

JWS300

EVALUATION DATA

型式データ

DWG No. A161-53-01			
QA APPD	APPD	CHK	DWG
<i>E. Murayama</i> 11/June/98	<i>J. Sa</i> 5/June/98	<i>M. Watanabe</i> 5/June/98	<i>Okouchi</i> 5/June/98

INDEX

1. 測定方法	Evaluation Method	PAGE
1.1	測定回路 Circuit used for determination	T-1~5
	(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 (OCP) characteristics	
	(4) 過電圧保護特性 Over voltage protection (OVP) 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	
	(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	
	(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	
	(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) リーク電流特性 Leakage current characteristics	
	(13) 出力リップル、ノイズ波形 Output ripple and noise waveform	
	(14) EMI特性 Electro-Magnetic Interference characteristics	
1.2	使用測定機器 List of equipment used	T-6
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	T-7
	(2) 出力電圧・リップル電圧対入力電圧 Output voltage and ripple voltage vs. input voltage	T-8~9
	(3) 効率・入力電流対出力電流 Efficiency and input current vs. output current	T-10~11
	(4) 力率・入力電流対出力電流 Power factor and input current vs. output current	T-12~13
2.2	通電ドリフト特性 Warm up voltage drift characteristics	T-14
2.3	過電流保護特性 Over current protection (OCP) characteristics	T-15~16
2.4	過電圧保護特性 Over voltage protection (OVP) characteristics	T-17
2.5	出力立ち上がり特性 Output rise characteristics	T-18~21
2.6	出力立ち下がり特性 Output fall characteristics	T-22~25
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	T-26~27
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	T-28~29

2.9	出力保持時間特性	Hold up time characteristics	.....	T-30~31
2.10	過渡応答（入力急変）特性	Dynamic line response characteristics	...	T-32~33
2.11	過渡応答（負荷急変）特性	Dynamic load response characteristics	..	T-34~37
2.12	入力電圧瞬停特性	Response to brown out characteristics	.....	T-38~41
2.13	入力サージ電流（突入電流）特性	Inrush current waveform	.....	T-42~43
2.14	瞬停時突入電流特性	Inrush current characteristics	.....	T-44
2.15	入力電流波形	Input current waveform	.....	T-45
2.16	高調波成分	Input current harmonics	.....	T-46
2.17	リーク電流特性	Leakage current characteristics	.....	T-47~48
2.18	出力リップル、ノイズ波形	Output ripple and noise waveform	.....	T-49~50
2.19	EMI特性	Electro-Magnetic Interference characteristics	.....	T-51~56

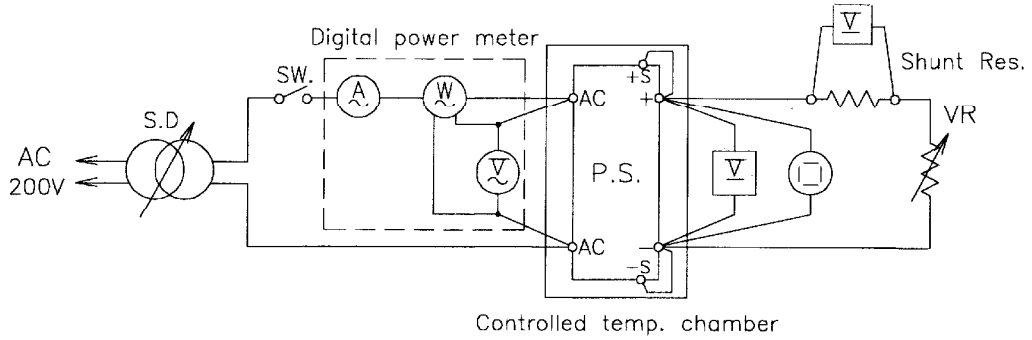
使用記号 Terminology used

	Definition	
V_{in}	..... 入力電圧	Input voltage
V_{out}	..... 出力電圧	Output voltage
I_{in}	..... 入力電流	Input current
I_{out}	..... 出力電流	Output current
f	..... 周波数	Frequency
T_a	..... 周囲温度	Ambient temperature

1. 1 測定回路
Circuit used for determination

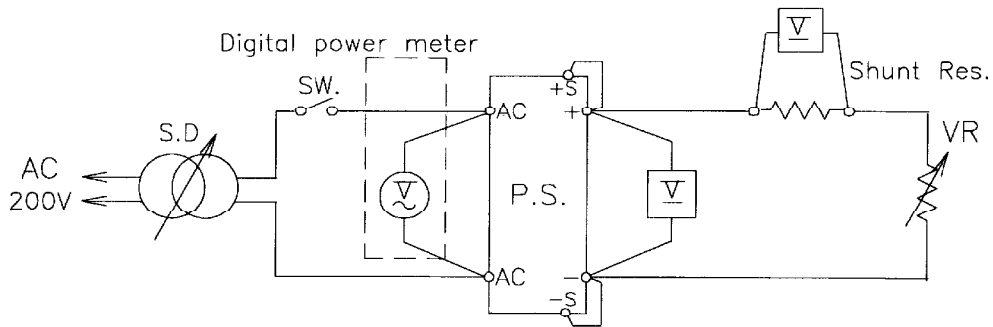
(1) 静特性

Steady state data



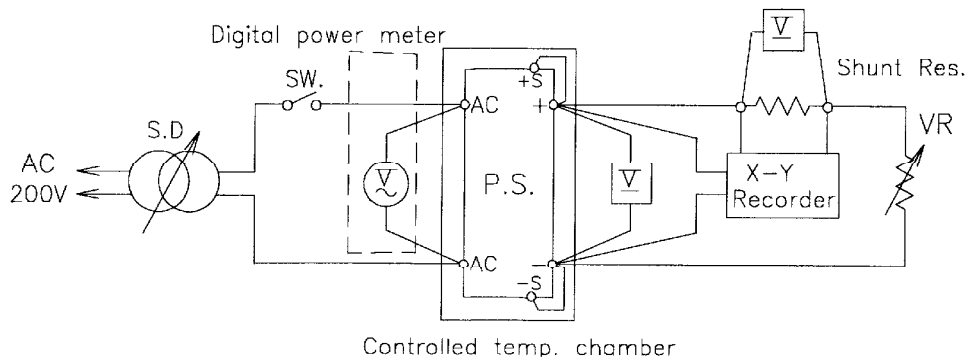
(2) 通電ドリフト特性

Warm up voltage drift characteristics



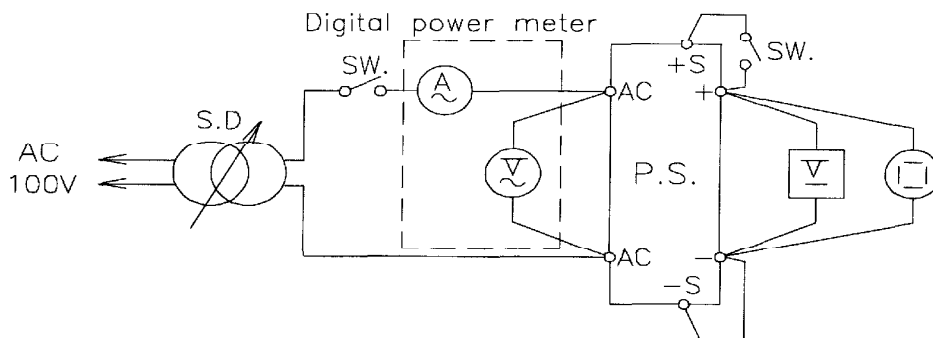
(3) 過電流保護特性

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



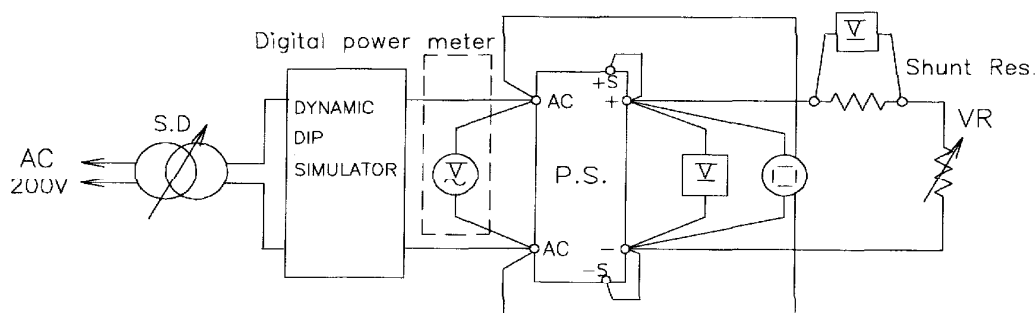
(4) 過電圧保護特性

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



(5) 出力立ち上がり特性

Output rise characteristics



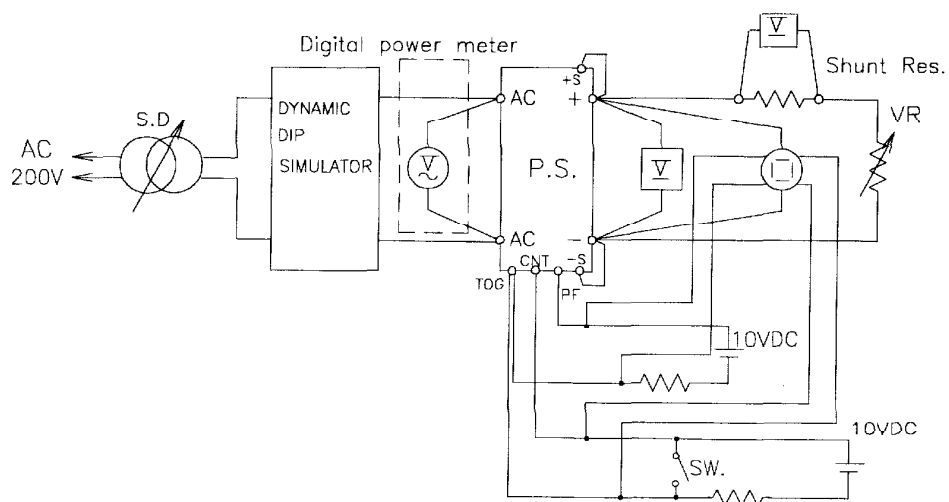
(6) 出力立ち下がり特性

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



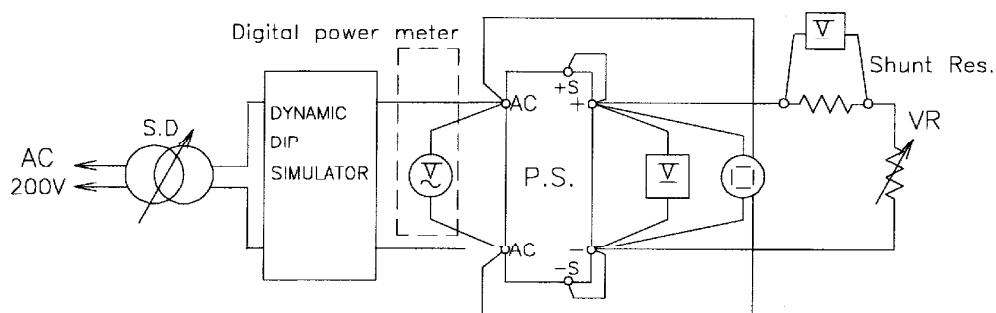
(8) 出力立ち下がり特性 (ON/OFFコントロール時)

Output fall characteristics with ON/OFF CONTROL

Same as output rise characteristics with ON/OFF CONTROL

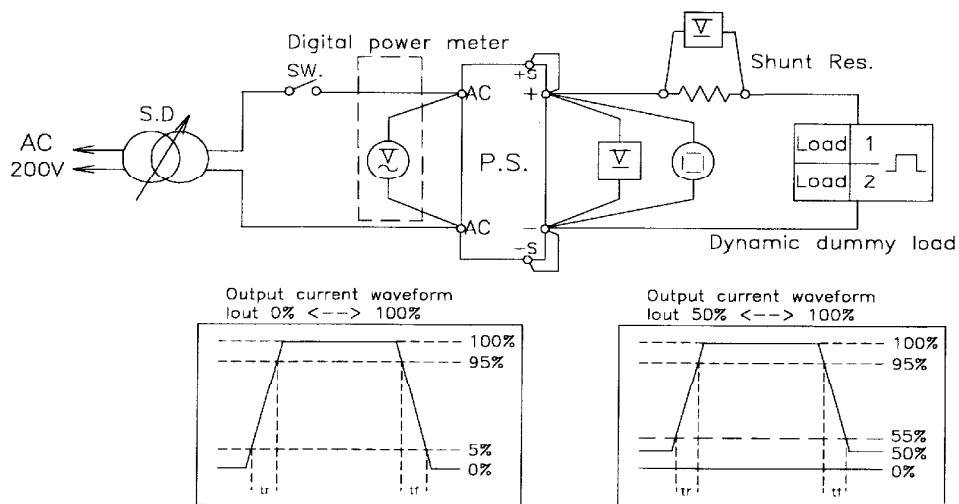
(9) 過渡応答 (入力急変) 特性

Dynamic line response characteristics



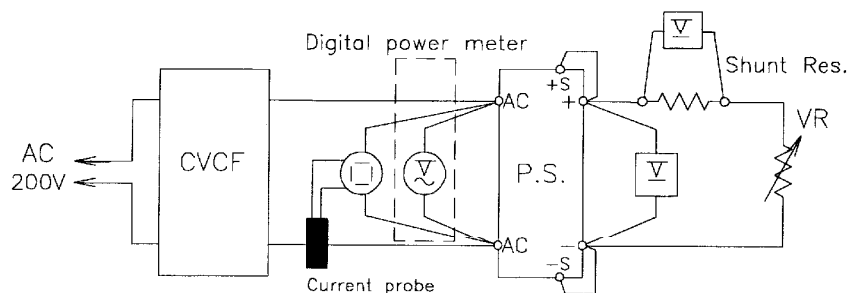
(10) 過渡応答 (負荷急変) 特性

Dynamic load response characteristics



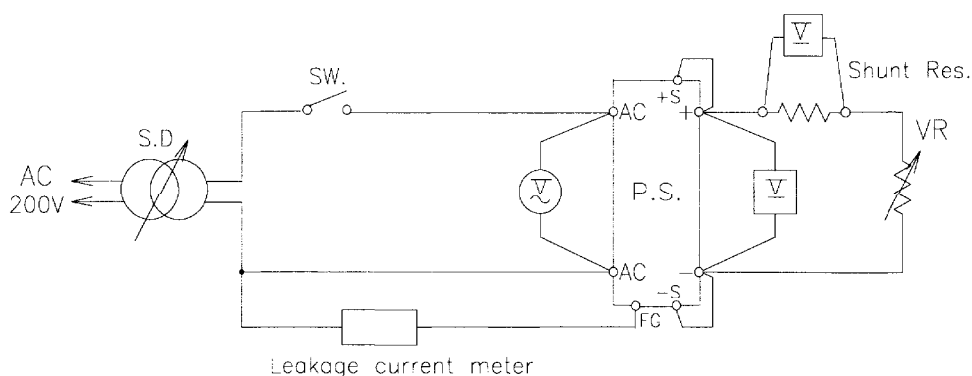
(11) 入力サージ電流 (突入電流) 特性

Inrush current characteristics



(12) リーク電流

Leakage current characteristics

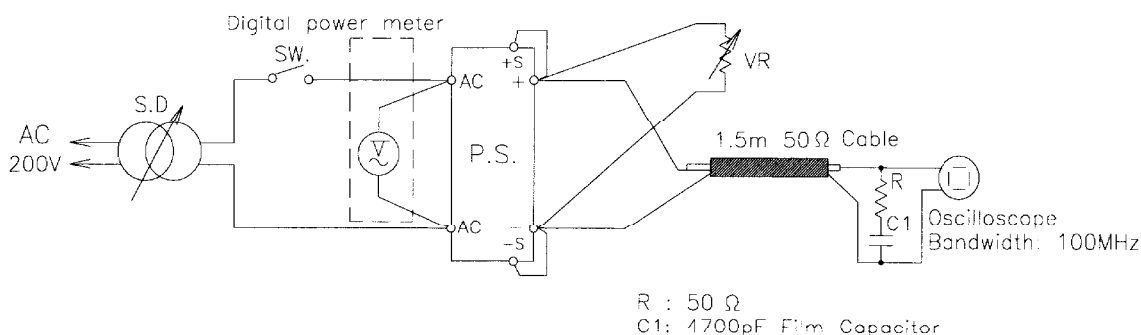


NOTE : Leakage current measured through a 1k ohm resistor.
 Range used ---AC+DC (For YOKOGAWA TYPE 3226)
 ---AC (For SIMPSON MODEL 229-2)

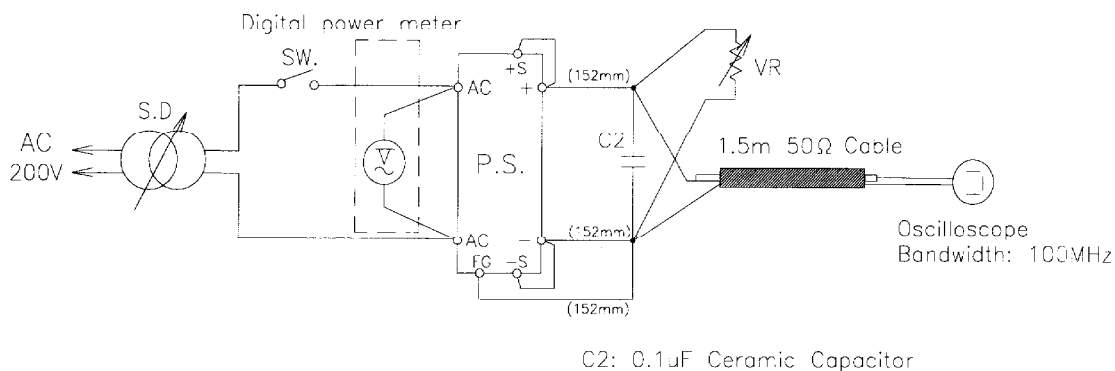
(13) 出力リップルノイズ

Output ripple noise

(a) Normal Mode



(b) Normal + Common Mode

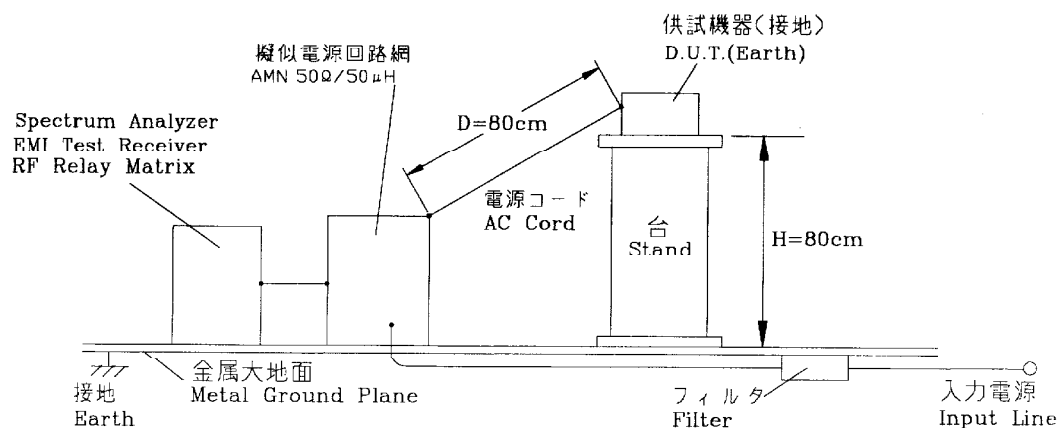


(14) EMI 特性

Electro-Magnetic Interference characteristics

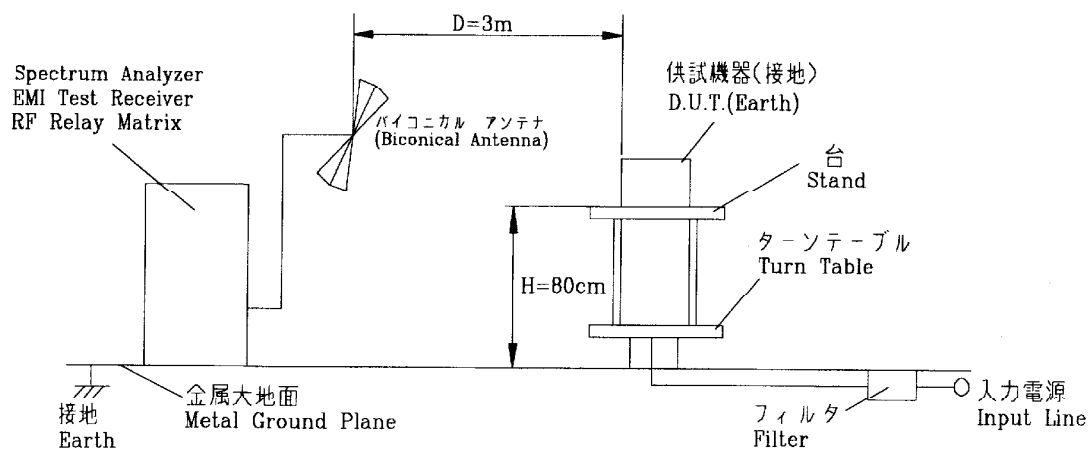
(a) 雑音端子電圧 (帰還ノイズ)

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-1100A
2	DIGITAL STORAGE OSCILLOSCOPE	TEKTRONIX	TDS540B
3	DIGITAL MULTIMETER	ADVANTEST	R6341A
4	DIGITAL POWER METER	YOKOGAWA ELECT.	WT110
5	SHUNT RESISTOR	YOKOGAWA ELECT.	2215
6	CURRENT PROBE/AMPLIFIER	TEKTRONIX	A6303/AM503
7	DYNAMIC DUMMY LOAD	TAKASAGO	FK-1000L
8	SLIDE REGULATOR	MATSUNAGA	SD-2625
9	CVCF	KIKUSUI	PCR4000L
10	LEAKAGE CURRENT METER	SIMPSON	229-2
11	LEAKAGE CURRENT METER	YOKOGAWA	TYPE3226
12	X-Y RECORDER	GRAPHTEC	WX3000-1
13	DYNAMIC DIP SIMULATOR	TAKAMISAWA CYBERNETICS	PSA-300
14	CONTROLLED TEMP. CHAMBER	TABAI ESPEC	PSL-2KPH-A
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	AMN	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%	5.001V	5.001V	5.001V	5.000V	1mV	0.02%
	50%	5.006V	5.005V	5.005V	5.005V	1mV	0.02%
	100%	5.005V	5.005V	5.005V	5.005V	0mV	0.00%
	load	5mV	4mV	3mV	3mV		
	regulation	0.10%	0.08%	0.06%	0.06%		

2. Temperature drift					conditions Vin=100VAC Io =100%	
Ta	-10°C	+25°C	+50°C	temperature stability		
Vo	4.985V	5.005V	5.007V	22mV	0.44%	

12V	1. Regulation - line and load					condition Ta : 25°C	
	Iout \ Vin	85VAC	100VAC	200VAC	265VAC	line regulation	
	0%	12.012V	12.012V	12.010V	12.009V	3mV	0.03%
	50%	12.014V	12.014V	12.014V	12.013V	1mV	0.01%
	100%	12.014V	12.014V	12.015V	12.015V	1mV	0.01%
	load	2mV	2mV	5mV	6mV		
	regulation	0.02%	0.02%	0.04%	0.05%		

2. Temperature drift					conditions Vin=100VAC Io =100%	
Ta	-10°C	+25°C	+50°C	temperature stability		
Vo	11.981V	12.014V	12.028V	47mV	0.39%	

24V	1. Regulation - line and load					condition Ta : 25°C	
	Iout \ Vin	85VAC	100VAC	200VAC	265VAC	line regulation	
	0%	24.032V	24.032V	24.030V	24.028V	4mV	0.017%
	50%	24.039V	24.039V	24.040V	24.040V	1mV	0.004%
	100%	24.038V	24.039V	24.041V	24.041V	3mV	0.013%
	load	7mV	7mV	11mV	13mV		
	regulation	0.03%	0.03%	0.05%	0.05%		

2. Temperature drift					conditions Vin=100VAC Io =100%	
Ta	-10°C	+25°C	+50°C	temperature stability		
Vo	23.964V	24.039V	24.062V	98mV	0.41%	

48V	1. Regulation - line and load					condition Ta : 25°C	
	Iout \ Vin	85VAC	100VAC	200VAC	265VAC	line regulation	
	0%	48.06V	48.06V	48.06V	48.06V	0mV	0.000%
	50%	48.08V	48.09V	48.09V	48.09V	10mV	0.021%
	100%	48.09V	48.09V	48.09V	48.09V	0mV	0.000%
	load	30mV	30mV	30mV	30mV		
	regulation	0.06%	0.06%	0.06%	0.06%		

2. Temperature drift					conditions Vin=100VAC Io =100%	
Ta	-10°C	+25°C	+50°C	temperature stability		
Vo	47.820V	48.090V	48.230V	410mV	0.85%	

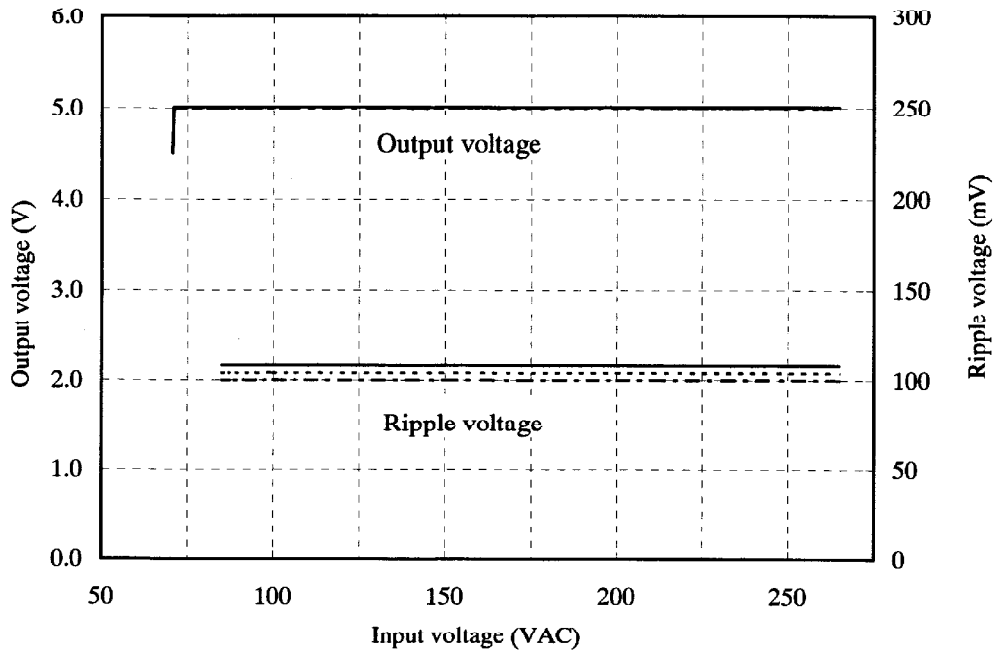
2.1 (2) 出力電圧、リップル電圧対入力電圧

Output voltage and Ripple voltage v.s. Input voltage

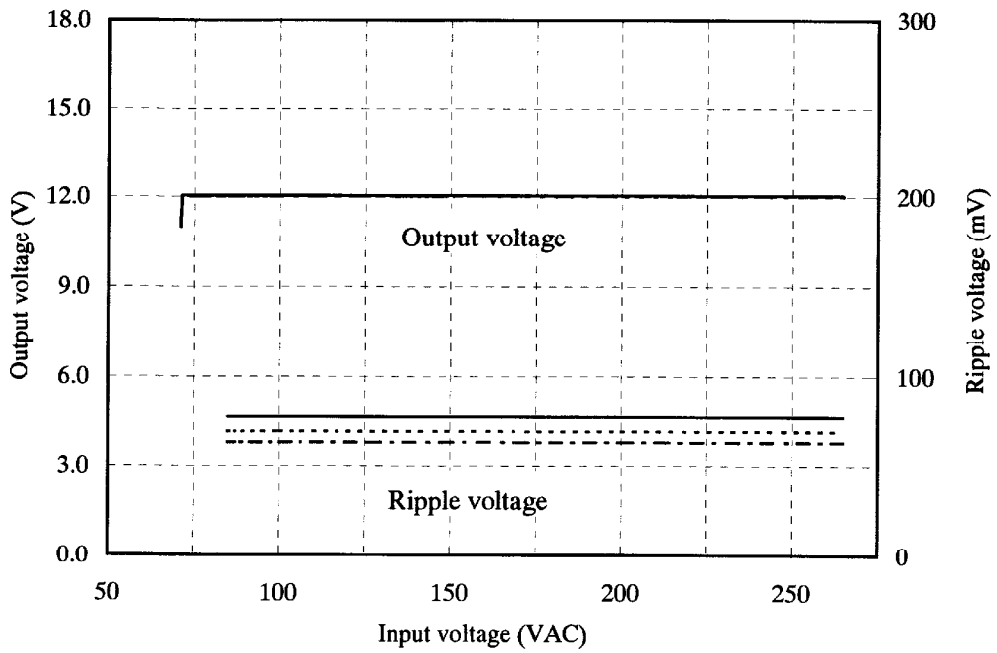
Conditions Iout : 100%

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

5V



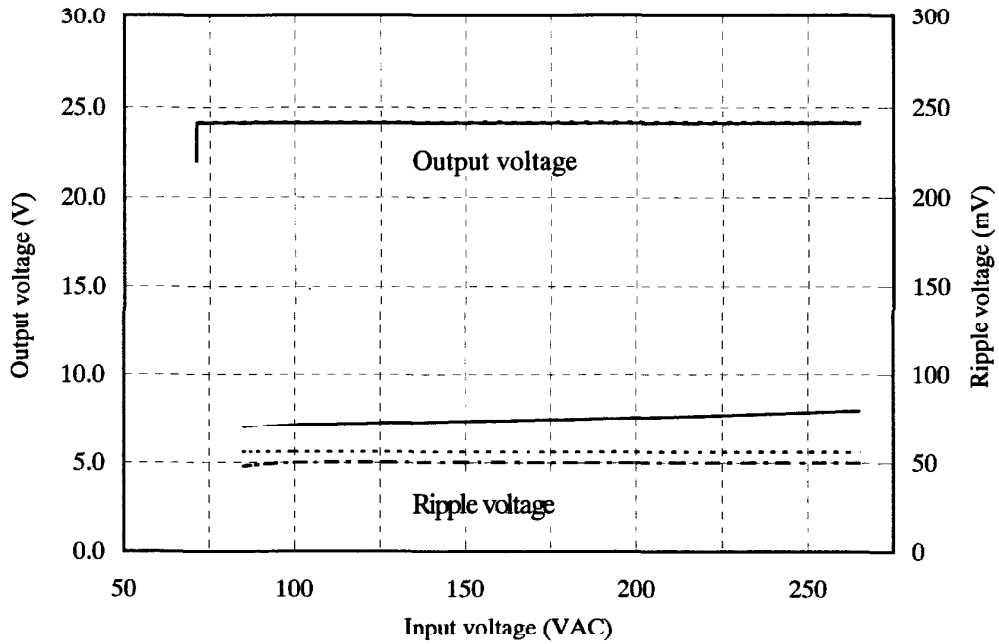
12V



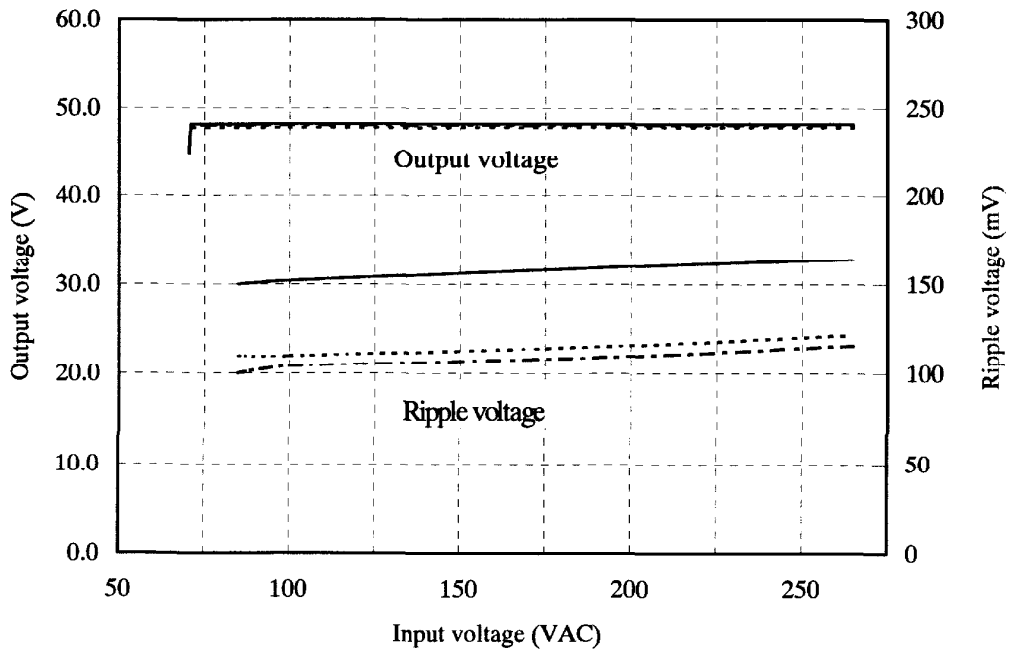
2.1 (2) 出力電圧、リップル電圧対入力電圧
Output voltage and Ripple voltage v.s. Input voltage

Conditions Iout : 100%
Ta : -10°C
: 25°C ----
: 50°C ——

24V



48V

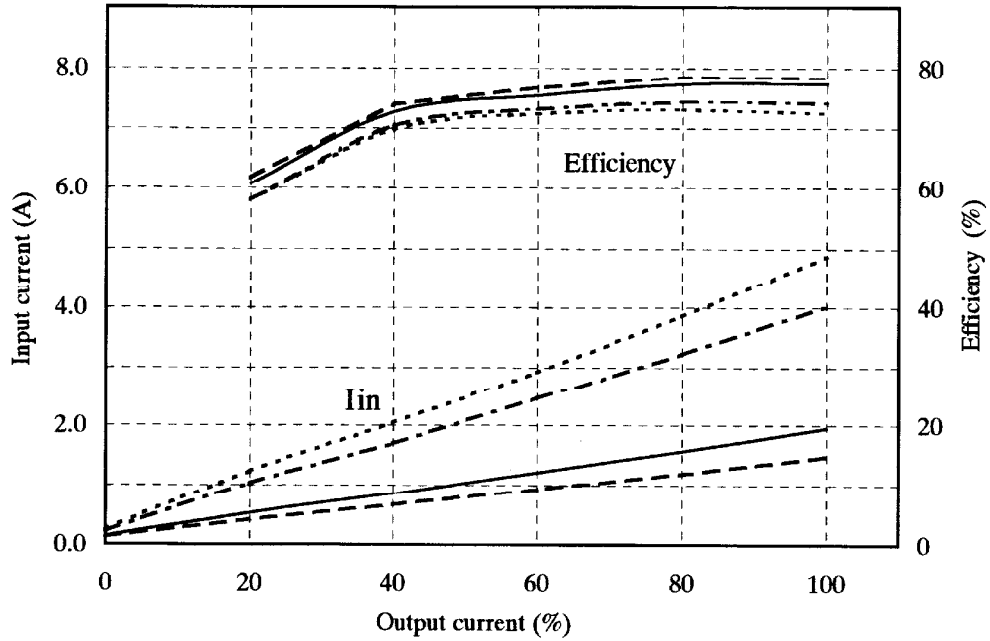


2.1 (3) 効率、入力電流対出力電流

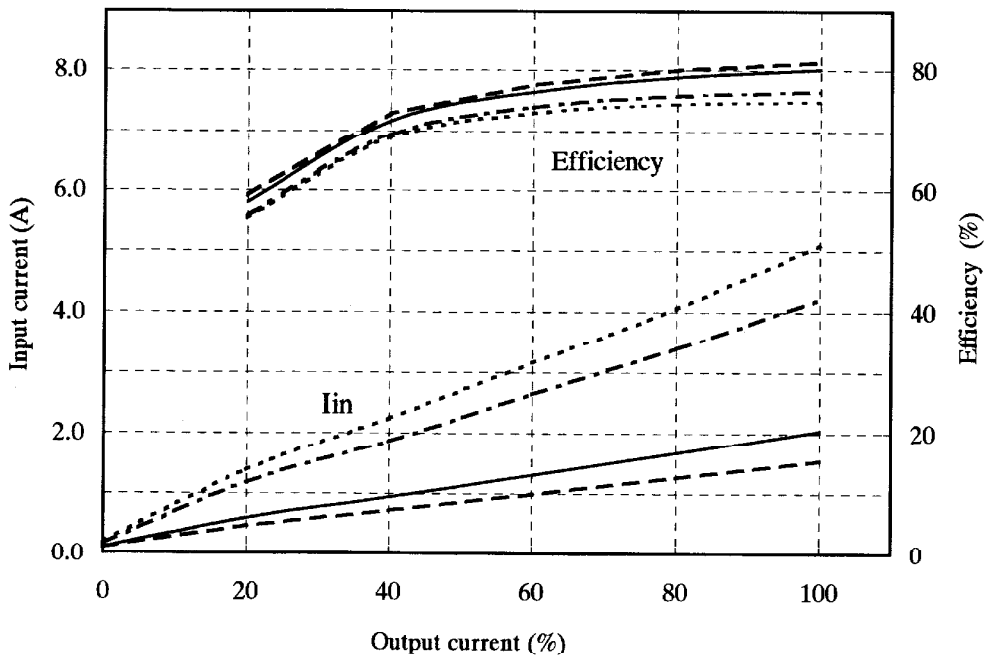
Efficiency and Input current v.s. Output current

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

5V



12V

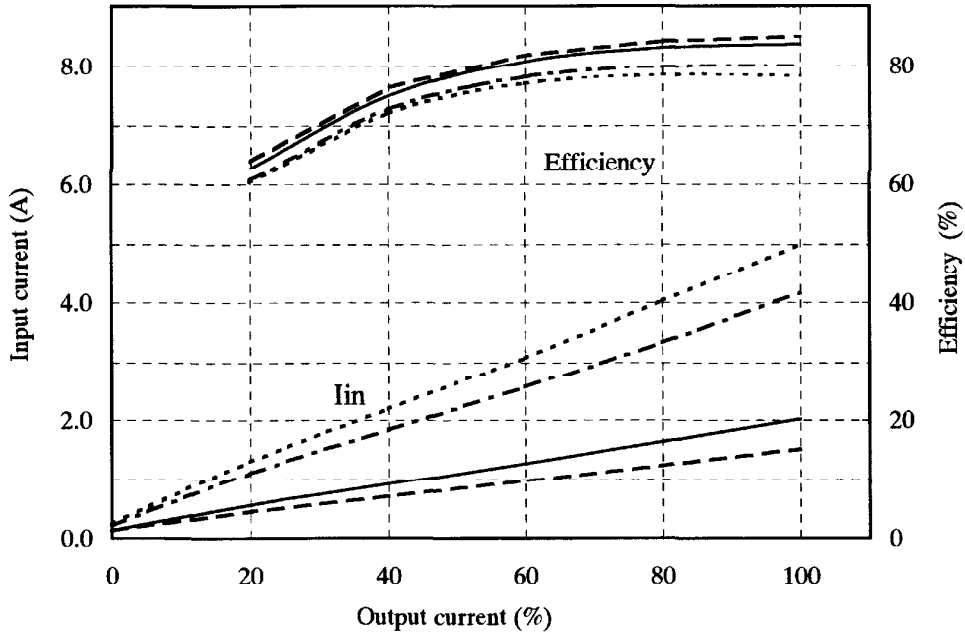


2.1 (3) 効率、入力電流対出力電流

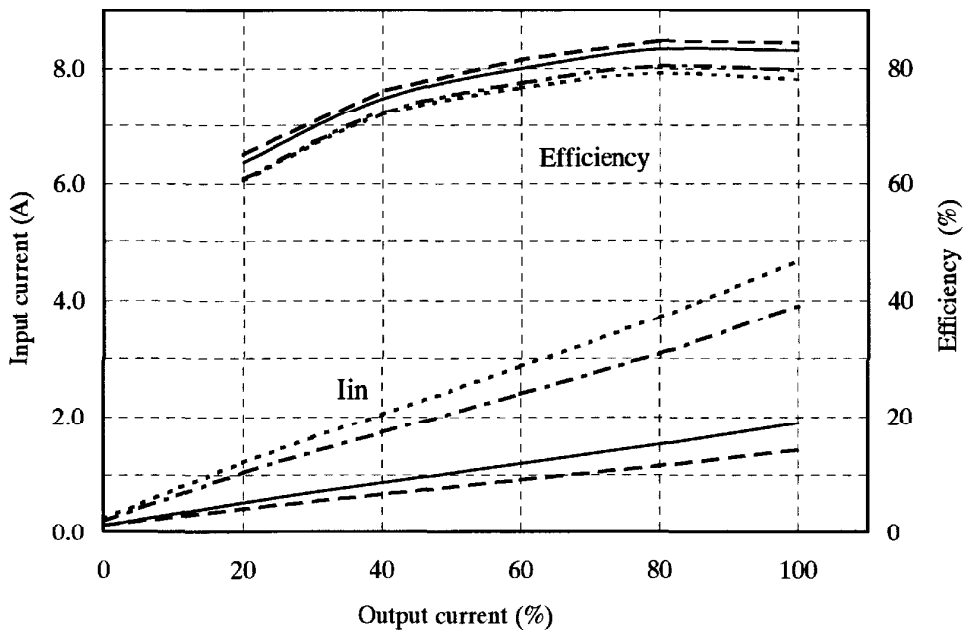
Efficiency and Input current v.s. Output current

Conditions Vin : 85VAC
 : 100VAC - - - -
 : 200VAC ————
 : 265VAC - - - -
 Ta : 25°C

24V



48V

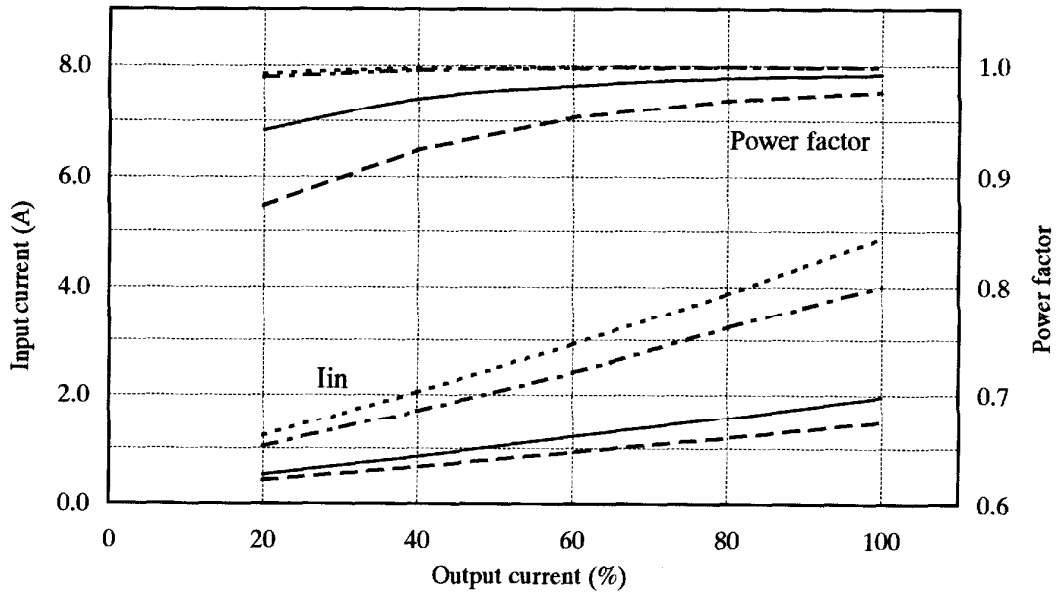


2.1 (4) 力率、入力電流対出力電流

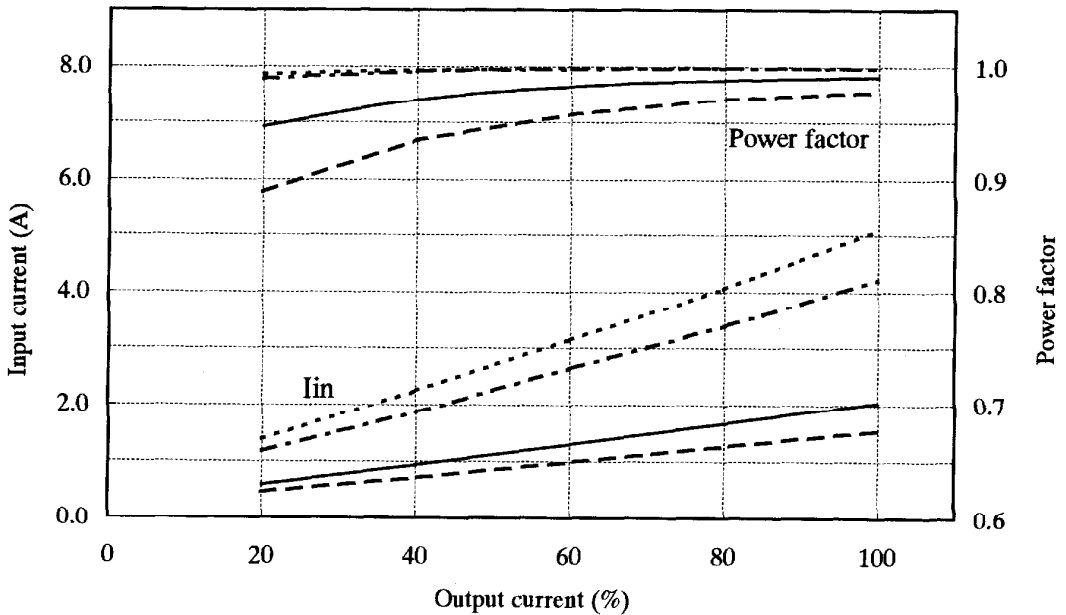
Power factor and Input current v.s. Output current

Conditions Vin : 85VAC
 : 100VAC -.-.-
 : 200VAC ———
 : 265VAC - - - -
 Ta : 25°C

5V



12V

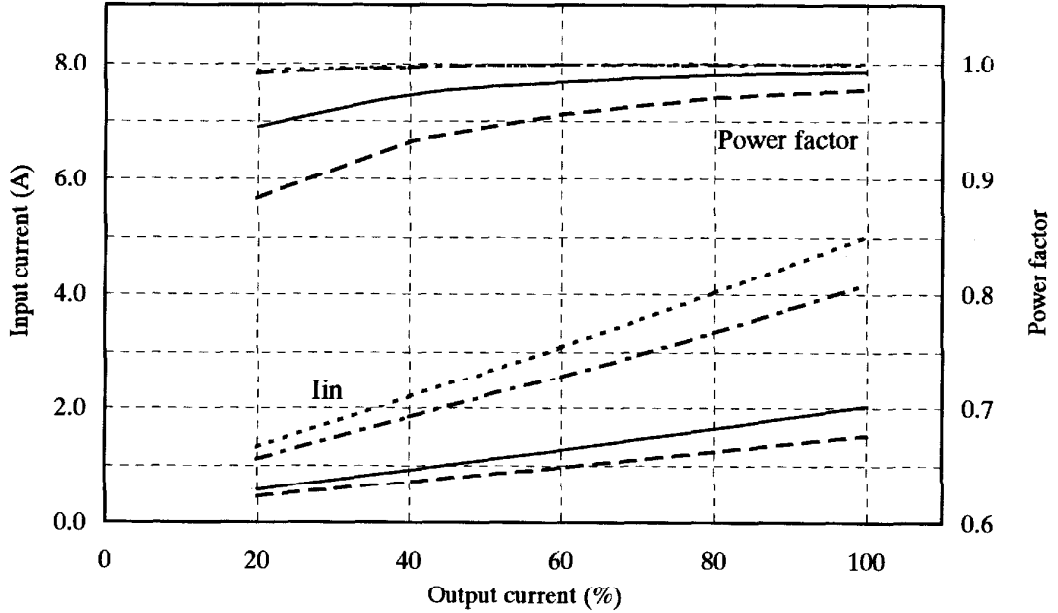


2.1 (4) 力率、入力電流対出力電流

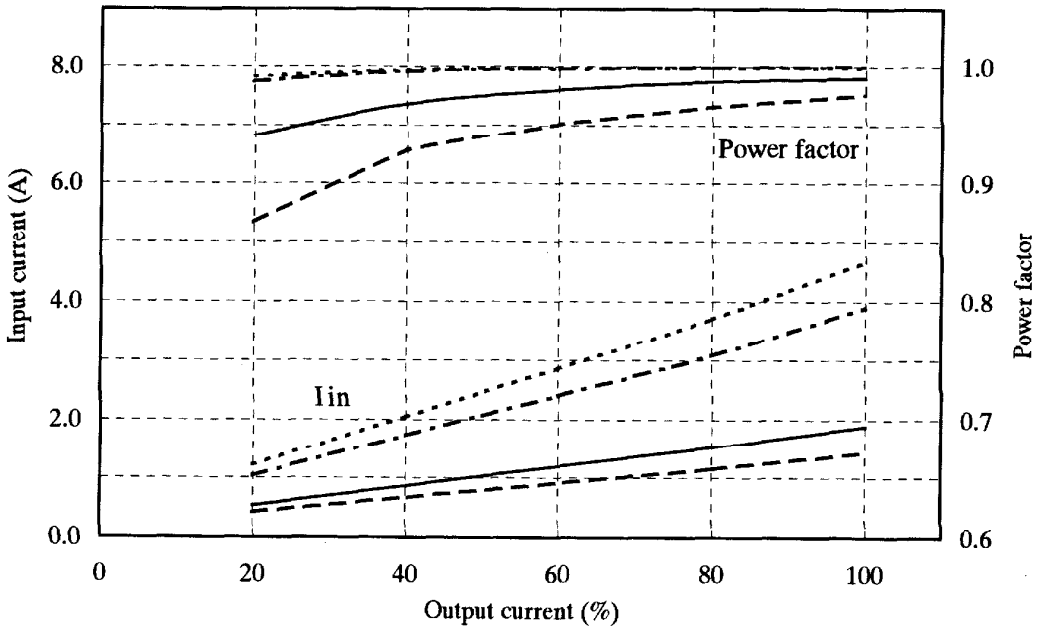
Power factor and Input current v.s. Output current

Conditions Vin : 85VAC
 : 100VAC - - - -
 : 200VAC ————
 : 265VAC - - - -
 Ta : 25°C

24V



48V

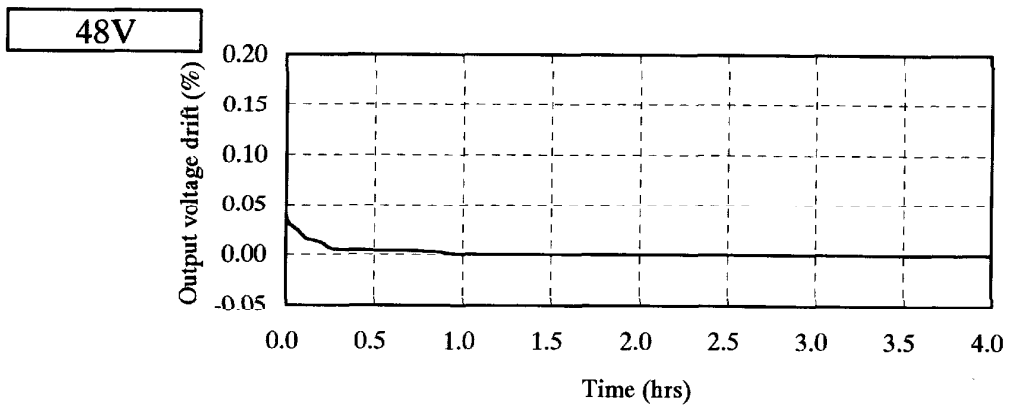
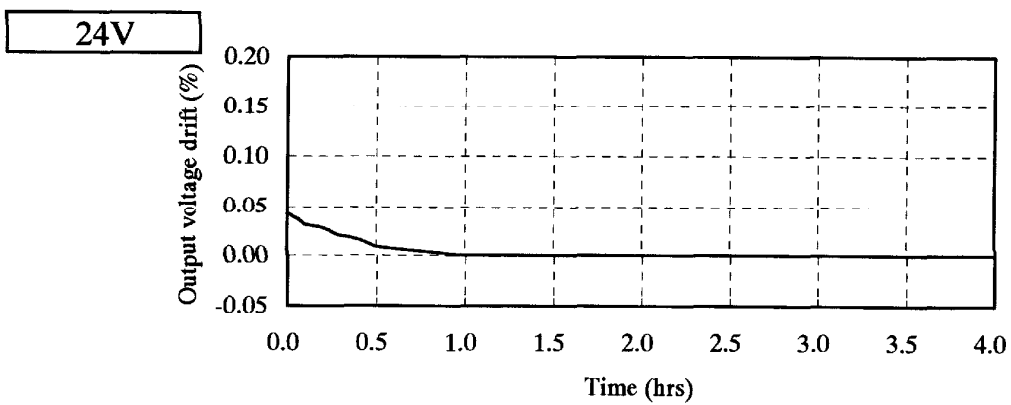
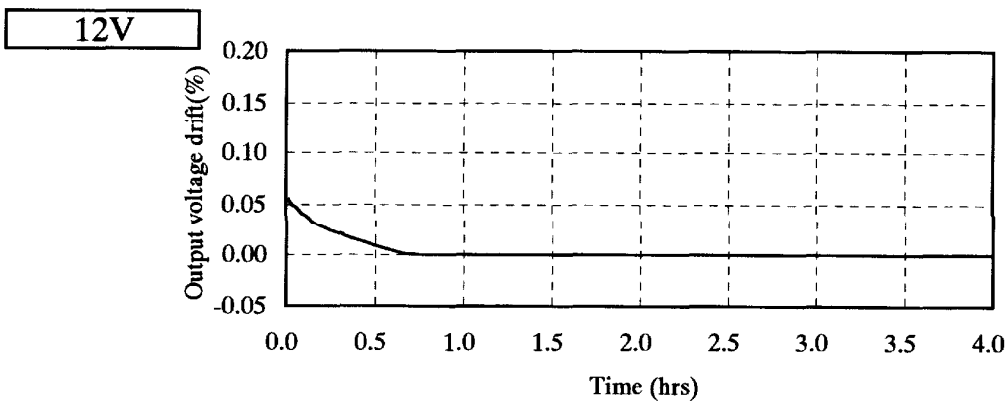
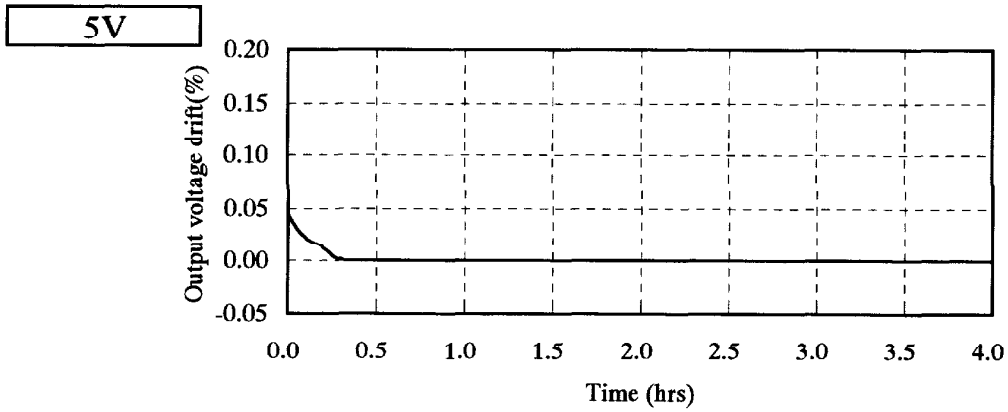


2.2 通電ドリフト特性
Warm up voltage drift characteristics

Conditions Vin : 100VAC

Io : 100%

Ta : 25°C

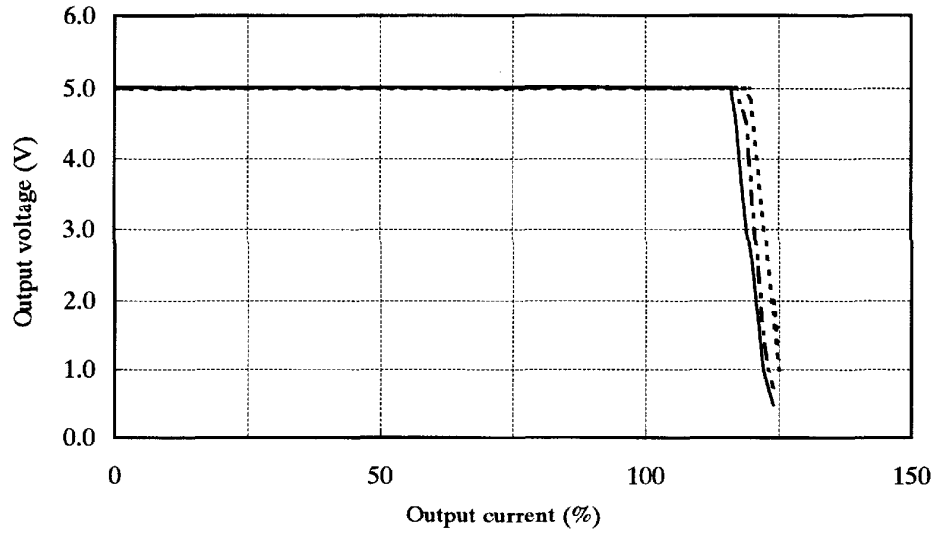


2.3 過電流保護特性

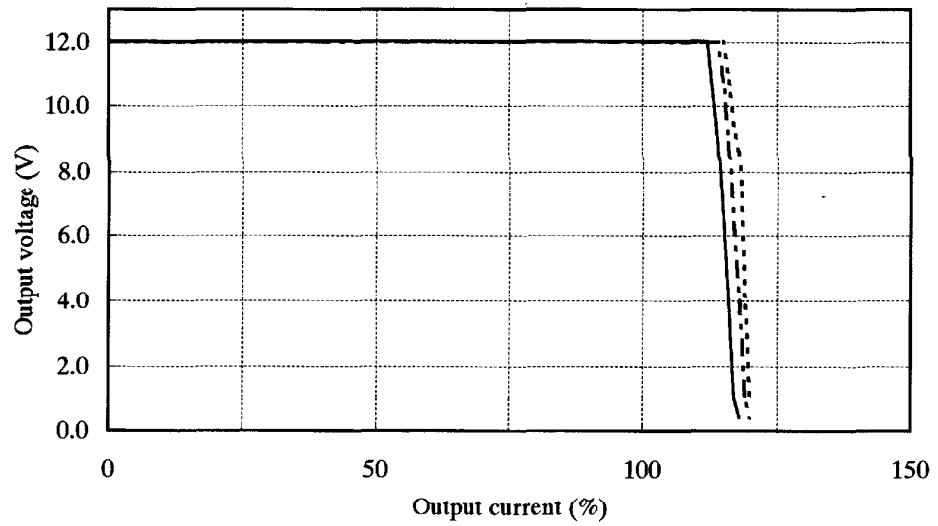
Over current protection (OCP) characteristics

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

5V



12V

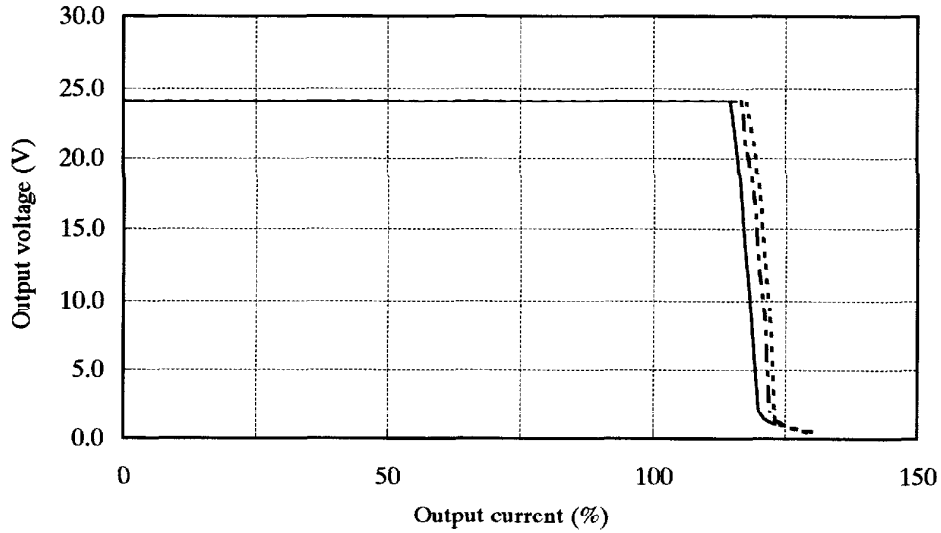


2.3 過電流保護特性

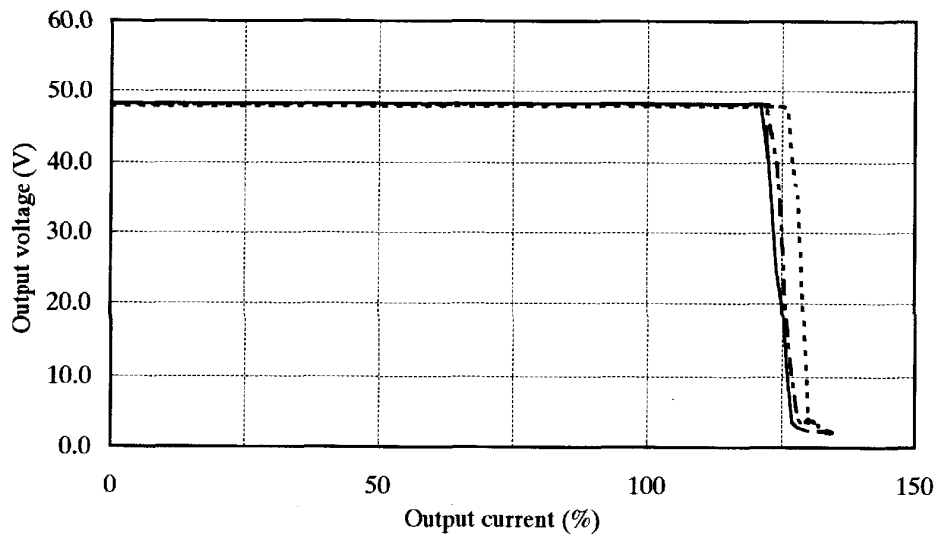
Over current protection (OCP) characteristics

Conditions Ta : -10°C
 : 25°C -----
 : 50°C —————
Vin : 85-265VAC

24V

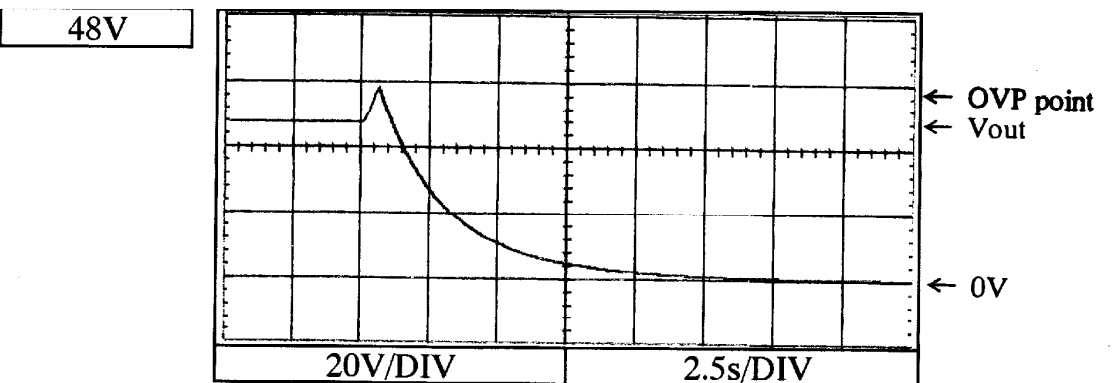
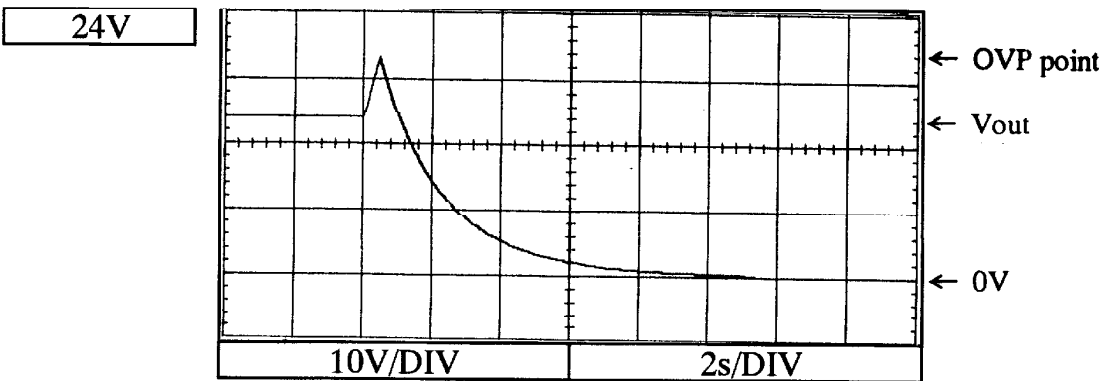
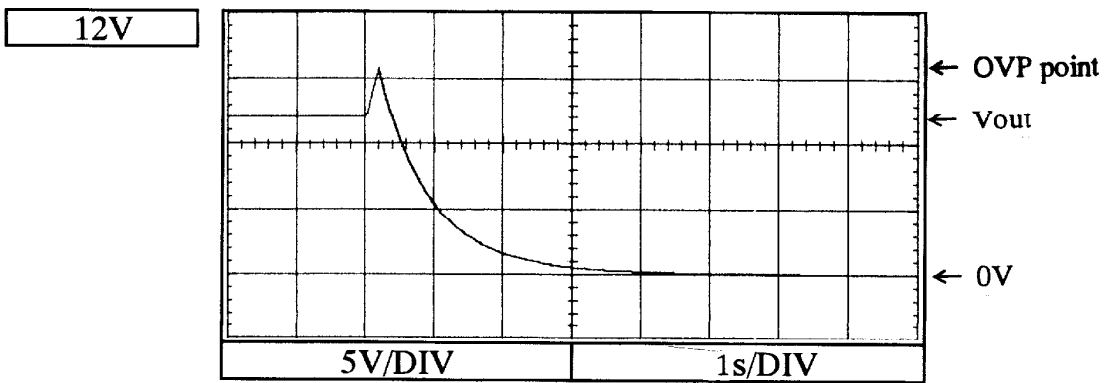
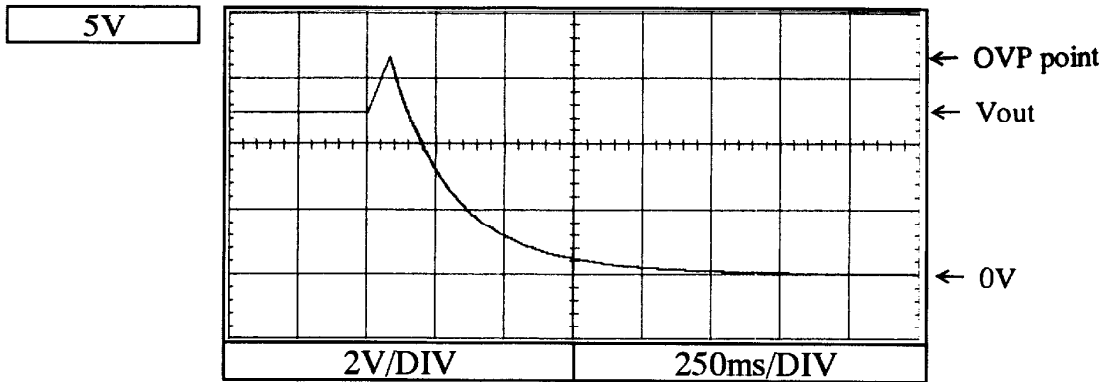


48V



2.4 過電圧保護特性
Over voltage protection (OVP) characteristics

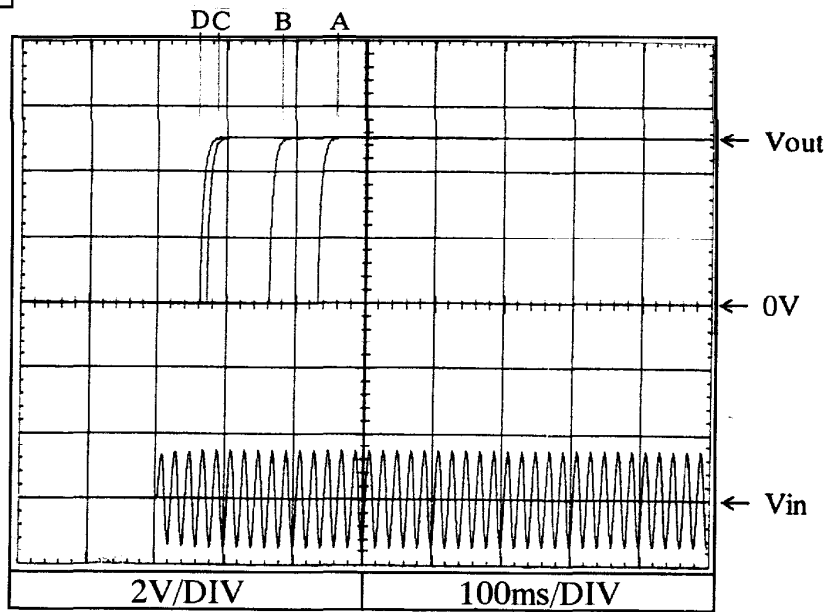
Conditions Vin : 100VAC
Iout : 0%
Ta : 25°C



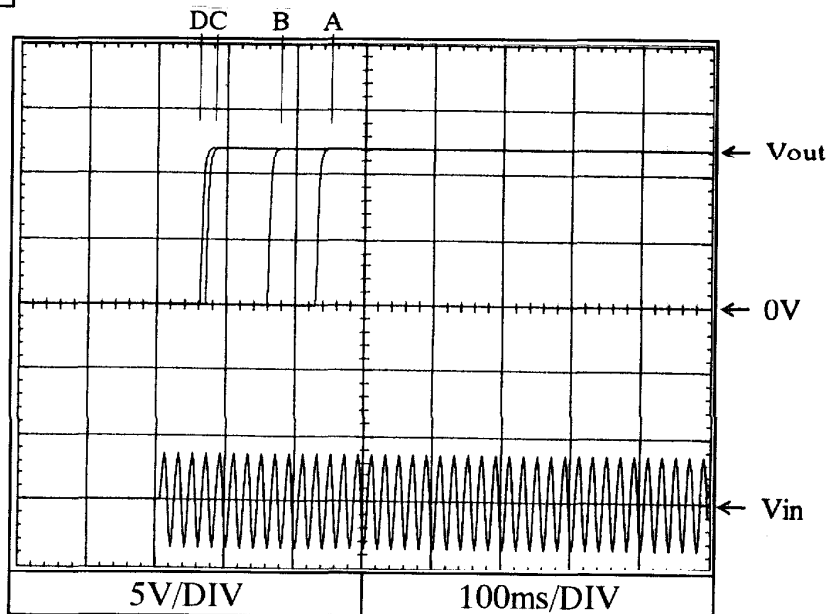
2.5 出力立ち上がり特性
Output rise characteristics

Conditions Vin : 85VAC (A)
: 100VAC (B)
: 200VAC (C)
: 265VAC (D)
Iout : 0%
Ta : 25°C

5V



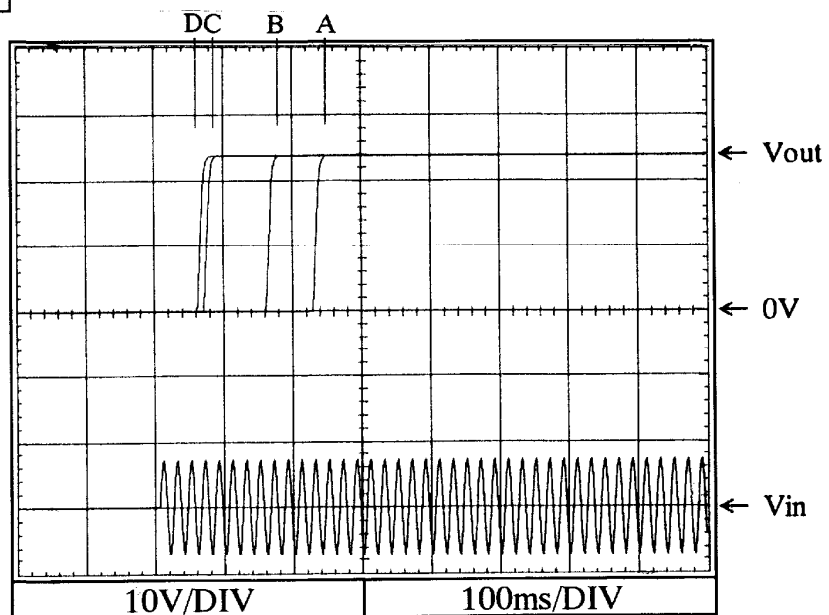
12V



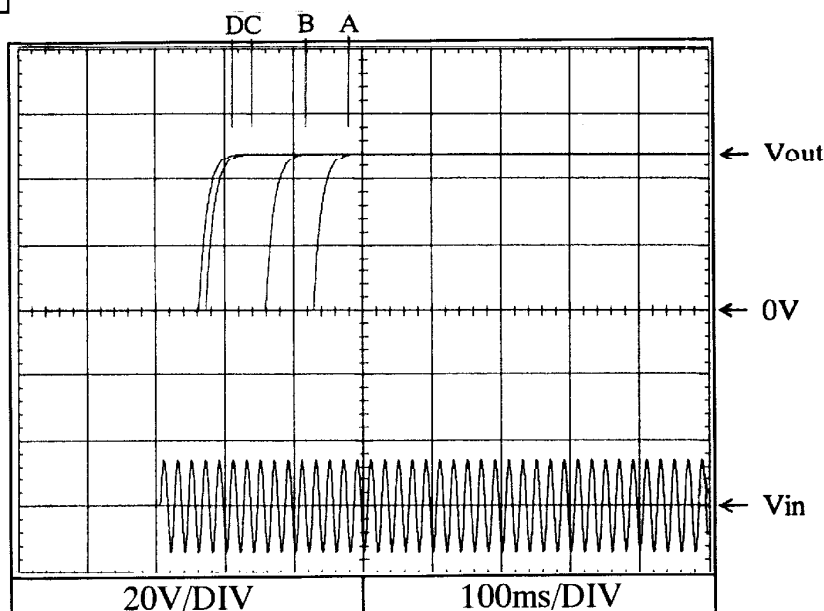
2.5 出力立ち上がり特性
Output rise characteristics

Conditions Vin : 85VAC (A)
: 100VAC (B)
: 200VAC (C)
: 265VAC (D)
Iout : 0%
Ta : 25°C

24V



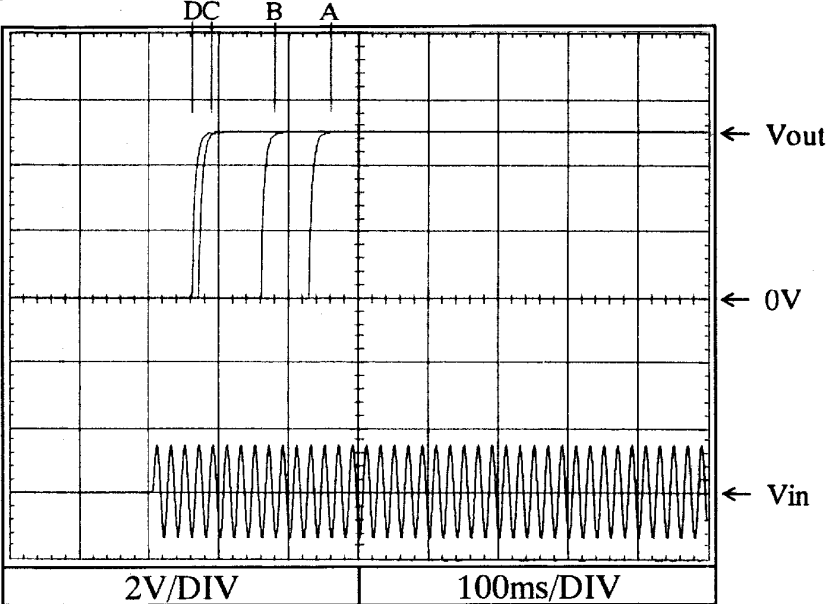
48V



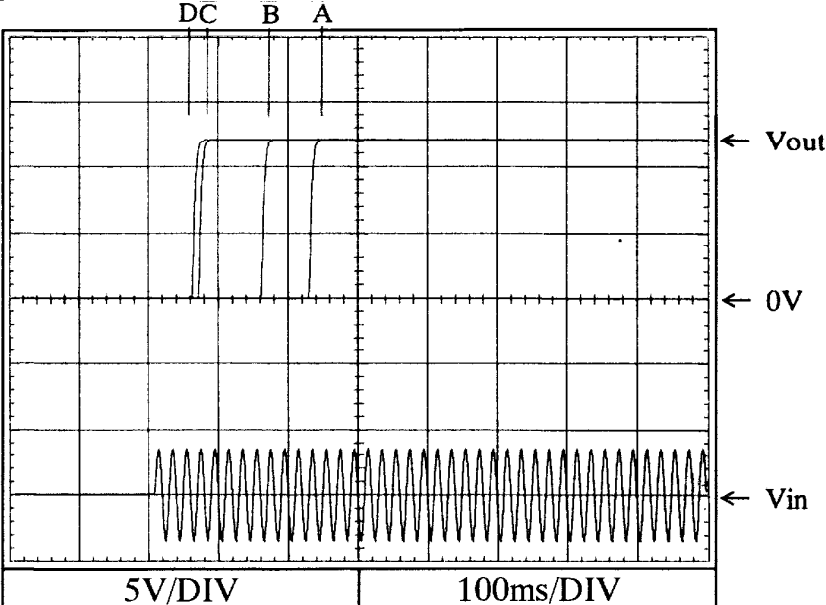
2.5 出力立ち上がり特性
Output rise characteristics

Conditions Vin : 85VAC (A)
 : 100VAC (B)
 : 200VAC (C)
 : 265VAC (D)
Iout : 100%
Ta : 25°C

5V



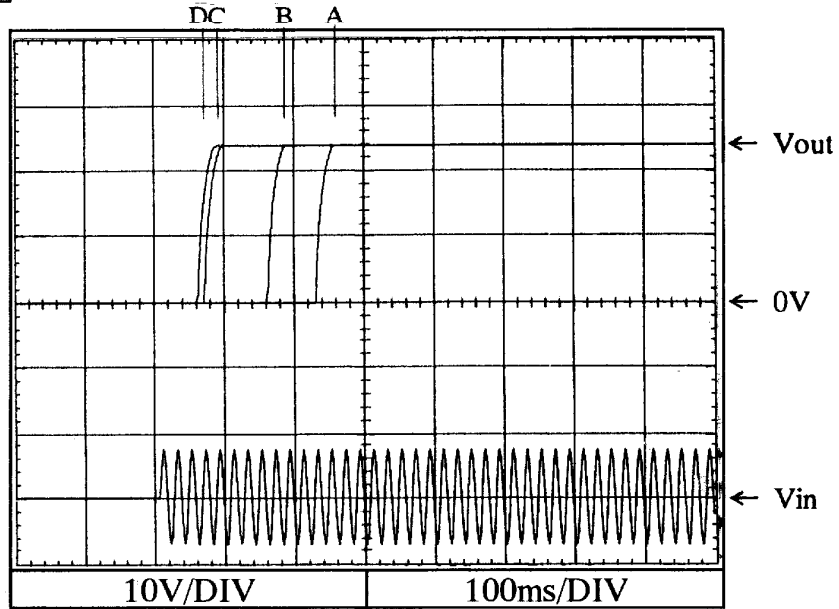
12V



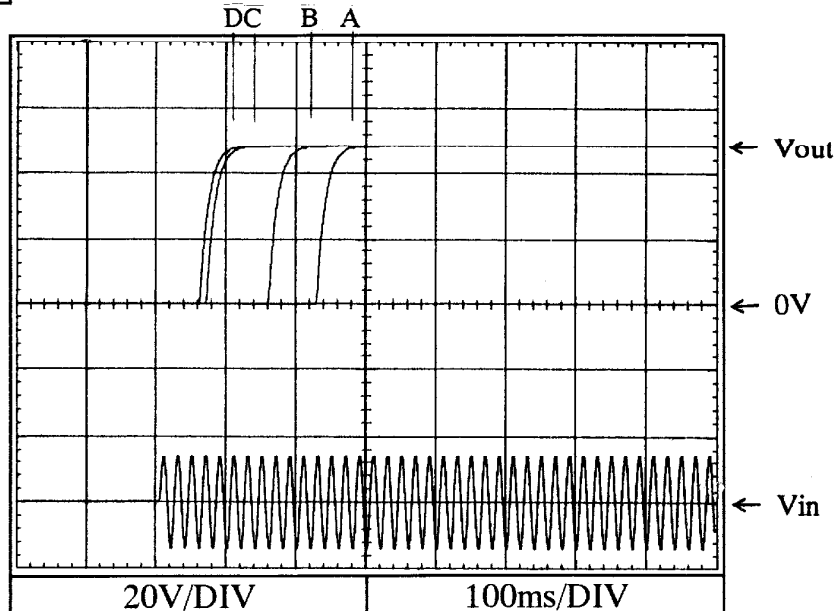
2.5 出力立ち上がり特性
Output rise characteristics

Conditions Vin : 85VAC (A)
: 100VAC (B)
: 200VAC (C)
: 265VAC (D)
Iout : 100%
Ta : 25°C

24V



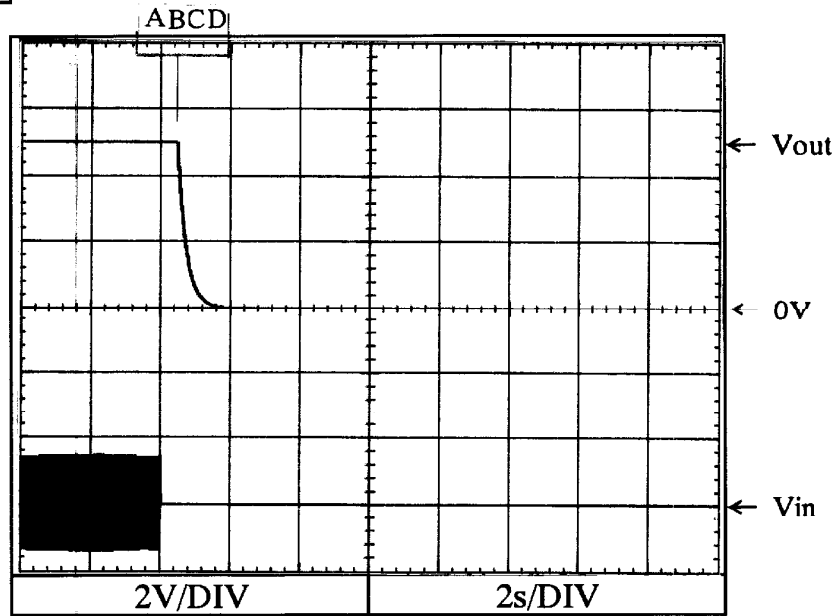
48V



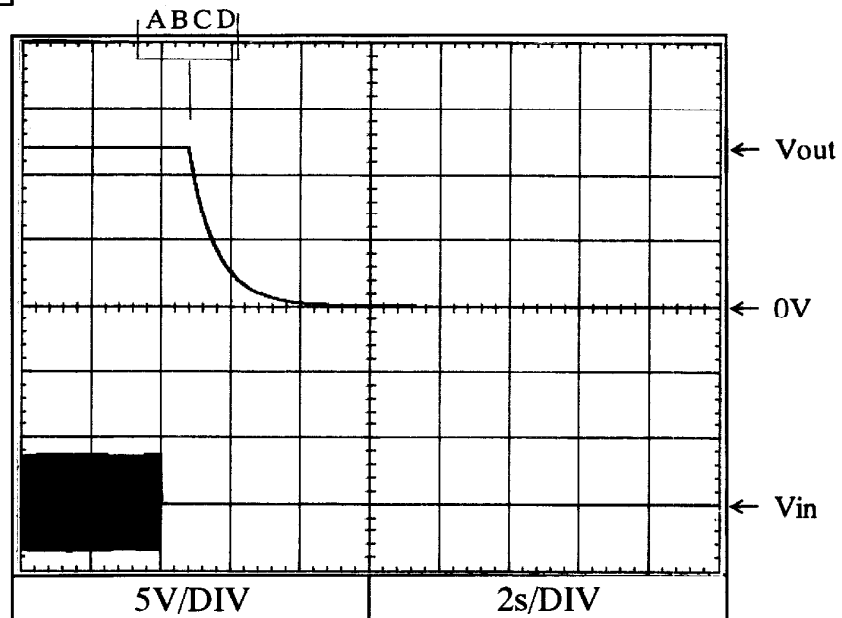
2.6 出力立ち下がり特性
Output fall characteristics

Conditions Vin : 85VAC (A)
: 100VAC (B)
: 200VAC (C)
: 265VAC (D)
Iout : 0%
Ta : 25°C

5V



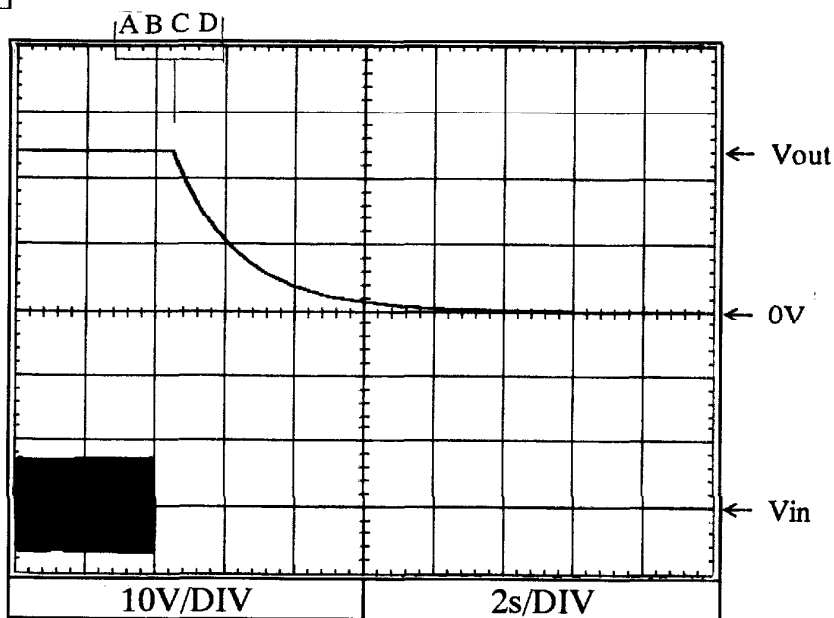
12V



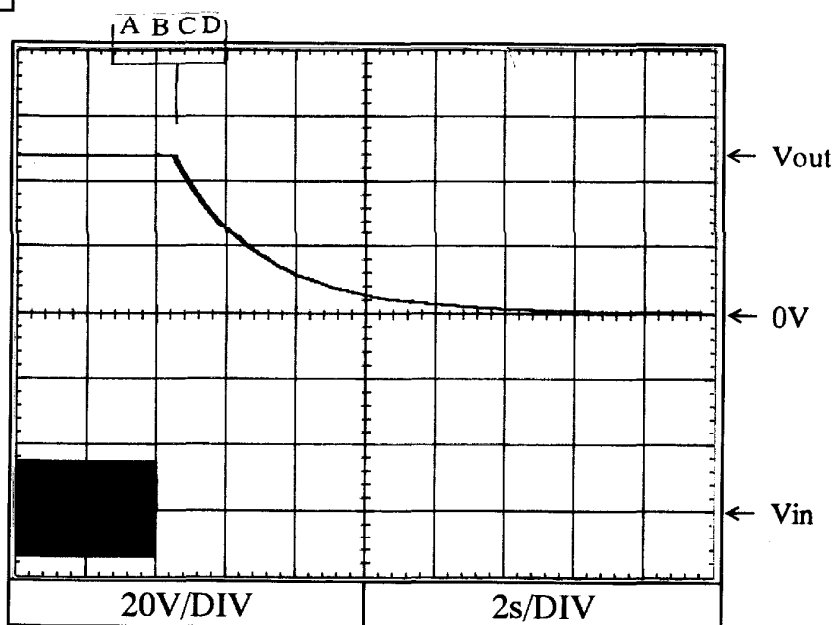
2.6 出力立ち下がり特性
Output fall characteristics

Conditions Vin : 85VAC (A)
: 100VAC (B)
: 200VAC (C)
: 265VAC (D)
Iout : 0%
Ta : 25°C

24V



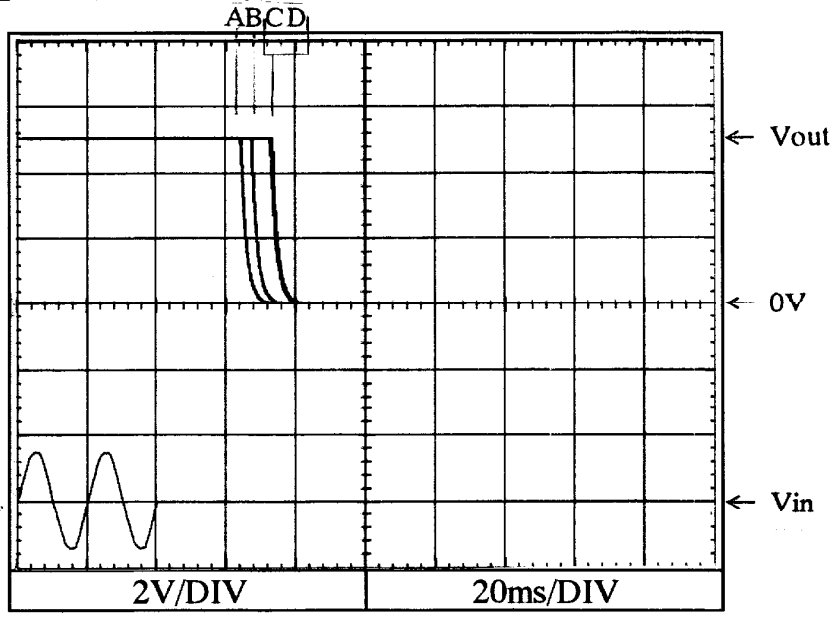
48V



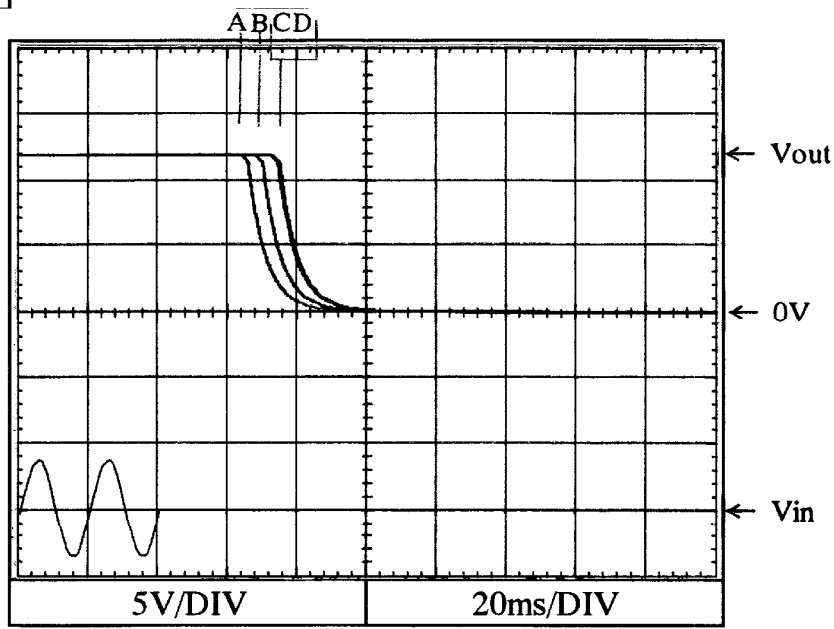
2.6 出力立ち下がり特性
Output fall characteristics

Conditions Vin : 85VAC (A)
: 100VAC (B)
: 200VAC (C)
: 265VAC (D)
Iout : 100%
Ta : 25°C

5V



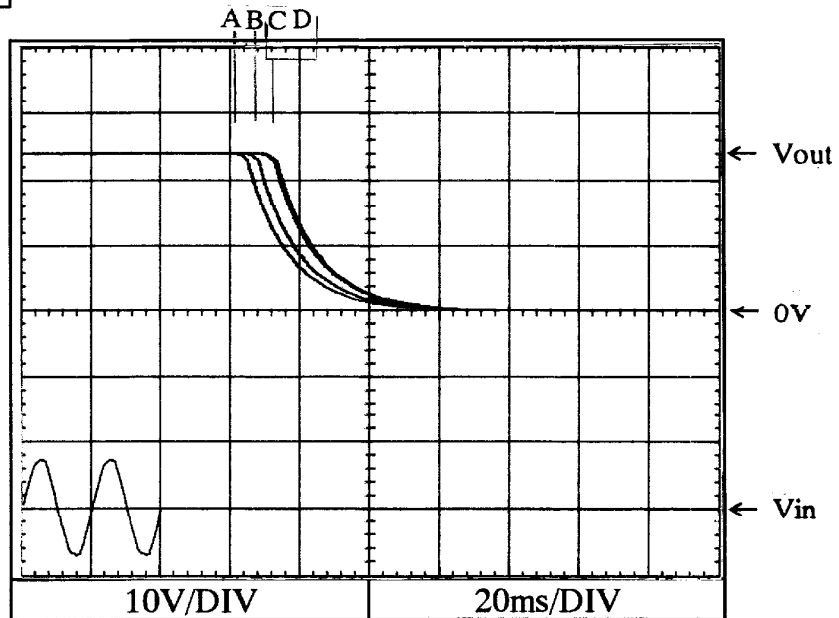
12V



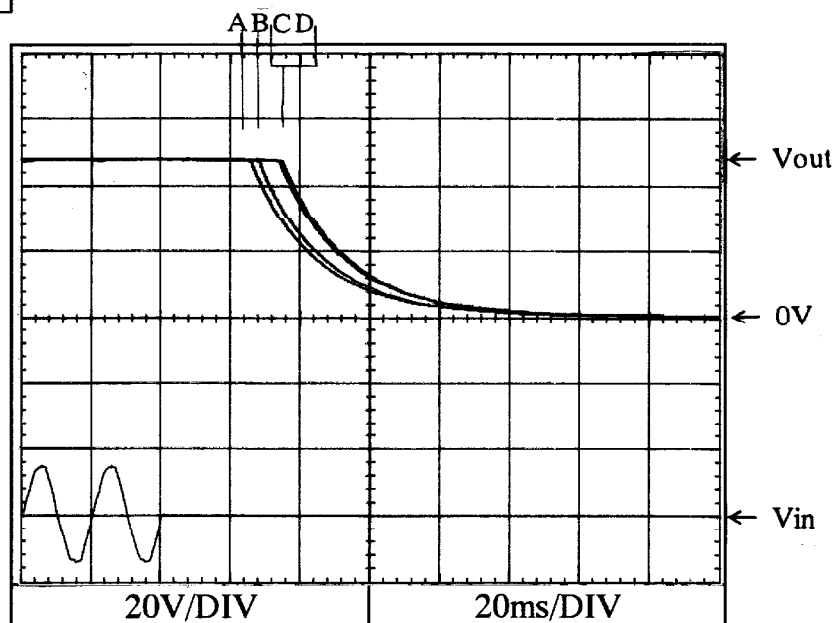
2.6 出力立ち下がり特性
Output fall characteristics

Conditions Vin : 85VAC (A)
: 100VAC (B)
: 200VAC (C)
: 265VAC (D)
Iout : 100%
Ta : 25°C

24V



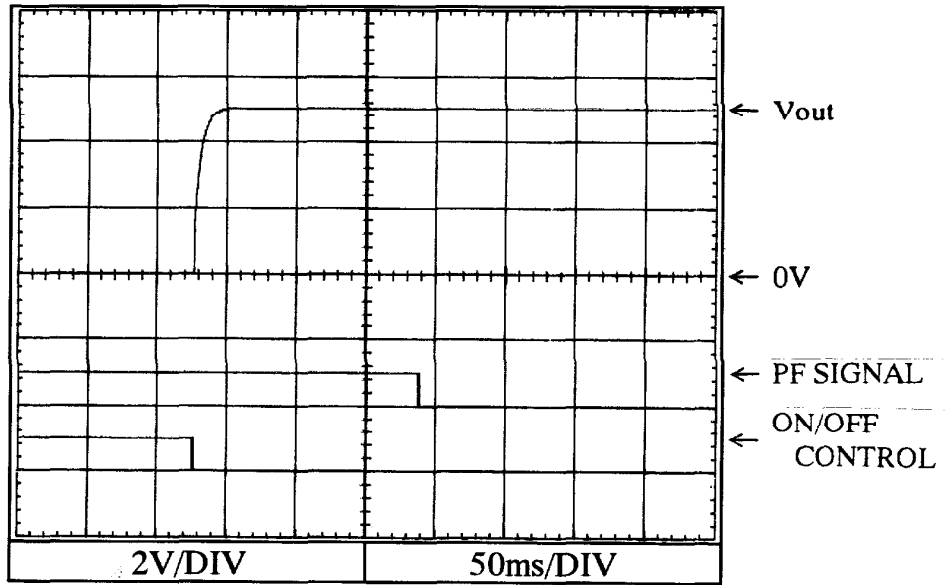
48V



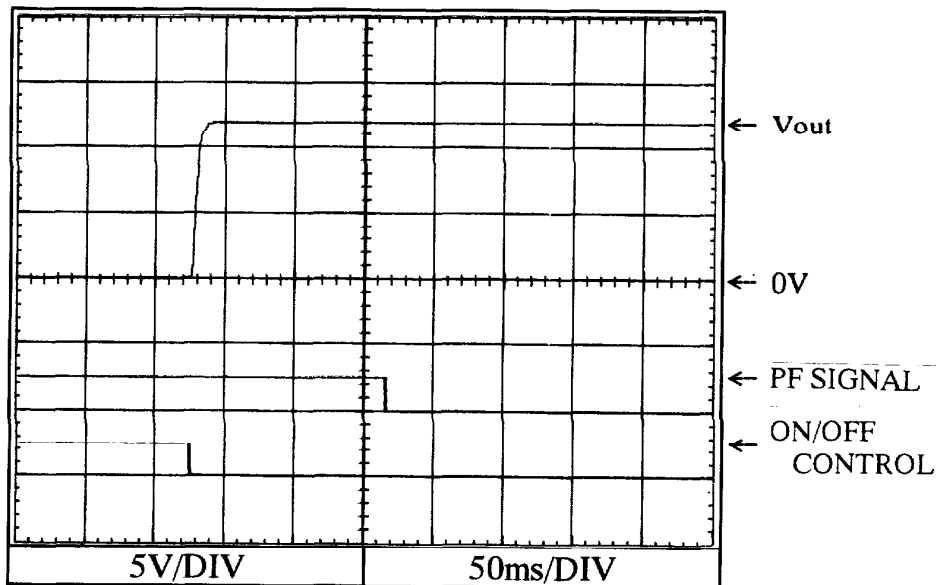
2.7 ON/OFFコントロール時出力立ち上がり特性
Output rise characteristics with ON/OFF CONTROL

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

5V



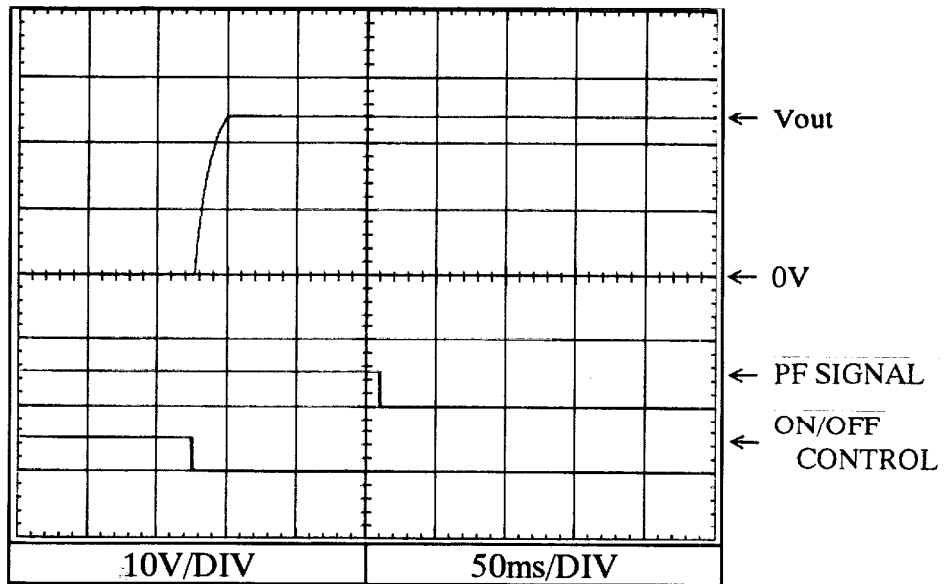
12V



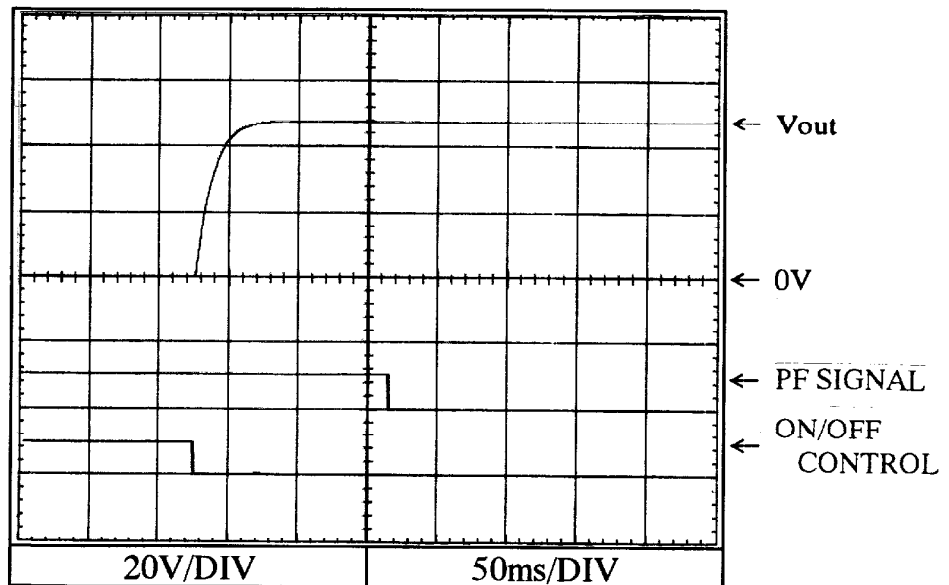
2.7 ON/OFFコントロール時出力立ち上がり特性
Output rise characteristics with ON/OFF CONTROL

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

24V



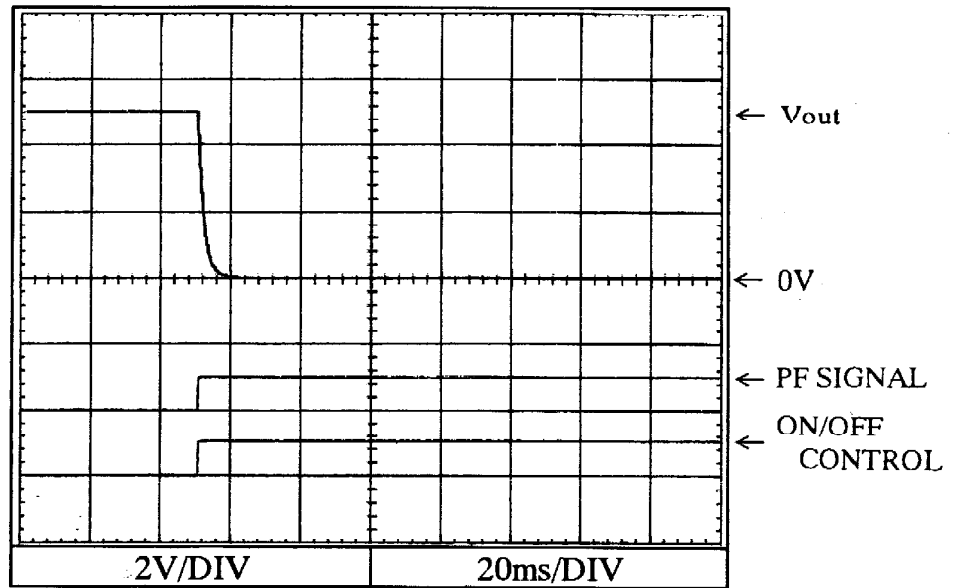
48V



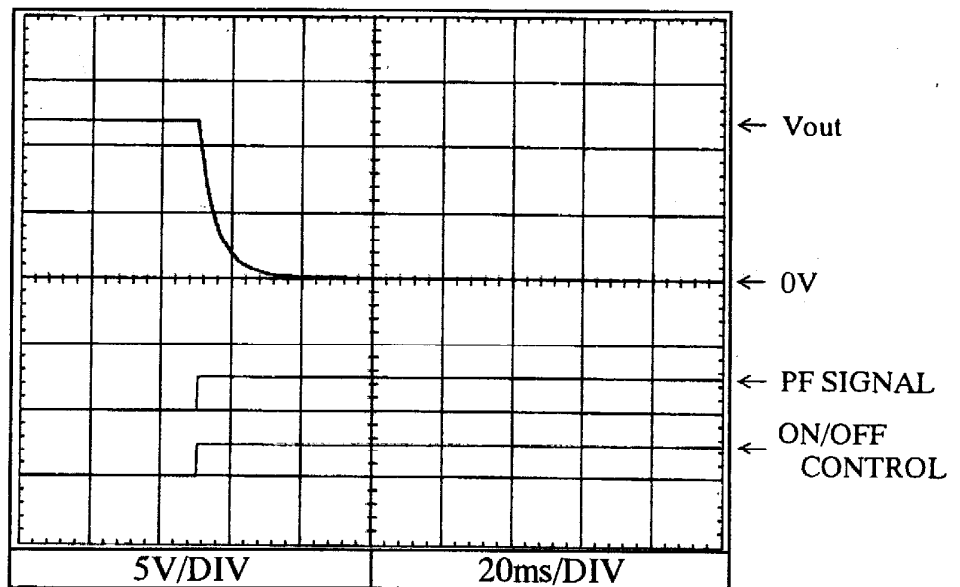
2.8 ON/OFFコントロール時出力立ち下がり特性
Output fall characteristics with ON/OFF CONTROL

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

5V



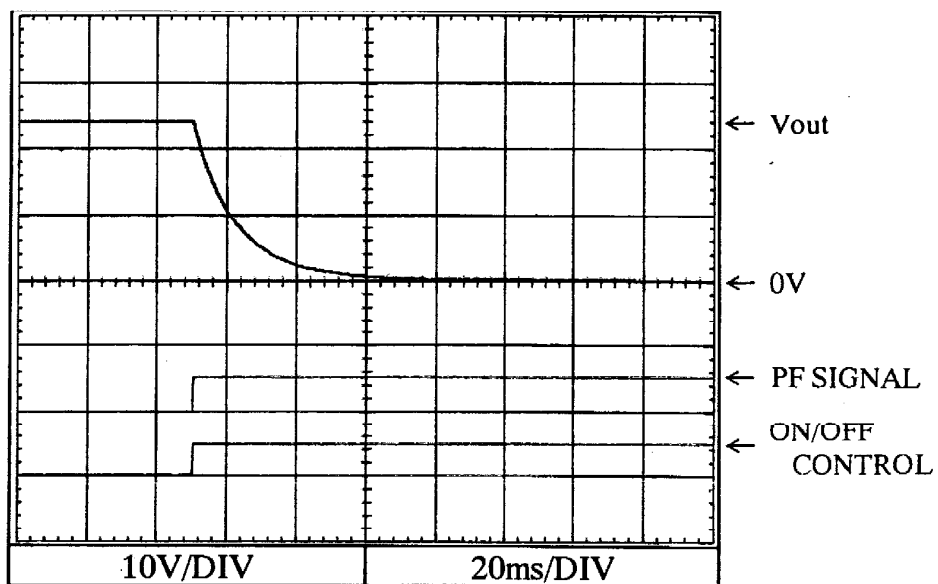
12V



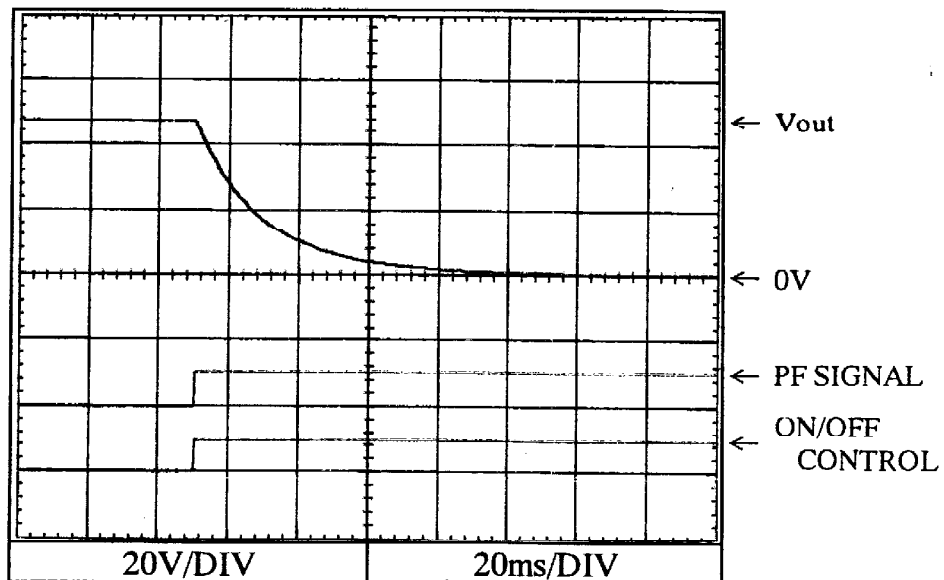
2.8 ON/OFFコントロール時出力立ち下がり特性
Output fall characteristics with ON/OFF CONTROL

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

24V



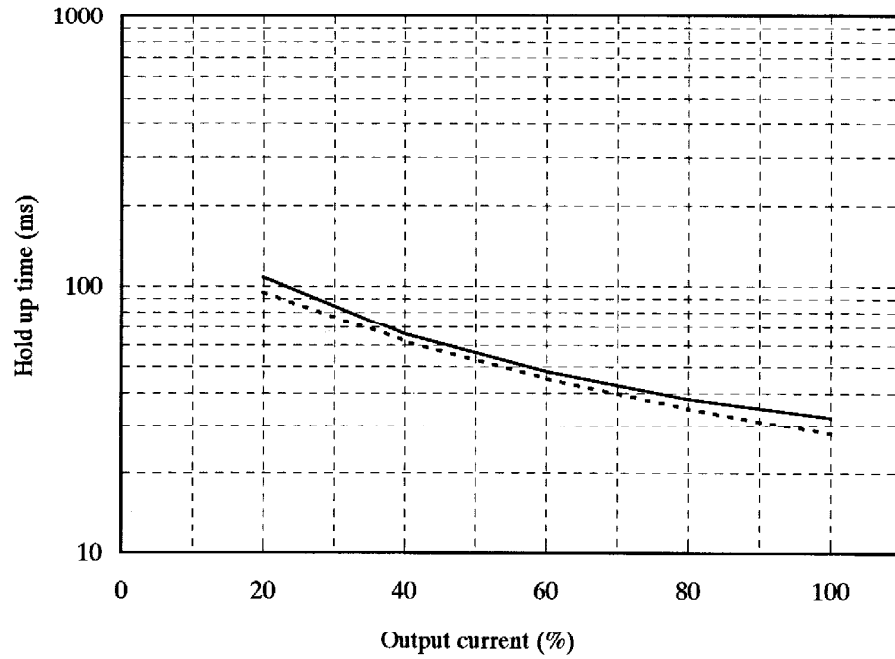
48V



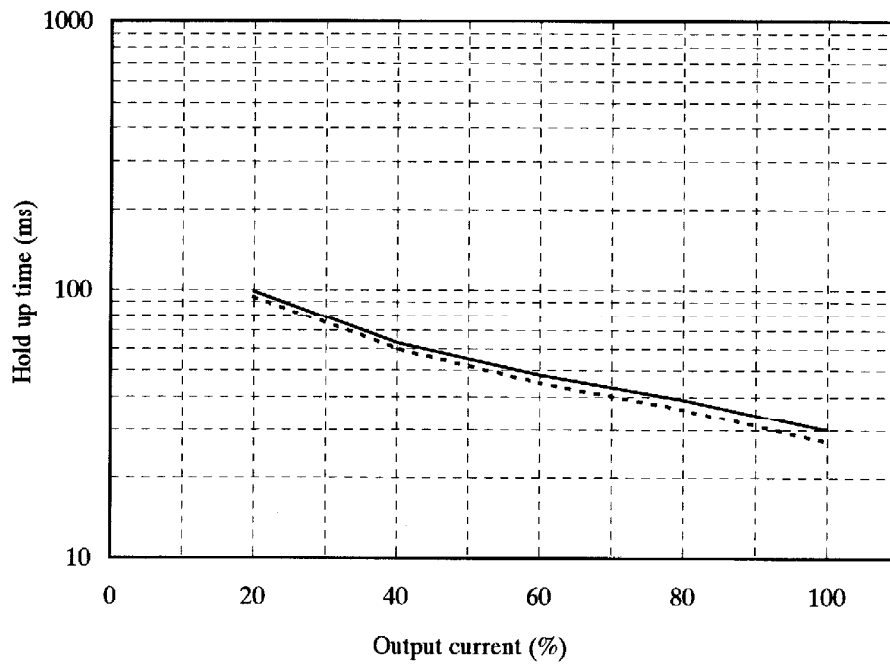
2.9 出力保持時間特性
Hold up time characteristics

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

5V



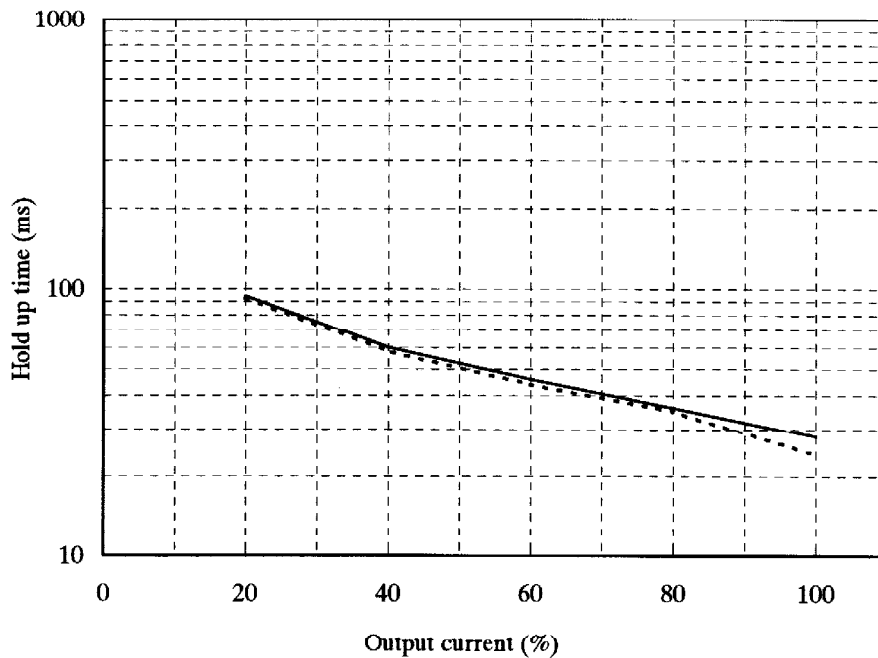
12V



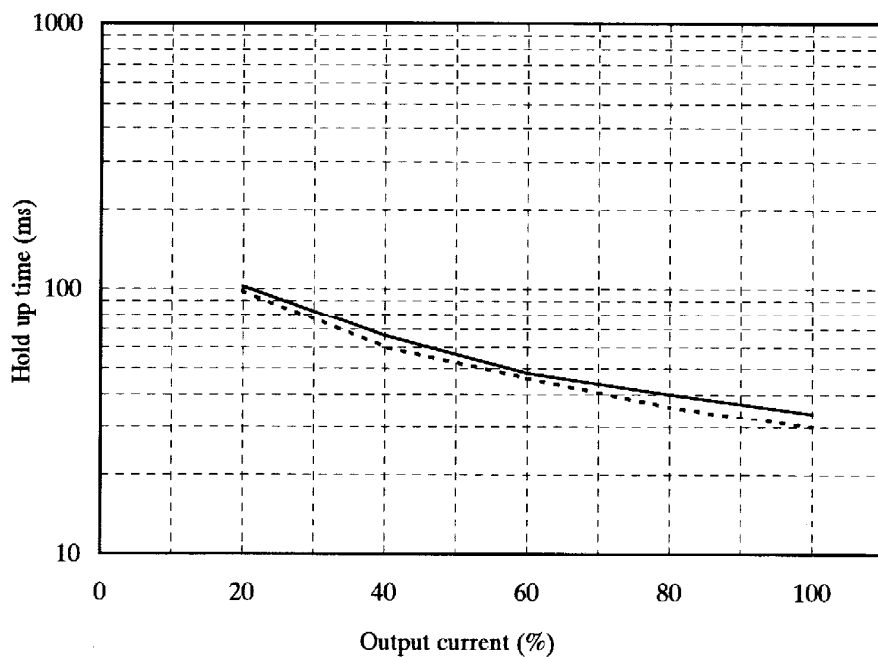
2.9 出力保持時間特性
Hold up time characteristics

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

24V



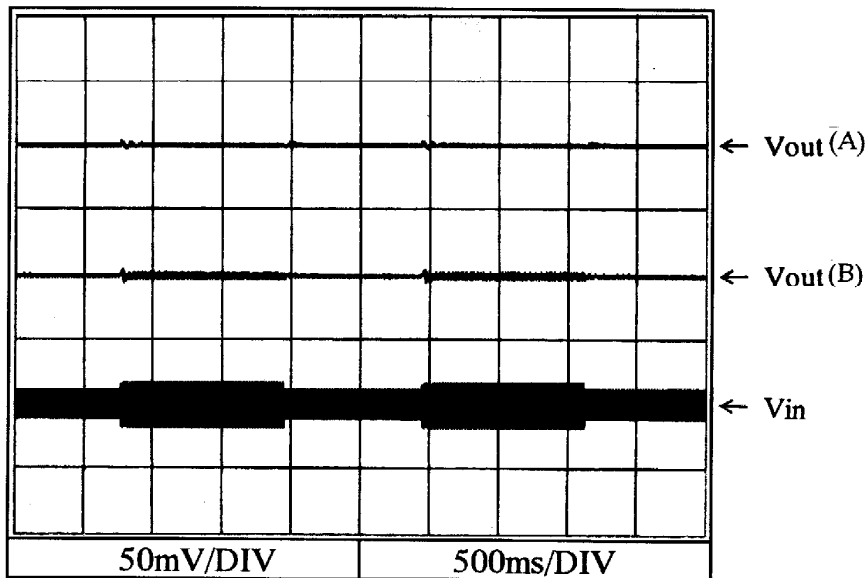
48V



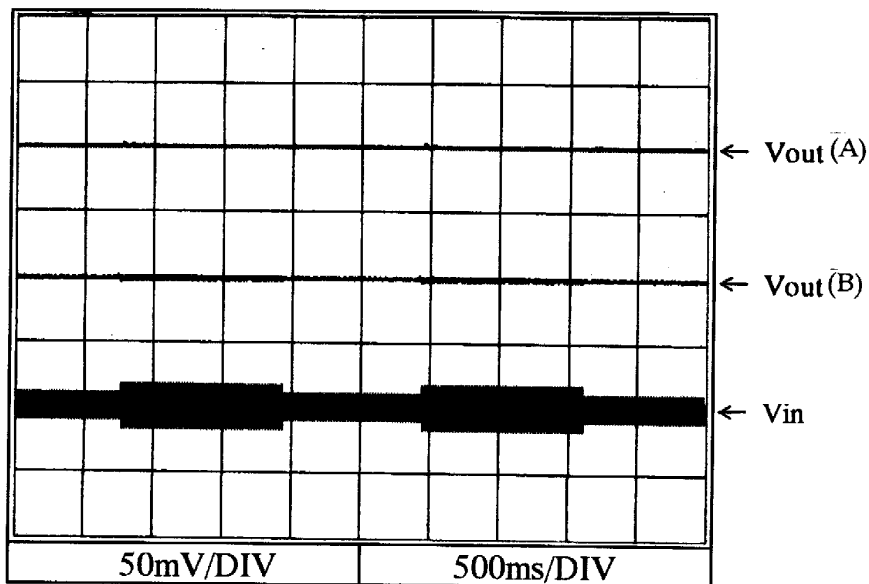
2.10 過渡応答 (入力急変) 特性
Dynamic line response characteristics

Conditions Vin : 85VAC \longleftrightarrow 132VAC(A)
170VAC \longleftrightarrow 265VAC(B)
Iout : 100%
Ta : 25°C

5V



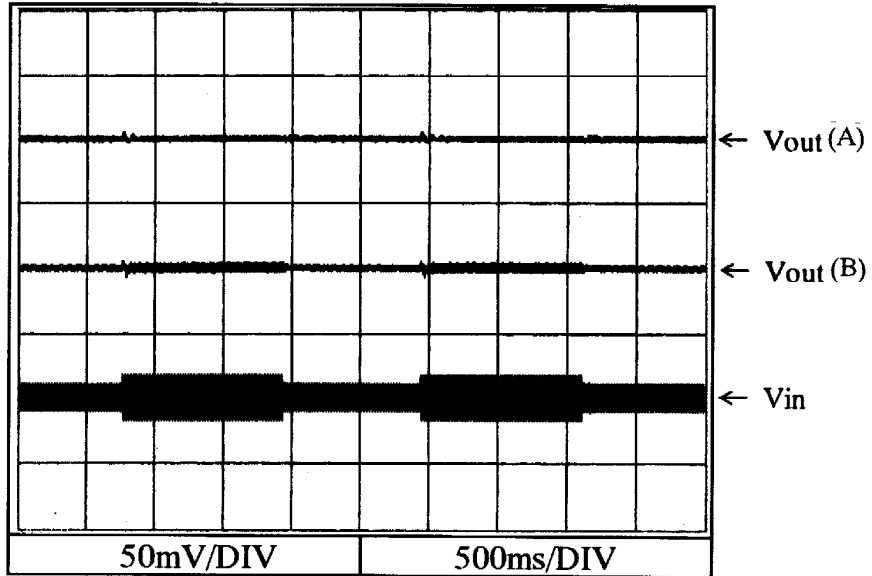
12V



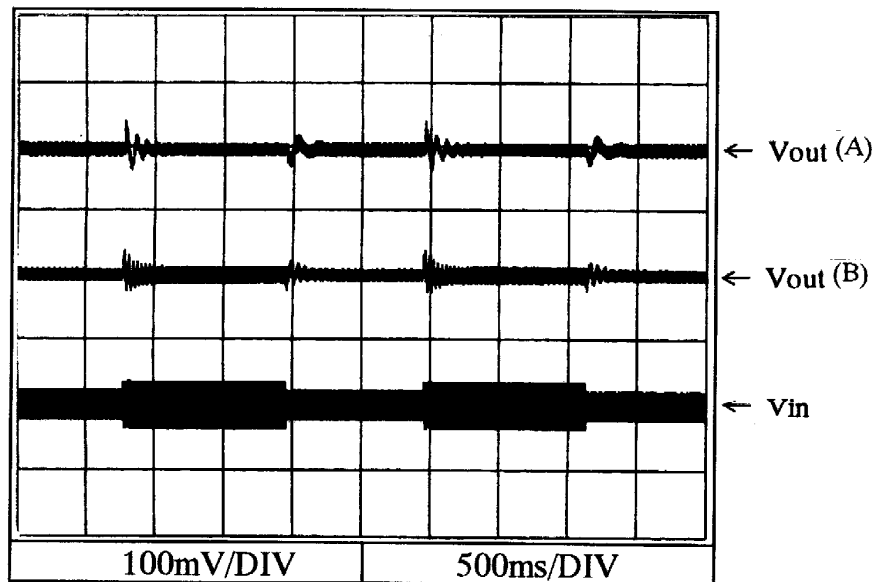
2.10 過渡応答 (入力急変) 特性
Dynamic line response characteristics

Conditions Vin : 85VAC \leftrightarrow 132VAC(A)
170VAC \leftrightarrow 265VAC(B)
Iout : 100%
Ta : 25°C

24V



48V

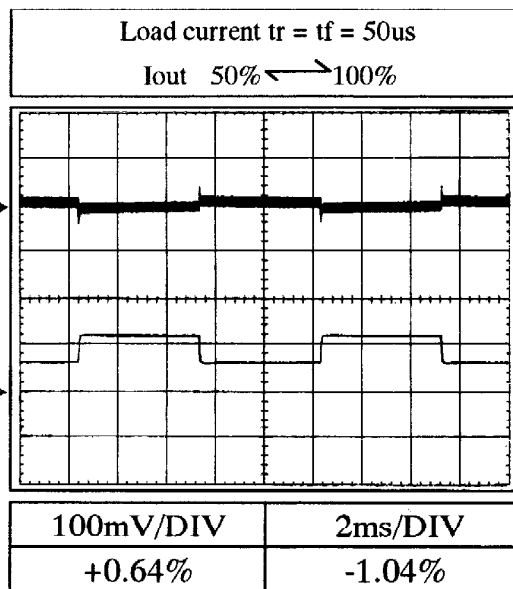
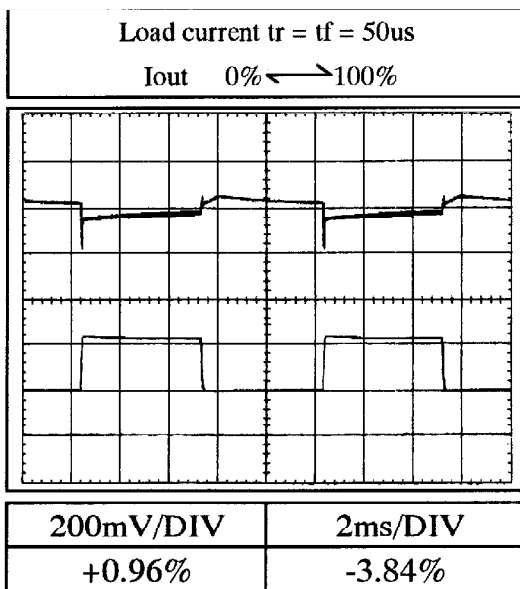


2.11 過渡応答 (負荷急変) 特性
Dynamic load response characteristics

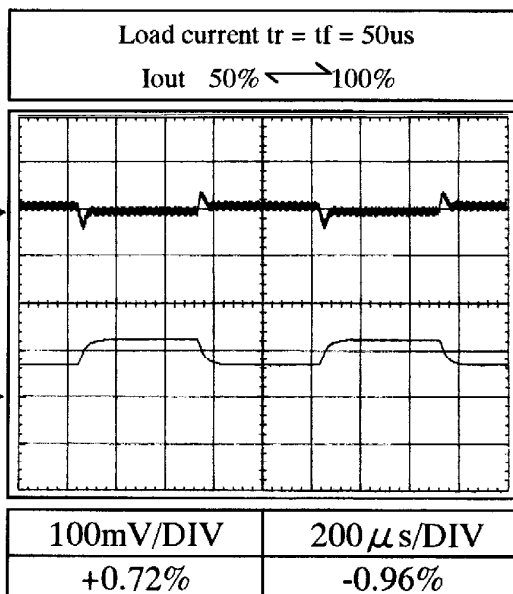
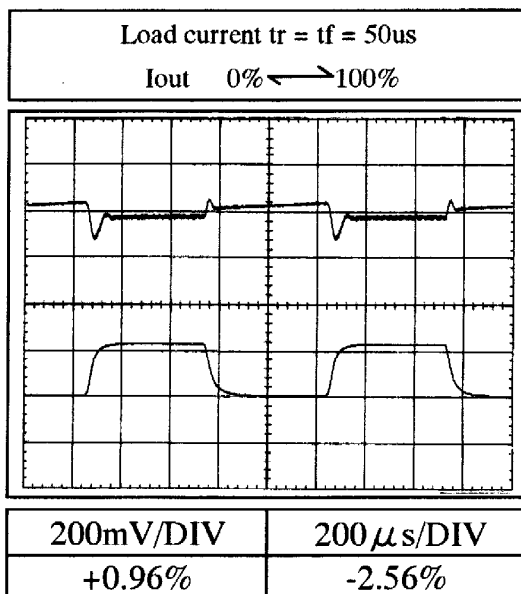
Conditions V_{in} : 100VAC
 T_a : 25°C

5V

$f=100\text{Hz}$



$f=1\text{kHz}$

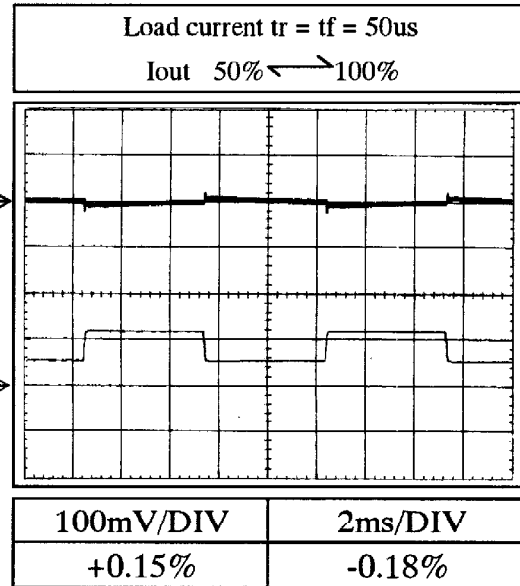
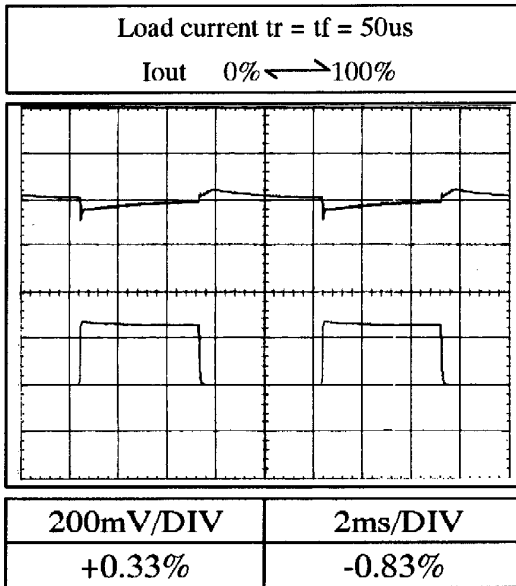


2.11 過渡応答 (負荷急変) 特性
Dynamic load response characteristics

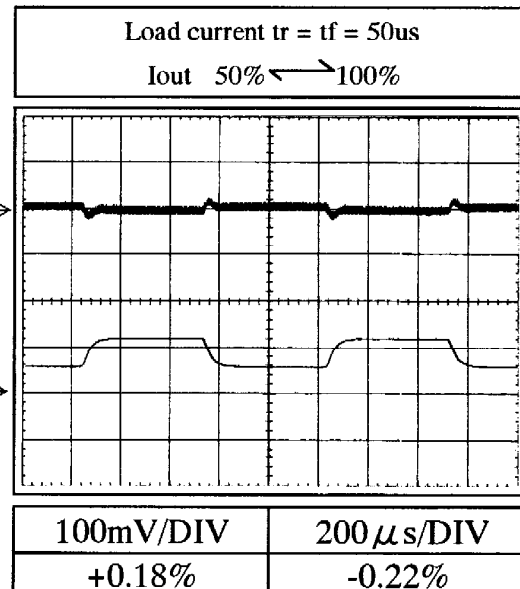
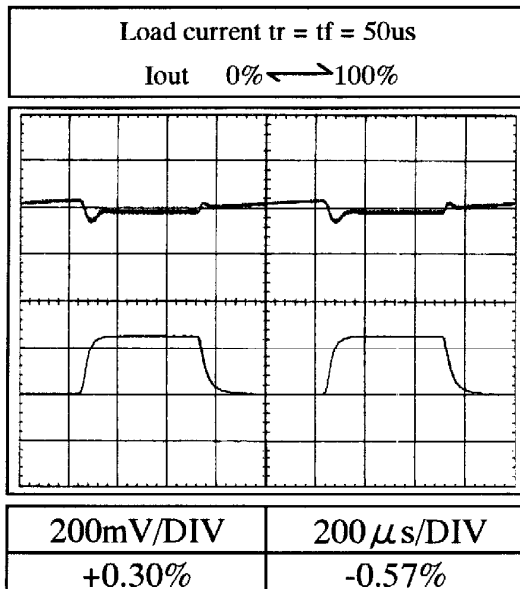
Conditions V_{in} : 100VAC
 T_a : 25°C

12V

$f=100\text{Hz}$



$f=1\text{kHz}$

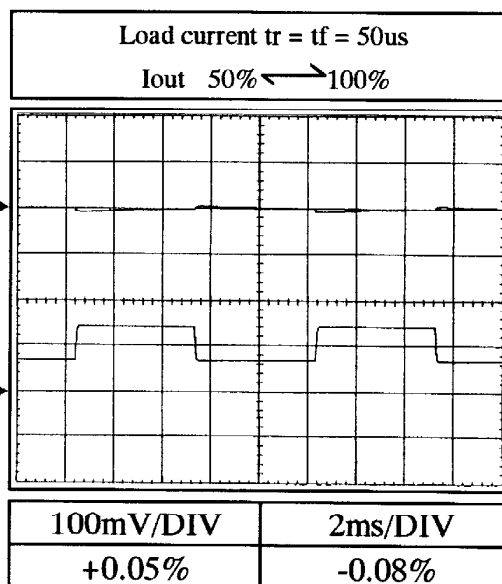
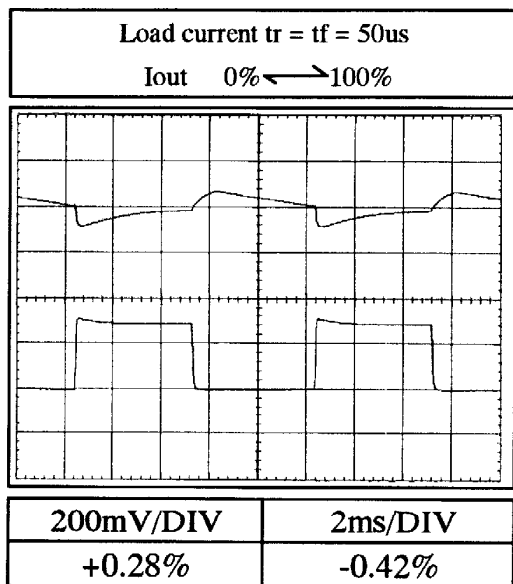


2.11 過渡応答 (負荷急変) 特性
Dynamic load response characteristics

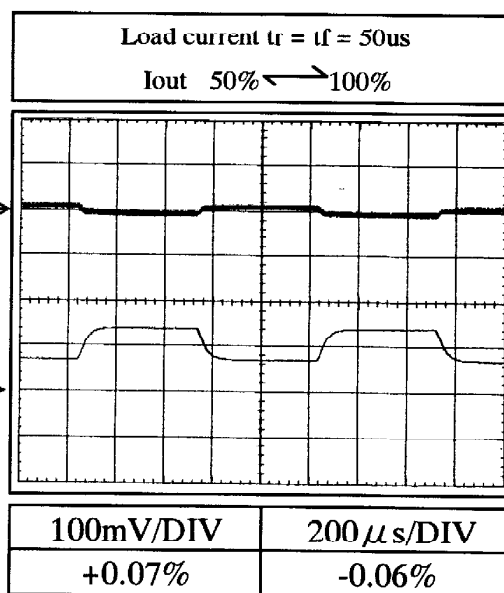
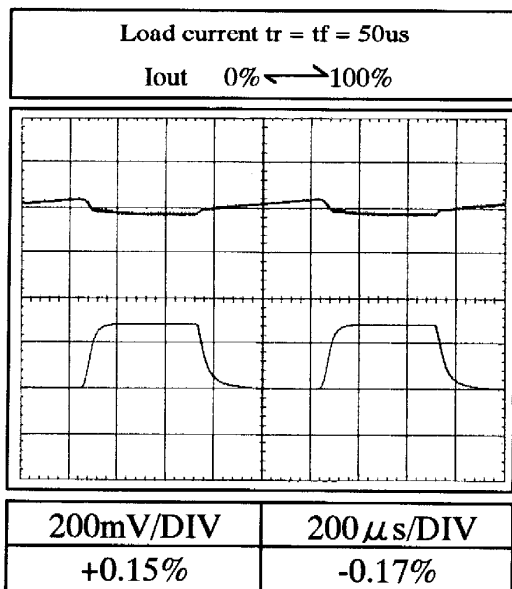
Conditions V_{in} : 100VAC
 T_a : 25°C

24V

$f=100\text{Hz}$



$f=1\text{kHz}$

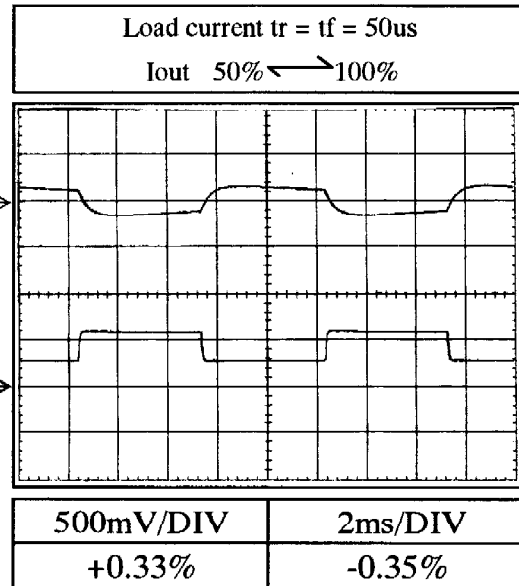
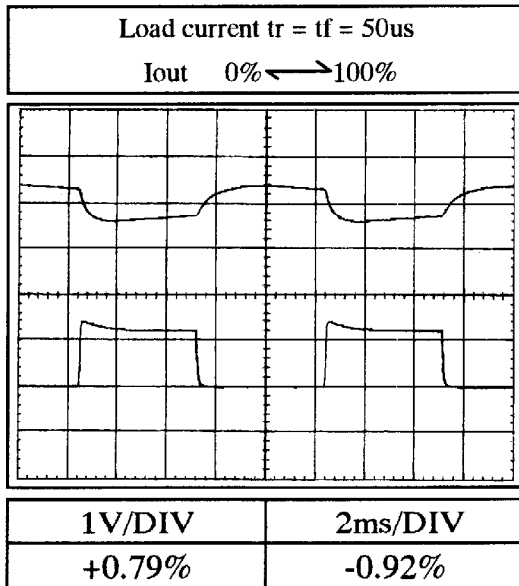


2.11 過渡応答 (負荷急変) 特性
Dynamic load response characteristics

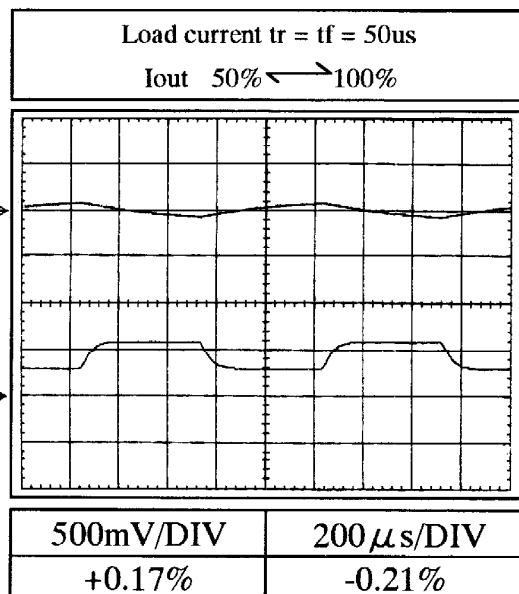
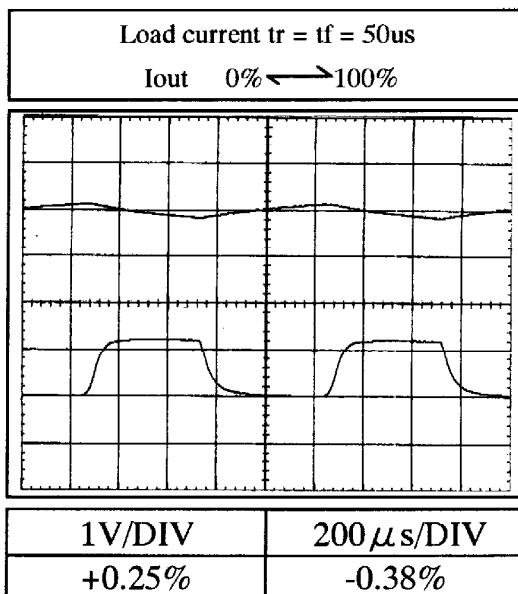
Conditions V_{in} : 100VAC
 T_a : 25°C

48V

$f=100\text{Hz}$



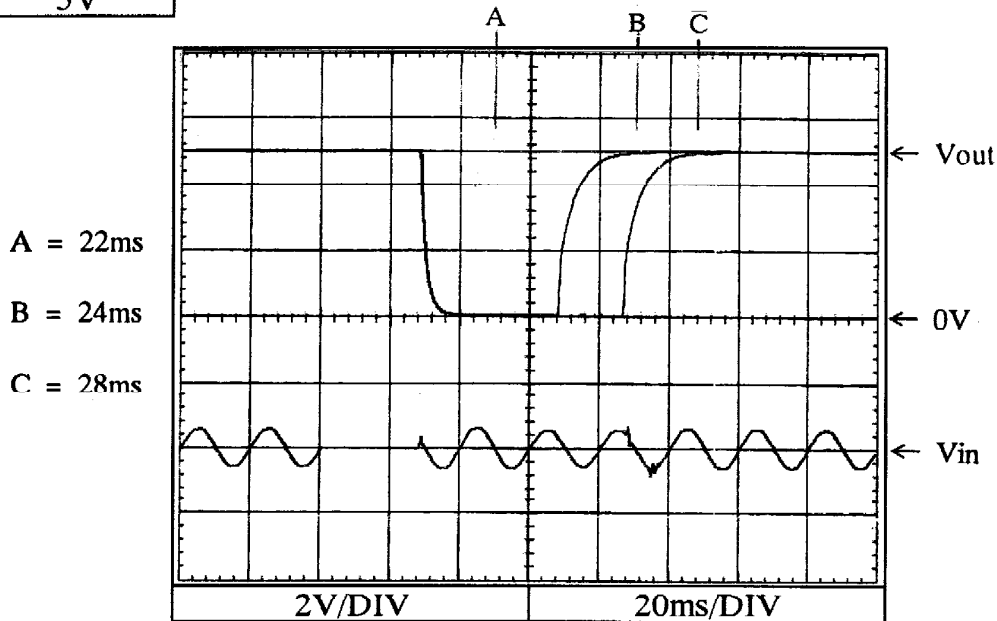
$f=1\text{kHz}$



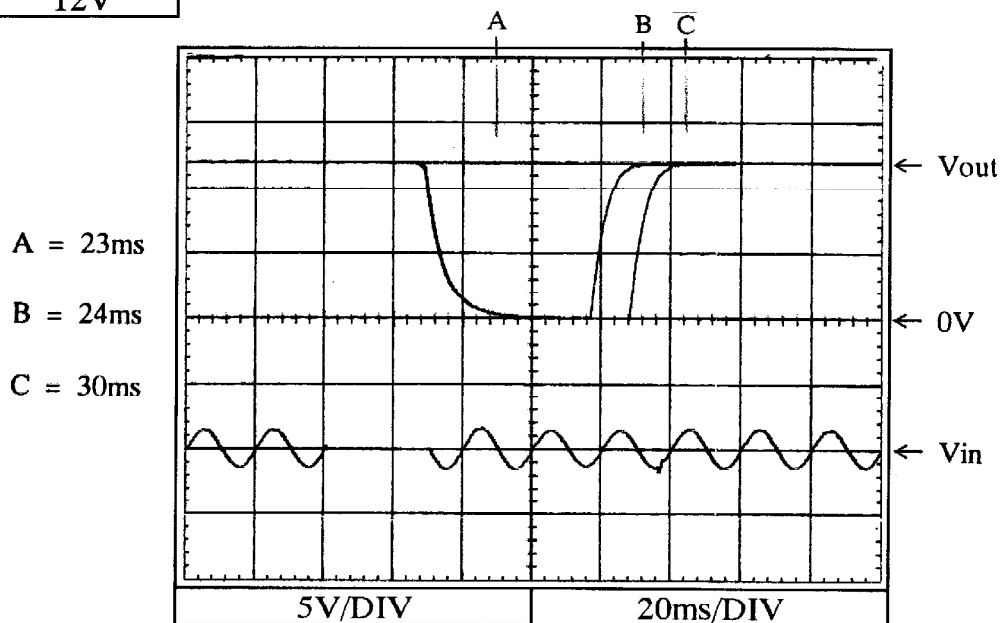
2.12 入力電圧瞬停特性
Response to brown out characteristics

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

5V



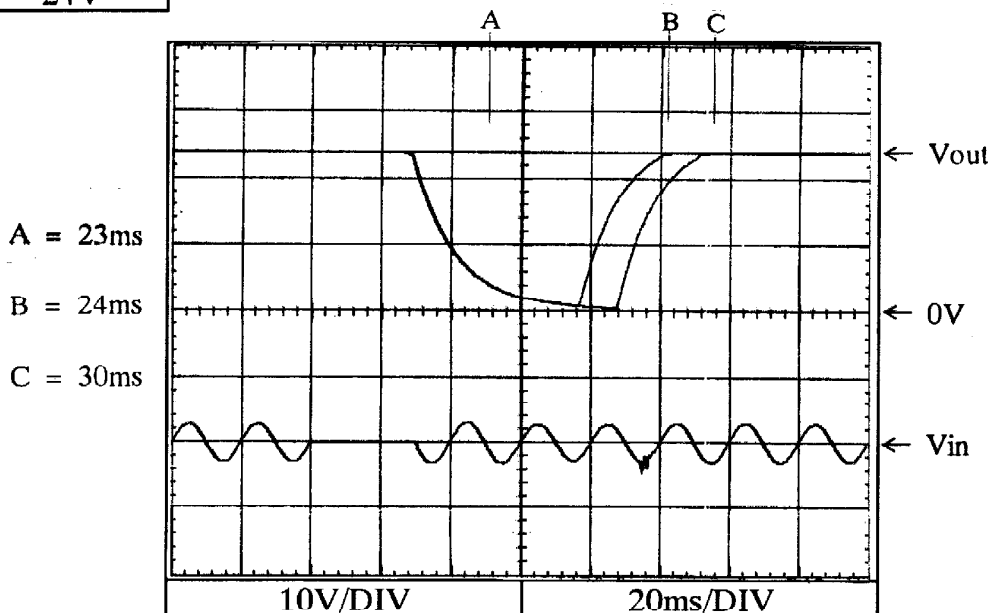
12V



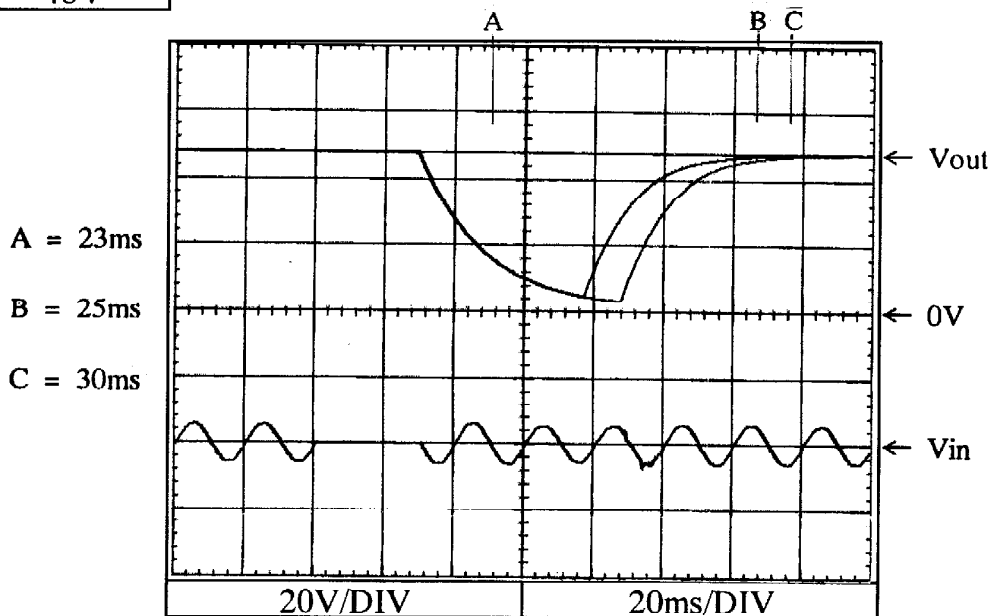
2.12 入力電圧瞬停特性
Response to brown out characteristics

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

24V



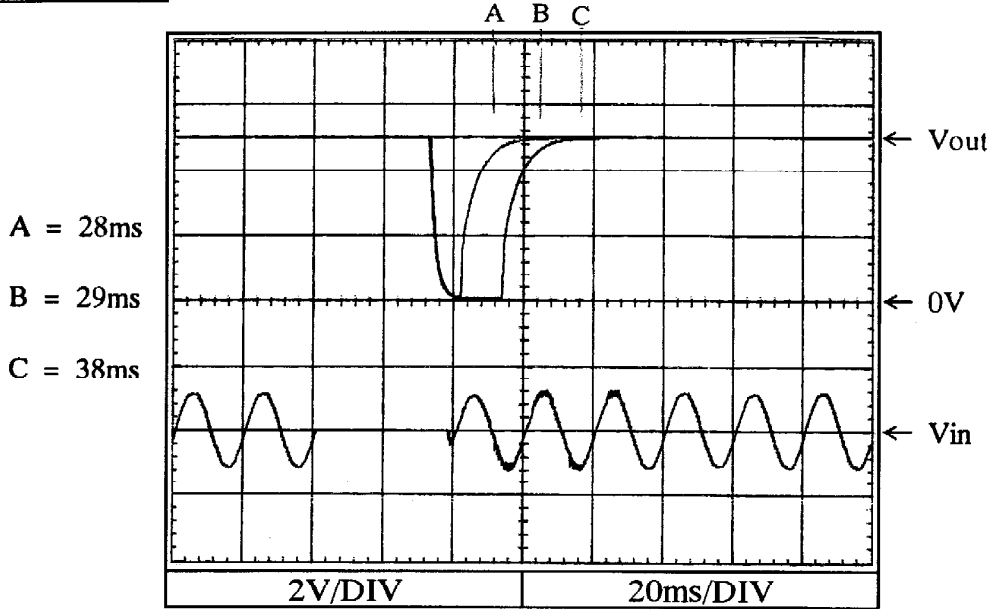
48V



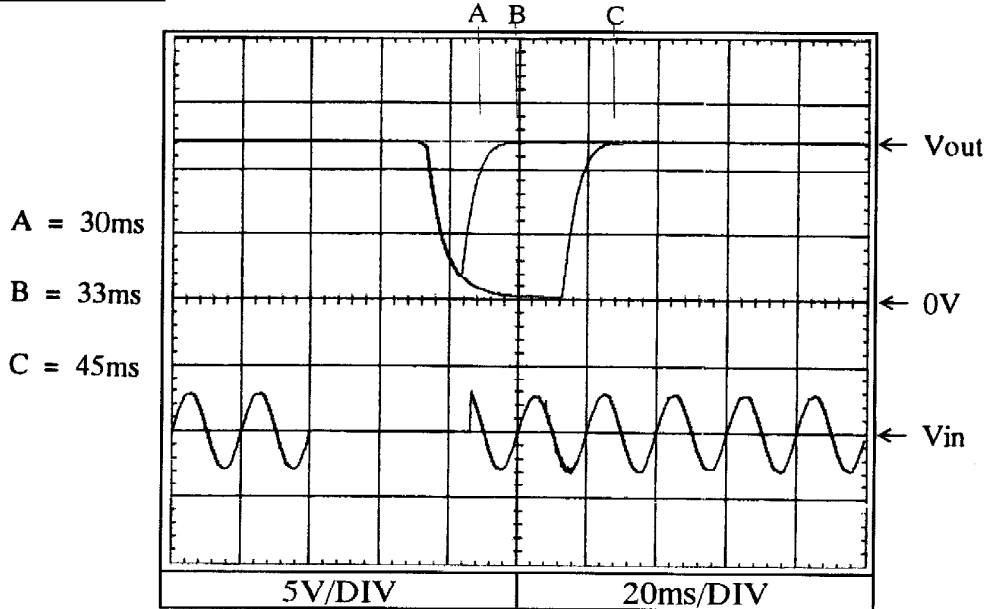
2.12 入力電圧瞬停特性
Response to brown out characteristics

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

5V

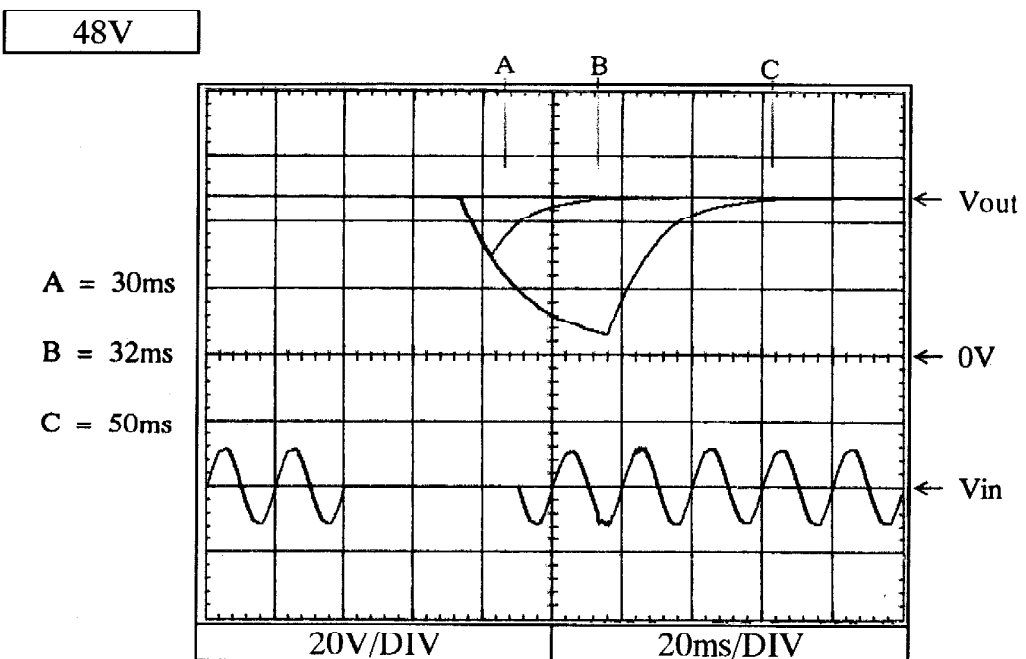
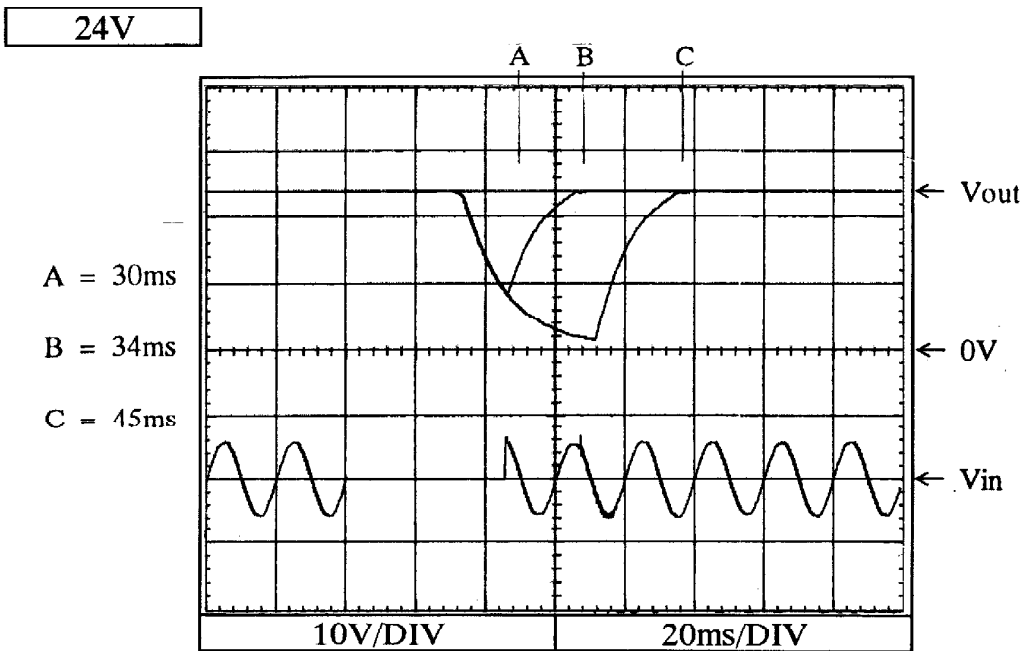


12V



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

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

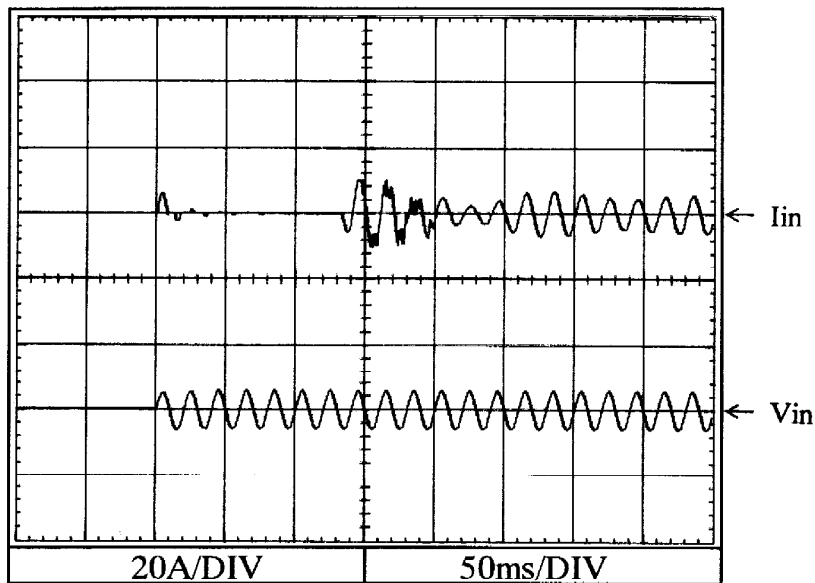


2.13 入力サージ電流 (突入電流) 特性
Inrush current waveform

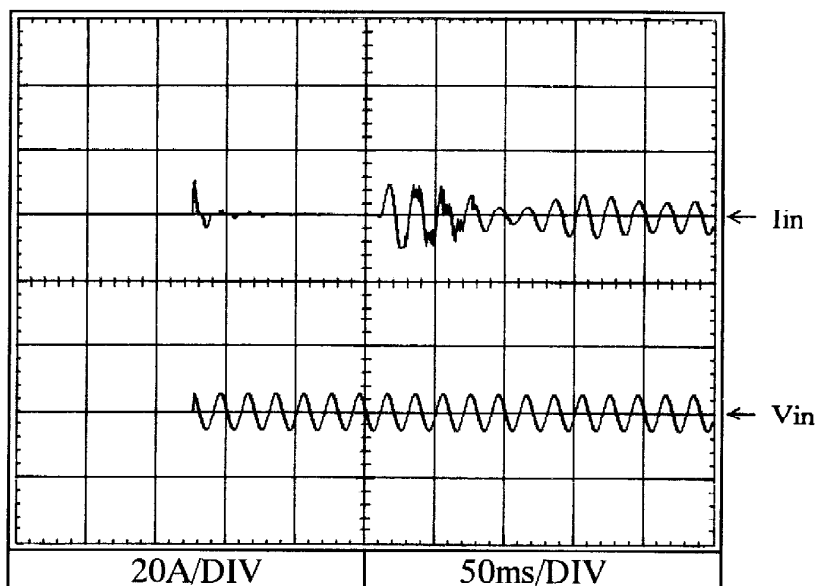
Conditions Vin : 100VAC
Iout : 100%
Ta : 25°C

5V

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



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

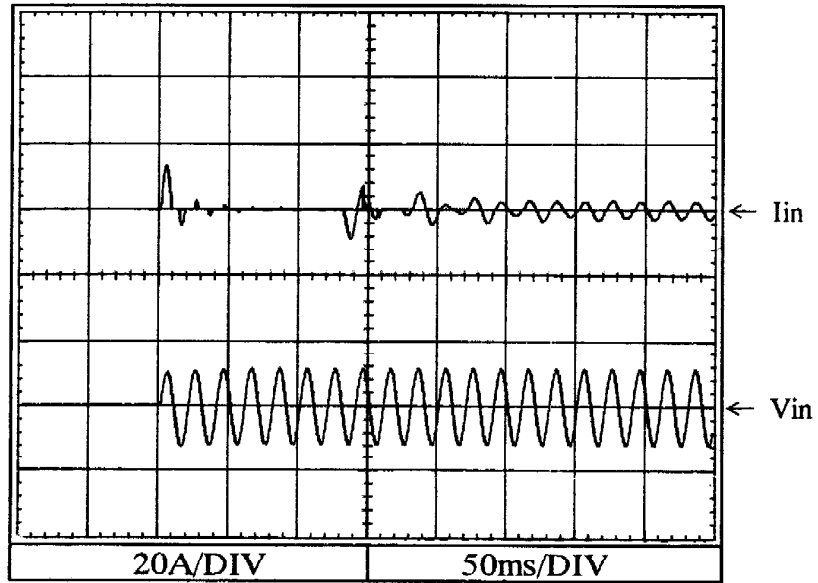


2.13 入力サージ電流 (突入電流) 特性
Inrush current waveform

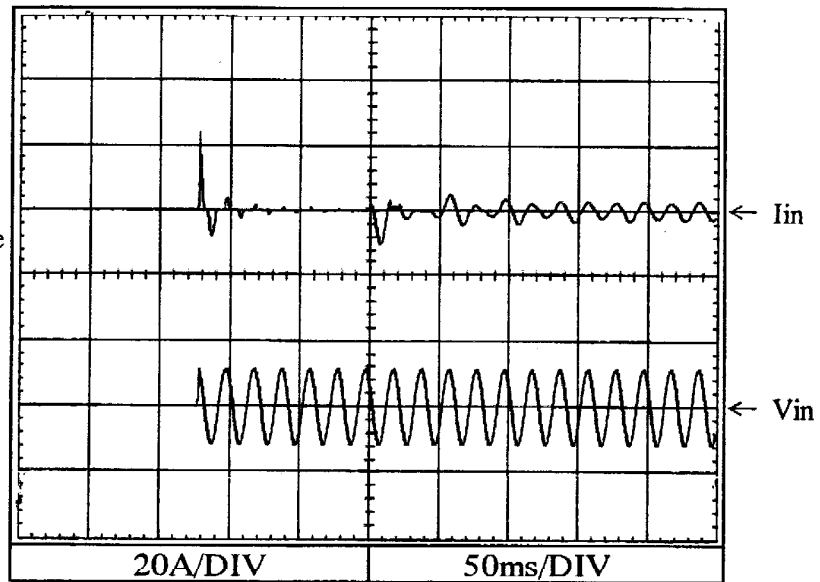
Conditions Vin : 200VAC
Iout : 100%
Ta : 25°C

5V

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



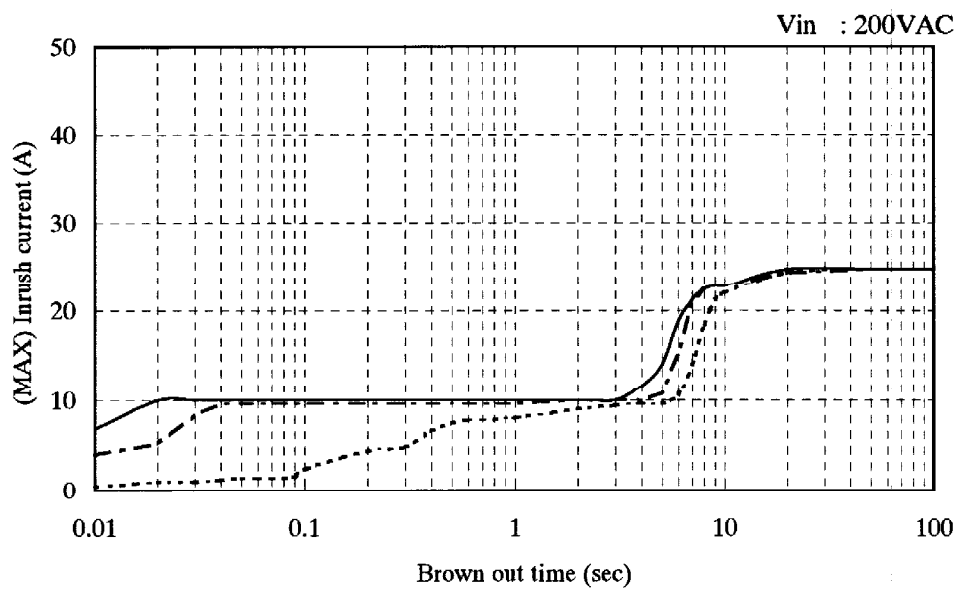
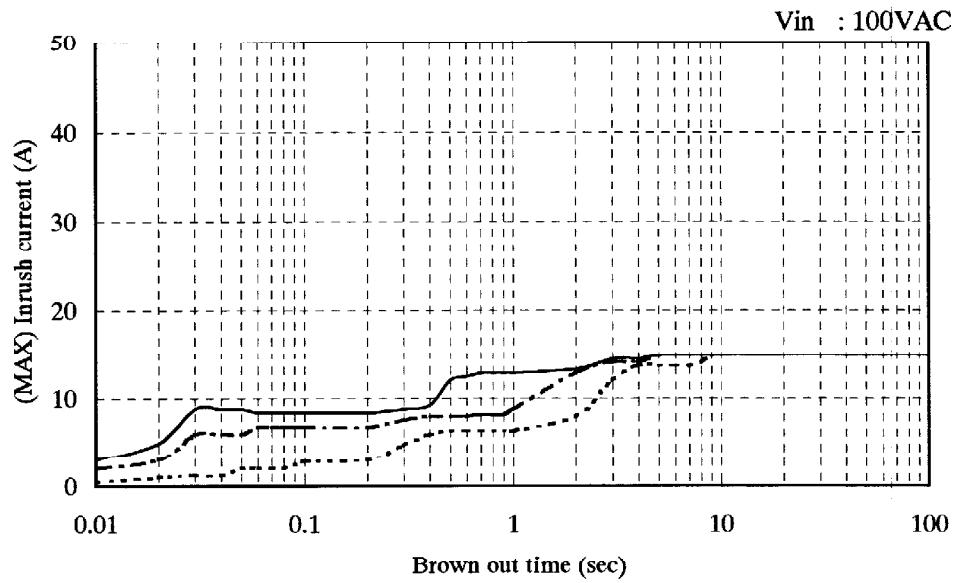
Switch on phase angle
of input AC voltage
 $\phi = 90^\circ$



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

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

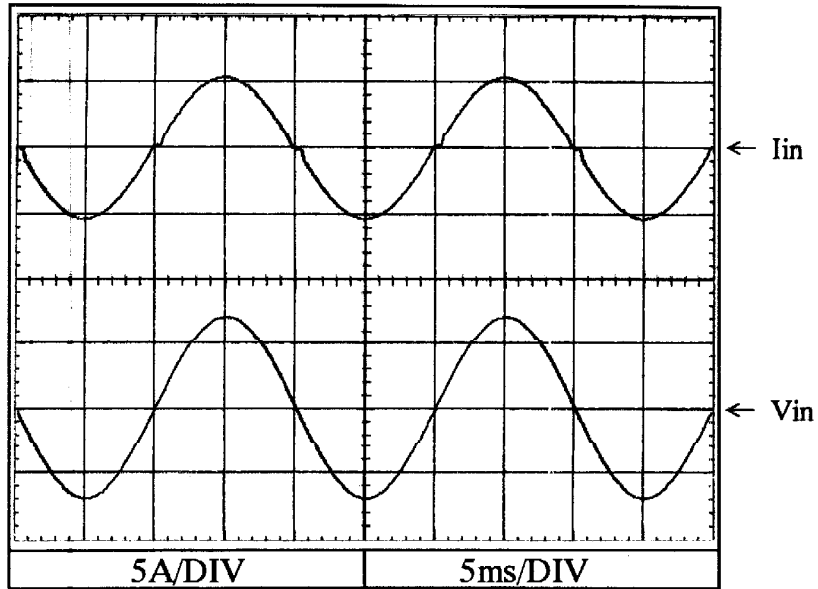
5V



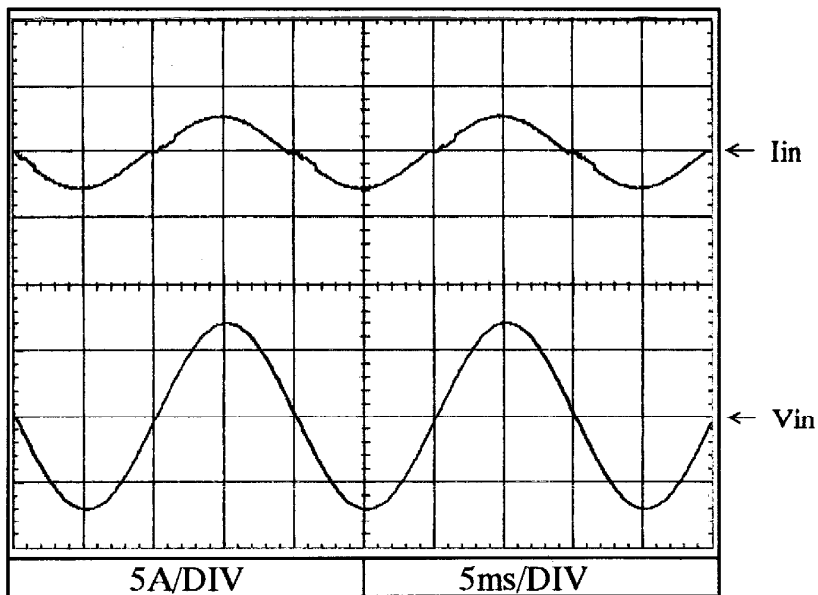
2.15 入力電流波形
Input current waveform

5V

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



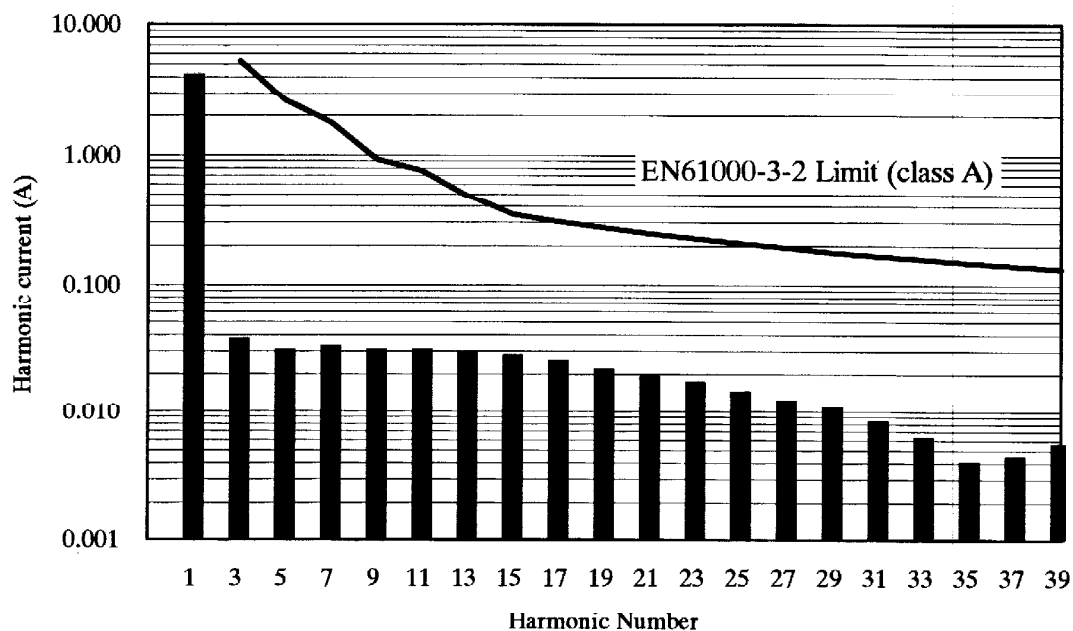
Conditions Vin : 200VAC
Iout : 100%
Ta : 25°C



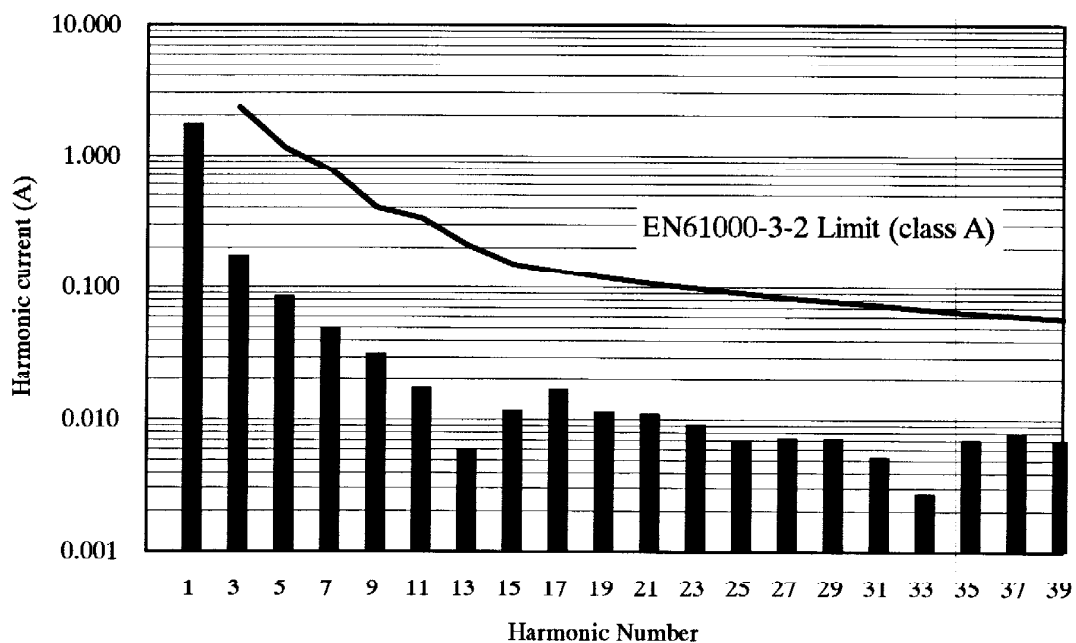
2.16 高調波成分
Input current harmonics

5V

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



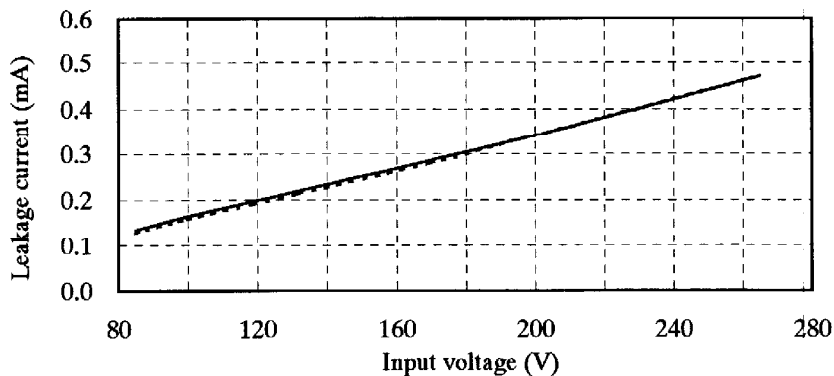
Conditions Vin : 230VAC
Iout : 100%
Ta : 25°C



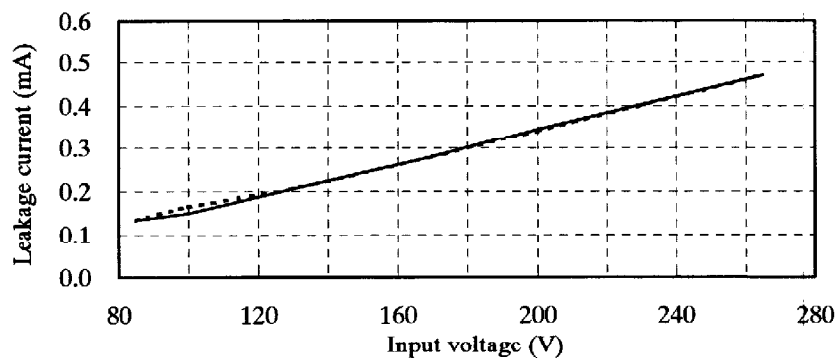
2.17 リーク電流特性
Leakage current characteristics

Conditions Iout : 0%
: 100% ———
Ta : 25°C
f : 50Hz
Equipment used : MODEL 229-2 (Simpson)

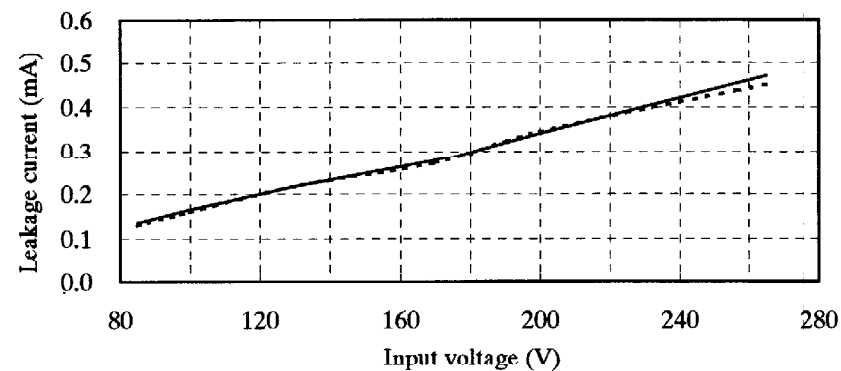
5V



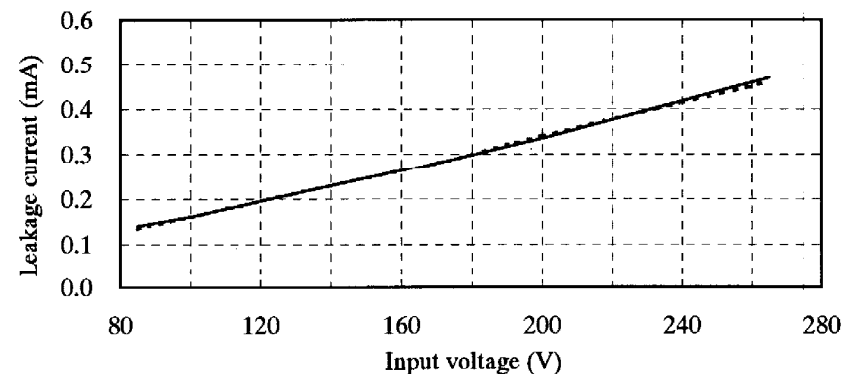
12V



24V



48V

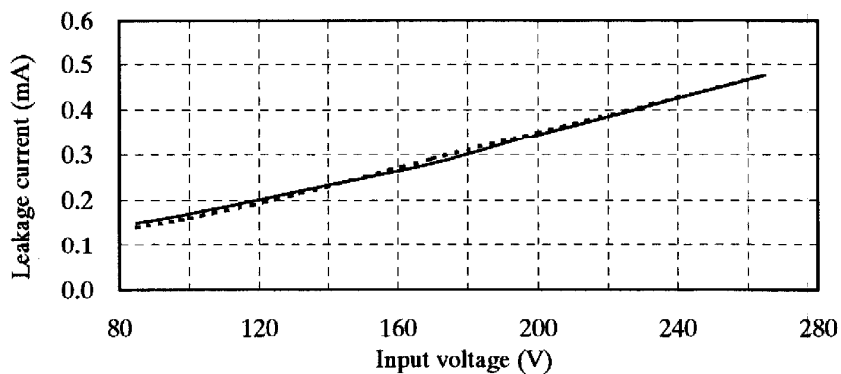


2.17 リーク電流特性
Leakage current characteristics

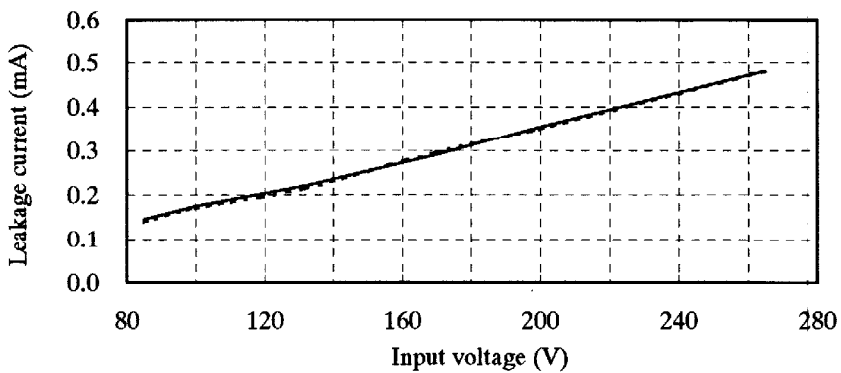
Conditions Iout : 0%
 : 100% ————
Ta : 25°C
f : 50Hz

Equipment used : TYPE3226 (YOKOGAWA)

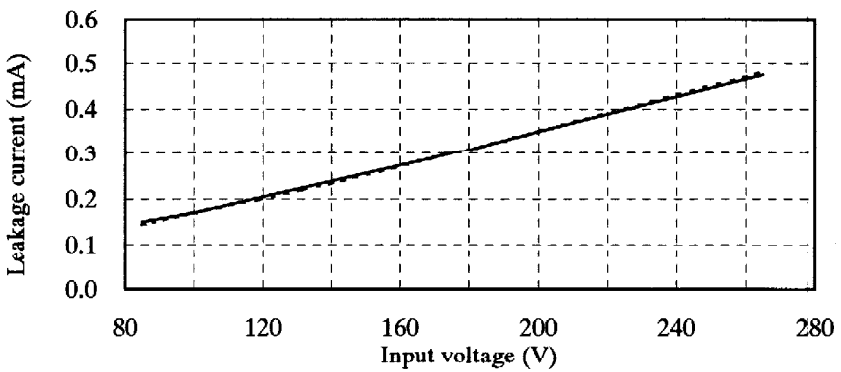
5V



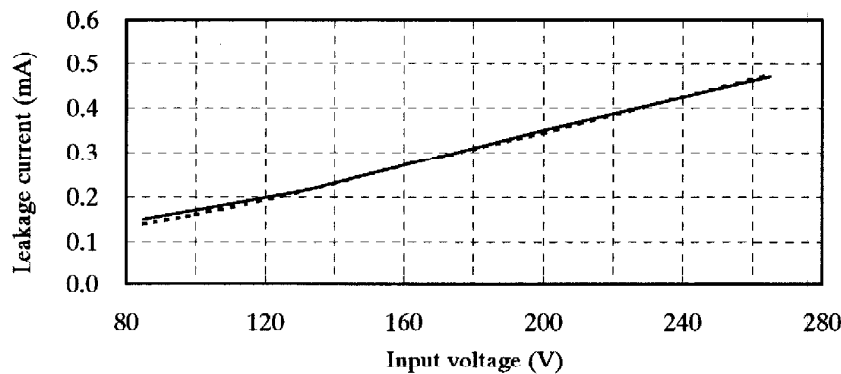
12V



24V



48V

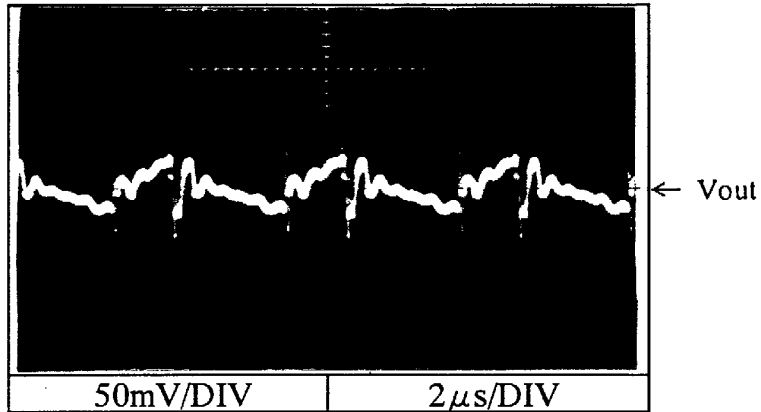


2.18 出力リップル、ノイズ波形
Output ripple and noise waveform

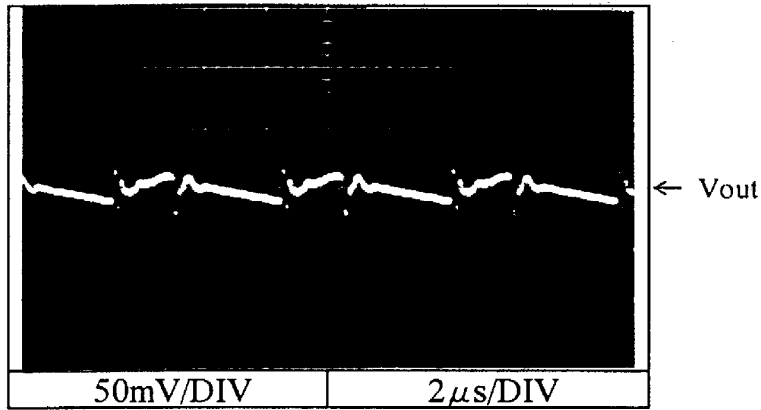
Conditions Vin : 100VAC
Iout : 100%
Ta : 25°C

NORMAL MODE

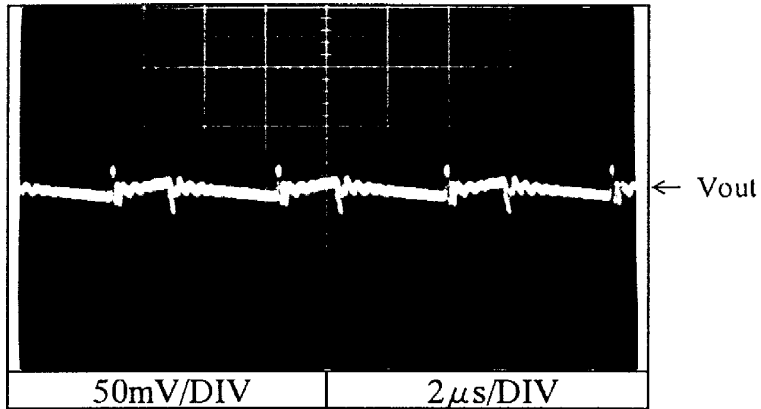
5V



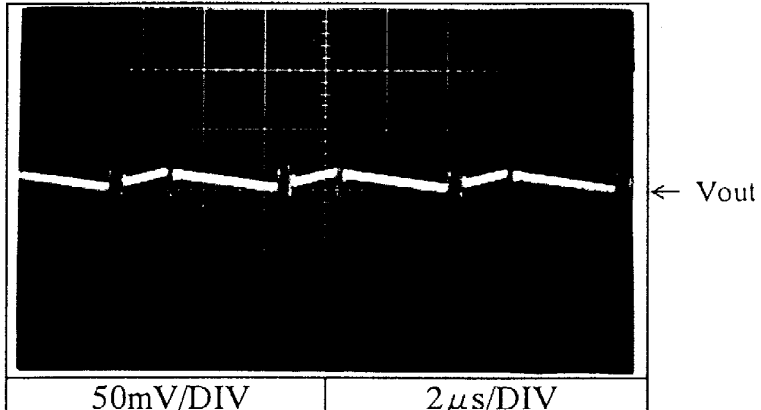
12V



24V



48V

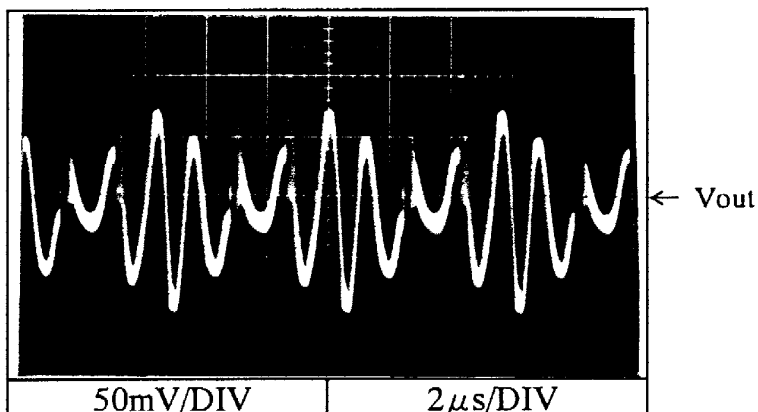


2.18 出力リップル、ノイズ波形
Output ripple and noise waveform

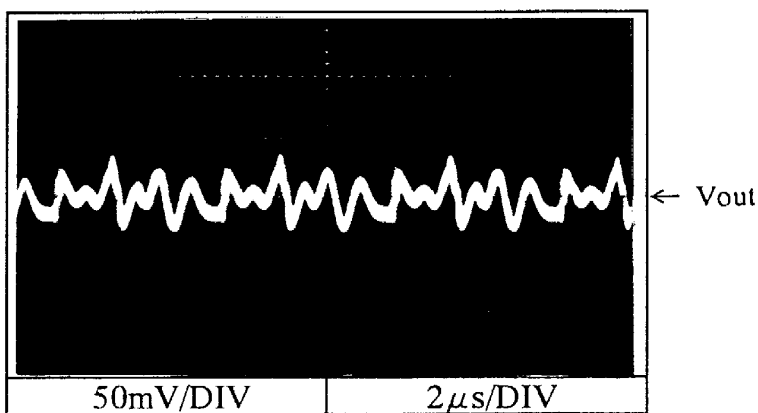
Conditions Vin : 100VAC
Iout : 100%
Ta : 25°C

NORMAL + COMMON MODE

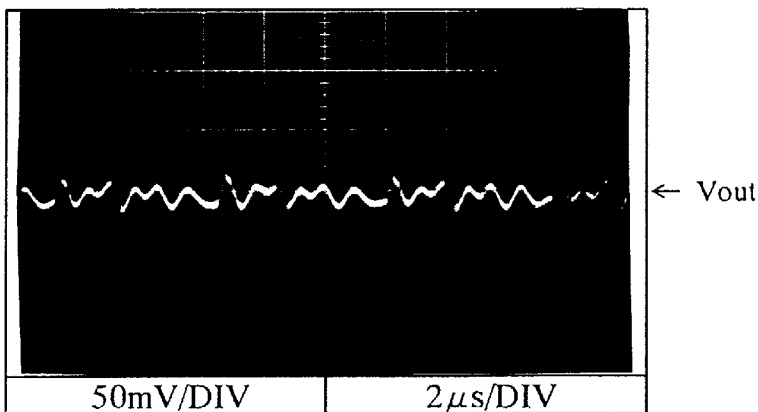
5V



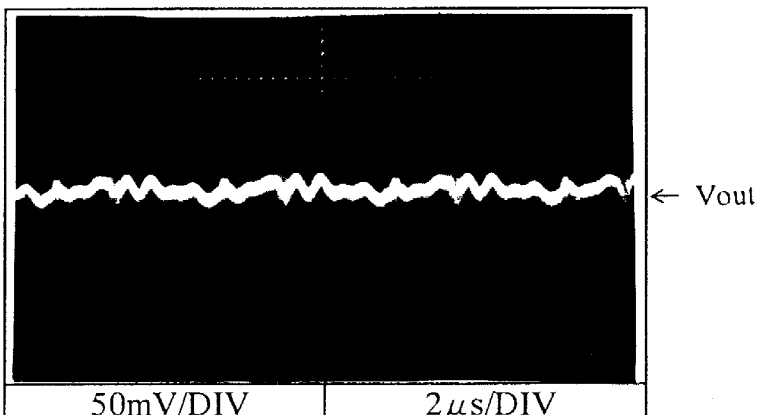
12V



24V



48V



2.19 EMI特性

Electro-Magnetic Interference characteristics

雑音端子電圧

Conducted Emission

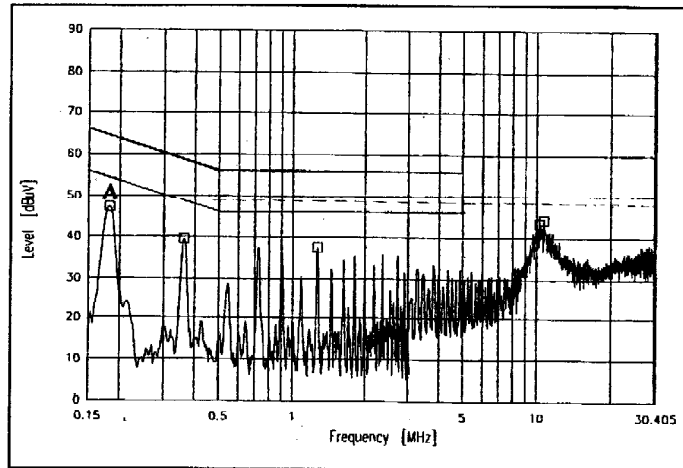
Conditions

V_{in} : 100VAC

I_{out} : 100%

5V

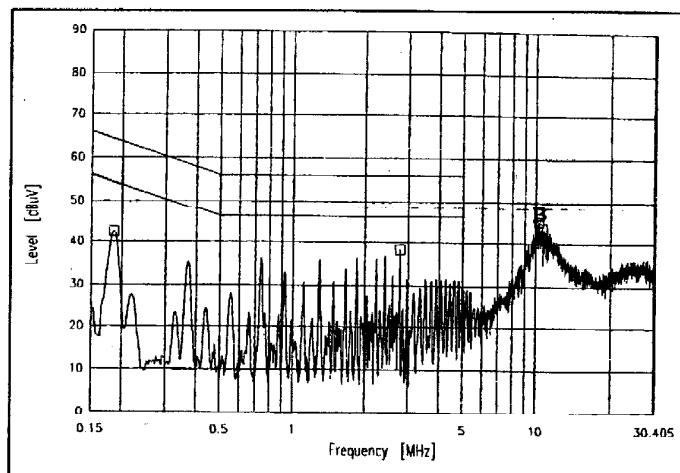
Ref.	Point A (181kHz)	
	Limit (dBuV)	Measure (dBuV)
QP	64.4	50.6
AV	54.4	50.2



Phase : L

12V

Ref.	Point B (10.3MHz)	
	Limit (dBuV)	Measure (dBuV)
QP	48.0	43.5
AV	50.0	32.7



Phase : N

2.19 EMI特性

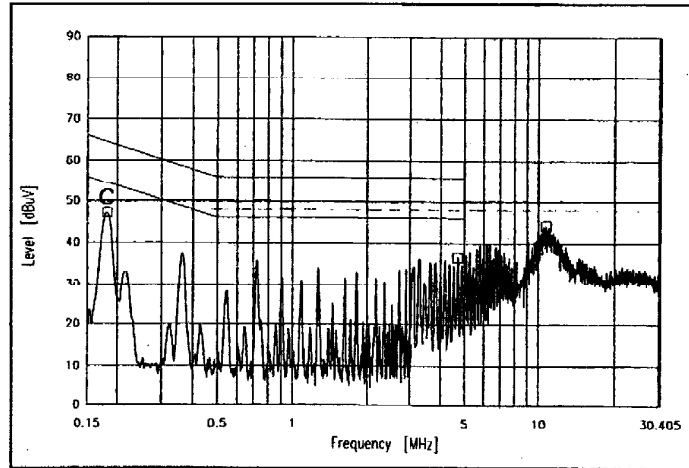
Electro-Magnetic Interference characteristics

雑音端子電圧
Conducted Emission

Conditions Vin : 100VAC
Iout : 100%

24V

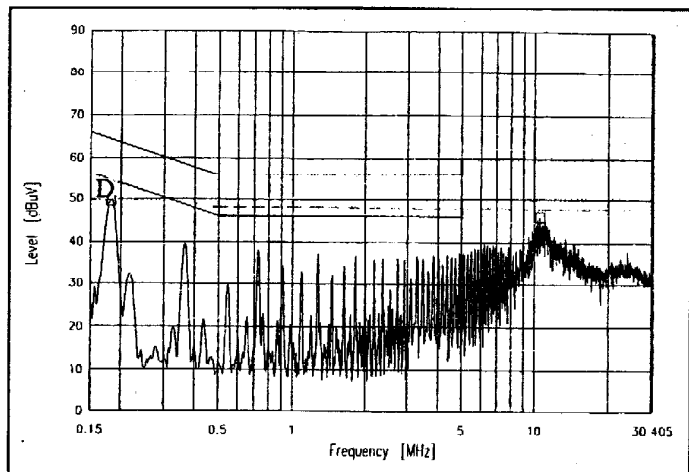
Ref.	Point C (181kHz)	
	Limit (dBuV)	Measure (dBuV)
QP	64.4	48.8
AV	54.4	48.7



Phase : N

48V

Ref.	Point D (182kHz)	
	Limit (dBuV)	Measure (dBuV)
QP	64.4	51.1
AV	54.4	50.9



Phase : N

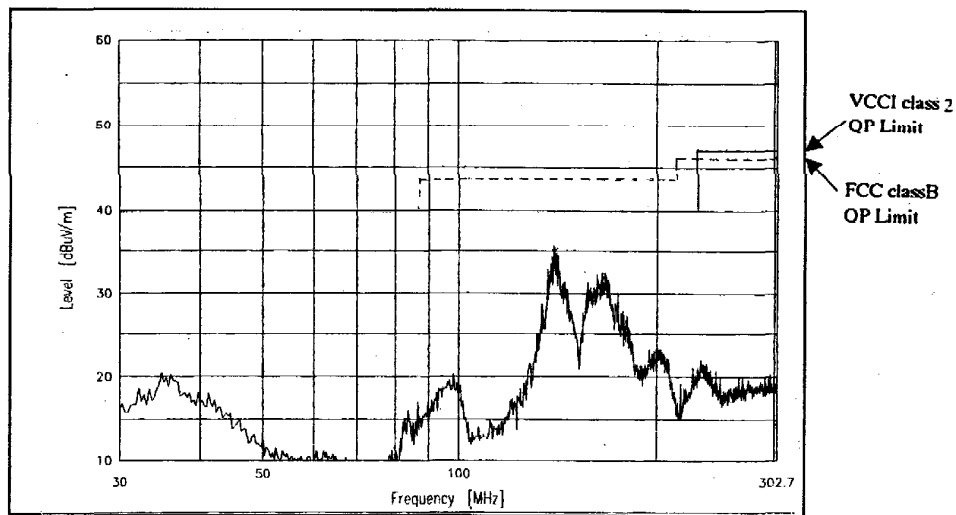
2.19 EMI 特性
Electro-Magnetic Interference characteristics

Conditions Vin : 100VAC
Iout : 100%

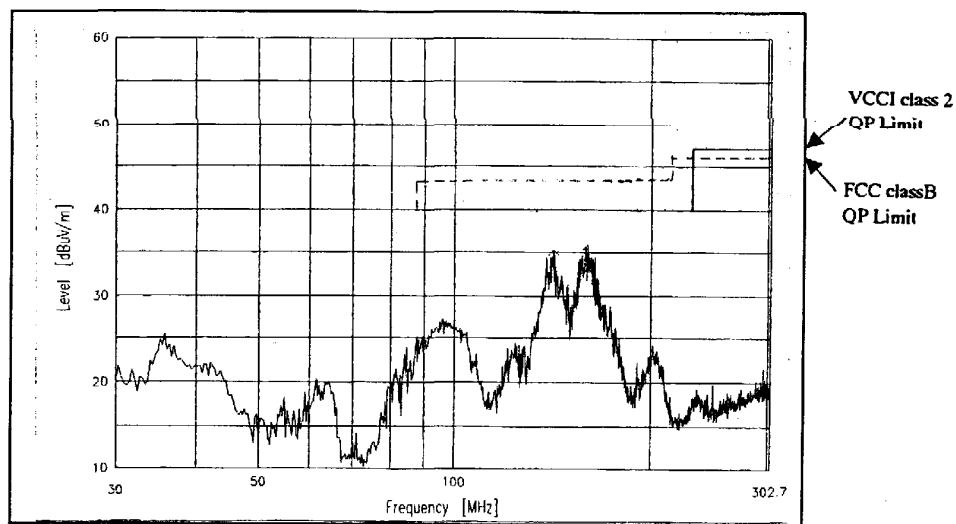
雑音電解強度
Radiated Emission Noise

5 V

HORIZONTAL:



VERTICAL:



EN55011-B,EN55022-Bの限界値はVCCI class Bの限界値と同じ
Limits of EN55022-B are same as its VCCI class B.

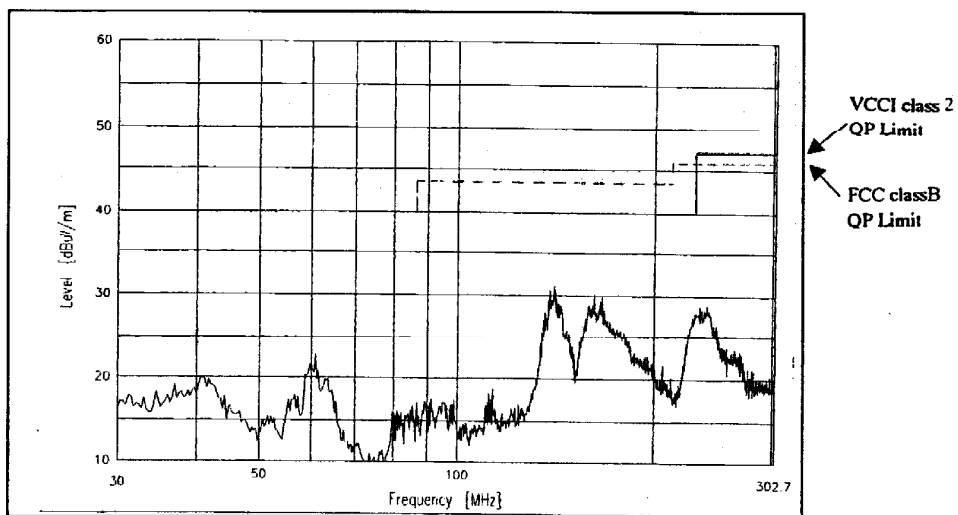
2.19 EMI 特性
Electro -Magnetic Interference characteristics

Conditions Vin : 100VAC
Iout : 100%

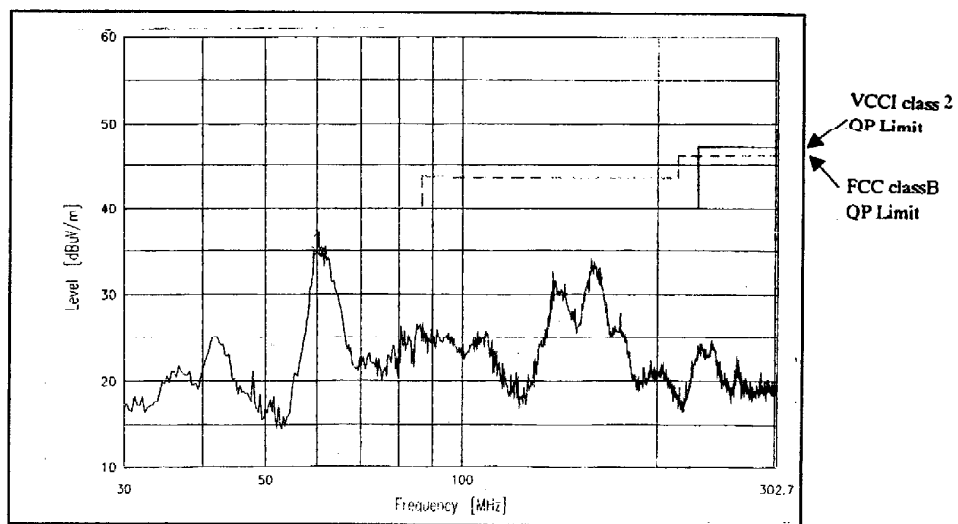
雑音電解強度
Radiated Emission Noise

12 V

HORIZONTAL:



VERTICAL:



EN55011-B,EN55022-Bの限界値はVCCI class Bの限界値と同じ
Limits of EN55022-B are same as its VCCI class B.

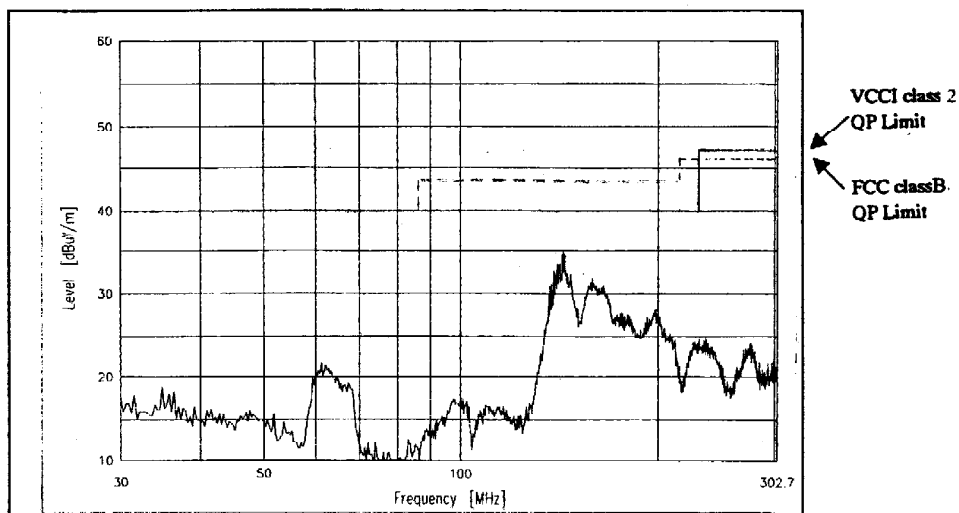
2.19 EMI 特性
Electro-Magnetic Interference characteristics

Conditions Vin : 100VAC
Iout : 100%

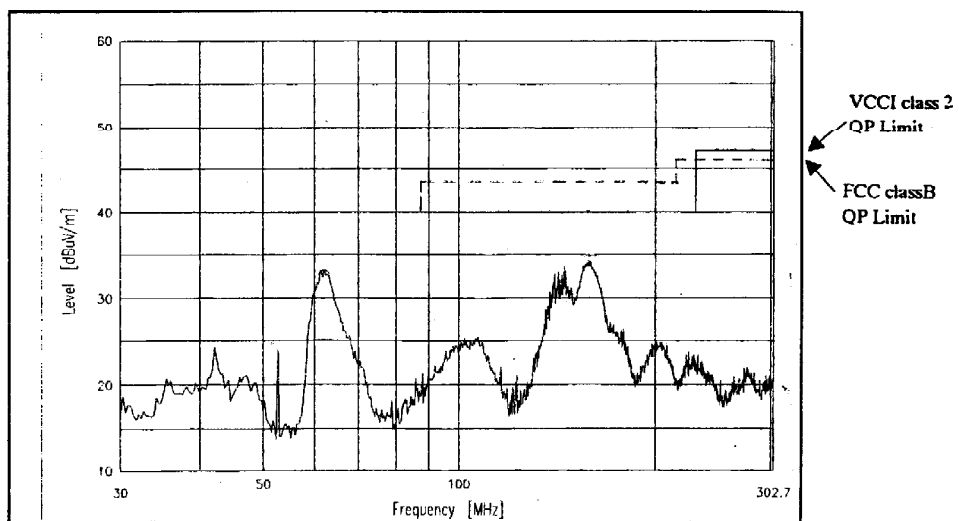
雑音電解強度
Radiated Emission Noise

24 V

HORIZONTAL:



VERTICAL:



EN55011-B, EN55022-Bの限界値はVCCI class Bの限界値と同じ
Limits of EN55022-B are same as its VCCI class B.

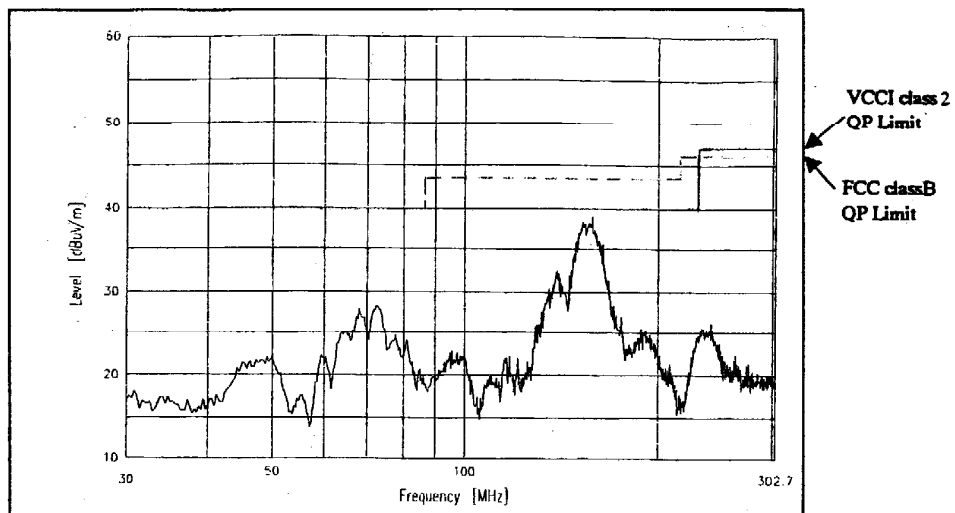
2.19 EMI 特性
Electro-Magnetic Interference characteristics

Conditions Vin : 100VAC
Iout : 100%

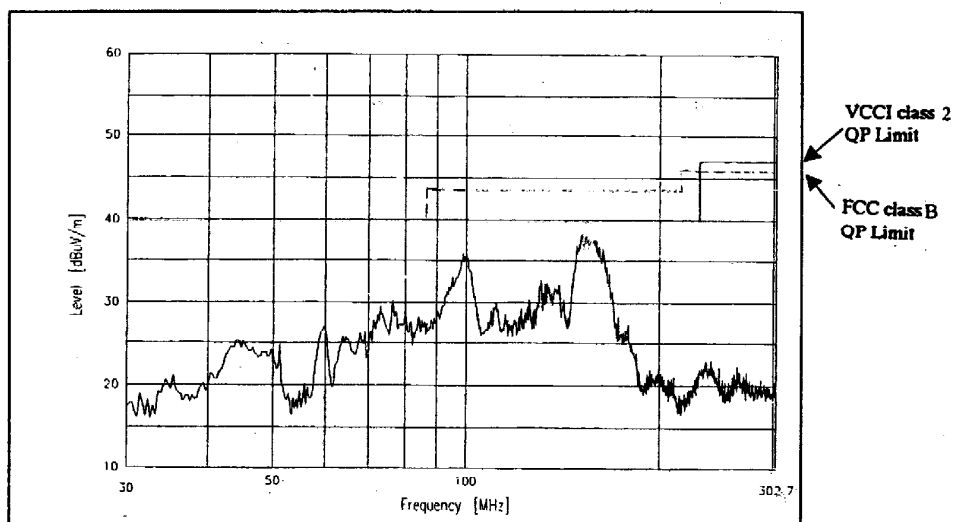
雑音電解強度
Radiated Emission Noise

48 V

HORIZONTAL:



VERTICAL:



EN55011-B,EN55022-Bの限界値はVCCI class Bの限界値と同じ
Limits of EN55022-B are same as its VCCI class B.