

# JWS75

## EVALUATION DATA

### 型式データ

DWG No. A158-53-01			
承認	承認	査閲	担当
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使用記号 Terminology used

	Definition	
Vin	..... 入力電圧	Input voltage
Vout	..... 出力電圧	Output voltage
Iin	..... 入力電流	Input current
Iout	..... 出力電流	Output current
Ta	..... 周囲温度	Ambient temperature

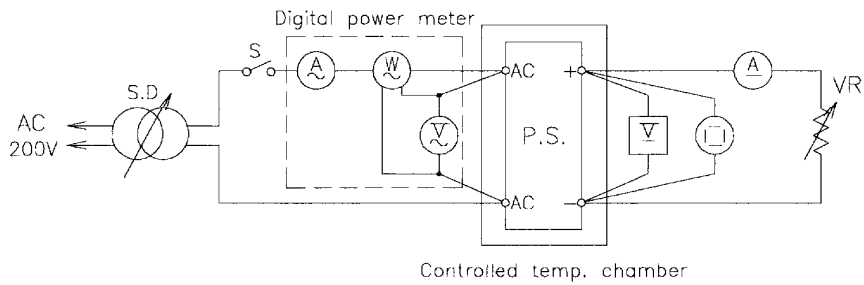
1. 1

測定回路

**Circuit used for determination**

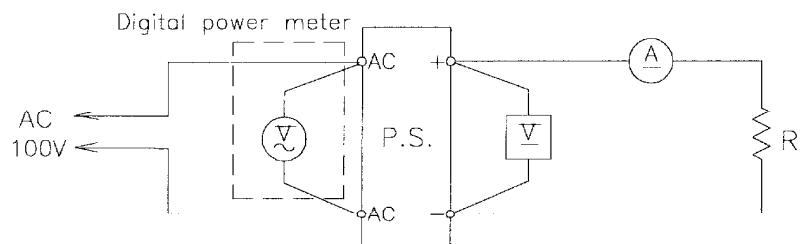
(1) 静特性

Steady state data



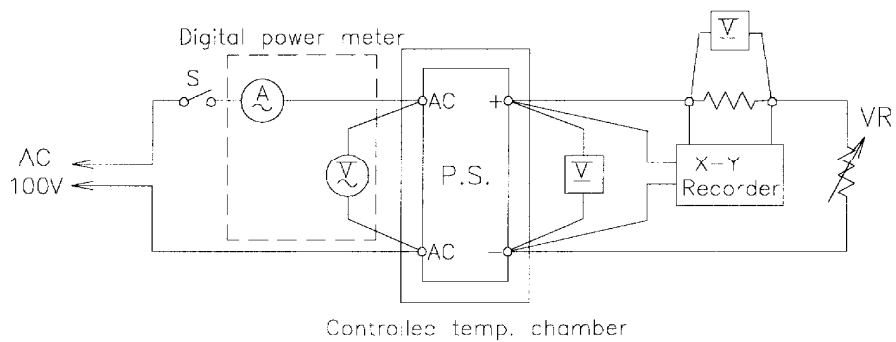
(2) 通電ドリフト特性

Warm up voltage drift characteristics



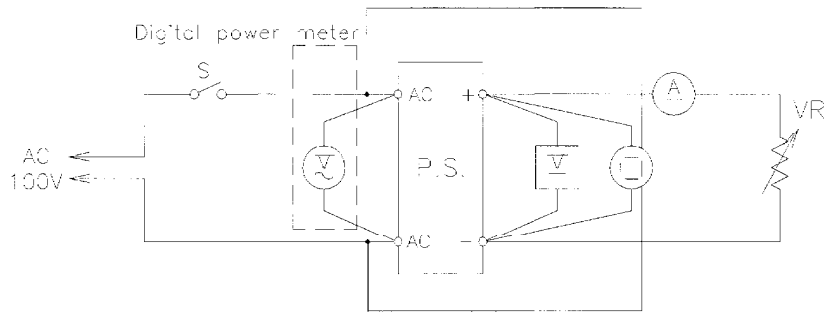
(3) 過電流保護特性

Over current protection (O.C.P.) characteristics



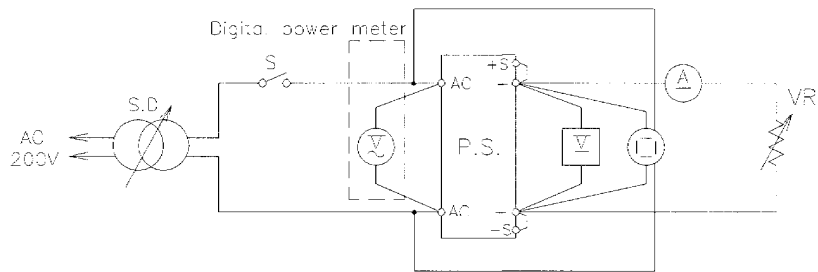
(4) 過電圧保護特性

Over voltage protection (O.V.P.) characteristics



(5) 出力立ち上がり特性

Output rise characteristics



(6) 出力立ち下がり特性

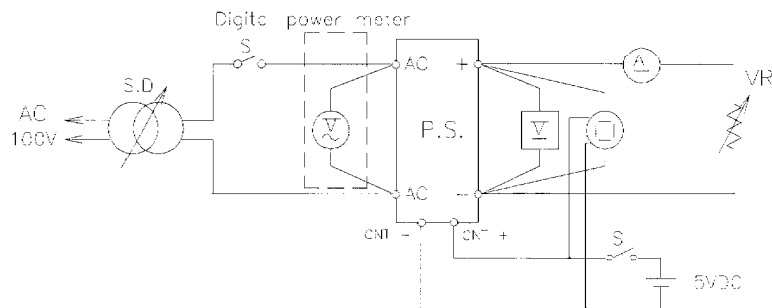
Output fall characteristics

Same as output rise characteristics

(7) 出力立ち上がり特性 (ON/OFFコントロール時)

Output rise characteristics with ON/OFF CONTROL

準標準品 JWS75-\*/R にて対応 For alternative standard model JWS75-\*/R



(8) 出力立ち下がり特性 (ON/OFFコントロール時)

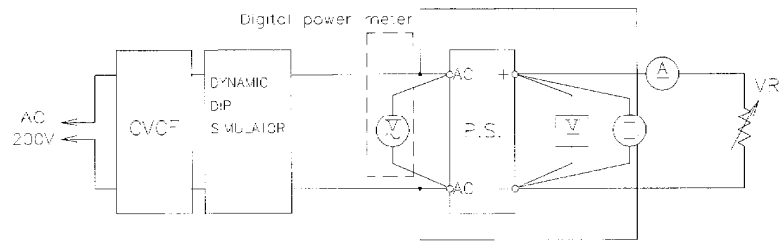
Output fall characteristics with ON/OFF CONTROL

準標準品 JWS75-\*/R に対応 For alternative standard model JWS75-\*/R

Same as output rise characteristics with ON/OFF CONTROL

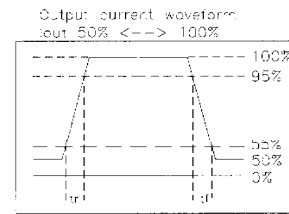
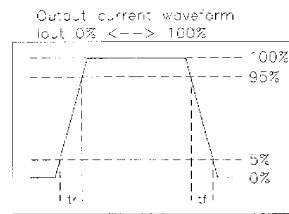
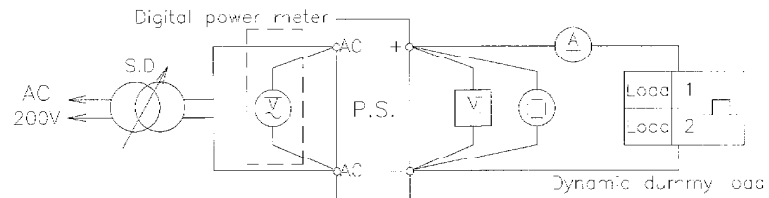
(9) 過渡応答 (入力急変) 特性

Dynamic line response characteristics



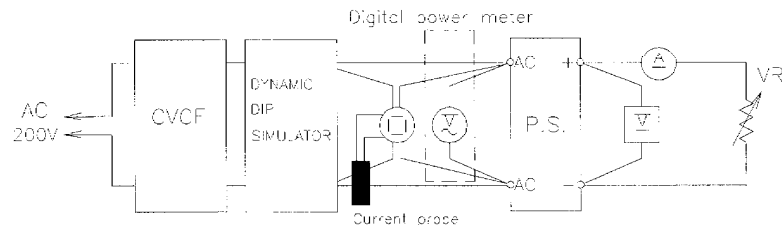
(10) 過渡応答 (負荷急変) 特性

Dynamic load response characteristics



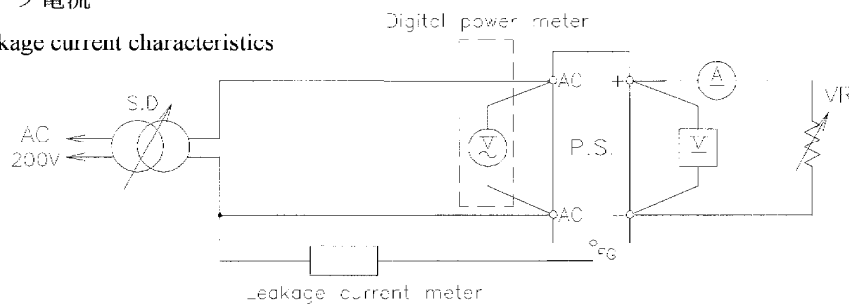
(11) 入力サージ電流 (突入電流) 特性

Inrush current characteristics



(12) リーク電流

Leakage current characteristics

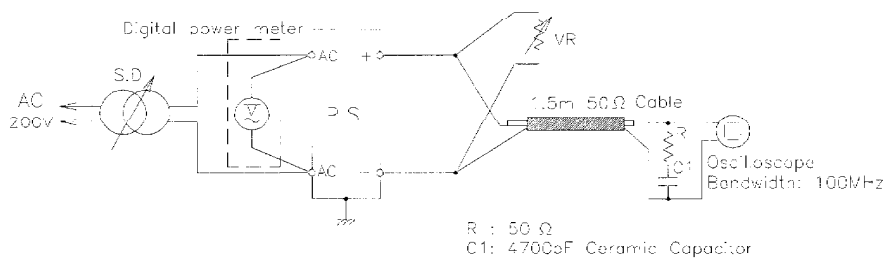


NOTE : For YOKOGAWA TYPF3226  
 Leakage current measured through a 1kΩ resistor.  
 Range used---AC+DC

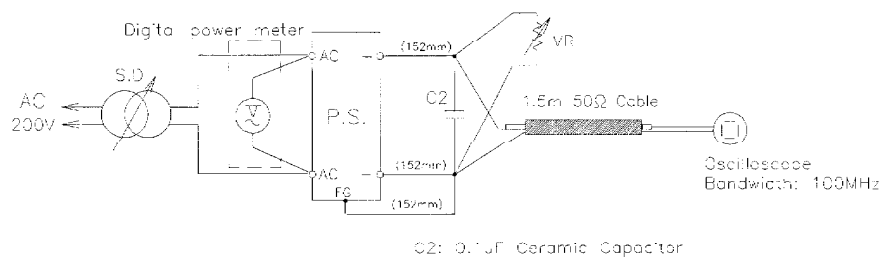
(13) 出カリップルノイズ

Output ripple noise

(a) Normal Mode



(b) Normal + Common Mode

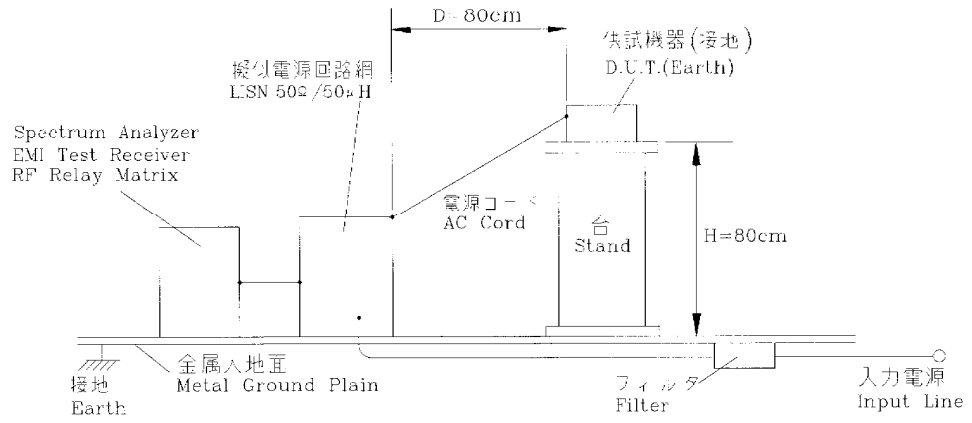


(14) EMI 特性

Electro-Magnetic Interference characteristics

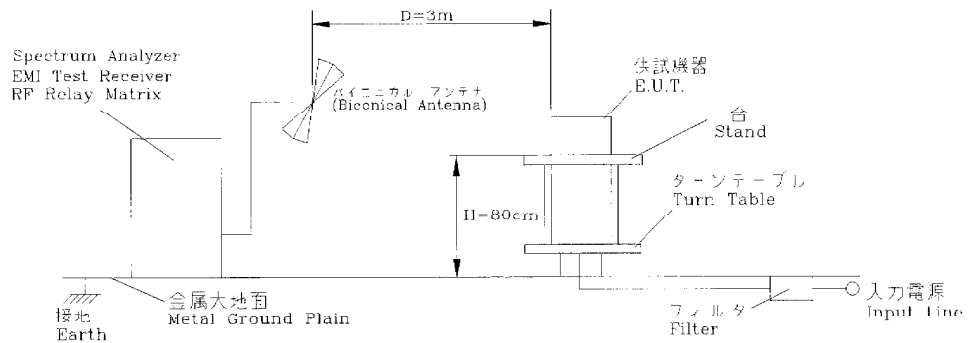
(a) 雑音端子電圧 (帰還ノイズ)

Conducted Emission Noise



(b) 雑音電界強度 (輻射ノイズ)

Radiated Emission Noise





## 1.2 使用測定機器 LIST OF EQUIPMENT USED

	EQUIPMENT USED	MANUFACTURER	MODEL NO.
1	OSCILLOSCOPE	HITACHI DENSHI	V-1050F
2	DIGITAL STORAGE OSCILLOSCOPE	TEKTRONIX	TDS540B
3	DIGITAL MULTIMETER	ADVANTEST	R6341A
4	DIGITAL POWER METER	YOKOGAWA ELECT.	WT110
5	DC AMPERE METER	YOKOGAWA ELECT.	TYPE2051
6	CURRENT PROBE/AMPLIFIER	TEKTRONIX	A6303/AM503
7	DYNAMIC DUMMY LOAD	TAKAMIZAWA	PSA150D
8	SLIDE REGURATOR	MATSUNAGA	S3-3019
9	CVCF	KIKUSUI	PCR6000
10	LEAKAGE CURRENT METER	SIMPSON	229-2
11	LEAKAGE CURRENT METER	YOKOGAWA	TYPE3226
12	X-Y RECORDER	GRAPHTEC	WX4309
13	DYNAMIC DIP SIMULATOR	TAKAMIZAWA CYBERNETICS	PSA-300
14	CONTROLLED TEMP. CHANBER	TABAI ESPEC	SH-240
15	SPECTRUM ANALYZER	ROHDE & SCHWARZ	FSA
16	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESHS10
17	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESVS10
18	RF RELAY MATRIX	ROHDE & SCHWARZ	PSU
19	LISN	KYORITU DENSHI	KNW-242
20	ANTENA(BICONICAL ANTENA)	SCHWARZBECK	BBA9106

2. 特性データ Characteristics

2.1 静特性 Steady state data

(1) 入力、負荷、温度変動 Regulation - line and load, temperature drift

**5V**

1. Regulation - line and load condition Ta : 25°C

Iout \ Vin	85VAC	100VAC	200VAC	265VAC	line regulation	
0%	5.034V	5.034V	5.034V	5.034V	0mV	0.00%
50%	5.019V	5.019V	5.019V	5.019V	0mV	0.00%
100%	5.006V	5.005V	5.006V	5.006V	1mV	0.02%
load regulation	28mV	29mV	28mV	28mV		
	0.56%	0.58%	0.56%	0.56%		

2. Temperature drift conditions Vin=100VAC  
Io =100%

Ta	-10°C	+25°C	+50°C	temperature stability	
Vo	5.010V	5.005V	5.000V	10mV	0.20%

**12V**

1. Regulation - line and load condition Ta : 25°C

Iout \ Vin	85VAC	100VAC	200VAC	265VAC	line regulation	
0%	12.041V	12.043V	12.043V	12.043V	2mV	0.02%
50%	12.034V	12.034V	12.034V	12.034V	0mV	0.00%
100%	12.028V	12.029V	12.028V	12.029V	1mV	0.01%
load regulation	13mV	14mV	15mV	14mV		
	0.11%	0.12%	0.13%	0.12%		

2. Temperature drift conditions Vin=100VAC  
Io =100%

Ta	-10°C	+25°C	+50°C	temperature stability	
Vo	12.024V	12.029V	12.020V	9mV	0.08%

**24V**

1. Regulation - line and load condition Ta : 25°C

Iout \ Vin	85VAC	100VAC	200VAC	265VAC	line regulation	
0%	24.036V	24.036V	24.035V	24.035V	1mV	0.004%
50%	24.020V	24.020V	24.020V	24.020V	0mV	0.000%
100%	24.015V	24.015V	24.015V	24.015V	0mV	0.000%
load regulation	21mV	21mV	20mV	20mV		
	0.09%	0.09%	0.08%	0.08%		

2. Temperature drift conditions Vin=100VAC  
Io =100%

Ta	-10°C	+25°C	+50°C	temperature stability	
Vo	24.053V	24.015V	23.978V	75mV	0.31%

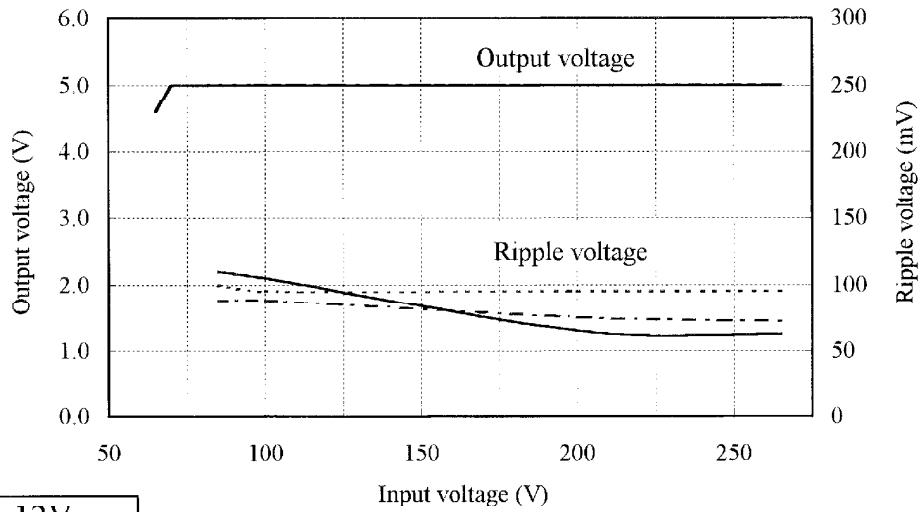
2.1 (2) 出力電圧、リップル電圧対入力電圧

Output voltage and Ripple voltage v.s. Input voltage

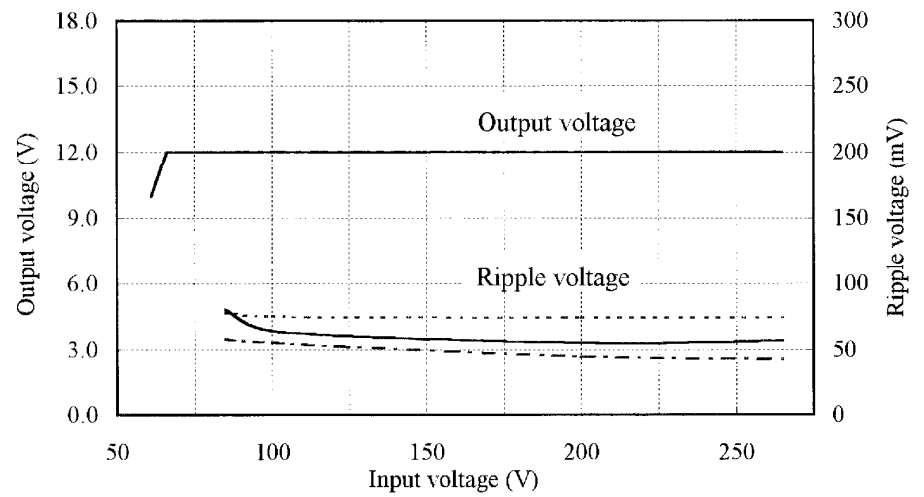
Conditions Iout : 100%

Ta : -10°C .....  
 : 25°C .....  
 : 50°C ——

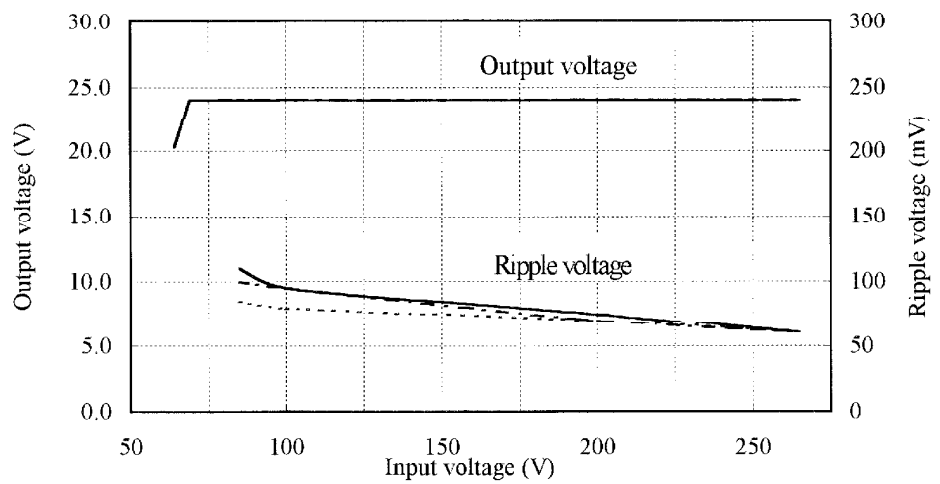
5V



12V



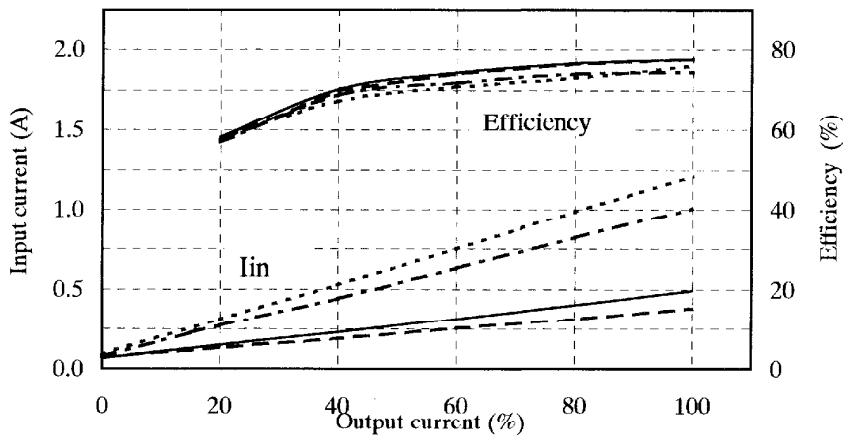
24V



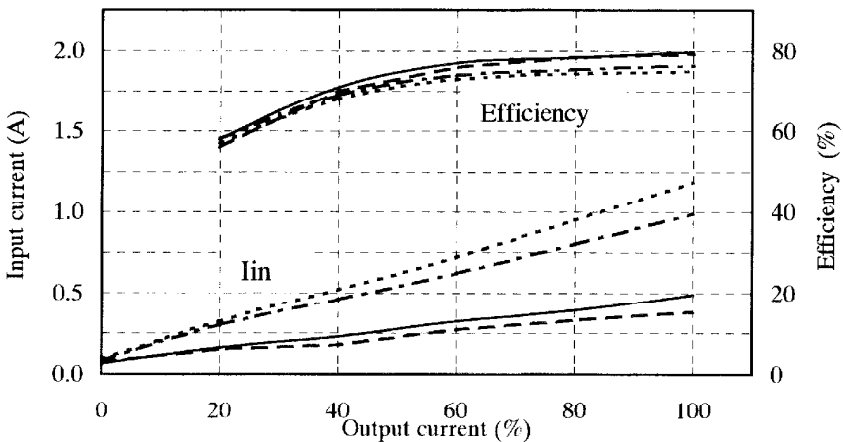
2.1 (3) 効率、入力電流対出力電流  
Efficiency and Input current v.s. Output current

Conditions  $V_{in}$  : 85VAC .....  
 : 100VAC - - - - -  
 : 200VAC ————  
 : 265VAC - - - - -  
 $T_a$  : 25°C

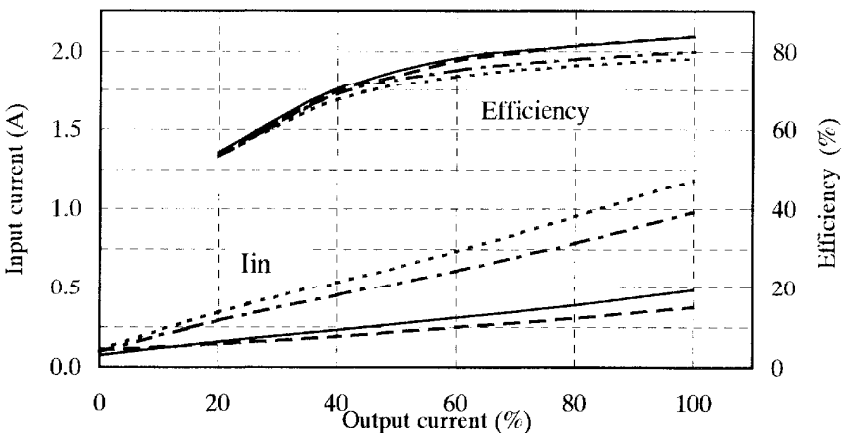
**5V**



**12V**



**24V**

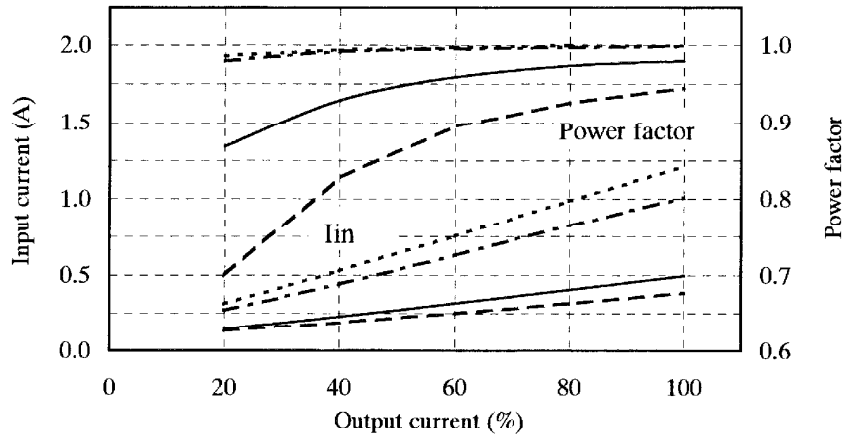


## 2.1 (4) 力率、入力電流対出力電流

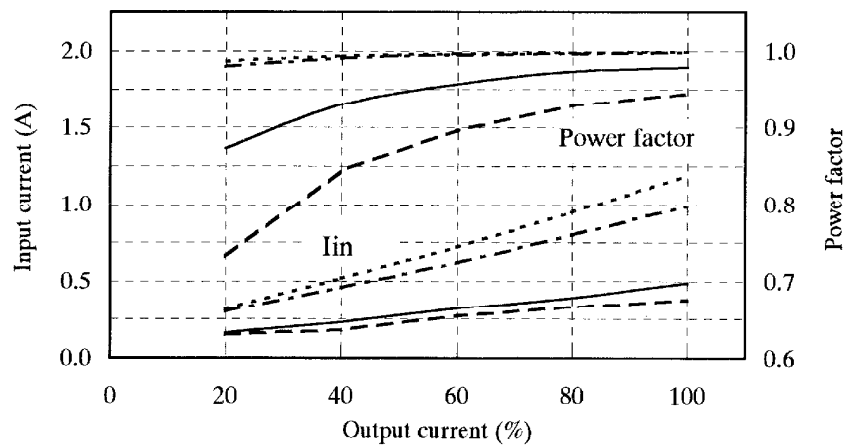
Power factor and Input current v.s. Output current

Conditions  $V_{in}$  : 85VAC .....  
 : 100VAC - - - - -  
 : 200VAC ————  
 : 265VAC - - - - -  
 $T_a$  : 25°C

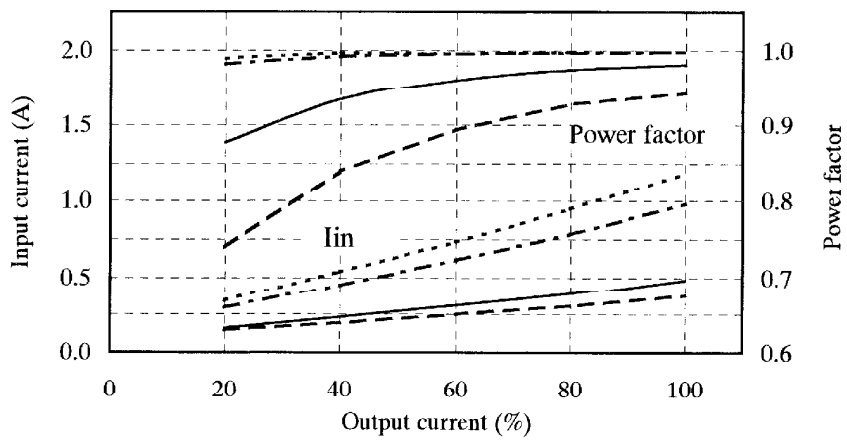
5V



12V



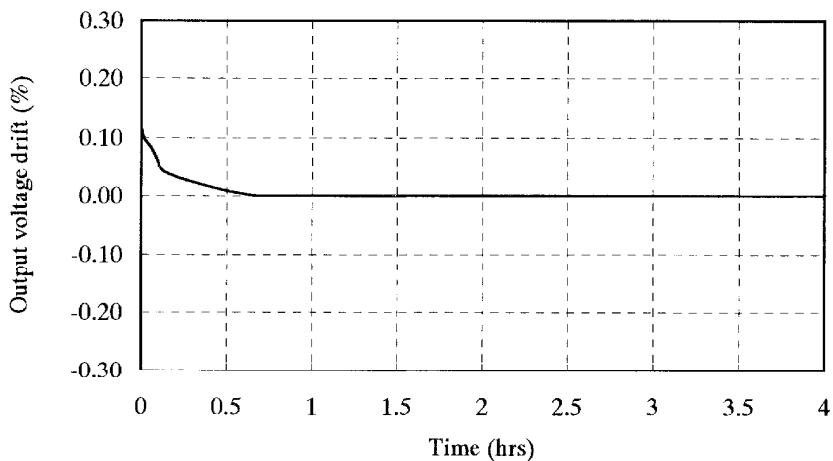
24V



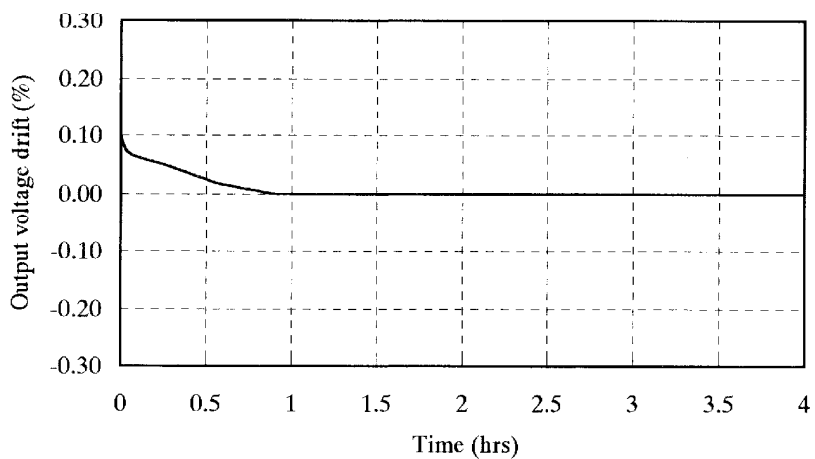
2.2 通電ドリフト特性  
Warm up voltage drift characteristics

Conditions  $V_{in}$  : 100VAC  
 $I_o$  : 100%  
 $T_a$  : 25°C

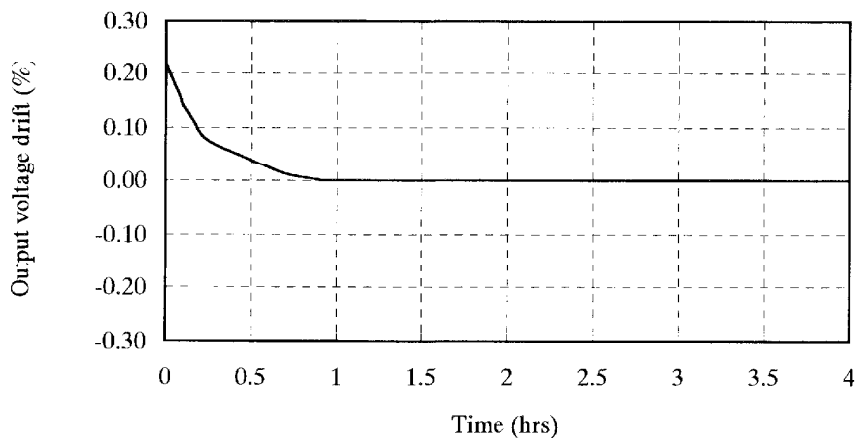
5V



12V



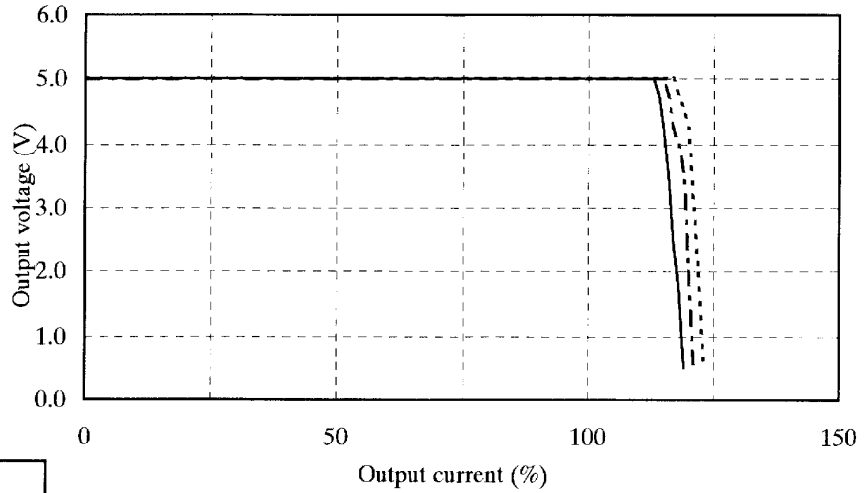
24V



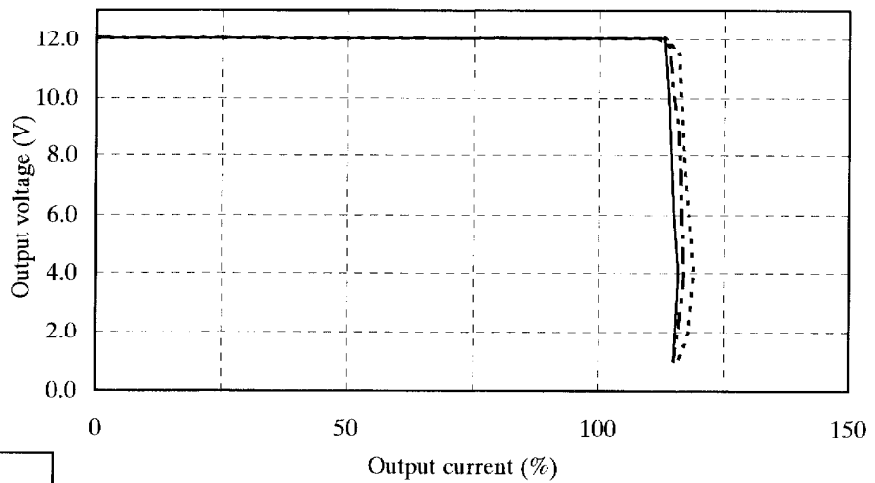
2.3 過電流保護特性  
Over current protection (OCP) characteristics

Conditions Ta : -10°C .....  
: 25°C - - - -  
: 50°C \_\_\_\_\_  
Vin : 85-265VAC

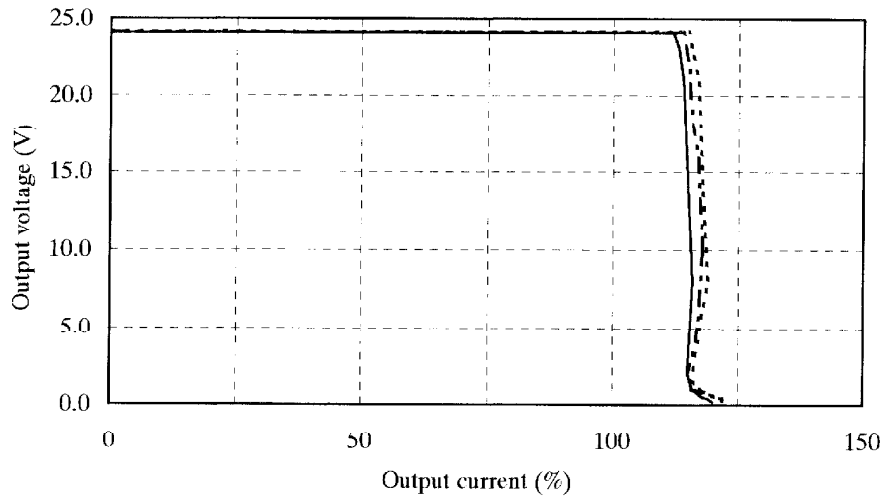
**5V**



**12V**



**24V**



2.4 過電圧保護特性

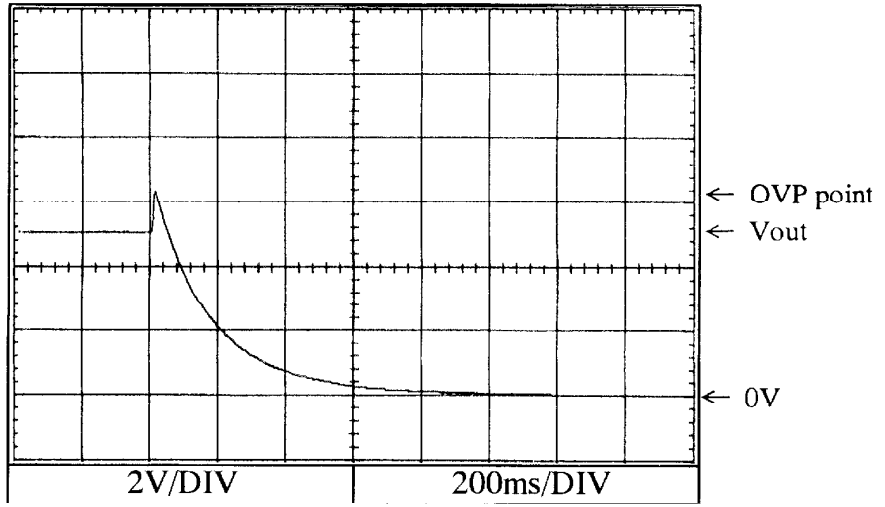
Over voltage protection (OVP) characteristics

Conditions  $V_{in}$  : 100VAC

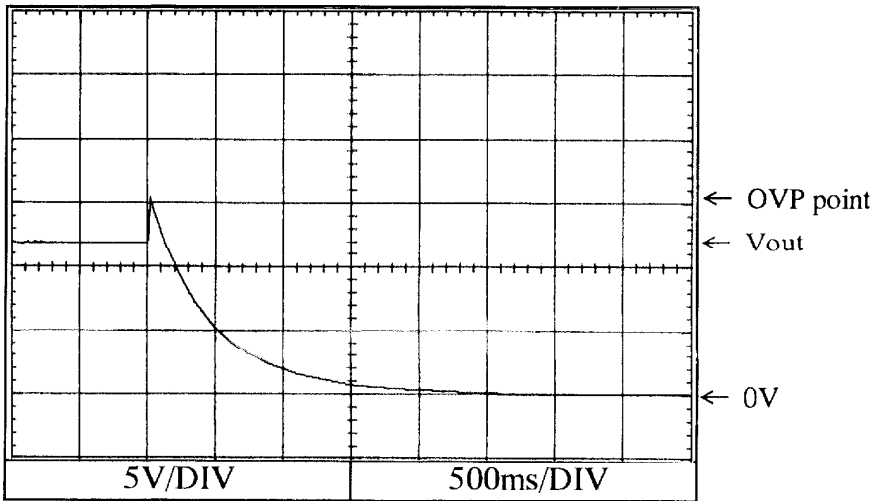
$I_{out}$  : 0%

$T_a$  : 25°C

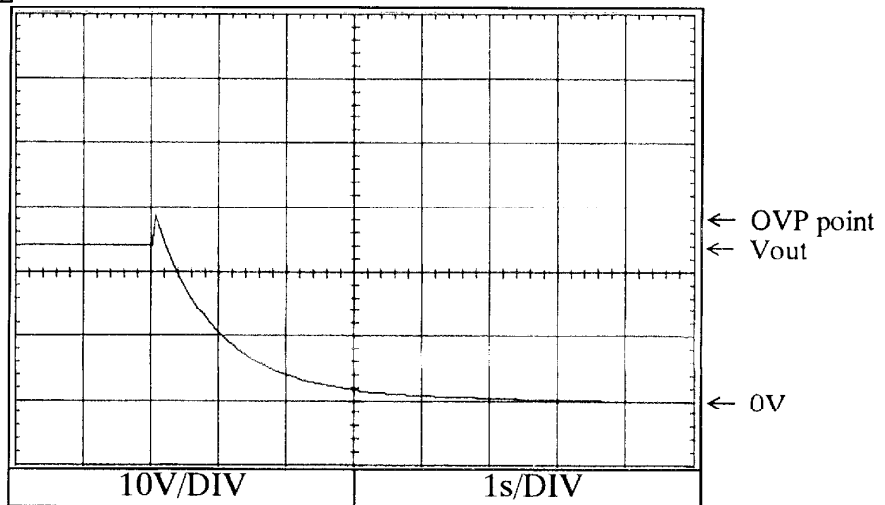
5V



12V



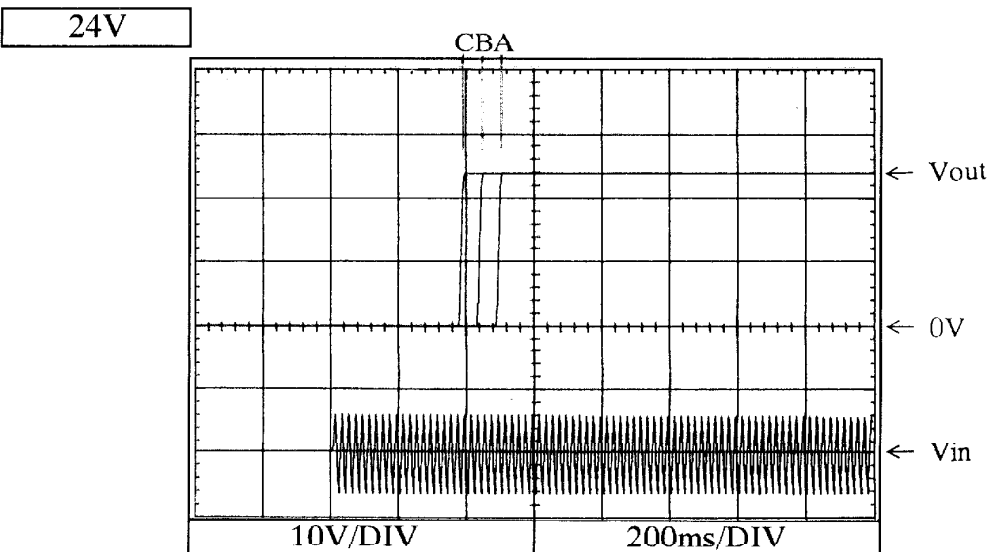
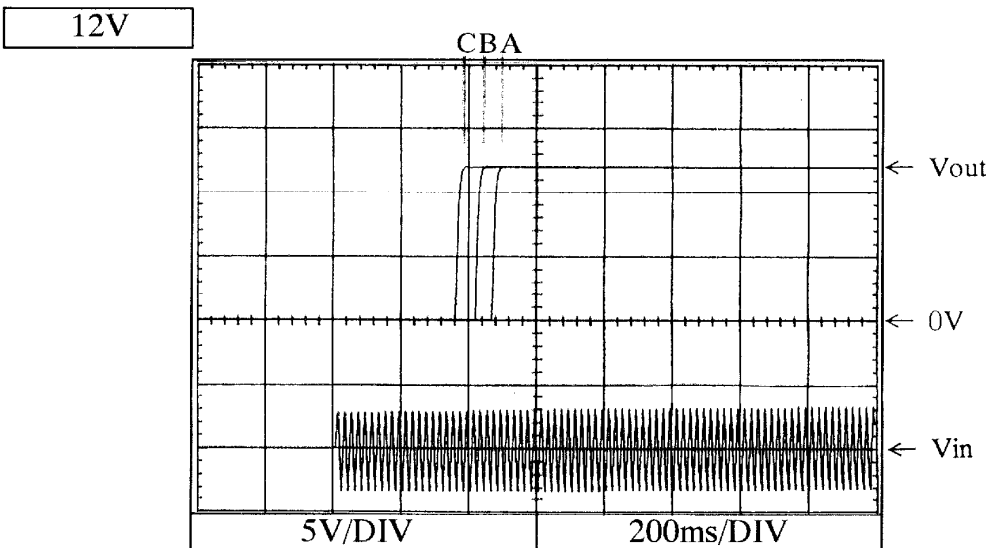
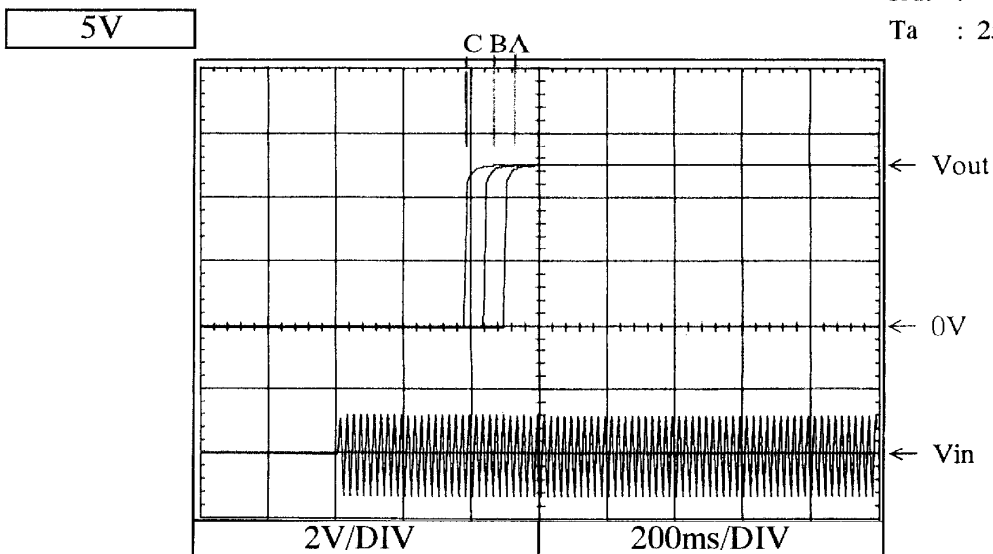
24V





Conditions Vin : 85VAC (A)  
: 100VAC (B)  
: 132VAC (C)  
Iout : 0%  
Ta : 25°C

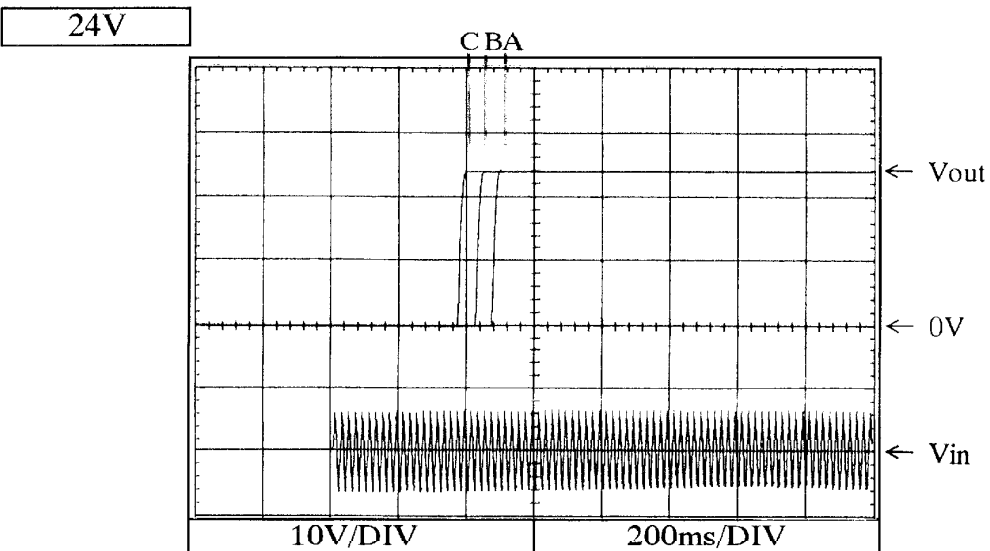
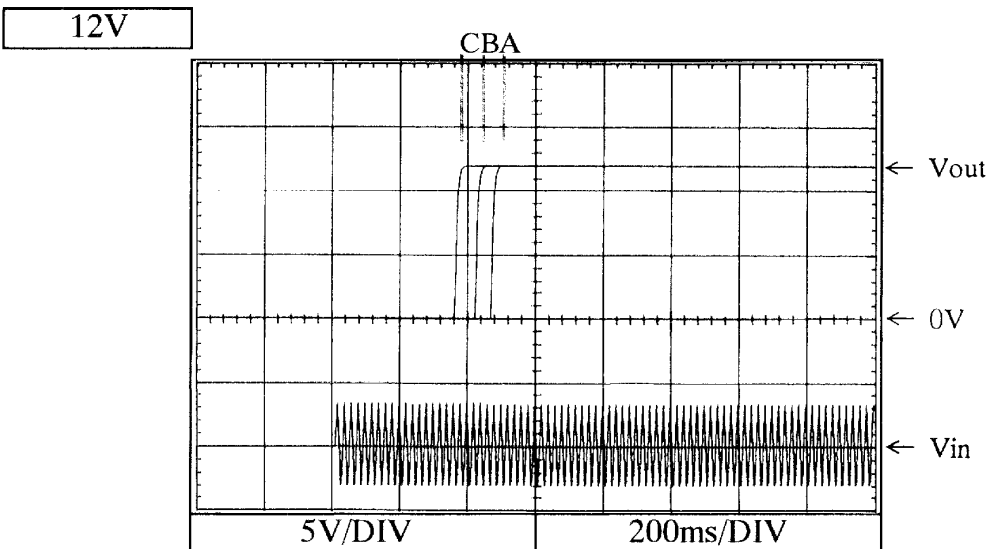
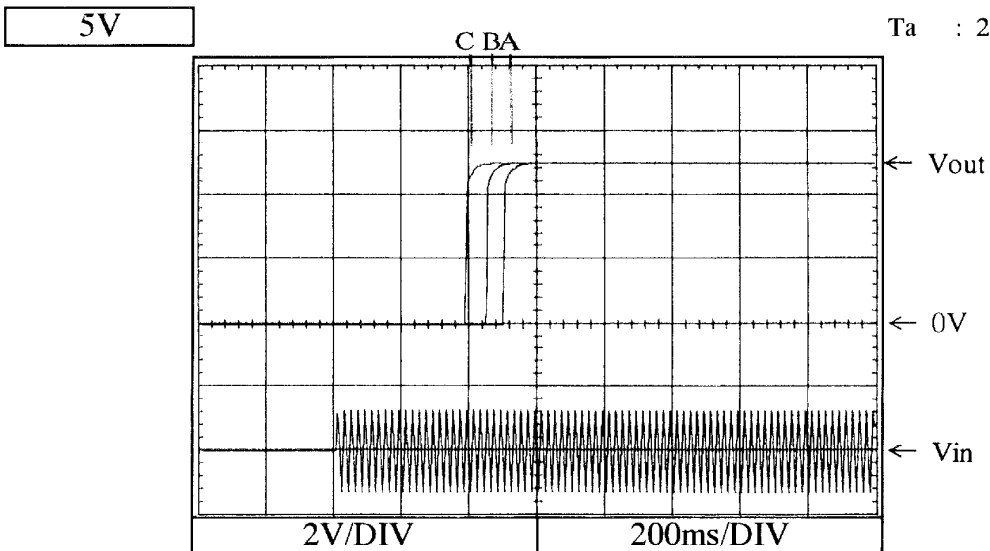
## 2.5 出力立ち上がり特性 Output rise characteristics



# JWS75

Conditions Vin : 85VAC (A)  
: 100VAC (B)  
: 132VAC (C)  
Iout : 100%  
Ta : 25°C

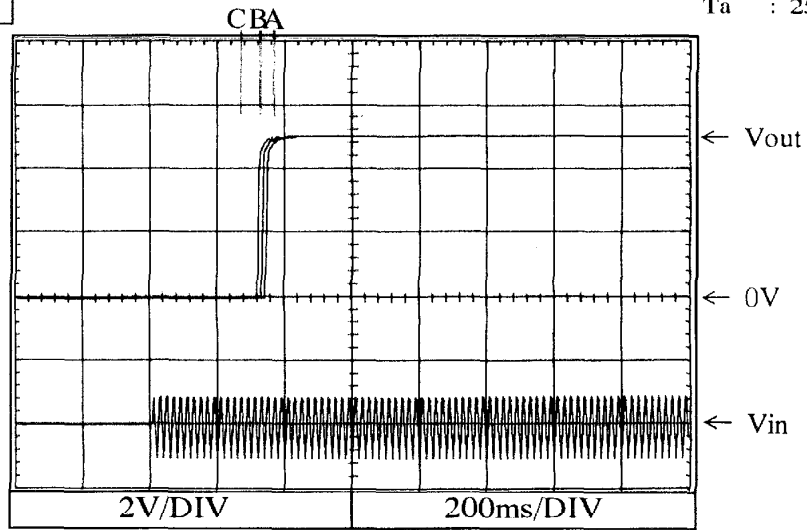
## 2.5 出力立ち上がり特性 Output rise characteristics



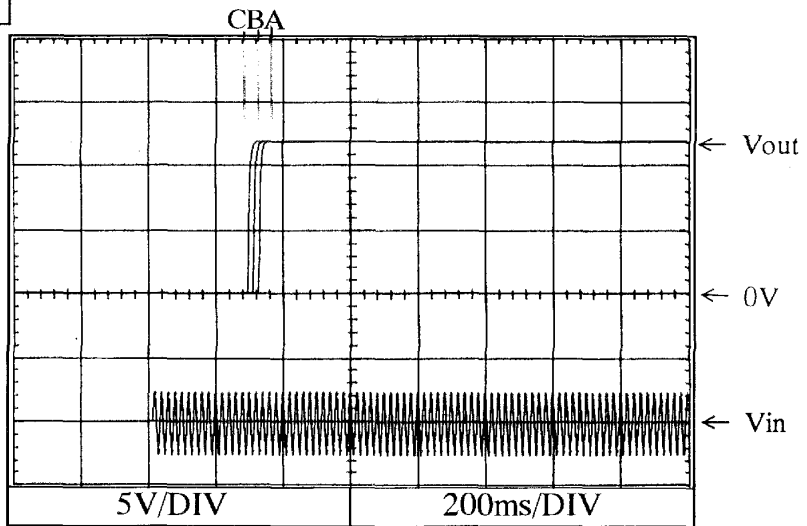
Conditions Vin : 170VAC (A)  
                  : 200VAC (B)  
                  : 265VAC (C)  
Iout : 0%  
Ta : 25°C

2.5 出力立ち上がり特性  
Output rise characteristics

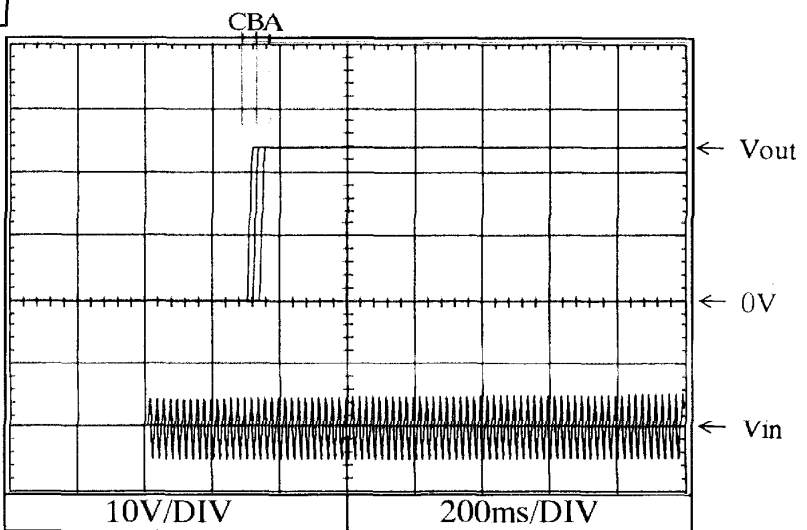
5V



12V



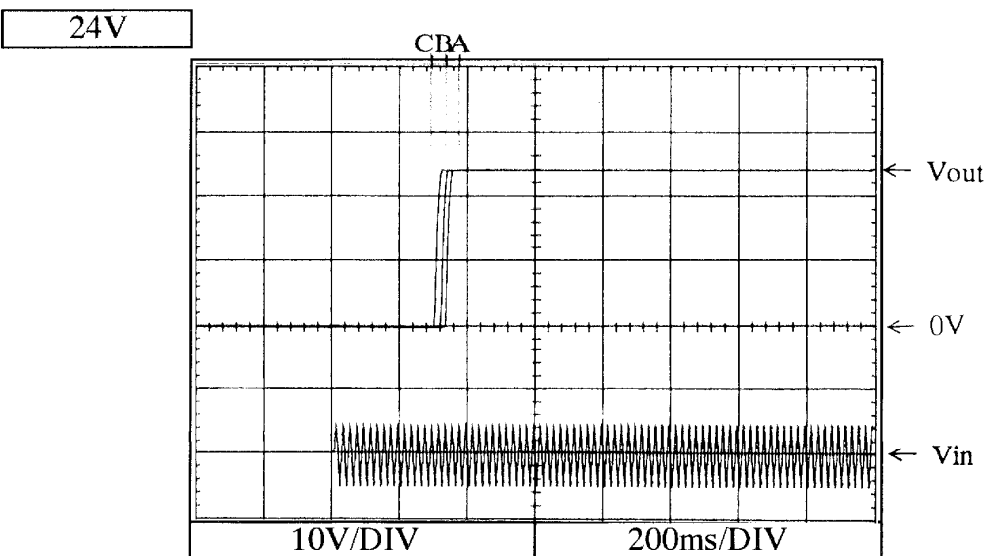
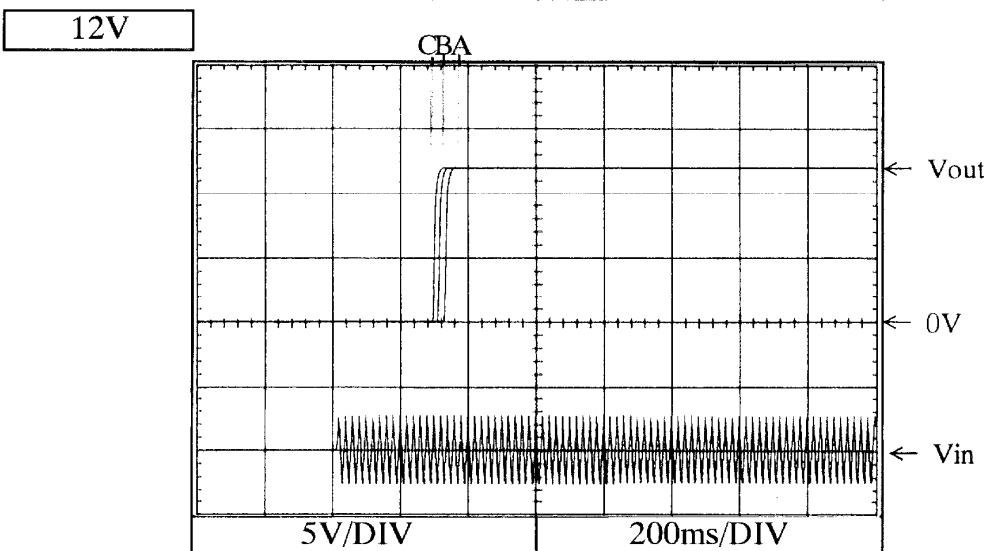
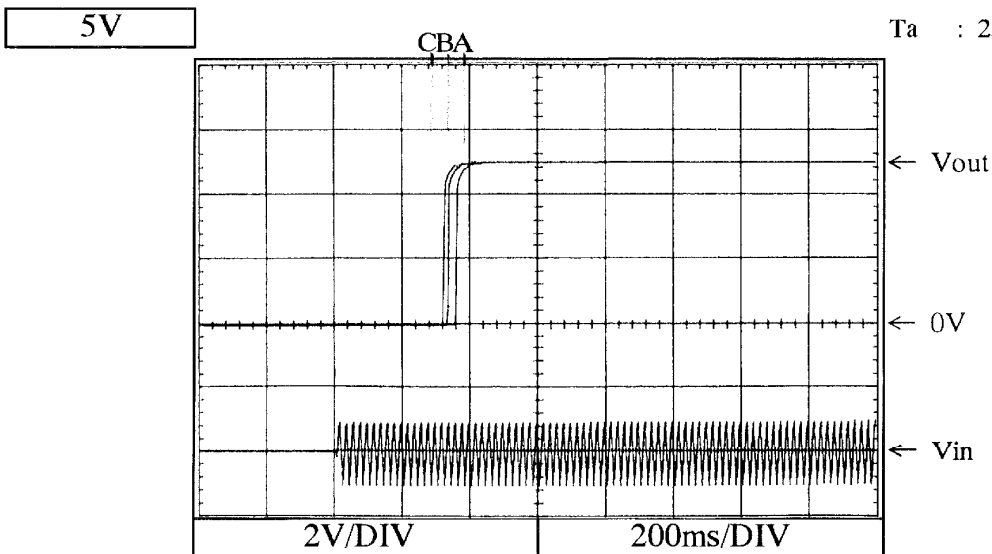
24V



# JWS75

## 2.5 出力立ち上がり特性 Output rise characteristics

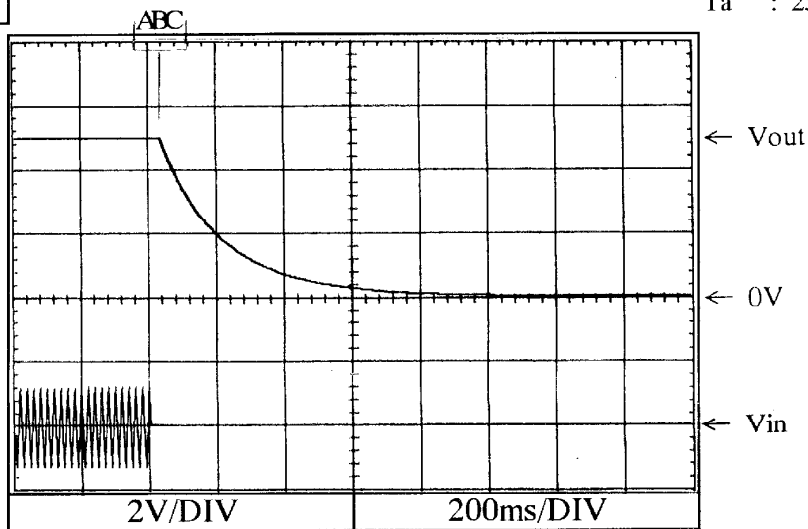
Conditions Vin : 170VAC (A)  
                  : 200VAC (B)  
                  : 265VAC (C)  
Iout : 100%  
Ta : 25°C



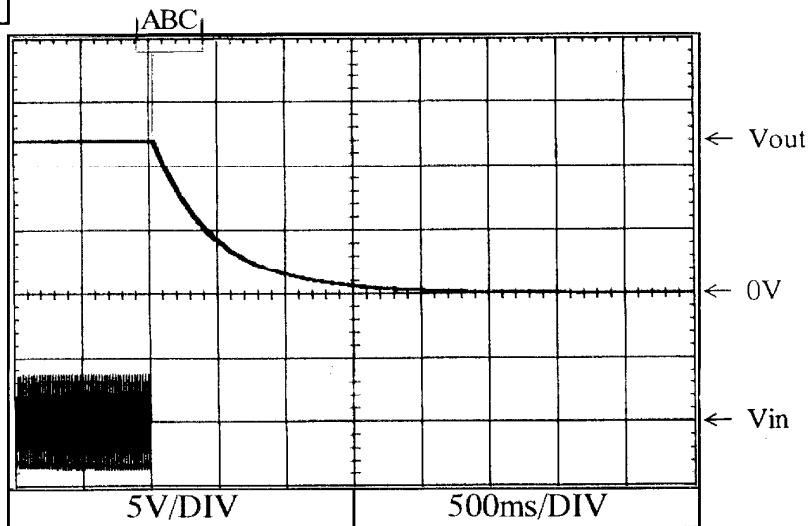
2.6 出力立ち下がり特性  
Output fall characteristics

Conditions Vin : 85VAC (A)  
: 100VAC (B)  
: 132VAC (C)  
Iout : 0%  
Ta : 25°C

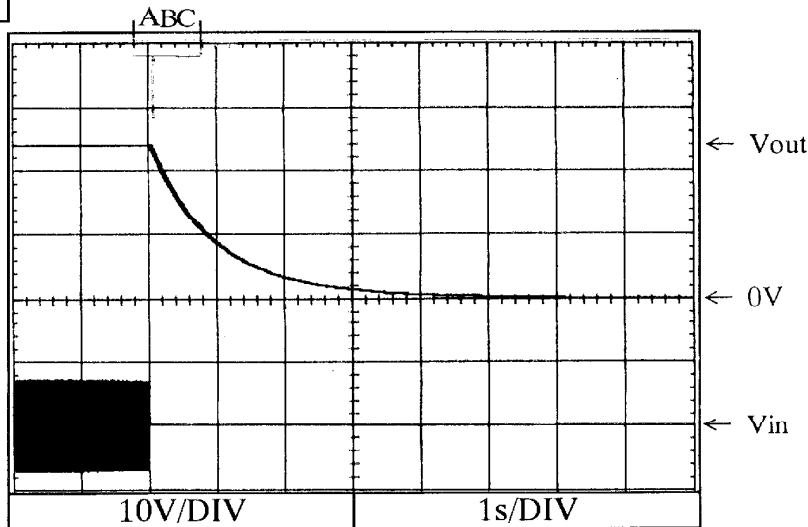
5V



12V

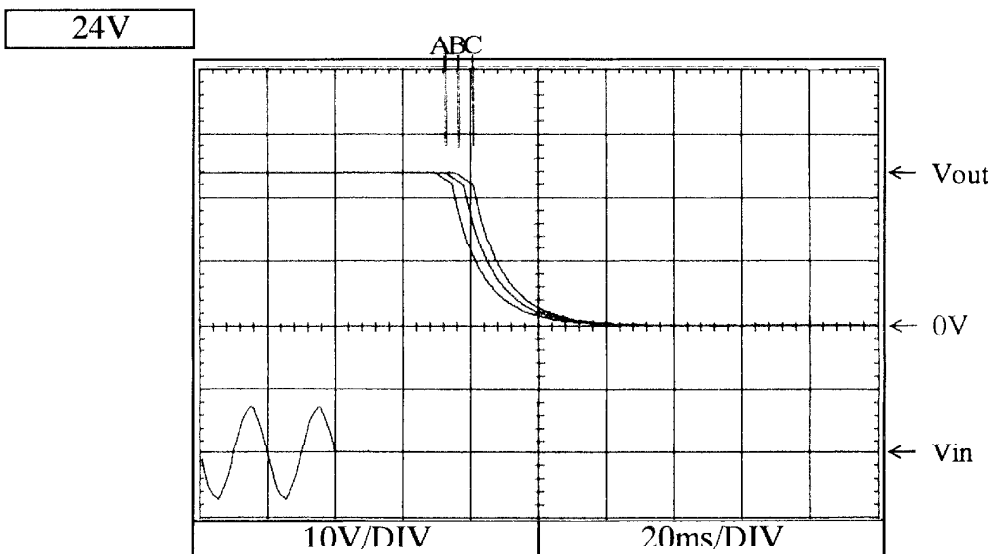
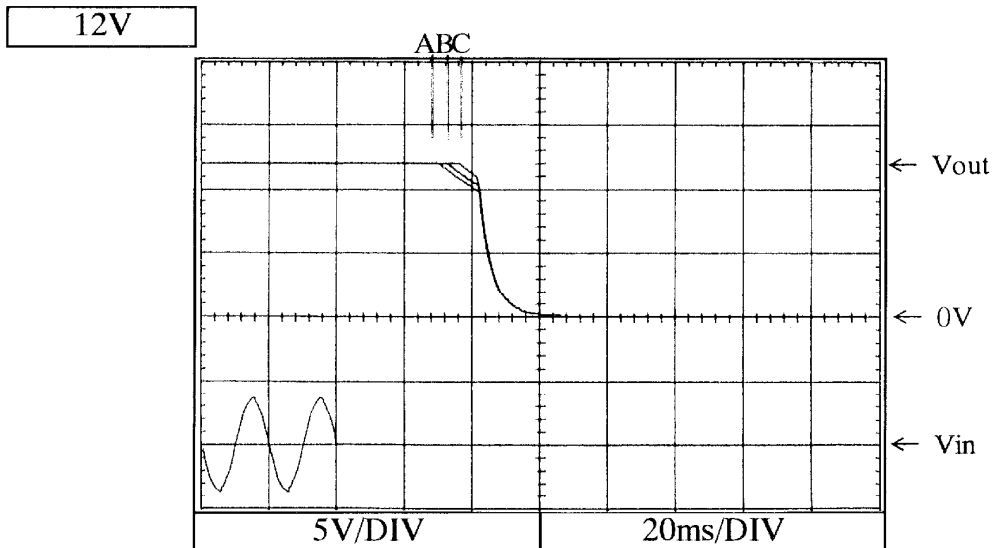
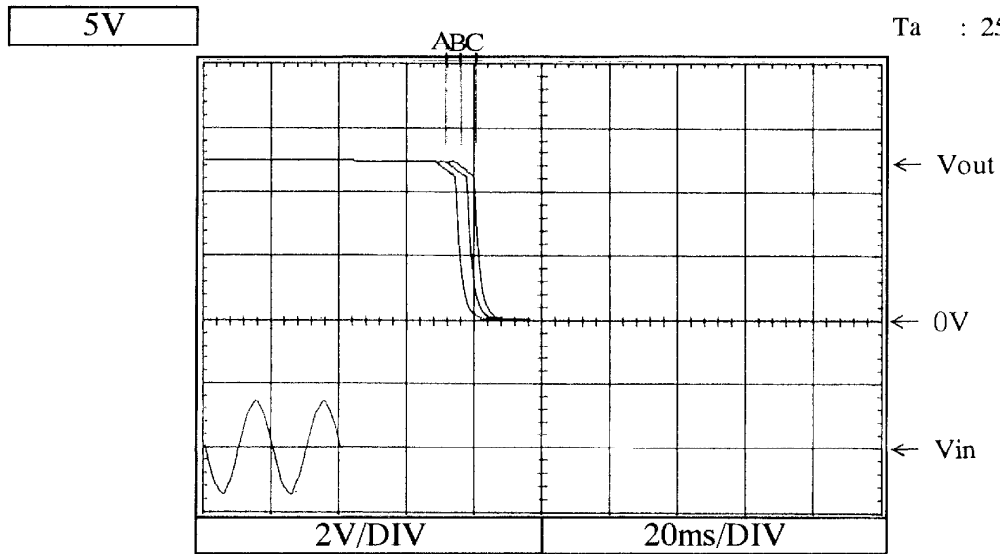


24V



## 2.6 出力立ち下がり特性 Output fall characteristics

Conditions Vin : 85VAC (A)  
 : 100VAC (B)  
 : 132VAC (C)  
 Iout : 100%  
 Ta : 25°C

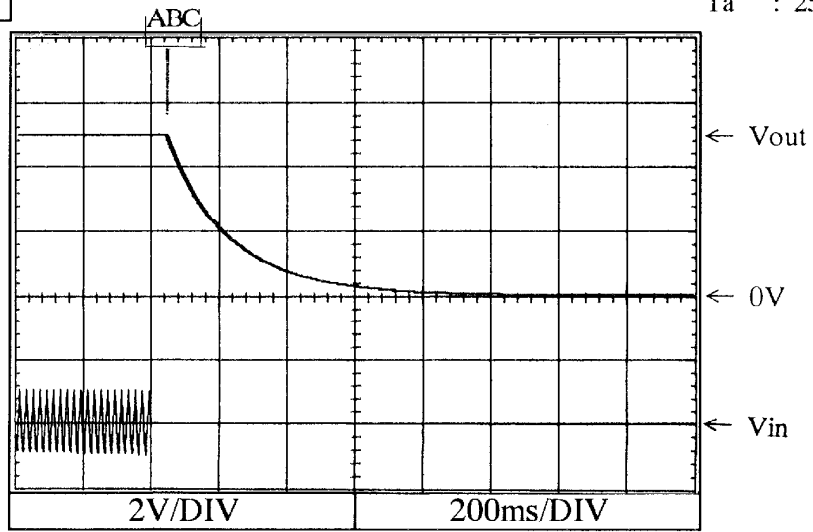


# JWS75

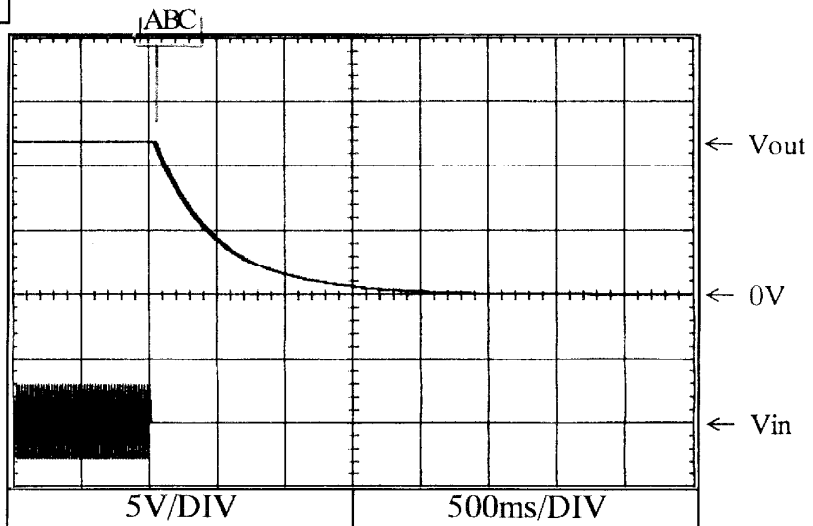
## 2.6 出力立ち下がり特性 Output fall characteristics

Conditions Vin : 170VAC (A)  
                  : 200VAC (B)  
                  : 265VAC (C)  
Iout : 0%  
Ta : 25°C

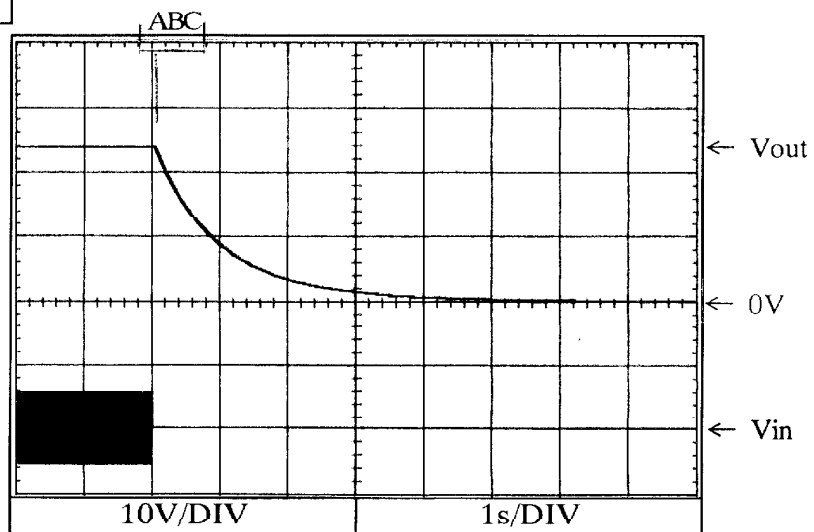
5V



12V



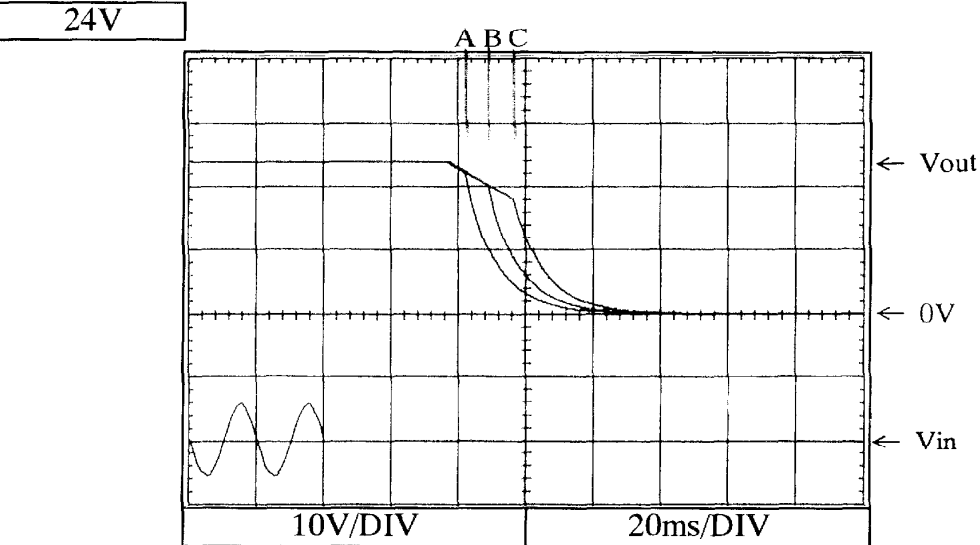
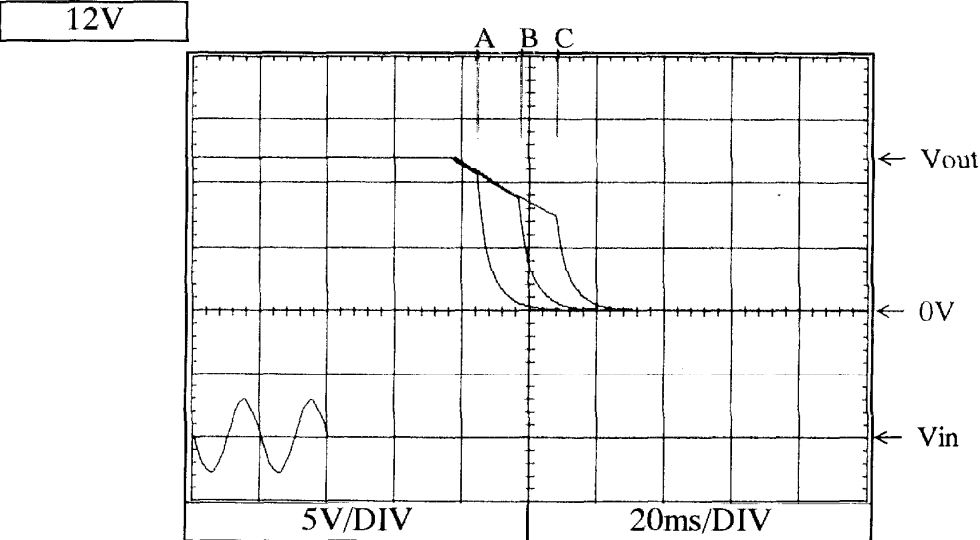
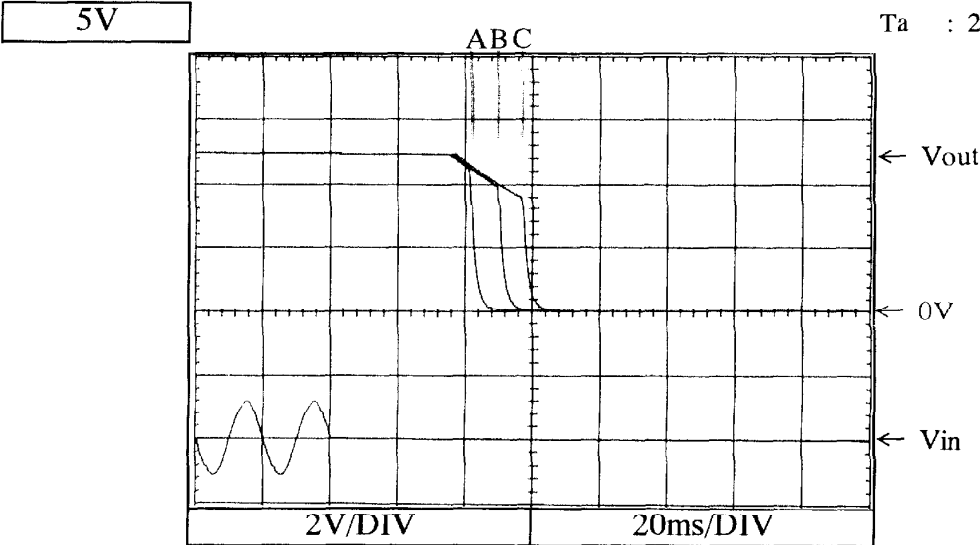
24V



# JWS75

## 2.6 出力立ち下がり特性 Output fall characteristics

Conditions Vin : 170VAC (A)  
                  : 200VAC (B)  
                  : 265VAC (C)  
Iout : 100%  
Ta : 25°C





## 2.7 ON/OFFコントロール時出力立ち上がり特性

Output rise characteristics with ON/OFF CONTROL

準標準品 JWS75-\*/R にて対応

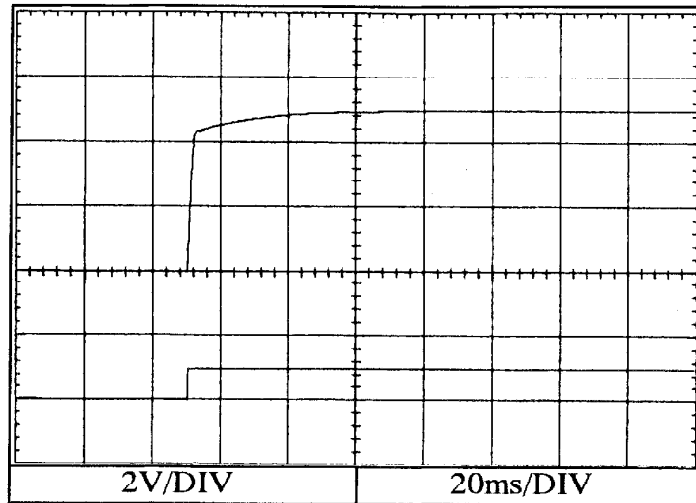
For alternative standard model JWS75-\*/R

Conditions  $V_{in}$  : 100VAC

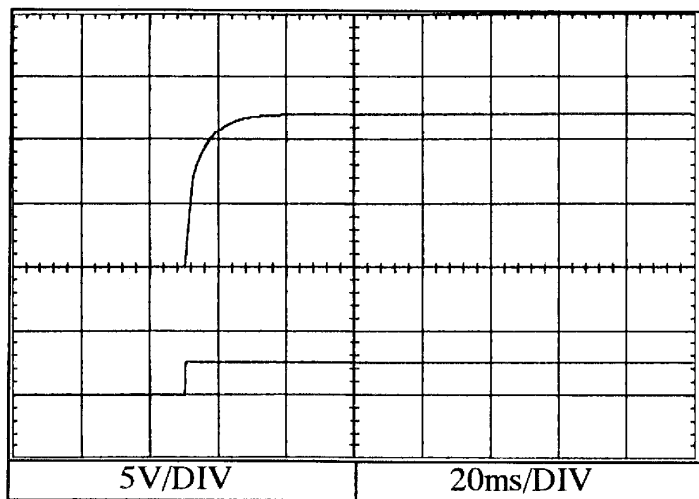
$I_{out}$  : 100%

$T_a$  : 25°C

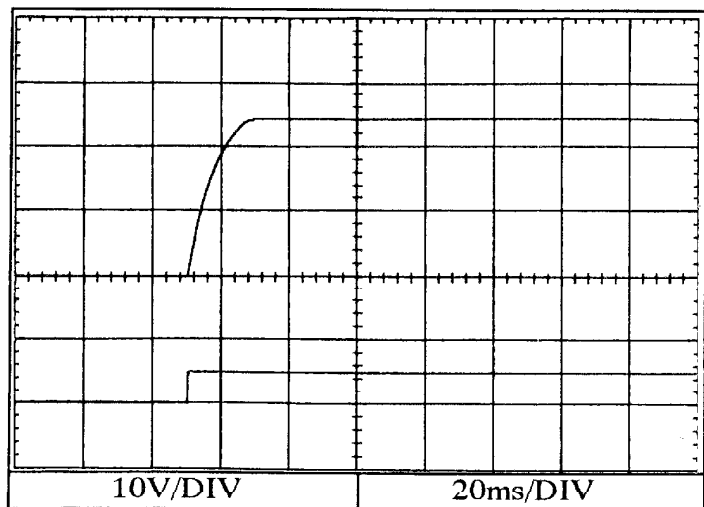
5V



12V



24V



## 2.8 ON/OFFコントロール時出力立ち下がり特性

Output fall characteristics with ON/OFF CONTROL

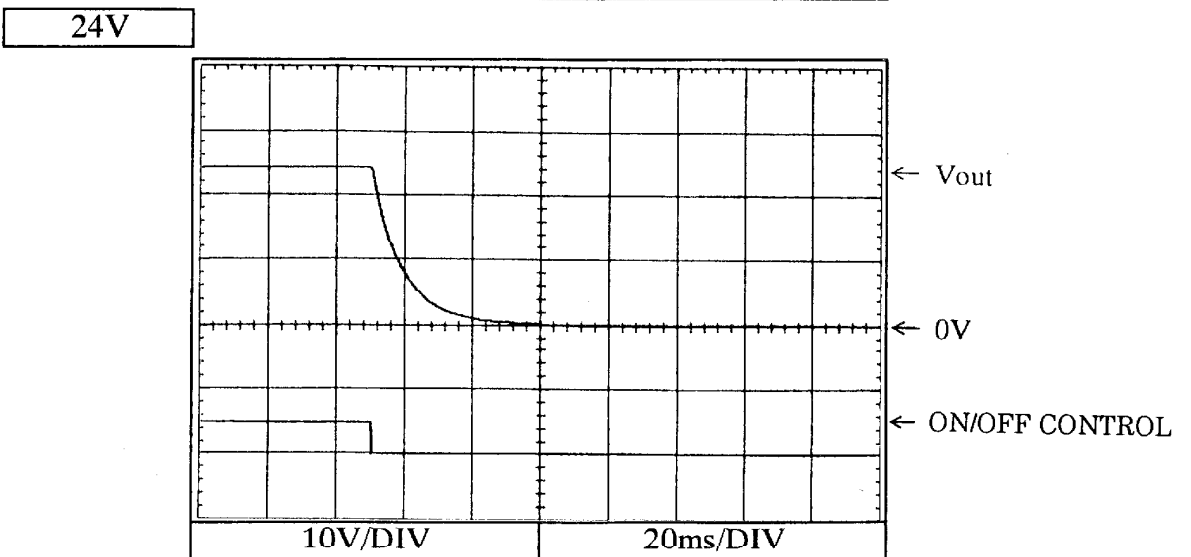
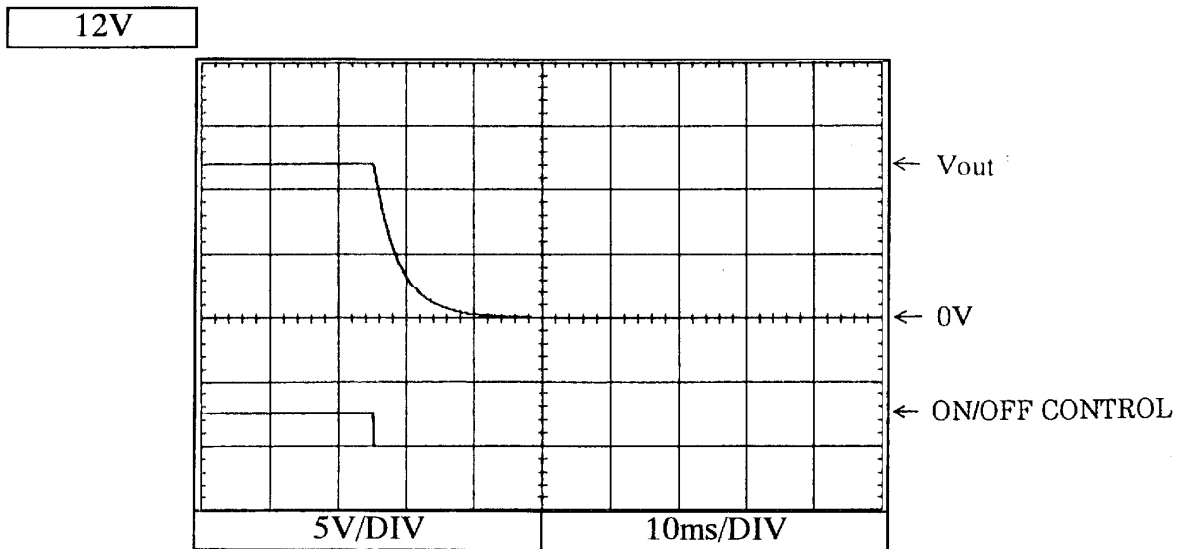
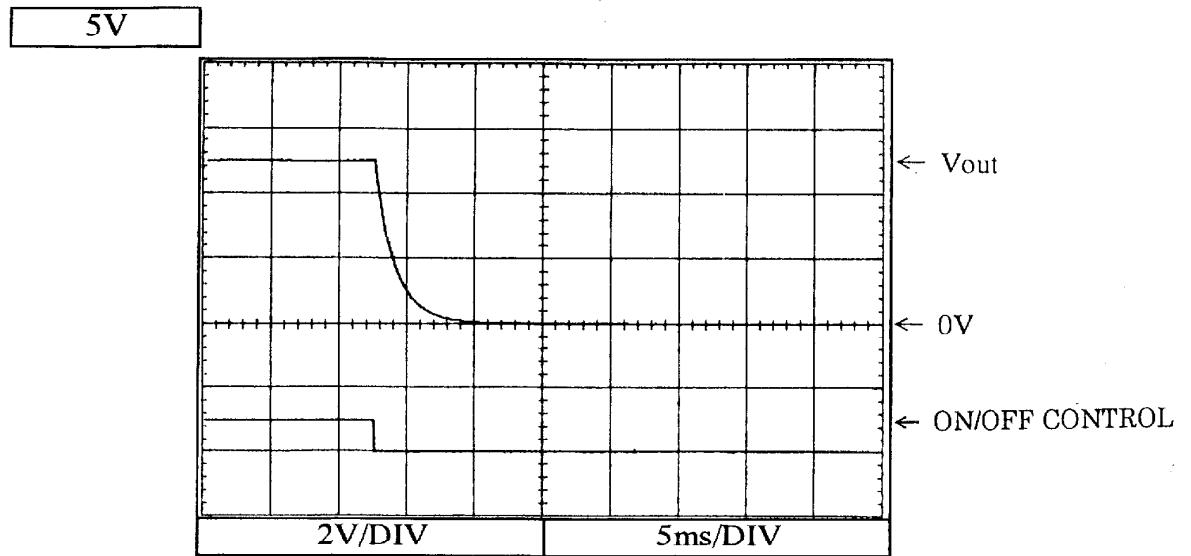
準標準品 JWS75-\*/R にて対応

For alternative standard model JWS75-\*/R

Conditions  $V_{in}$  : 100VAC

$I_{out}$  : 100%

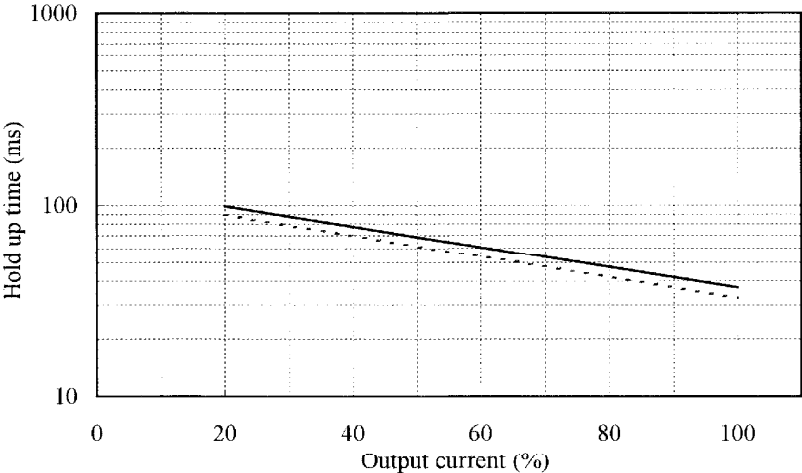
$T_a$  : 25°C



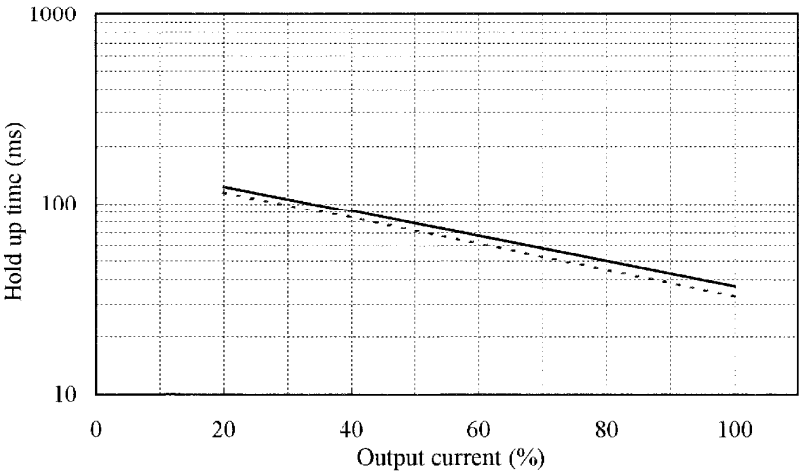
2.9 出力保持時間特性  
Hold up time characteristics

Conditions Vin : 100VAC -----  
                  : 200VAC       ———  
                  Ta : 25°C

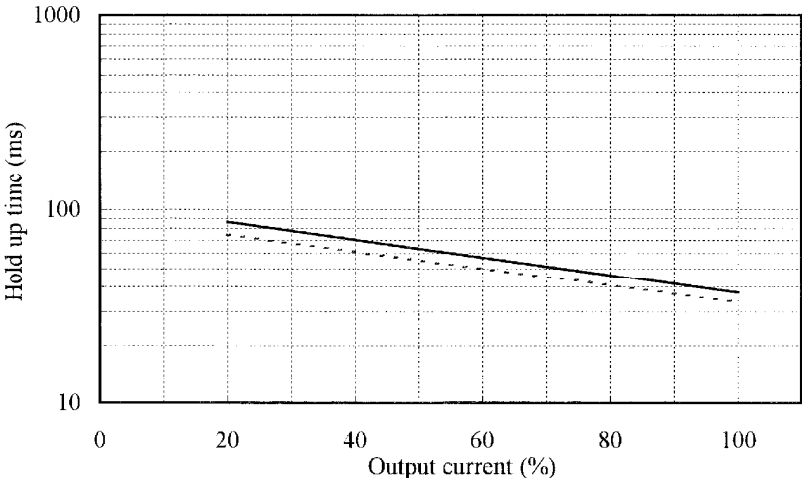
5V



12V



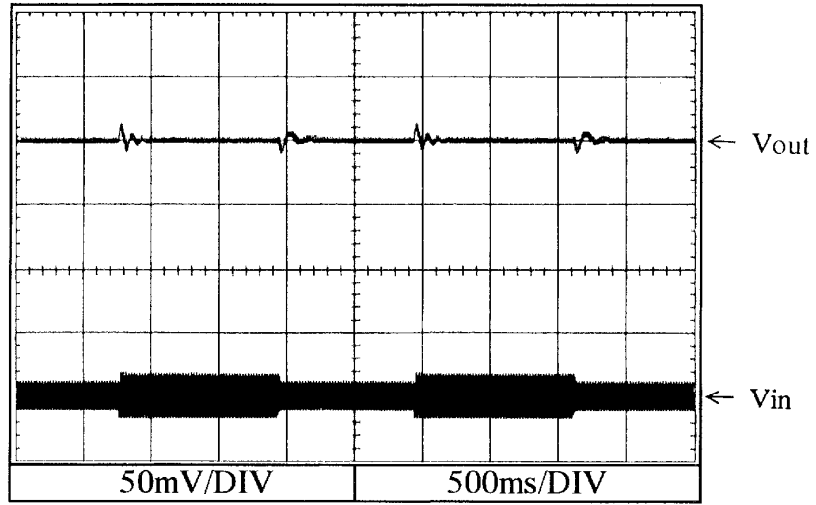
24V



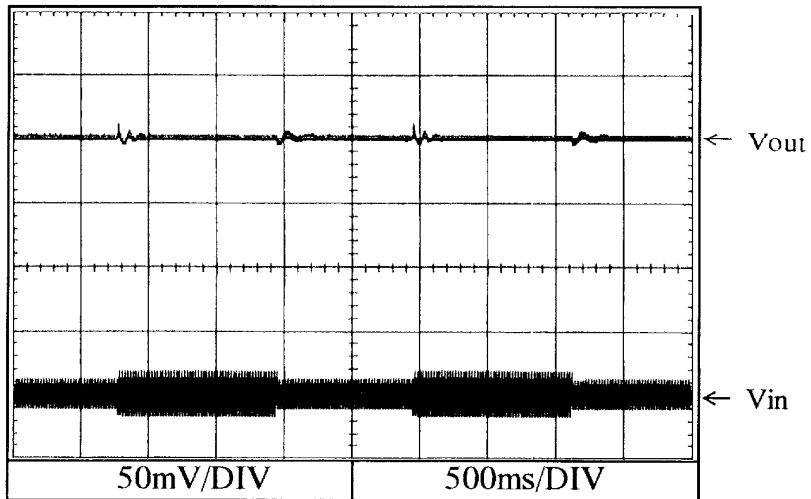
2.10 過渡応答 (入力急変) 特性  
Dynamic line response characteristics

Conditions  $V_{in}$  : 85VAC $\leftrightarrow$ 132VAC  
 $I_{out}$  : 100%  
 $T_a$  : 25°C

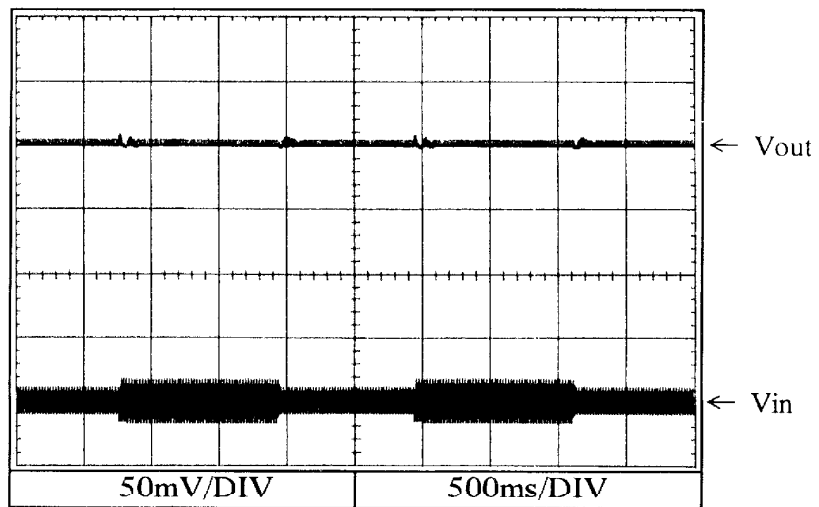
5V



12V



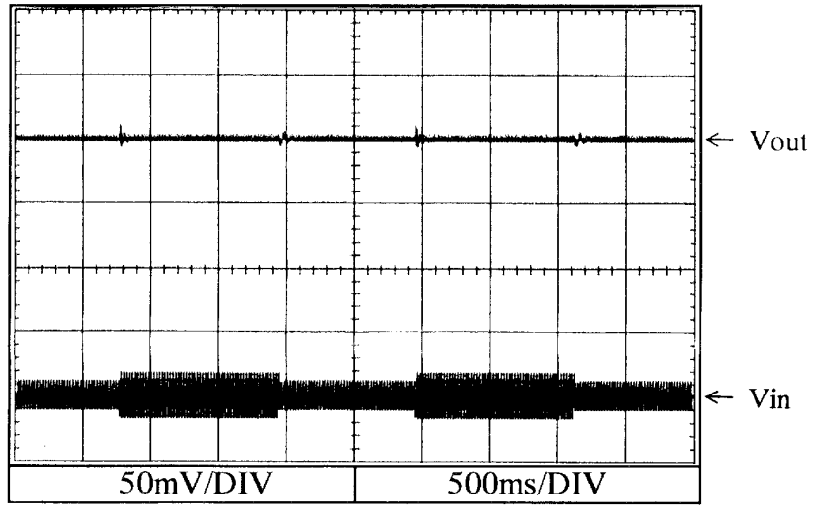
24V



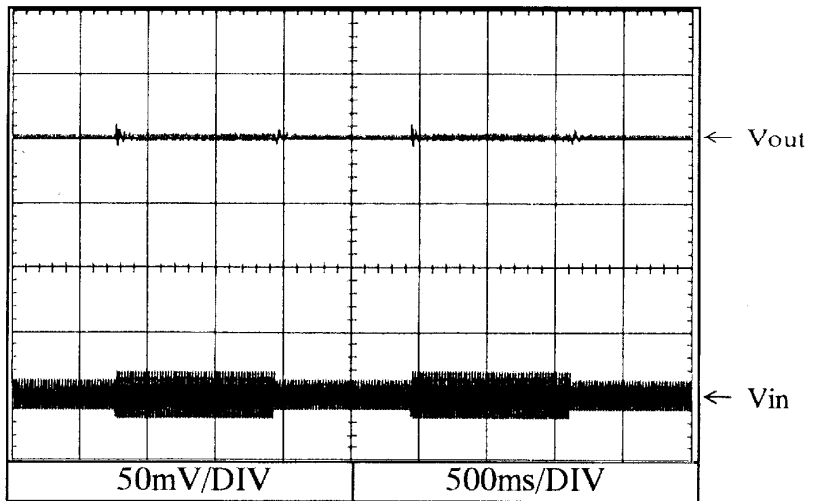
2.10 過渡応答 (入力急変) 特性  
Dynamic line response characteristics

Conditions Vin : 170VAC $\leftrightarrow$ 265VAC  
Iout : 100%  
Ta : 25°C

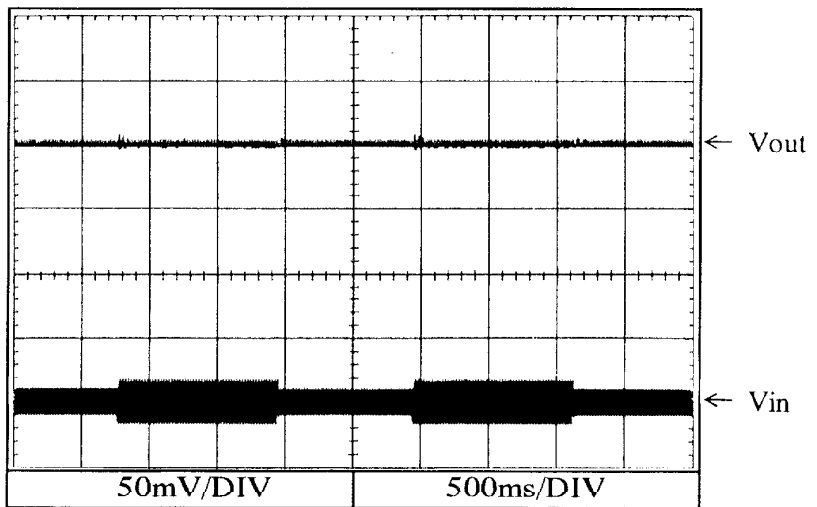
5V



12V



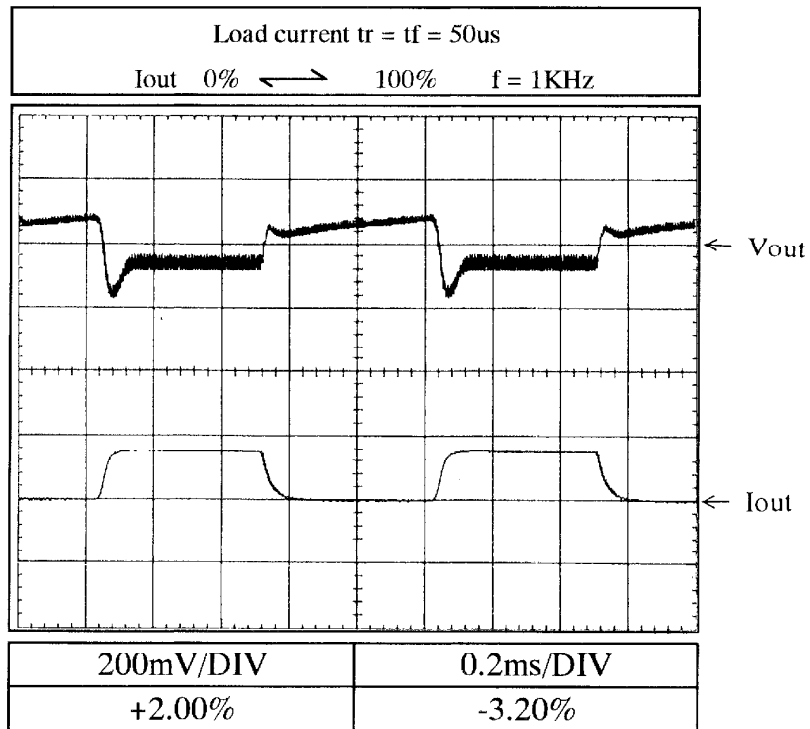
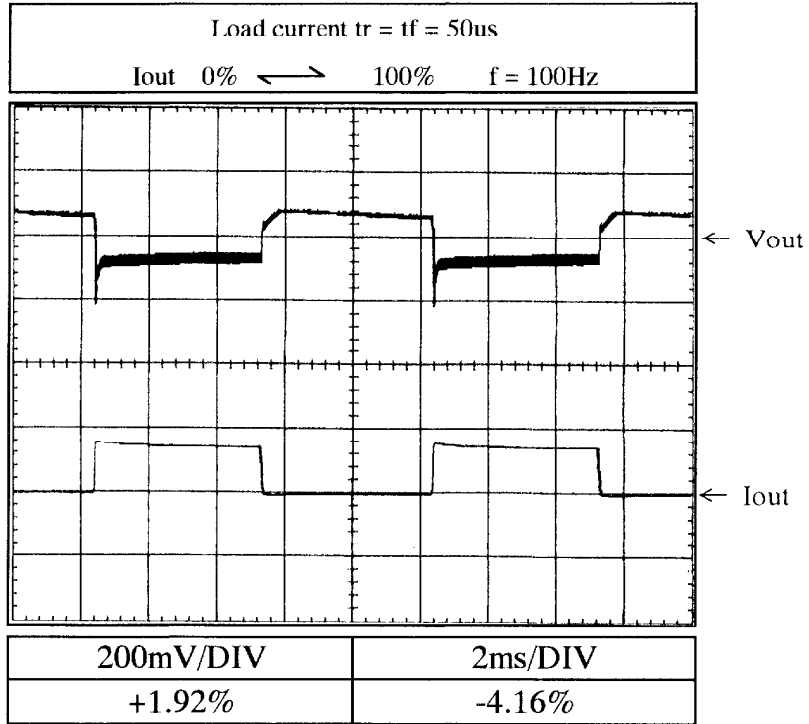
24V



2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 100VAC  
Ta : 25°C

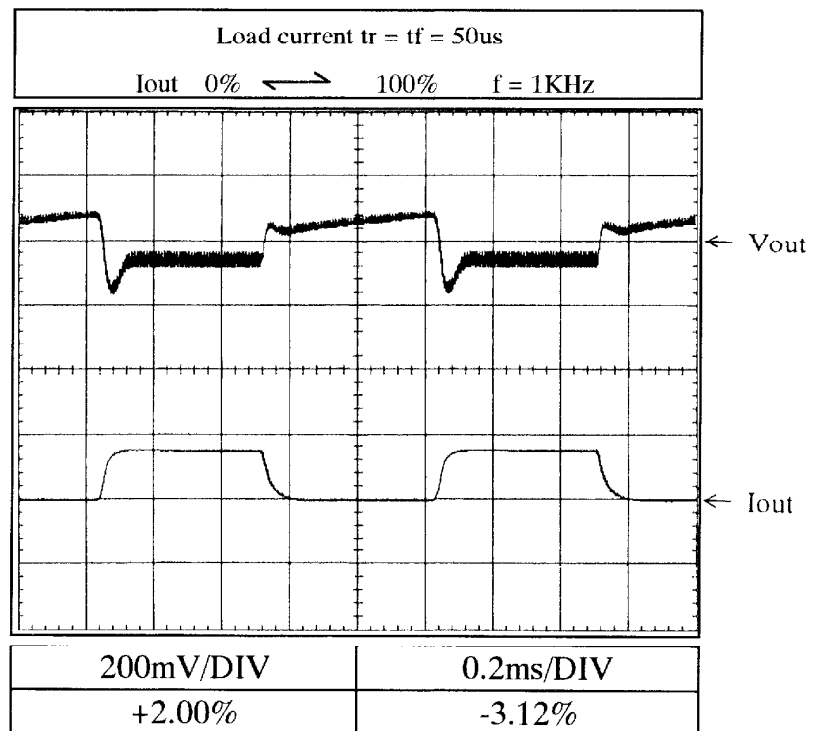
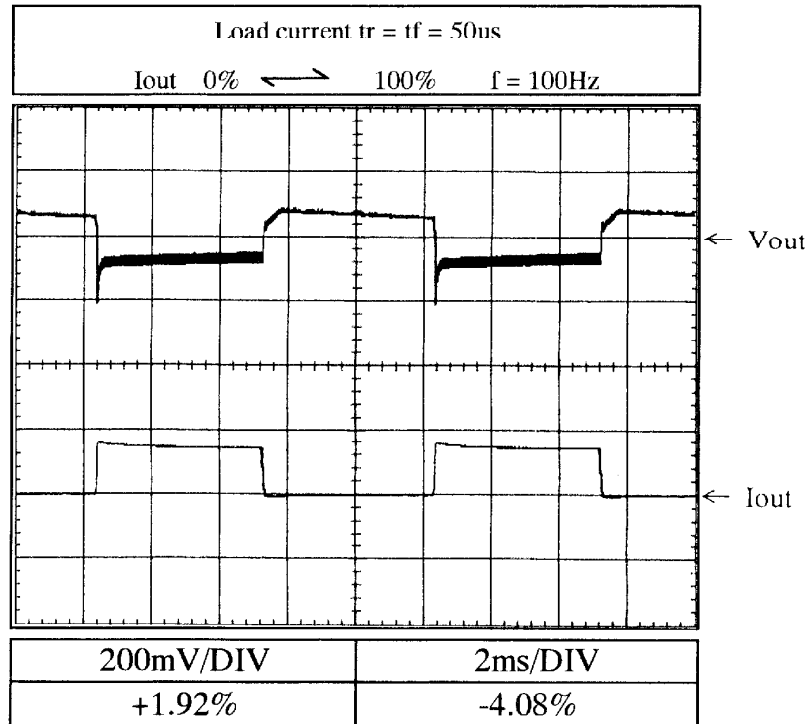
5V



2.11 過渡応答（負荷急変）特性  
Dynamic load response characteristics

Conditions Vin : 200VAC  
Ta : 25°C

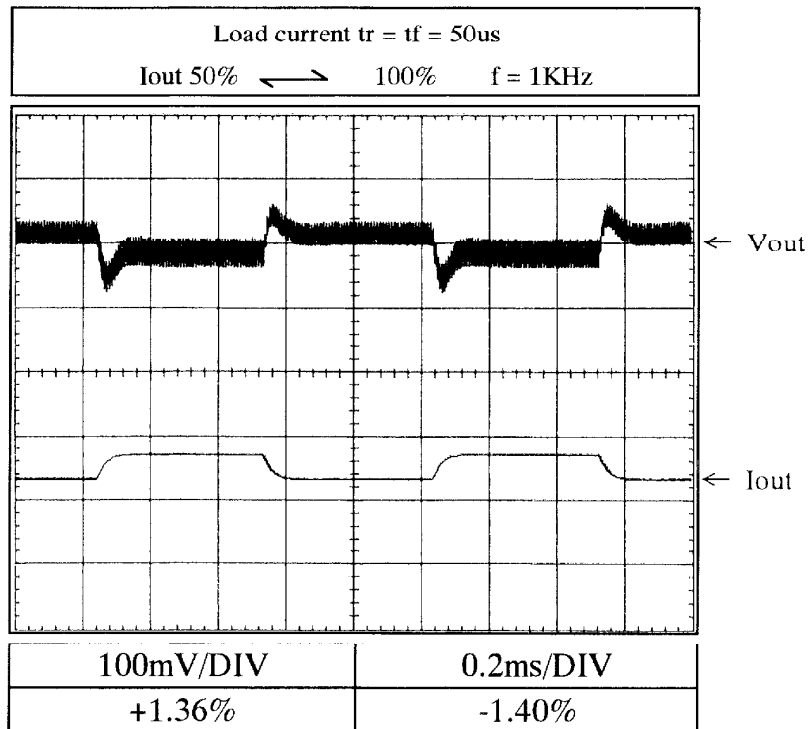
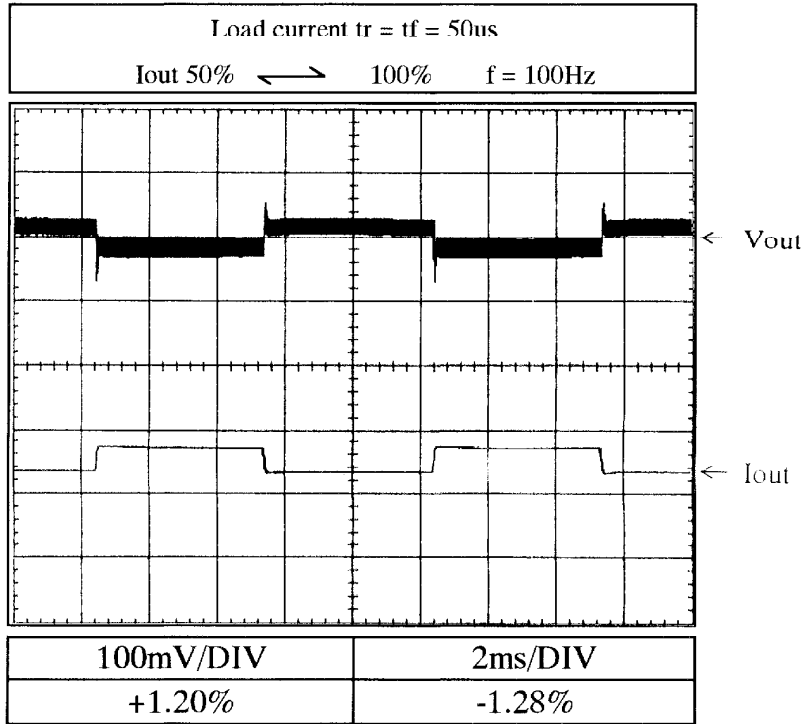
5V



2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 100VAC  
Ta : 25°C

5V

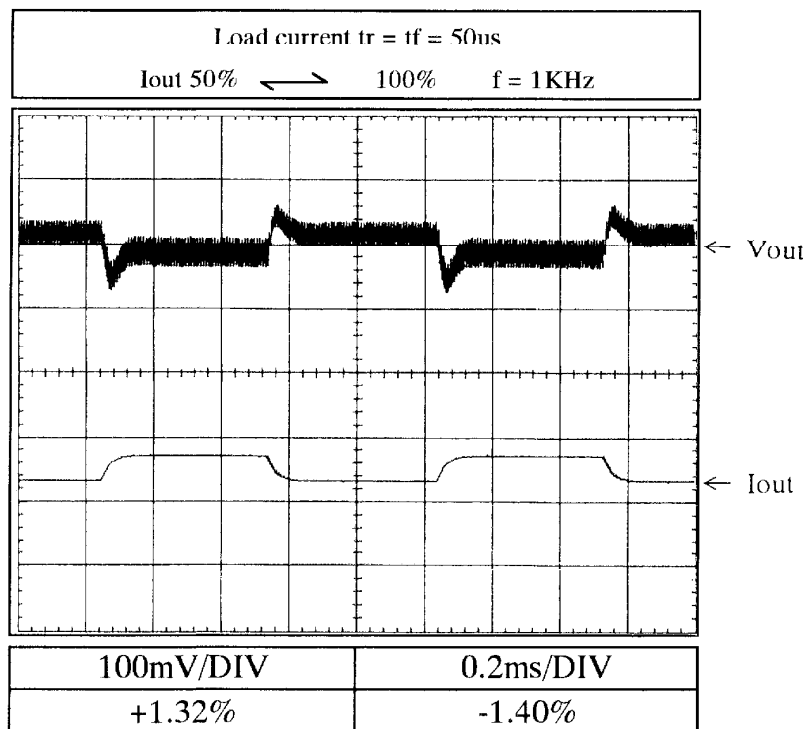
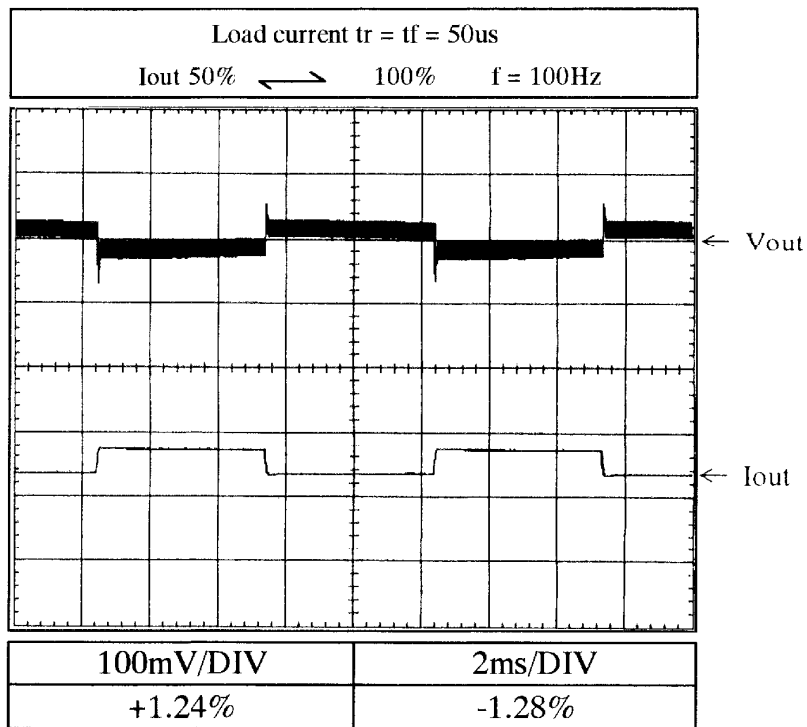




2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 200VAC  
Ta : 25°C

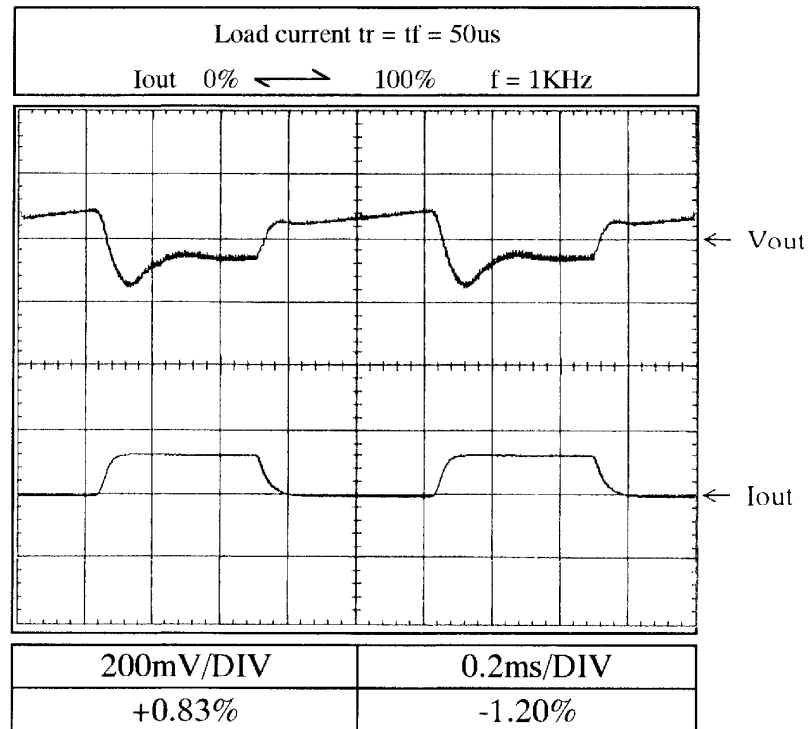
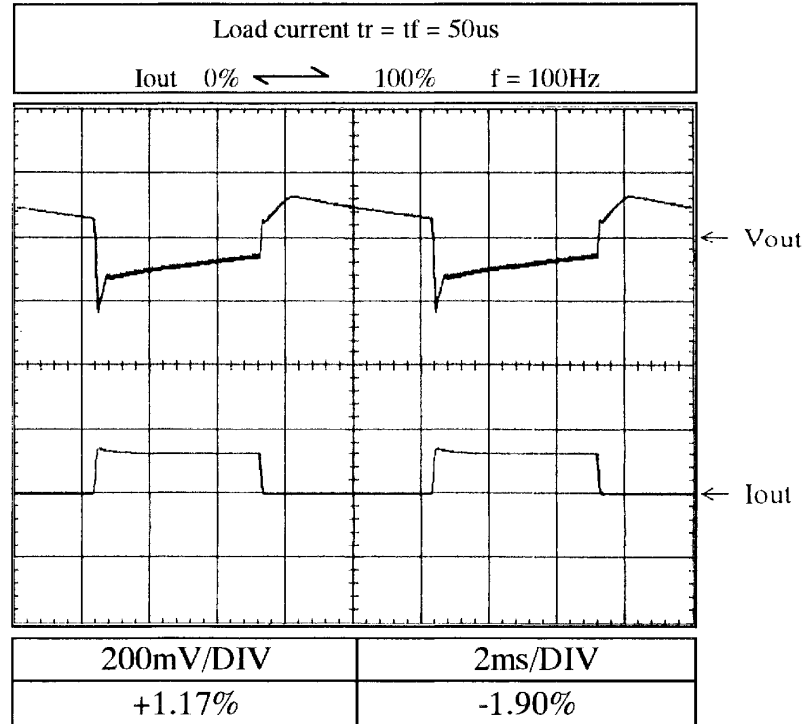
5V



2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 100VAC  
Ta : 25°C

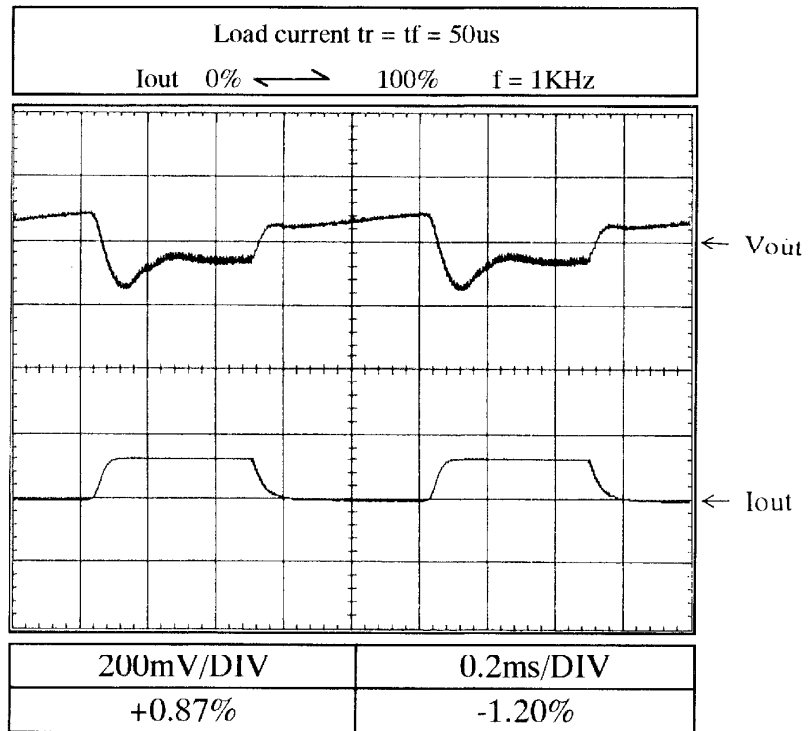
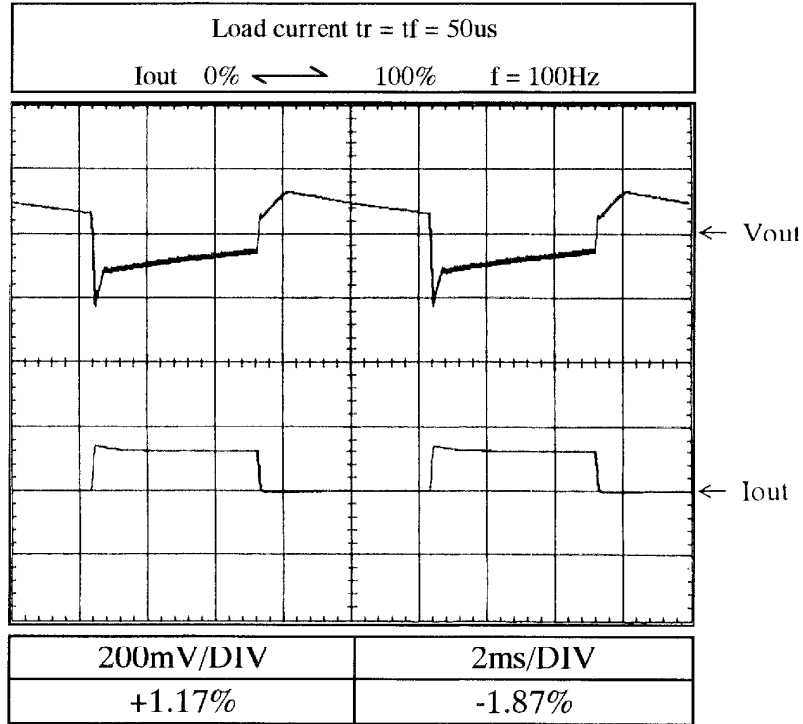
12V



2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 200VAC  
Ta : 25°C

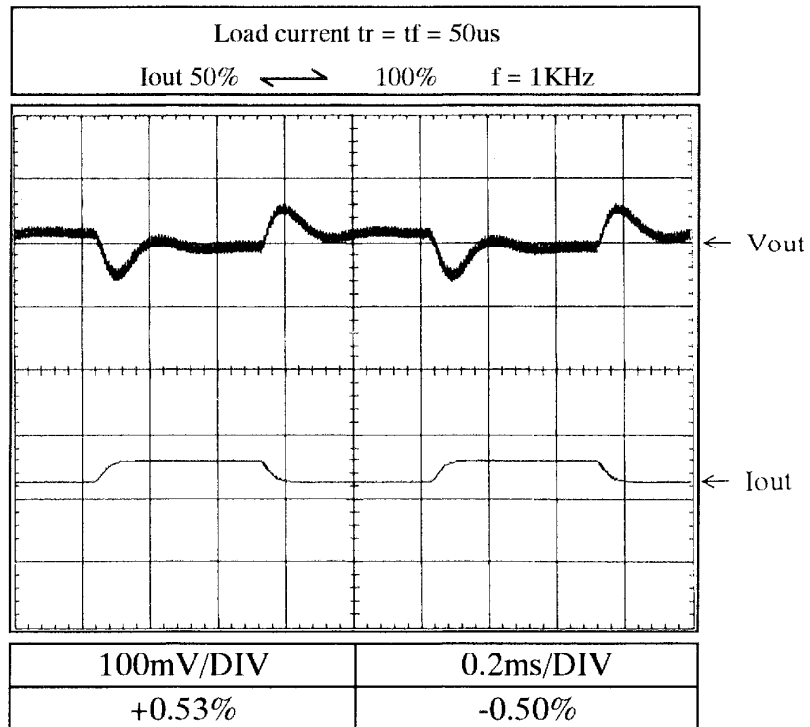
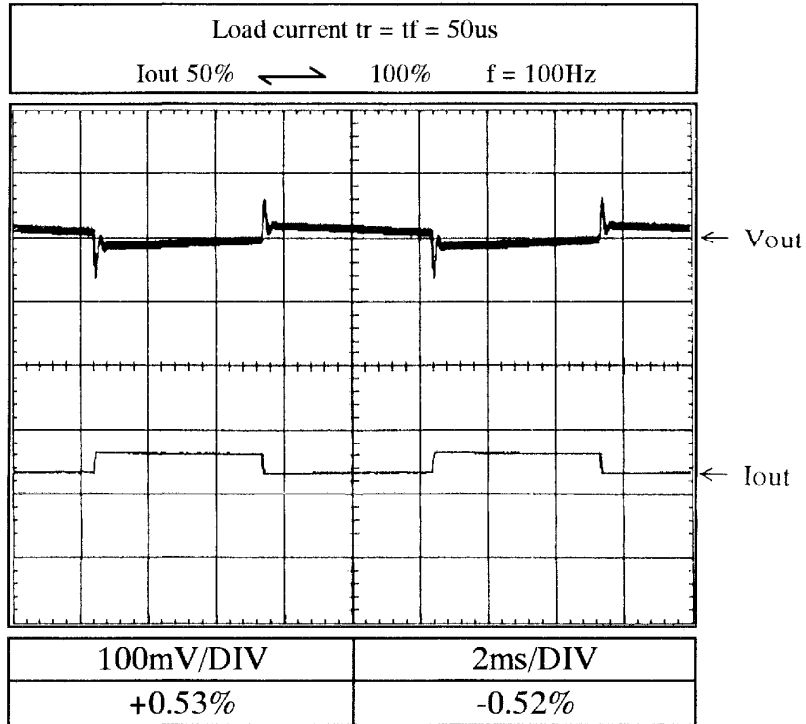
12V



2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 100VAC  
Ta : 25°C

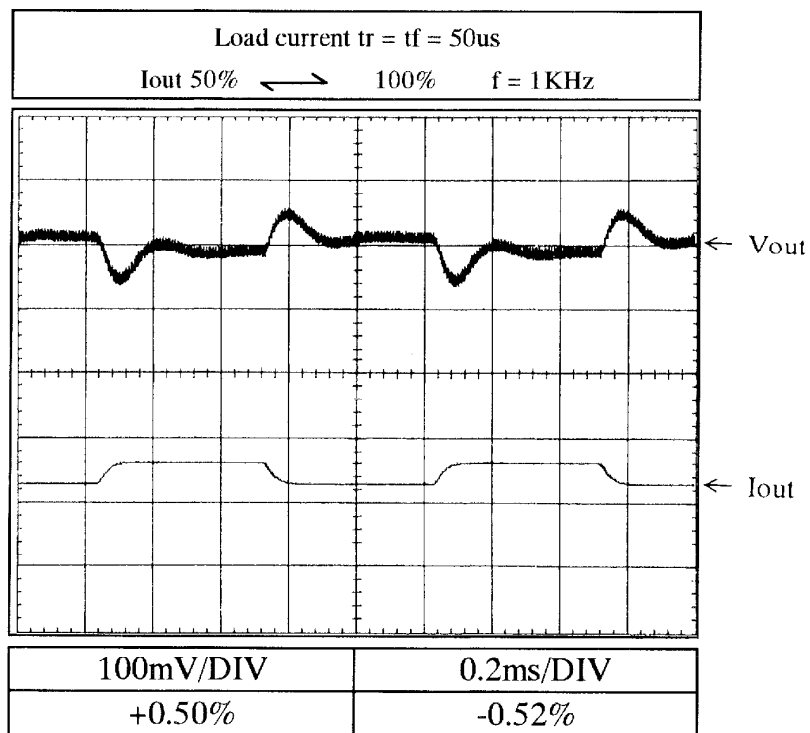
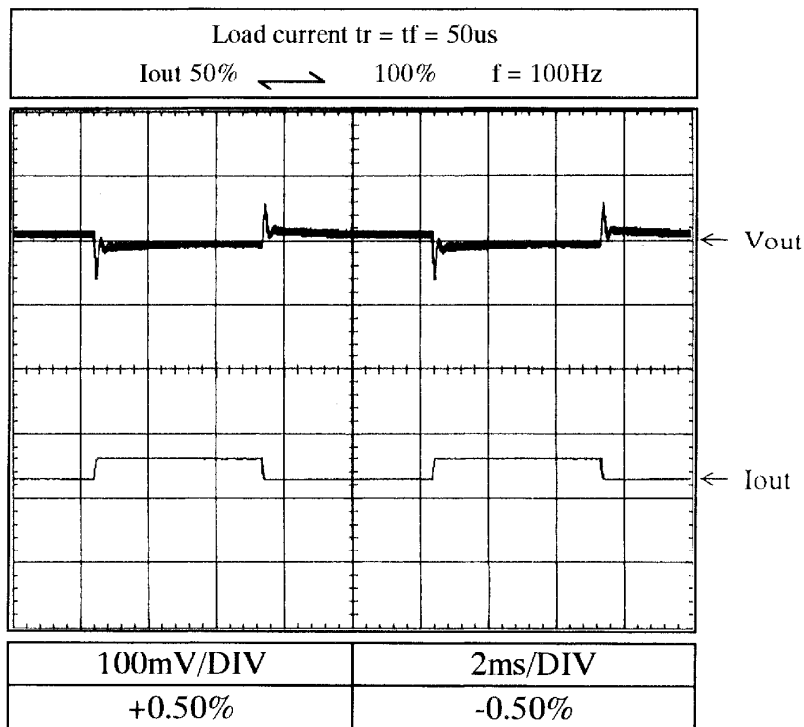
12V



2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 200VAC  
Ta : 25°C

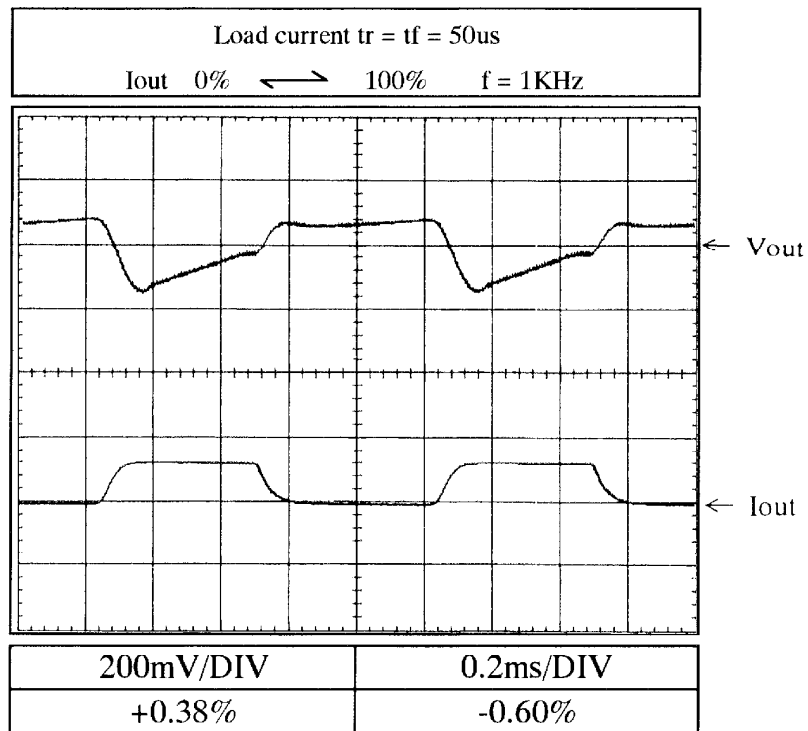
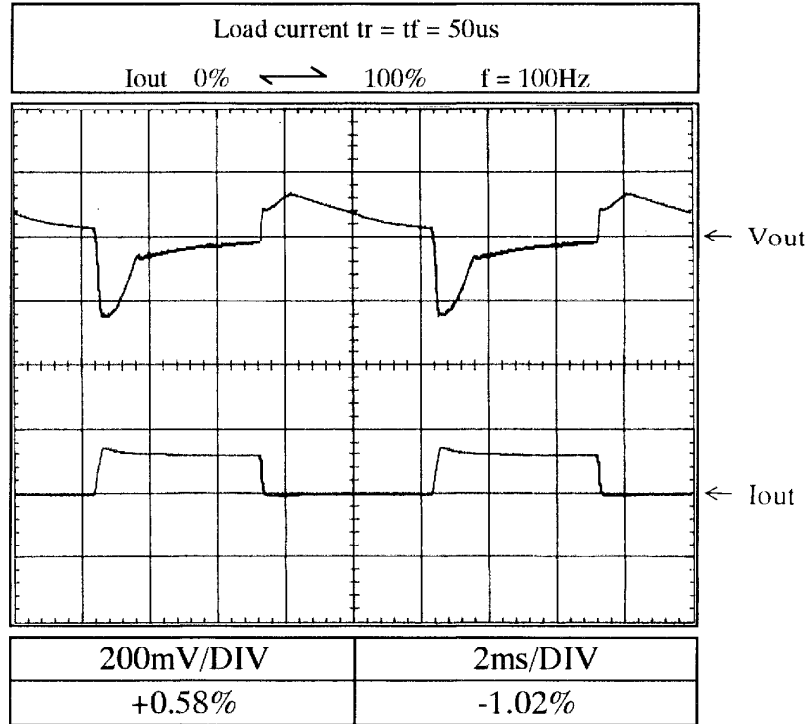
12V



2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 100VAC  
Ta : 25°C

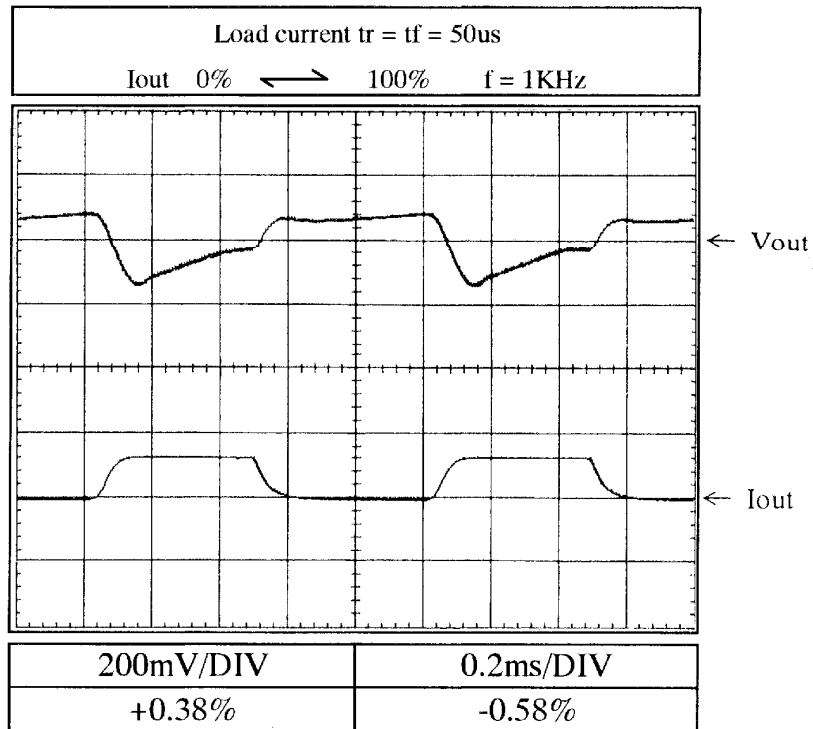
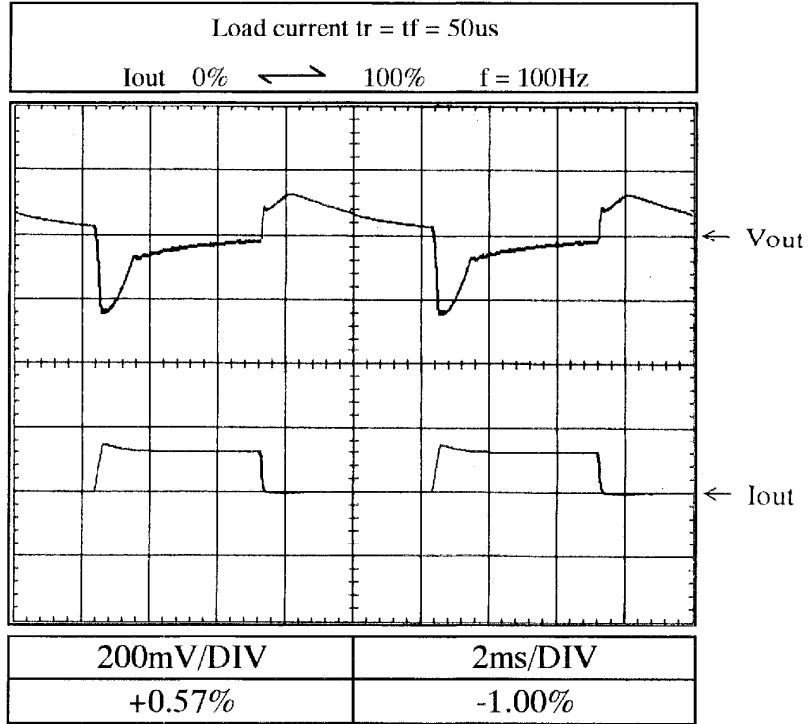
24V



2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 200VAC  
Ta : 25°C

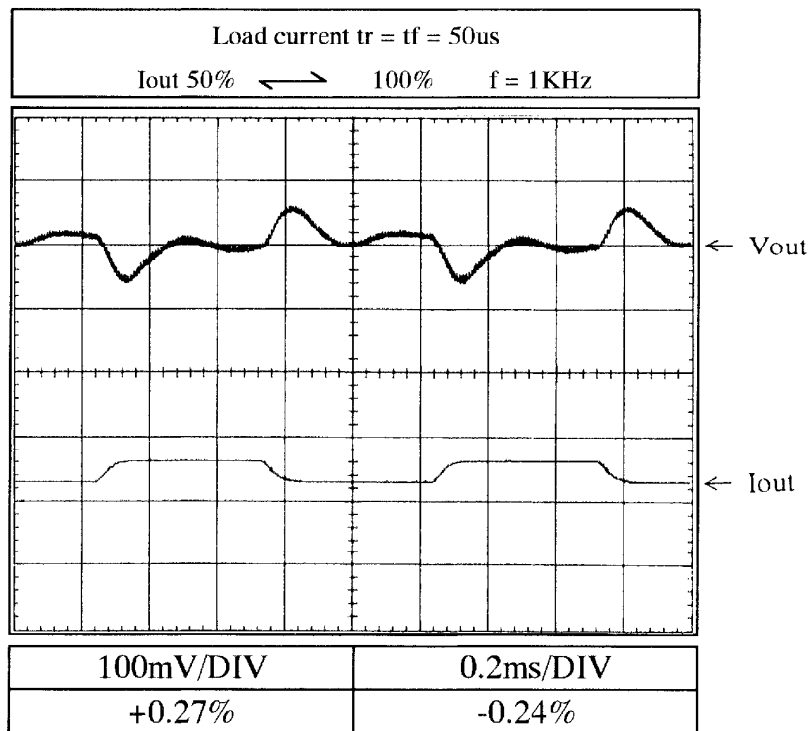
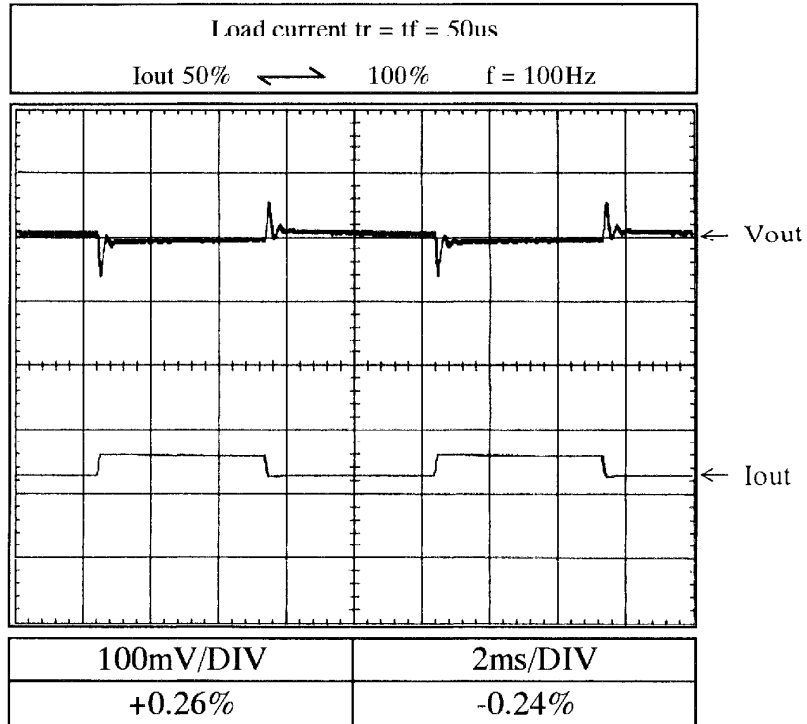
24V



2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

Conditions Vin : 100VAC  
Ta : 25°C

24V

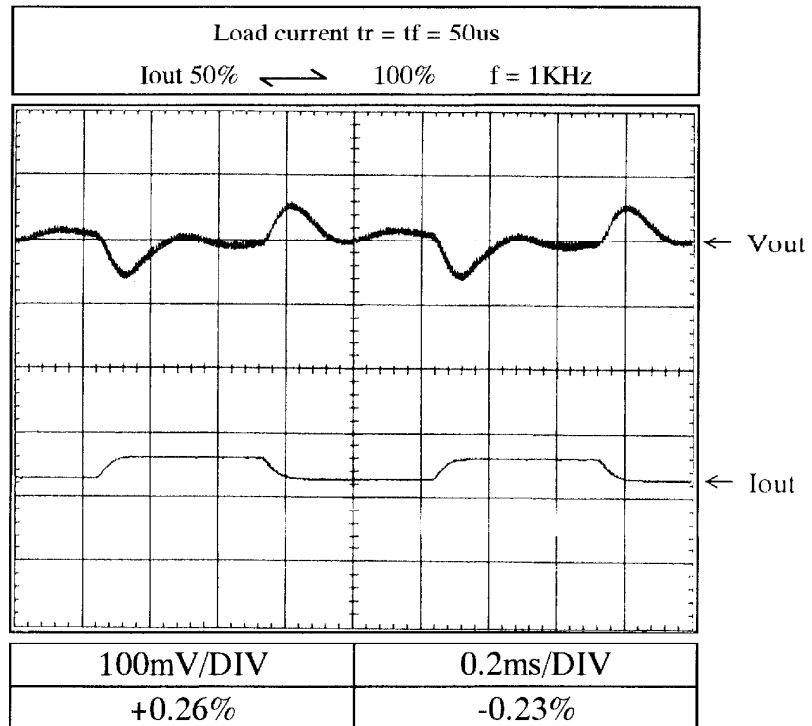
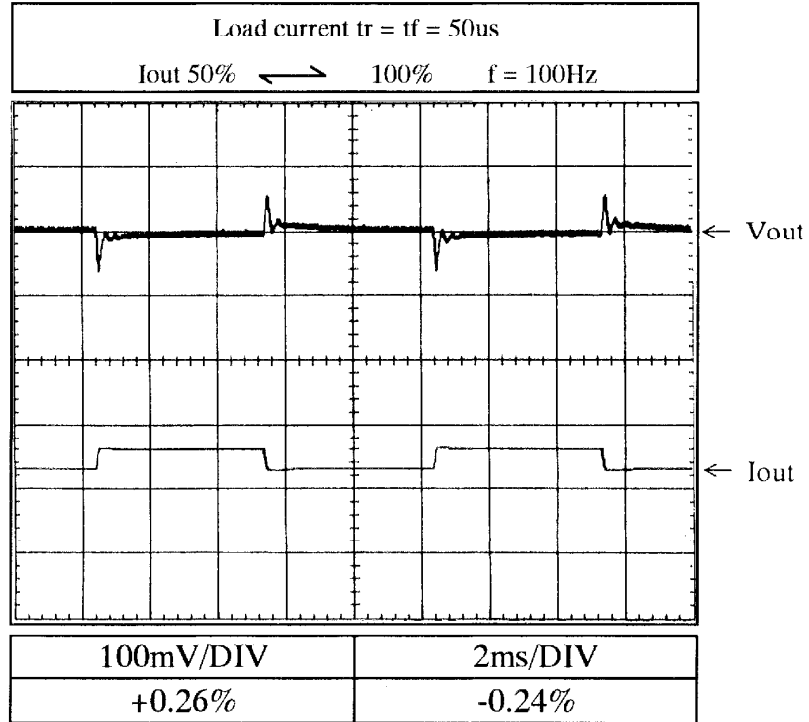




2.11 過渡応答 (負荷急変) 特性  
Dynamic load response characteristics

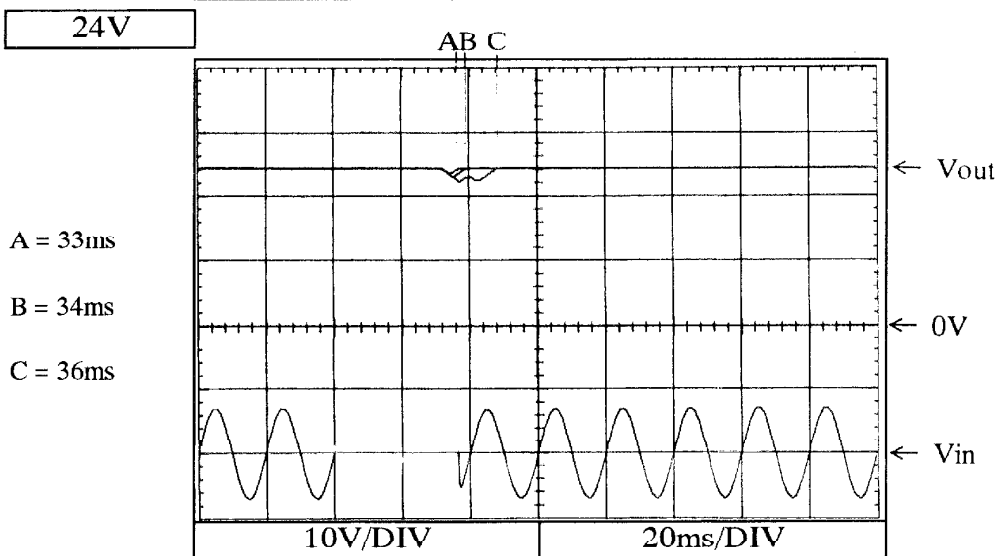
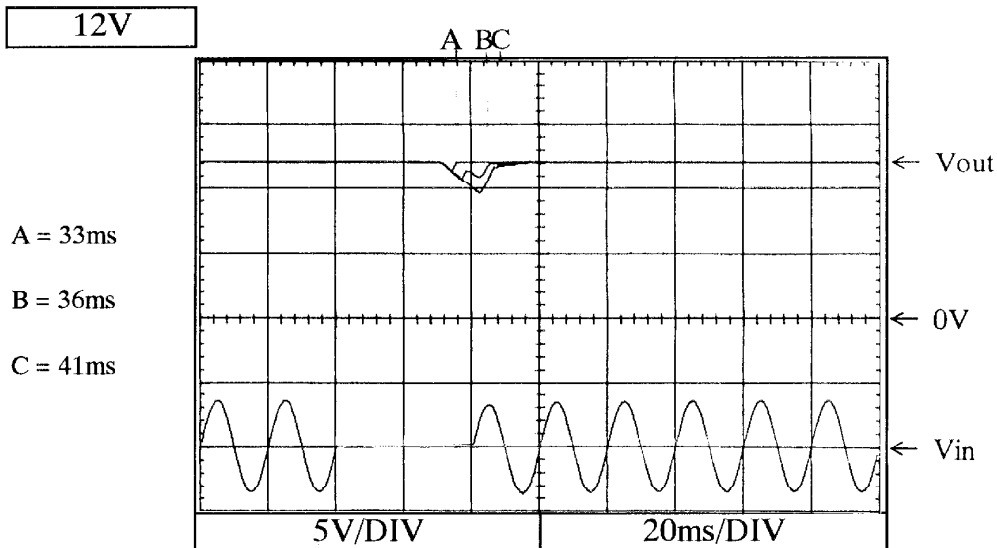
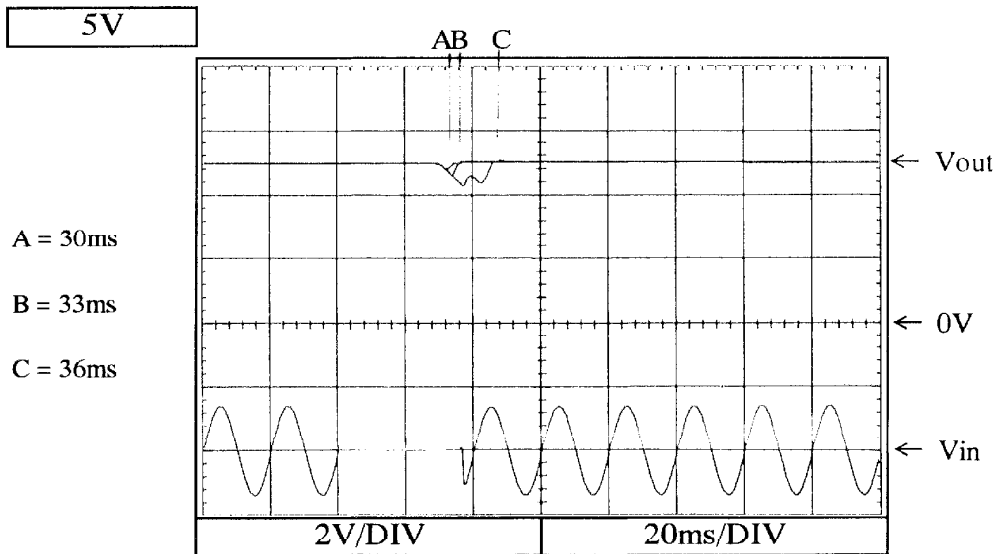
Conditions Vin : 200VAC  
Ta : 25°C

24V



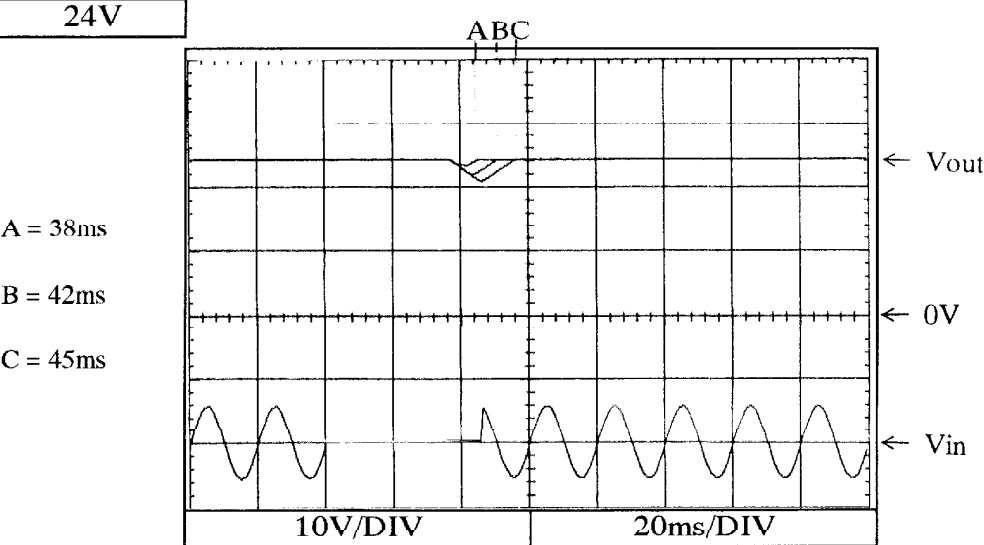
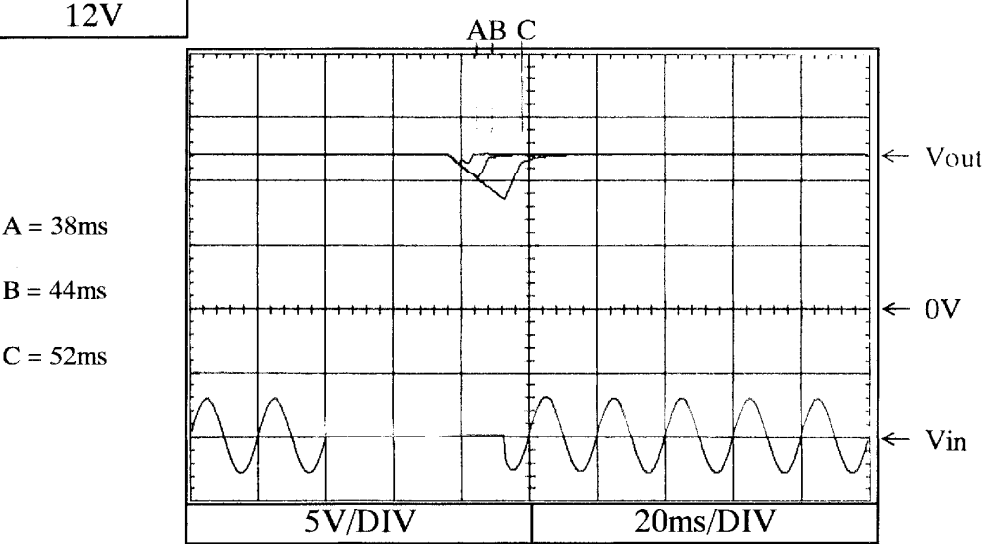
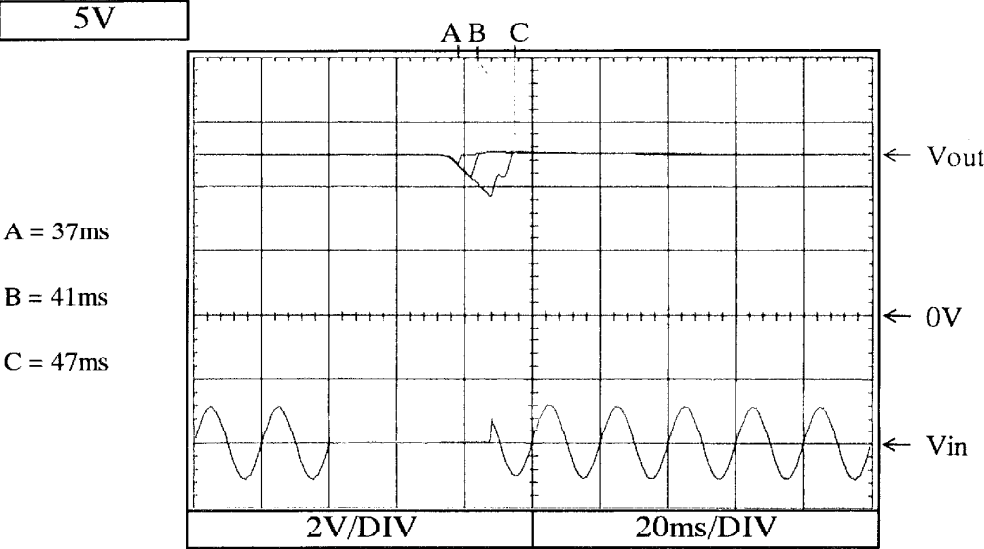
2.12 入力電圧瞬停特性  
Response to brown out characteristics

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



2.12 入力電圧瞬停特性  
Response to brown out characteristics

Conditions Vin : 200VAC  
Iout : 100%  
Ta : 25°C

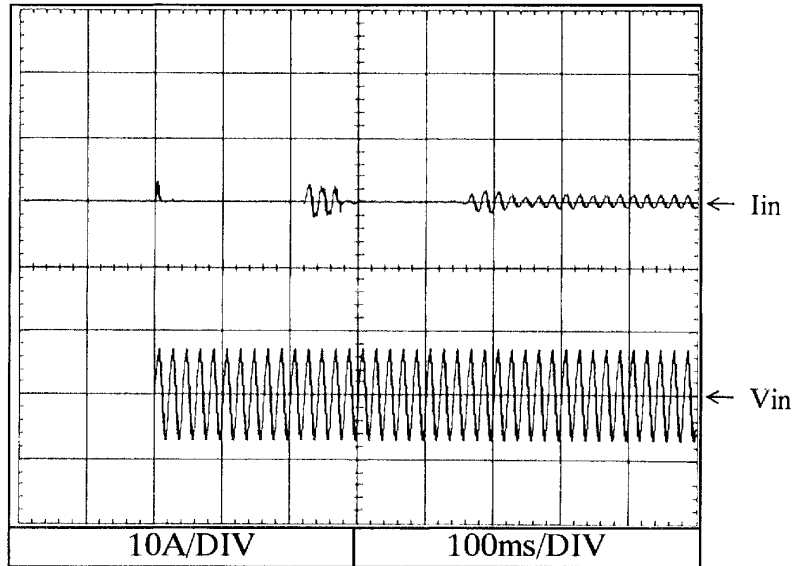


2.13 入力サージ電流 (突入電流) 特性  
Inrush current waveform

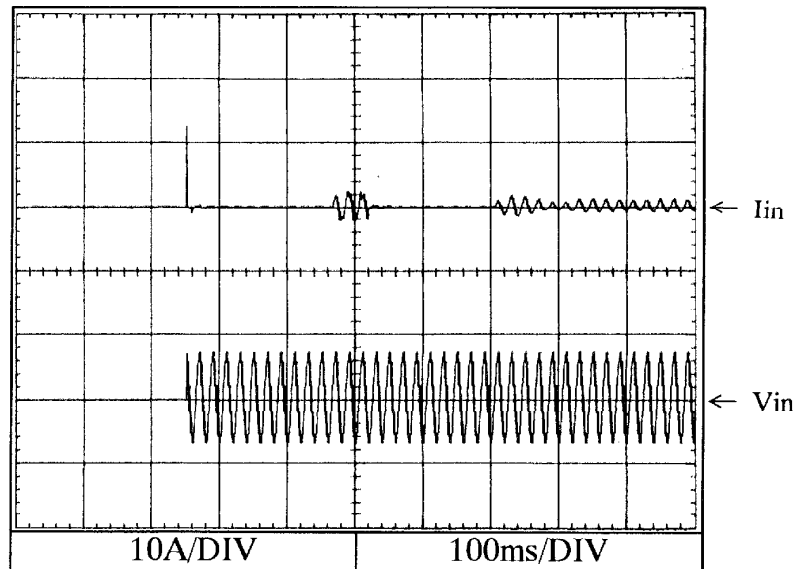
Conditions Vin : 100VAC  
Iout : 100%  
Ta : 25°C

5V

Switch on phase angle  
of input AC voltage  
 $\phi = 0^\circ$



Switch on phase angle  
of input AC voltage  
 $\phi = 90^\circ$

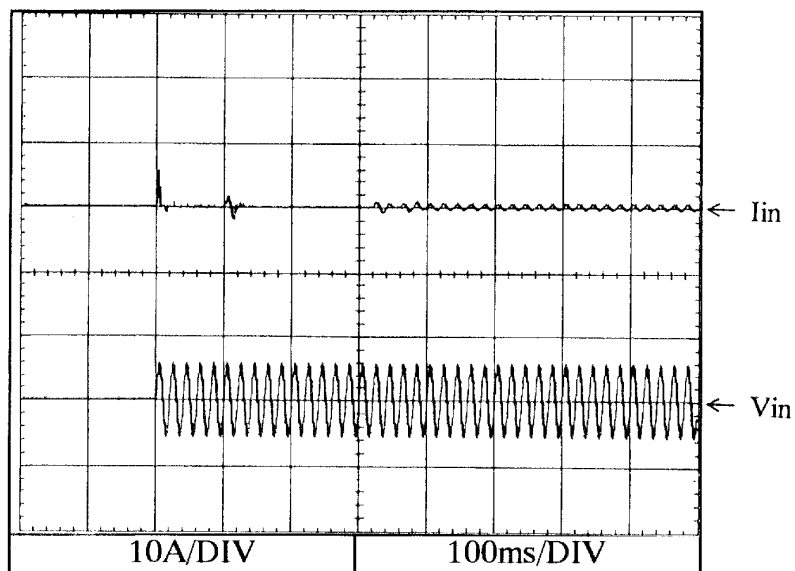


2.13 入力サージ電流（突入電流）特性  
Inrush current waveform

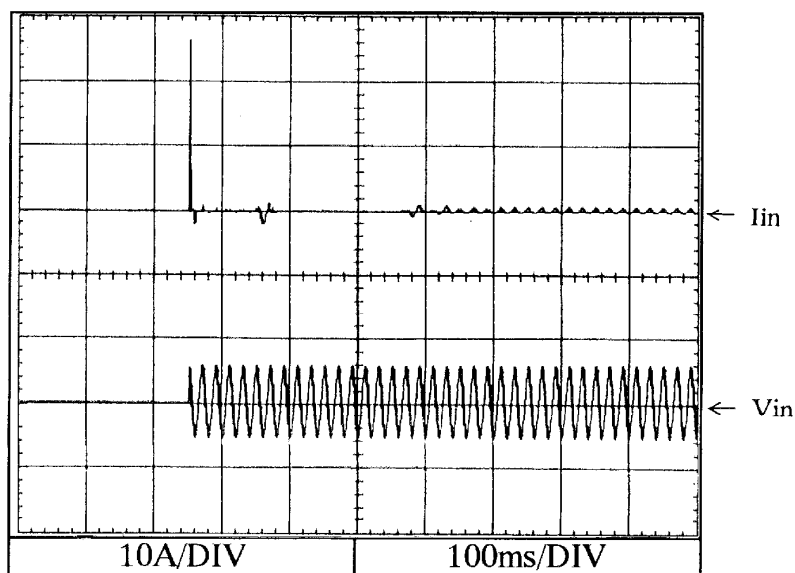
Conditions Vin : 200VAC  
Iout : 100%  
Ta : 25°C

5V

Switch on phase angle  
of input AC voltage  
 $\phi = 0^\circ$



Switch on phase angle  
of input AC voltage  
 $\phi = 90^\circ$



2.14 瞬停時突入電流特性

Inrush current characteristics

Conditions  $V_{in}$  : 100VAC

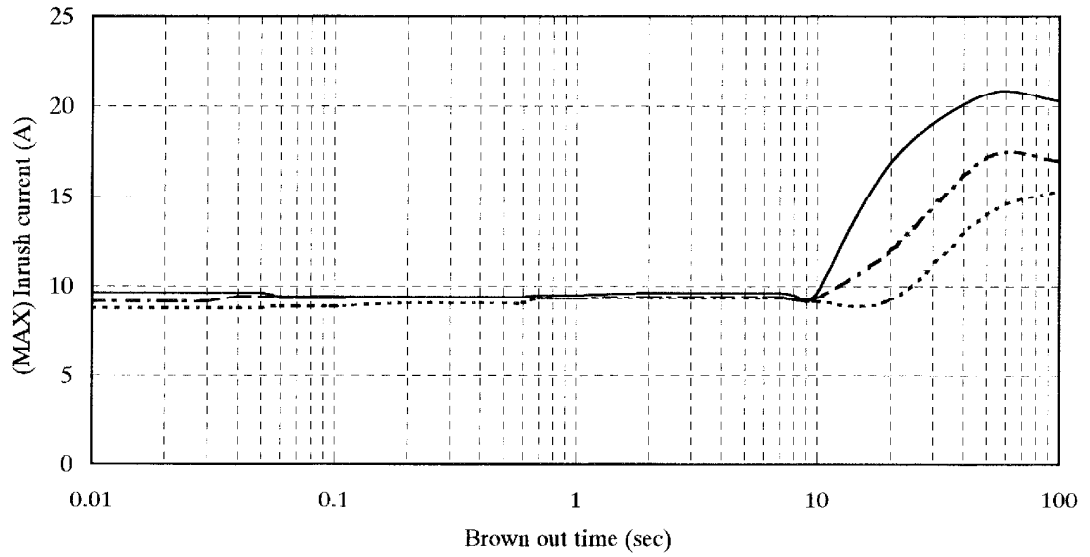
$I_{out}$  : 0% - - - - -

: 50% - - -

: 100% ———

$T_a$  : 25°C

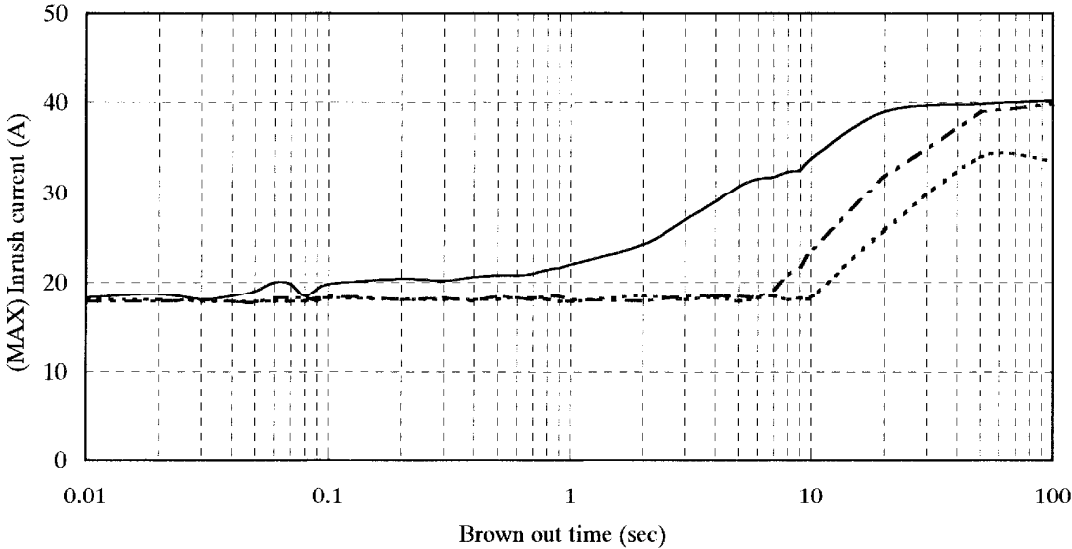
5V



2.14 瞬停時突入電流特性  
Inrush current characteristics

Conditions Vin : 200VAC  
Iout : 0% - - - - -  
          : 50% - - -  
          : 100% ———  
Ta : 25°C

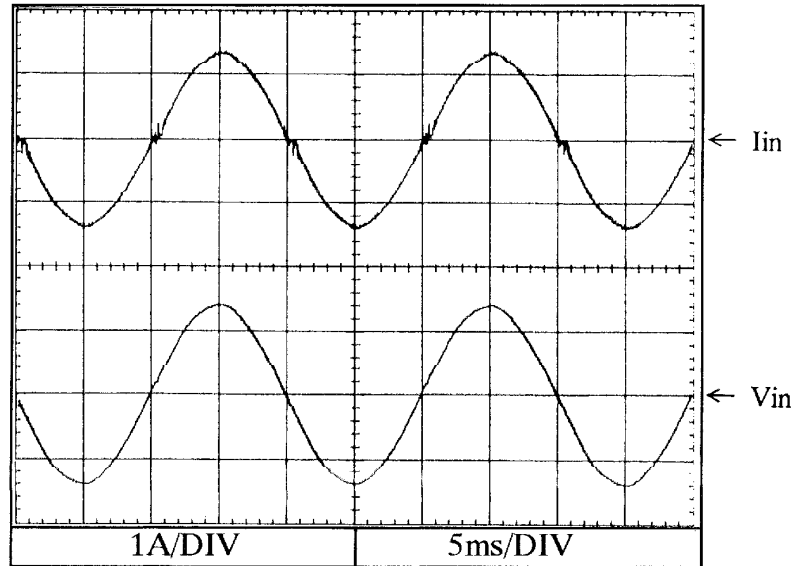
5V



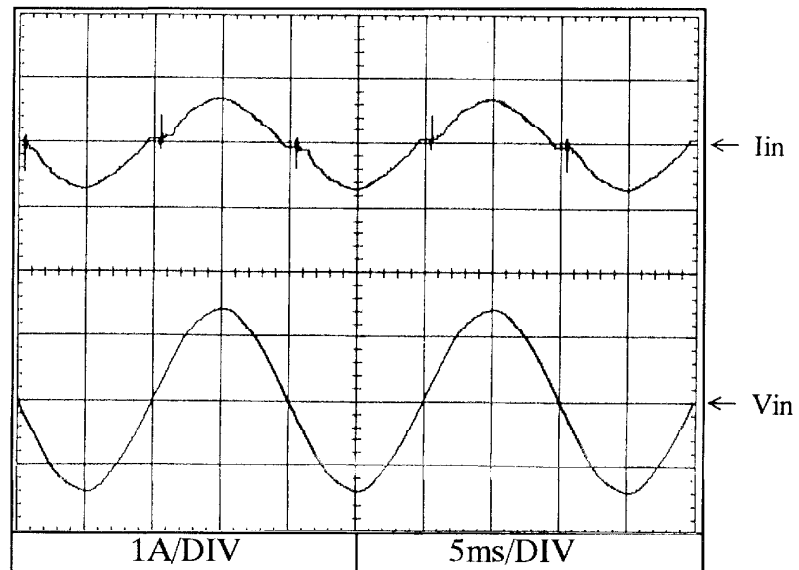
2.15 入力電流波形  
Input current waveform

5V

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



Conditions Vin : 200VAC  
Iout : 100%  
Ta : 25°C

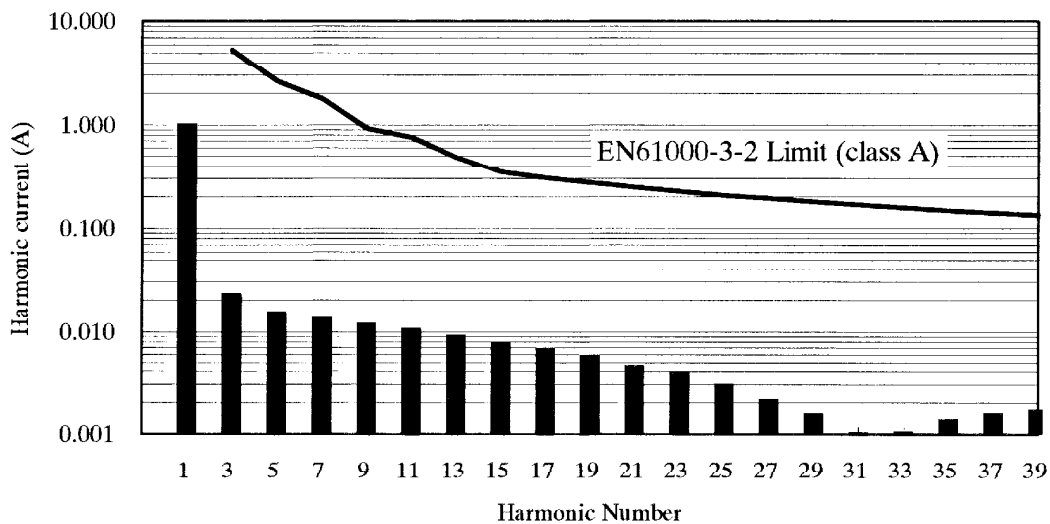




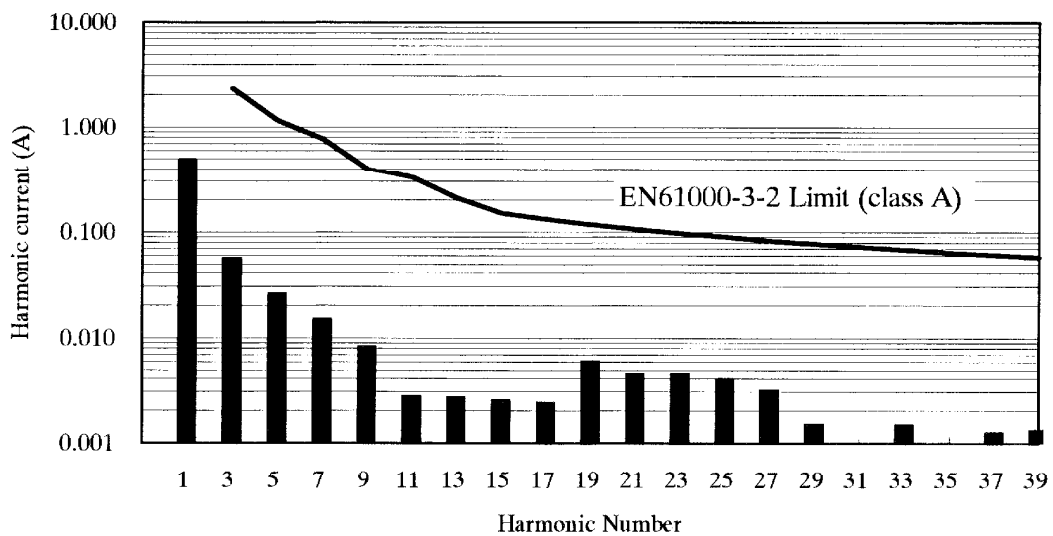
2.16 高調波成分  
Input current harmonics

5V

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



Conditions Vin : 230VAC  
Iout : 100%  
Ta : 25°C



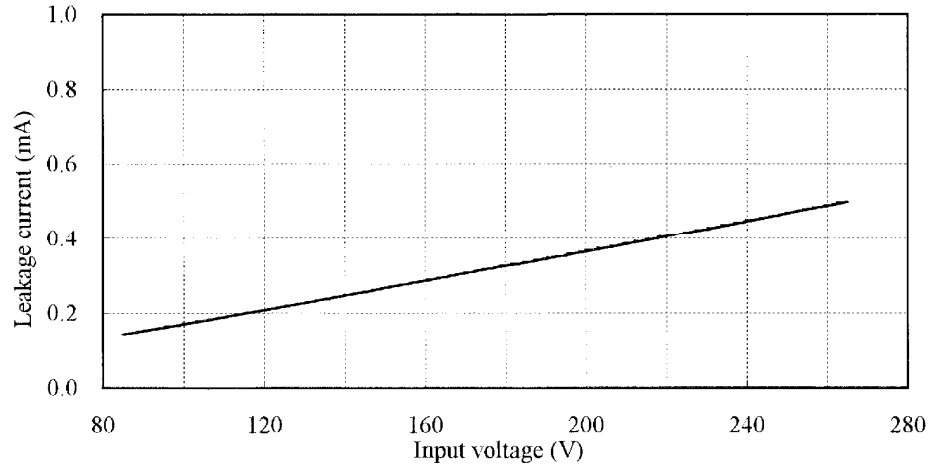
2.17 リーク電流特性

Leakage current characteristics

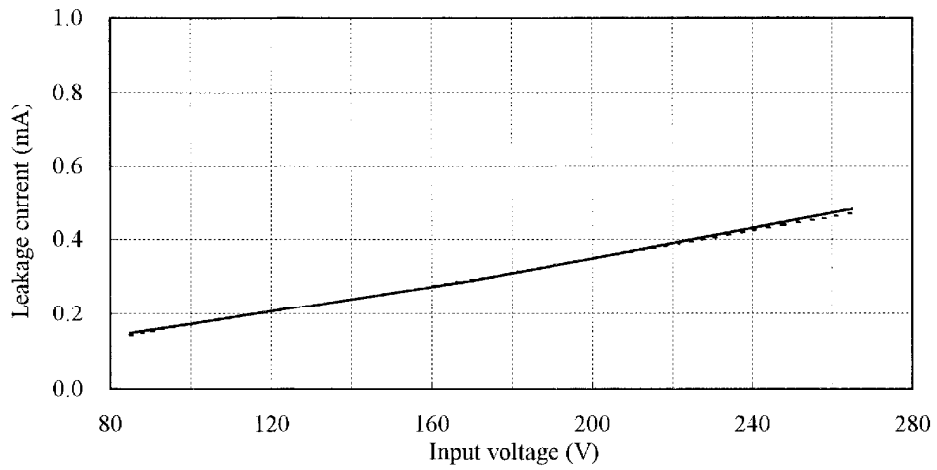
Conditions Iout : 0% .....  
 : 100% ———  
 Ta : 25°C  
 f : 50Hz

Equipment used : MODEL 229-2 (Simpson)

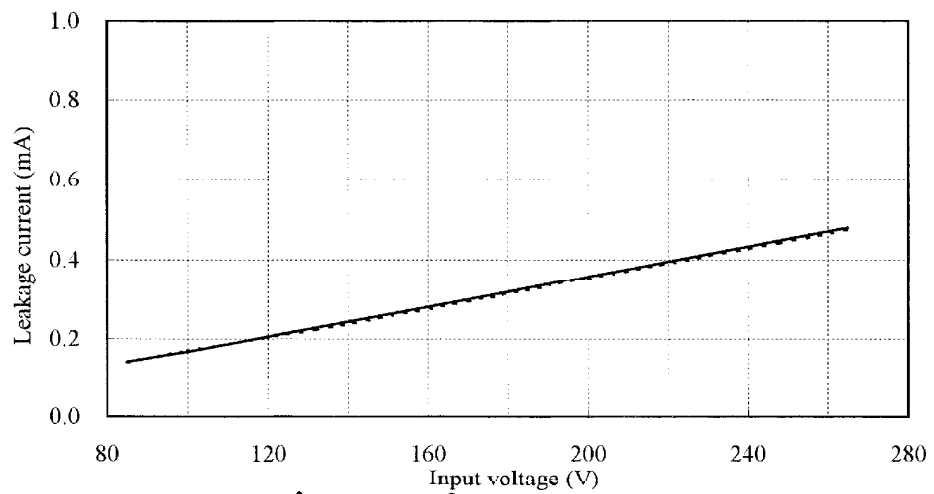
5V



12V



24V



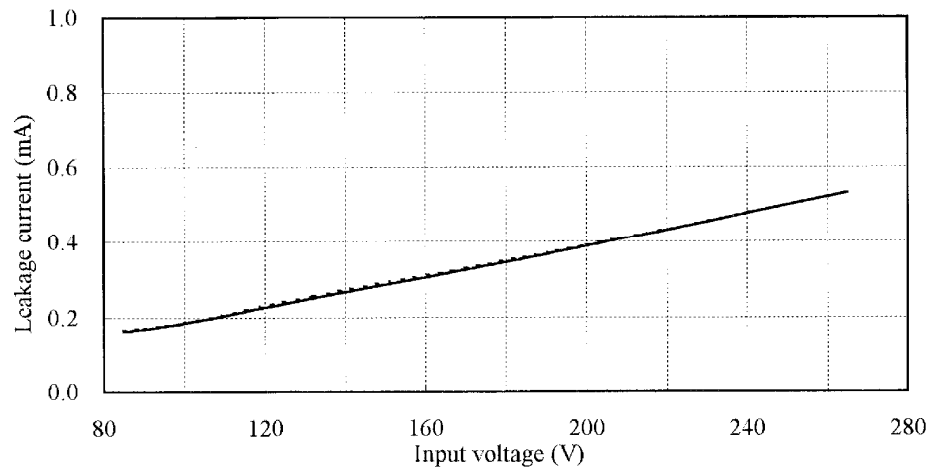
2.17 リーク電流特性

Leakage current characteristics

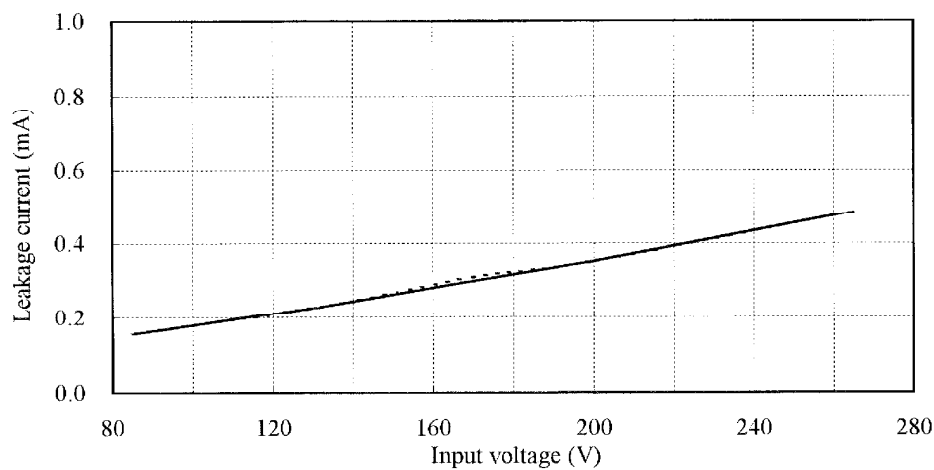
Conditions Iout : 0%    - - - - -  
                   : 100%    ————  
 Ta : 25°C  
 f : 50Hz

Equipment used : TYPE3226 (YOKOGAWA)

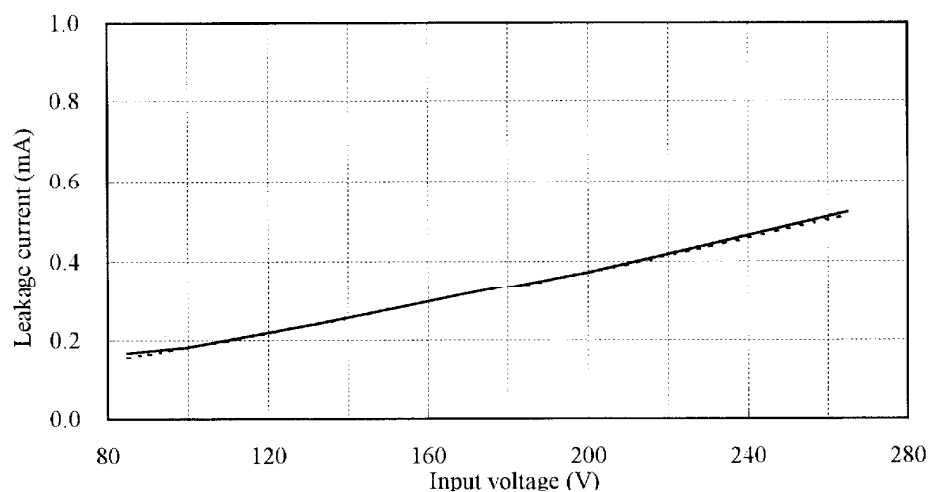
5V



12V



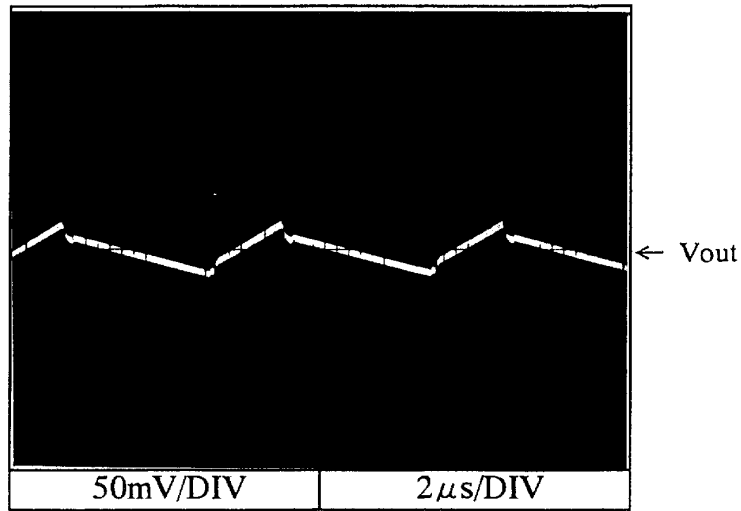
24V



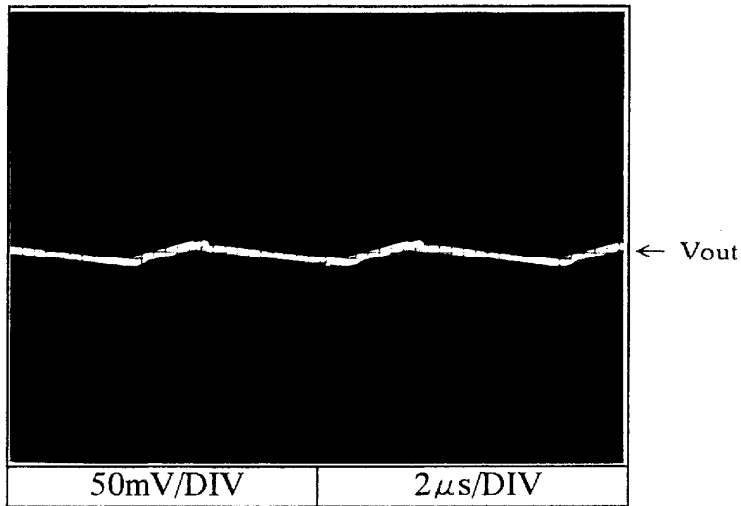
2.18 出力リップル、ノイズ波形  
Output ripple and noise waveform  
NORMAL MODE

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

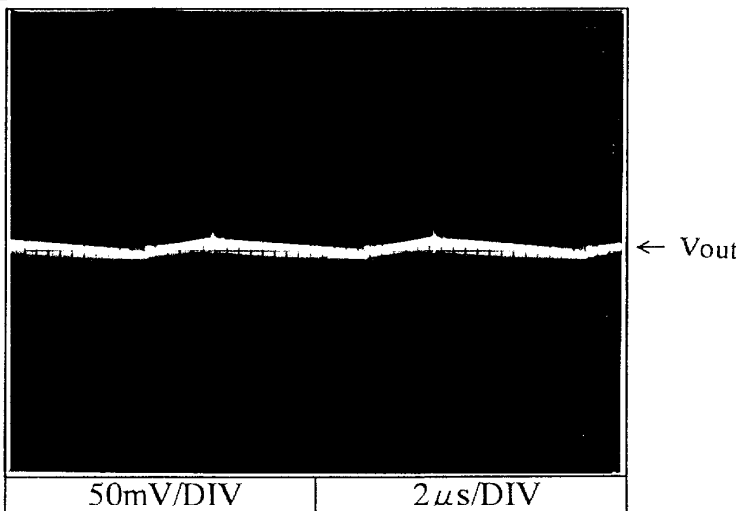
5V



12V



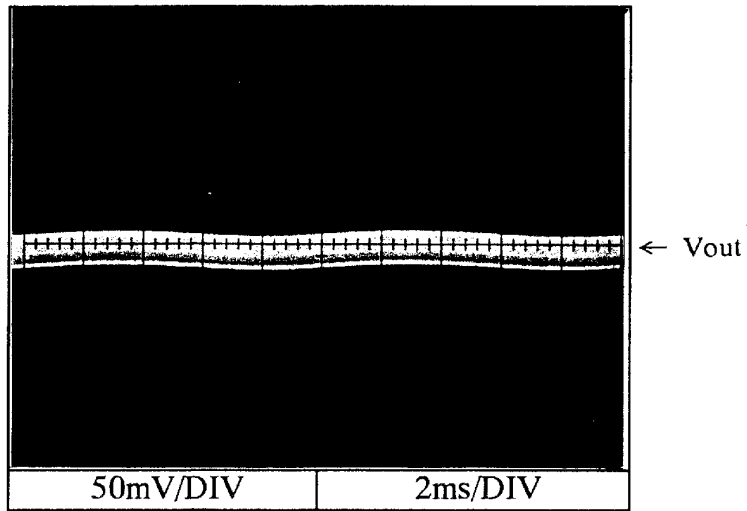
24V



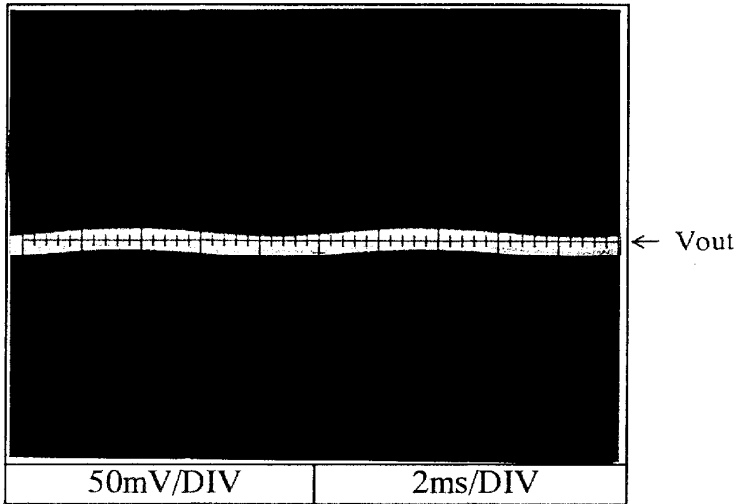
2.18 出力リップル、ノイズ波形  
Output ripple and noise waveform  
NORMAL MODE

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

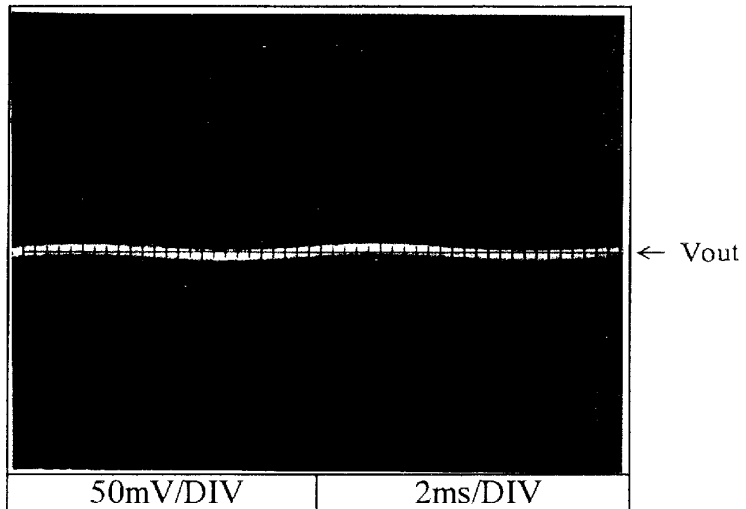
5V



12V



24V



2.18 出力リップル、ノイズ波形

Output ripple and noise waveform

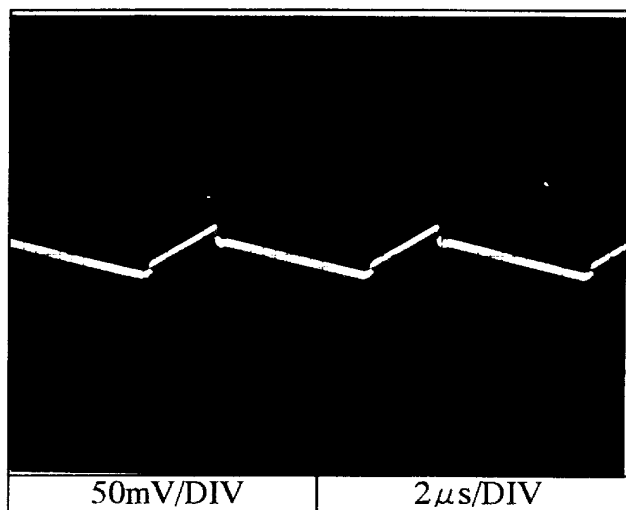
NORMAL MODE

Conditions  $V_{in}$  : 200VAC

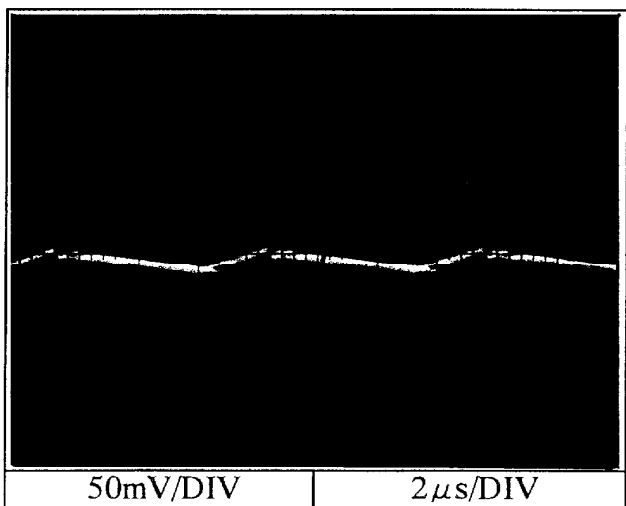
$I_{out}$  : 100%

$T_a$  : 25°C

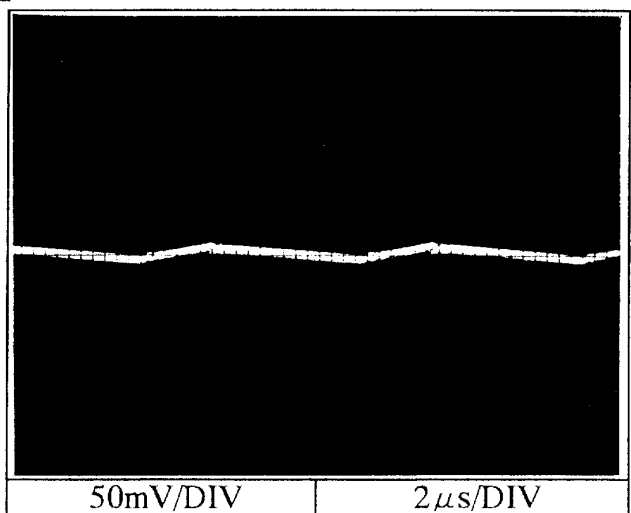
5V



12V



24V

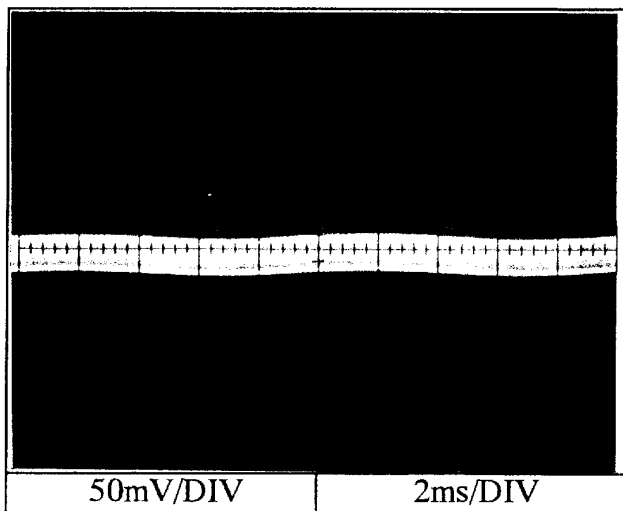


2.18 出力リップル、ノイズ波形  
Output ripple and noise waveform

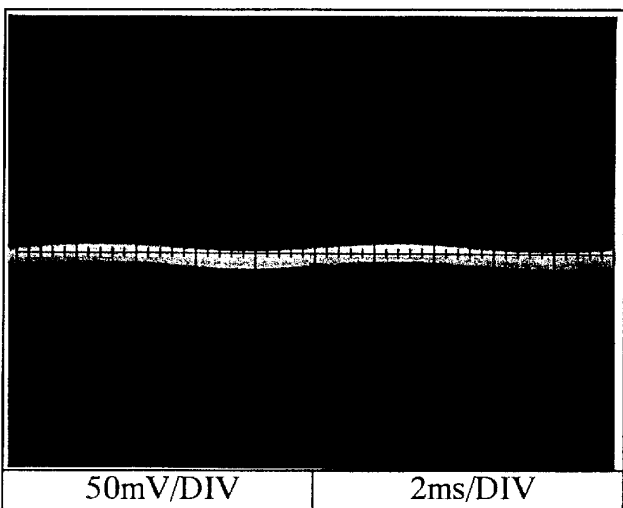
Conditions Vin : 200VAC  
Iout : 100%  
Ta : 25°C

NORMAL MODE

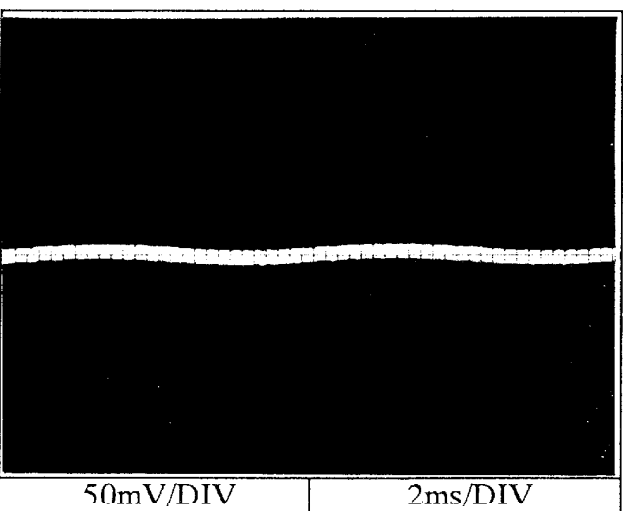
5V



12V



24V

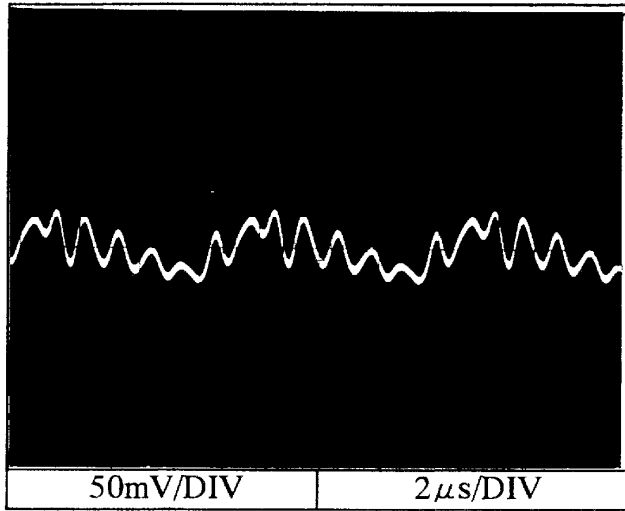


2.18 出力リップル、ノイズ波形  
Output ripple and noise waveform

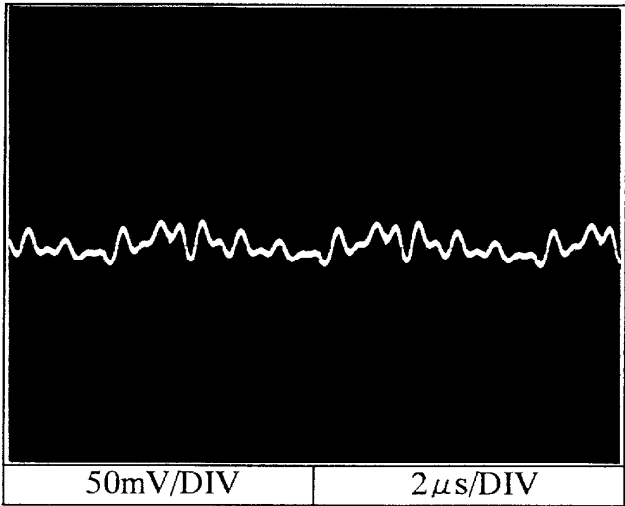
Conditions Vin : 100VAC  
Iout : 100%  
Ta : 25°C

NORMAL + COMMON MODE

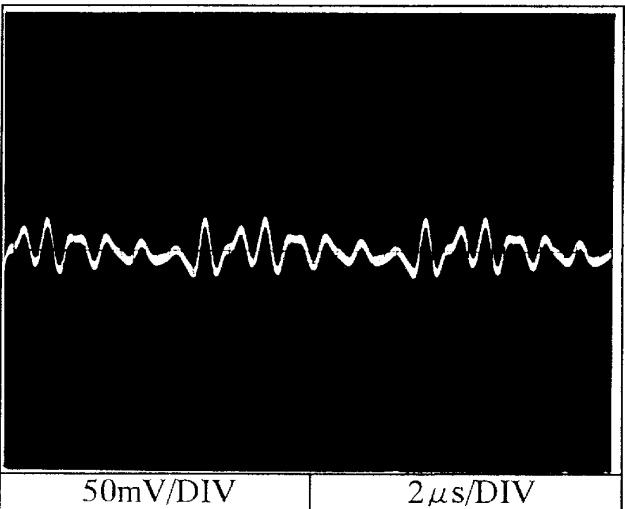
5V



12V



24V



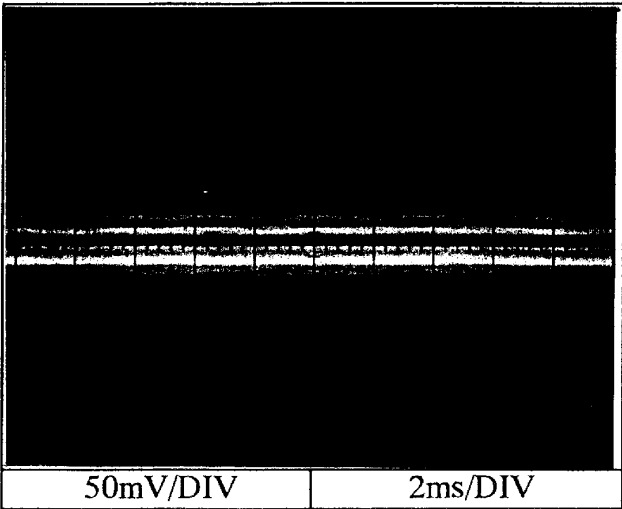


2.18 出カリップル、ノイズ波形  
Output ripple and noise waveform

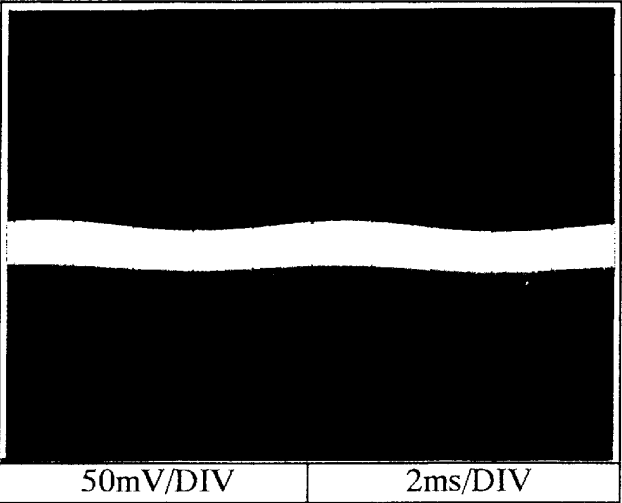
Conditions Vin : 100VAC  
Iout : 100%  
Ta : 25°C

NORMAL + COMMON MODE

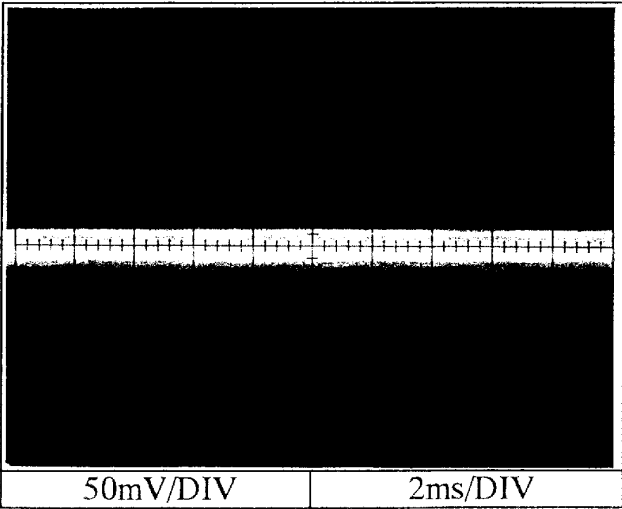
5V



12V



24V

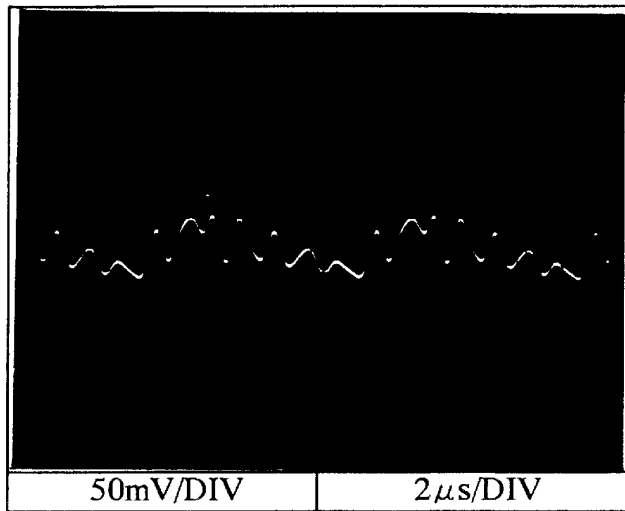


2.18 出力リップル、ノイズ波形  
Output ripple and noise waveform

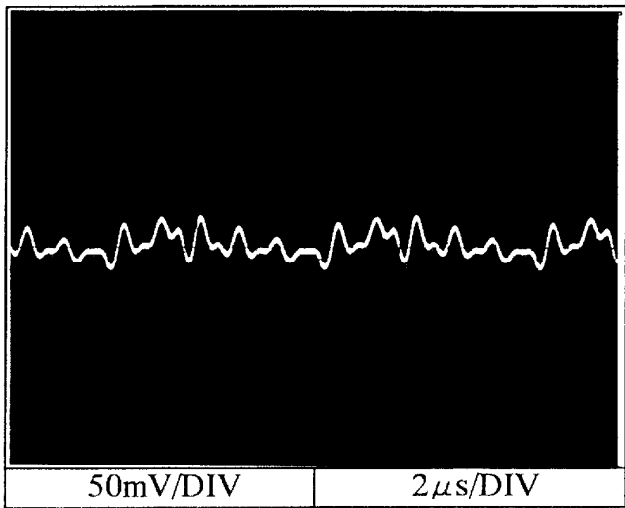
Conditions Vin : 200VAC  
Iout : 100%  
Ta : 25°C

NORMAL + COMMON MODE

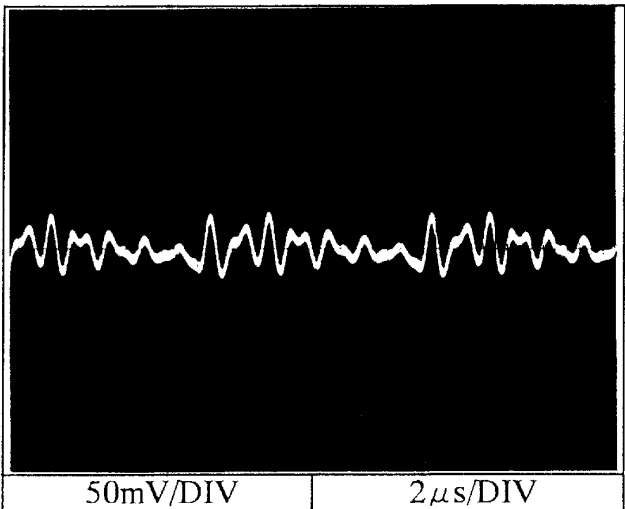
5V



12V



24V

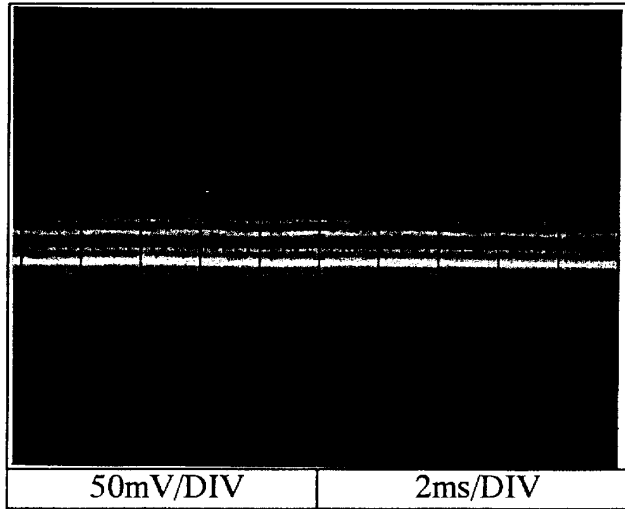


2.18 出力リップル、ノイズ波形  
Output ripple and noise waveform

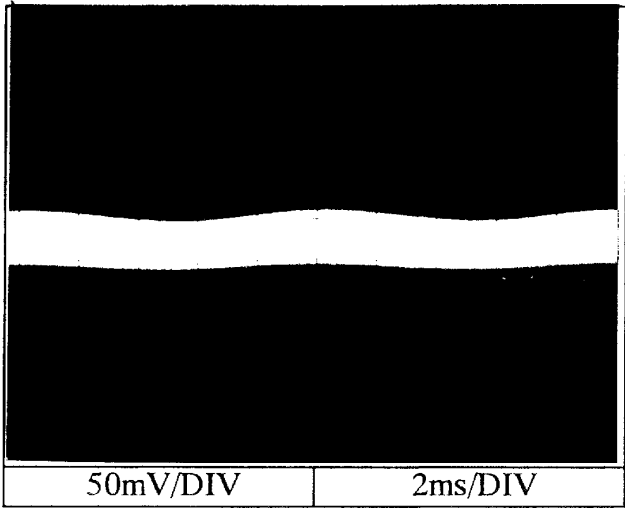
Conditions Vin : 200VAC  
Iout : 100%  
Ta : 25°C

NORMAL + COMMON MODE

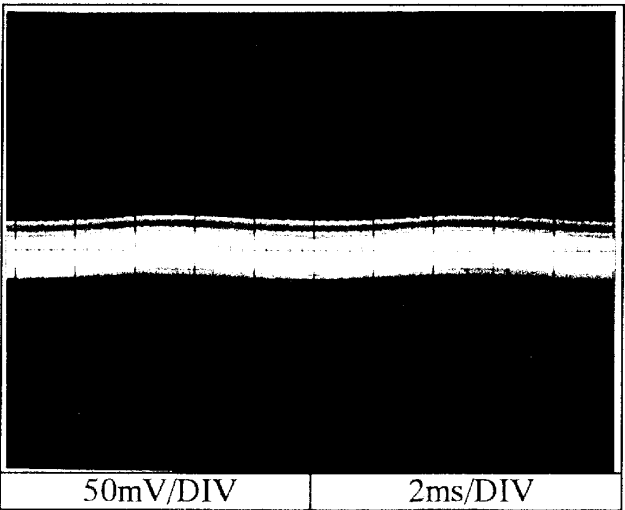
5V



12V



24V



2.19 EMI 特性

Electro-Magnetic Interference characteristics

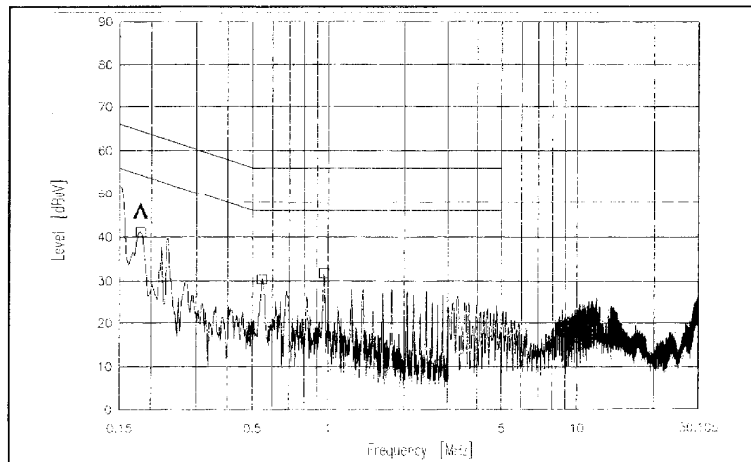
Conditions Vin : 100VAC  
Iout : 100%  
Phase : L

雑音端子電圧

Conducted Emission

5 V

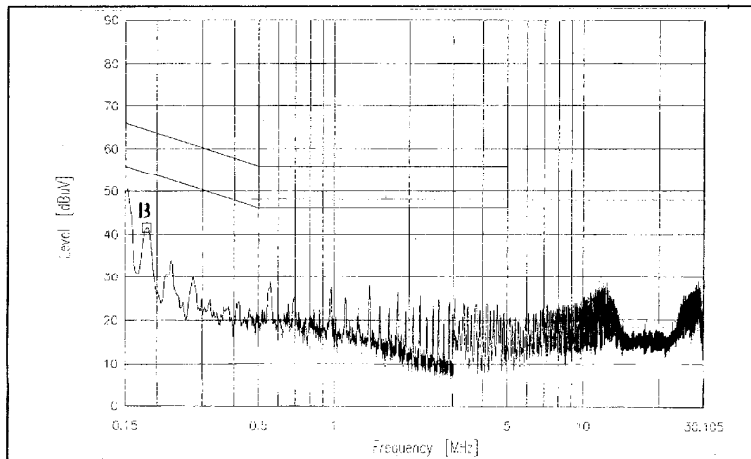
Point A (181.0 KHz)		
Ref.	Limit (dBuV)	Measure (dBuV)
QP	64.4	39.7
AV	54.4	37.2



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

12V

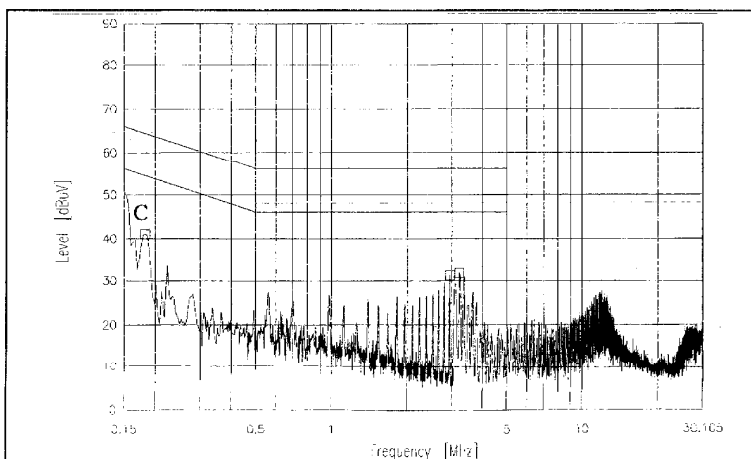
Point B (181.0 KHz)		
Ref.	Limit (dBuV)	Measure (dBuV)
QP	64.4	40.8
AV	54.4	38.4



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

24V

Point C (181.0 KHz)		
Ref.	Limit (dBuV)	Measure (dBuV)
QP	64.4	40.3
AV	54.4	37.9



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

EN55011-B, EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.

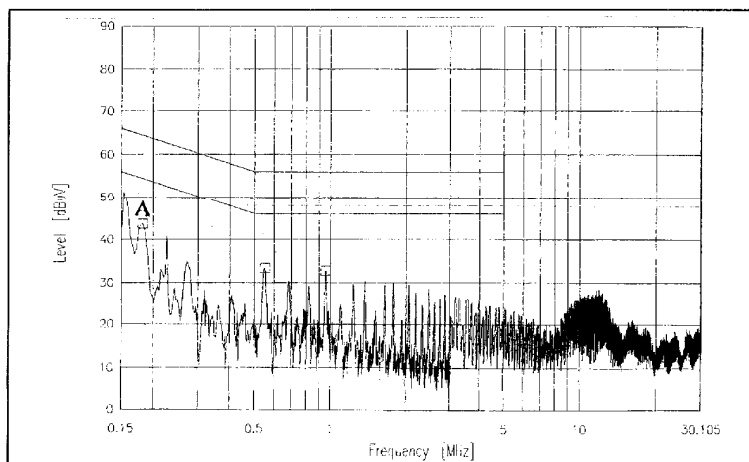
2.19 EMI 特性  
Electro-Magnetic Interference characteristics

Conditions Vin : 100VAC  
Iout : 100%  
Phase : N

雑音端子電圧  
Conducted Emission

5 V

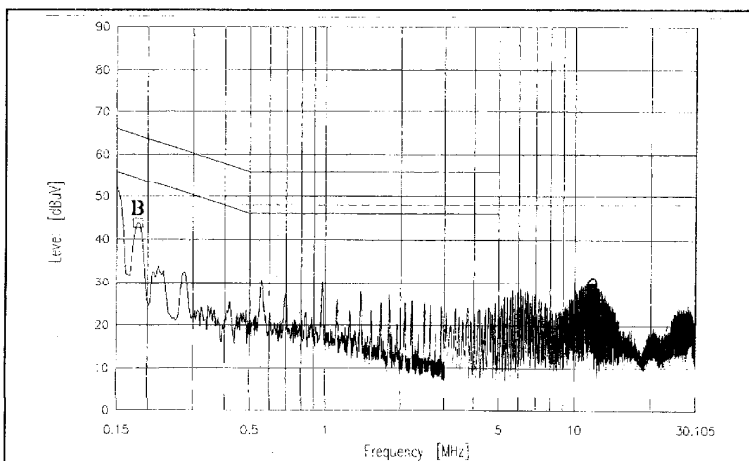
Point A (181.0 KHz)		
Ref.	Limit (dBuV)	Measure (dBuV)
QP	64.4	42.1
AV	54.4	37.4



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

12V

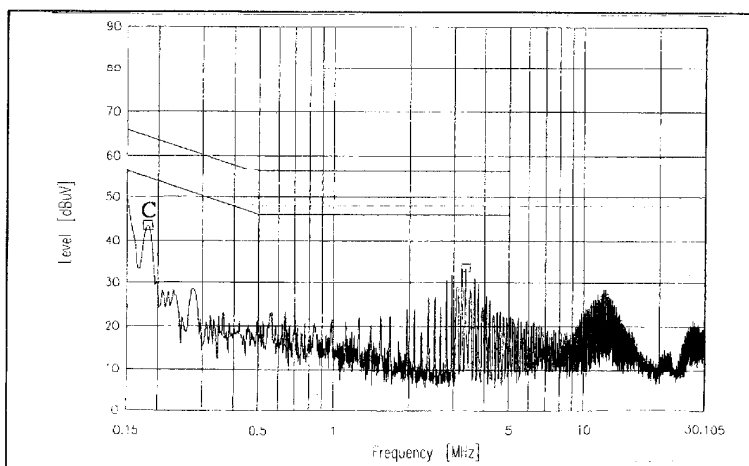
Point B (181.0 KHz)		
Ref.	Limit (dBuV)	Measure (dBuV)
QP	64.4	43.1
AV	54.4	38.8



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

24V

Point C (181.0 KHz)		
Ref.	Limit (dBuV)	Measure (dBuV)
QP	64.4	42.4
AV	54.4	38.2



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

EN55011-B,EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.

2.19 EMI 特性

Electro-Magnetic Interference characteristics

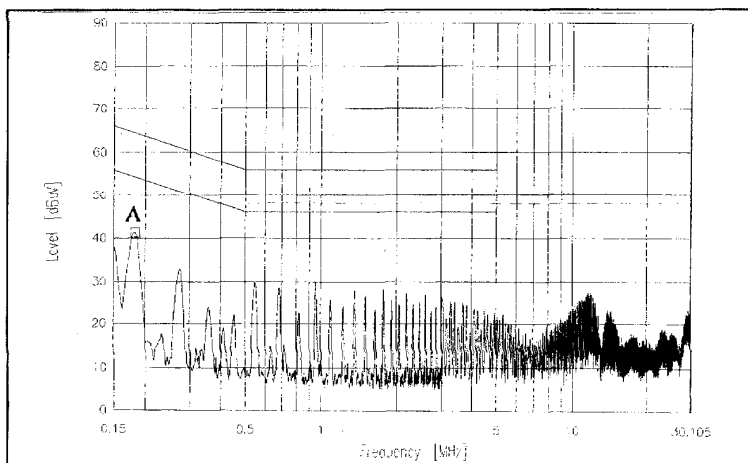
Conditions Vin : 230VAC  
Iout : 100%  
Phase : L

雑音端子電圧

Conducted Emission

5 V

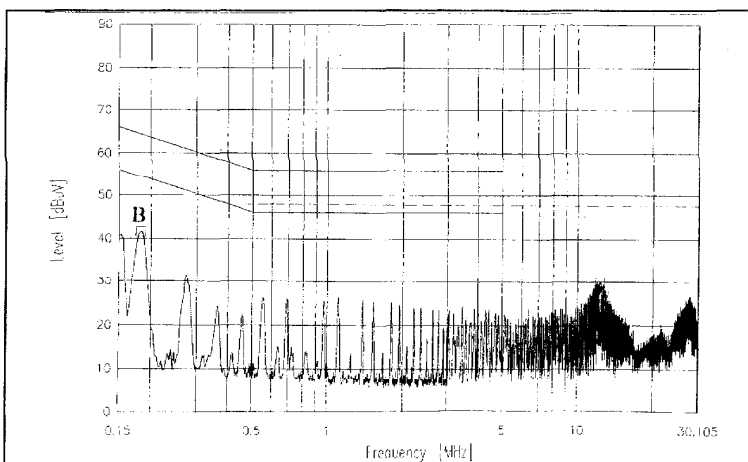
Ref.	Point A (180.0 KHz)	
	Limit (dBuV)	Measure (dBuV)
QP	64.5	42.4
AV	54.5	37.2



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

12V

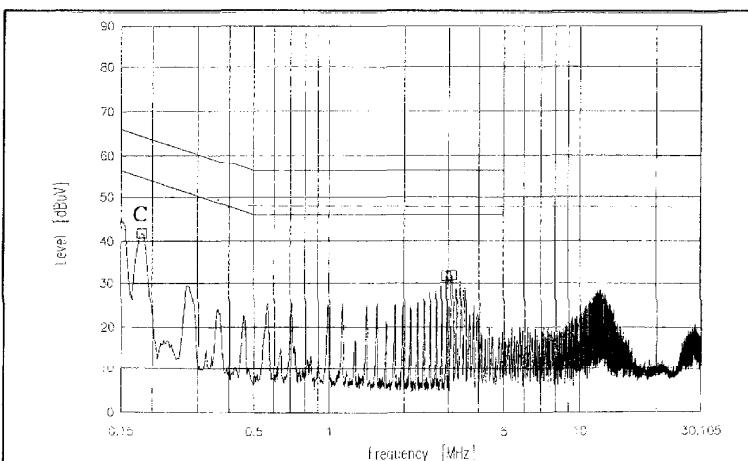
Ref.	Point B (182.0 KHz)	
	Limit (dBuV)	Measure (dBuV)
QP	64.4	40.7
AV	54.4	37.8



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

24V

Ref.	Point C (181.0 KHz)	
	Limit (dBuV)	Measure (dBuV)
QP	64.4	40.7
AV	54.4	37.7



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

EN55011-B,EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.

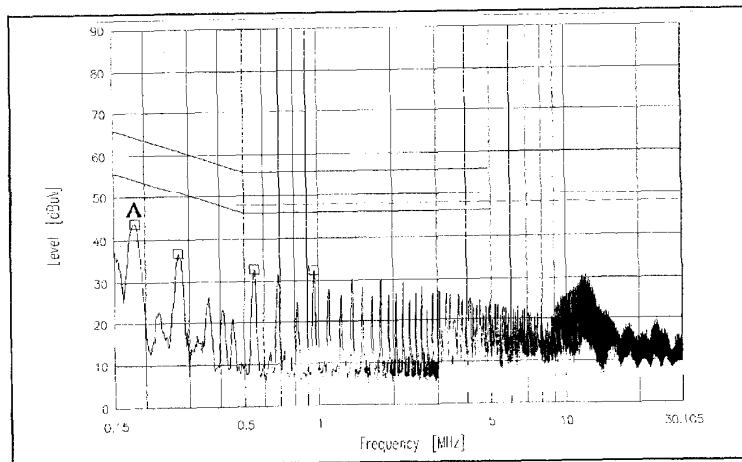
2.19 EMI 特性  
Electro-Magnetic Interference characteristics

Conditions Vin : 230VAC  
Iout : 100%  
Phase : N

雑音端子電圧  
Conducted Emission

5 V

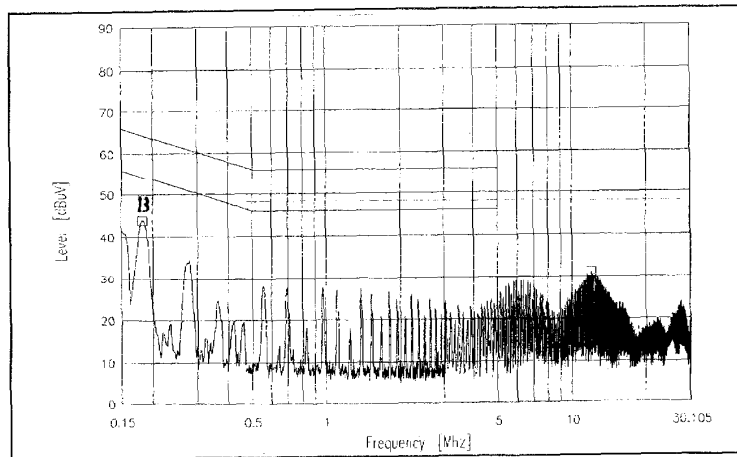
Ref.	Point A (180.0 KHz)	
	Limit (dBuV)	Measure (dBuV)
QP	64.5	42.6
AV	54.5	37.6



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

12V

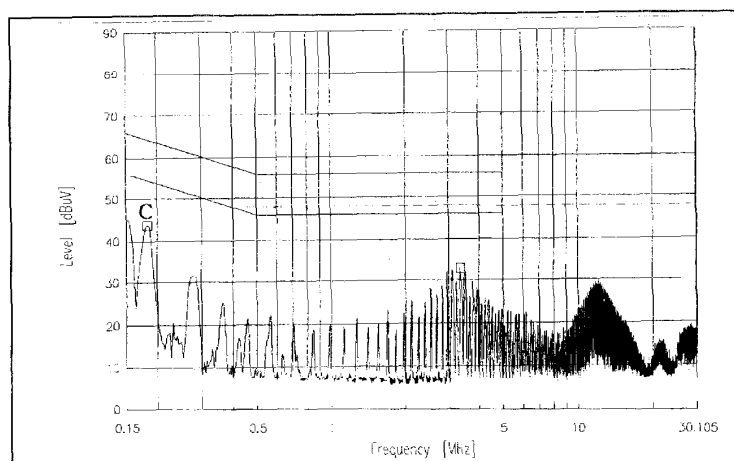
Ref.	Point B (183.0 KHz)	
	Limit (dBuV)	Measure (dBuV)
QP	64.3	42.4
AV	54.3	37.7



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

24V

Ref.	Point C (181.0 KHz)	
	Limit (dBuV)	Measure (dBuV)
QP	64.4	42.8
AV	54.4	38.1



VCCI Class 2  
QP Limit  
VCCI Class 2  
AV Limit  
FCC Class B  
QP Limit

EN55011-B, EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.

2.19 EMI特性

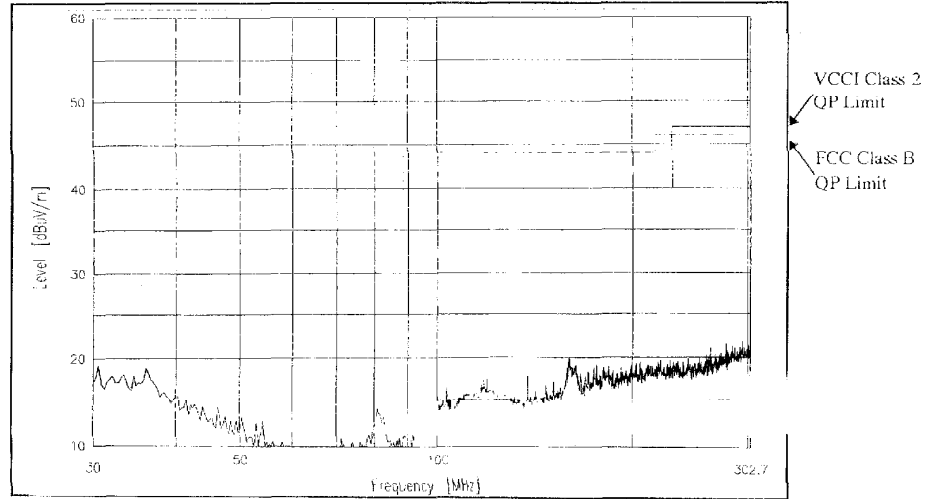
Electro-Magnetic Interference characteristics

Conditions Vin : 100VAC  
Iout : 100%

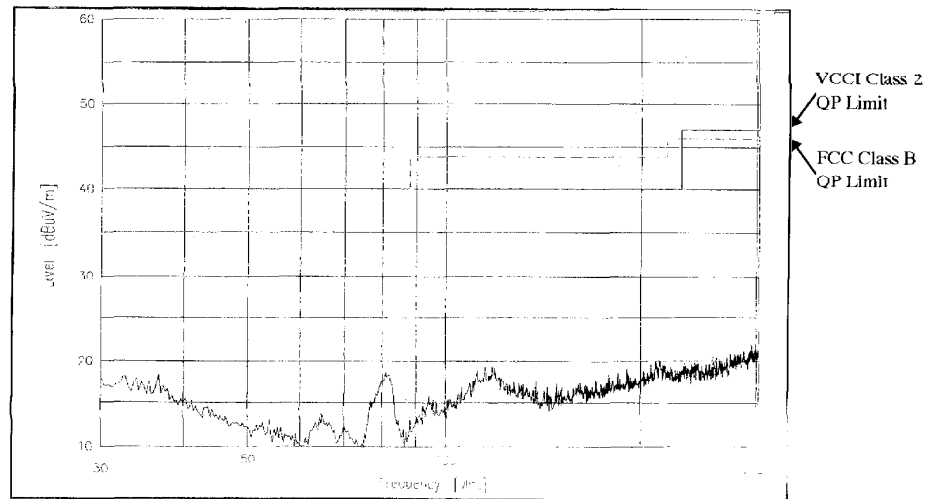
雑音電界強度  
Radiated Emission

5 V

HORIZONTAL:



VERTICAL:



EN55011-B, EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.



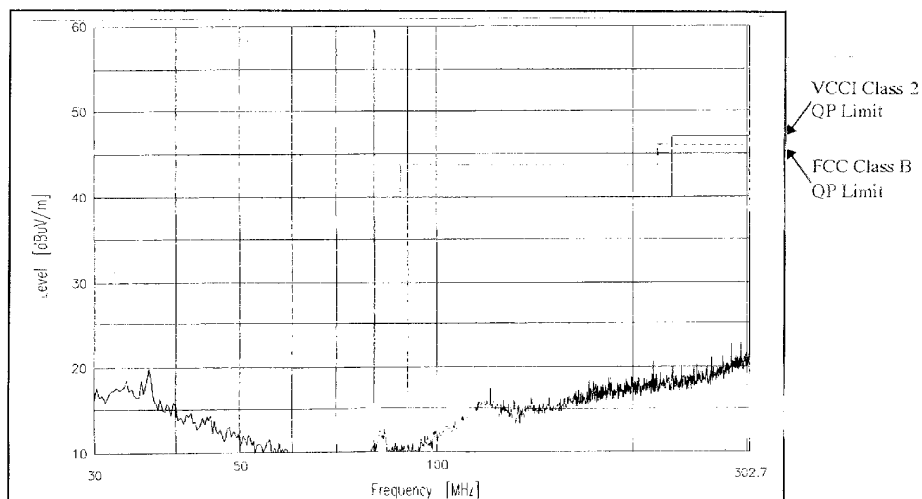
2.19 EMI 特性  
Electro-Magnetic Interference characteristics

Conditions Vin : 230VAC  
Iout : 100%

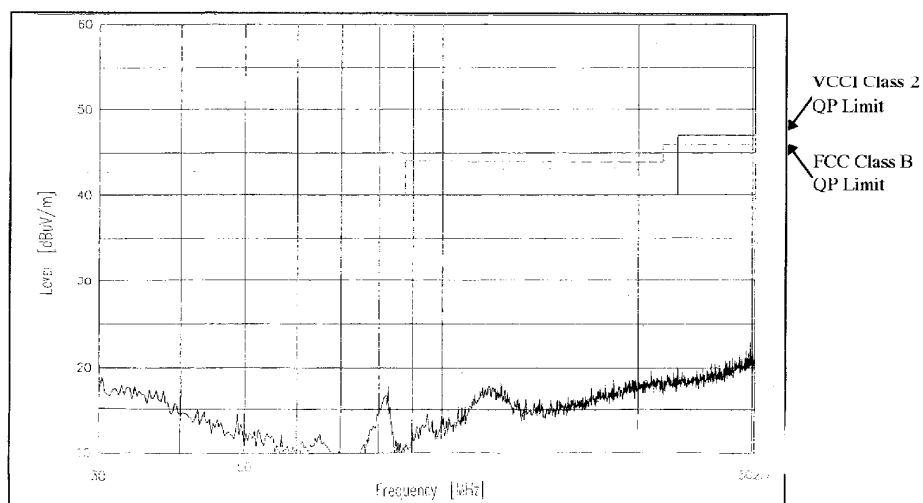
雑音電界強度  
Radiated Emission

5 V

HORIZONTAL:



VERTICAL:



EN55011-B,EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.

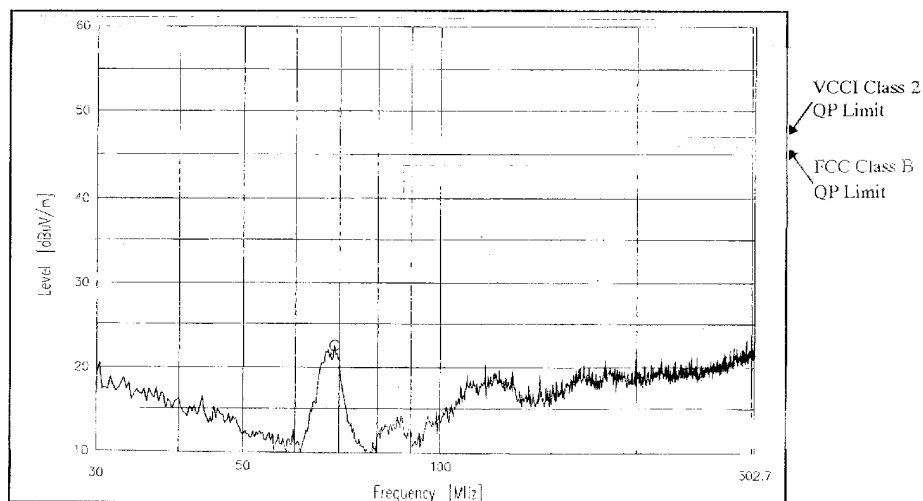
2.19 EMI特性  
Electro-Magnetic Interference characteristics

Conditions Vin : 100VAC  
Iout : 100%

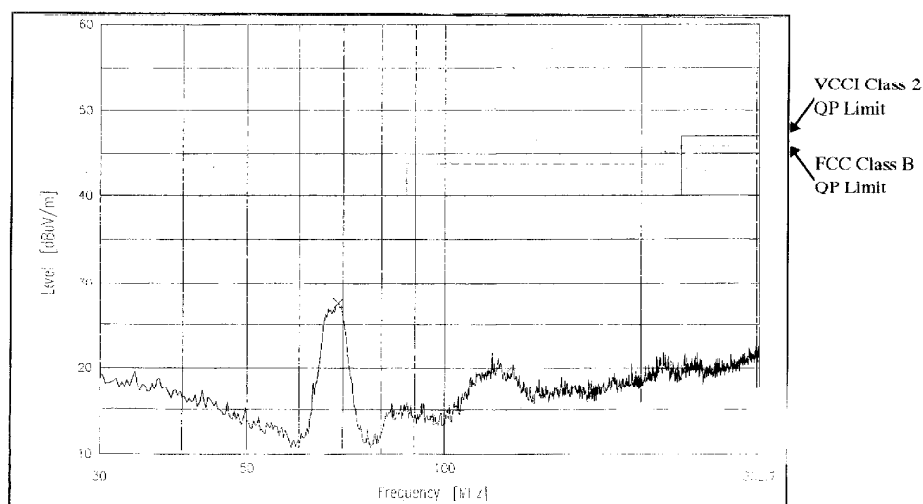
雑音電界強度  
Radiated Emission

12 V

HORIZONTAL:



VERTICAL:



EN55011-B,EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.

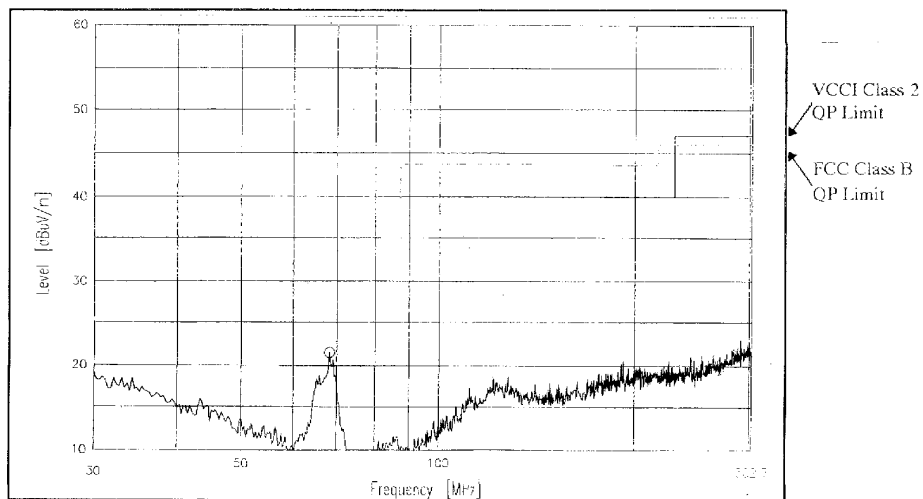
2.19 EMI 特性  
Electro-Magnetic Interference characteristics

Conditions Vin : 230VAC  
Iout : 100%

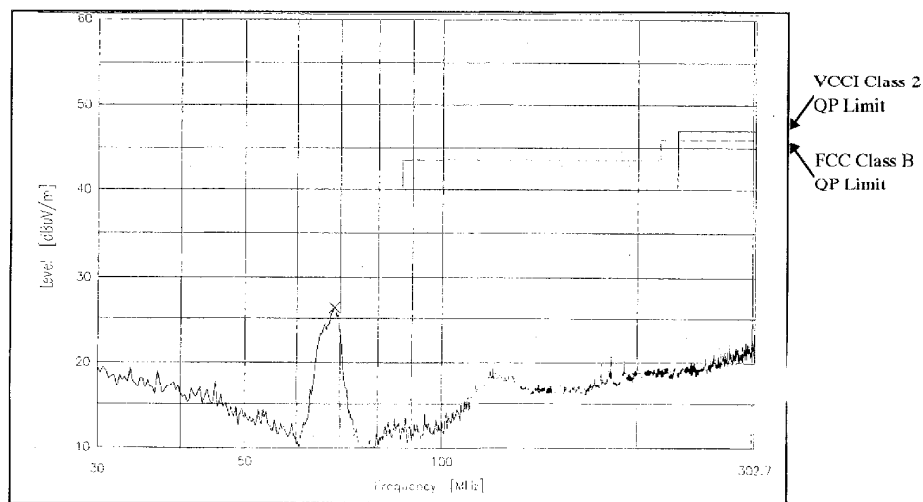
雑音電界強度  
Radiated Emission

12 V

HORIZONTAL:



VERTICAL:



EN55011-B,EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.

2.19 EMI 特性

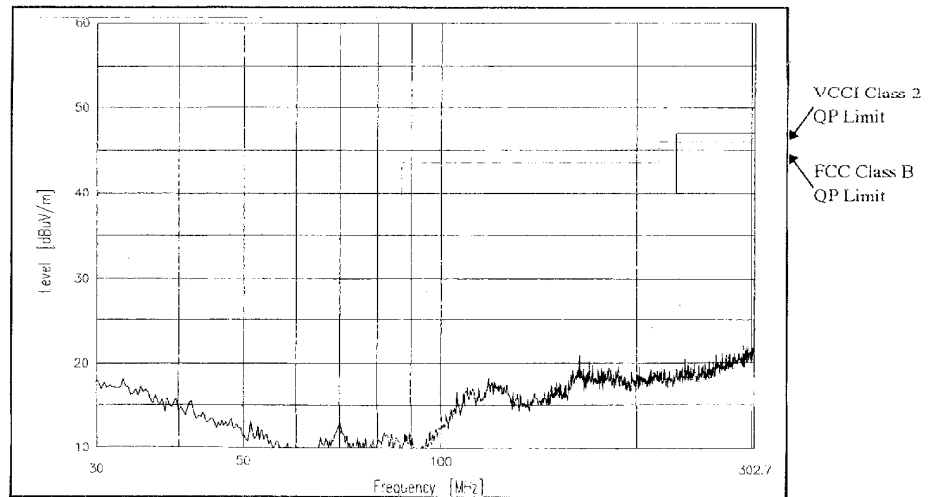
Electro-Magnetic Interference characteristics

Conditions Vin : 100VAC  
Iout : 100%

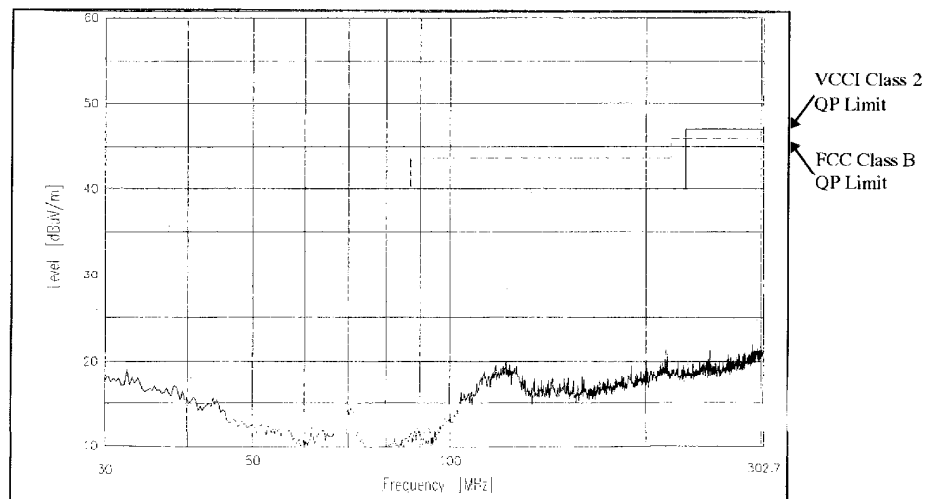
雑音電界強度  
Radiated Emission

24 V

HORIZONTAL:



VERTICAL:



EN55011-B,EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.

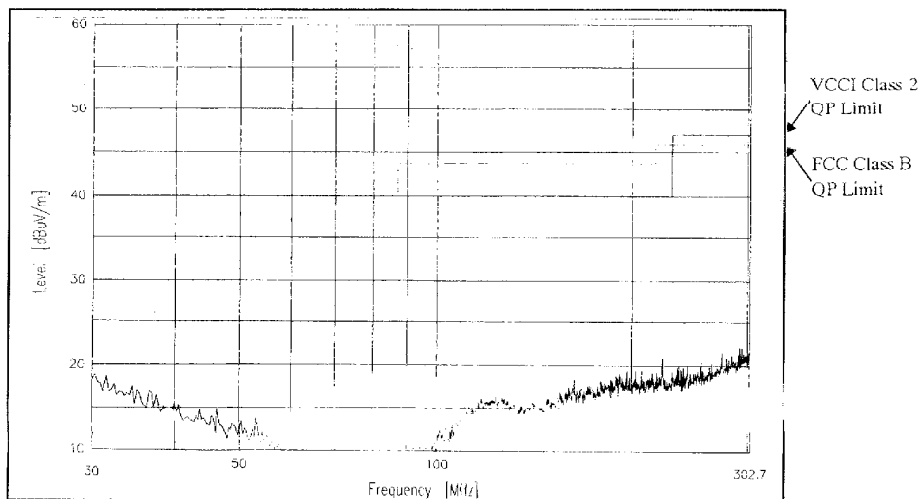
2.19 EMI 特性  
Electro-Magnetic Interference characteristics

Conditions Vin : 230VAC  
Iout : 100%

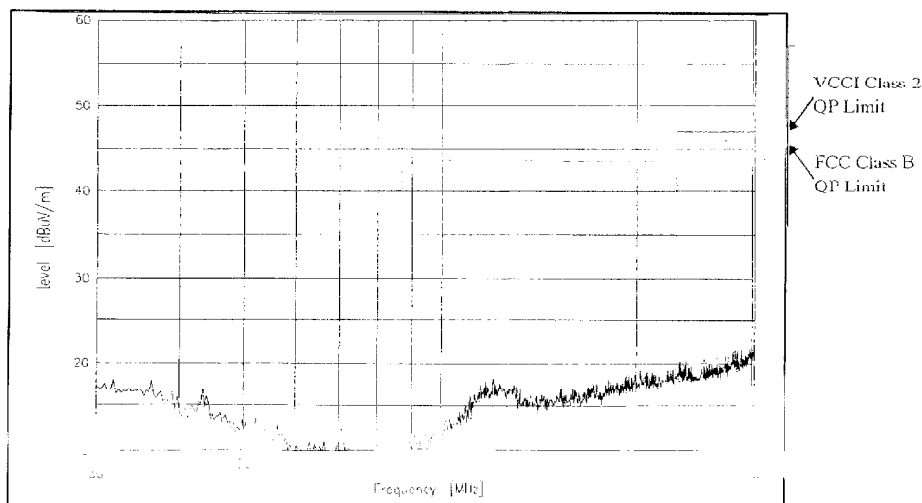
雑音電界強度  
Radiated Emission

24 V

HORIZONTAL:



VERTICAL:



EN55011-B,EN55022-Bの限度値はVCCI class Bの限度値と同じ  
Limits of EN55011-B and EN55022-B are same as its VCCI class B.