

RWS1500B

EVALUATION DATA

型式データ

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2. 特性データ Characteristics

----- RWS1500B -----

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* 準標準品RWS1500B-*/R, /RFO にて対応

For option model RWS1500B-*/R, /RFO

使用記号 Terminology used

	定義	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
T _a	周囲温度	Ambient temperature
f	周波数	Frequency
V _{stb}	スタンバイ電圧	Standby voltage
I _{stb}	スタンバイ電流	Standby current

※ 当社測定条件における結果であり、参考値としてお考え願います。

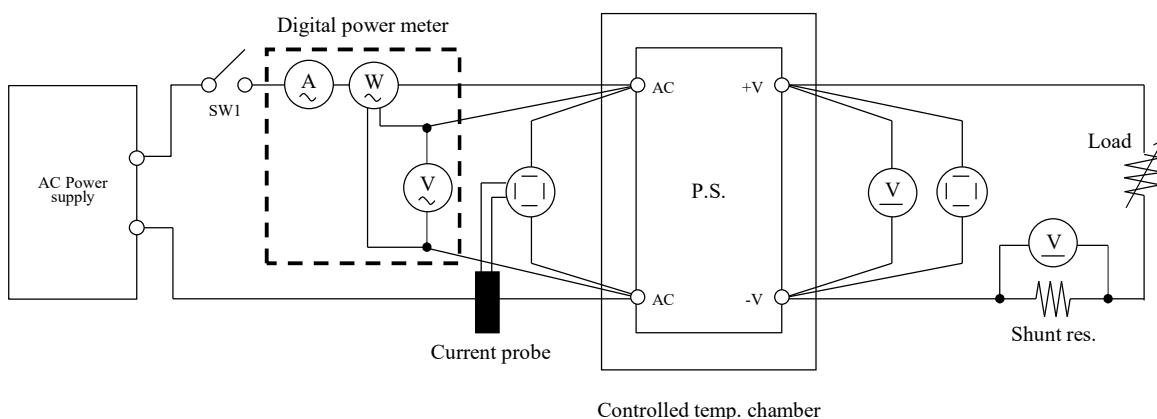
Test results are reference data based on our measurement condition.

1. 測定方法 Evaluation Method

1-1. 測定回路 Circuit used for determination

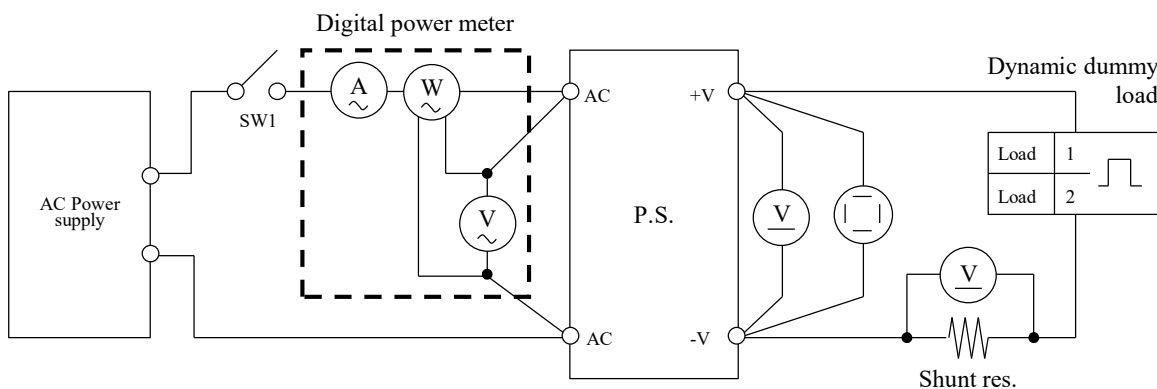
測定回路1 Circuit 1 used for determination

- 静特性 Steady state data
- 通電ドリフト特性 Warm up voltage drift characteristics
- 出力保持時間特性 Hold up time 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
- 過電流保護特性 Over current protection (OCP) characteristics
- 過電圧保護特性 Over voltage protection (OVP) characteristics
- 入力電圧瞬停特性 Response to brown out characteristics
- 入力電流波形 Input current waveform

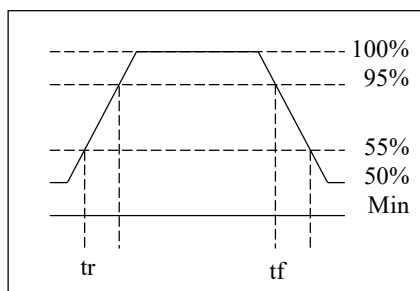


測定回路2 Circuit 2 used for determination

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

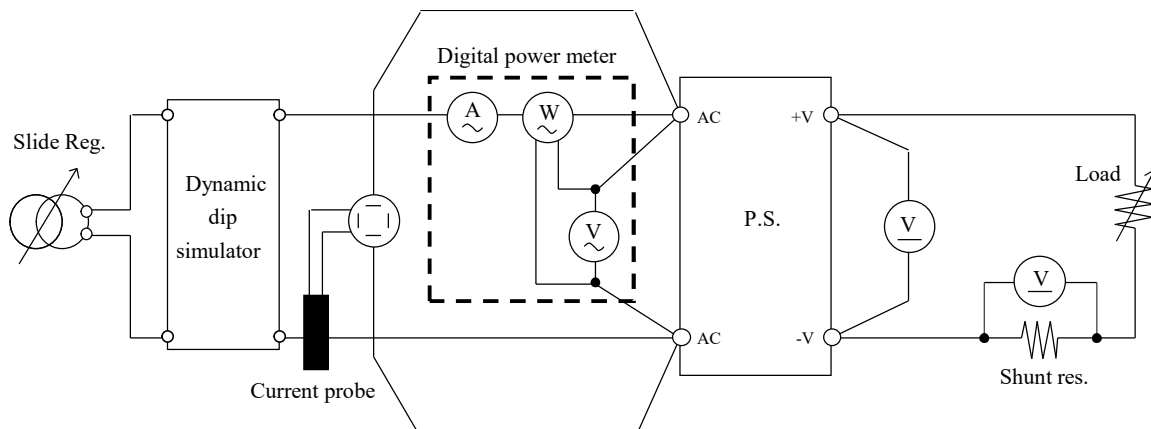


Output current waveform
I_{out} 50% <=> 100%



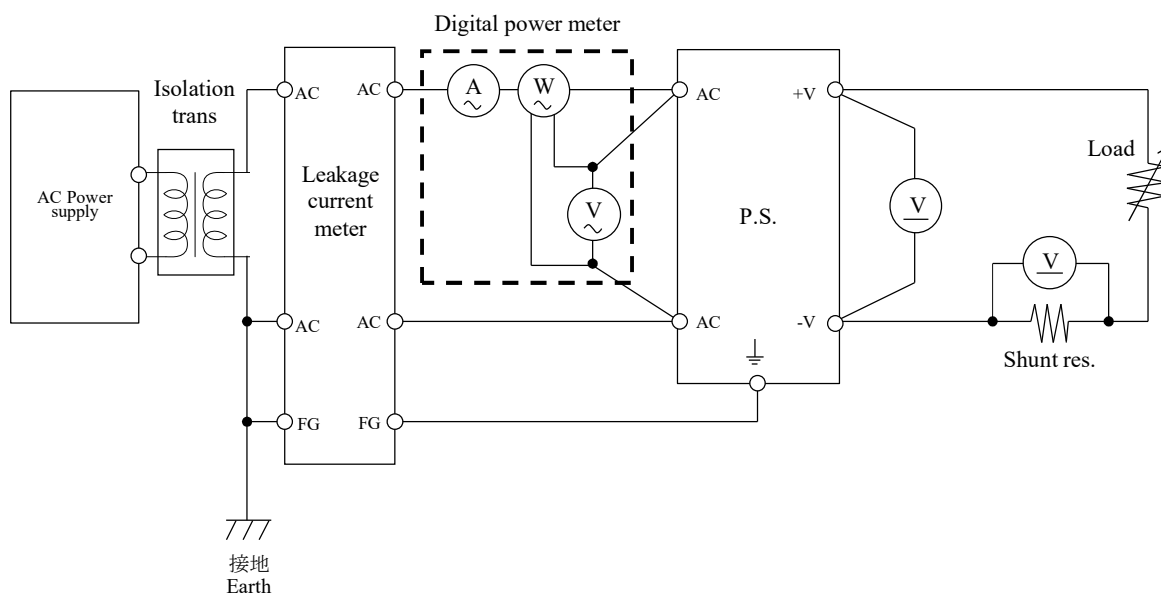
測定回路3 Circuit 3 used for determination

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



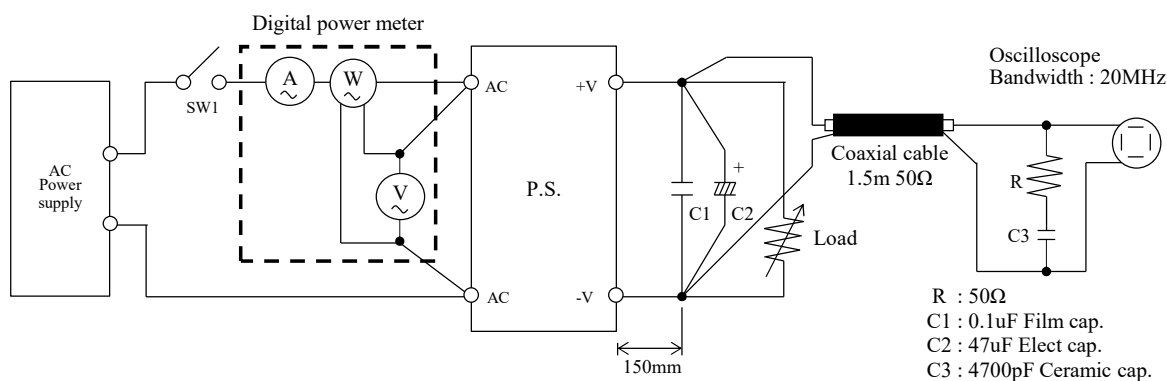
測定回路4 Circuit 4 used for determination

- リーク電流特性 Leakage current characteristics



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



測定回路6 Circuit 6 used for determination

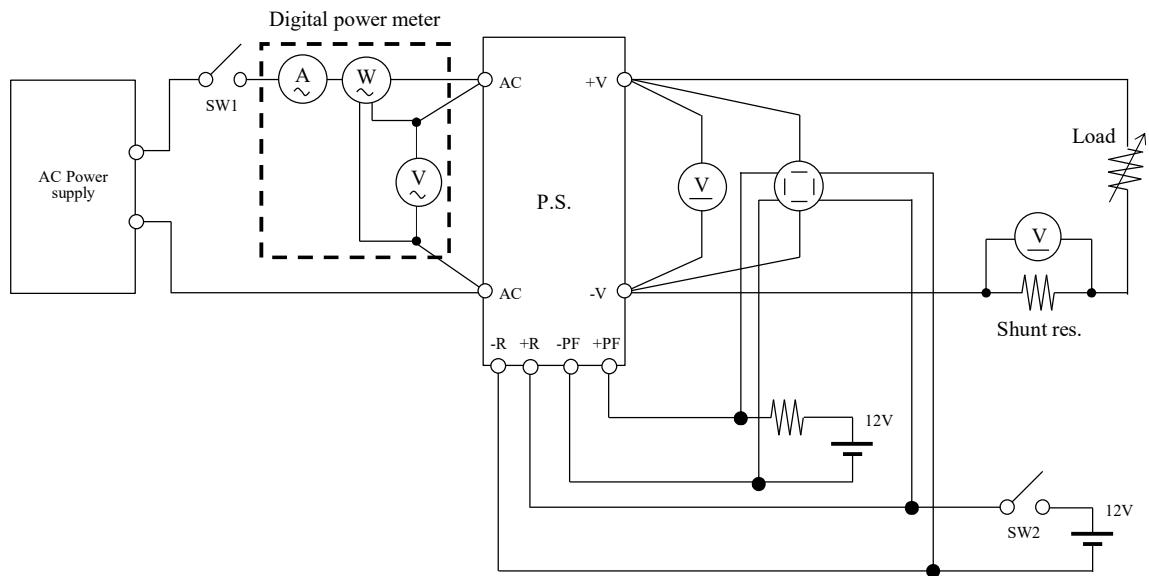
- ON/OFFコントロール時出力立ち上がり、立下がり特性
Output rise, fall characteristics with ON/OFF Control

標準品 RWS1500B-*/R, /RFO にて対応

For option model RWS1500B-*/R, /RFO

* PF信号端子は、RWS1500B-*/RFOのみ対応

PF signal terminal is applied to only RWS1500B-*/RFO

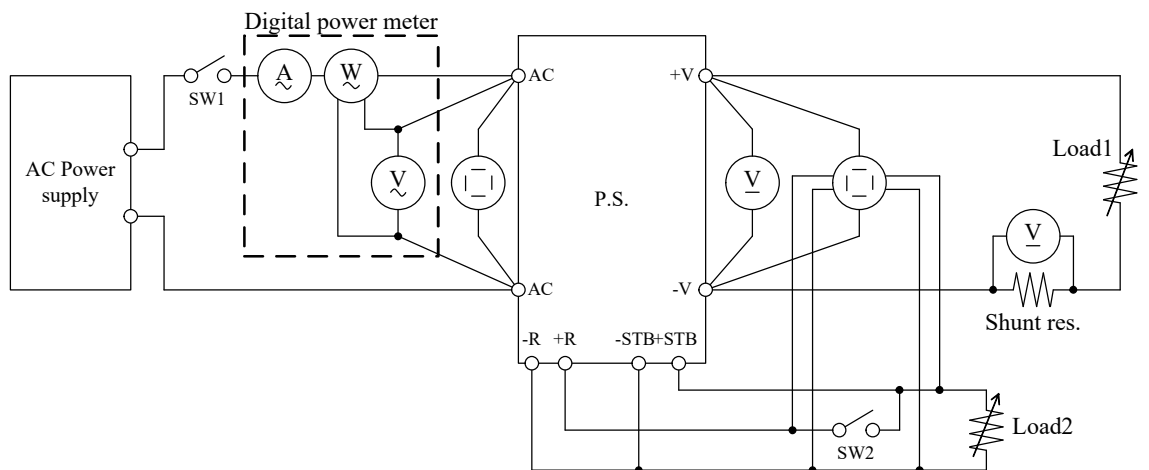


測定回路7 Circuit 7 used for determination

- 無負荷時入力電力、電流 No load input power and current
- スタンバイ立ち上がり、立ち下がり特性 Standby rise, fall characteristics
- ON/OFFコントロール時出力立ち上がり、立下がり特性
Output rise, fall characteristics with ON/OFF Control

標準品 RWS1500B-*/S にて対応

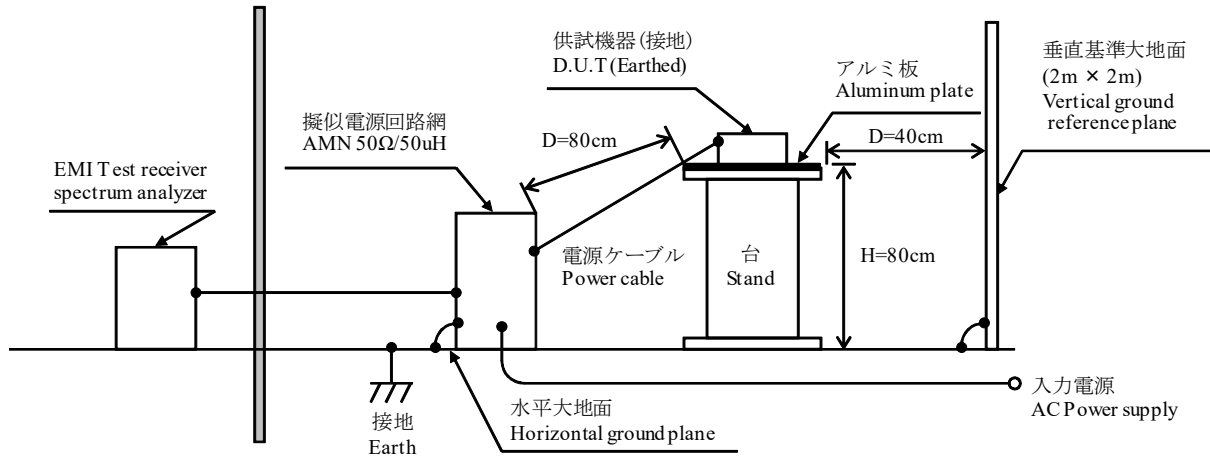
For option model RWS1500B-*/S



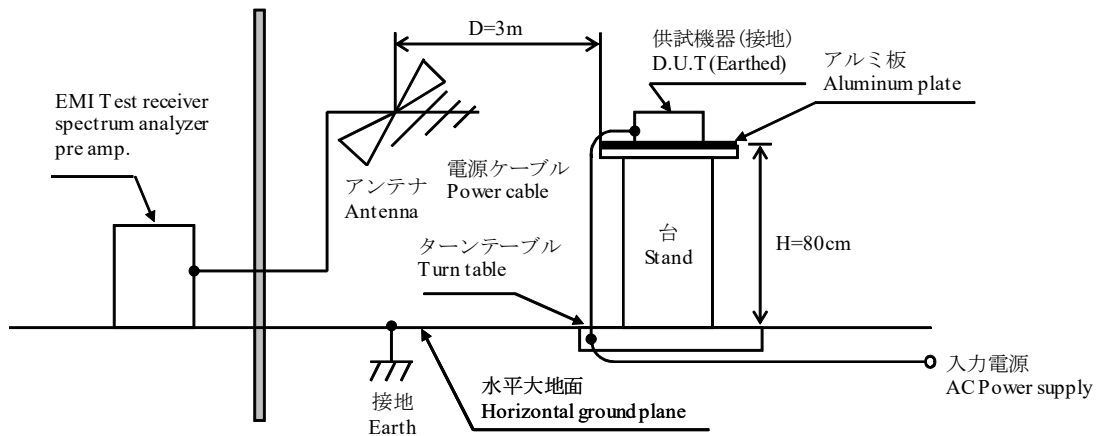
測定構成 Configuration used for determination

- EMI特性 Electro-Magnetic Interference characteristics

(a) 雑音端子電圧 (帰還ノイズ) Conducted Emission



(b) 雑音電界強度 (放射ノイズ) Radiated Emission



1-2. 使用測定機器 List of equipment used

	EQUIPMENT USED	MANUFACTURER	MODEL NO.
1	DIGITAL STORAGE OSCILLOSCOPE	YOKOGAWA ELECT.	DLM2054
2	DIGITAL MULTIMETER	AGILENT	34970A
3	DIGITAL POWER METER	YOKOGAWA ELECT.	WT310HC
4	DIGITAL POWER METER	HIOKI	3331 / 3332
5	CURRENT PROBE	YOKOGAWA ELECT.	701928 / 701930
6	DYNAMIC DUMMY LOAD	KIKUSUI	PLZ1004W / PLZ2004WB
7	DYNAMIC DUMMY LOAD	TEXIO	LSG-1050
8	DUMMY LOAD	PCN	RHF250 SIRIES
9	SLIDE REGULATOR	MATSUNAGA	SD-2650
10	ISOLATION TRANS	MATSUNAGA	3WTC-50K
11	CVCF	KIKUSUI	PCR4000L / PCR4000LA
12	CVCF	KIKUSUI	PCR4000LE / PCR6000LE
13	LEAKAGE CURRENT METER	HIOKI	3156
14	DYNAMIC DIP SIMULATOR	TAKAMISAWA	PSA-210
15	CONTROLLED TEMP. CHAMBER	ESPEC	PL-1KP
16	EMI TEST RECEIVER / SPECTRUM ANALYZER	ROHDE & SCHWARZ	ESCI
17	PRE AMP.	SONOMA	310N
18	AMN	SCHWARZBECK	NNLK8121
19	ANTENNA	SCHWARZBECK	CBL6111D
20	HARMONIC / FLICKER ANALYZER	KIKUSUI	KHA1000
21	SINGLE-PHASE MASTER	NF	4420
22	REFERENCE IMPEDANCE NETWORK 20A	NF	4150
23	MULTI OUTLET UNIT	KIKUSUI	OT01-KHA

2. 特性データ Characteristics

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

Iout \ Vin	90VAC	100VAC	200VAC	265VAC	Line regulation	
0%	12.024V	12.023V	12.024V	12.024V	1mV	0.008%
50%	11.988V	11.989V	11.989V	11.990V	2mV	0.017%
100%	11.958V	11.958V	11.959V	11.959V	1mV	0.008%
Load regulation	66mV	65mV	65mV	65mV		
	0.550%	0.542%	0.542%	0.542%		

2. Temperature drift

Conditions Vin : 100 VAC
Iout : 100 %

Ta	-20°C	+25°C	+50°C	Temperature stability	
Vout	11.993V	11.958V	11.948V	45mV	0.375%

3. Start up voltage and Drop out voltage

Conditions Ta : 25 °C
Iout : 100 %

Start up voltage (Vin)	77VAC
Drop out voltage (Vin)	71VAC

24V 1. Regulation - line and load Condition Ta : 25 °C

Iout \ Vin	90VAC	100VAC	200VAC	265VAC	Line regulation	
0%	23.967V	23.968V	23.969V	23.969V	2mV	0.008%
50%	23.945V	23.945V	23.945V	23.946V	1mV	0.004%
100%	23.930V	23.930V	23.931V	23.931V	1mV	0.004%
Load regulation	37mV	38mV	38mV	38mV		
	0.154%	0.158%	0.158%	0.158%		

2. Temperature drift

Conditions Vin : 100 VAC
Iout : 100 %

Ta	-20°C	+25°C	+50°C	Temperature stability	
Vout	23.916V	23.930V	23.946V	30mV	0.125%

3. Start up voltage and Drop out voltage

Conditions Ta : 25 °C
Iout : 100 %

Start up voltage (Vin)	78VAC
Drop out voltage (Vin)	72VAC

48V 1. Regulation - line and load Condition Ta : 25 °C

Iout \ Vin	90VAC	100VAC	200VAC	265VAC	Line regulation	
0%	47.997V	47.997V	47.997V	47.997V	0mV	0.000%
50%	47.978V	47.978V	47.978V	47.979V	1mV	0.002%
100%	47.969V	47.969V	47.970V	47.970V	1mV	0.002%
Load regulation	28mV	28mV	27mV	27mV		
	0.058%	0.058%	0.056%	0.056%		

2. Temperature drift

Conditions Vin : 100 VAC
Iout : 100 %

Ta	-20°C	+25°C	+50°C	Temperature stability	
Vout	47.930V	47.969V	47.986V	56mV	0.117%

3. Start up voltage and Drop out voltage

Conditions Ta : 25 °C
Iout : 100 %

Start up voltage (Vin)	78VAC
Drop out voltage (Vin)	71VAC

(2) リップルノイズ電圧対入力電圧 Ripple noise voltage vs. Input voltage

Conditions

Iout : 100 %

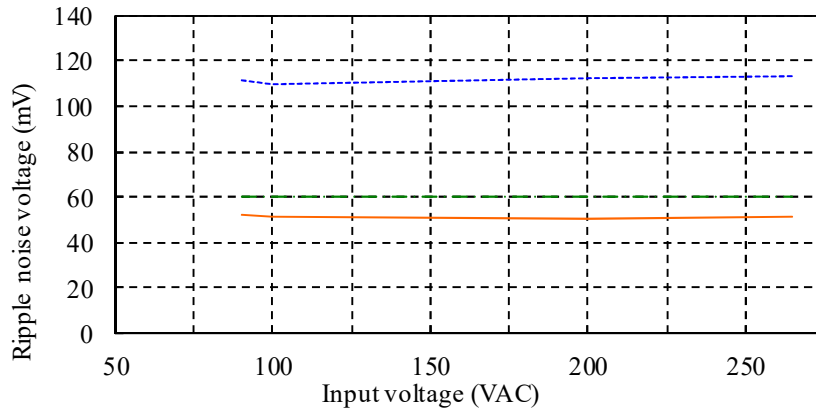
Ta : -20 °C

25 °C

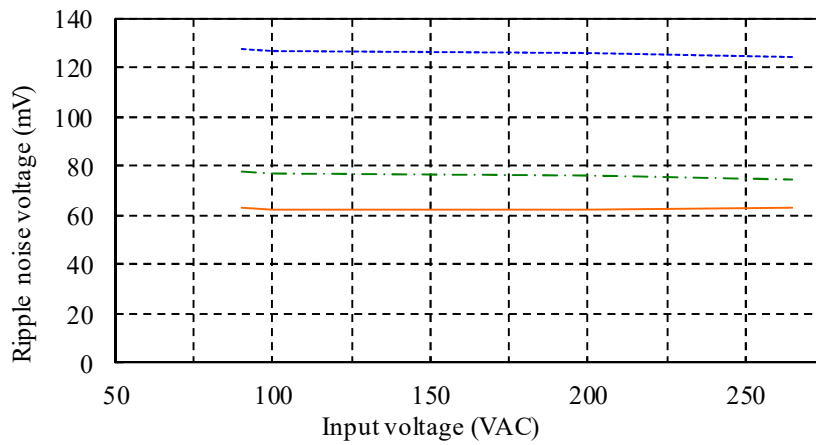
50 °C



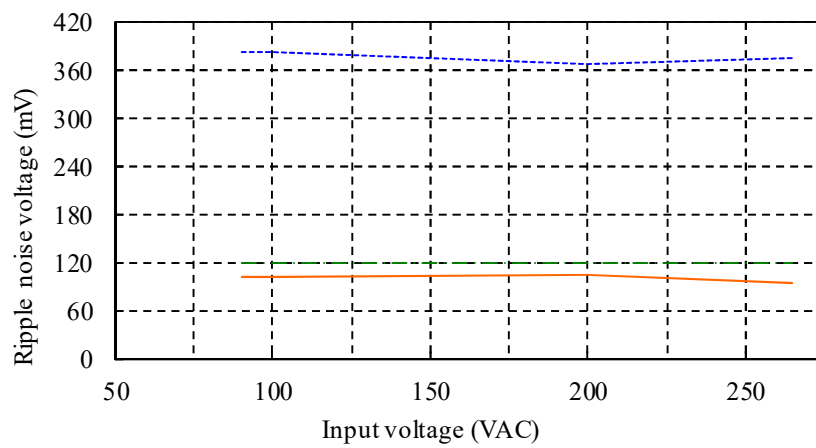
12V



24V



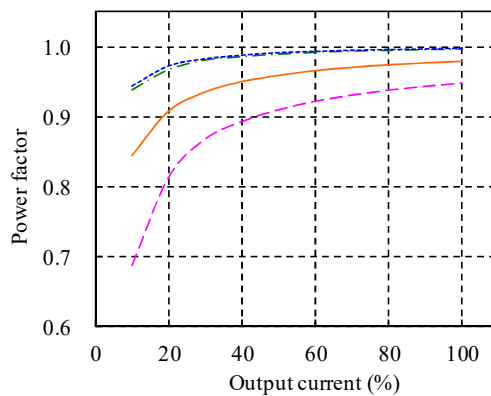
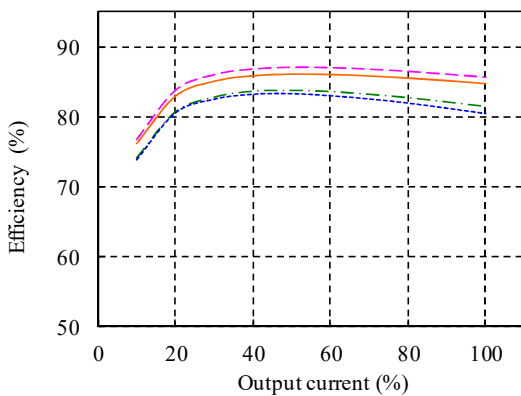
48V



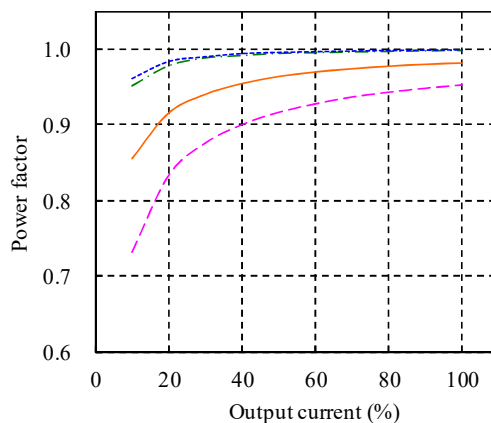
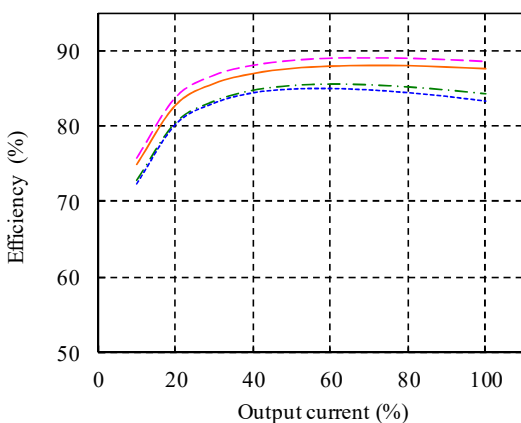
(3) 効率・力率対出力電流 Efficiency and Power factor vs. Output current

Conditions Vin : 90 VAC ---
 100 VAC - - -
 200 VAC ---
 265 VAC - - -
 Ta : 25 °C

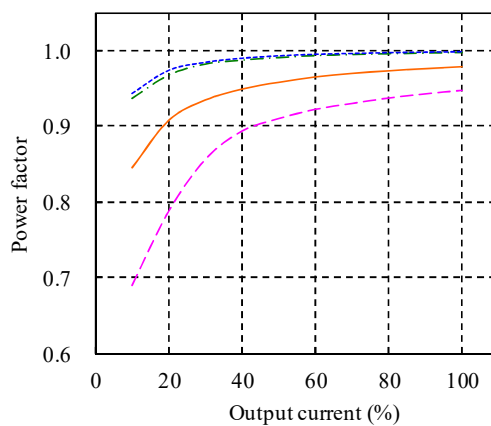
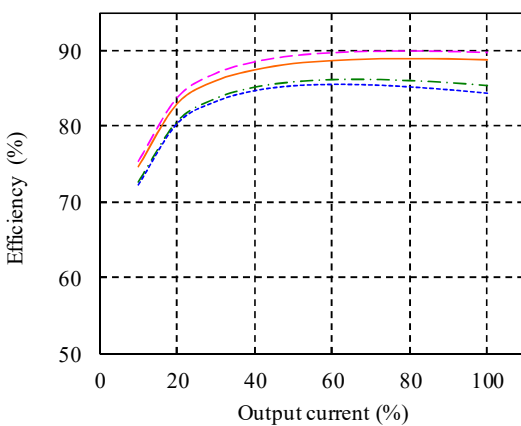
12V



24V



48V

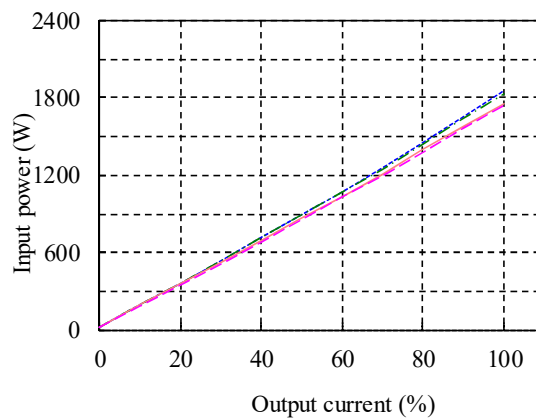


(4) 入力電力対出力電流 Input power vs. Output current

Conditions Vin : 90 VAC ---
 100 VAC ---
 200 VAC ---
 265 VAC ---
 Ta : 25 °C

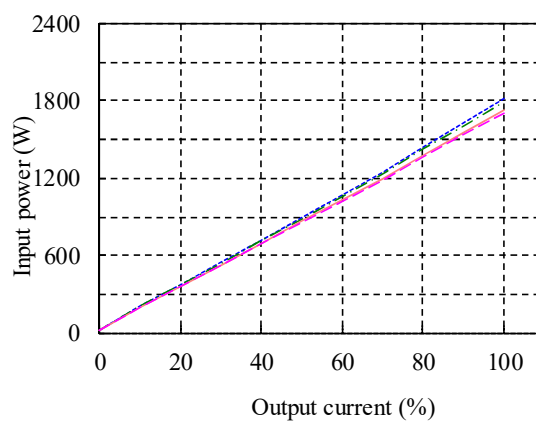
12V

Vin	Input power	
	Iout : 0%	Control OFF*
90VAC	24.4W	2.8W
100VAC	24.3W	2.6W
200VAC	24.1W	2.8W
265VAC	23.3W	2.9W



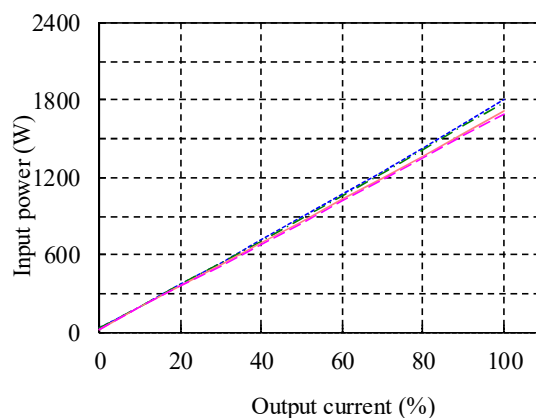
24V

Vin	Input power	
	Iout : 0%	Control OFF*
90VAC	26.7W	2.7W
100VAC	26.6W	2.7W
200VAC	26.4W	2.8W
265VAC	25.6W	2.8W



48V

Vin	Input power	
	Iout : 0%	Control OFF*
90VAC	29.8W	3.0W
100VAC	29.6W	2.9W
200VAC	29.2W	2.8W
265VAC	28.4W	2.9W



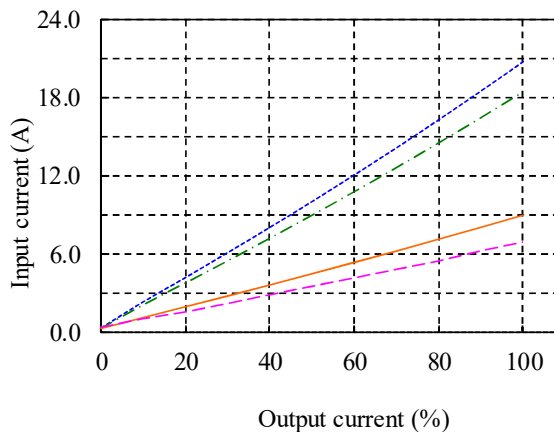
* 準標準品 RWS1500B-*/R, /RFO にて対応
 For option model RWS1500B-*/R, /RFO

(5) 入力電流対出力電流 Input current vs. Output current

Conditions Vin : 90 VAC ---
 100 VAC - - -
 200 VAC ———
 265 VAC - · - ·
 Ta : 25 °C

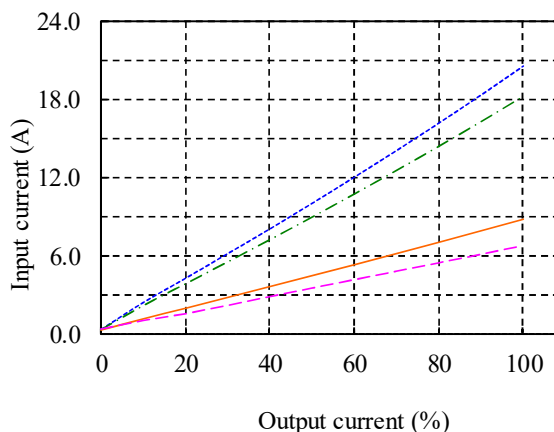
12V

Vin	Input current	
	Iout : 0%	Control OFF*
90VAC	0.35A	0.12A
100VAC	0.32A	0.13A
200VAC	0.32A	0.25A
265VAC	0.39A	0.33A



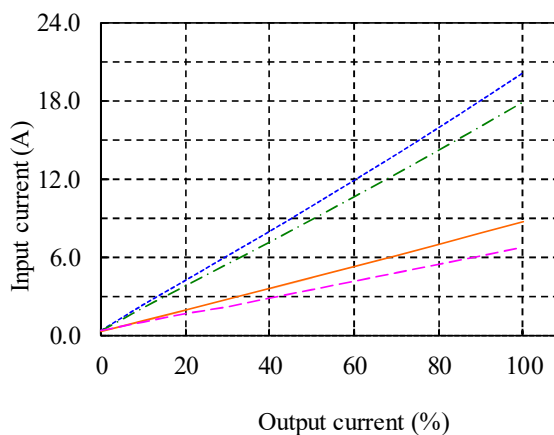
24V

Vin	Input current	
	Iout : 0%	Control OFF*
90VAC	0.38A	0.12A
100VAC	0.37A	0.13A
200VAC	0.32A	0.25A
265VAC	0.41A	0.33A



48V

Vin	Input current	
	Iout : 0%	Control OFF*
90VAC	0.41A	0.12A
100VAC	0.38A	0.13A
200VAC	0.34A	0.25A
265VAC	0.41A	0.32A

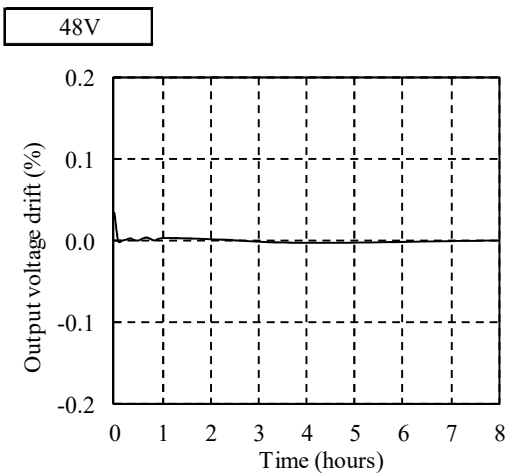
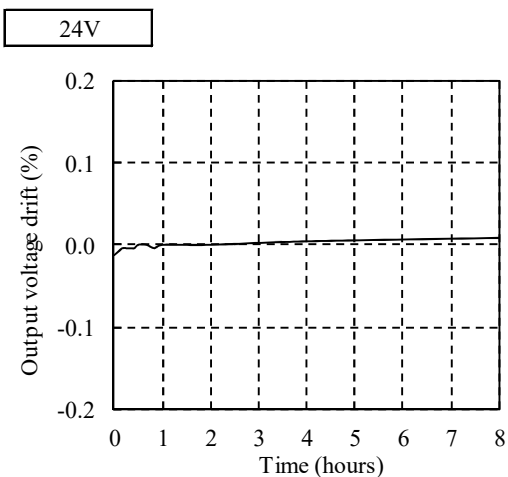
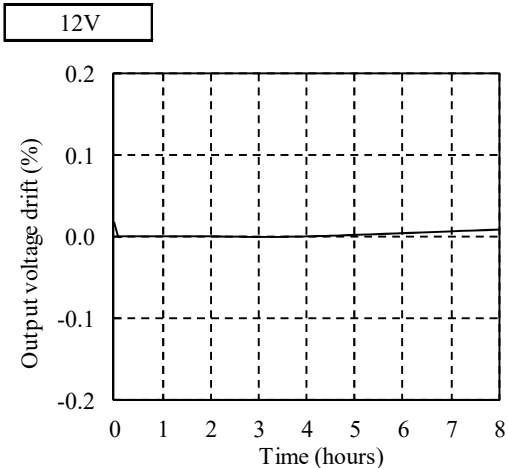


* 標準品 RWS1500B-*/R, /RFO にて対応
 For option model RWS1500B-*/R, /RFO

2-2. 通電ドリフト特性

Warm up voltage drift characteristics

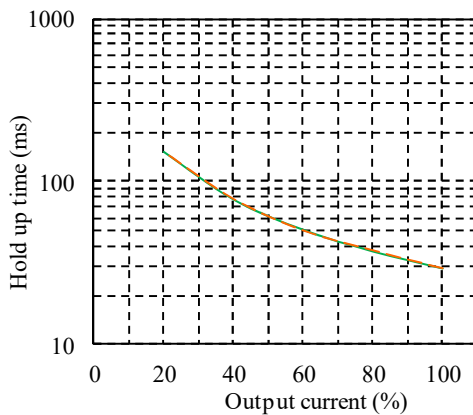
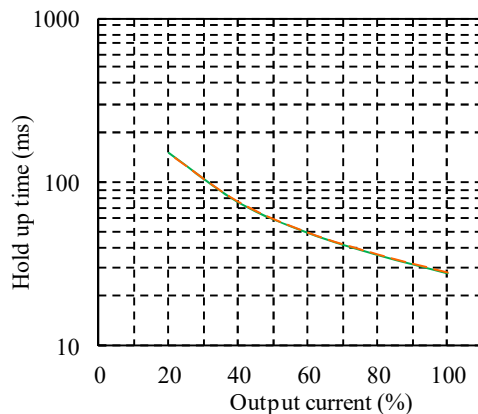
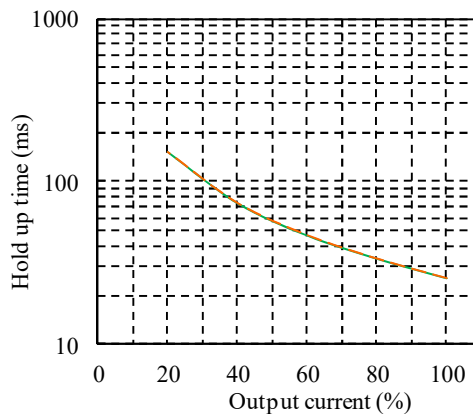
Conditions V_{in} : 100 VAC
 I_{out} : 100 %
 T_a : 25 °C



2-3. 出力保持時間特性

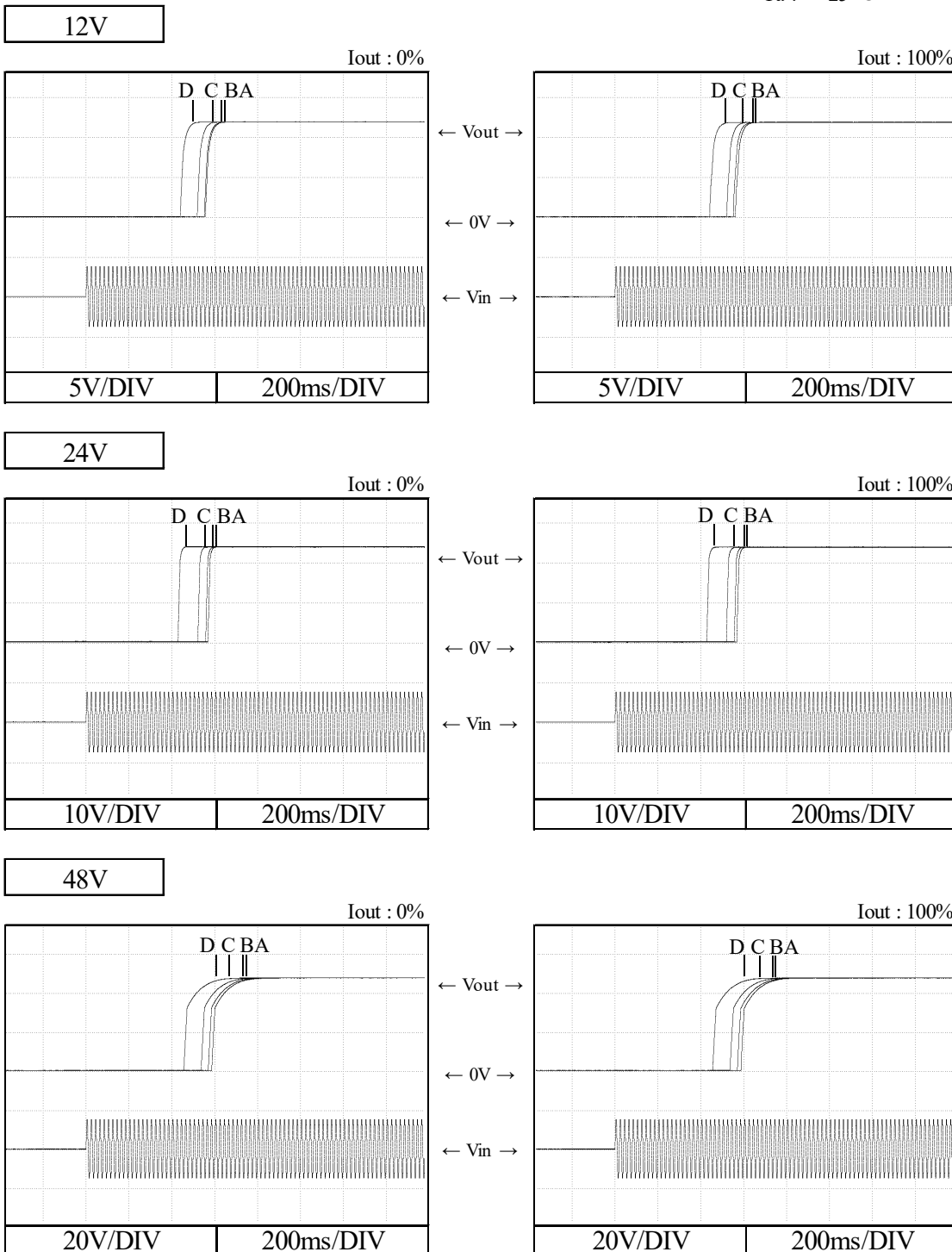
Hold up time characteristics

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



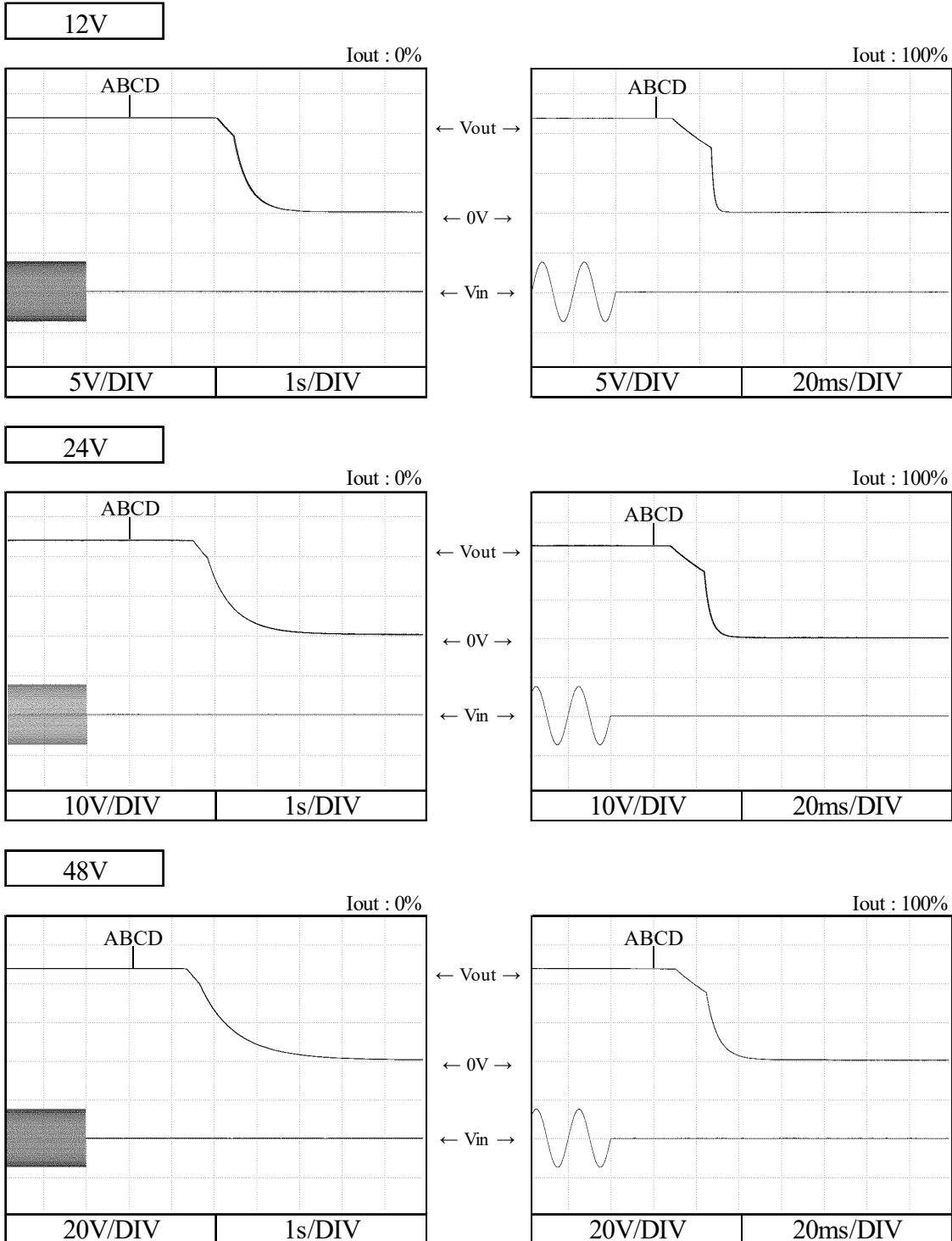
2-4. 出力立ち上がり特性 Output rise characteristics

Conditions V_{in} : 90 VAC (A)
 100 VAC (B)
 200 VAC (C)
 265 VAC (D)
 T_a : 25 °C



2-5. 出力立ち下がり特性 Output fall characteristics

Conditions Vin : 90 VAC (A)
 100 VAC (B)
 200 VAC (C)
 265 VAC (D)
 Ta : 25 °C



2-6. ON/OFFコントロール時出力立ち上がり、立下がり特性

Output rise, fall characteristics with ON/OFF Control

標準品 RWS1500B-*/R, /RFO にて対応

For option model RWS1500B-*/R, /RFO

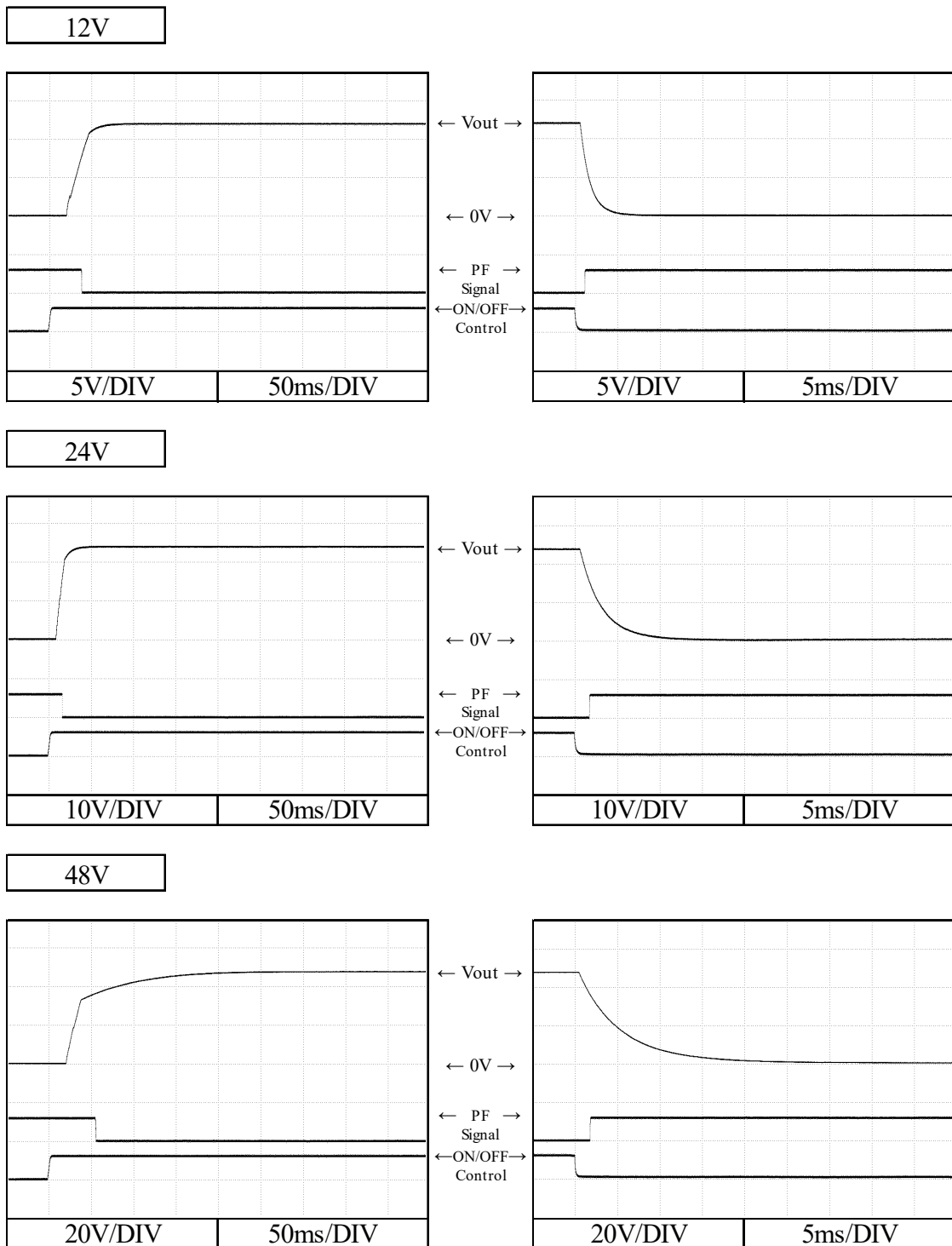
* PF信号は、RWS1500B-*/RFOのみ対応

PF signal is applied to only RWS1500B-*/RFO

Conditions Vin : 100 VAC

Iout : 100 %

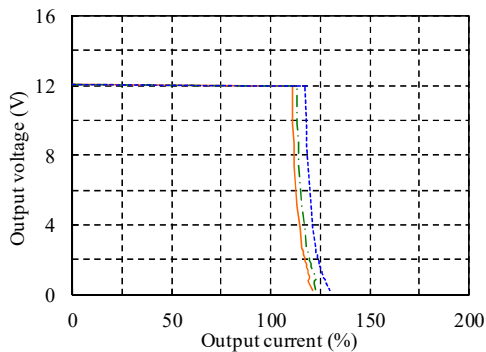
Ta : 25 °C



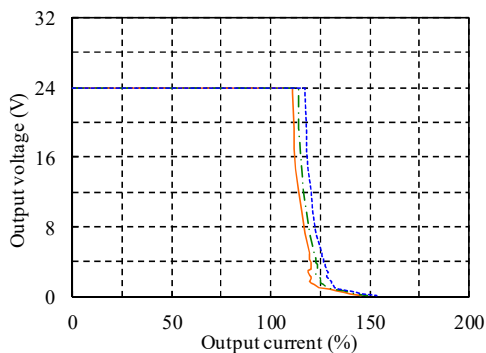
2-7. 過電流保護特性
Over current protection (OCP) characteristics

Conditions Vin : 100 VAC
 Ta : -20 °C ---
 25 °C - - -
 50 °C ———

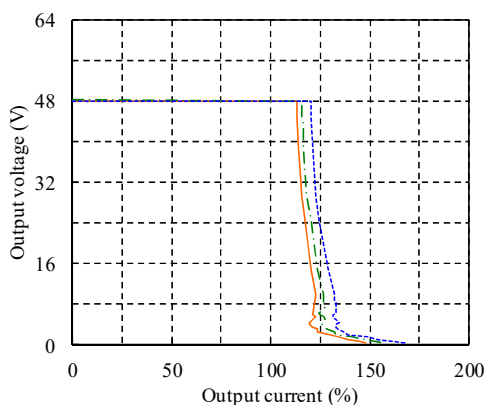
12V



24V

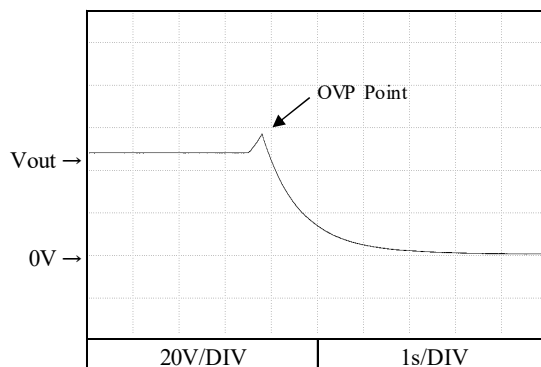
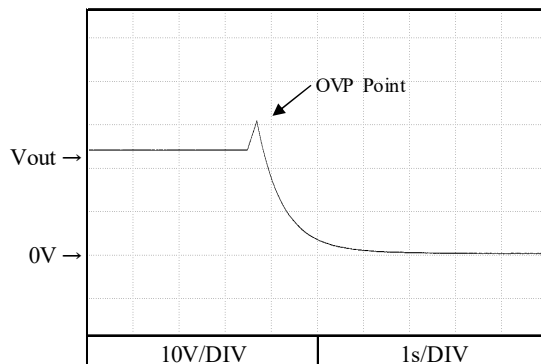
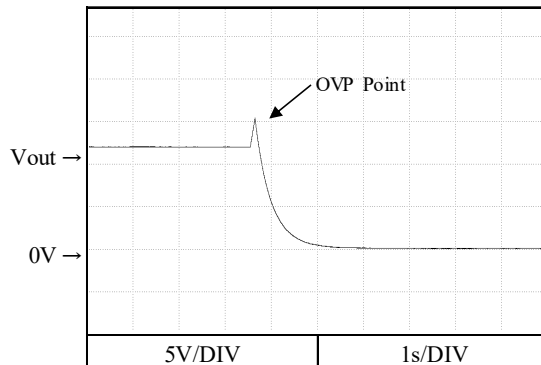


48V



2-8. 過電圧保護特性
Over voltage protection (OVP) characteristics

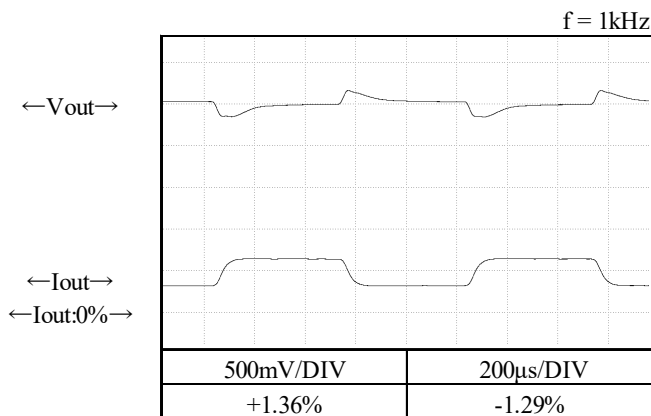
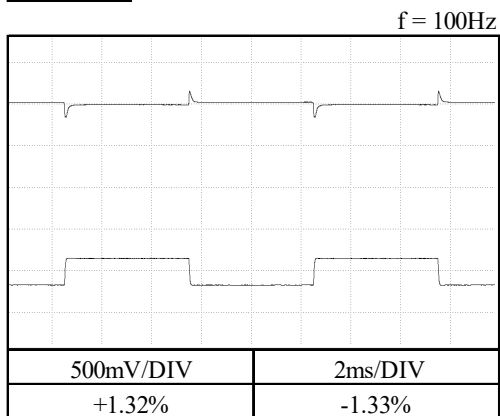
Conditions Vin : 100 VAC
 Iout : 0 %
 Ta : 25 °C



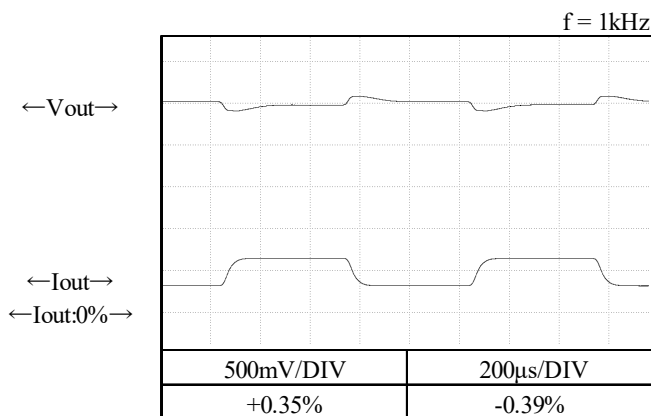
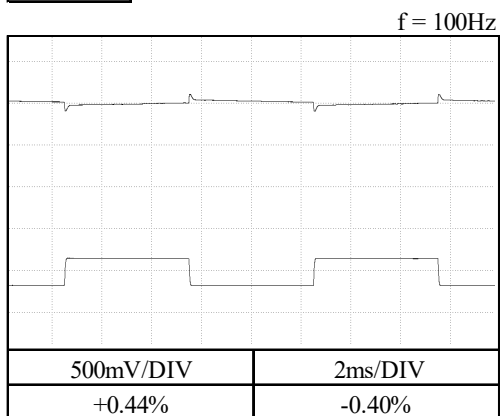
2-9. 過渡応答(負荷急変)特性 Dynamic load response characteristics

Conditions V_{in} : 100 VAC
 I_{out} : 50 % \leftrightarrow 100 %
 (tr = tf = 75us)
 T_a : 25 °C

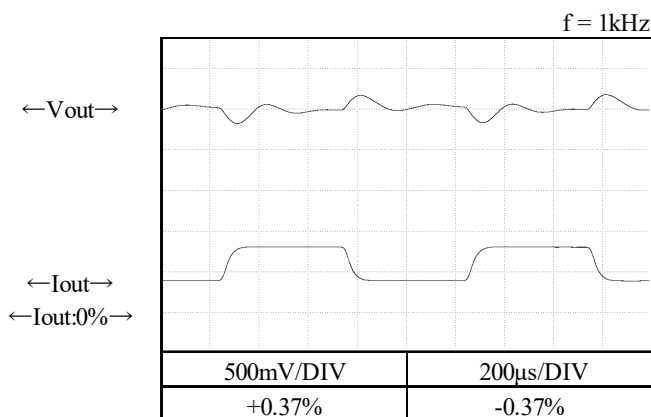
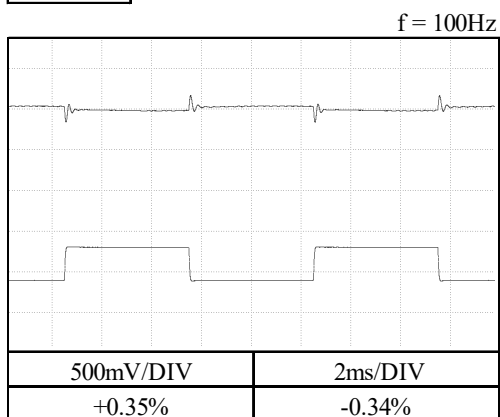
12V



24V



48V



2-10. 入力電圧瞬停特性 Response to brown out characteristics

Conditions Iout : 100%
Ta : 25 °C

瞬停時間 Interruption time

A : 出力電圧が低下なし Output voltage does not drop.

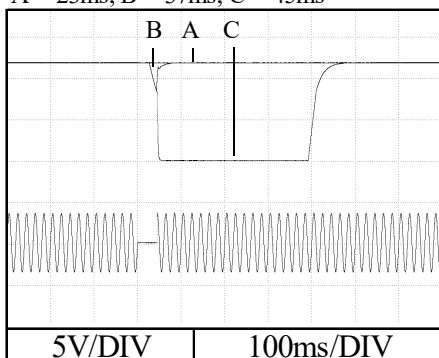
B : 出力電圧の低下が0Vまでいかない Output voltage drop down not reaching 0V.

C : 出力電圧が0Vまで低下 Output voltage drops until 0V.

12V

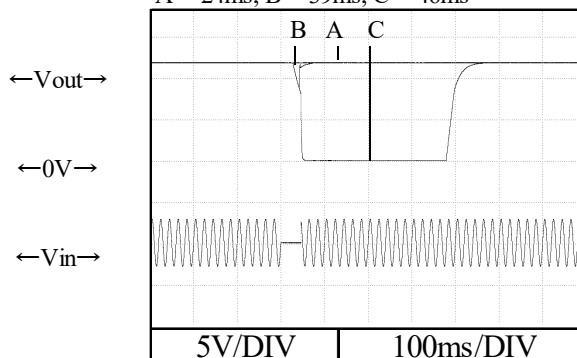
Vin : 100VAC

A = 23ms, B = 37ms, C = 45ms



Vin : 200VAC

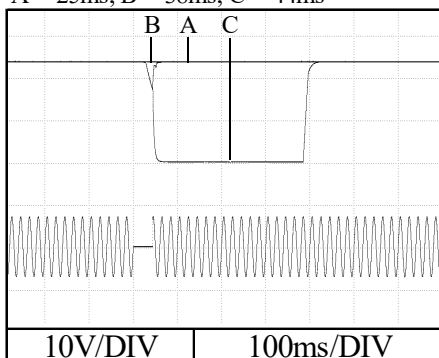
A = 24ms, B = 39ms, C = 46ms



24V

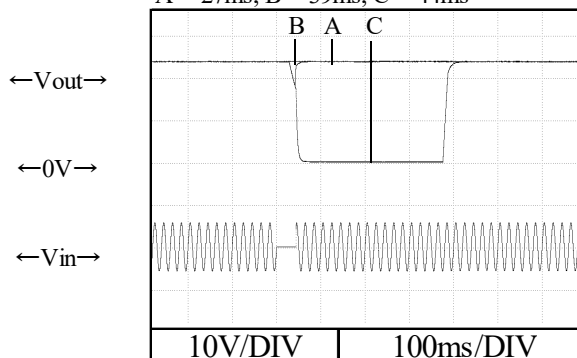
Vin : 100VAC

A = 25ms, B = 38ms, C = 44ms



Vin : 200VAC

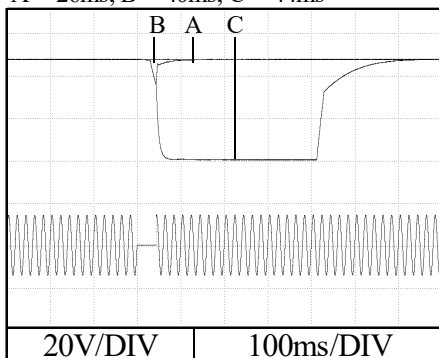
A = 27ms, B = 39ms, C = 44ms



48V

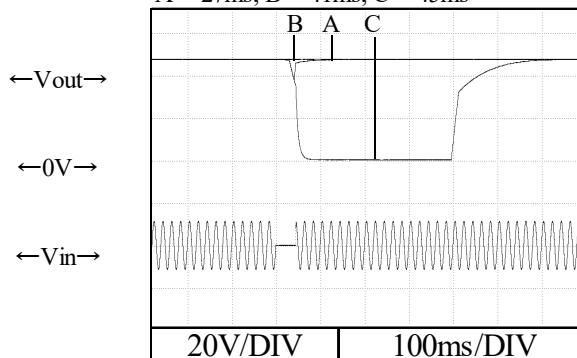
Vin : 100VAC

A = 26ms, B = 40ms, C = 44ms



Vin : 200VAC

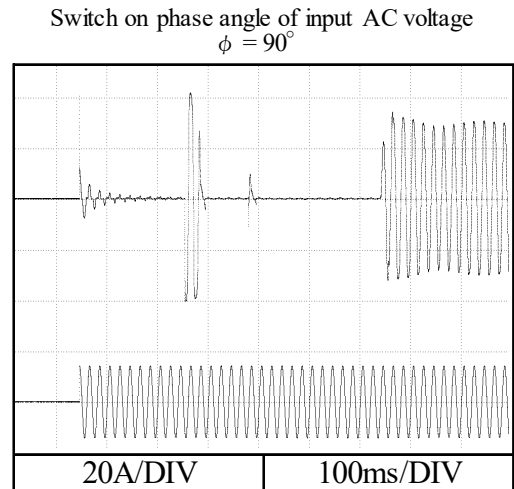
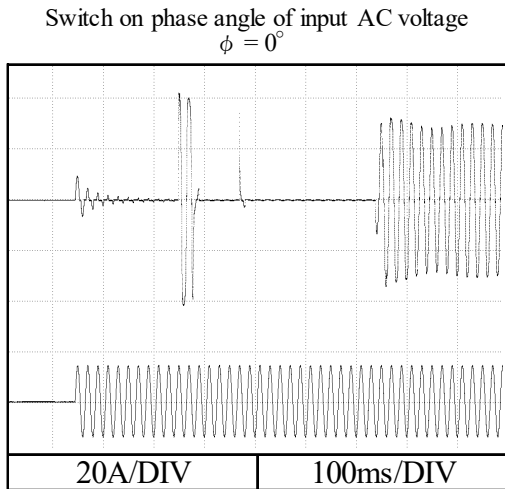
A = 27ms, B = 41ms, C = 45ms



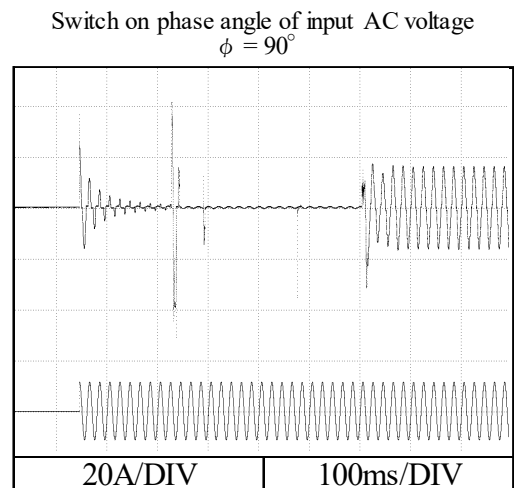
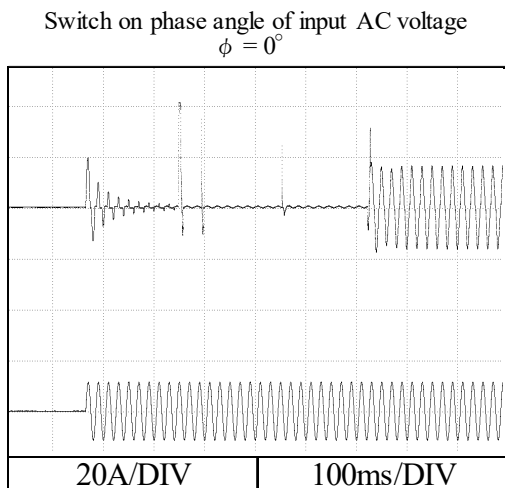
2-11. 入力サージ電流(突入電流)波形 Inrush current waveform

12V

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



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

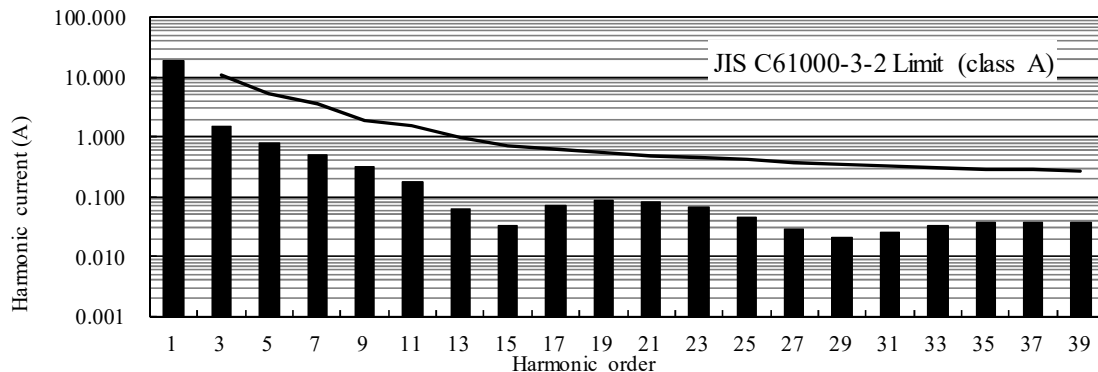


2-12. 高調波成分 Input current harmonics

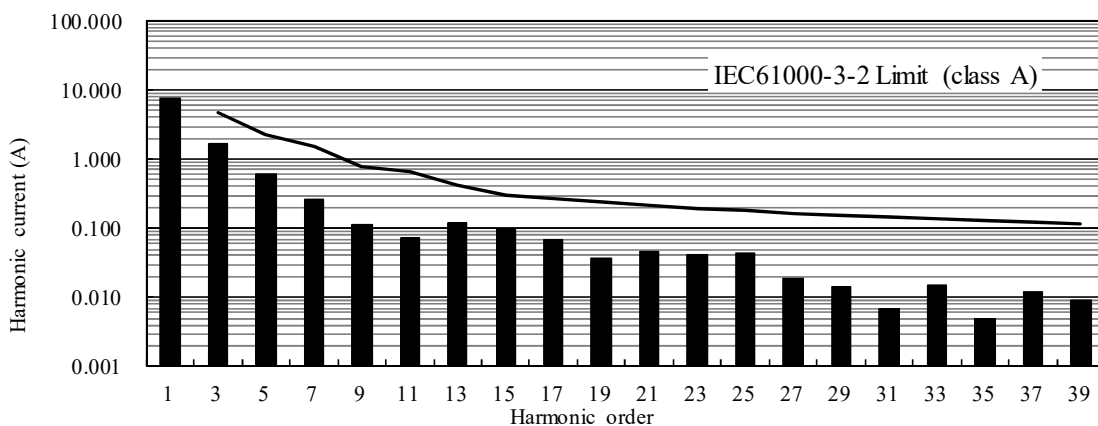
Conditions Iout : 100%
Ta : 25 °C

12V

Vin : 100 VAC



Vin : 230 VAC



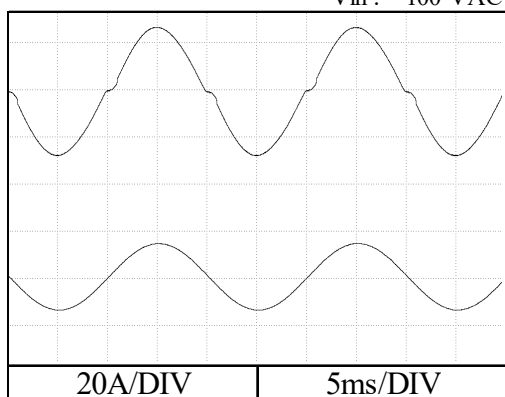
2-13. 入力電流波形 Input current waveform

Conditions Iout : 100%
Ta : 25 °C

12V

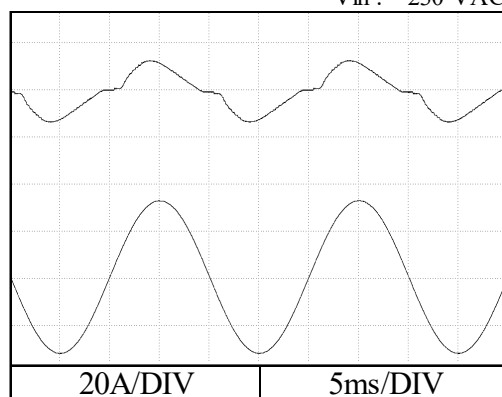
Vin : 100 VAC

Vin : 230 VAC



←In→

←Vin→

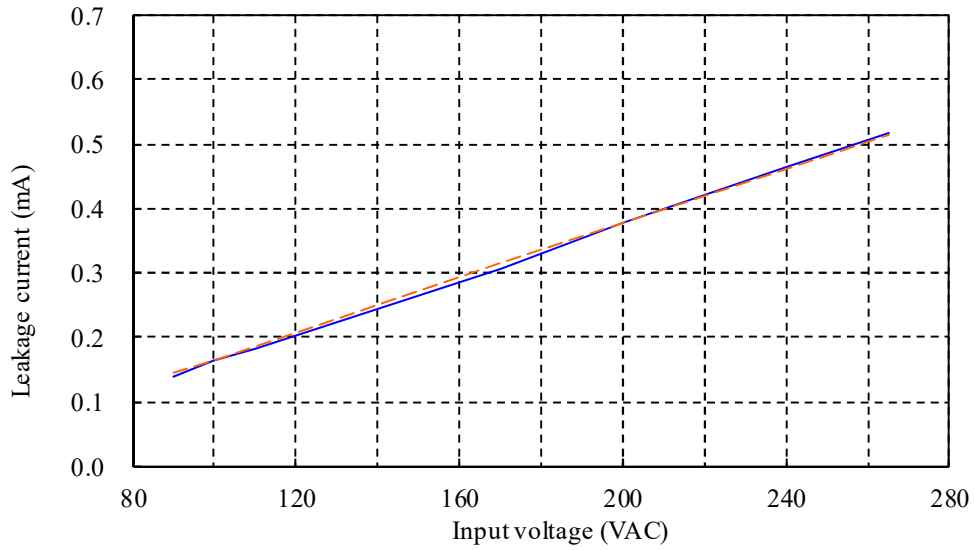


2-14. リーク電流特性 Leakage current characteristics

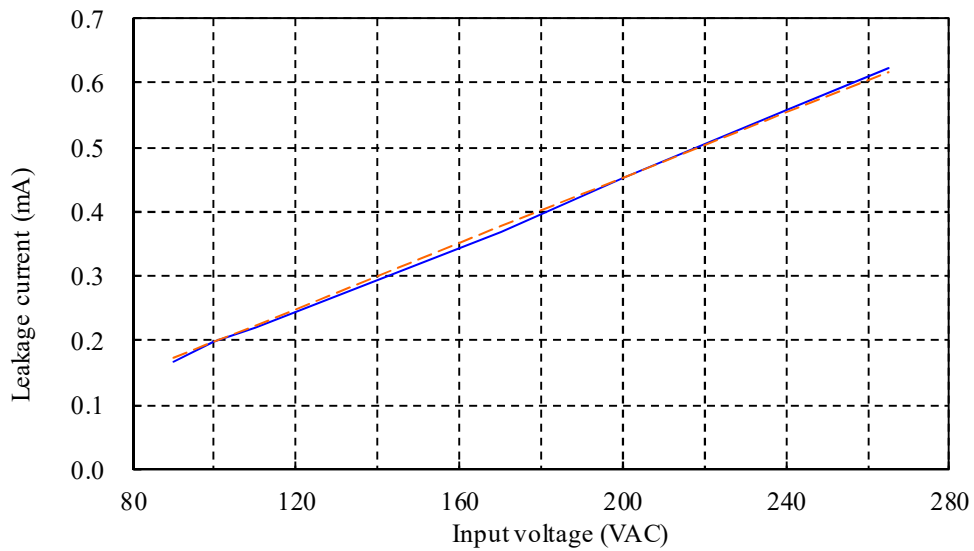
Conditions Iout : 0 % ———
 100 % - - - - -
 Ta : 25 °C
 Equipment used : 3156 (HIOKI)

12V

f: 50 Hz



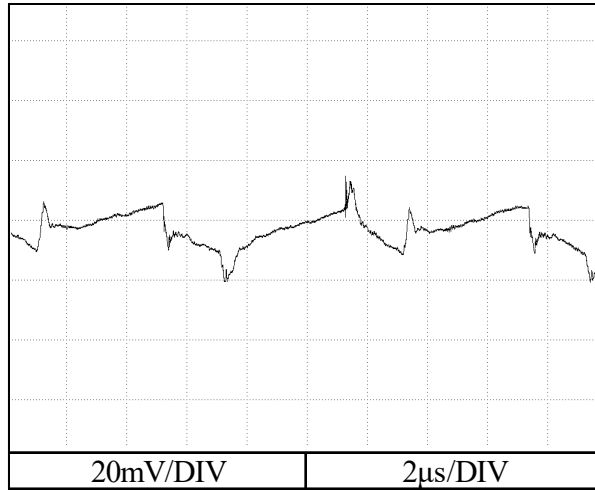
f: 60 Hz



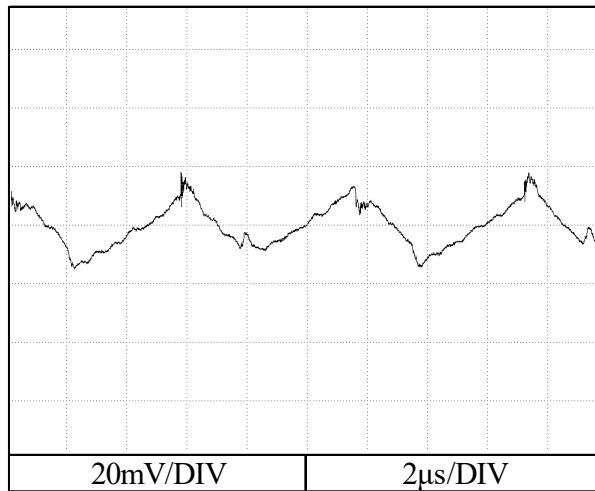
2-15. 出力リップル、ノイズ波形 Output ripple and noise waveform

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

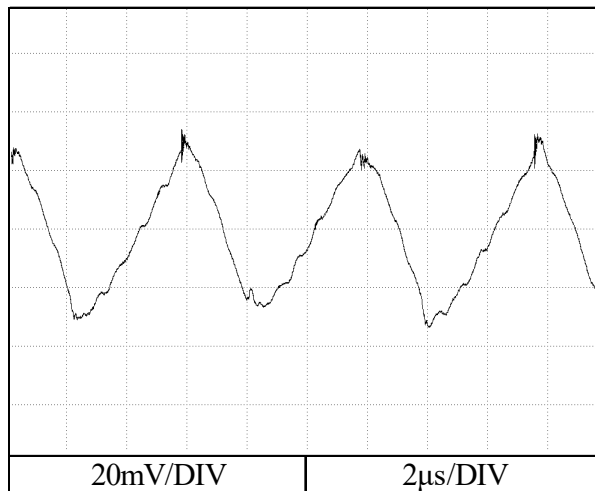
12V



24V



48V



2-16. EMI特性 Electro-Magnetic Interference characteristics

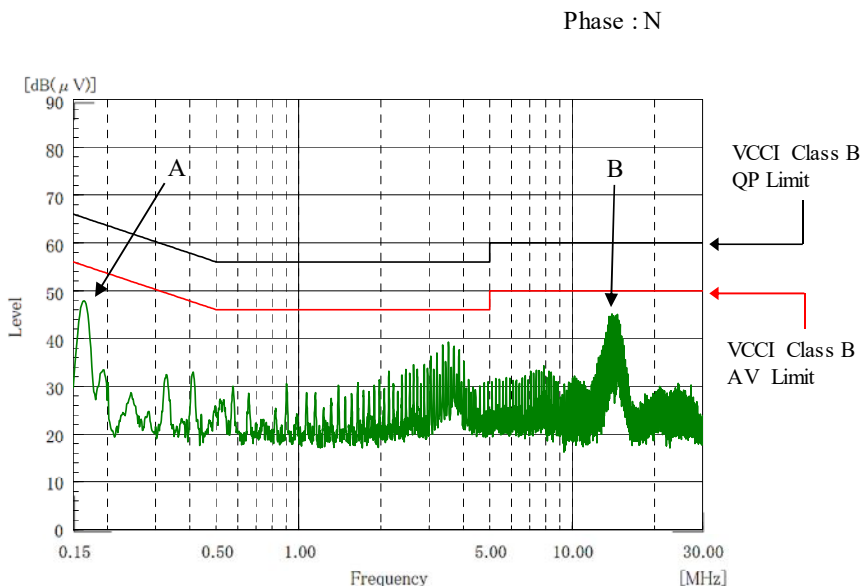
Conditions Vin : 230 VAC
 Iout : 100 %
 Ta : 25 °C

雑音端子電圧
 Conducted Emission

12V

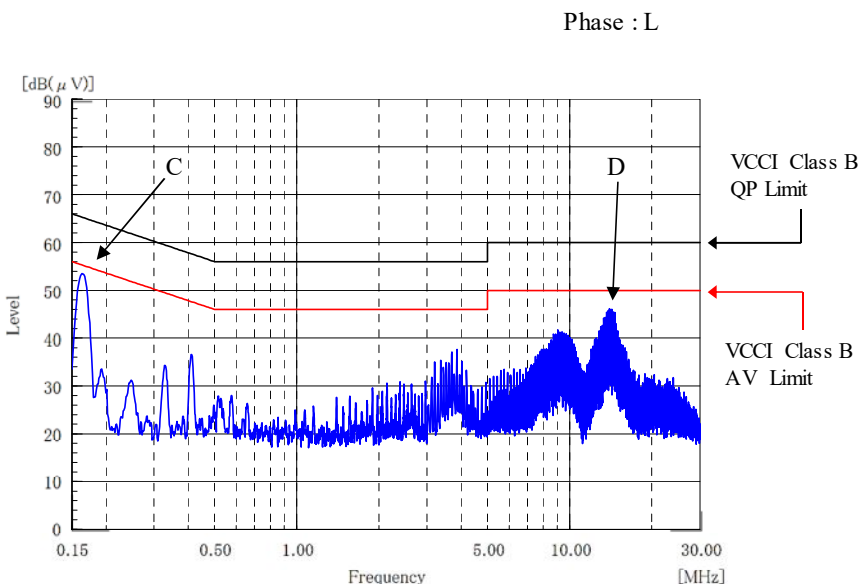
Point A (165kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	65.2	47.0
AV	55.2	46.9

Point B (14.0MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	60.0	43.8
AV	50.0	41.6



Point C (163kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	65.3	51.7
AV	55.3	49.7

Point D (14.0MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	60.0	44.9
AV	50.0	42.7



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

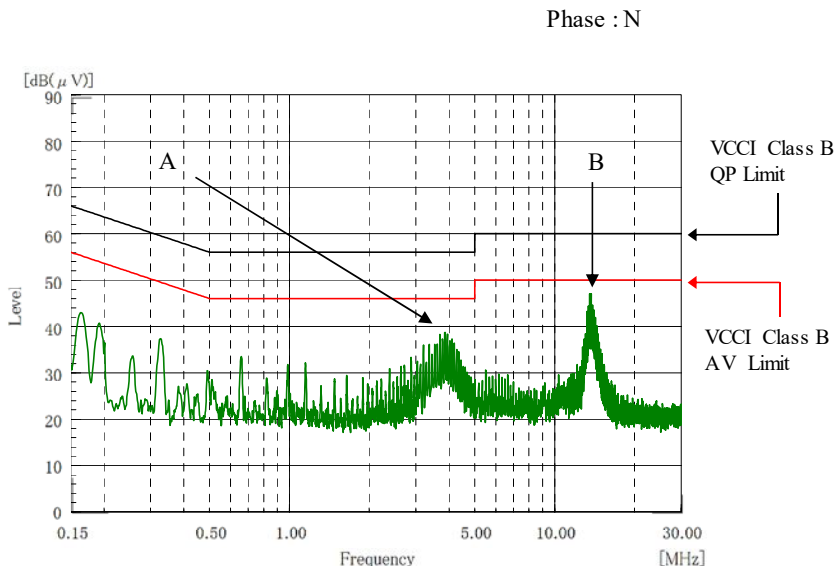
Conditions Vin : 230 VAC
 Iout : 100 %
 Ta : 25 °C

雑音端子電圧
 Conducted Emission

24V

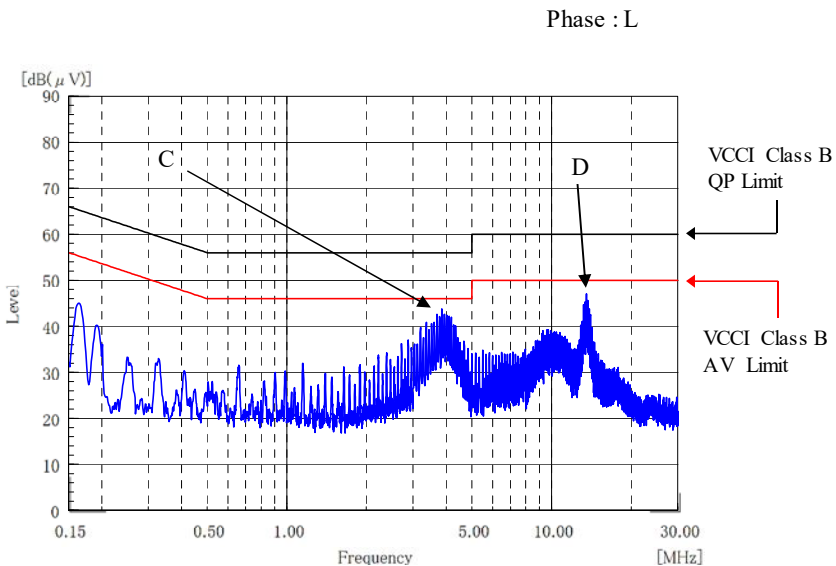
Point A (3.9MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	36.9
AV	46.0	35.8

Point B (13.7MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	60.0	45.3
AV	50.0	40.4



Point C (3.9MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	41.9
AV	46.0	40.5

Point D (13.5MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	60.0	45.9
AV	50.0	40.7



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

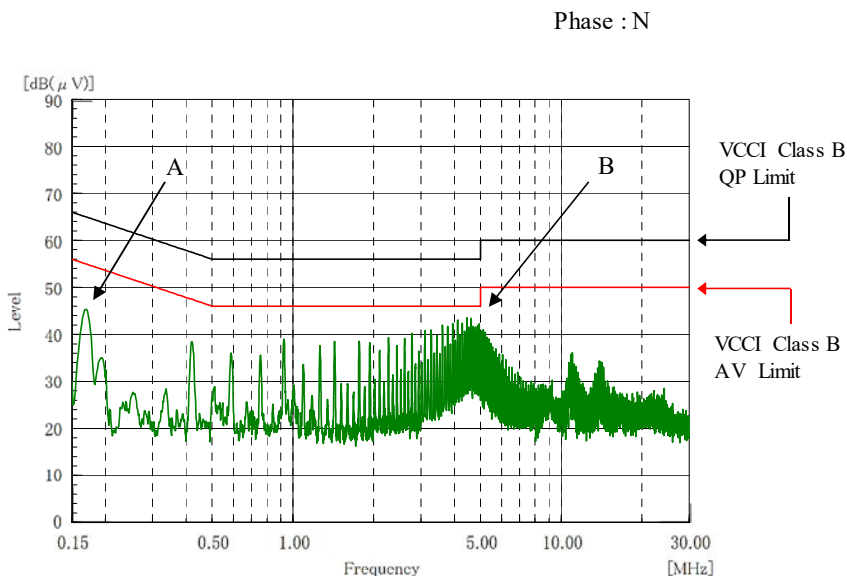
Conditions Vin : 230 VAC
 Iout : 100 %
 Ta : 25 °C

雑音端子電圧
 Conducted Emission

48V

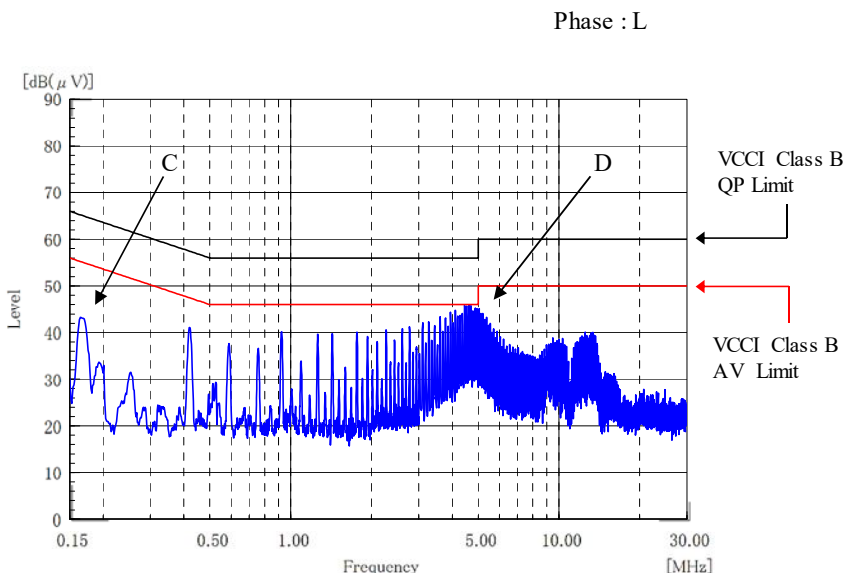
Point A (168kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	65.1	46.0
AV	55.1	44.0

Point B (4.5MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	42.0
AV	46.0	38.9



Point C (167kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	65.1	41.9
AV	55.1	36.9

Point D (4.6MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	43.8
AV	46.0	40.0



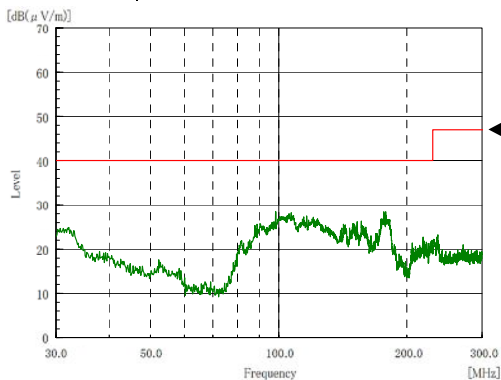
EN55011-B,EN55032-B,FCC-Bの限界値はVCCI class Bの限界値と同じ
 Limit of EN55011-B,EN55032-B,FCC-B are same as its VCCI class B.

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

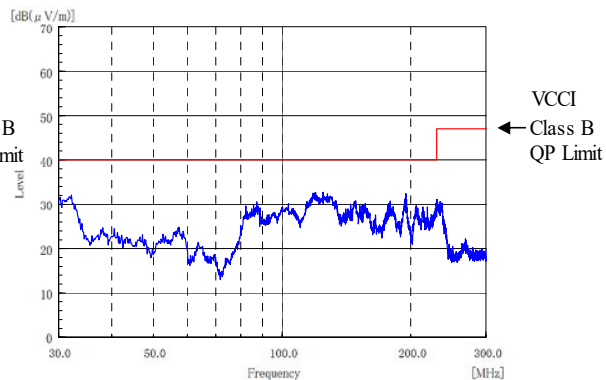
雑音電界強度
Radiated Emission

12V

HORIZONTAL

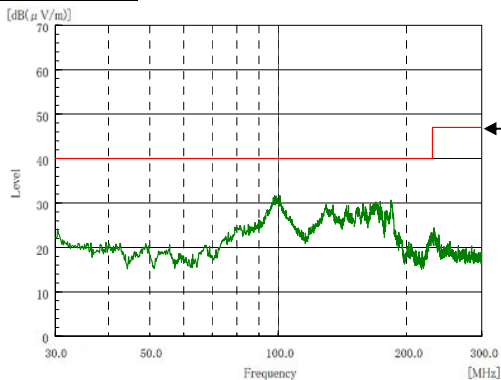


VERTICAL

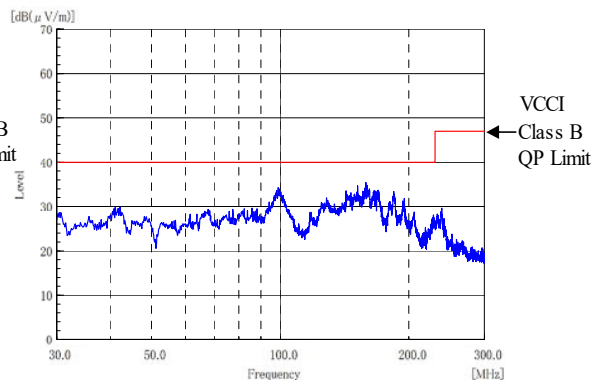


24V

HORIZONTAL

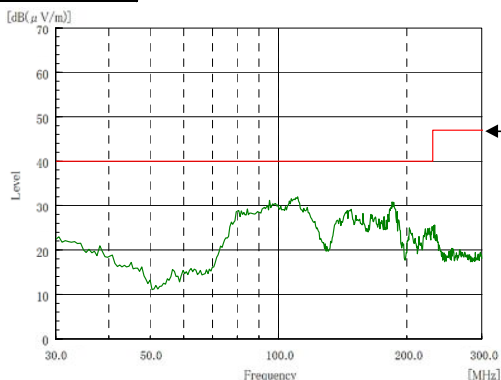


VERTICAL

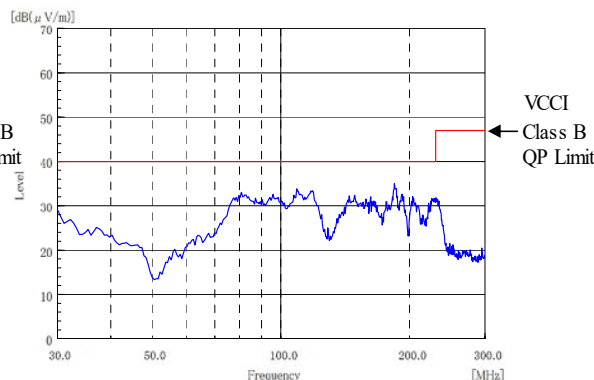


48V

HORIZONTAL



VERTICAL



EN55011-B,EN55032-Bの限界値はVCCI class Bの限界値と同じ
Limit of EN55011-B,EN55032-B are same as its VCCI class B.
表示はピーク値
Indication is peak values.

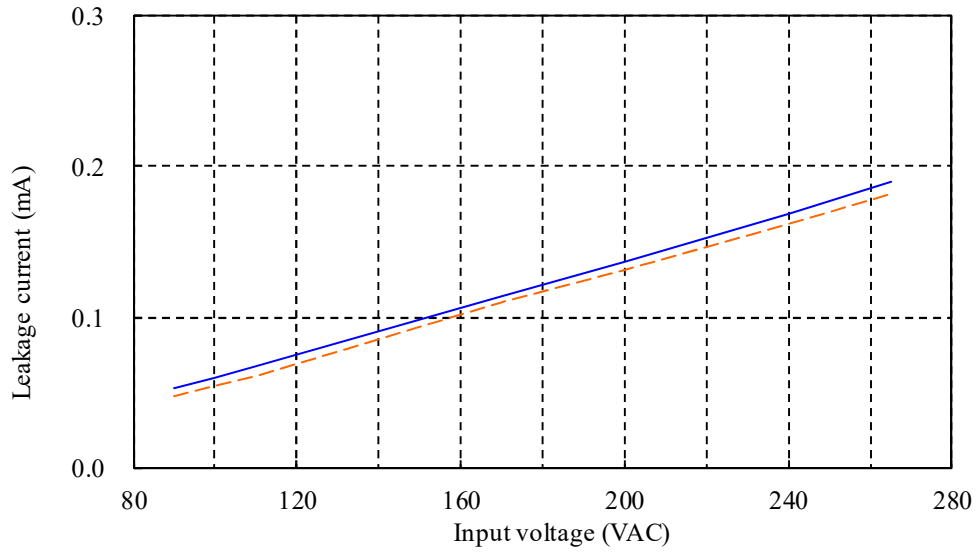
2-17. リーク電流特性 Leakage current characteristics

MODEL : RWS1500B/ME

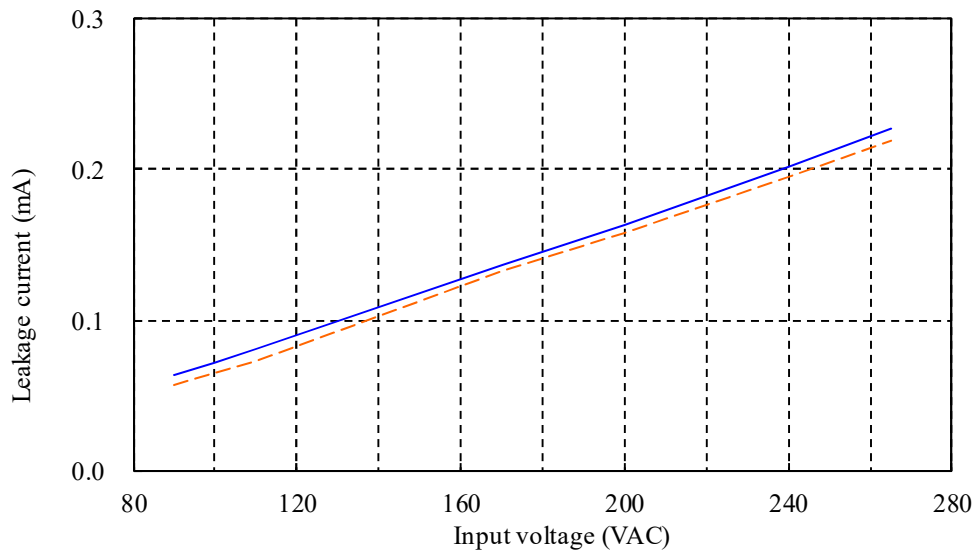
Conditions Iout : 0 % ———
100 % - - - - -
Ta : 25 °C
Equipment used : 3156 (HIOKI)

12V

f: 50 Hz



f: 60 Hz



2-18. EMI特性 Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC

Iout : 100 %

Ta : 25 °C

MODEL : RWS1500B/ME

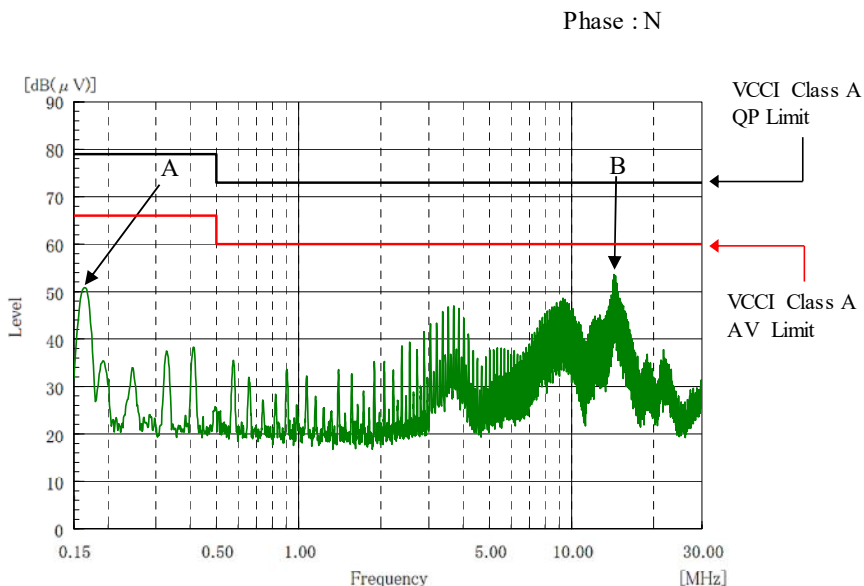
雑音端子電圧

Conducted Emission

12V

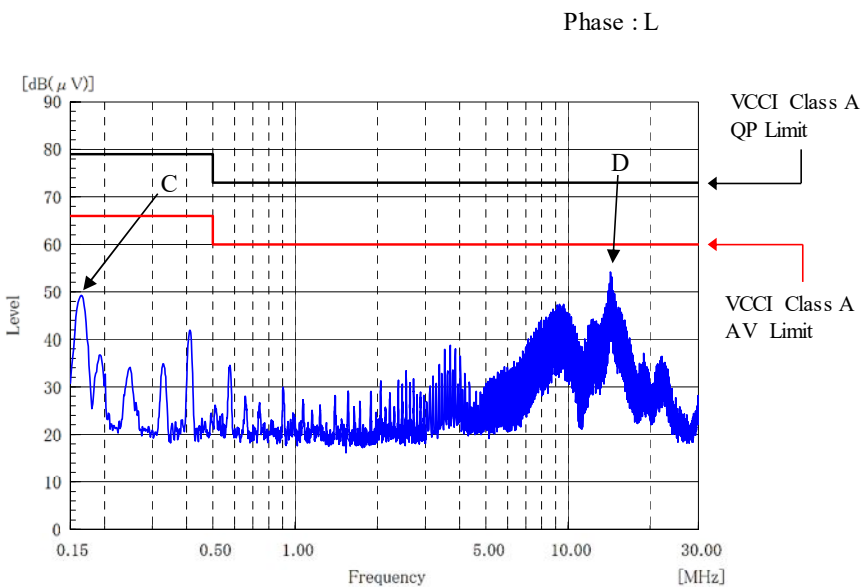
Point A (166kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	79.0	49.4
AV	66.0	48.2

Point B (14.3MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	73.0	52.8
AV	60.0	51.4



Point C (164kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	79.0	47.9
AV	66.0	47.5

Point D (14.3MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	73.0	52.8
AV	60.0	51.4



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

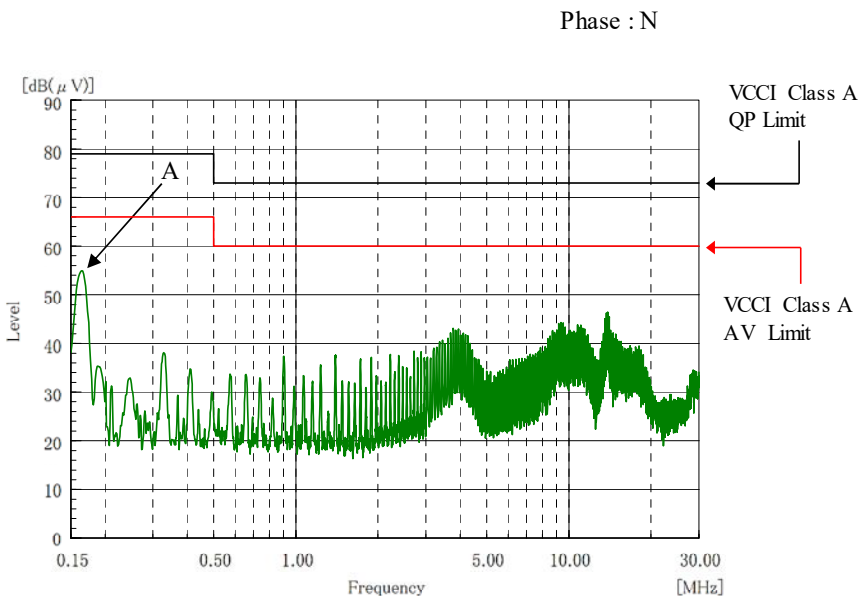
MODEL : RWS1500B/ME

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

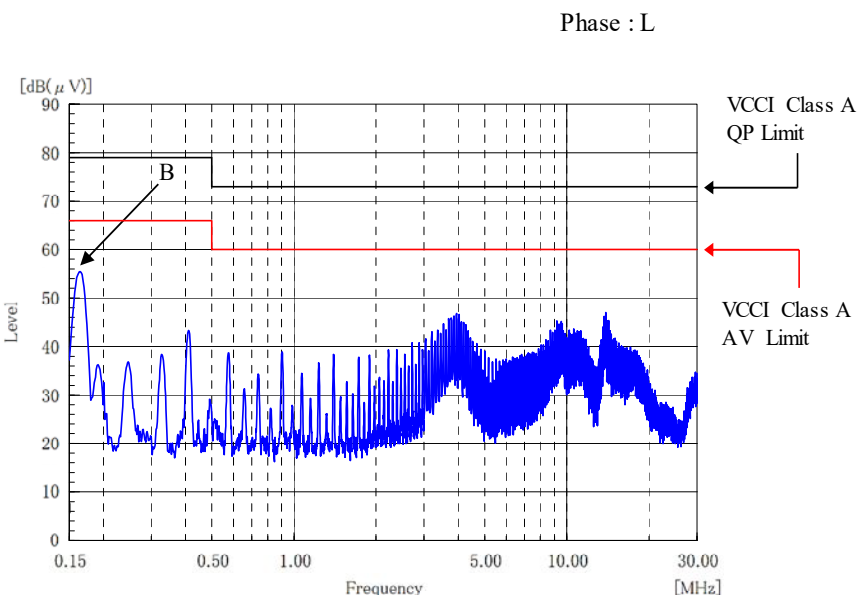
雑音端子電圧
Conducted Emission

24V

Point A (164kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	79.0	54.2
AV	66.0	54.2



Point B (164kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	79.0	55.1
AV	66.0	55.1



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

MODEL : RWS1500B/ME

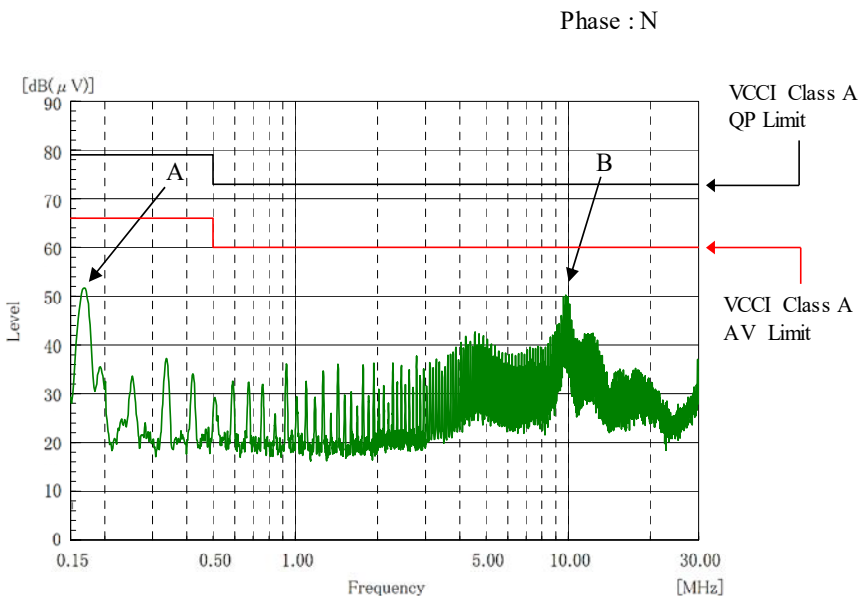
Conditions Vin : 230 VAC
Iout : 100 %
Ta : 25 °C

雑音端子電圧
Conducted Emission

48V

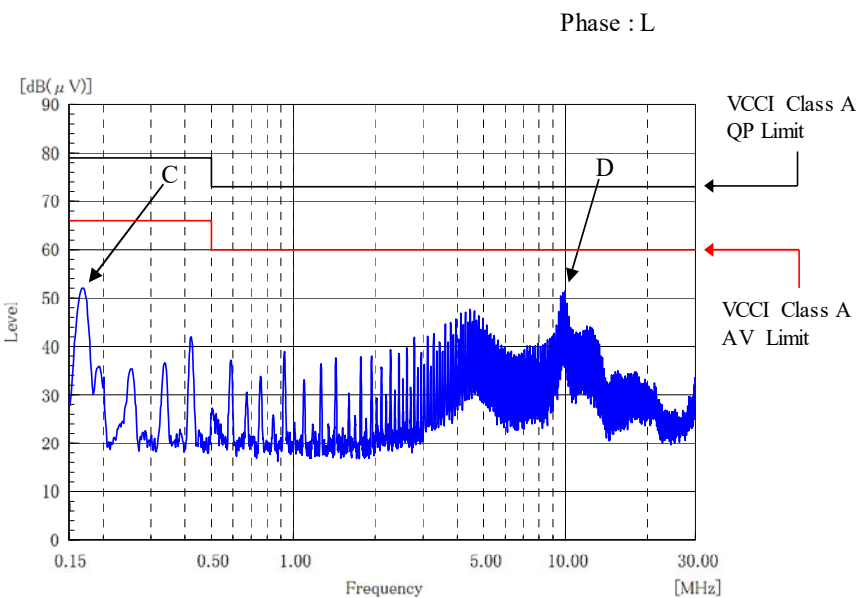
Point A (168kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	79.0	51.0
AV	66.0	51.0

Point B (9.9MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	73.0	49.8
AV	60.0	48.1



Point C (169kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	79.0	51.6
AV	66.0	51.6

Point D (9.9MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	73.0	50.3
AV	60.0	47.7



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

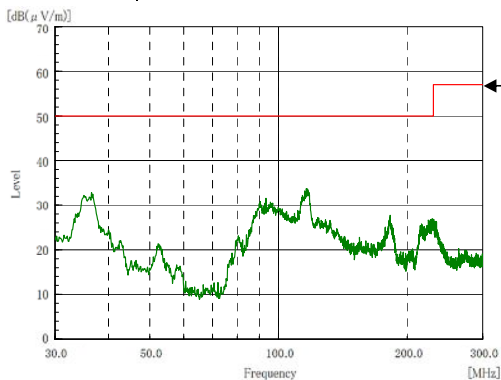
MODEL : RWS1500B/ME

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

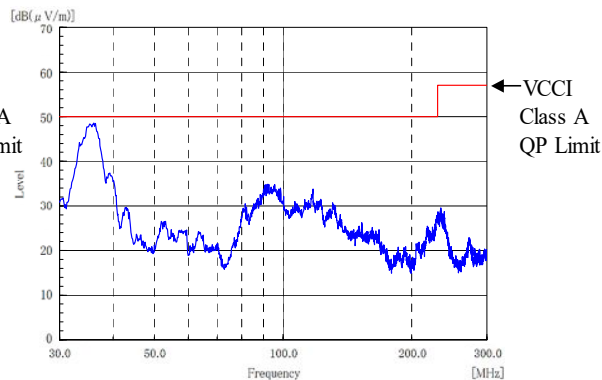
雑音電界強度
Radiated Emission

12V

HORIZONTAL

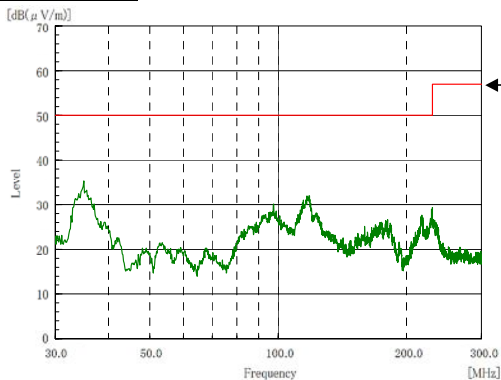


VERTICAL

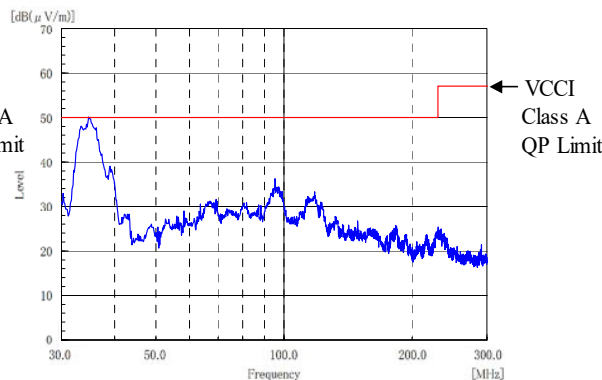


24V

HORIZONTAL

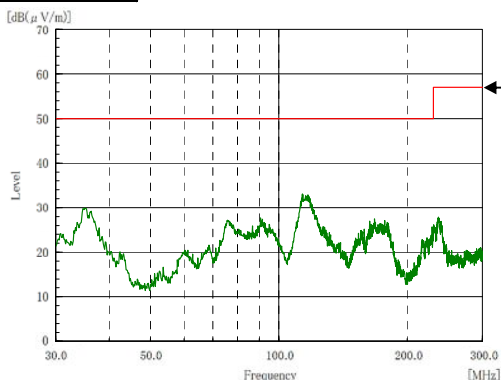


VERTICAL

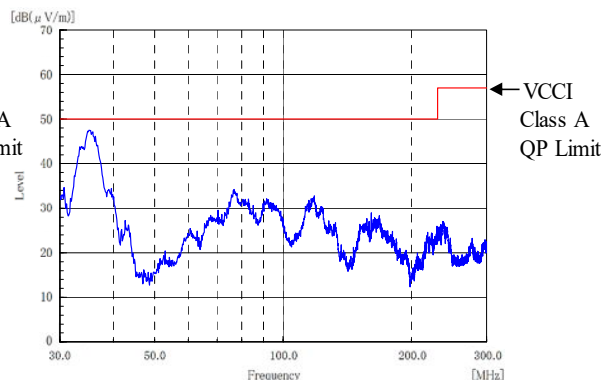


48V

HORIZONTAL



VERTICAL



EN55011-A,EN55032-Aの限界値はVCCI class Aの限界値と同じ
Limit of EN55011-A,EN55032-A are same as its VCCI class A.
表示はピーク値
Indication is peak values.

2-19. 無負荷時入力電力、電流 No load input power and current

MODEL : RWS1500B/S

Conditions Istb : 0 %
Ta : 25 °C

12V

Vin	Input power	
	Iout : 0%	Control OFF
90VAC	22.4W	4.2W
100VAC	22.2W	4.2W
200VAC	21.8W	3.9W
265VAC	20.9W	3.9W

Vin	Input current	
	Iout : 0%	Control OFF
90VAC	0.36A	0.23A
100VAC	0.37A	0.28A
200VAC	0.48A	0.44A
265VAC	0.53A	0.49A

24V

Vin	Input power	
	Iout : 0%	Control OFF
90VAC	25.0W	4.1W
100VAC	24.5W	4.1W
200VAC	24.6W	4.0W
265VAC	23.6W	4.0W

Vin	Input current	
	Iout : 0%	Control OFF
90VAC	0.39A	0.23A
100VAC	0.39A	0.28A
200VAC	0.48A	0.44A
265VAC	0.53A	0.49A

48V

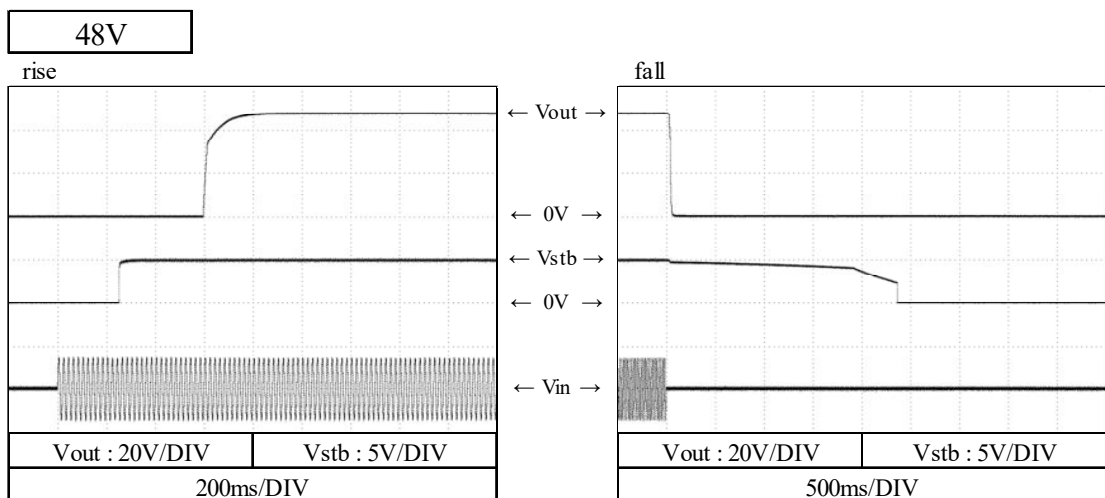
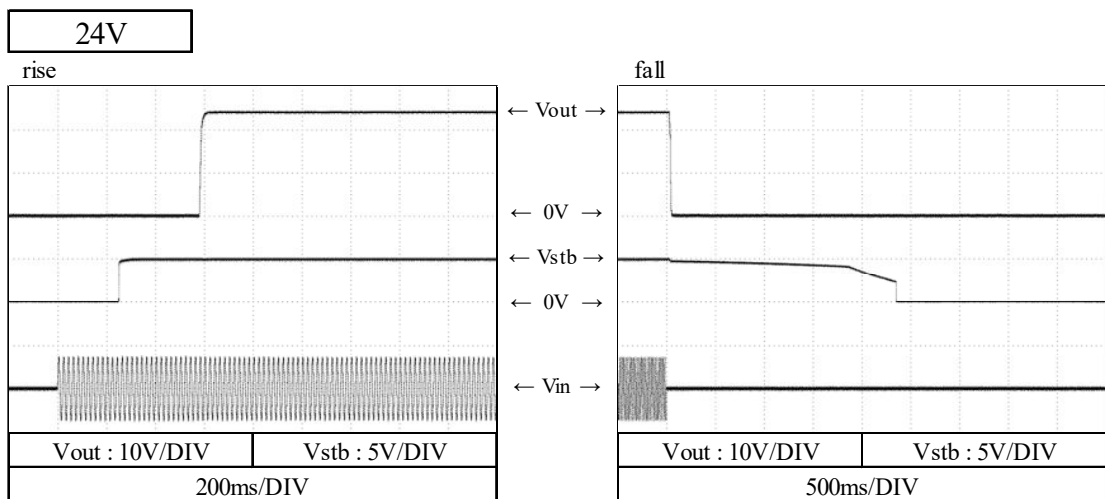
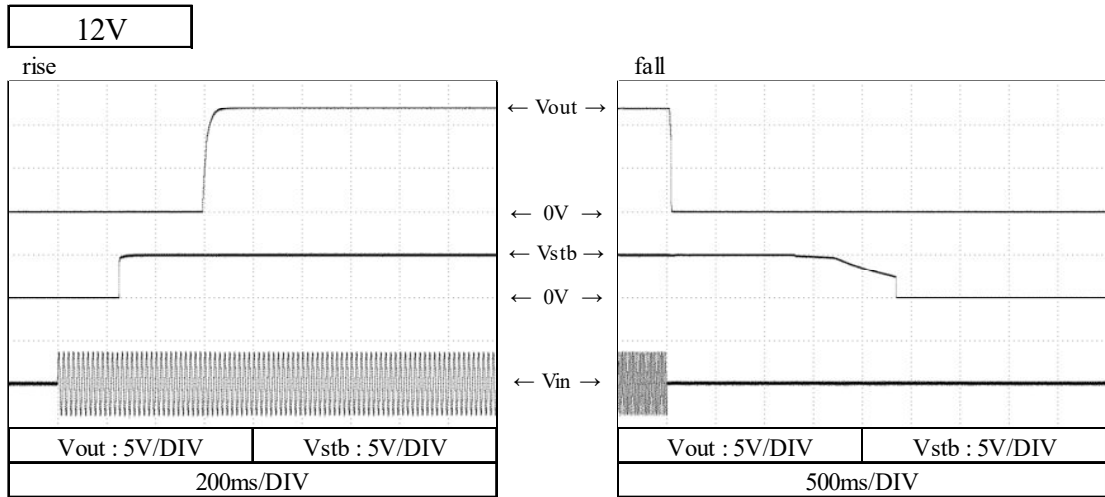
Vin	Input power	
	Iout : 0%	Control OFF
90VAC	30.6W	4.0W
100VAC	30.5W	4.0W
200VAC	30.1W	4.0W
265VAC	29.4W	3.9W

Vin	Input current	
	Iout : 0%	Control OFF
90VAC	0.48A	0.23A
100VAC	0.47A	0.28A
200VAC	0.49A	0.44A
265VAC	0.54A	0.49A

2-20. スタンバイ立ち上がり、立ち下がり特性 Standby rise, fall characteristics

MODEL : RWS1500B/S

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

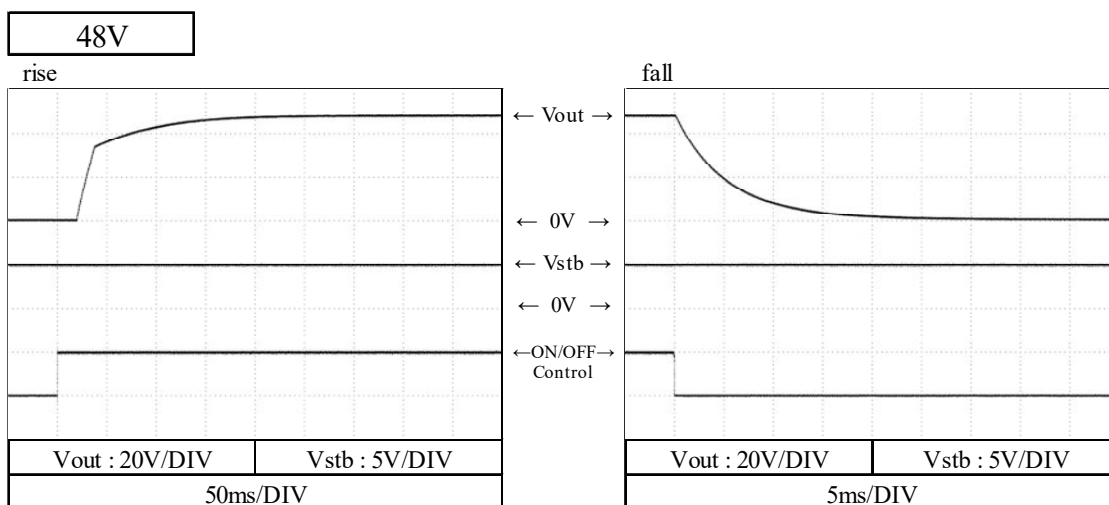
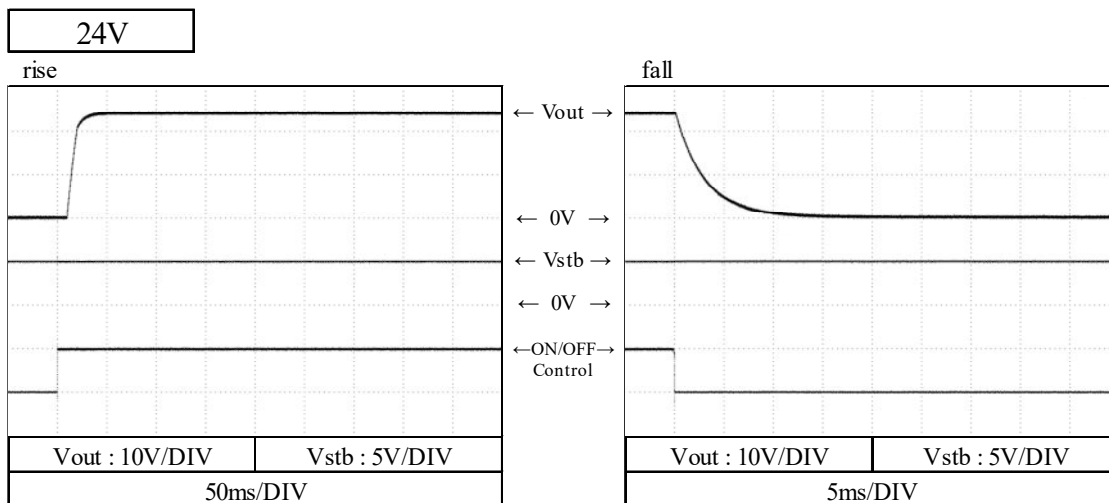
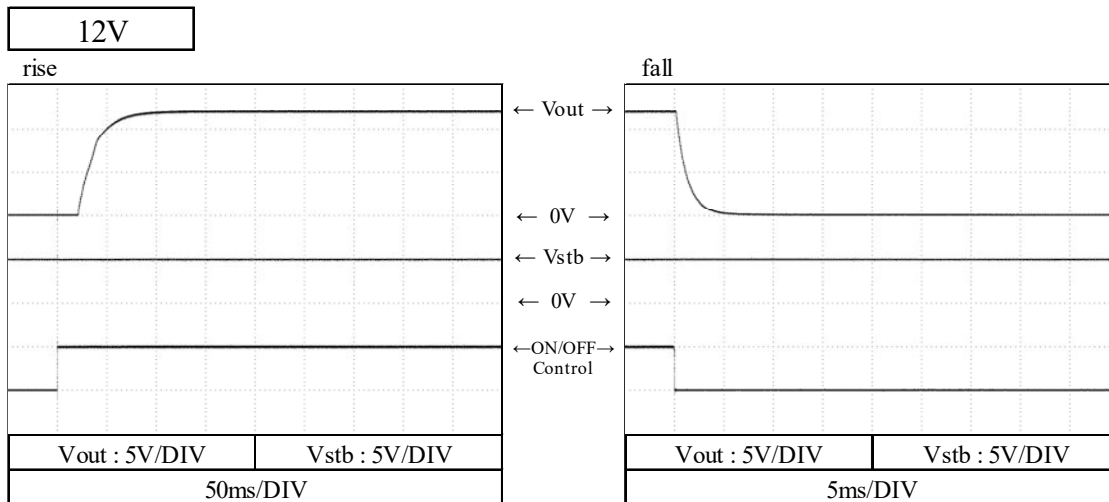


2-21. ON/OFFコントロール時出力立ち上がり、立下がり特性

Output rise, fall characteristics with ON/OFF Control

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

MODEL : RWS1500B/S



2-22. EMI特性 Electro-Magnetic Interference characteristics

MODEL : RWS1500B/S

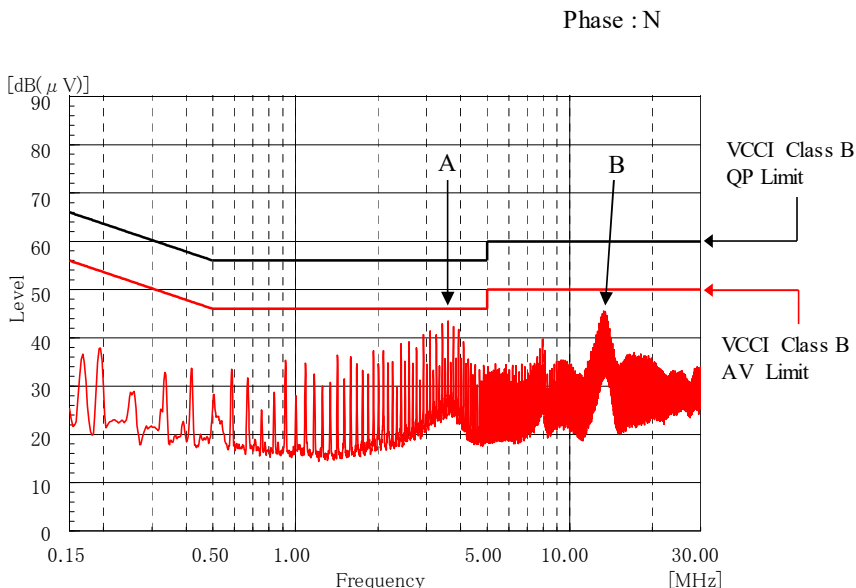
Conditions Vin : 230 VAC
 Iout : 100 %
 Istb : 100 %
 Ta : 25 °C

雑音端子電圧
 Conducted Emission

12V

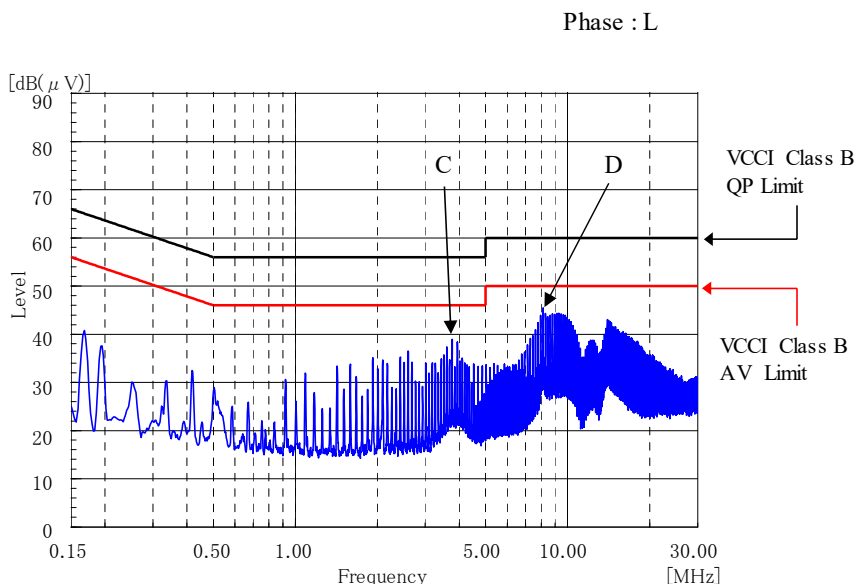
Point A (3.6MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	42.0
AV	46.0	41.2

Point B (13.5MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	60.0	44.0
AV	50.0	40.9



Point C (3.9MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	38.0
AV	46.0	35.8

Point D (8.1MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	60.0	45.0
AV	50.0	42.0



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

MODEL : RWS1500B/S

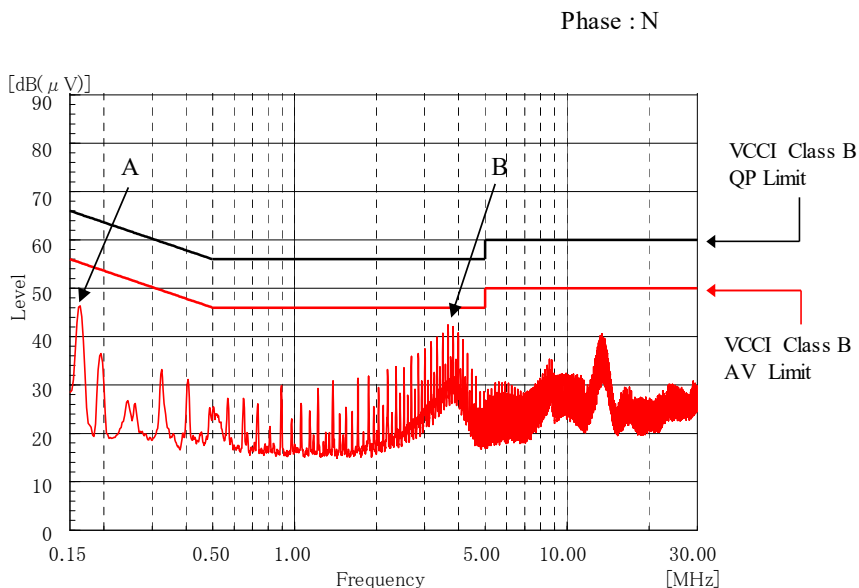
Conditions Vin : 230 VAC
 Iout : 100 %
 Istb : 100 %
 Ta : 25 °C

雑音端子電圧
 Conducted Emission

24V

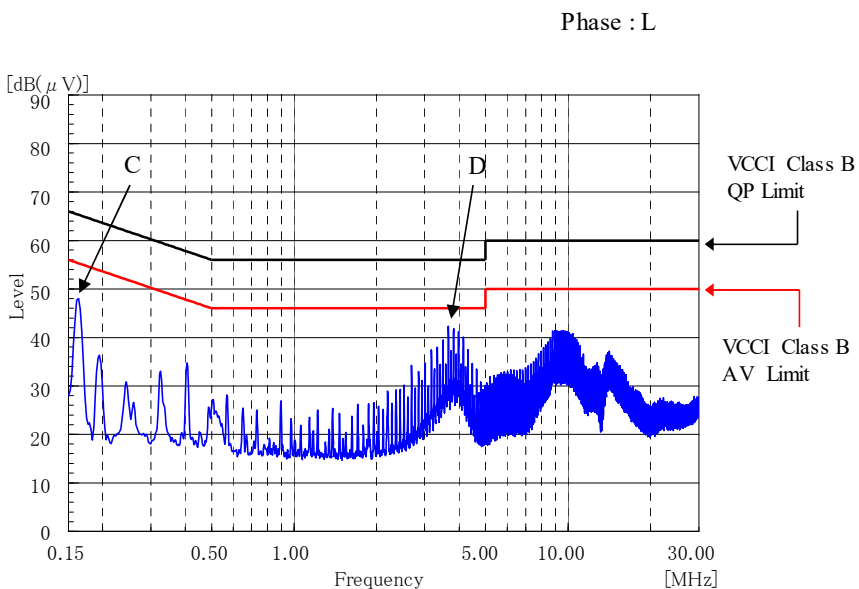
Point A (164kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	65.3	46.0
AV	55.3	45.6

Point B (3.7MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	42.0
AV	46.0	40.5



Point C (164kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	65.3	48.0
AV	55.3	47.1

Point D (3.6MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	41.0
AV	46.0	39.9



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

MODEL : RWS1500B/S

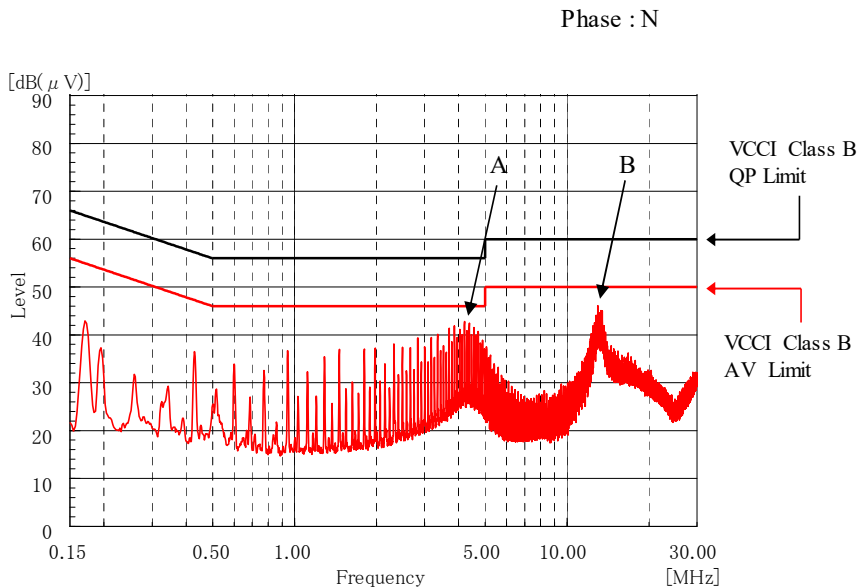
Conditions Vin : 230 VAC
 Iout : 100 %
 Istb : 100 %
 Ta : 25 °C

雑音端子電圧
 Conducted Emission

48V

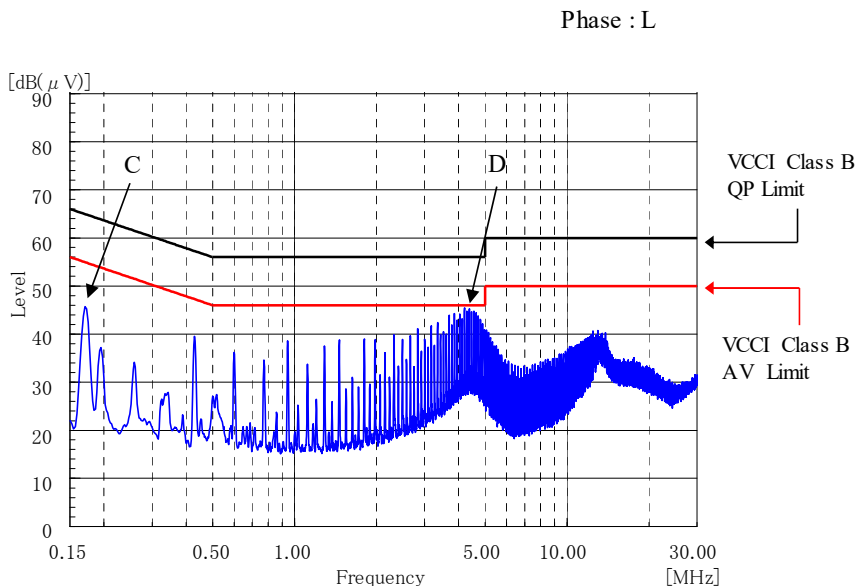
Point A (4.2MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	42.0
AV	46.0	40.1

Point B (13.1MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	60.0	44.0
AV	50.0	40.4



Point C (170kHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	65.0	45.0
AV	55.0	41.0

Point D (4.2MHz)		
Ref. Data	Limit (dB)	Measure (dB)
QP	56.0	45.0
AV	46.0	43.0

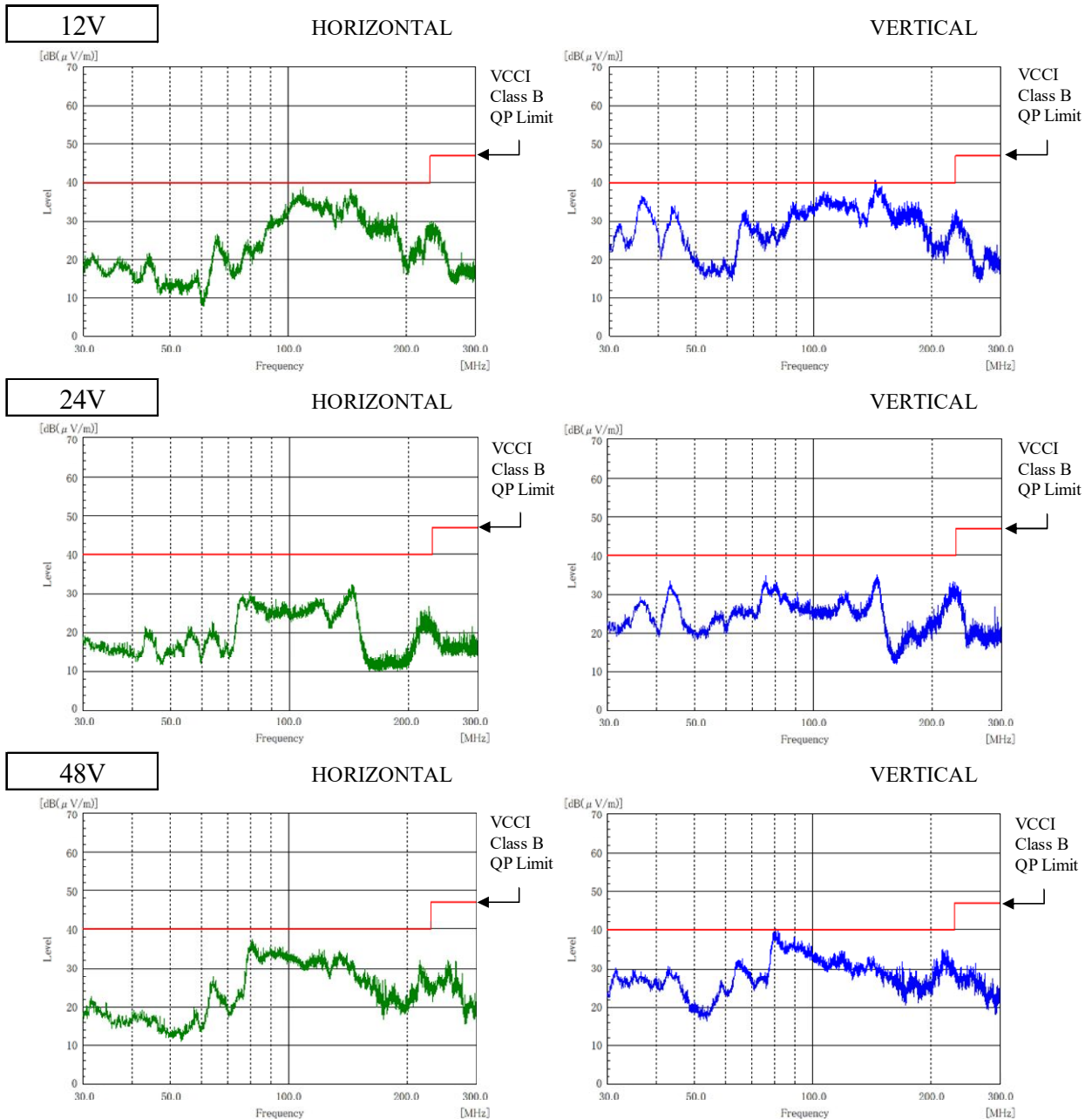


EN55011-B,EN55032-B,FCC-Bの限界値はVCCI class Bの限界値と同じ
 Limit of EN55011-B,EN55032-B,FCC-B are same as its VCCI class B.

MODEL : RWS1500B/S

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

雑音電界強度
Radiated Emission



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

表示はピーク値
Indication is peak values.