

CUS60M

EVALUATION DATA

型式データ

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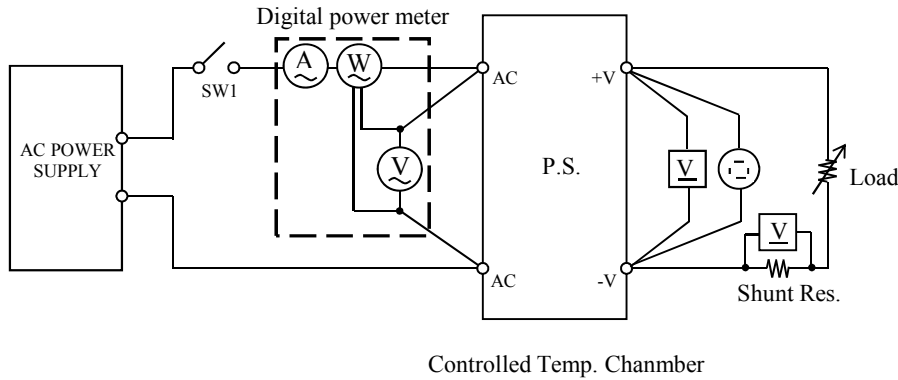
使用記号 Terminology used

	定義	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
f 周波数	Frequency

1.1 測定回路 Circuit used for determination

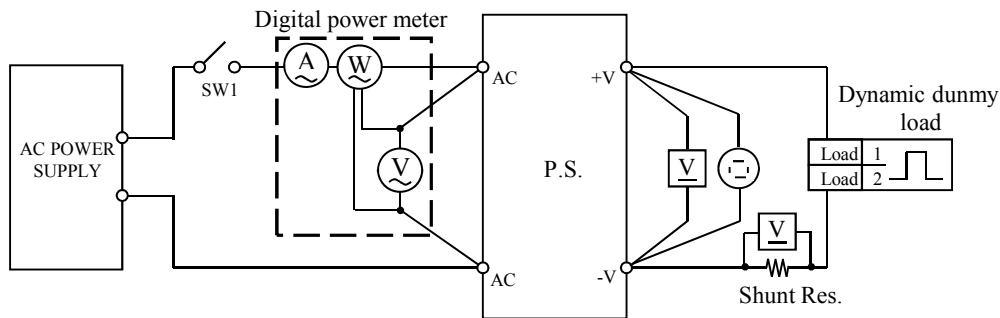
測定回路1 Circuit 1 used for determination

- 静特性 Steady state data
- 過電流保護特性 Over current protection (OCP) characteristics
- 過電圧保護特性 Over voltage protection (OVP) characteristics
- 出力立ち上がり特性 Output rise characteristics
- 出力立ち下がり特性 Output fall characteristics
- 出力保持時間特性 Hold up time characteristics

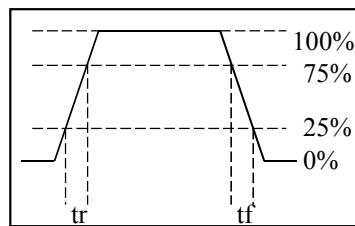


測定回路2 Circuit 2 used for determination

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

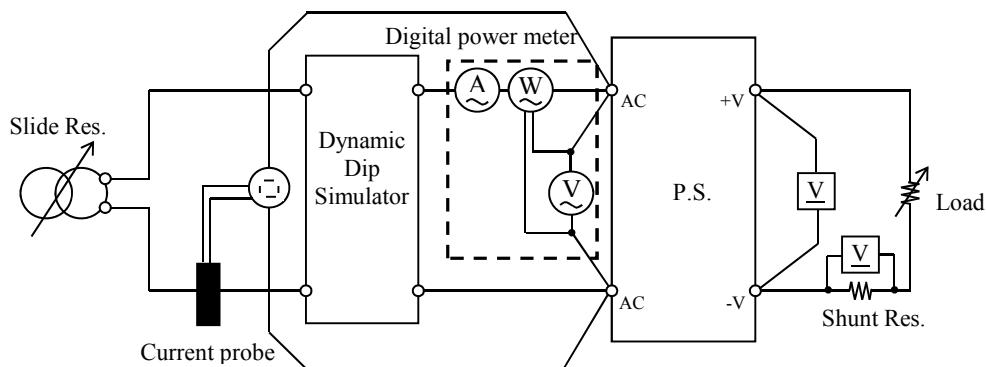


Output current waveform
Iout 25% <=> 75%



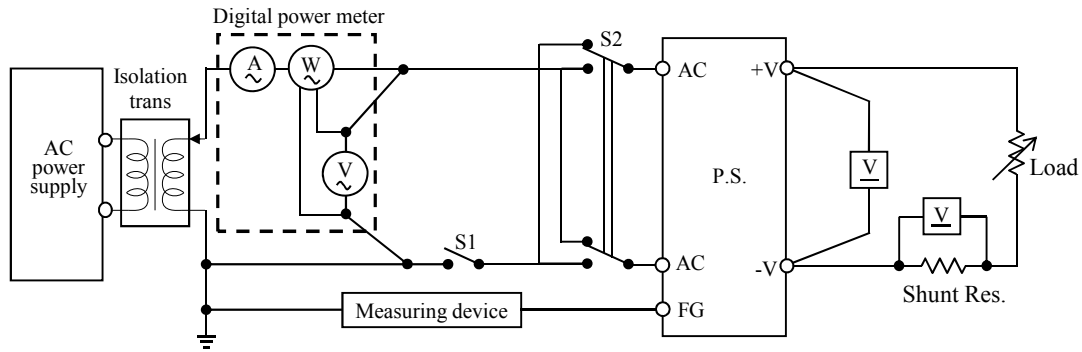
測定回路3 Circuit 3 used for determination

- 入力サージ電流(突入電流)波形 Inrush current waveform



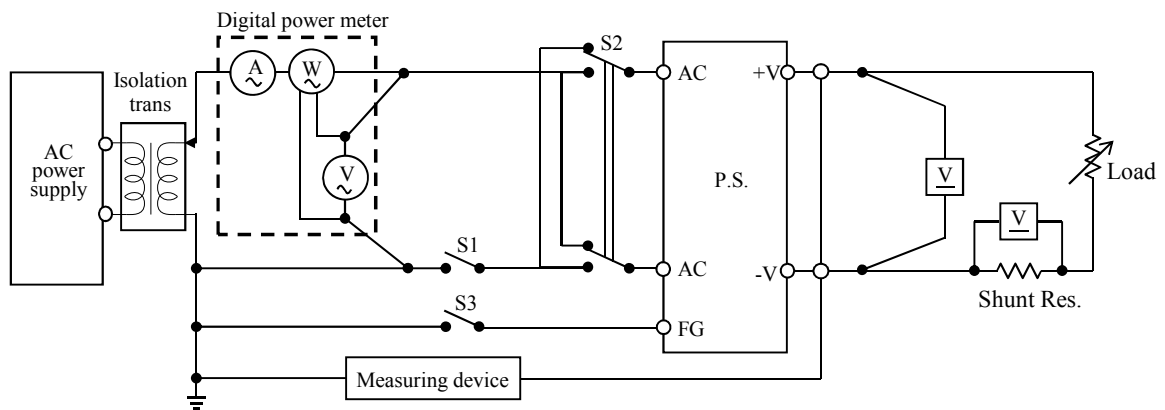
・リーク電流特性 Leakage current characteristics

(a) Earth leakage current of CLASS I equipment



Measure in all possible combination of position of S2 with : S1 closed (NORMAL CONDITION), and S1 open (Single fault condition).

(b) Patient leakage current



CLASS I equipment:

S1, S3 closed, measure under all possible position of S2.

Single fault condition: S1 open with S3 close or S1 close with S3 open.

CLASS II equipment:

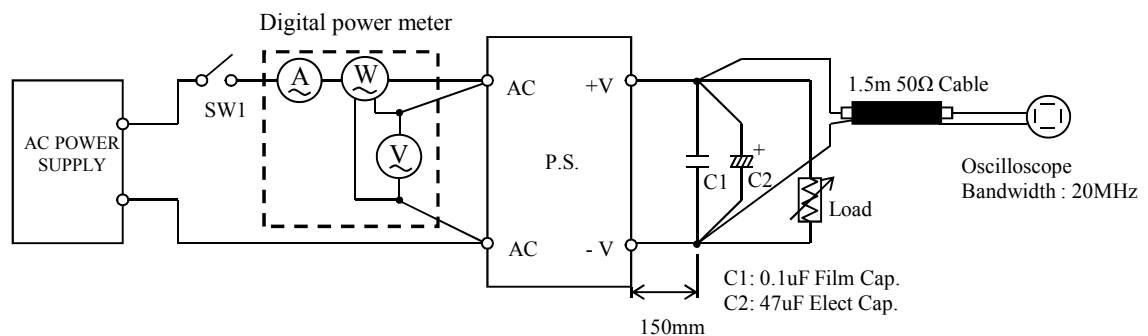
S3 open, Protection Earth not connected, measure under all combination of position of S1 and S2.

Single fault condition: S1 open.

測定回路5 Circuit 5 used for determination

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

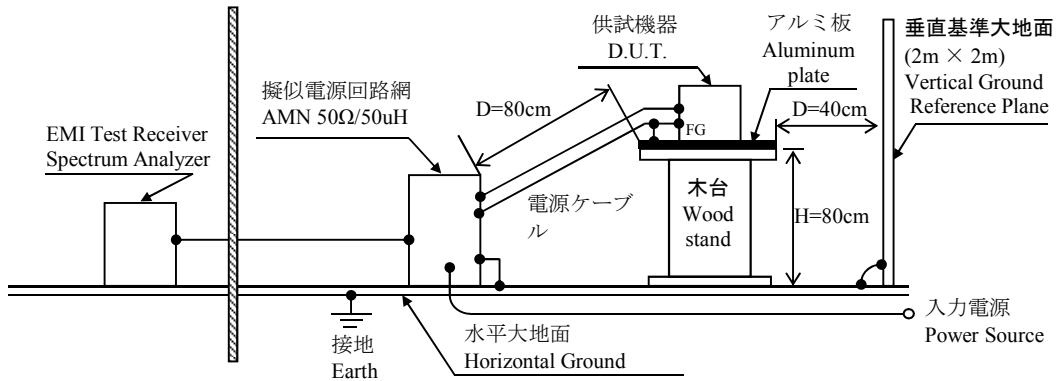
Output ripple and noise waveform



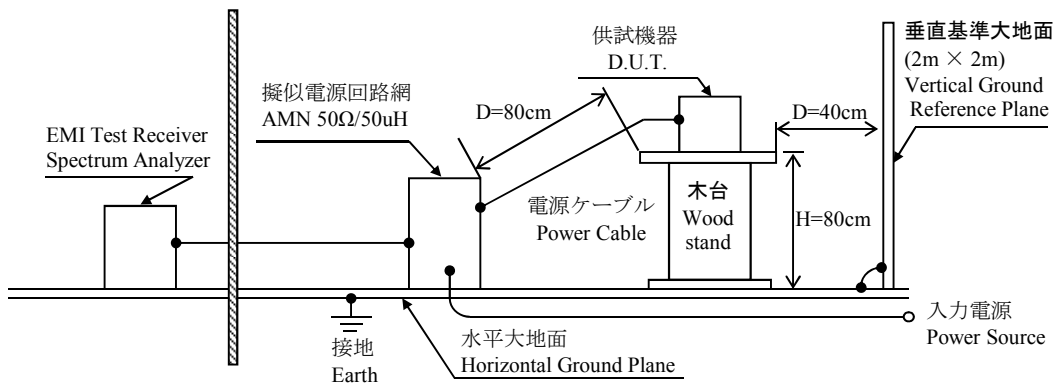
・ EMI 特性 Electro-Magnetic Interference characteristics

(a) 雑音端子電圧 (帰還ノイズ) Conducted Emission

CLASS I setup:

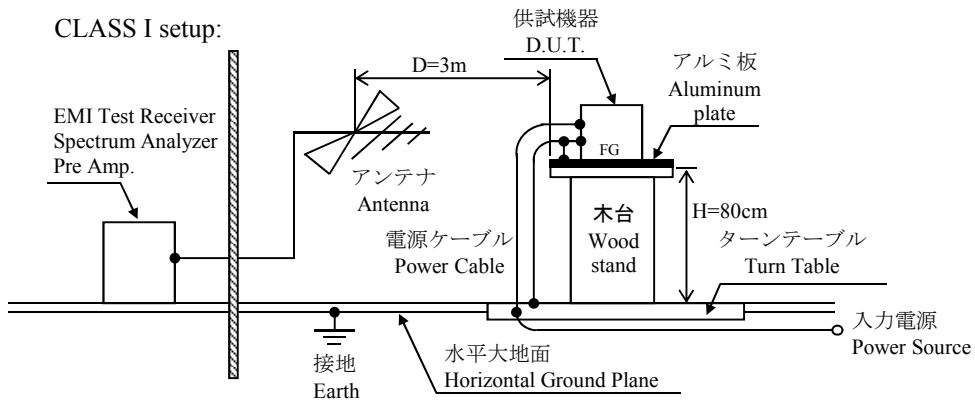


CLASS II setup:

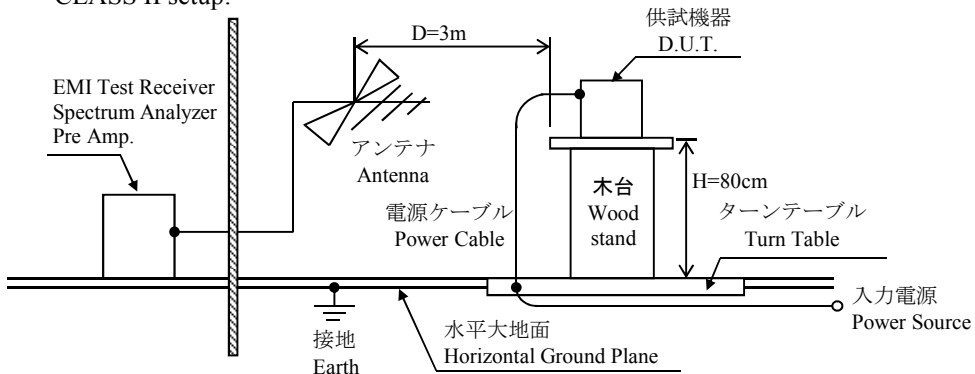


(b) 雑音電界強度 (放射ノイズ) Radiated Emission

CLASS I setup:



CLASS II setup:



1.2 使用測定機器 List of equipment used

	EQUIPMENT USED	MANUFACTURER	MODEL NO.
1	DIGITAL STORAGE OSCILLOSCOPE	YOKOGAWA ELECT.	DL2054/DL9040
2	DIGITAL MULTIMETER	AGILENT	34970A
3	DIGITAL POWER METER	YOKOGAWA ELECT.	WT210
4	CURRENT PROBE	TEKTRONIX	63202
5	DC AMPERE METER	TEKTRONIX	P5100
6	DYNAMIC DUMMY LOAD	CHROMA	63030/63610/63640
7	AC SOURCE	KIKUSUI	PCR2000L
8	AC SOURCE	TAKAMISAWA	PSA-210
9	EARTH LEAKAGE CURRENT METER	SIMPSON	228
10	PATIENT LEAKAGE CURRENT METER	SIQ	SIQ16042
11	CONTROLLED TEMP. CHAMBER	TABAI-ESPEC	63203
12	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESCI-03
13	LISN	ROHDE & SCHWARZ	ENV216
14	BICONICAL ANTENNA	EMCO	63208

2. 特性データ Characteristics

CUS60M

2.1 静特性 Steady state data

(1) 入力・負荷・温度変動／出力起動・遮断電圧

Regulation - line and load, Temperature drift / Start up voltage and Drop out voltage

12V
(CUS60M-12)

1. Regulation - line and load

Condition Ta : 25 °C

Iout \ Vin	85VAC	115VAC	230VAC	265VAC	line regulation	
0%	12.081V	12.082V	12.082V	12.082V	1mV	0.008%
50%	12.059V	12.059V	12.059V	12.058V	1mV	0.008%
100%	12.031V	12.033V	12.035V	12.034V	4mV	0.033%
load regulation	50mV	49mV	47mV	48mV		
	0.417%	0.408%	0.392%	0.400%		

2. Temperature drift

Conditions Vin : 115 VAC

Iout : 100 %

Ta	-20°C	+25°C	+50°C	temperature stability	
Vout	12.002V	12.033V	12.030V	31mV	0.004%

3. Start up voltage and Drop out voltage

Conditions Ta : 25 °C

Iout : 100 %

Start up voltage (Vin)	57.0Vac
Drop out voltage (Vin)	71.0Vac

24V
(CUS60M-24)

1. Regulation - line and load

Condition Ta : 25 °C

Iout \ Vin	85VAC	115VAC	230VAC	265VAC	line regulation	
0%	24.040V	24.041V	24.041V	24.042V	2mV	0.008%
50%	24.031V	24.032V	24.031V	24.032V	1mV	0.004%
100%	24.021V	24.021V	24.022V	24.023V	2mV	0.008%
load regulation	19mV	20mV	19mV	19mV		
	0.079%	0.083%	0.079%	0.079%		

2. Temperature drift

Conditions Vin : 115 VAC

Iout : 100 %

Ta	-20°C	+25°C	+50°C	temperature stability	
Vout	23.993V	24.022V	24.033V	40mV	0.002%

3. Start up voltage and Drop out voltage

Conditions Ta : 25 °C

Iout : 100 %

Start up voltage (Vin)	68.6Vac
Drop out voltage (Vin)	71.7Vac

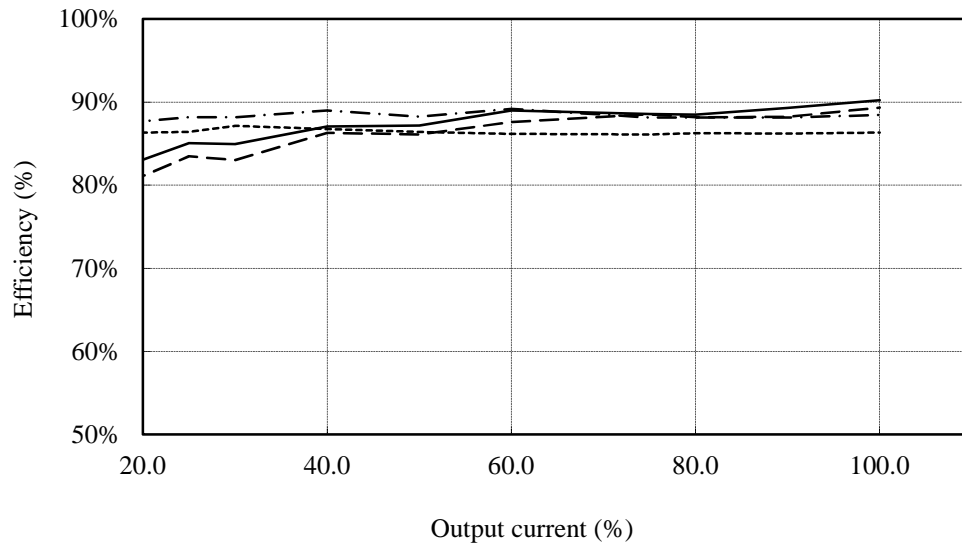
(2) 効率対出力電流

Efficiency vs. Output current

Conditions Vin : 85 VAC -----
 : 115 VAC -.-.-.-
 : 230 VAC ————
 : 265 VAC - - - - -
 Ta : 25 °C

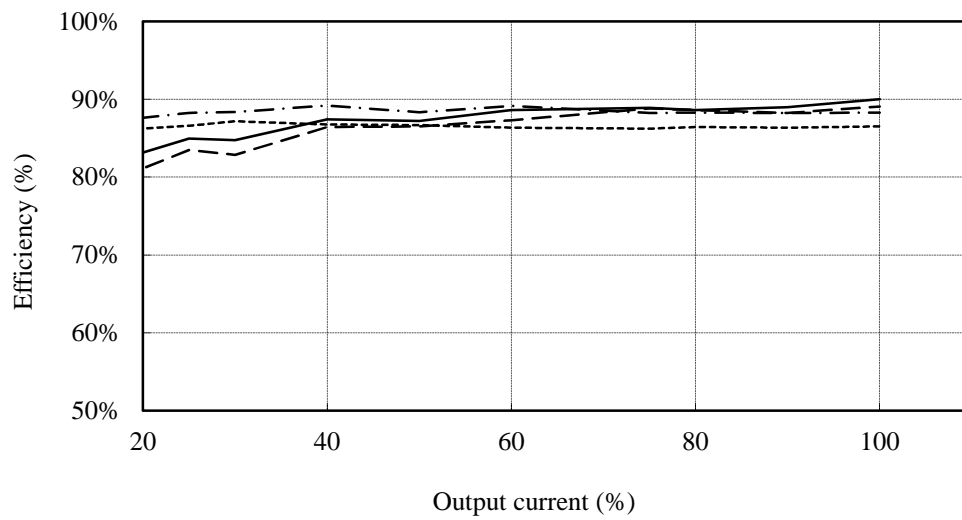
12V

(CUS60M-12)



24V

(CUS60M-24)



(3) 入力電流対出力電流

Input current vs. Output current

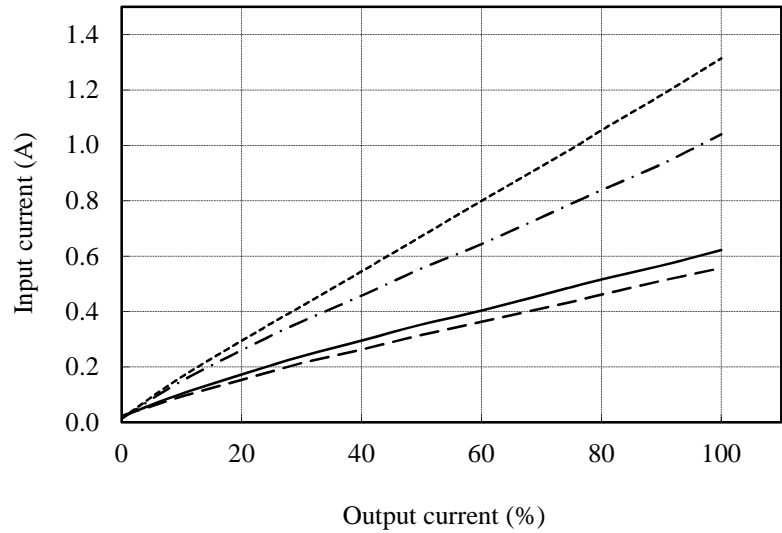
Conditions Vin : 85 VAC -----
 : 115 VAC -.-.-.-
 : 230 VAC ————
 : 265 VAC - - - -

Ta : 25 °C

12V
 (CUS60M-12)

Io: 100%

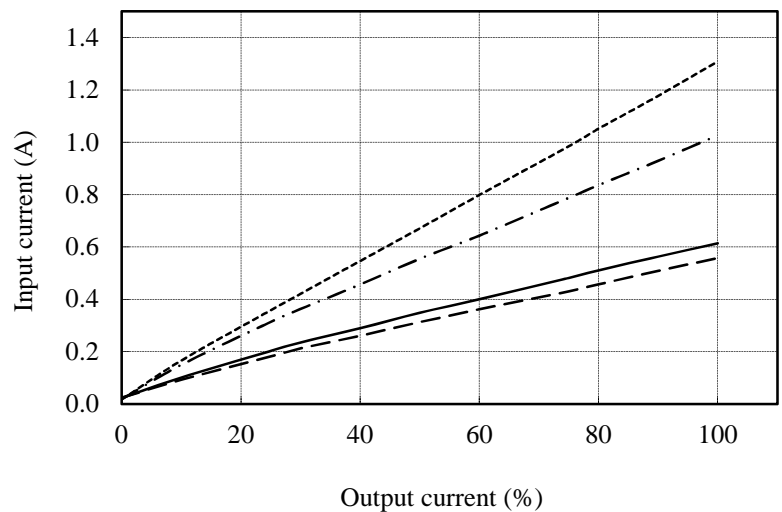
Vin	Input current
85Vac	1.314A
115Vac	1.040A
230Vac	0.622A
265Vac	0.558A



24V
 (CUS60M-24)

Io: 100%

Vin	Input current
85Vac	1.309A
115Vac	1.027A
230Vac	0.614A
265Vac	0.557A



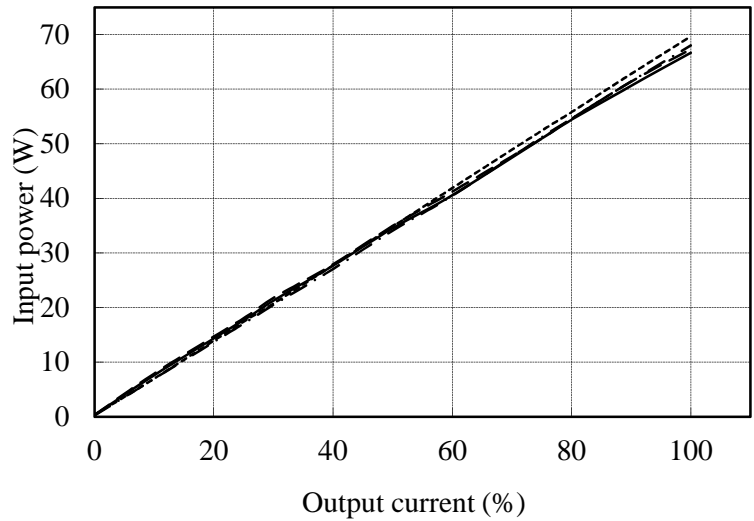
(4) 入力電力対出力電流
Input power vs. Output current

Conditions Vin : 85 VAC -----
: 115 VAC -.-.-.
: 230 VAC ———
: 265 VAC - - - -
Ta : 25 °C

12V
(CUS60M-12)

Io: 100%

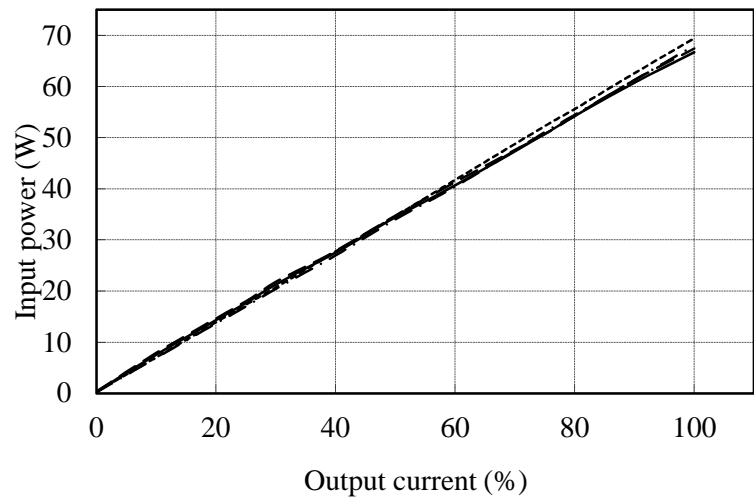
Vin	Input power
85Vac	69.69W
115Vac	68.01W
230Vac	66.68W
265Vac	67.35W



24V
(CUS60M-24)

Io: 100%

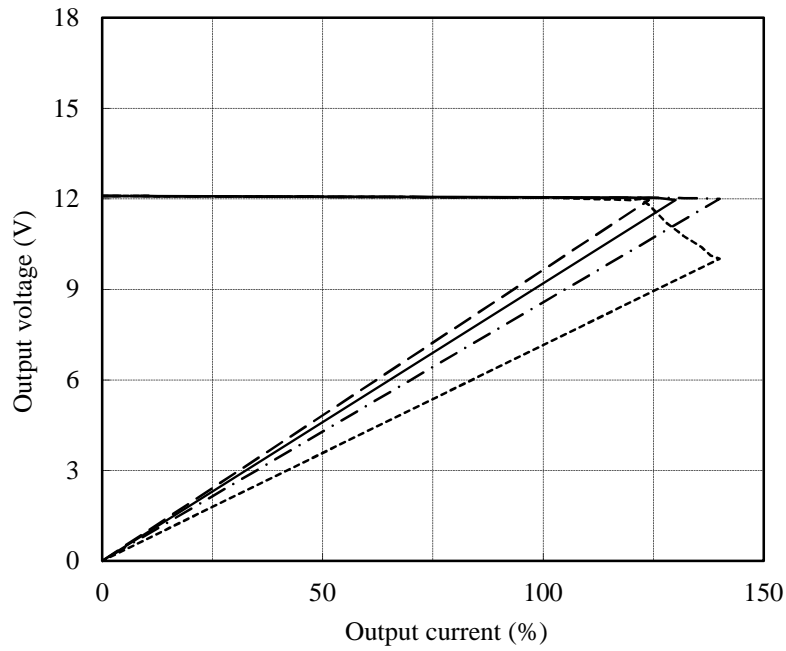
Vin	Input power
85Vac	69.40W
115Vac	67.99W
230Vac	66.70W
265Vac	67.43W



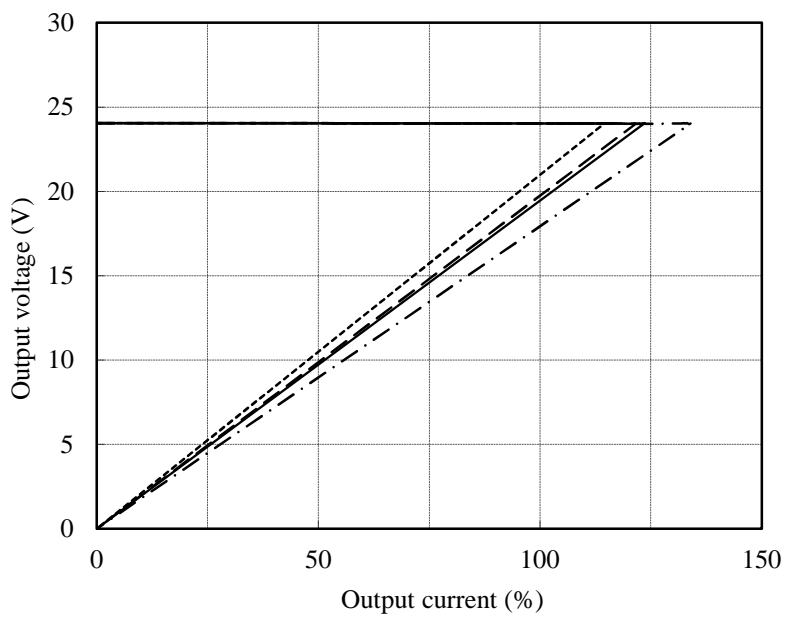
2.2 過電流保護特性
Over current protection (OCP) characteristics

Conditions Vin : 85 VAC -----
 115 VAC -.-.-.-
 230 VAC ————
 265 VAC - - - -
 Ta : 25 °C

12V
(CUS60M-12)



24V
(CUS60M-24)

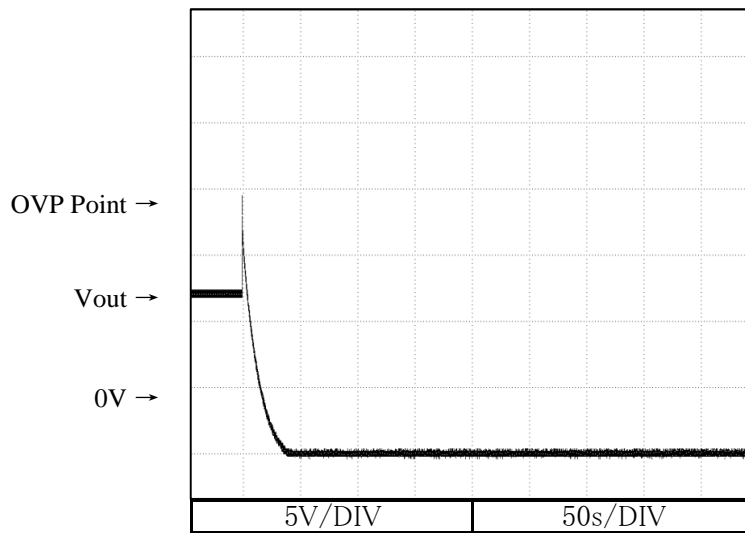


2.3 過電圧保護特性

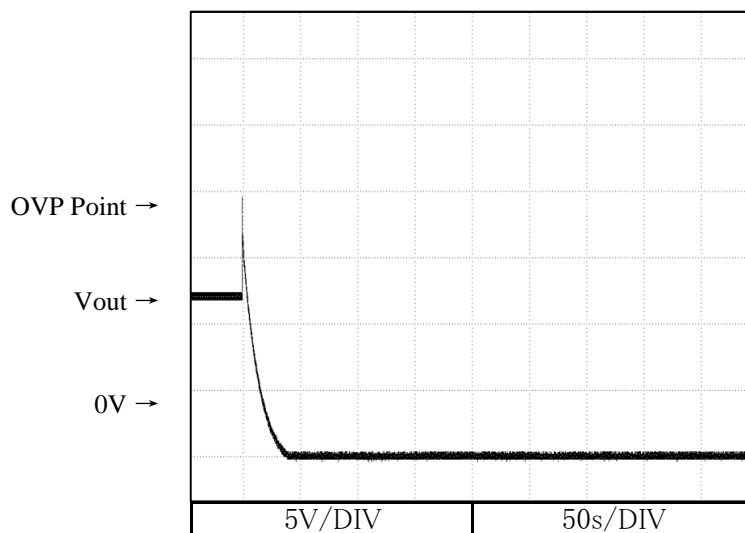
Over voltage protection (OVP) characteristics

12V
(CUS60M-12)

Conditions Vin : 115 VAC
Iout : 0 %
Ta : 25 °C



Conditions Vin : 230 VAC
Iout : 0 %
Ta : 25 °C

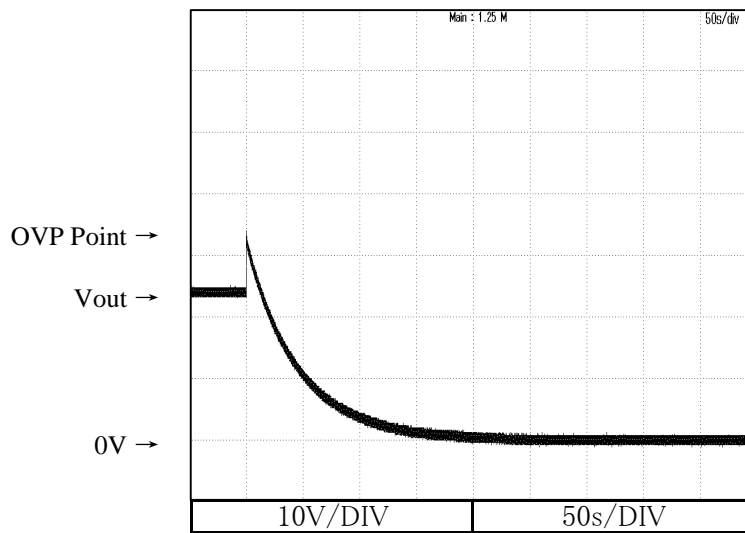


2.3 過電圧保護特性

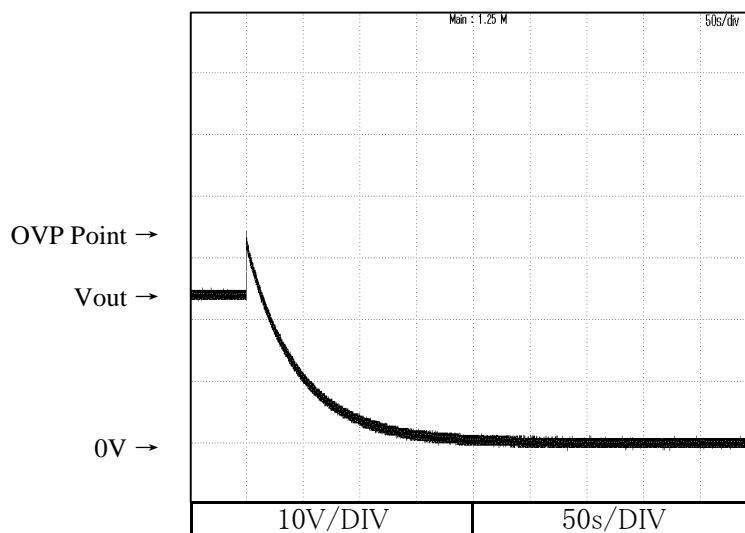
Over voltage protection (OVP) characteristics

24V
(CUS60M-24)

Conditions Vin : 115 VAC
Iout : 0 %
Ta : 25 °C



Conditions Vin : 230 VAC
Iout : 0 %
Ta : 25 °C

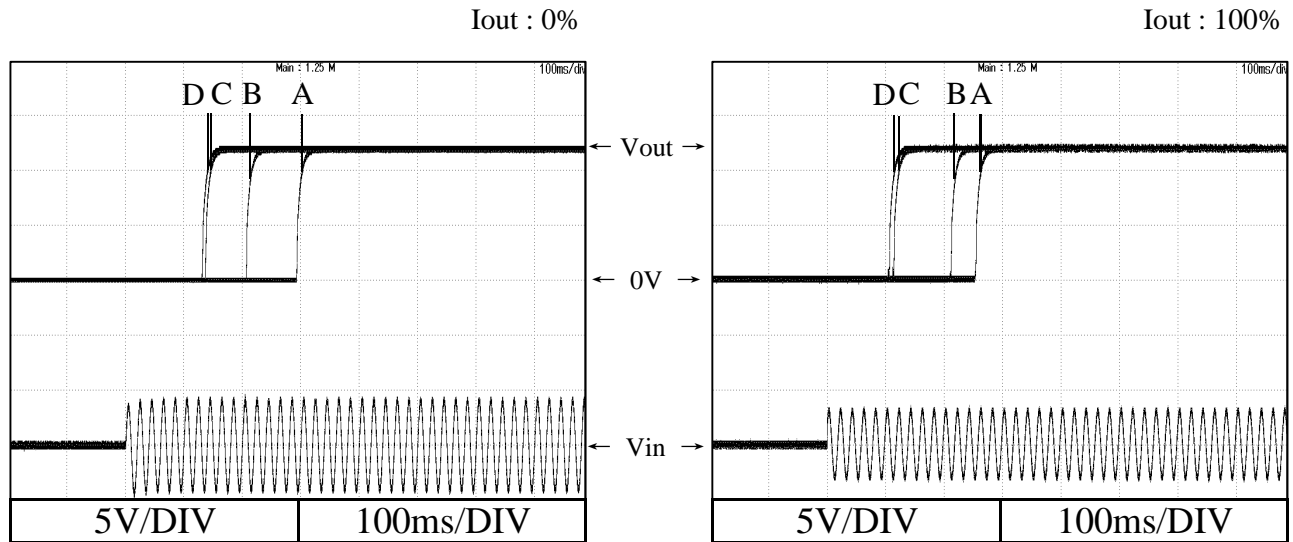


2.4 出力立ち上がり特性
Output rise characteristics

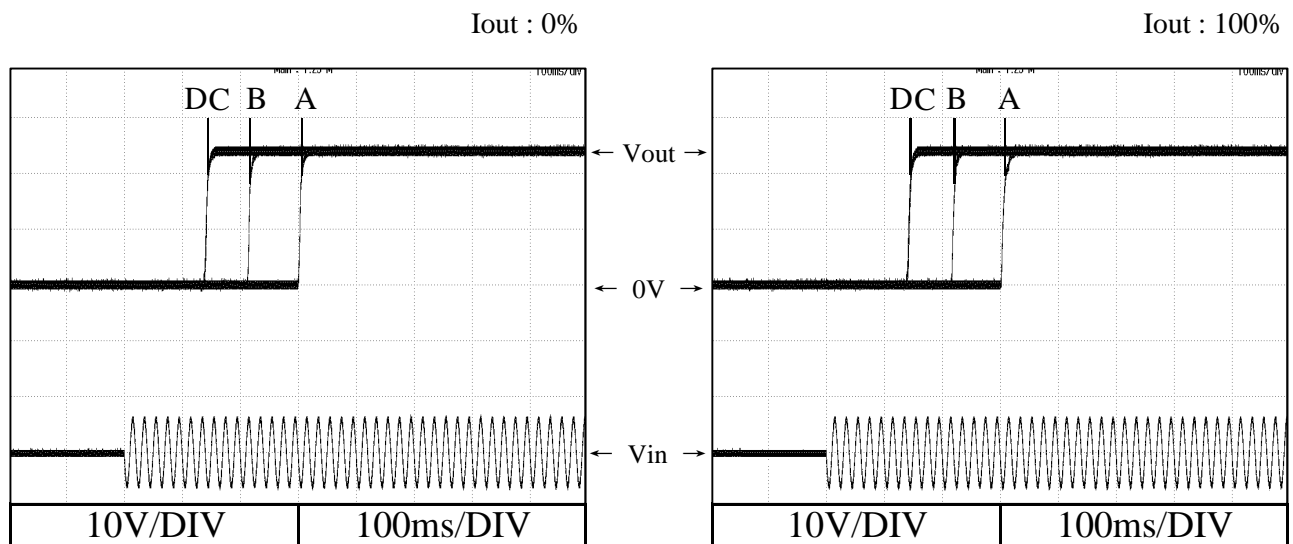
CUS60M

Conditions Vin : 85 VAC (A)
115 VAC (B)
230 VAC (C)
265 VAC (D)
Ta : 25 °C

12V
(CUS60M-12)



24V
(CUS60M-24)



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

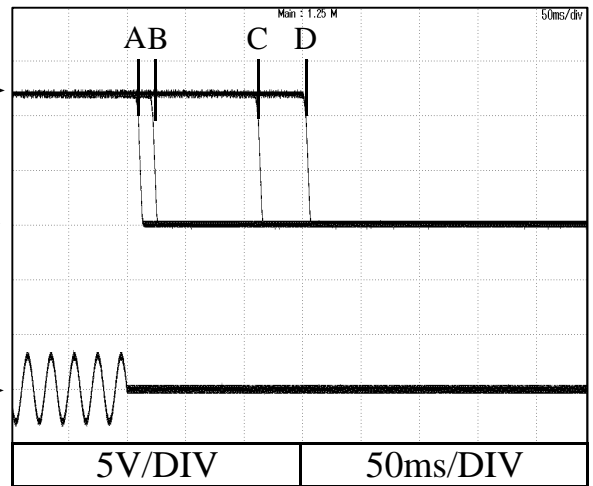
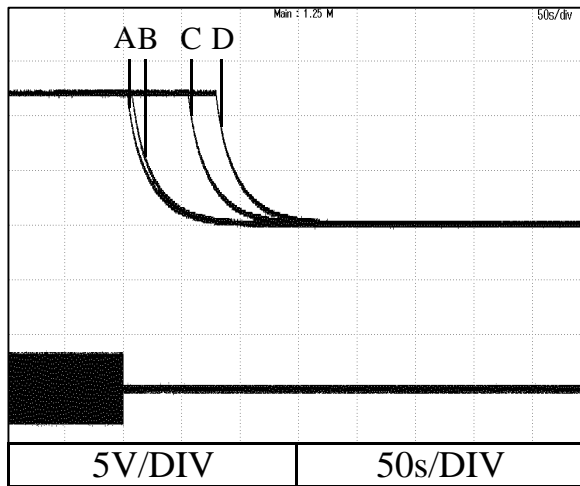
CUS60M

Conditions Vin : 85 VAC (A)
115 VAC (B)
230 VAC (C)
265 VAC (D)
Ta : 25 °C

12V
(CUS60M-12)

Iout : 0%

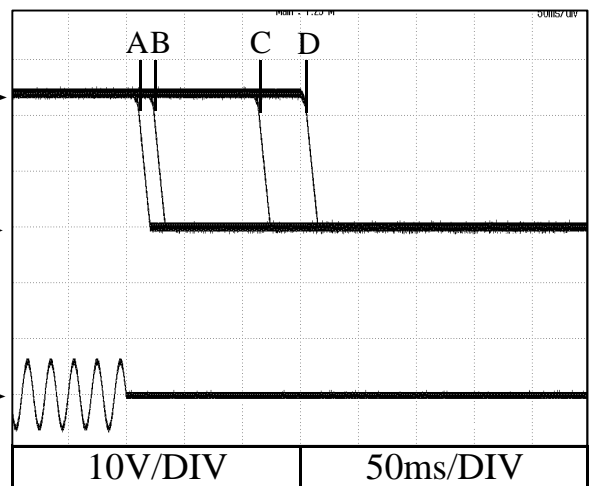
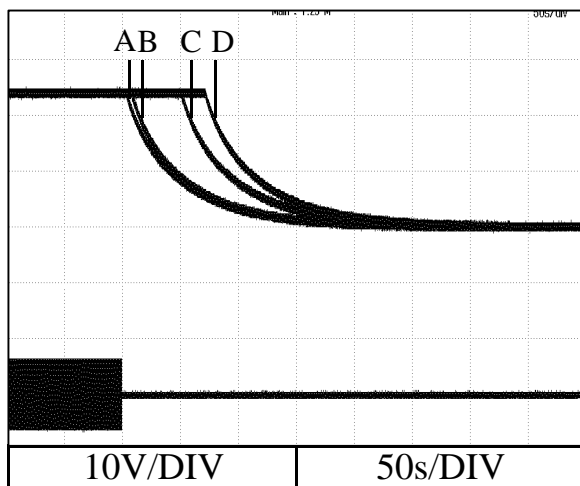
Iout : 100%



24V
(CUS60M-24)

Iout : 0%

Iout : 100%

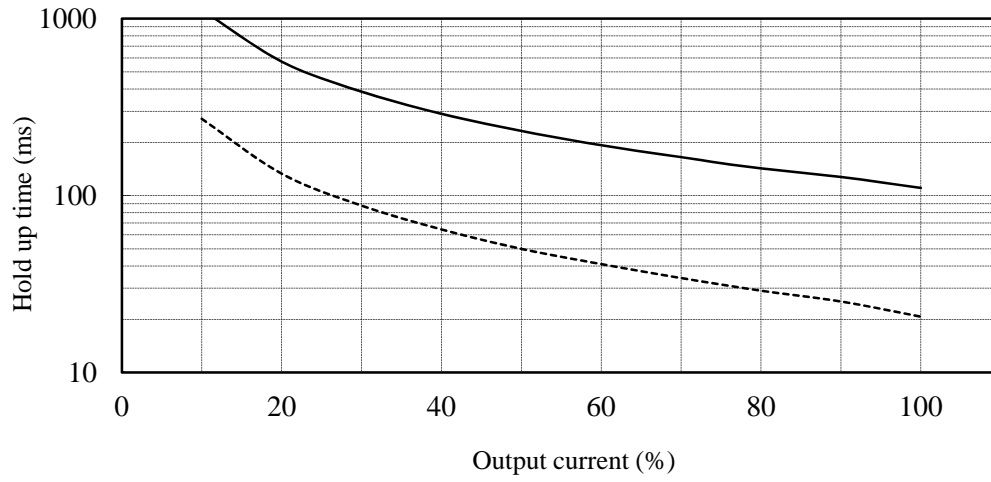


2.6 出力保持時間特性
Hold up time characteristics

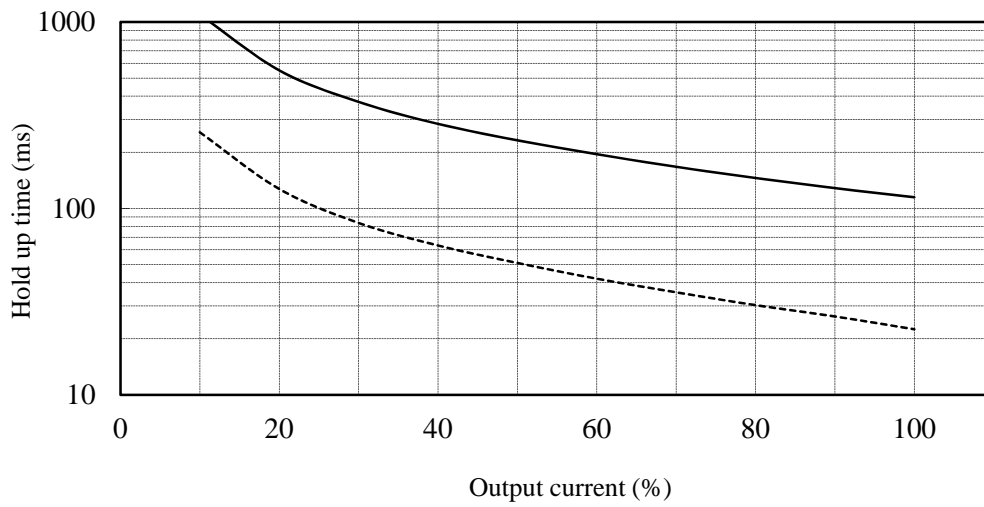
CUS60M

Conditions V_{in} : 115 VAC -----
 230 VAC —
 T_a : 25 °C

12V
(CUS60M-12)



24V
(CUS60M-24)

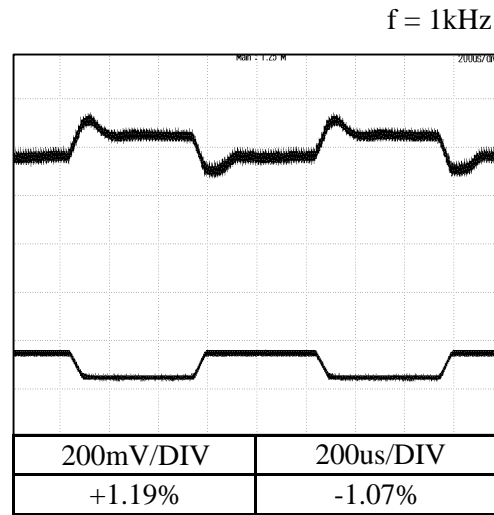
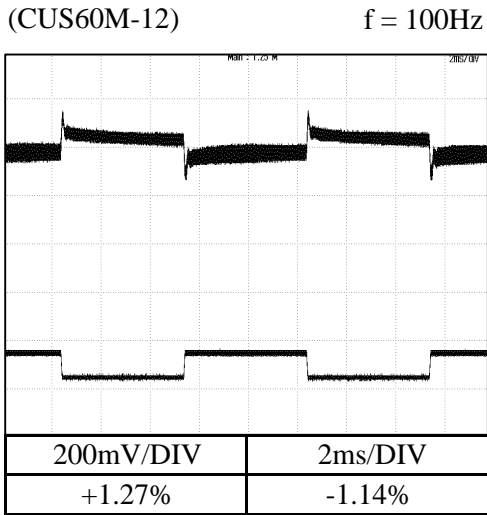


2.7 過渡応答（負荷急変）特性

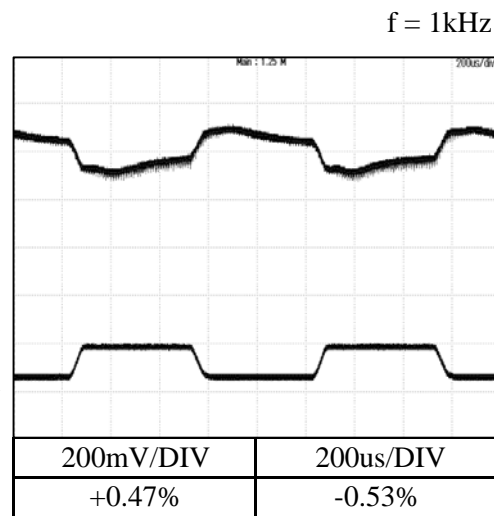
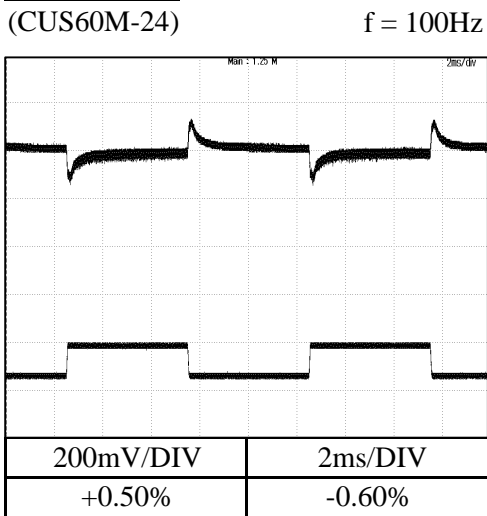
Dynamic load response characteristics

Conditions Vin : 115 VAC
 Iout : 25 % ↔ 75 %
 (tr = tf = 75us)
 Ta : 25 °C

12V
 (CUS60M-12)



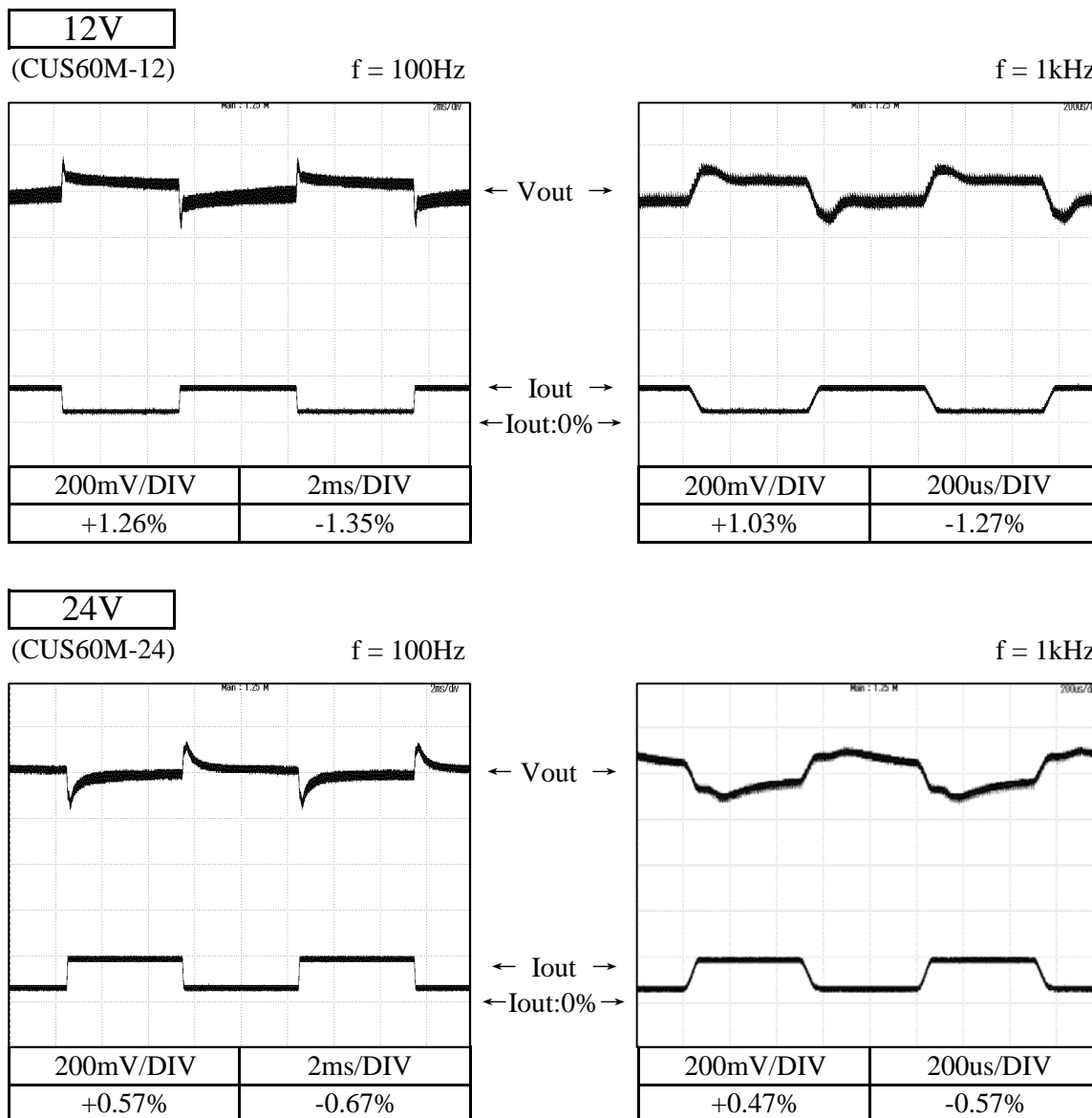
24V
 (CUS60M-24)



CUS60M

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

Conditions Vin : 230 VAC
Iout : 25 % ↔ 75 %
(tr = tf = 75us)
Ta : 25 °C



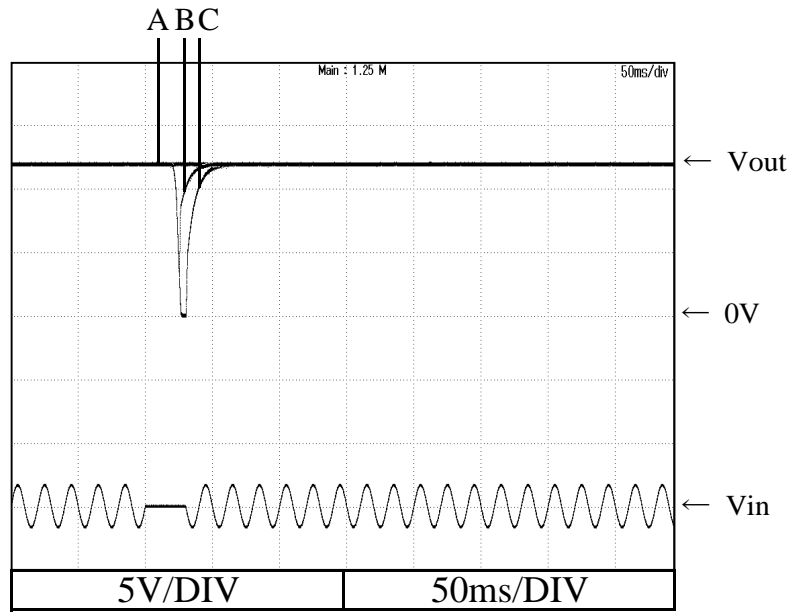
2.8 入力電圧瞬停特性

Response to brown out characteristics

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C

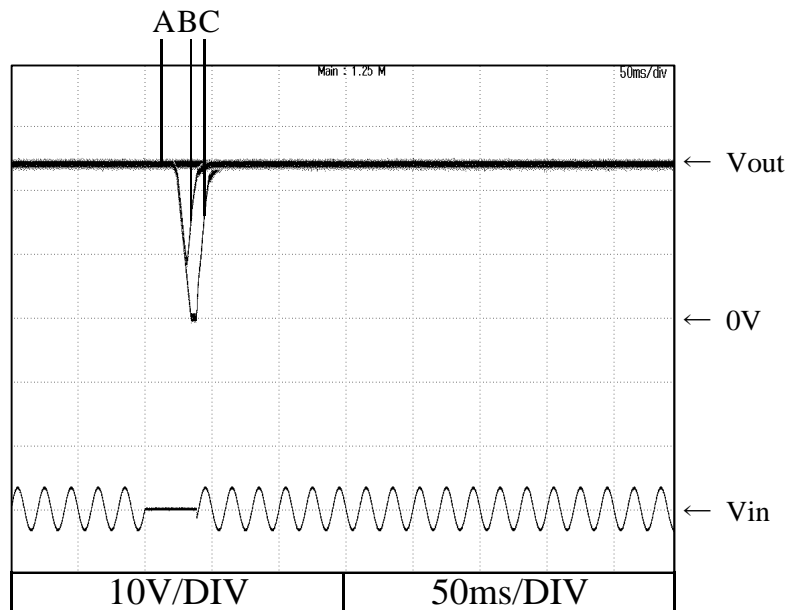
12V
(CUS60M-12)

A = 18ms
B = 24ms
C = 30ms



24V
(CUS60M-24)

A=19.1ms
B=29.5ms
C=38.5ms



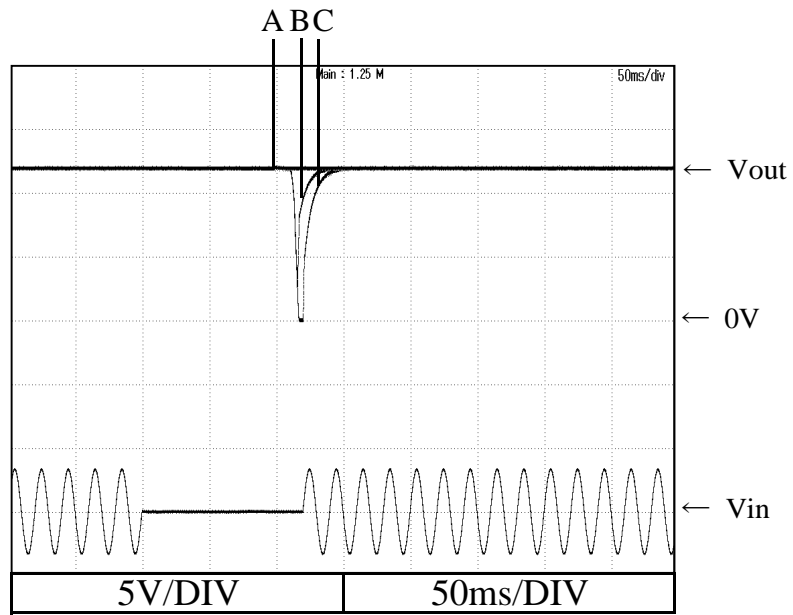
2.8 入力電圧瞬停特性

Response to brown out characteristics

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

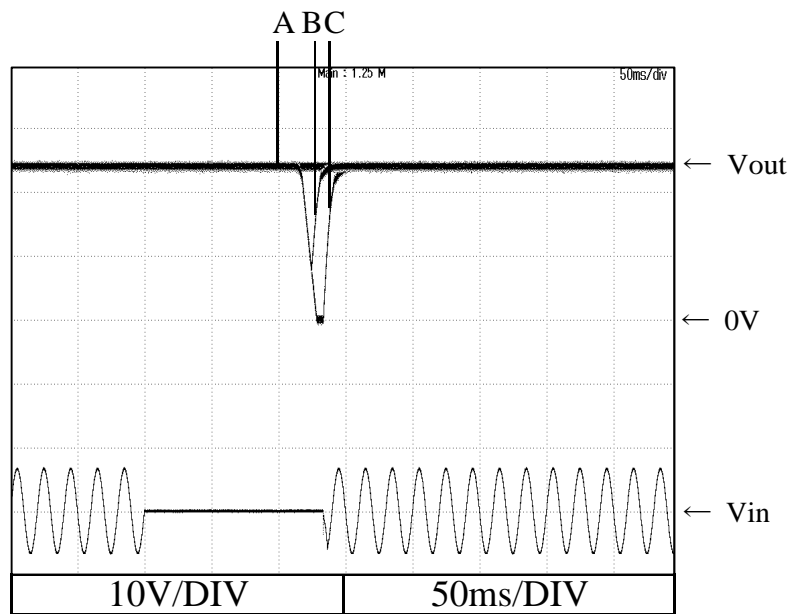
12V
(CUS60M-12)

A = 109ms
B = 117ms
C = 122ms



24V
(CUS60M-24)

A=112.3ms
B=125.0ms
C=134.5ms

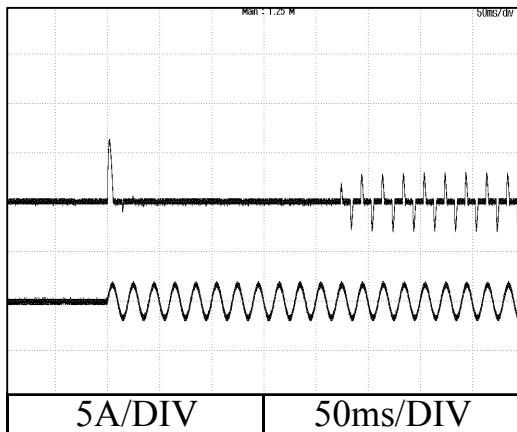


2.9 入力サージ電流（突入電流）波形
Inrush current waveform

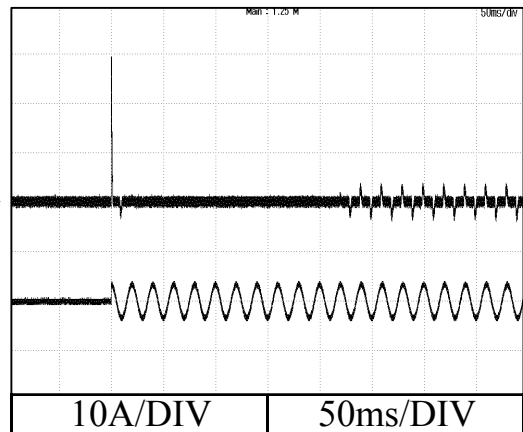
12V
(CUS60M-12)

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C
Cold start

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

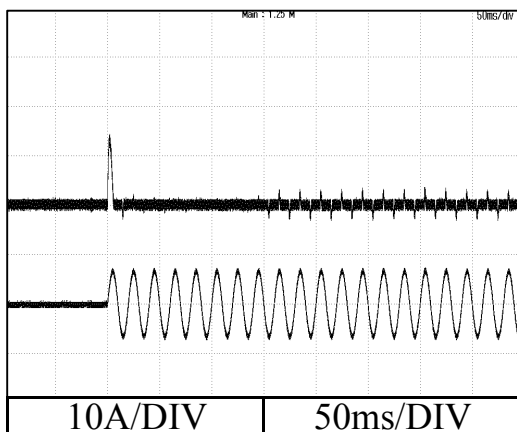


Switch on phase angle of input AC voltage
 $\Phi=90^\circ$

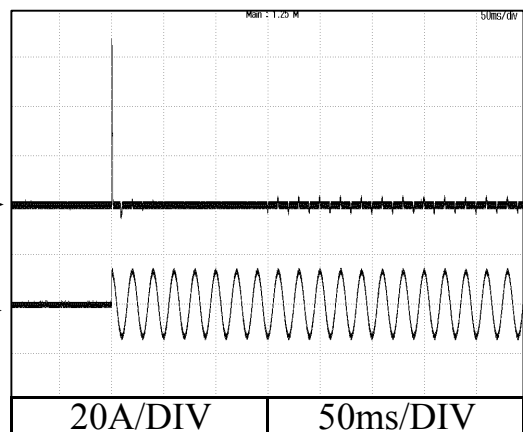


Conditions Vin : 230 VAC
Iout : 100 %
Ta : 25 °C
Cold start

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



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

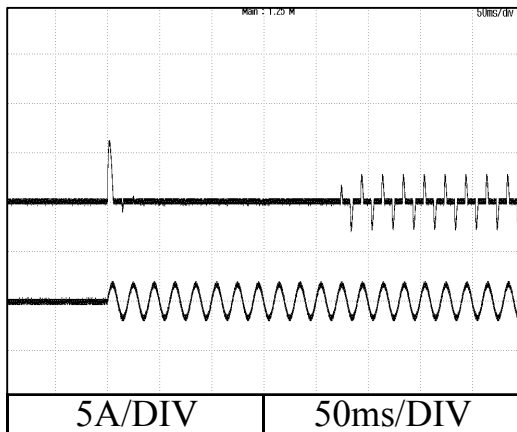


2.9 入力サージ電流（突入電流）波形
Inrush current waveform

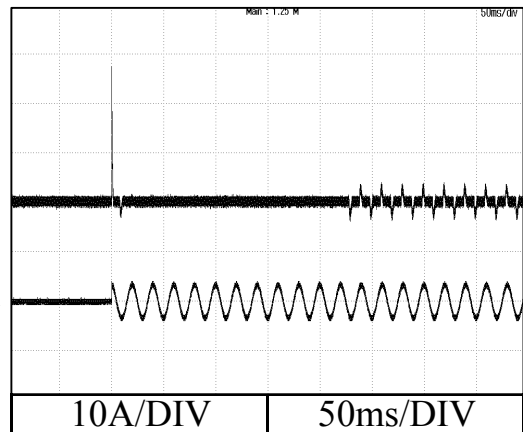
24V
(CUS60M-24)

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C
Cold start

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

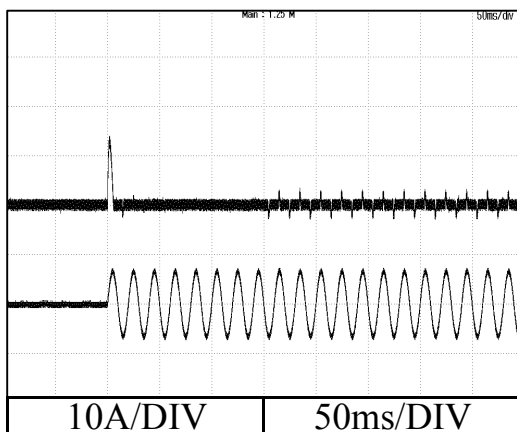


Switch on phase angle of input AC voltage
 $\Phi=90^\circ$

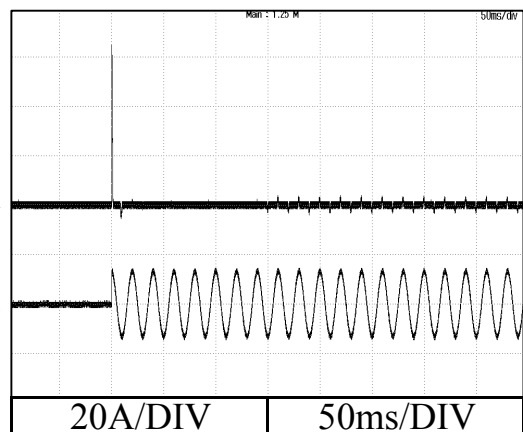


Conditions Vin : 230 VAC
Iout : 100 %
Ta : 25 °C
Cold start

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



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



2.10 リーク電流特性
Leakage current characteristics

CUS60M

Conditions Iout : 0 % -----
 100 % ————
 Ta : 25 °C
Equipment used : SIMPSON228

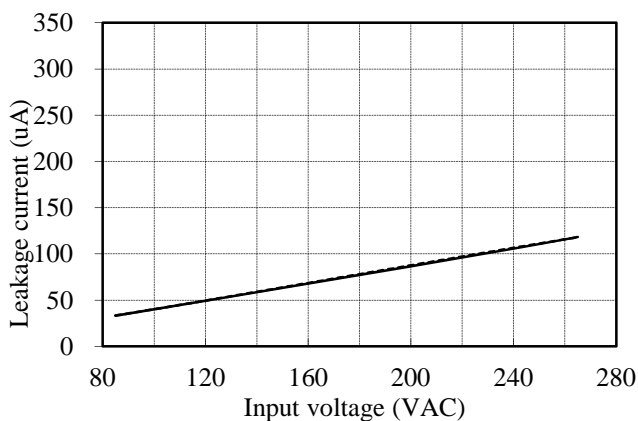
12V

(CUS60M-12)

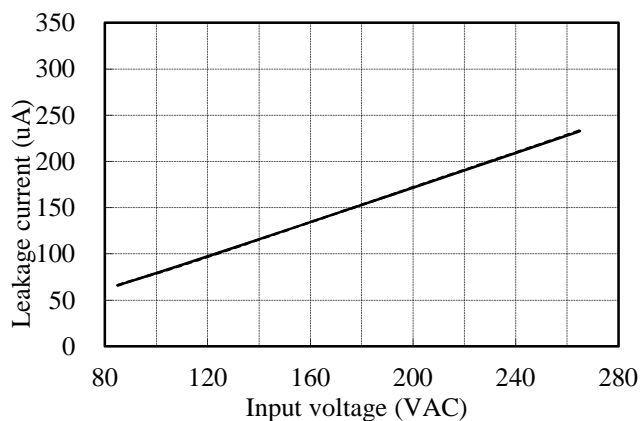
Earth leakage current of CLASS I equipment

f : 50 Hz

Normal condition

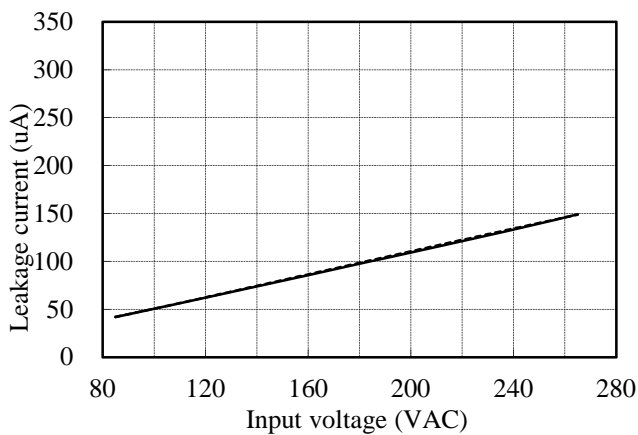


Single fault condition(Open L or N)

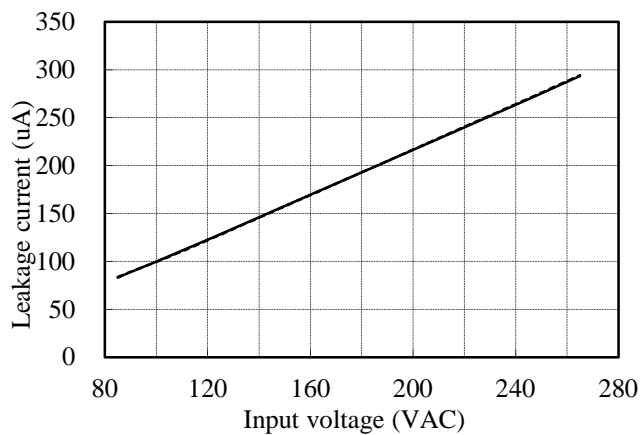


f : 60 Hz

Normal condition



Single fault condition(Open L or N)



2.10 リーク電流特性
Leakage current characteristics

CUS60M

Conditions Iout : 0 % -----
 100 % ————
 Ta : 25 °C
Equipment used : SIQ16042

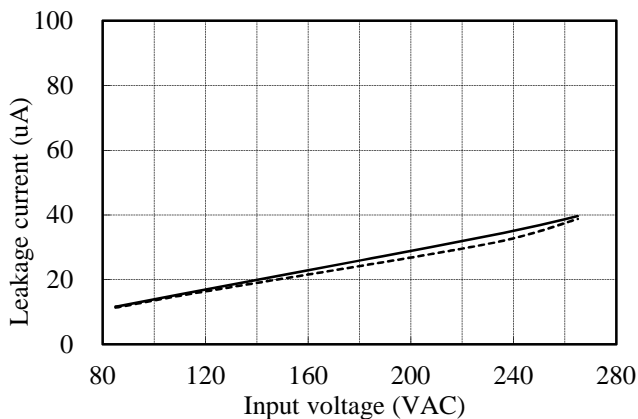
12V

(CUS60M-12)

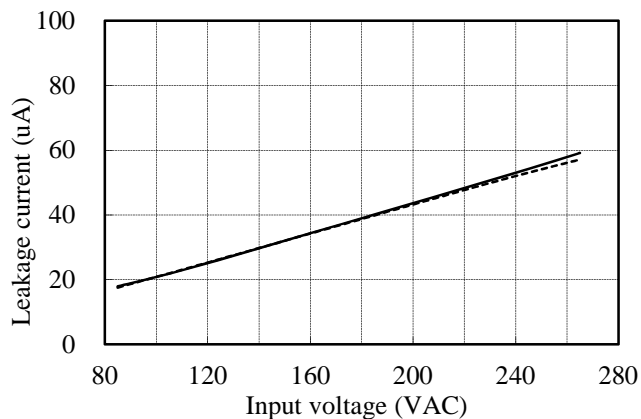
Patient leakage current of CLASS I equipment

f : 50 Hz

Normal condition

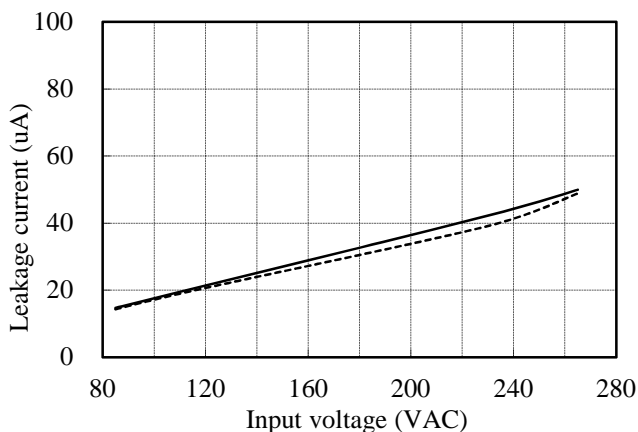


Single fault condition(Open L or N)

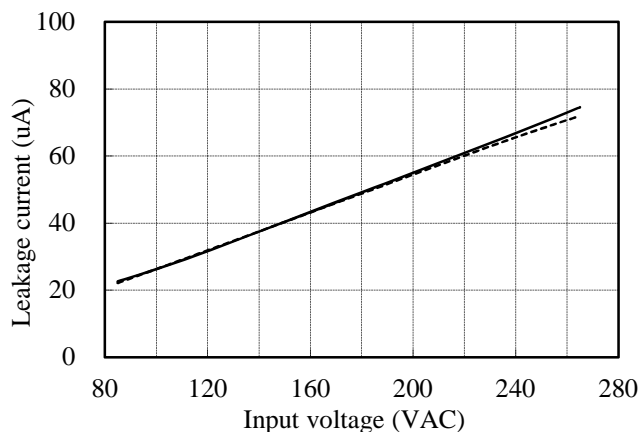


f : 60 Hz

Normal condition



Single fault condition(Open L or N)



2.10 リーク電流特性
Leakage current characteristics

CUS60M

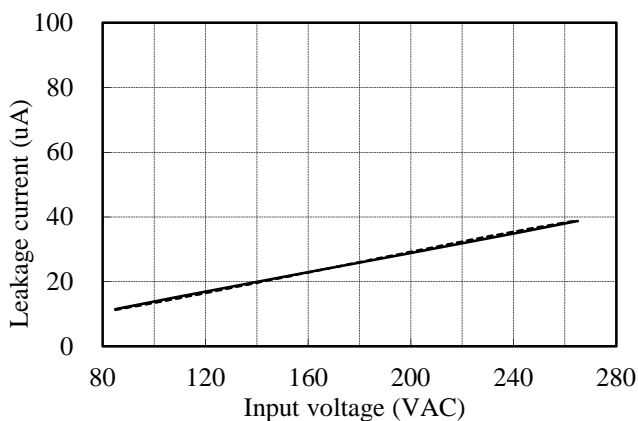
Conditions Iout : 0 % -----
100 % ————
Ta : 25 °C
Equipment used : SIQ16042

12V
(CUS60M-12)

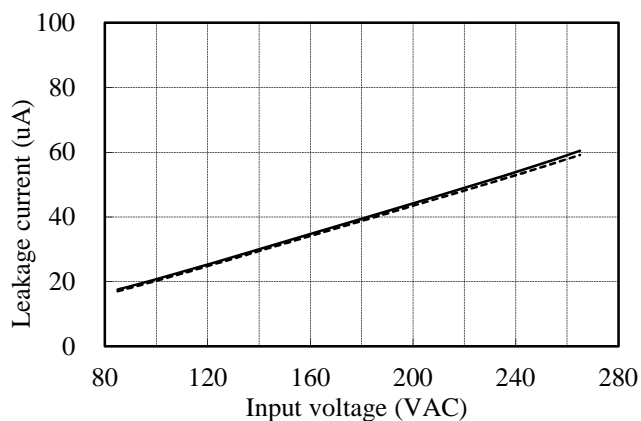
Patient leakage current of CLASS II equipment

f : 50 Hz

Normal condition

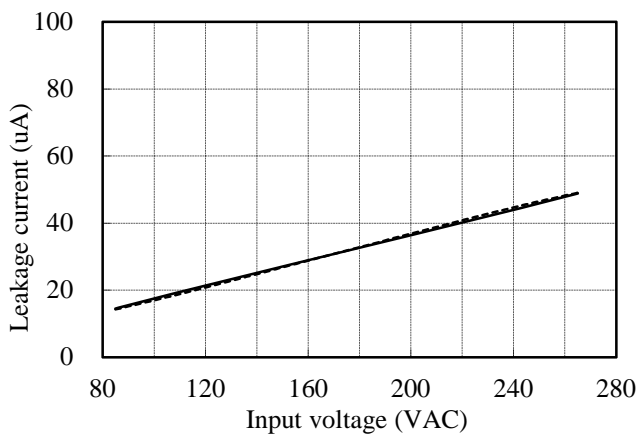


Single fault condition(Open L or N)

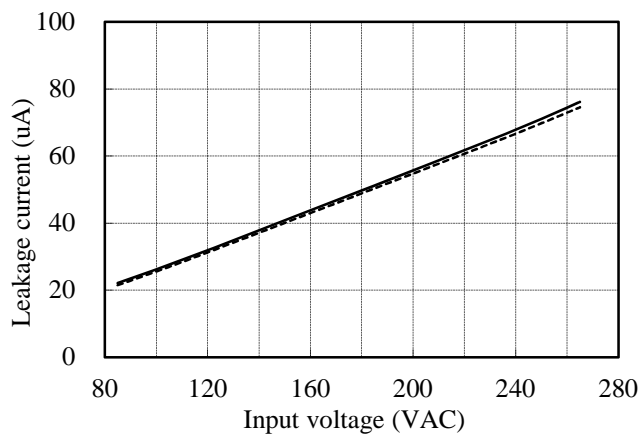


f : 60 Hz

Normal condition



Single fault condition(Open L or N)



2.10 リーク電流特性
Leakage current characteristics

CUS60M

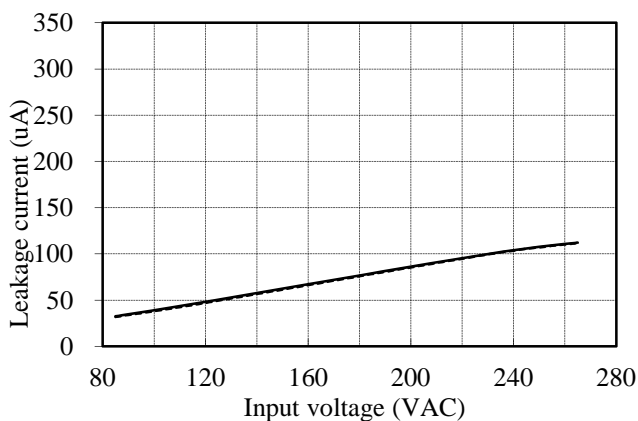
Conditions Iout : 0 % -----
100 % ————
Ta : 25 °C
Equipment used : SIMPSON228

24V
(CUS60M-24)

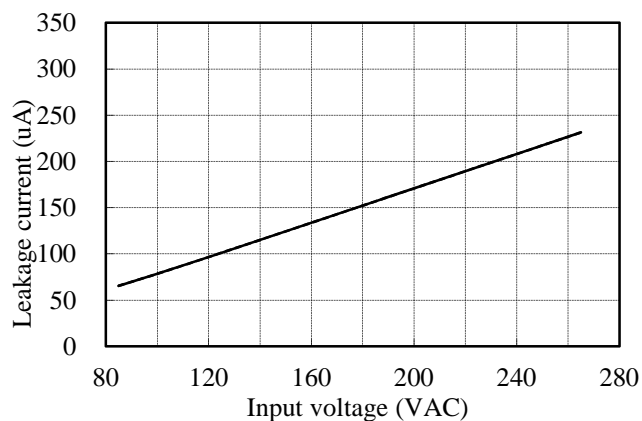
Earth leakage current of CLASS I equipment

f : 50 Hz

Normal condition

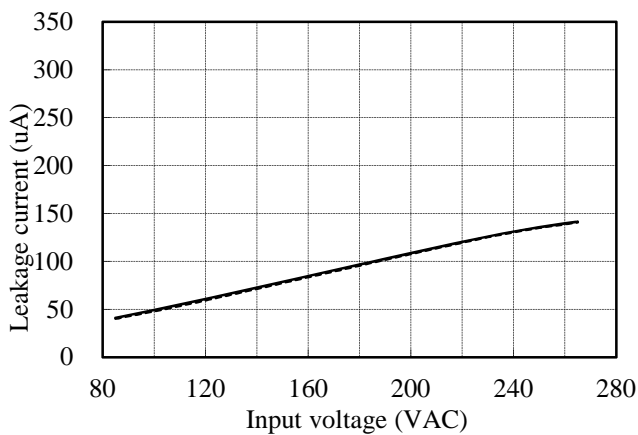


Single fault condition(Open L or N)

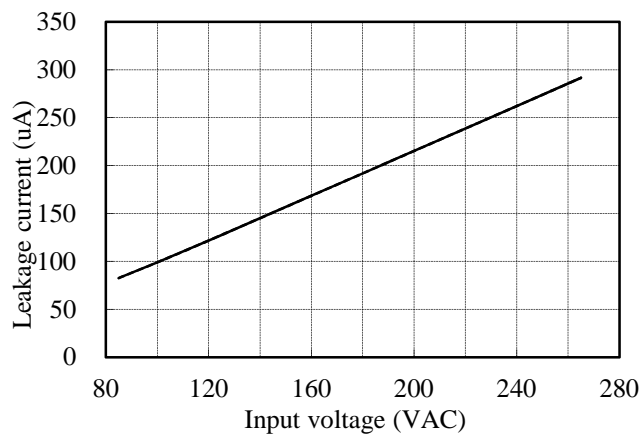


f : 60 Hz

Normal condition



Single fault condition(Open L or N)



2.10 リーク電流特性
Leakage current characteristics

CUS60M

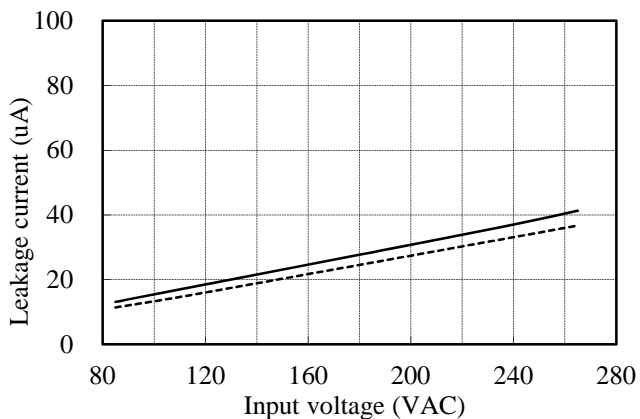
Conditions Iout : 0 % -----
100 % ————
Ta : 25 °C
Equipment used : SIQ16042

24V
(CUS60M-24)

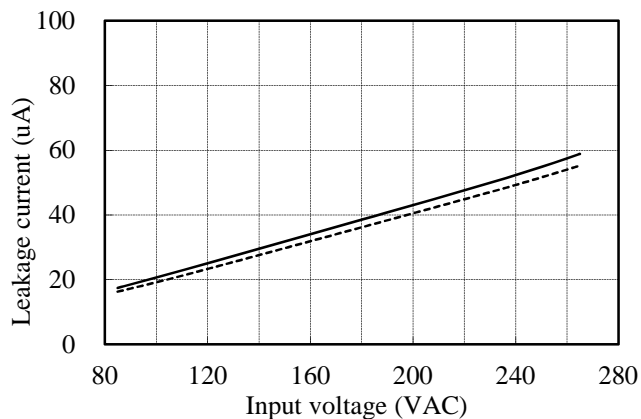
Patient leakage current of CLASS I equipment

f : 50 Hz

Normal condition

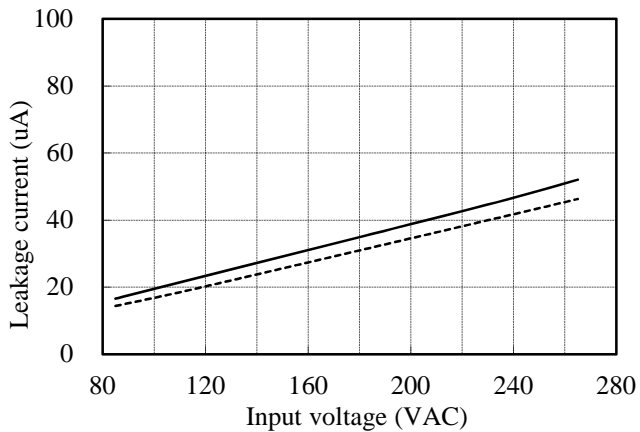


Single fault condition(Open L or N)

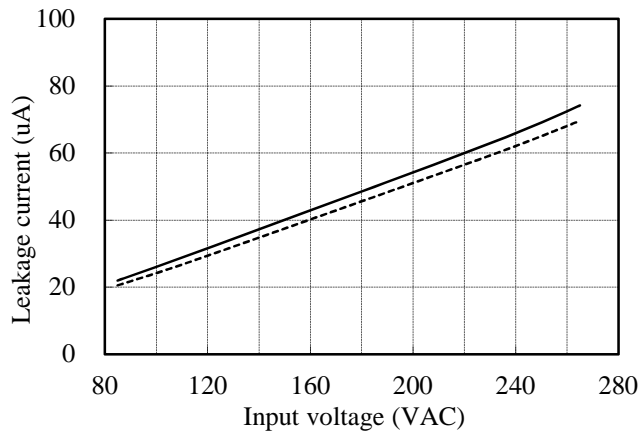


f : 60 Hz

Normal condition



Single fault condition(Open L or N)



2.10 リーク電流特性
Leakage current characteristics

CUS60M

Conditions Iout : 0 % -----
 100 % ————
 Ta : 25 °C
Equipment used : SIQ16042

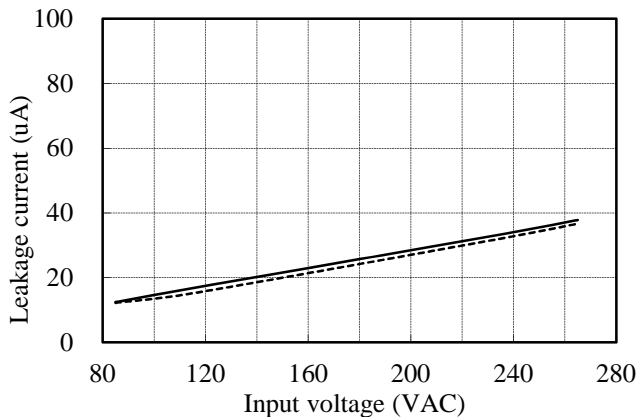
24V

(CUS60M-24)

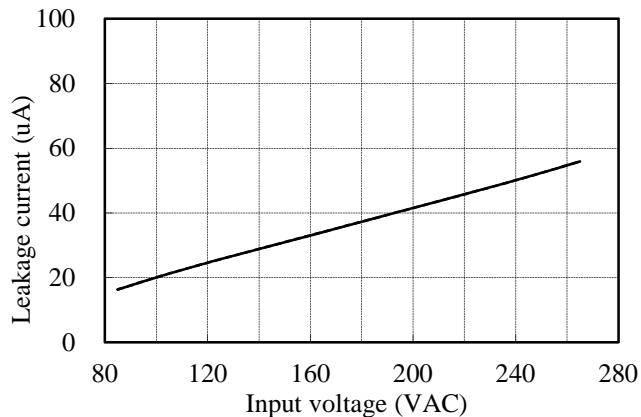
Patient leakage current of CLASS II equipment

f : 50 Hz

Normal condition

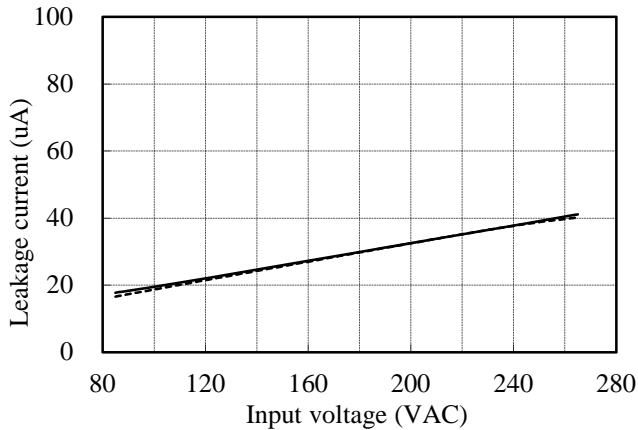


Single fault condition(Open L or N)

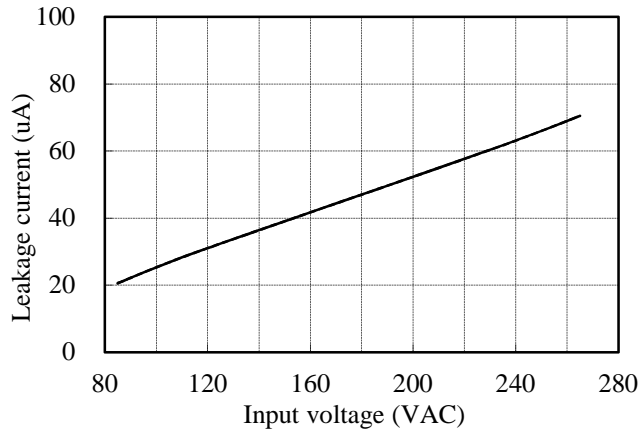


f : 60 Hz

Normal condition



Single fault condition(Open L or N)



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

CUS60M

Conditions

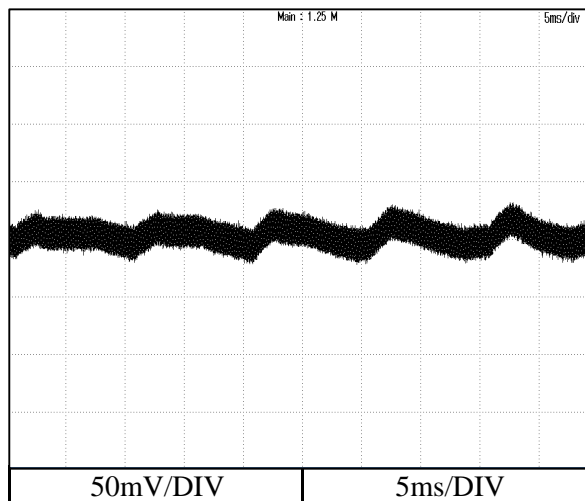
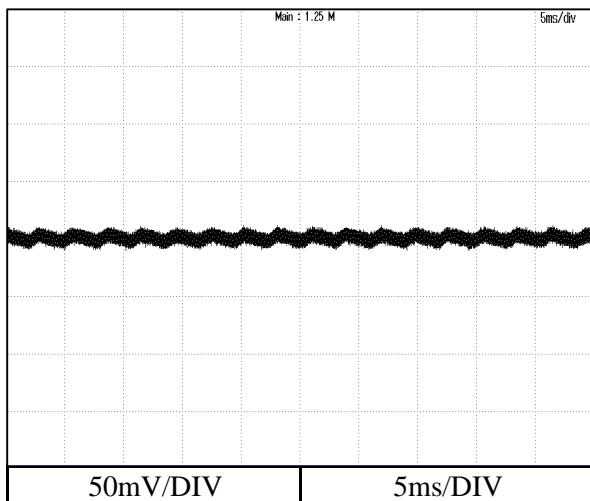
Vin : 115 VAC
Ta : 25 °C

12V

(CUS60M-12)

Iout : 0%

Iout : 100%

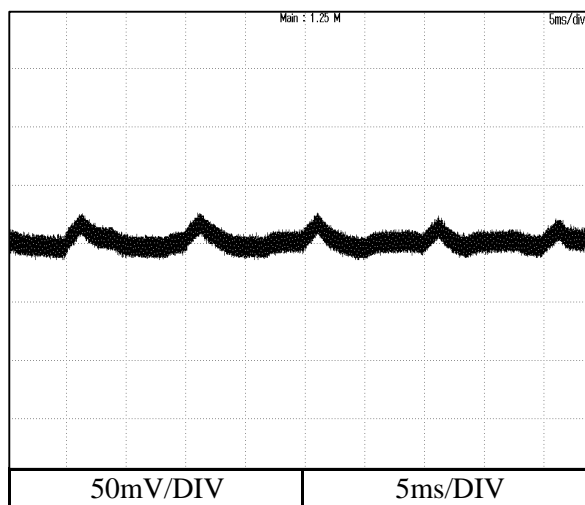
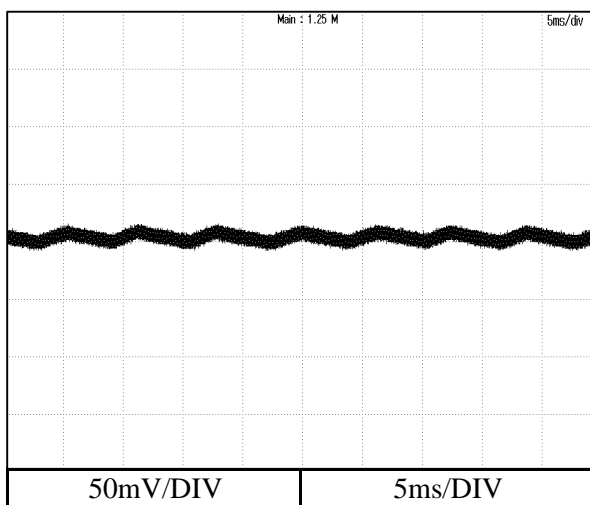


24V

(CUS60M-24)

Iout : 0%

Iout : 100%



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

CUS60M

Conditions

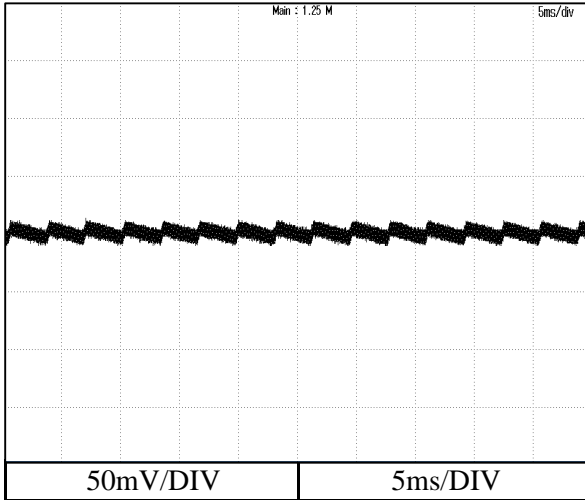
Vin : 230 VAC

Ta : 25 °C

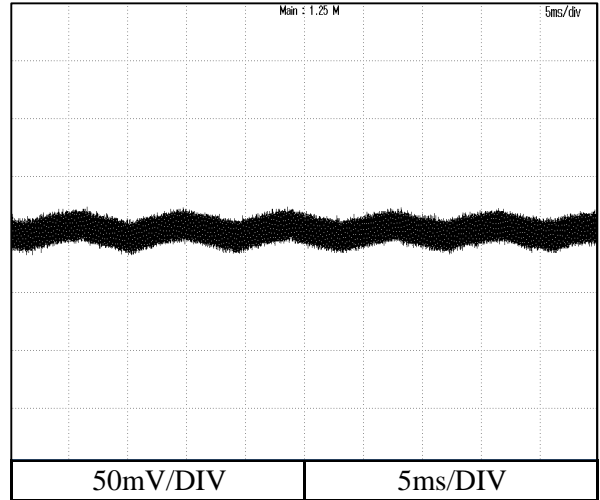
12V

(CUS60M-12)

Iout : 0%



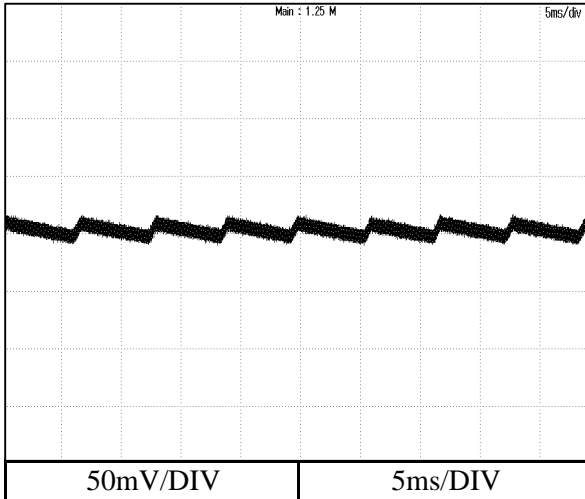
Iout : 100%



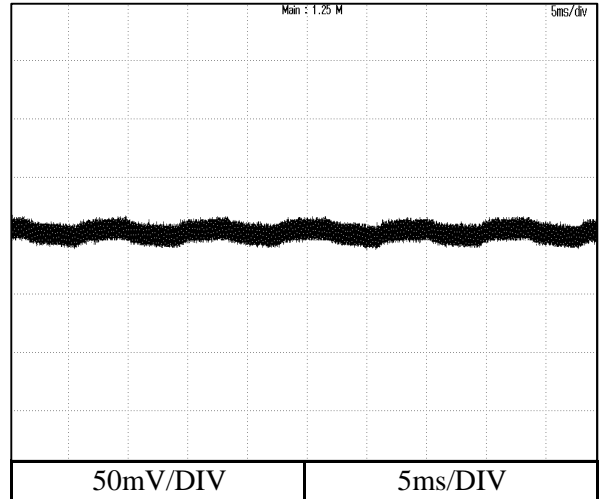
24V

(CUS60M-24)

Iout : 0%



Iout : 100%



2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C

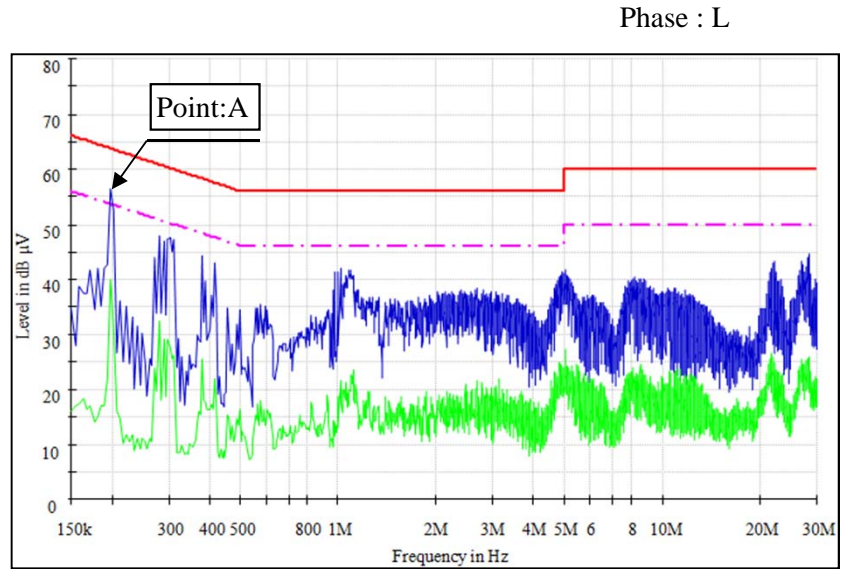
雑音端子電圧

Conducted Emission (CLASS I)

12V

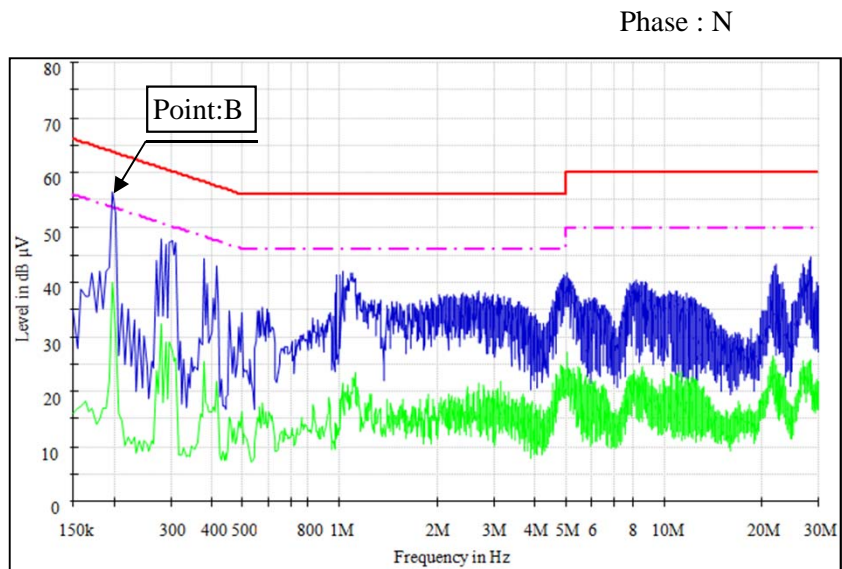
(CUS60M-12)

Point A (0.19MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	64.2	52.6
AV	54.2	33.3



EN55032
Class B
QP Limit
←
←
EN55032
Class B
AV Limit

Point B (0.20MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.8	53.1
AV	53.6	33.1



EN55032
Class B
QP Limit
←
←
EN55032
Class B
AV Limit

EN55011-B,VCCI-B,FCC-Bの限界値はEN55032 class Bの限界値と同じ
Limit of EN55011-B,VCCI-B,FCC-B are same as its EN55032 class B.

2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

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

雑音端子電圧

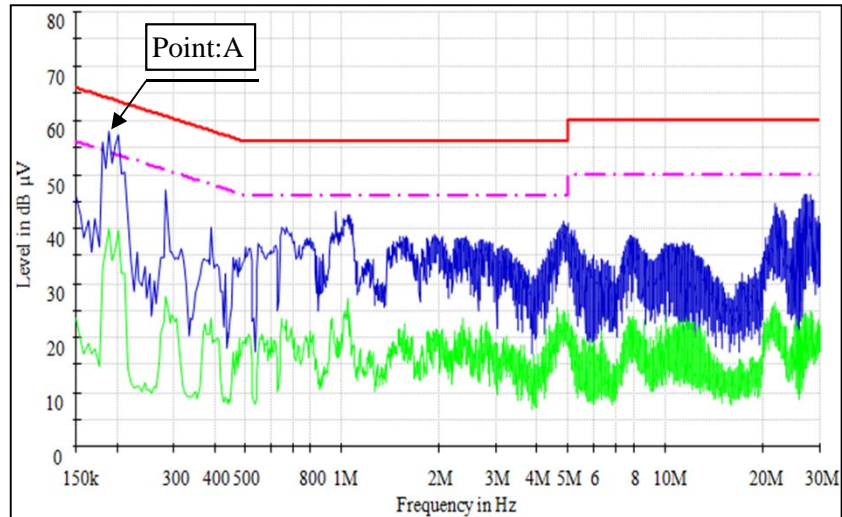
Conducted Emission (CLASS I)

12V

(CUS60M-12)

		Point A (0.20MHz)	
Ref.	Data	Limit (dBuV)	Measure (dBuV)
QP		63.4	53.8
AV		54.2	34.0

Phase : L

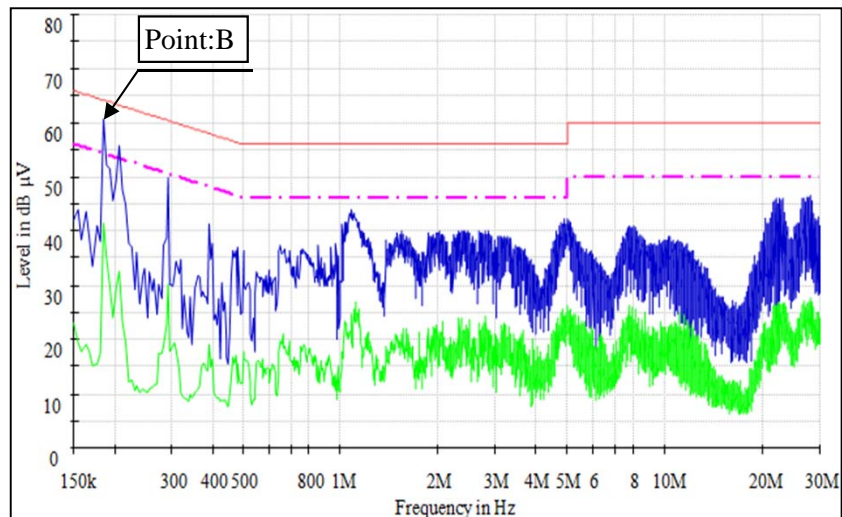


EN55032
Class B
QP Limit

EN55032
Class B
AV Limit

		Point B (0.20MHz)	
Ref.	Data	Limit (dBuV)	Measure (dBuV)
QP		63.8	56.8
AV		53.6	35.2

Phase : N



EN55032
Class B
QP Limit

EN55032
Class B
AV Limit

EN55011-B,VCCI-B,FCC-Bの限界値はEN55032 class Bの限界値と同じ

Limit of EN55011-B,VCCI-B,FCC-B are same as its EN55032 class B.

2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C

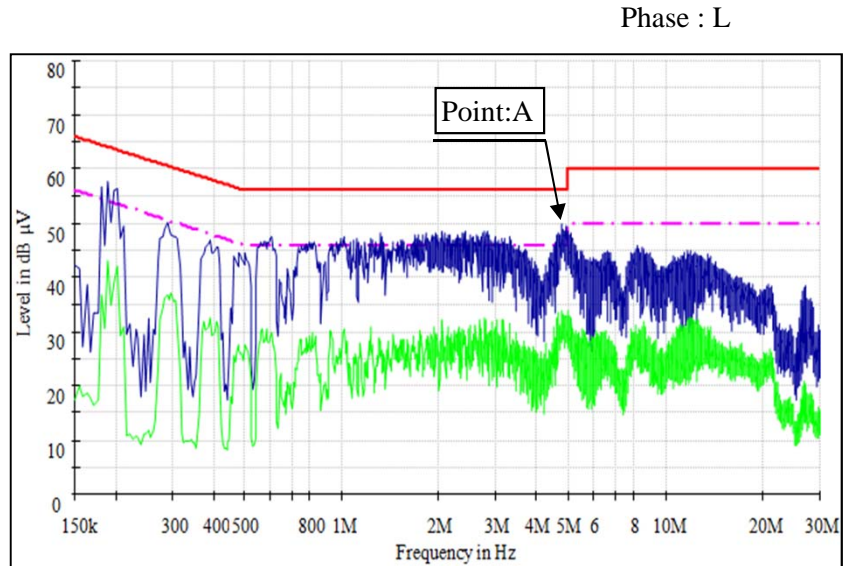
雑音端子電圧

Conducted Emission (CLASS II)

12V

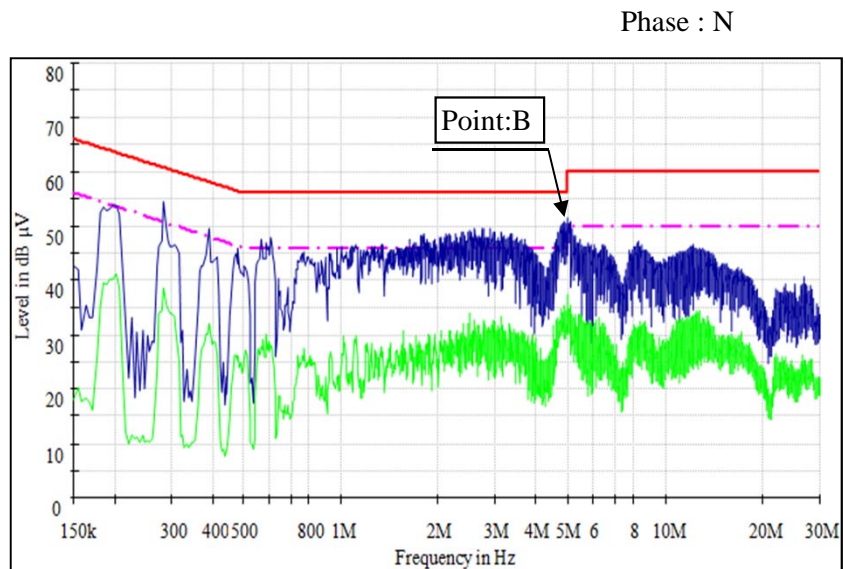
(CUS60M-12)

Point A (4.95MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	56.0	46.9
AV	46.0	32.3



EN55032
Class B
QP Limit
←
←
EN55032
Class B
AV Limit

Point B (4.87MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	56.0	48.7
AV	46.0	36.1



EN55032
Class B
QP Limit
←
←
EN55032
Class B
AV Limit

EN55011-B,VCCI-B,FCC-Bの限界値はEN55032 class Bの限界値と同じ
Limit of EN55011-B,VCCI-B,FCC-B are same as its EN55032 class B.

2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

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

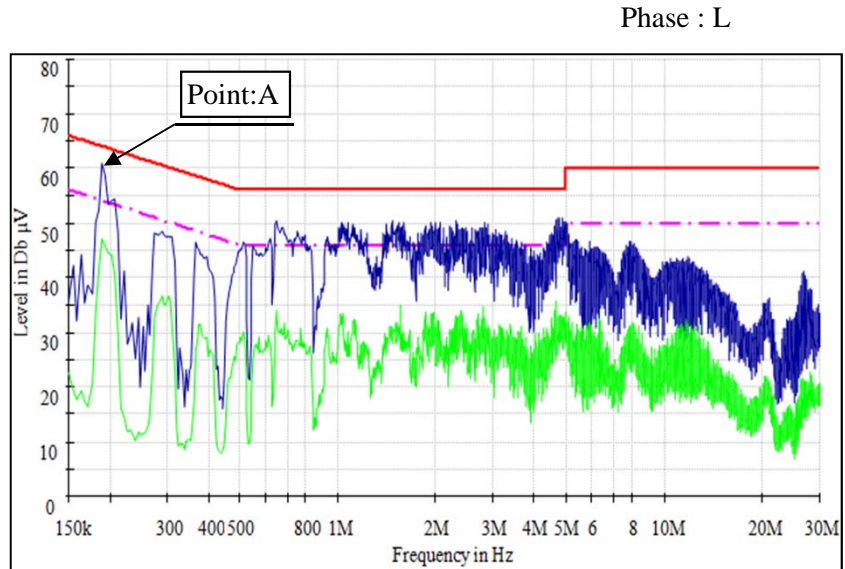
雑音端子電圧

Conducted Emission (CLASS II)

12V

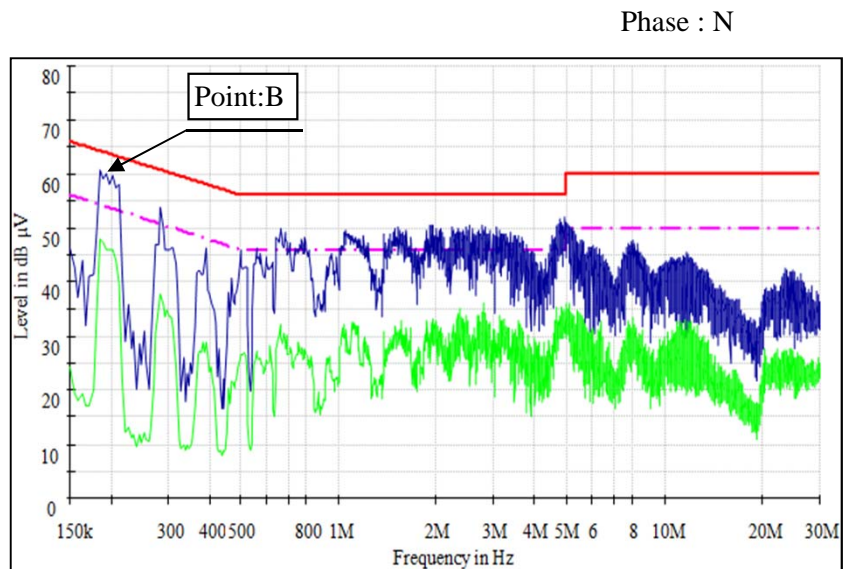
(CUS60M-12)

Point A (0.19MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	64.2	57.6
AV	54.2	43.7



EN55032
Class B
QP Limit
←
←
EN55032
Class B
AV Limit

Point B (0.20MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.4	58.8
AV	53.8	46.8



EN55032
Class B
QP Limit
←
←
EN55032
Class B
AV Limit

EN55011-B,VCCI-B,FCC-Bの限界値はEN55032 class Bの限界値と同じ
Limit of EN55011-B,VCCI-B,FCC-B are same as its EN55032 class B.

2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C

雑音端子電圧

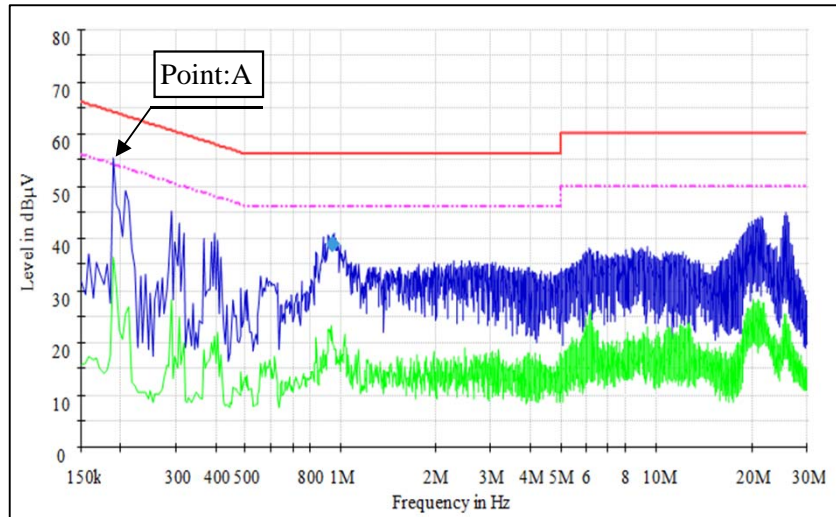
Conducted Emission (CLASS I)

24V

(CUS60M-24)

Point A (0.19MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.8	51.7
AV	54.2	31.4

Phase : L

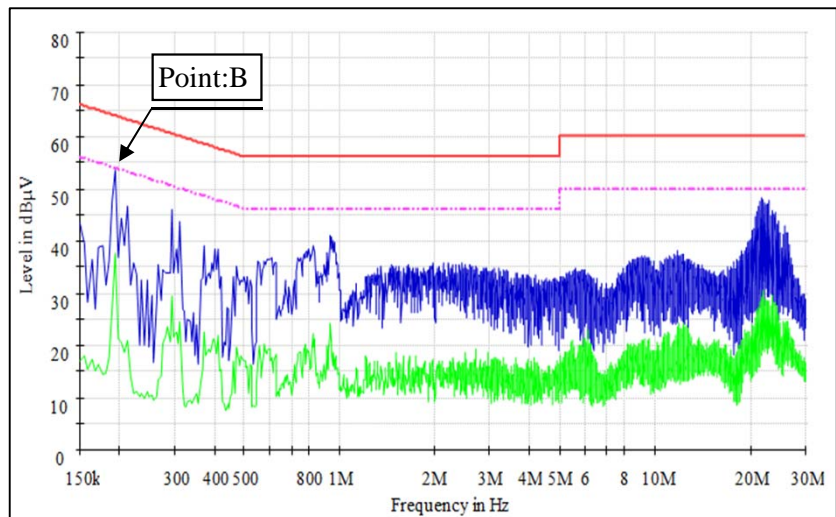


EN55032
Class B
QP Limit

EN55032
Class B
AV Limit

Point B (0.19MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	64.2	51.9
AV	53.8	32.6

Phase : N



EN55032
Class B
QP Limit

EN55032
Class B
AV Limit

EN55011-B,VCCI-B,FCC-Bの限界値はEN55032 class Bの限界値と同じ

Limit of EN55011-B,VCCI-B,FCC-B are same as its EN55032 class B.

2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

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

雑音端子電圧

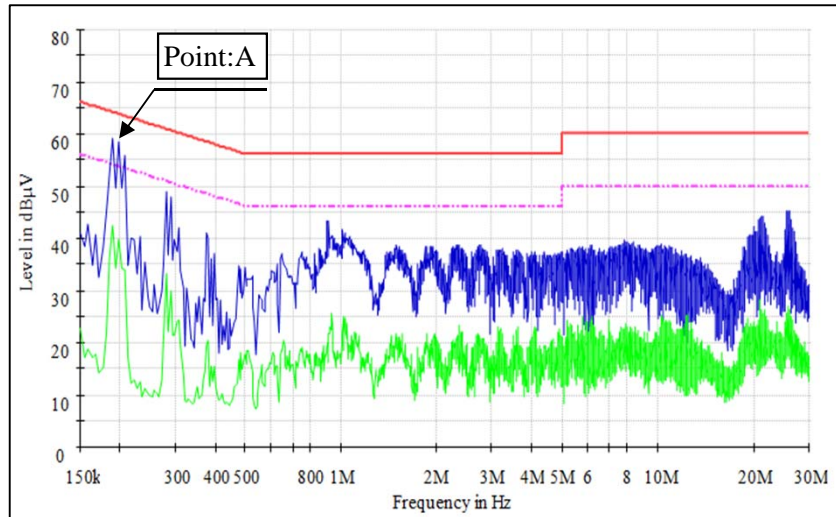
Conducted Emission (CLASS I)

24V

(CUS60M-24)

Point A (0.20MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	64.2	55.7
AV	53.6	34.7

Phase : L

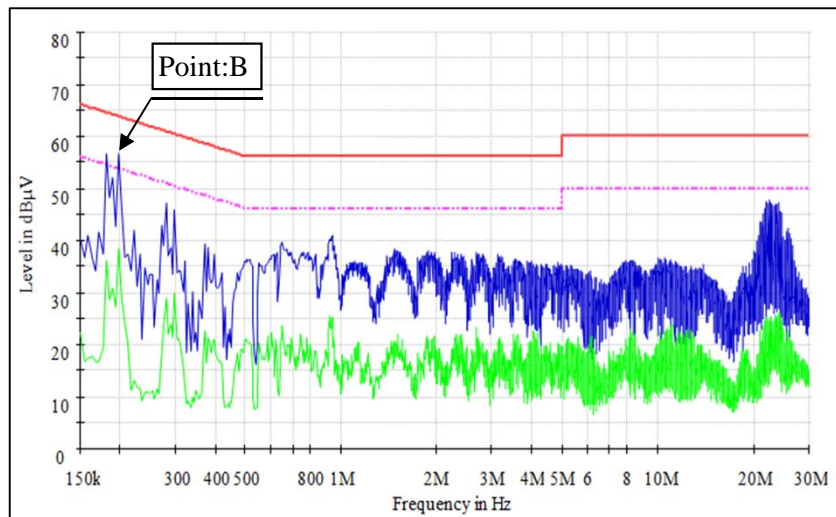


EN55032
Class B
QP Limit

EN55032
Class B
AV Limit

Point B (0.20MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.8	54.0
AV	53.6	34.3

Phase : N



EN55032
Class B
QP Limit

EN55032
Class B
AV Limit

EN55011-B,VCCI-B,FCC-Bの限界値はEN55032 class Bの限界値と同じ
Limit of EN55011-B,VCCI-B,FCC-B are same as its EN55032 class B.

2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C

雑音端子電圧

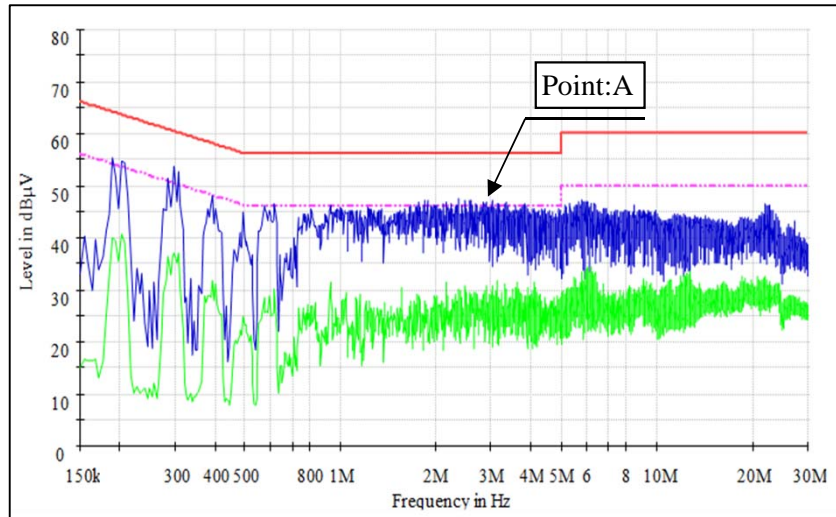
Conducted Emission (CLASS II)

24V

(CUS60M-24)

Point A (2.48MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	56.0	44.8
AV	53.4	37.9

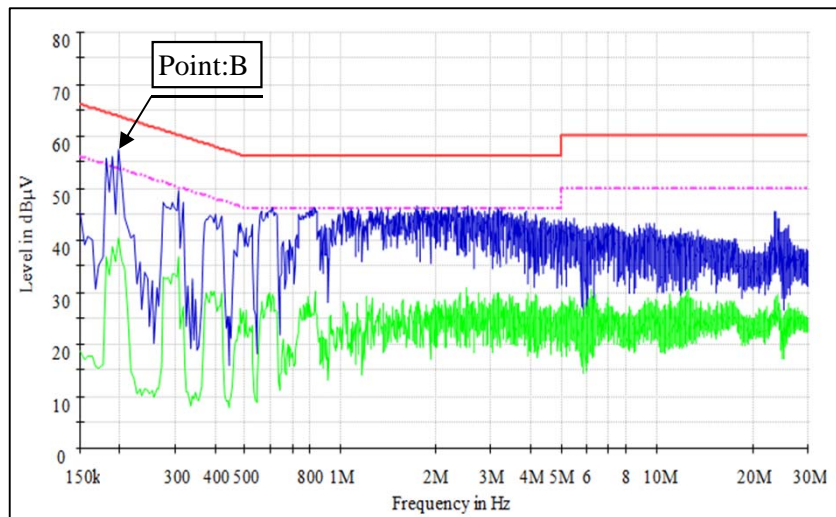
Phase : L



EN55032 Class B QP Limit
←
←
EN55032 Class B AV Limit

Point B (0.20MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.8	54.7
AV	53.6	38.5

Phase : N



EN55032 Class B QP Limit
←
←
EN55032 Class B AV Limit

EN55011-B,VCCI-B,FCC-Bの限界値はEN55032 class Bの限界値と同じ
Limit of EN55011-B,VCCI-B,FCC-B are same as its EN55032 class B.

2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

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

雑音端子電圧

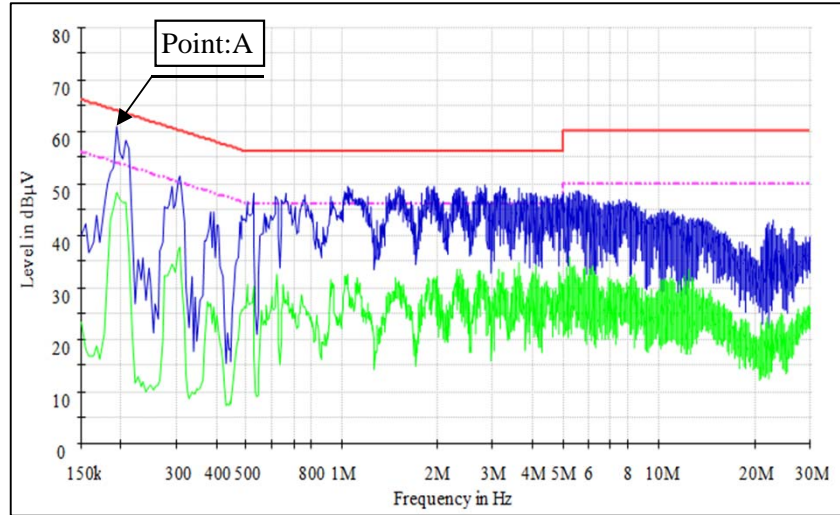
Conducted Emission (CLASS II)

24V

(CUS60M-24)

Point A (0.20MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.6	58.9
AV	53.6	47.6

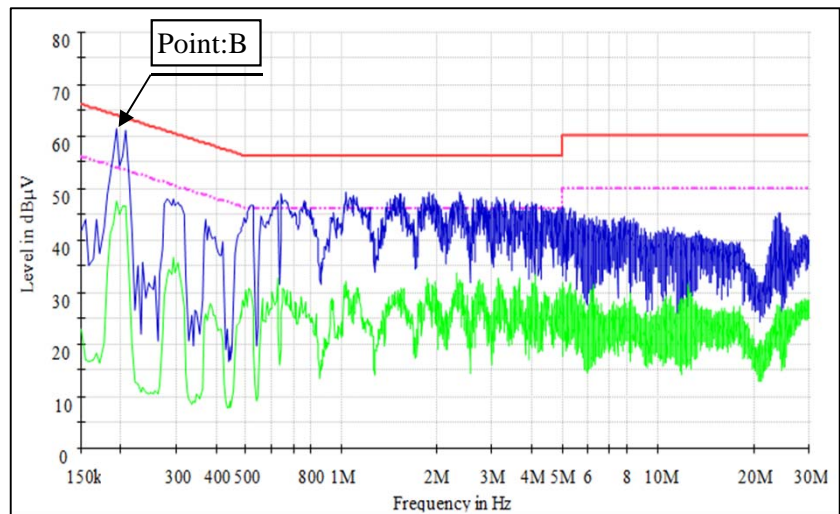
Phase : L



EN55032 Class B QP Limit
←
←
EN55032 Class B AV Limit

Point B (0.20MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.8	58.2
AV	53.6	46.8

Phase : N



EN55032 Class B QP Limit
←
←
EN55032 Class B AV Limit

EN55011-B,VCCI-B,FCC-Bの限界値はEN55032 class Bの限界値と同じ
Limit of EN55011-B,VCCI-B,FCC-B are same as its EN55032 class B.

2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C

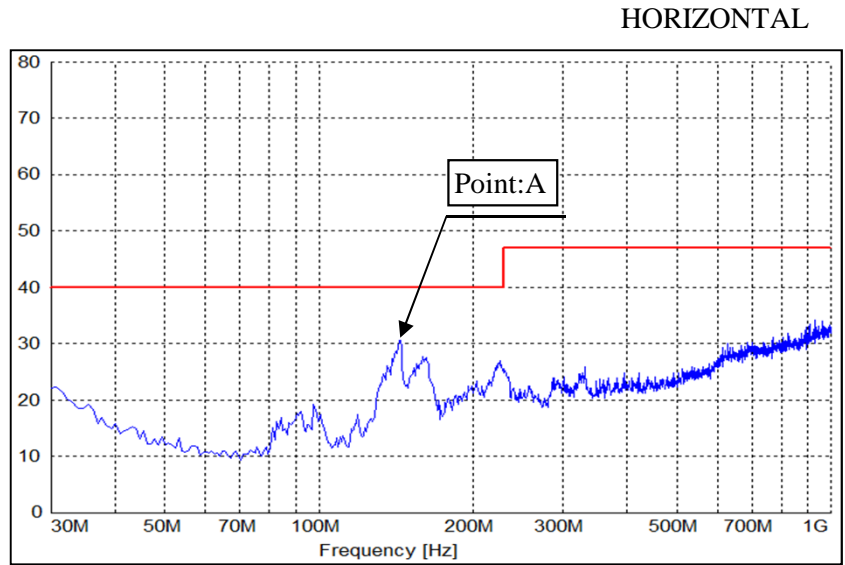
雑音電界強度

Radiated Emission (CLASS I)

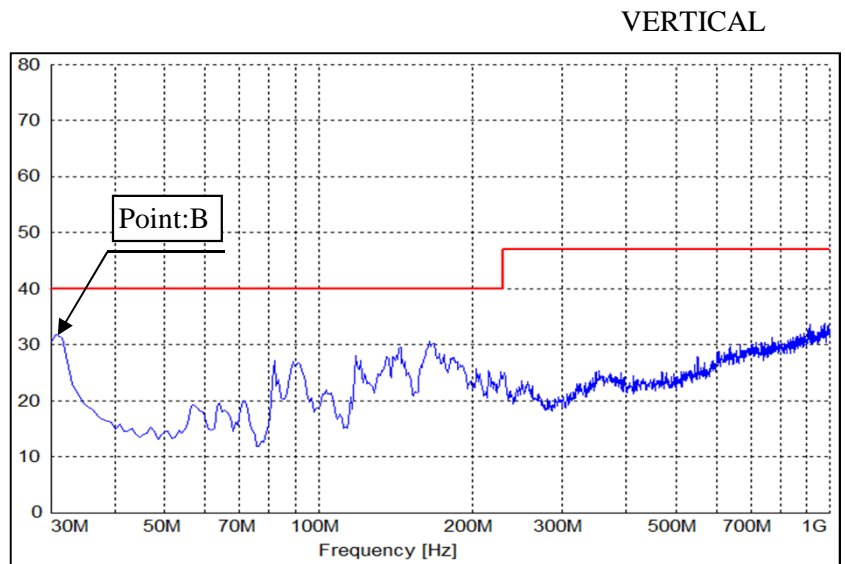
12V

(CUS60M-12)

Point A (150MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	30.8



Point B (31MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	31.3



2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

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

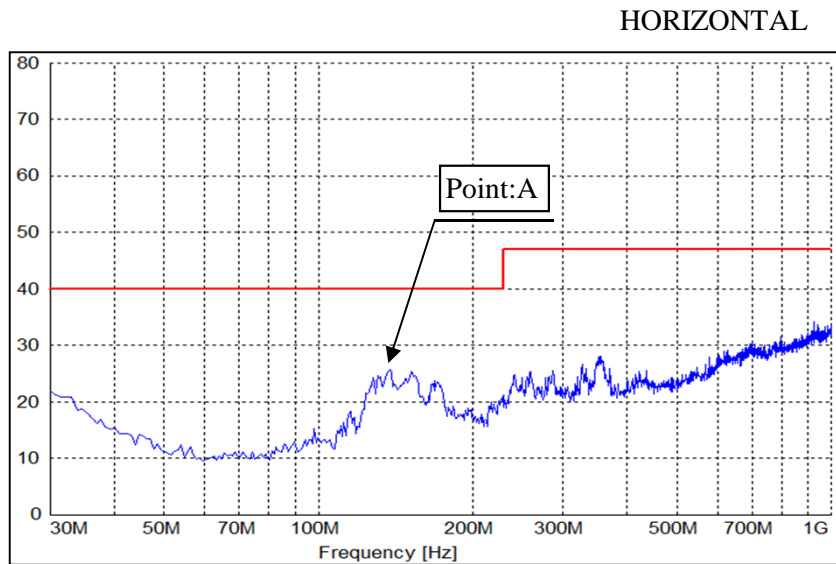
雑音電界強度

Radiated Emission (CLASS I)

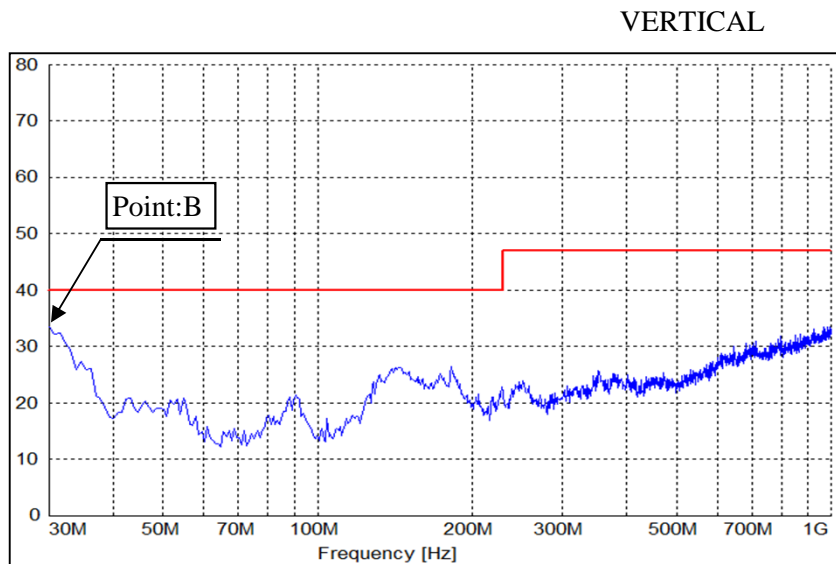
12V

(CUS60M-12)

Point A (141MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	25.0



Point B (30MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	33.5



2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C

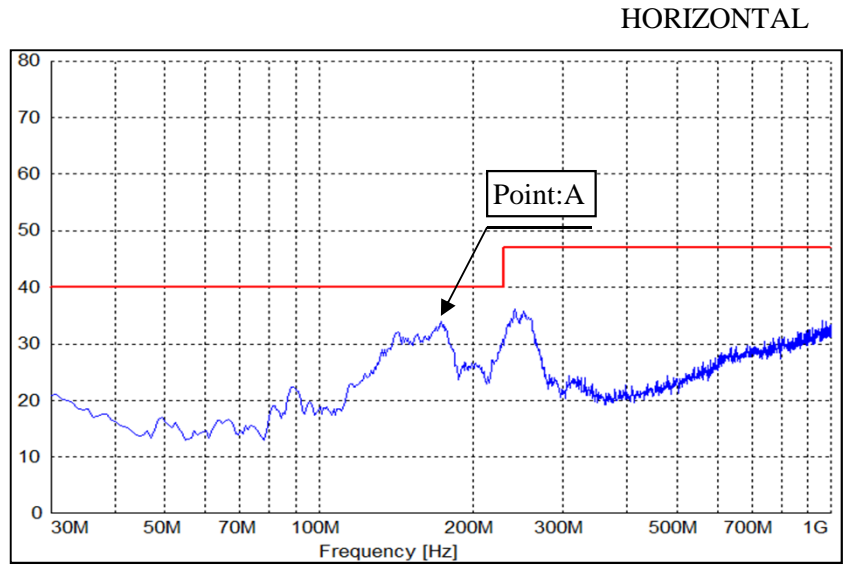
雑音電界強度

Radiated Emission (CLASS II)

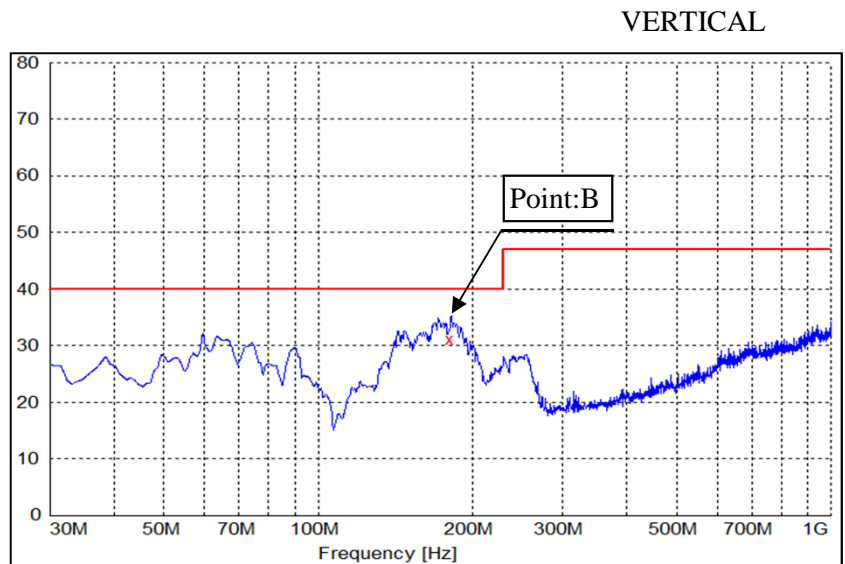
12V

(CUS60M-12)

Point A (174MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	34.2



Point B (181MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	31.1



2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

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

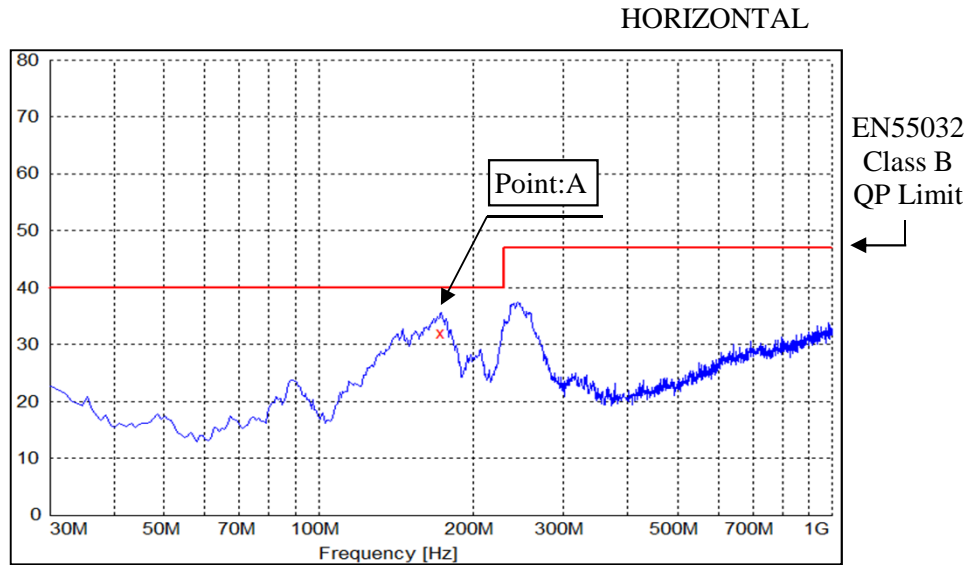
雑音電界強度

Radiated Emission (CLASS II)

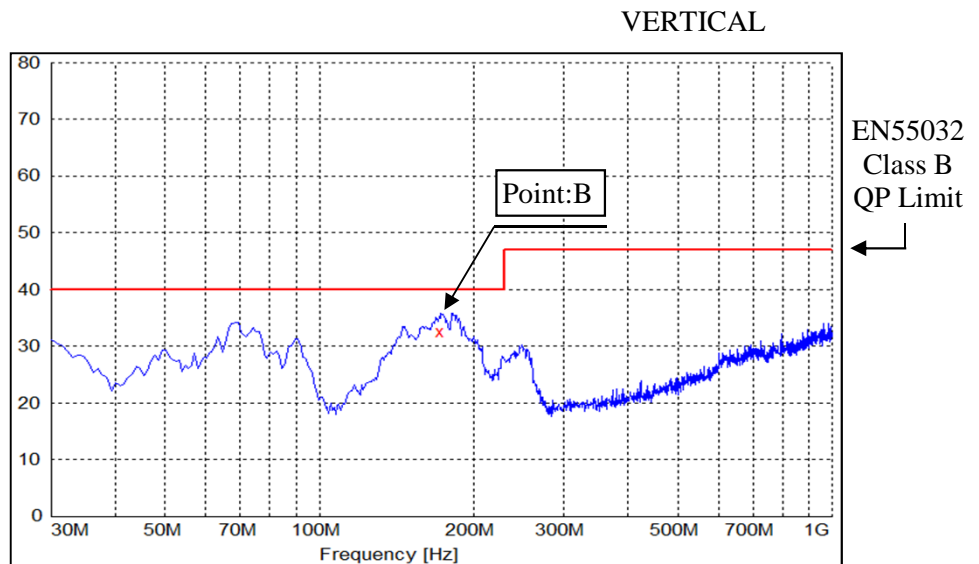
12V

(CUS60M-12)

Point A (173MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	32.1



Point B (173MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	32.5



2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C

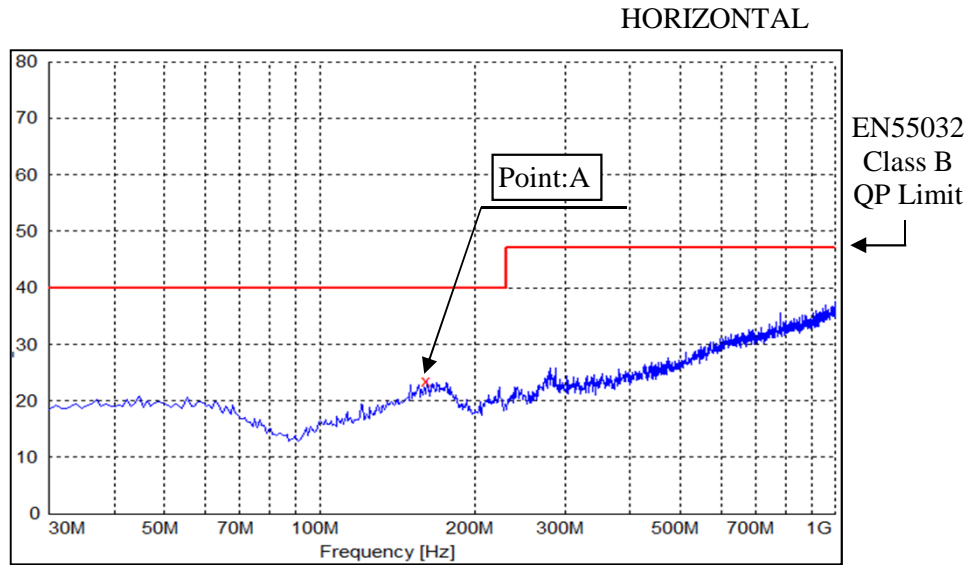
雑音電界強度

Radiated Emission (CLASS I)

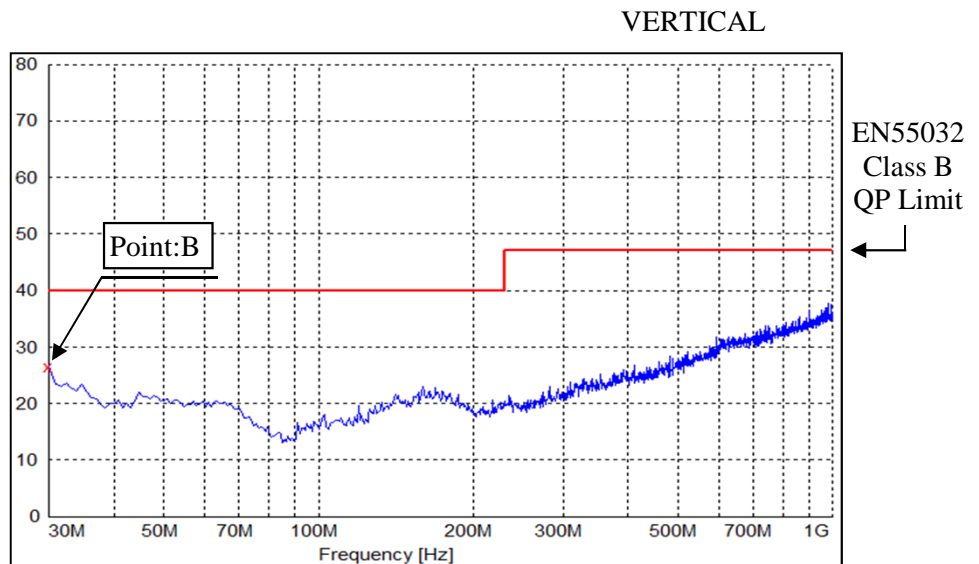
24V

(CUS60M-24)

Point A (162MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	23.5



Point B (30MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	26.6



2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

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

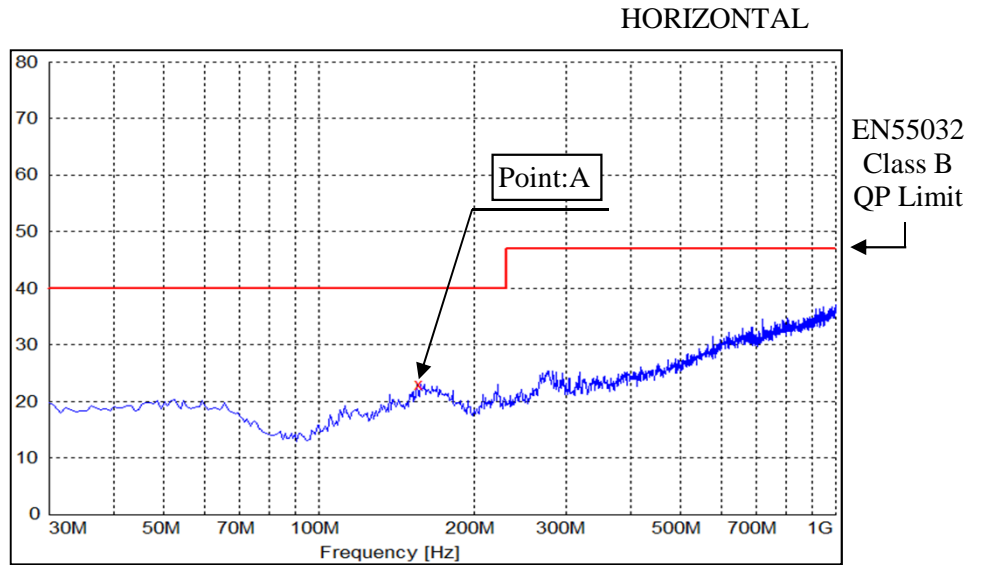
雑音電界強度

Radiated Emission (CLASS I)

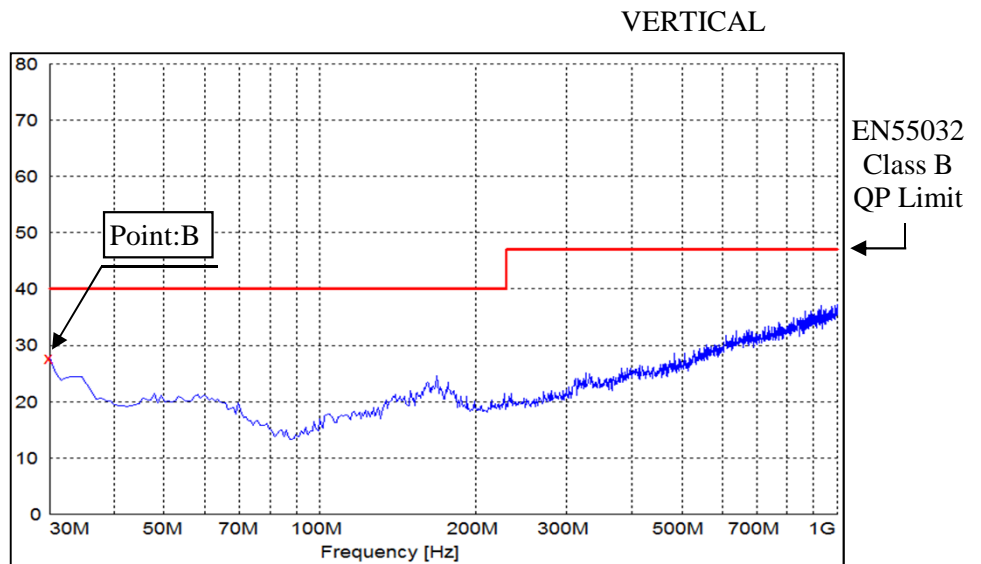
24V

(CUS60M-24)

Point A (157MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	23.0



Point B (30MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	27.7



2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C

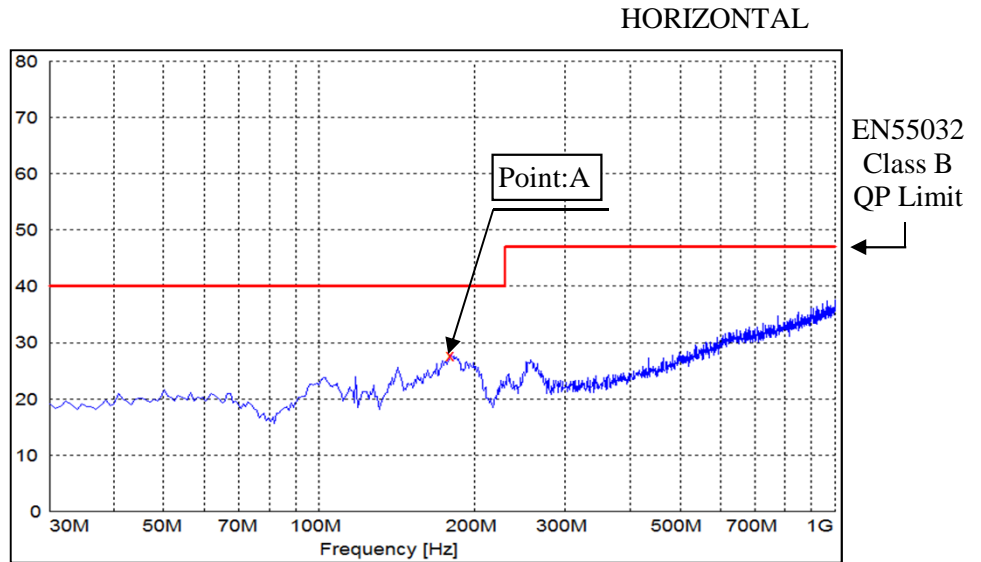
雑音電界強度

Radiated Emission (CLASS II)

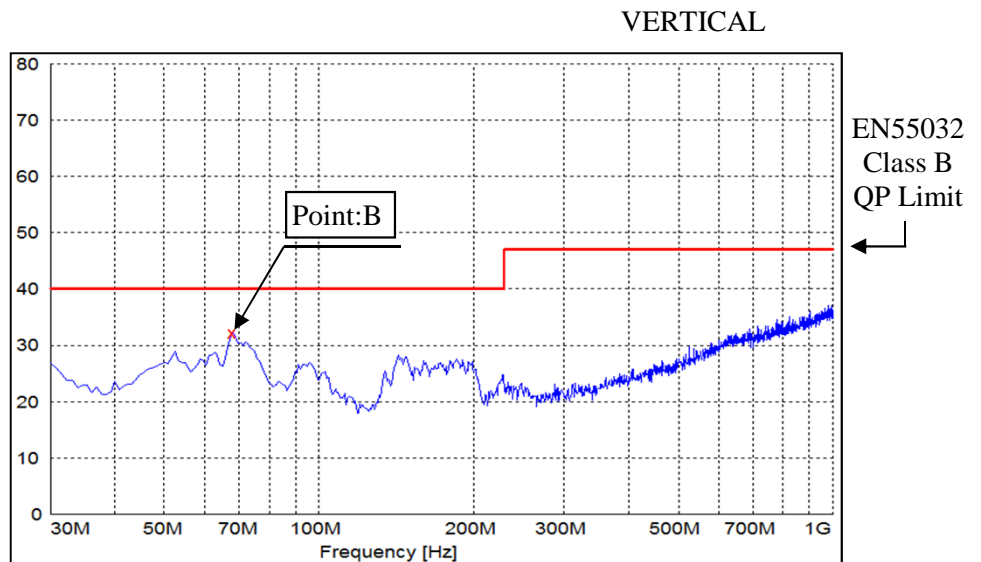
24V

(CUS60M-24)

Point A (181MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	27.4



Point B (67MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	32.3



2.12 EMI 特性

Electro-Magnetic Interference characteristics

CUS60M

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

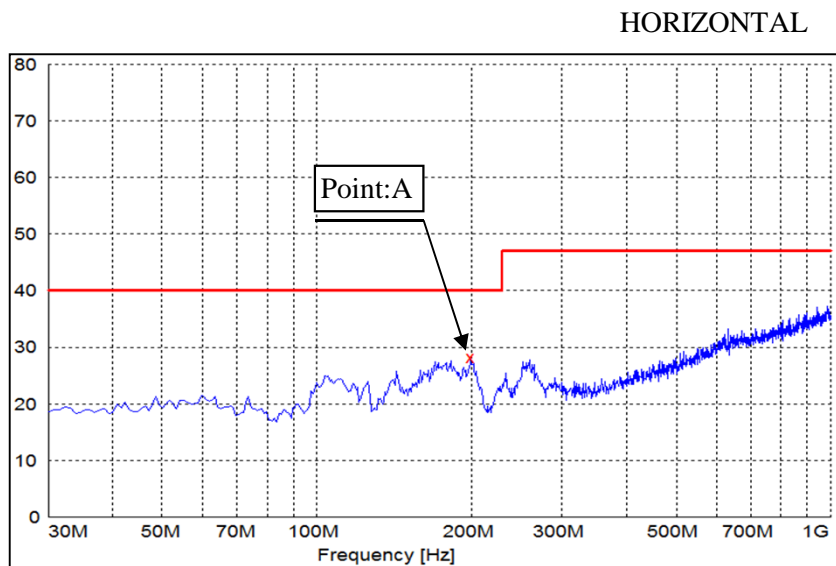
雑音電界強度

Radiated Emission (CLASS II)

24V

(CUS60M-24)

Point A (199MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	28.2



Point B (68MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	40.0	33.0

