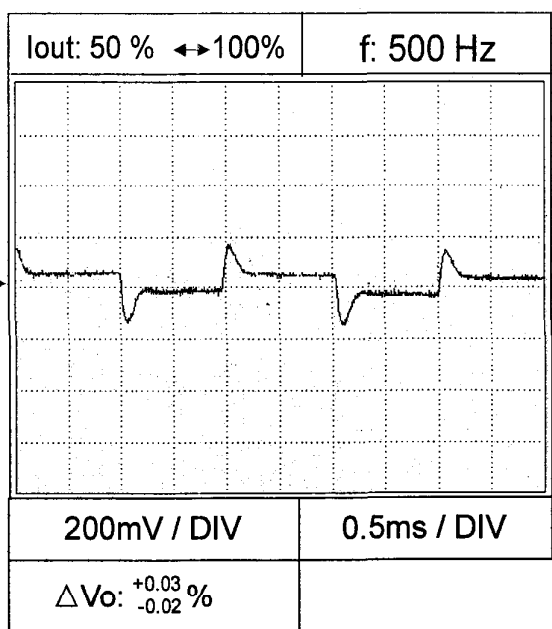
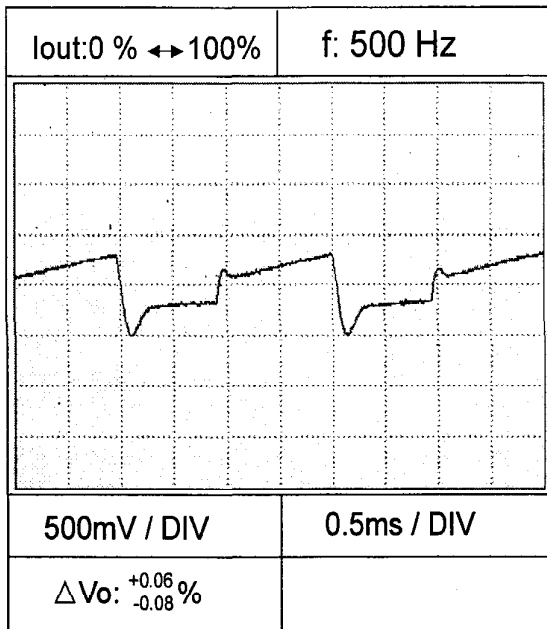
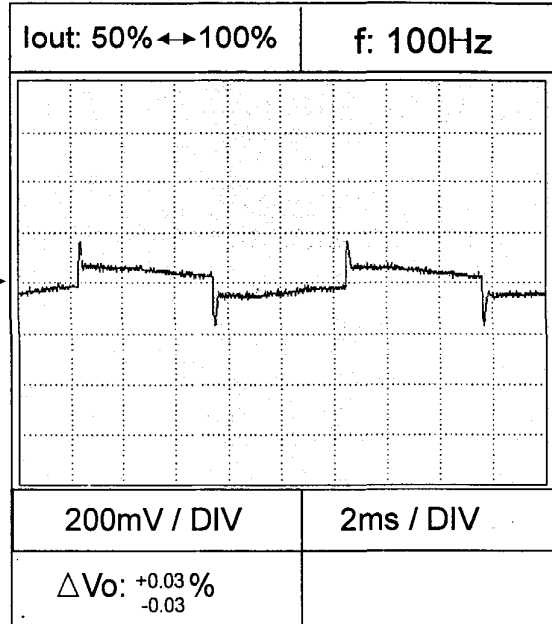
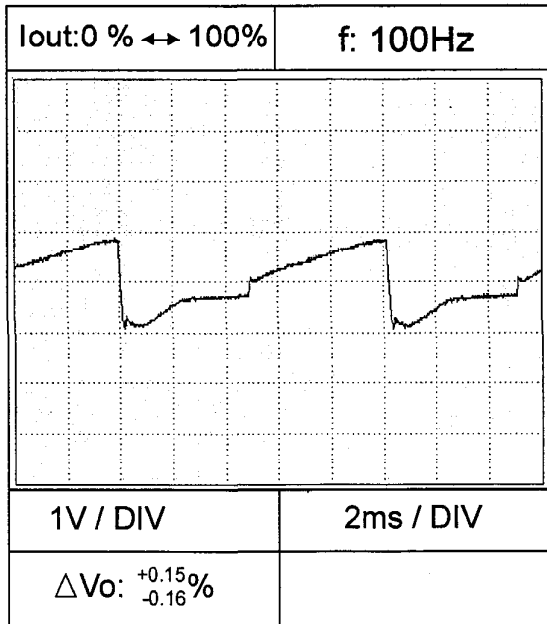
Vout

Dynamic Load Response Characteristics
Constant Voltage Mode

GEN750

Conditions : V_{in} : 100VAC
 V_{out} : 100%
 Load current $t_r = t_f = 100\mu s$
 T_a : 25°C

GEN600-1.3



Dynamic Load Response Characteristics
Constant Current Mode

GEN750

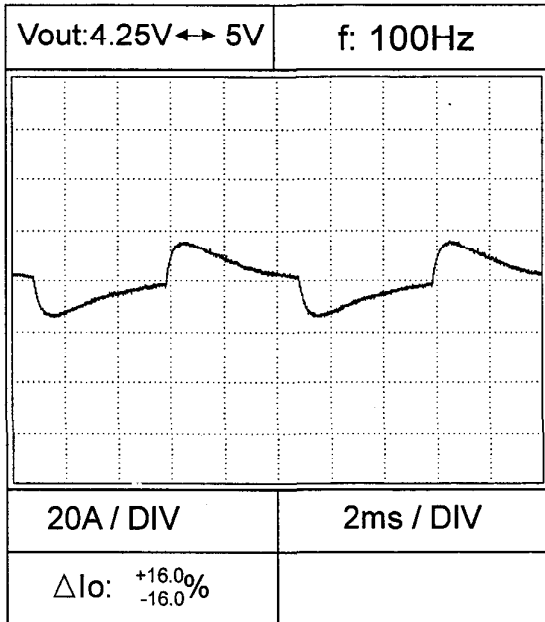
Conditions : $V_{in} : 100VAC$

Load current $t_r = t_f = 100\mu s$

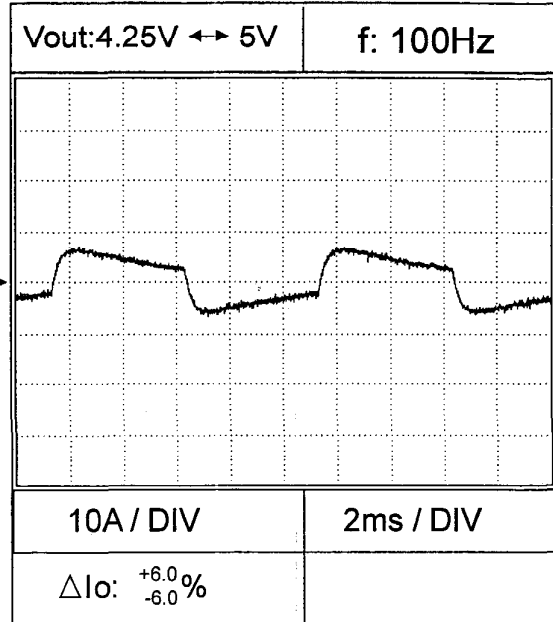
$T_a : 25^{\circ}C$

GEN6-100

$I_{out} : 100A$

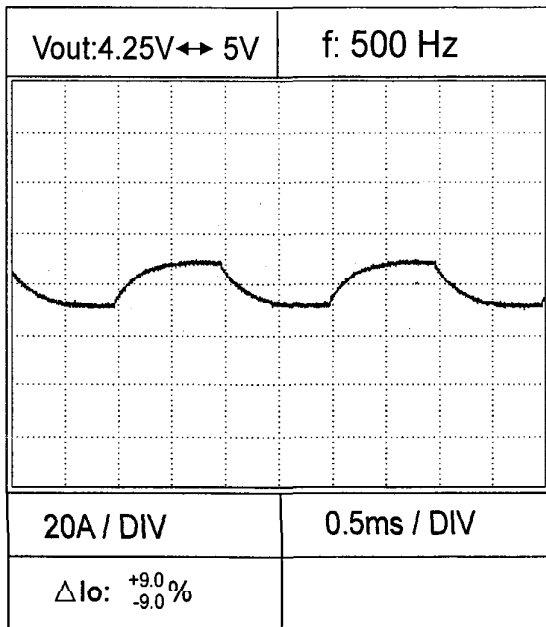


$I_{out} : 50A$

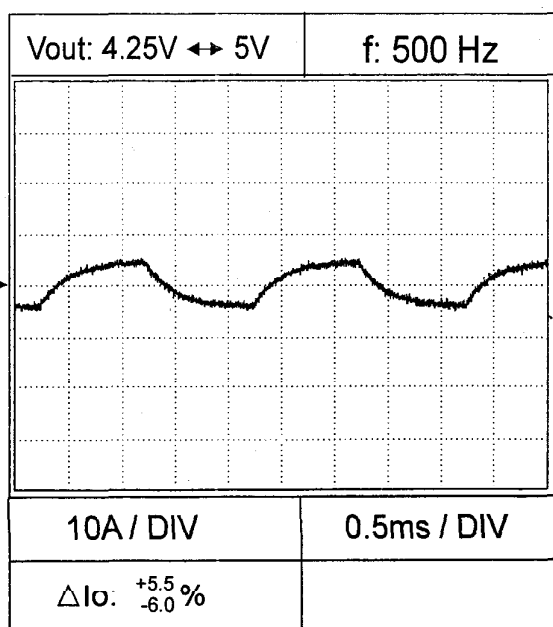


I_{out}

$I_{out} : 100A$



$I_{out} : 50A$



I_{out}

Dynamic Load Response Characteristics
Constant Current Mode

GEN750

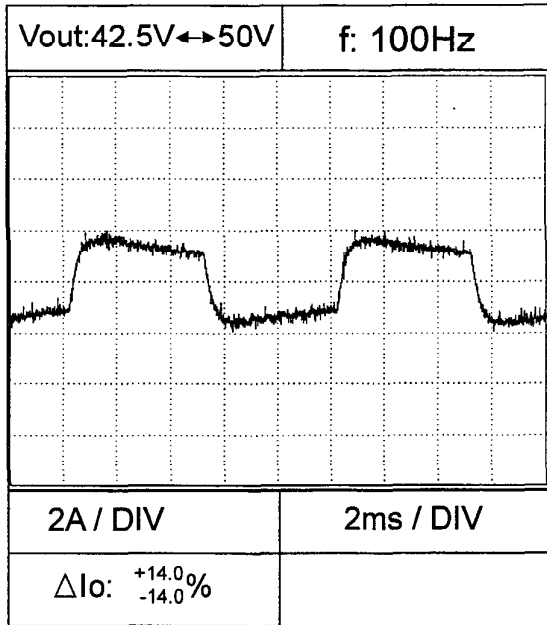
Conditions : $V_{in} : 100VAC$

Load current $t_r = t_f = 100\mu s$

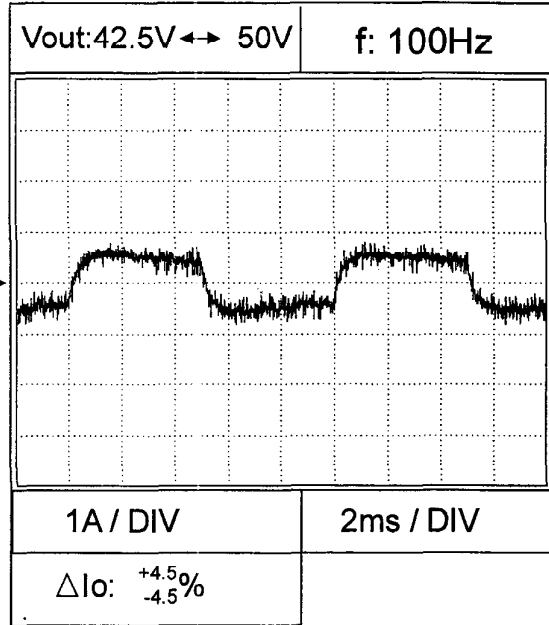
$T_a : 25^\circ C$

GEN60-12.5

$I_{out} : 12.5A$

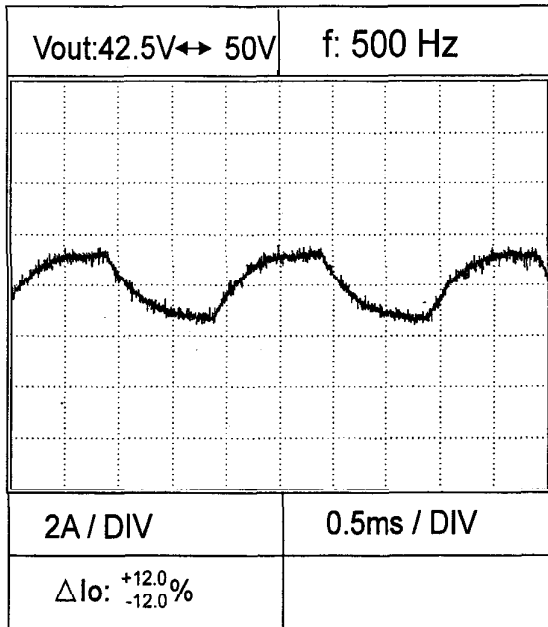


$I_{out} : 6.25A$

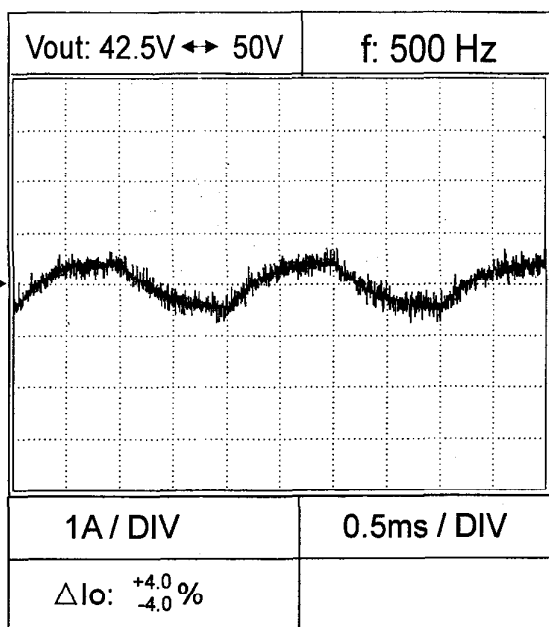


← Iout

$I_{out} : 12.5A$



$I_{out} : 6.25A$



← Iout

Dynamic Load Response Characteristics
Constant Current Mode

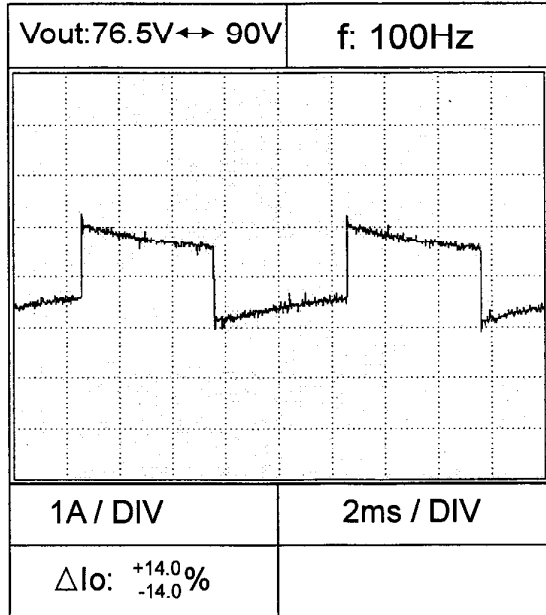
GEN750

Conditions : V_{in} :100VAC

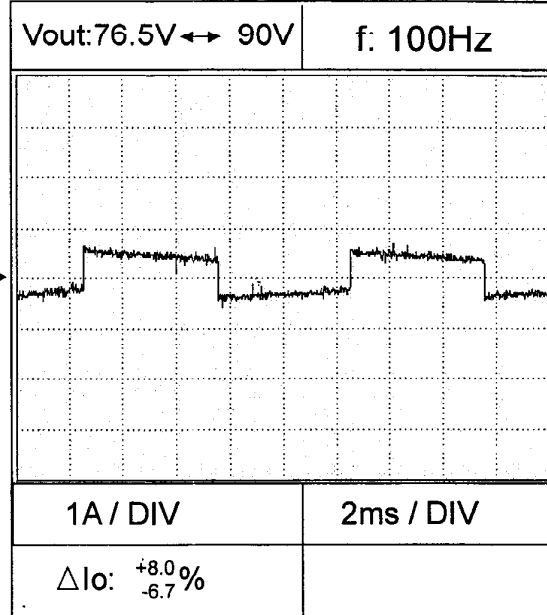
Load current $t_r = t_f = 100\mu s$
 T_a :25°C

GEN100-7.5

I_{out} :7.5A

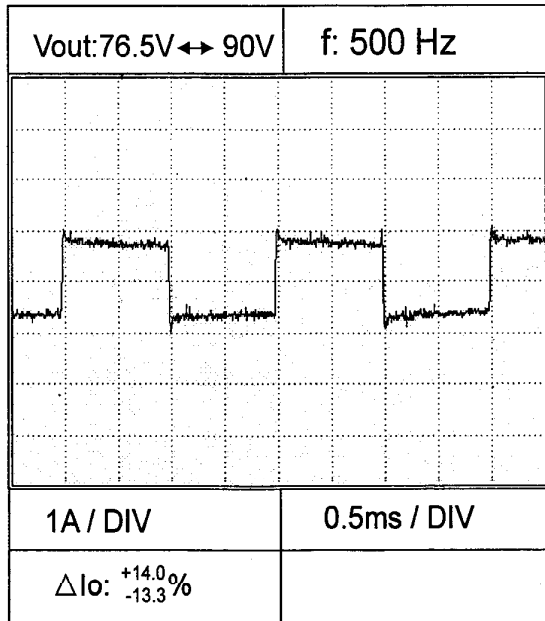


I_{out} :3.75A

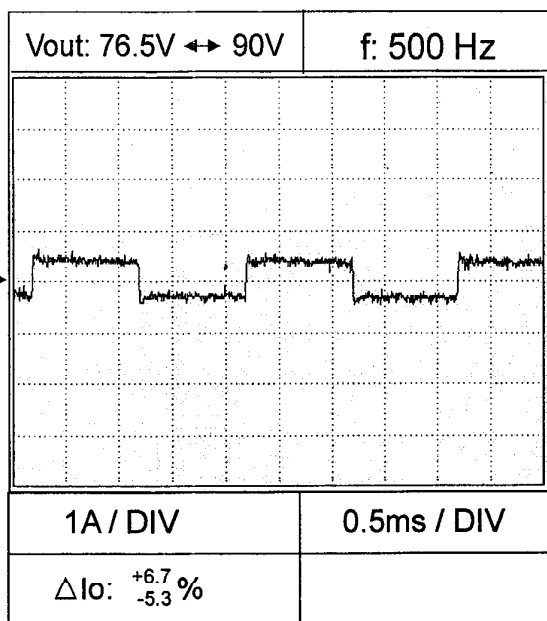


↔ I_{out}

I_{out} :7.5A



I_{out} :3.75A



↔ I_{out}

Dynamic Load Response Characteristics
Constant Current Mode

GEN750

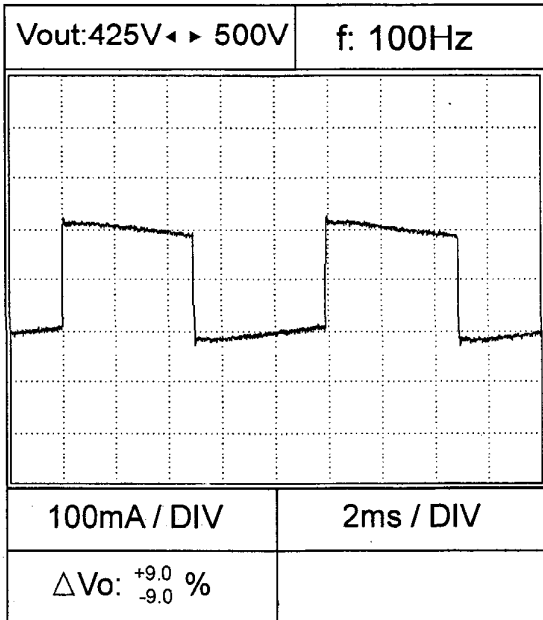
Conditions : $V_{in} : 100VAC$

Load current $t_r = t_f = 100\mu s$

$T_a : 25^\circ C$

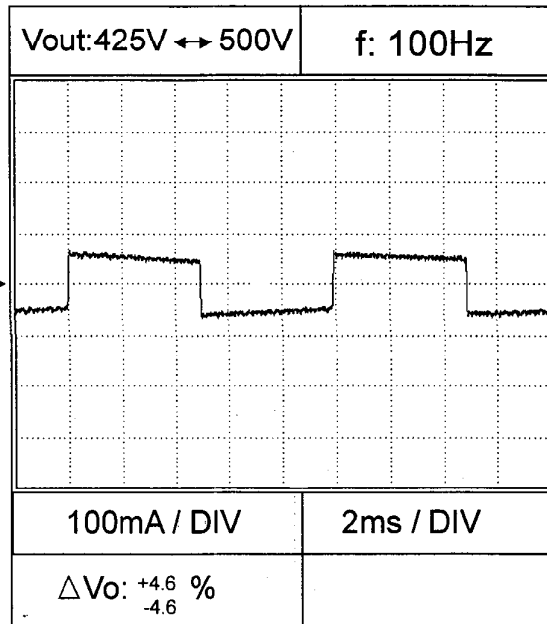
GEN600-1.3

$I_{out} : 1.3A$

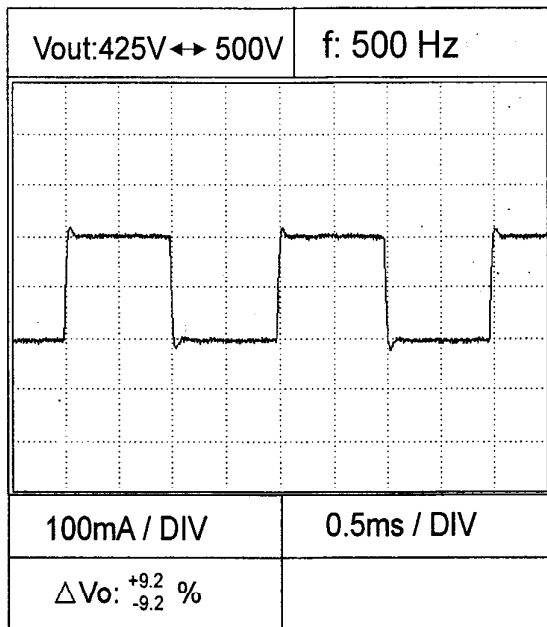


I_{out}

$I_{out} : 0.65A$

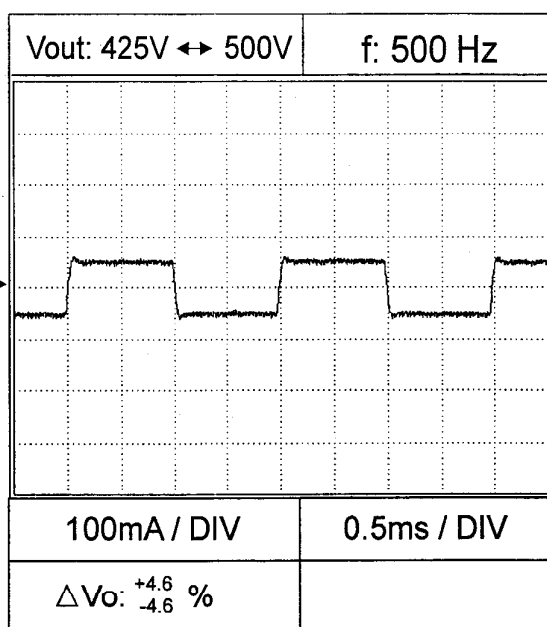


$I_{out} : 1.3A$



I_{out}

$I_{out} : 0.65A$

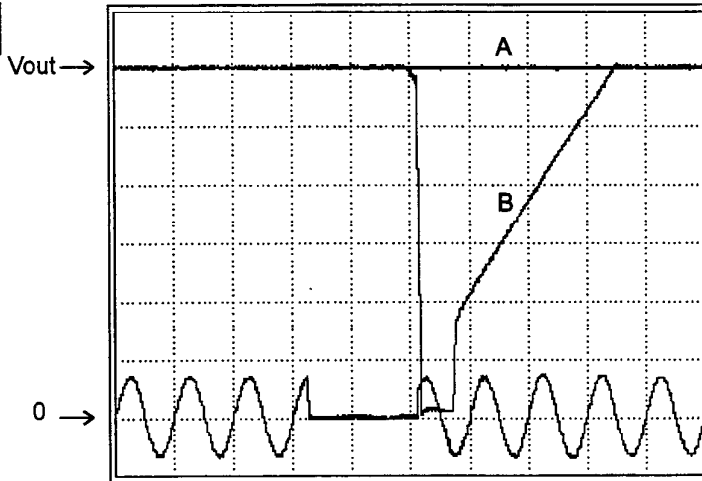


2-9. Response to Brown-out Characteristics Constant Voltage Mode

GEN750

Conditions V_{in} : 100VAC
 V_{out} : 100%
 I_{out} : 100%
 T_a : 25°C

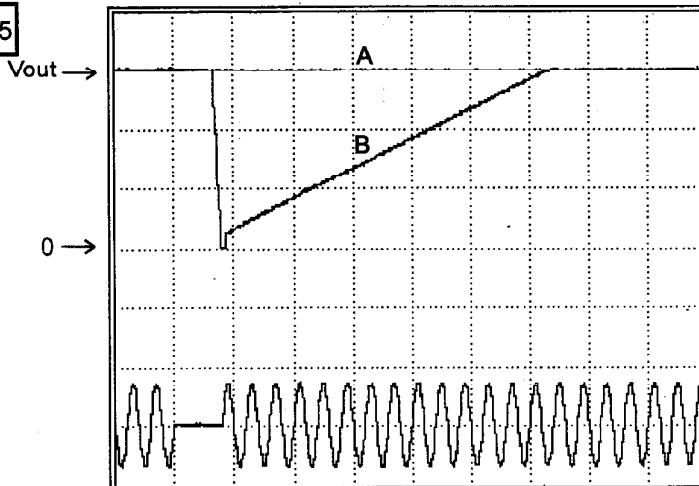
GEN6-100



Brown-out Time
A-28mS
B-37mS

1V/DIV | 20ms/DIV

GEN60-12.5



Brown-out Time
A-26mS
B-28mS

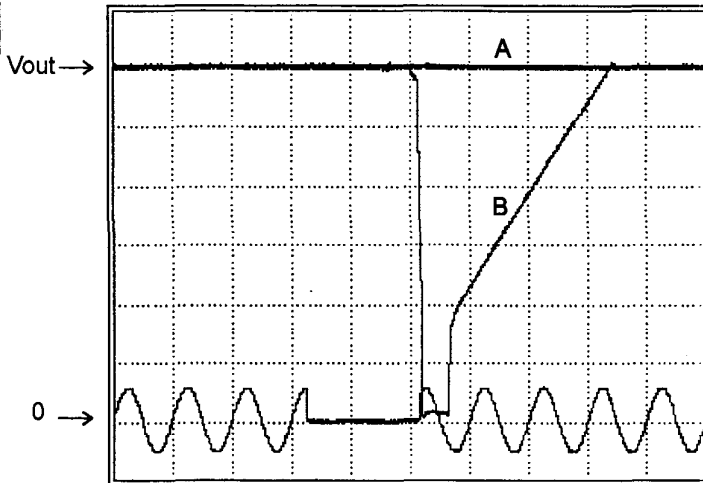
20V/DIV | 50ms/DIV

Response to Brown-out Characteristics Constant Voltage Mode

GEN750

Conditions V_{in} : 200VAC
 V_{out} : 100%
 I_{out} : 100%
 T_a : 25°C

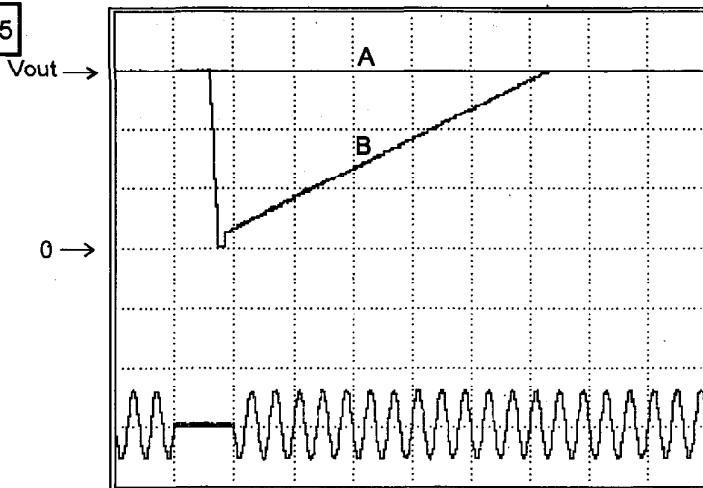
GEN6-100



Brown-out Time
A-26mS
B-38mS

1V/DIV | 20ms/DIV

GEN60-12.5



Brown-out Time
A-28mS
B-30mS

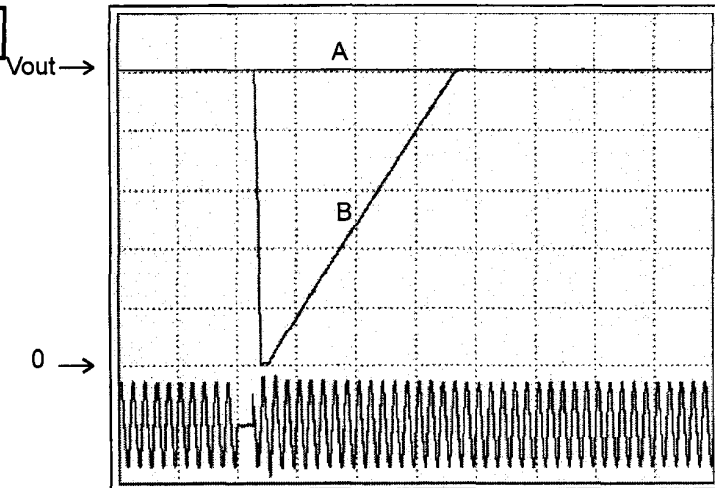
20V/DIV | 50ms/DIV

Response to Brown-out Characteristics
Constant Voltage Mode

GEN750

Conditions Vin: 100VAC
Vout: 100%
Iout: 100%
Ta: 25°C

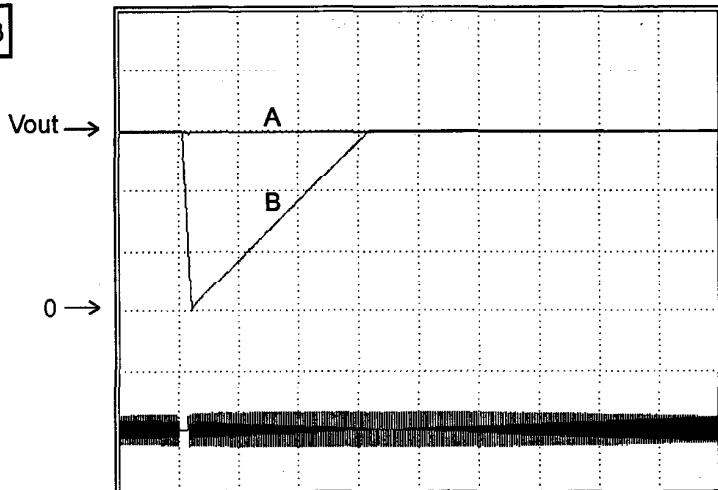
GEN100-7.5



Brown-out Time
A-27mS
B-29mS

20V/DIV 100ms/DIV

GEN600-1.3



Brown-out Time
A-22mS
B-74mS

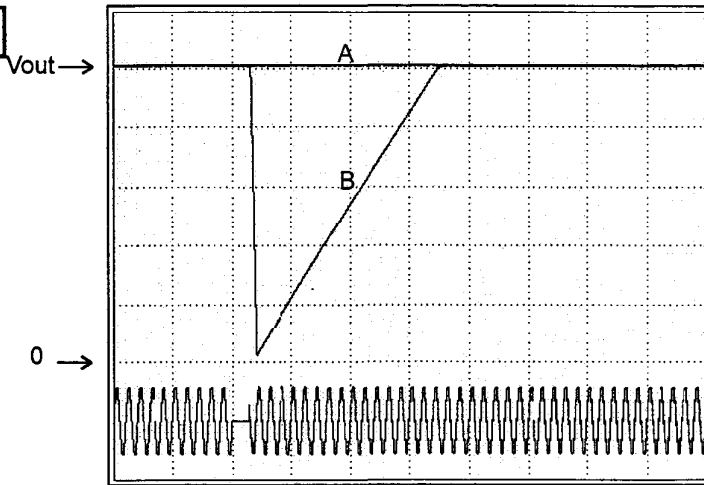
200V/DIV 500ms/DIV

Response to Brown-out Characteristics
Constant Voltage Mode

GEN750

Conditions V_{in} : 200VAC
 V_{out} : 100%
 I_{out} : 100%
 T_a : 25°C

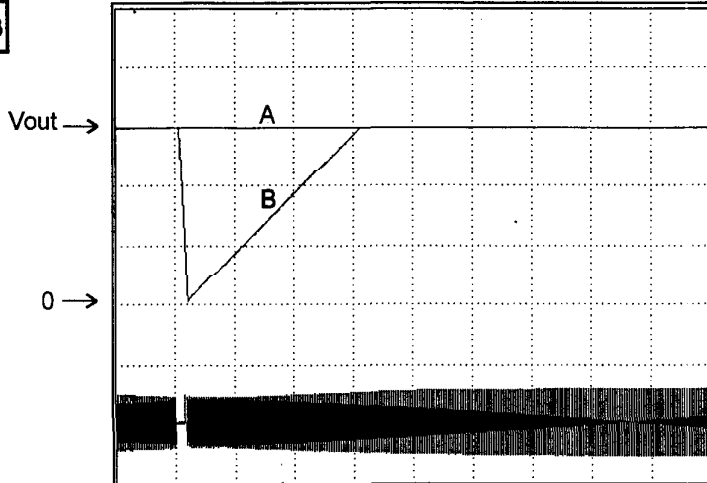
GEN100-7.5



Brown-out Time
A-28mS
B-30mS

20V/DIV | 100ms/DIV

GEN600-1.3



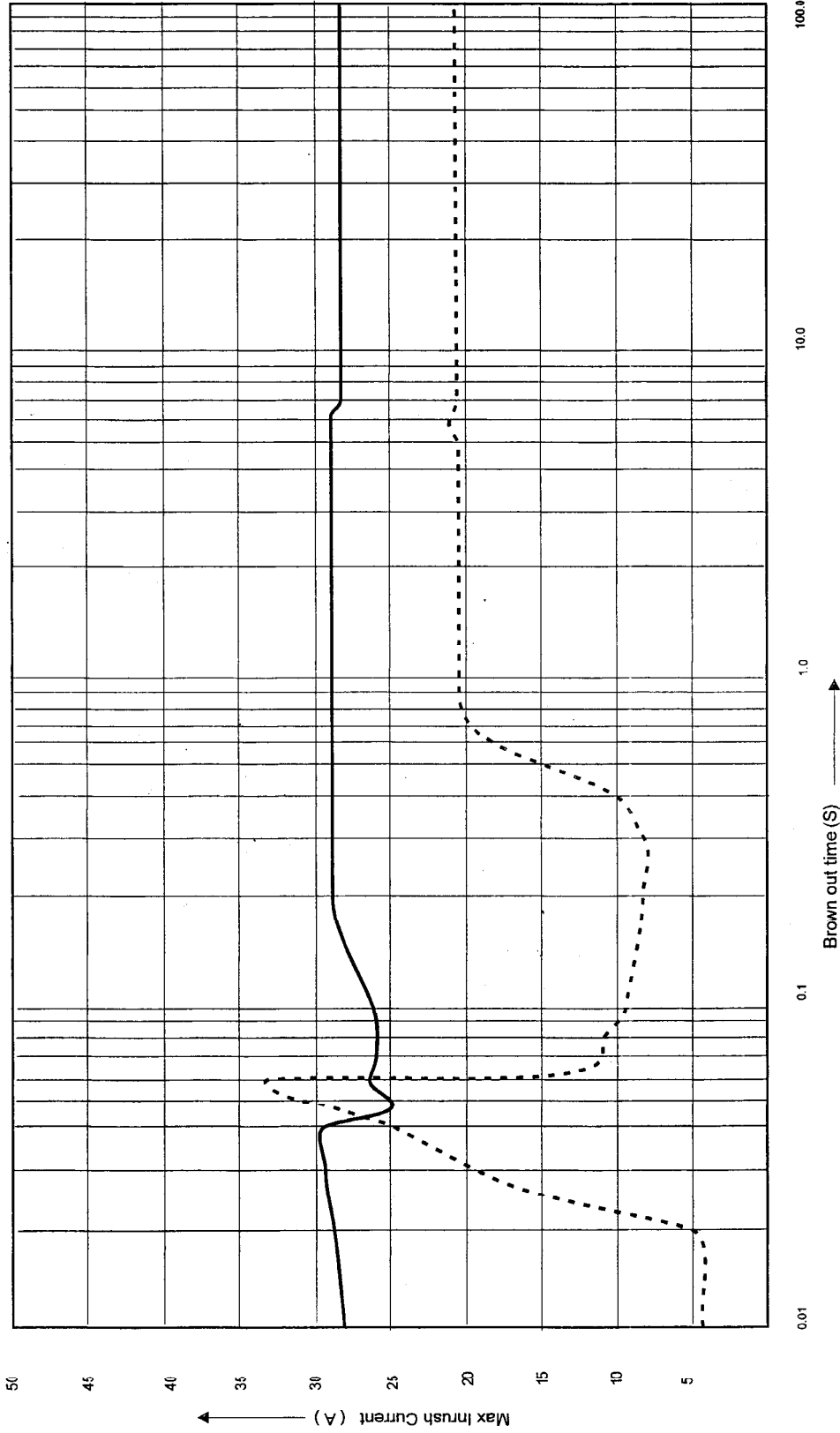
Brown-out Time
A-23mS
B-81mS

200V/DIV | 500ms/DIV

2 -10. Inrush Current Characteristic

GEN750

Conditions: Vout: 100%
Iout: 0% -----
Iout: 100% ————
Vin : 100VAC
Ta : 25°C



NEMIC-LAMBDA

T-62

Inrush Current Characteristic

GEN750

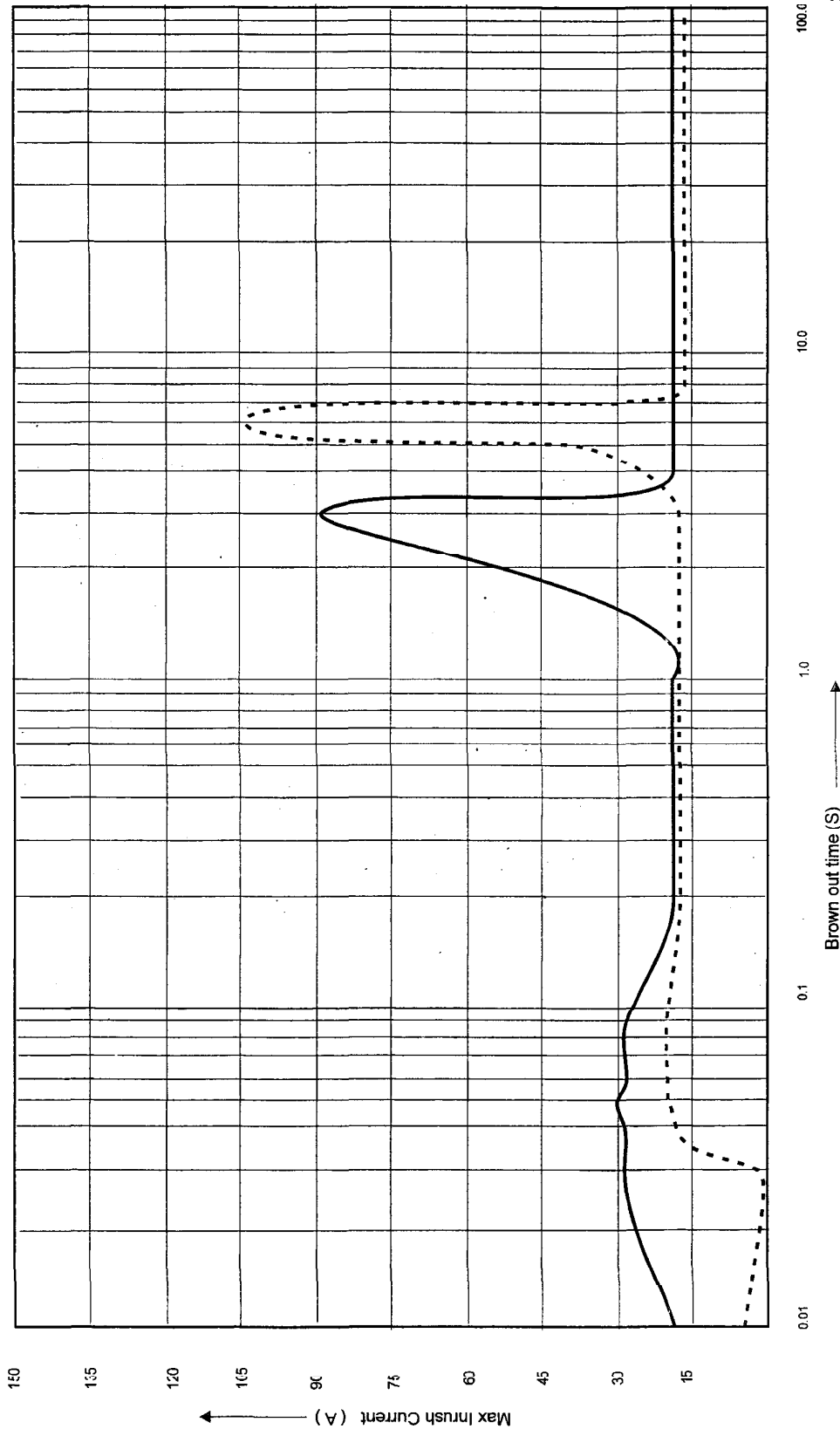
Conditions: Vout: 100%

Iout: 0% -----

Iout: 100% ————

Vin : 200VAC

Ta : 25°C



NEMIC-LAMBDA

T-63

2-11. Inrush Current Waveform

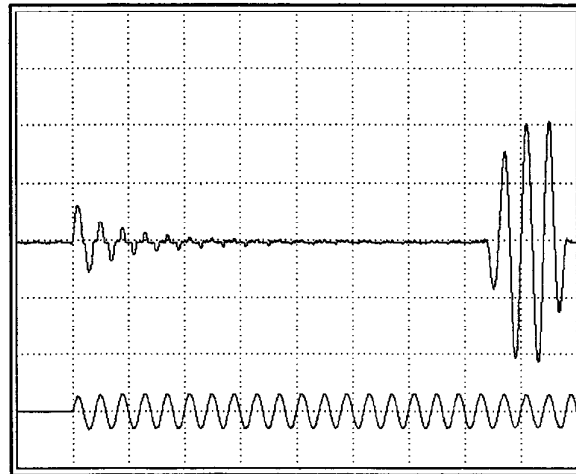
GEN750

Conditions: V_{in} : 100VAC
 V_{out} : 100%
 I_{out} : 100 %
 T_a : 25°C

GEN6-100

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 0^\circ$$

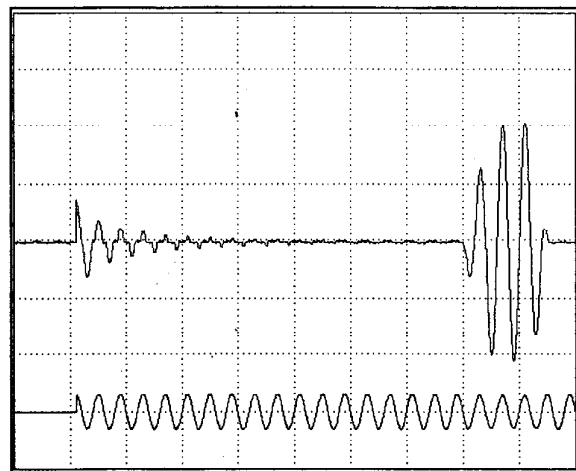


10A/DIV 50ms/DIV

GEN6-100

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 90^\circ$$



10A/DIV 50ms/DIV

Inrush Current Waveform
Constant Voltage Mode

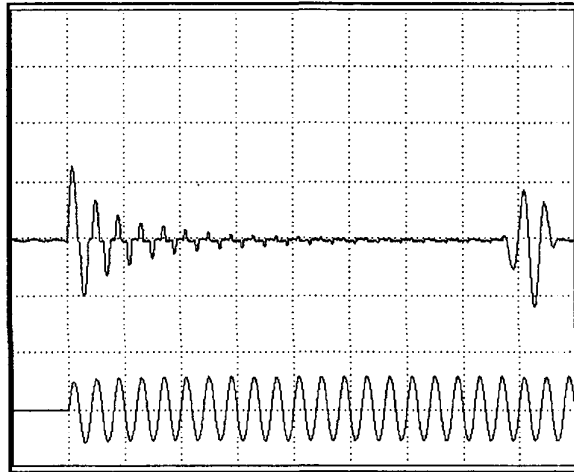
GEN750

Conditions: V_{in} : 200VAC
 V_{out} : 100%
 I_{out} : 100 %
 T_a : 25°C

GEN6-100

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 0^\circ$$



← I_{in}

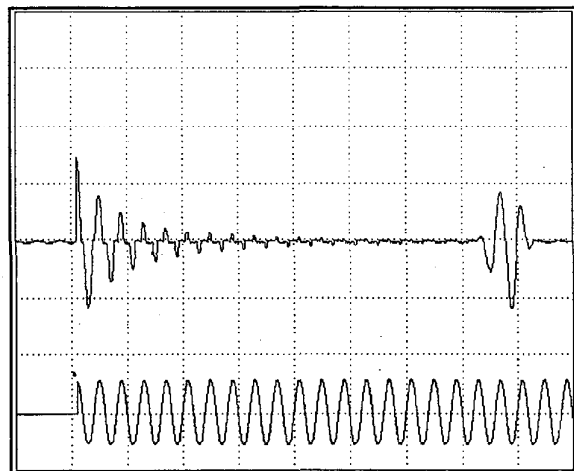
← V_{in}

10A/DIV 50ms/DIV

GEN6-100

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 90^\circ$$



← I_{iu}

← V_{in}

10A/DIV 50ms/DIV

Inrush Current Waveform

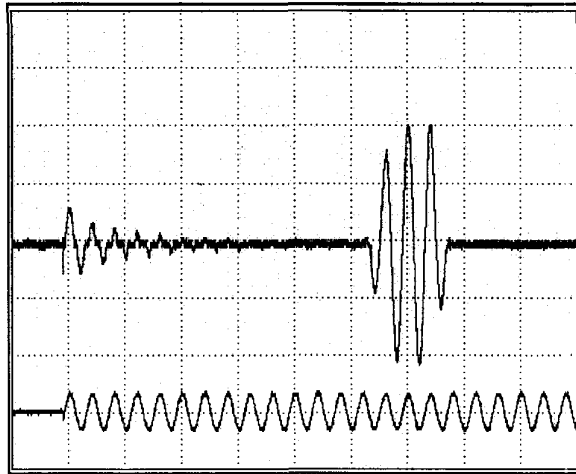
GEN750

Conditions: V_{in} : 100VAC
 V_{out} : 100%
 I_{out} : 100 %
 T_a : 25°C

GEN100-7.5

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 0^\circ$$



← I_{in}

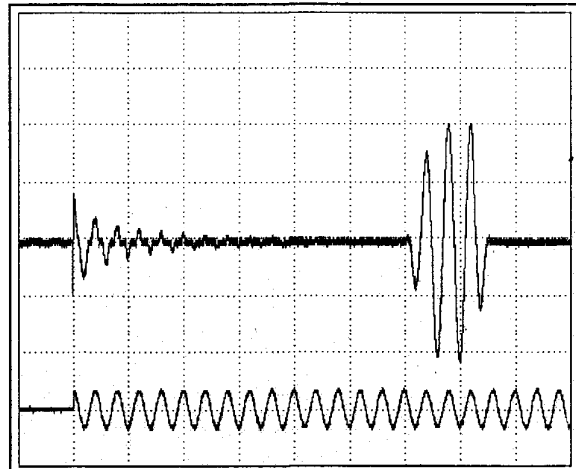
← V_{in}

10A/DIV 50ms/DIV

GEN100-7.5

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 90^\circ$$



← I_{in}

← V_{in}

10A/DIV 50ms/DIV

Inrush Current Waveform

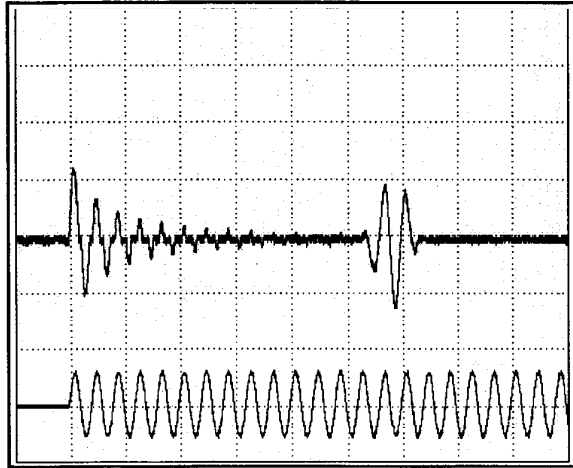
GEN750

Conditions: V_{in} : 200VAC
 V_{out} : 100%
 I_{out} : 100 %
 T_a : 25°C

GEN100-7.5

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 0^\circ$$



← I_{in}

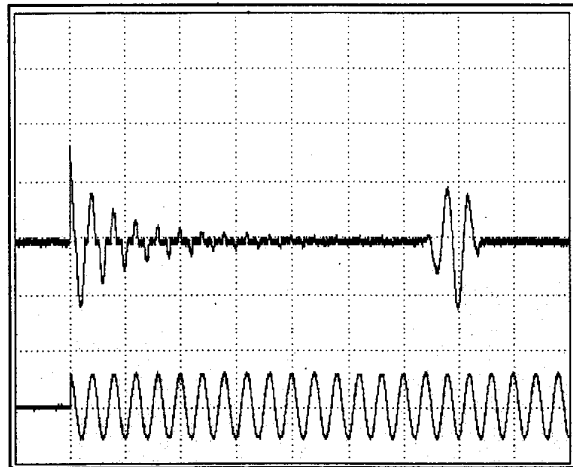
← V_{in}

10A/DIV | 50ms/DIV

GEN100-7.5

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 90^\circ$$



← I_{in}

← V_{in}

10A/DIV | 50ms/DIV

Inrush Current Waveform

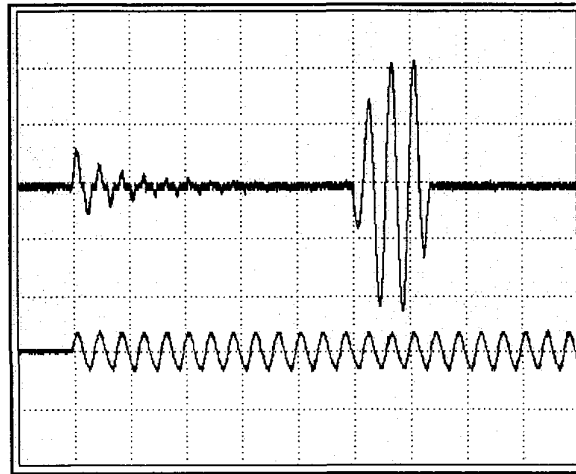
GEN750

Conditions: V_{in} : 100VAC
 V_{out} : 100%
 I_{out} : 100 %
 T_a : 25°C

GEN600-1.3

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 0^\circ$$

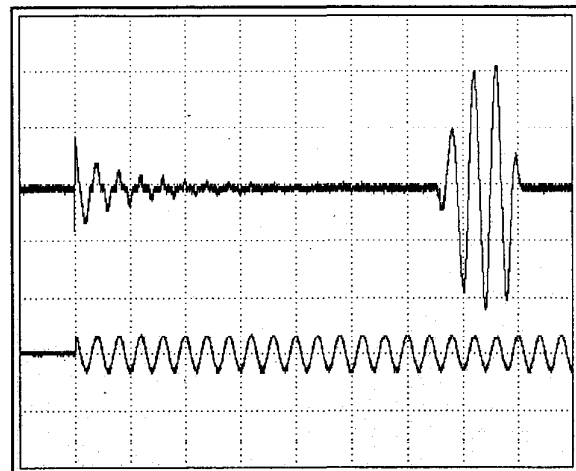


10A/DIV 50ms/DIV

GEN600-1.3

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 90^\circ$$



10A/DIV 50ms/DIV

Inrush Current Waveform

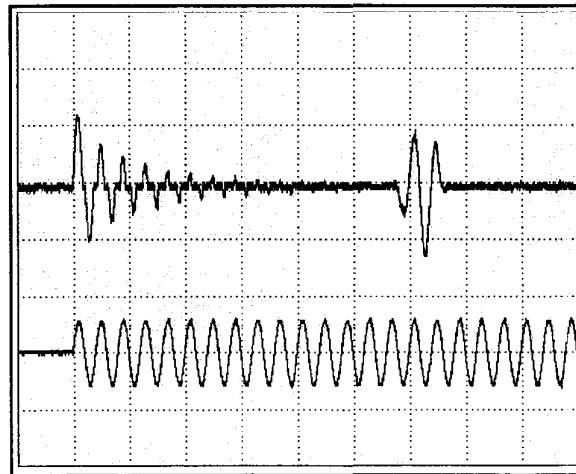
GEN750

Conditions: V_{in} : 200VAC
 V_{out} : 100%
 I_{out} : 100 %
 T_a : 25°C

GEN600-1.3

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 0^\circ$$

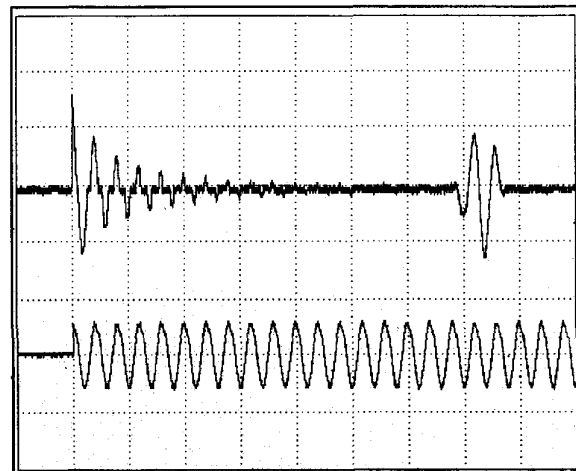


10A/DIV | 50ms/DIV

GEN600-1.3

SWITCH ON PHASE
ANGLE OF INPUT
AC VOLTAGE

$$\phi = 90^\circ$$

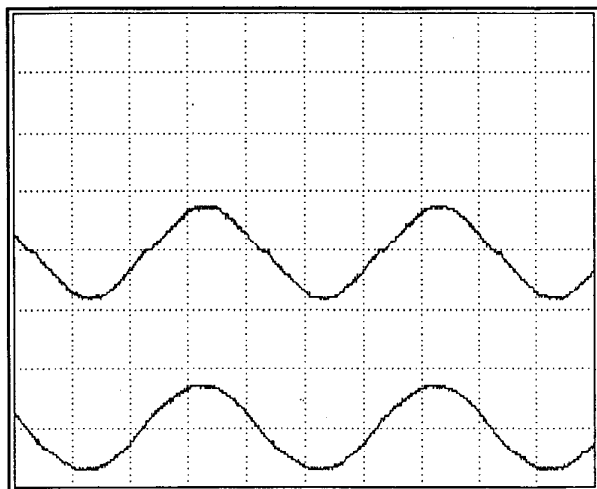


10A/DIV | 50ms/DIV

2-12. Input Current Waveform

GEN750

Conditions: V_{in} : 100VAC
 V_{out} : 100%
 I_{out} : 100 %
 T_a : 25°C

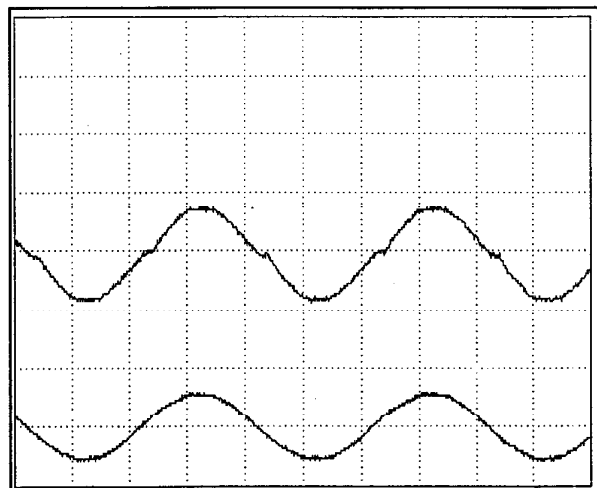


← I_{in}

← V_{in}

20A/DIV | 5ms/DIV

Conditions: V_{in} : 200VAC
 V_{out} : 100%
 I_{out} : 100 %
 T_a : 25°C



← I_{in}

← V_{in}

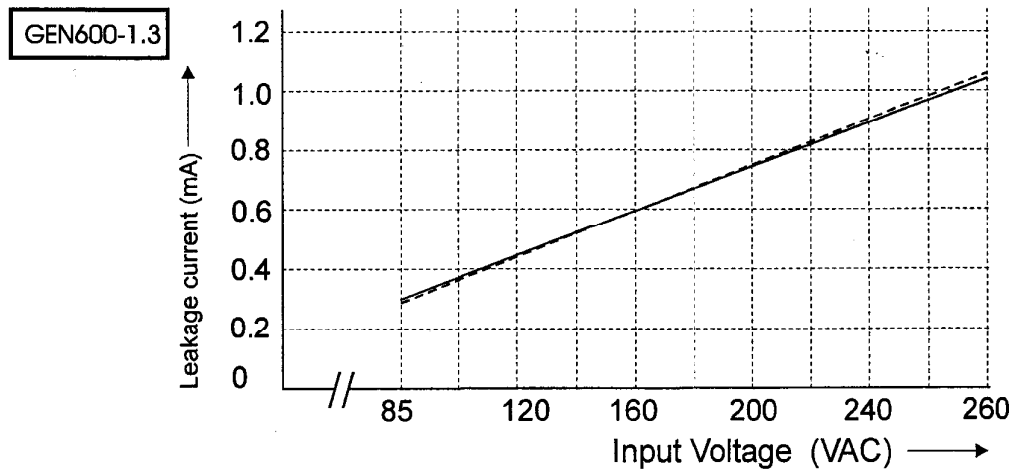
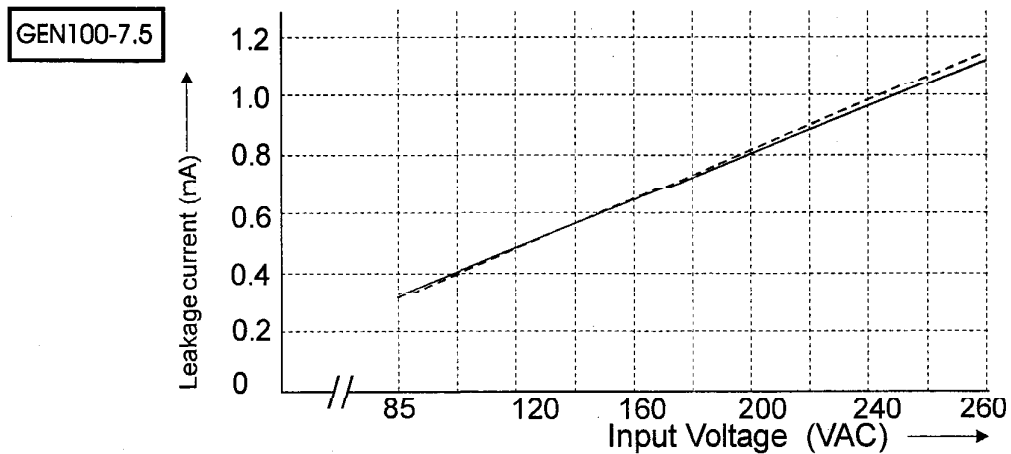
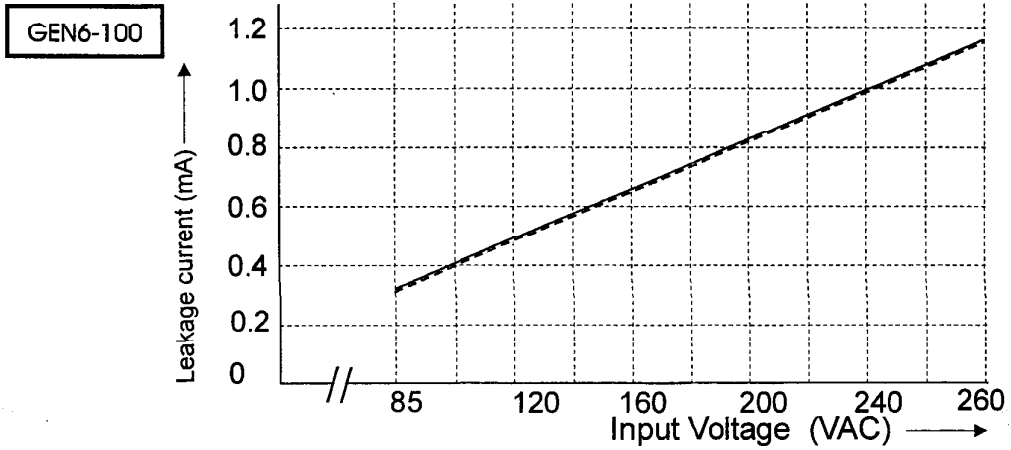
10A/DIV | 5ms/DIV

2-13. Leakage current characteristics

GEN750

Conditions: Vout:100%
 Iout: 100% ———
 0% - - - -
 Ta:25°C

LINE-GND.

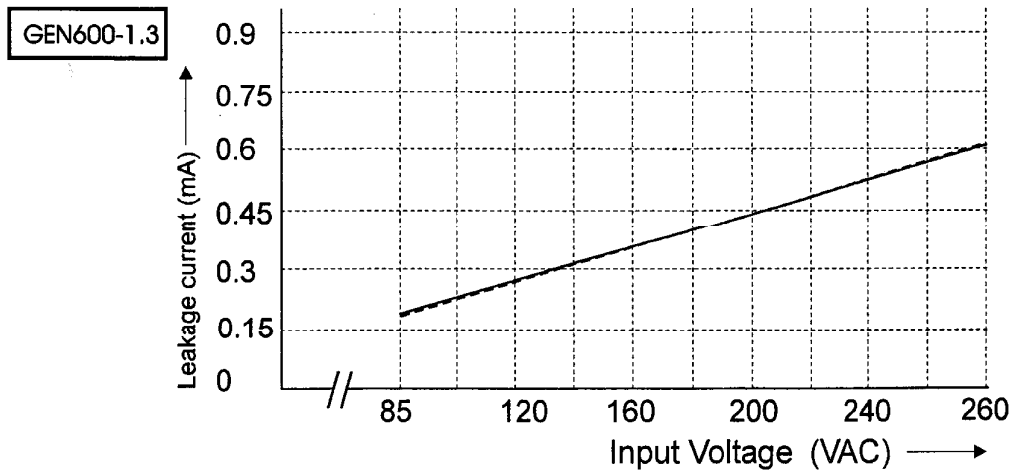
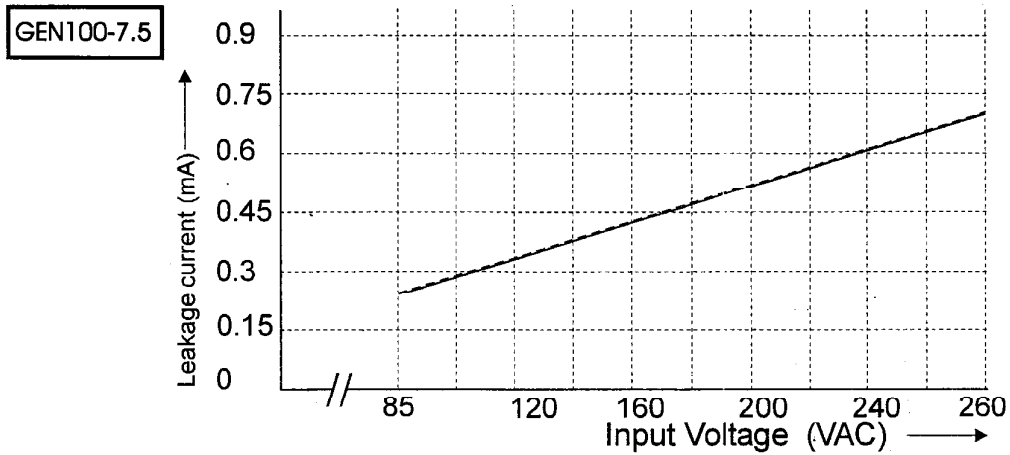
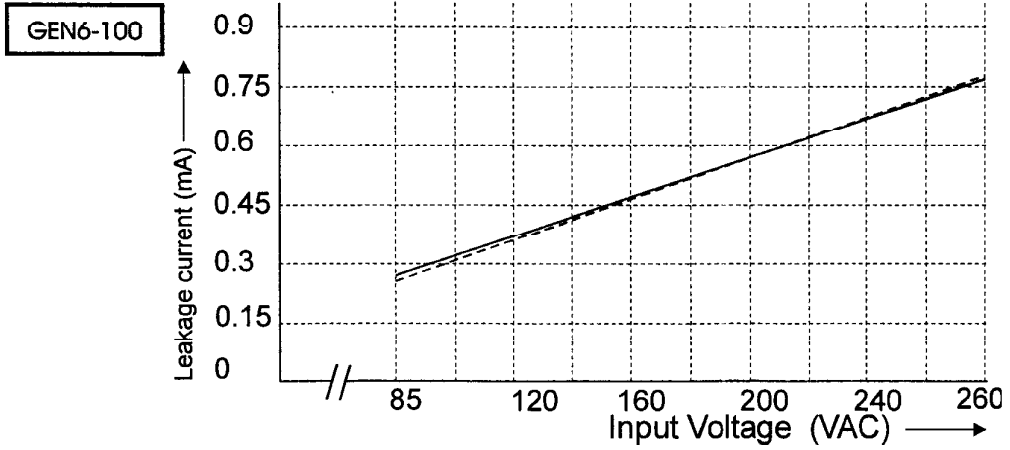


Leakage current characteristics

GEN750

Conditions: Vout:100%
Iout: 100% ———
 0% - - - - -
Ta:25°C

NEUTRAL-GND.



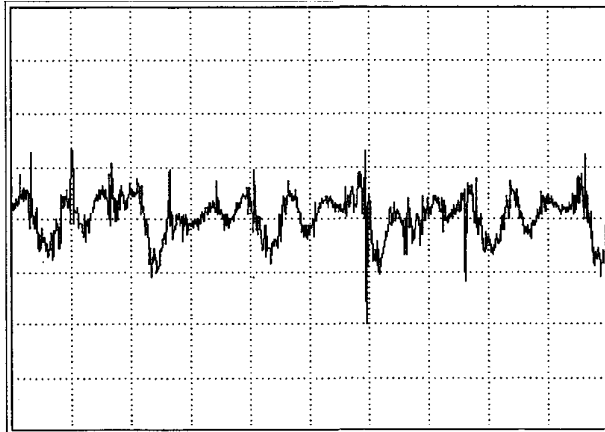
2-14. Output Ripple & Noise waveform
Constant Voltage Mode

GEN750

Normal Mode

Conditions: V_{in} :85-265VAC
 V_{out} : 100%
 I_{out} :100 %
 T_a :25°C

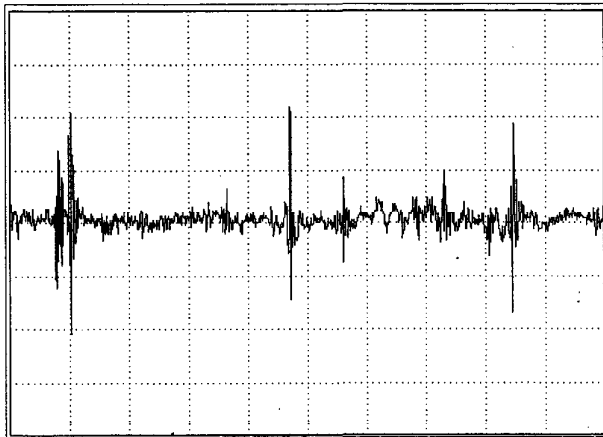
GEN6-100



← V_{out}

10mV/DIV | 2µs/DIV

GEN60-12.5



← V_{out}

10mV/DIV | 1µs/DIV

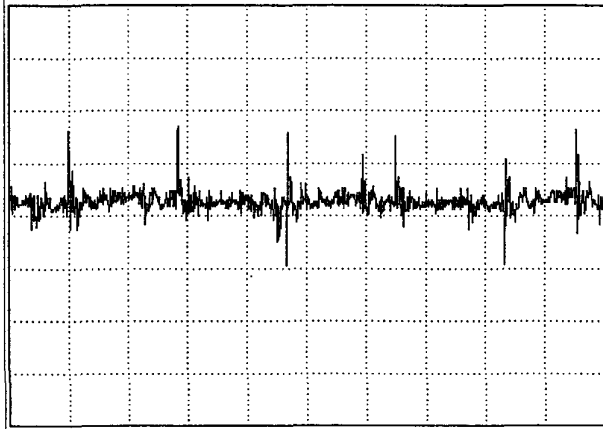
Output Ripple & Noise waveform
Constant Voltage Mode

GEN750

Normal Mode

Conditions: V_{in} :85-265VAC
 V_{out} : 100%
 I_{out} :100 %
 T_a :25°C

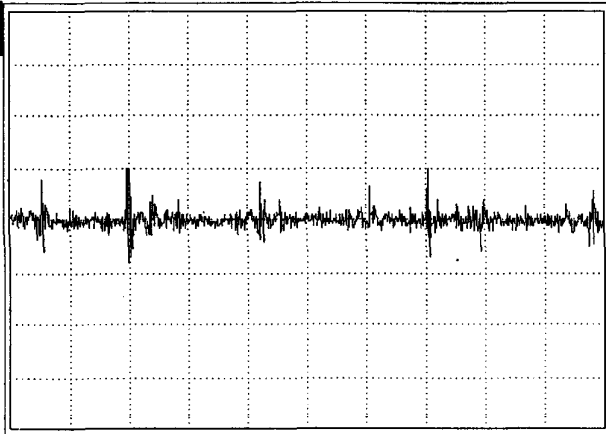
GEN100-7.5



← Vout

10mV/DIV 2μs/DIV

GEN600-1.3



← Vout

50mV/DIV 2μs/DIV

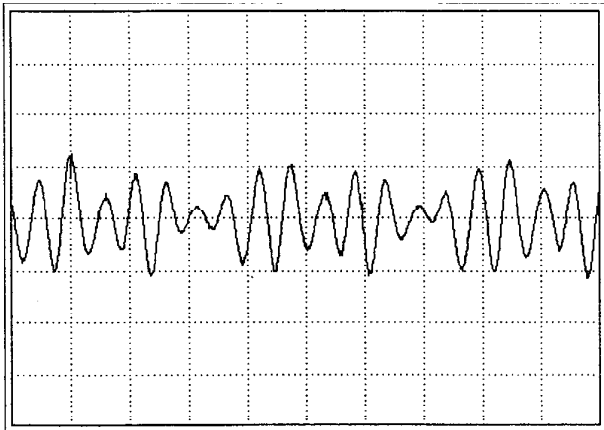
Output Ripple & Noise waveform
Constant Voltage Mode

GEN750

Normal & Common Mode

Conditions: V_{in} : 85-265VAC
 V_{out} : 100%
 I_{out} : 100 %
 T_a : 25°C

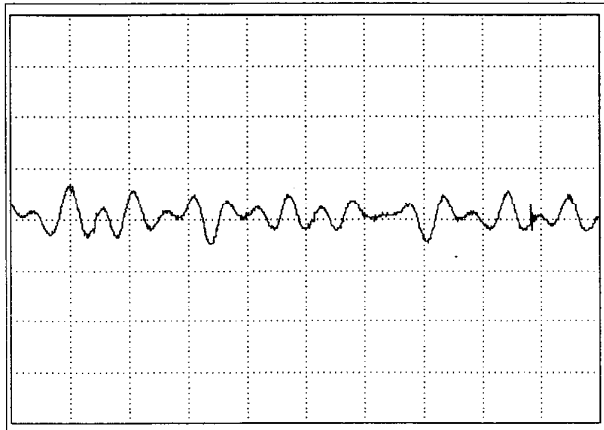
GEN6-100



← V_{out}

20mV/DIV | 2 μ s/DIV

GEN60-12.5



← V_{out}

50mV/DIV | 2 μ s/DIV

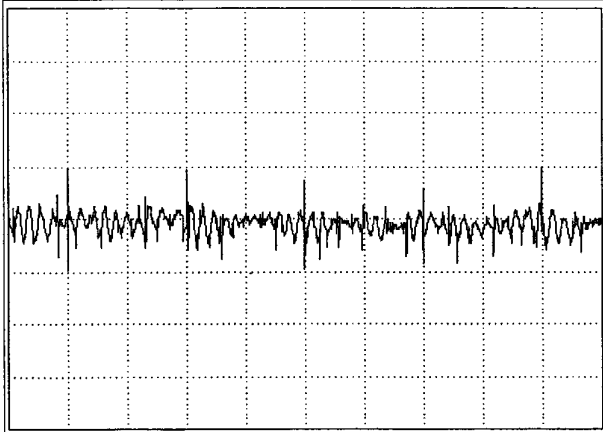
Output Ripple & Noise waveform
Constant Voltage Mode

GEN750

Normal & Common Mode

Conditions: Vin :85-265VAC
Vout: 100%
Iout: 100 %
Ta :25°C

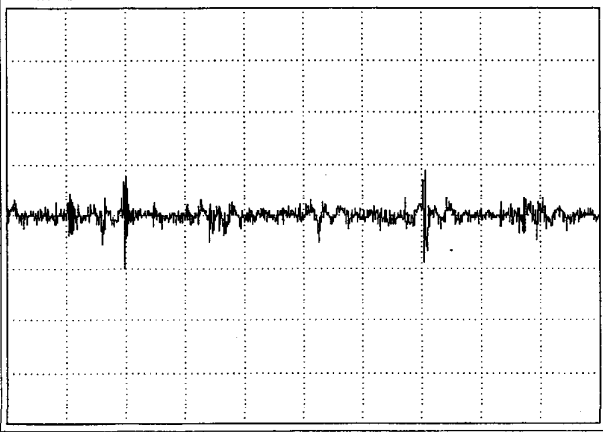
GEN100-7.5



← Vout

10mV/DIV 5μs/DIV

GEN600-1.3



← Vout

50mV/DIV 2μs/DIV