

CUS75EB

EVALUATION DATA

型式データ

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2. 特性データ Characteristics

2.1 静特性 Steady state data

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使用記号 Terminology used

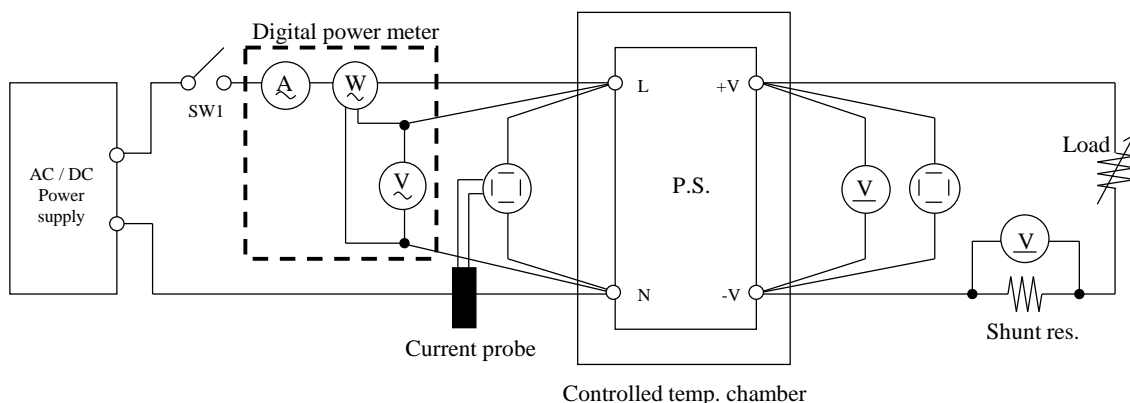
	定義	Definition
V_{in}	入力電圧 Input voltage
V_{out}	出力電圧 Output voltage
I_{in}	入力電流 Input current
I_{out}	出力電流 Output current
T_a	周囲温度 Ambient temperature
f	周波数 Frequency

1. 測定方法 Evaluation Method

1.1 測定回路 Circuit used for determination

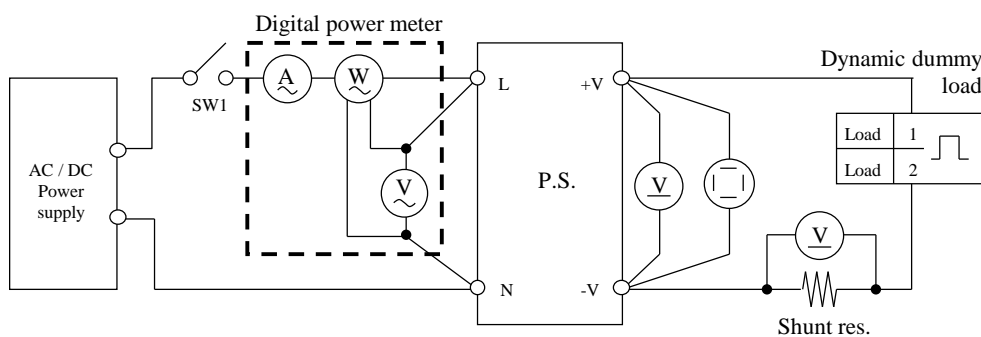
測定回路1 Circuit 1 used for determination

- ・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

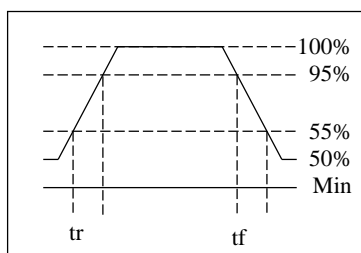


測定回路2 Circuit 2 used for determination

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

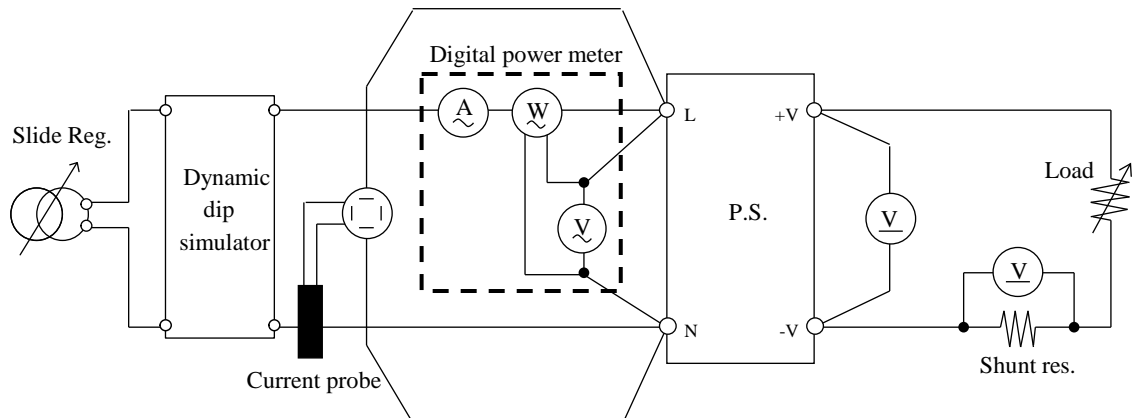


Output current waveform
Iout 50% <==> 100%



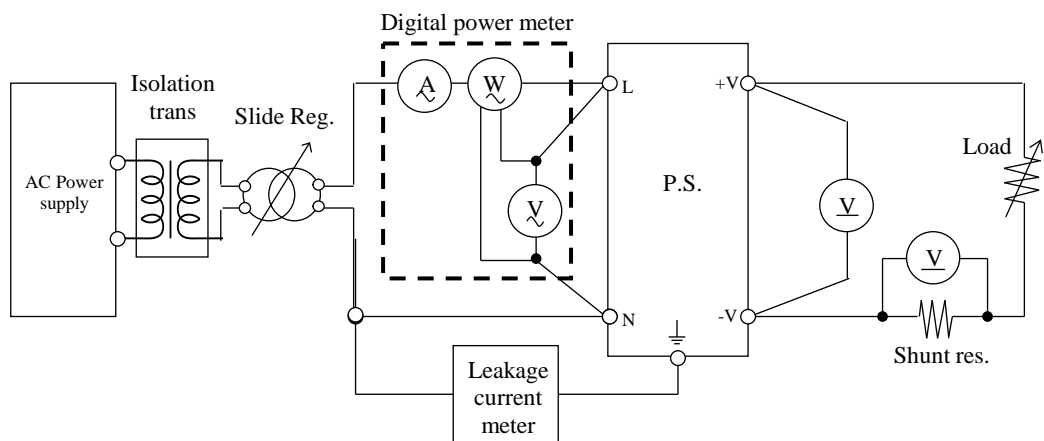
測定回路3 Circuit 3 used for determination

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



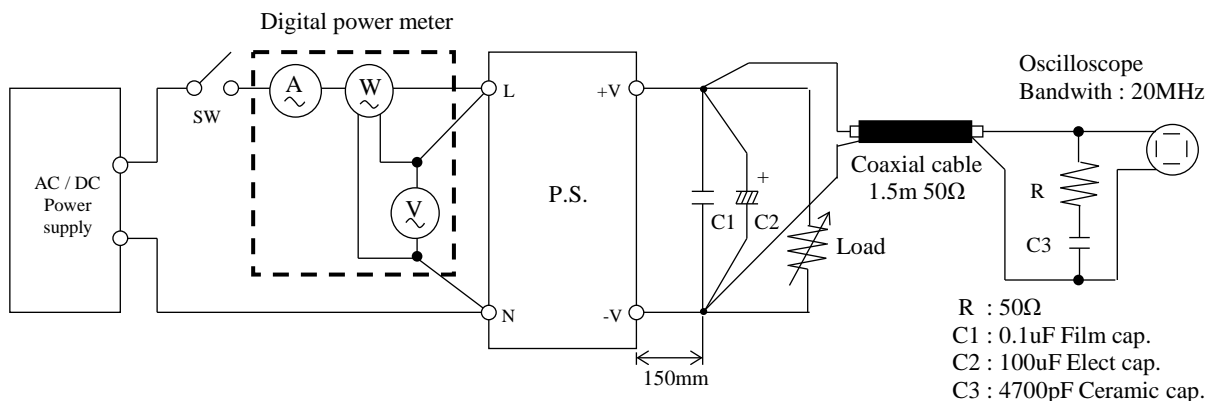
測定回路4 Circuit 4 used for determination

・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

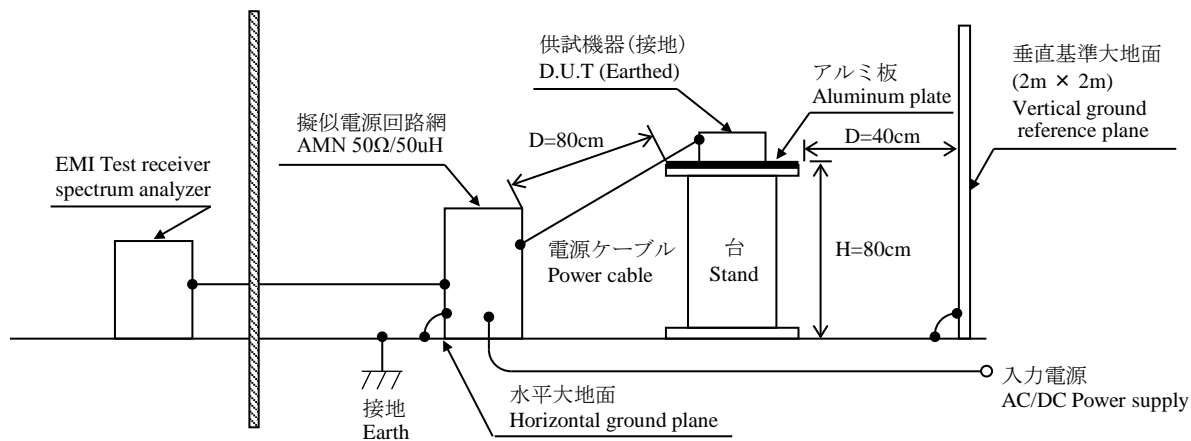


測定構成 Configuration used for determination

・EMI特性 Electro-Magnetic Interference characteristics

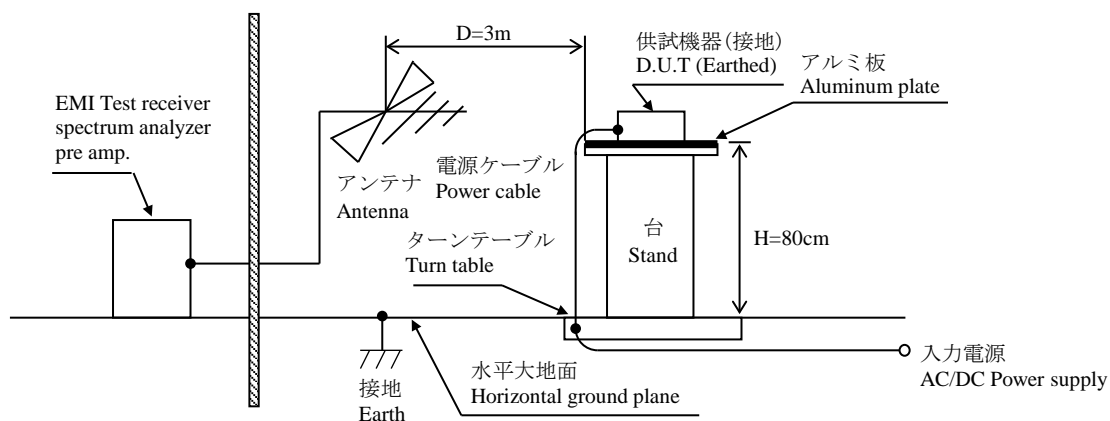
(a) 雑音端子電圧 (帰還ノイズ)

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	34405A/34410A
3	DIGITAL POWER METER	YOKOGAWA ELECT.	WT110 / WT210
4	CURRENT PROBE	YOKOGAWA ELECT.	701930 / 701933
5	DYNAMIC DUMMY LOAD	CHROMA	63640
6	DUMMY LOAD	CHROMA	63640
7	ISOLATION TRANS	TOUZHONG	BJZ-3KVA
8	CVCF	KIKUSUI	PCR2000LE
9	CVCF	CHROMA	61605
10	LEAKAGE CURRENT METER	SIMPSON	228
11	CONTROLLED TEMP. CHAMBER	ESPEC	SU-661 / SH-661
12	EMI TEST RECEIVER / SPECTRUM ANALYZER	ROHDE & SCHWARZ	ESCI-03
13	PRE AMP.	AGILENT	8447D
14	AMN	SCHWARZBECK	NNLK8121
15	ANTENNA	SCHWARZBECK	VULB9168
16	HARMONIC / FLICKER ANALYZER	SCHAFFNER	CCN100-1

1.3 評価負荷条件 Load conditions

Output voltage : 5V, 12V, 15V, 24V, 48V

Vin	Iout: Full load	5V	12V	15V	24V	48V
88 - 370VDC	100%	12.0A	6.3A	5.1A	3.2A	1.6A

*入力電圧が115VAC以下の場合、下記のとおり出力ディレーティングが必要です。

Output derating is needed when input voltage is less than 115VAC.

Output voltage : 5V

Vin	Iout: Full load	5V
85VAC	80%	9.6A
100 - 265VAC	100%	12.0A

Output voltage : 12V, 15V, 24V, 48V

Vin	Iout: Full load	12V	15V	24V	48V
85VAC	80%	5.04A	4.08A	2.56A	1.28A
115 - 265VAC	100%	6.3A	5.1A	3.2A	1.6A

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

5V		1. Regulation - line and load				Condition Ta : 25 °C	
Iout \ Vin	88VDC	110VDC	220VDC	370VDC	line regulation		
0%	5.007V	5.007V	5.007V	5.007V	0mV	0.000%	
50%	5.008V	5.007V	5.007V	5.007V	1mV	0.020%	
Full load	5.008V	5.006V	5.007V	5.007V	2mV	0.040%	
Load regulation	1mV	1mV	0mV	0mV			
	0.020%	0.020%	0.000%	0.000%			
		2. Temperature drift				Conditions Vin : 110 VDC Iout : Full load	
Ta	-20°C	+25°C	+50°C	temperature stability			
Vout	4.984V	5.006V	5.006V	22mV	0.440%		
		3. Start up voltage and Drop out voltage				Conditions Ta : 25 °C Iout : Full load	
Start up voltage (Vin)		78VDC					
Drop out voltage (Vin)		47VDC					

12V		1. Regulation - line and load				Condition Ta : 25 °C	
Iout \ Vin	88VDC	110VDC	220VDC	370VDC	line regulation		
0%	12.018V	12.018V	12.020V	12.023V	5mV	0.042%	
50%	12.019V	12.019V	12.020V	12.020V	1mV	0.008%	
Full load	12.018V	12.019V	12.019V	12.019V	1mV	0.008%	
Load regulation	1mV	1mV	1mV	4mV			
	0.008%	0.008%	0.008%	0.033%			
		2. Temperature drift				Conditions Vin : 110 VDC Iout : Full load	
Ta	-20°C	+25°C	+50°C	temperature stability			
Vout	11.989V	12.019V	12.012V	30mV	0.250%		
		3. Start up voltage and Drop out voltage				Conditions Ta : 25 °C Iout : Full load	
Start up voltage (Vin)		78VDC					
Drop out voltage (Vin)		47VDC					

15V		1. Regulation - line and load				Condition Ta : 25 °C	
Iout \ Vin	88VDC	110VDC	220VDC	370VDC	line regulation		
0%	15.022V	15.022V	15.020V	15.022V	2mV	0.013%	
50%	15.022V	15.022V	15.022V	15.023V	1mV	0.007%	
Full load	15.019V	15.019V	15.021V	15.021V	2mV	0.013%	
Load regulation	3mV	3mV	2mV	2mV			
	0.020%	0.020%	0.013%	0.013%			
		2. Temperature drift				Conditions Vin : 110 VDC Iout : Full load	
Ta	-20°C	+25°C	+50°C	temperature stability			
Vout	14.966V	15.019V	15.012V	53mV	0.353%		
		3. Start up voltage and Drop out voltage				Conditions Ta : 25 °C Iout : Full load	
Start up voltage (Vin)		78VDC					
Drop out voltage (Vin)		49VDC					

24V

1. Regulation - line and load

Condition Ta : 25 °C

Iout \ Vin	88VDC	110VDC	220VDC	370VDC	line regulation	
0%	24.097V	24.096V	24.097V	24.098V	2mV	0.008%
50%	24.089V	24.092V	24.093V	24.094V	5mV	0.021%
Full load	24.086V	24.090V	24.092V	24.095V	9mV	0.038%
Load regulation	11mV	6mV	5mV	4mV		
	0.046%	0.025%	0.021%	0.017%		

2. Temperature drift

Conditions Vin : 110 VDC
Iout : Full load

Ta	-20°C	+25°C	+50°C	temperature stability	
Vout	24.085V	24.090V	24.038V	52mV	0.217%

3. Start up voltage and Drop out voltage

Conditions Ta : 25 °C
Iout : Full load

Start up voltage (Vin)	78VDC
Drop out voltage (Vin)	49VDC

48V

1. Regulation - line and load

Condition Ta : 25 °C

Iout \ Vin	88VDC	110VDC	220VDC	370VDC	line regulation	
0%	48.210V	48.207V	48.208V	48.209V	3mV	0.006%
50%	48.220V	48.218V	48.216V	48.217V	4mV	0.008%
Full load	48.203V	48.207V	48.209V	48.211V	8mV	0.017%
Load regulation	17mV	11mV	8mV	8mV		
	0.035%	0.023%	0.017%	0.017%		

2. Temperature drift

Conditions Vin : 110 VDC
Iout : Full load

Ta	-20°C	+25°C	+50°C	temperature stability	
Vout	48.020V	48.207V	48.211V	191mV	0.398%

3. Start up voltage and Drop out voltage

Conditions Ta : 25 °C
Iout : Full load

Start up voltage (Vin)	78VDC
Drop out voltage (Vin)	47VDC

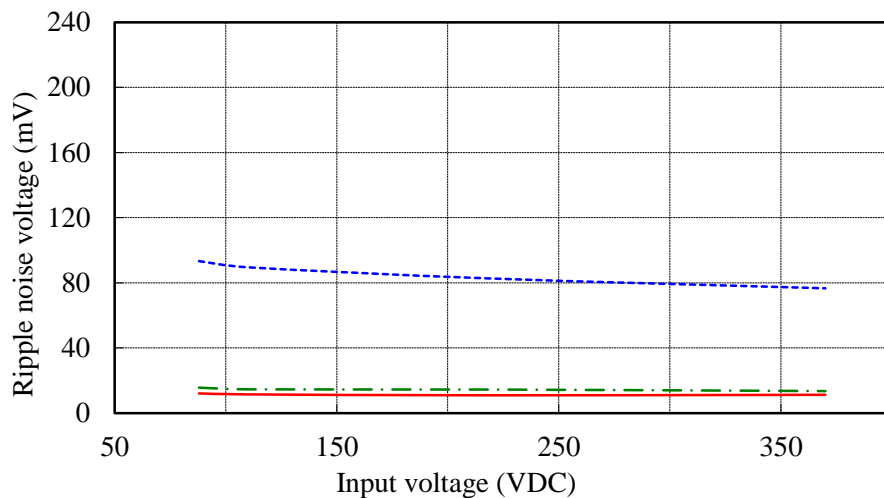
(2) リップルノイズ電圧対入力電圧

Ripple noise voltage vs. Input voltage

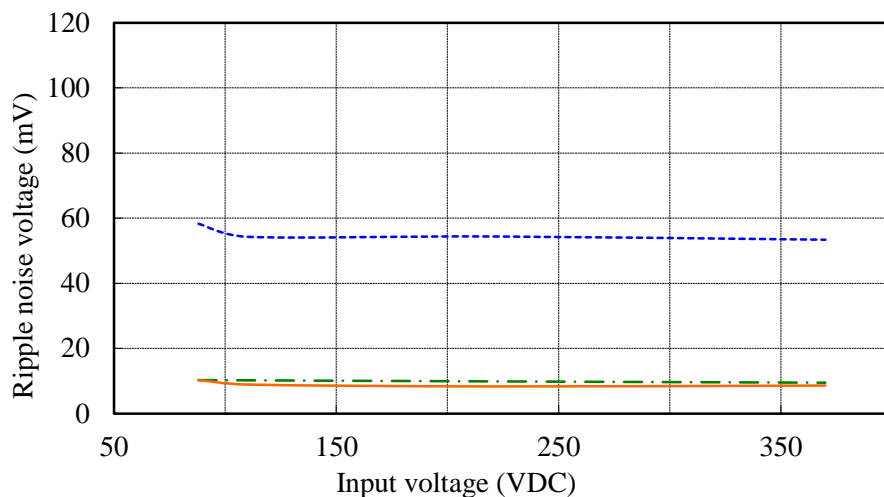
Conditions Iout : Full load

Ta : -20 °C ---
 25 °C - - -
 50 °C ———

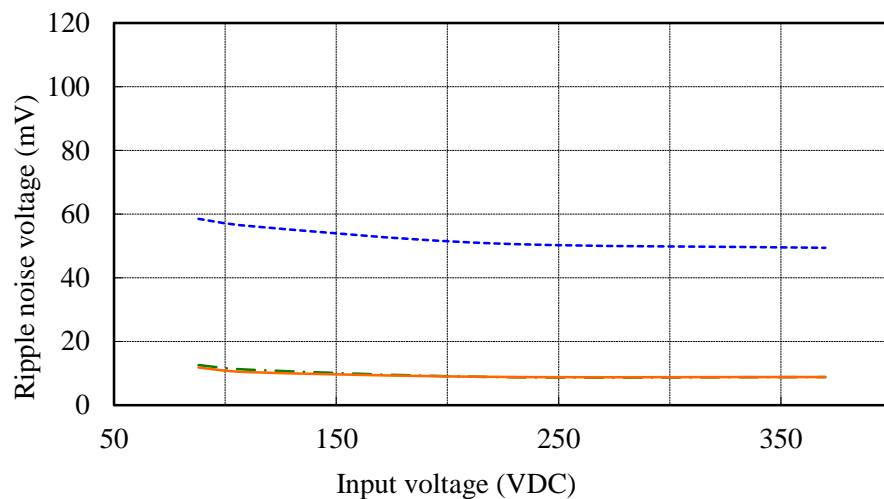
5V



12V



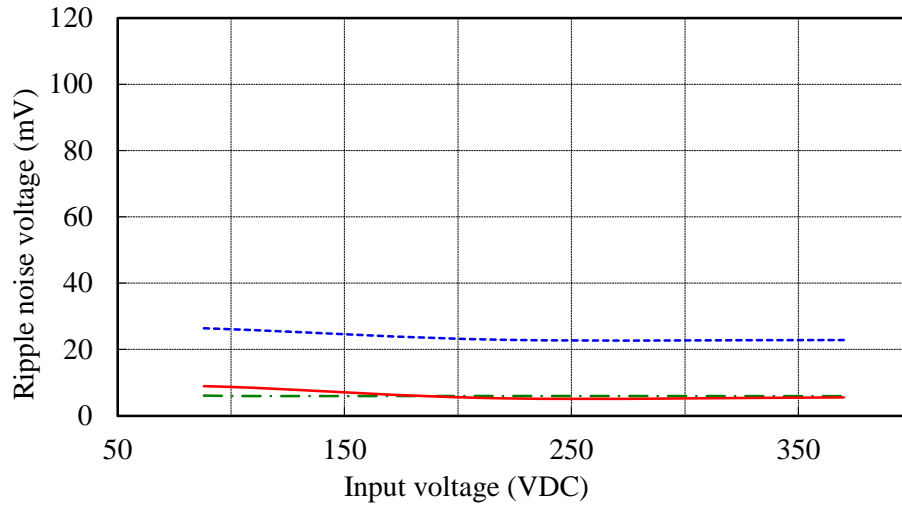
15V



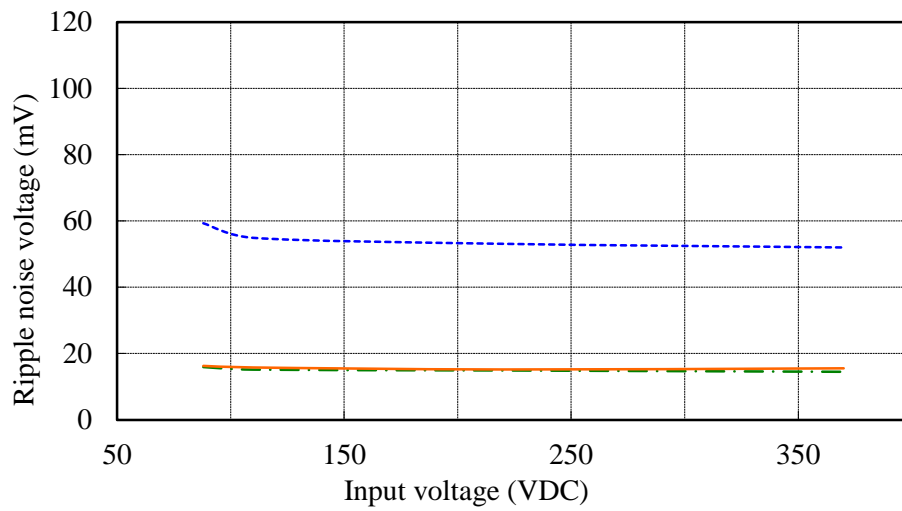
(2) リップルノイズ電圧対入力電圧
Ripple noise voltage vs. Input voltage

Conditions Iout : Full load
 Ta : -20 °C ---
 25 °C - - -
 50 °C ———

24V



48V



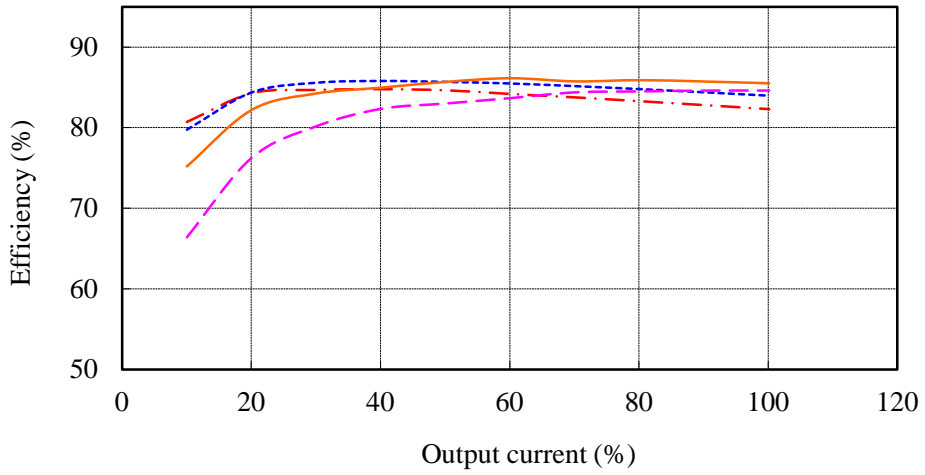
(3) 効率対出力電流

Efficiency vs. Output current

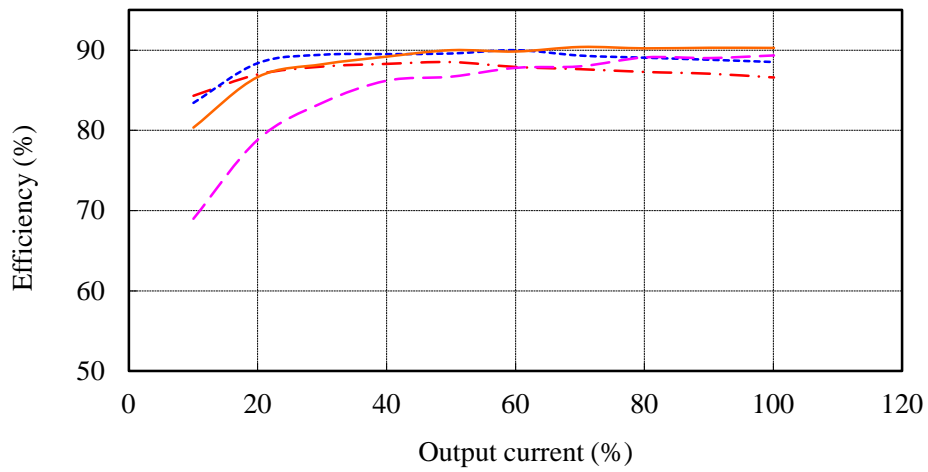
Conditions Vin : 88 VDC - - - -
 110 VDC - - - -
 220 VDC ————
 370 VDC - - - -

Ta : 25 °C

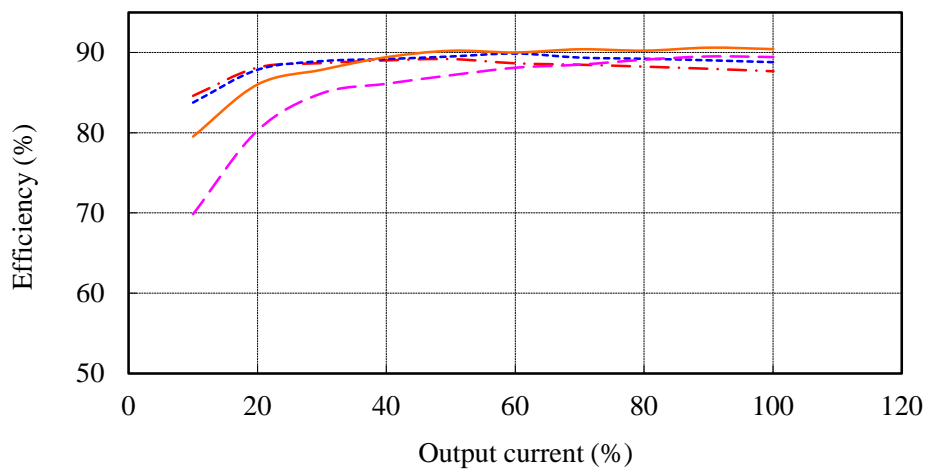
5V



12V



15V

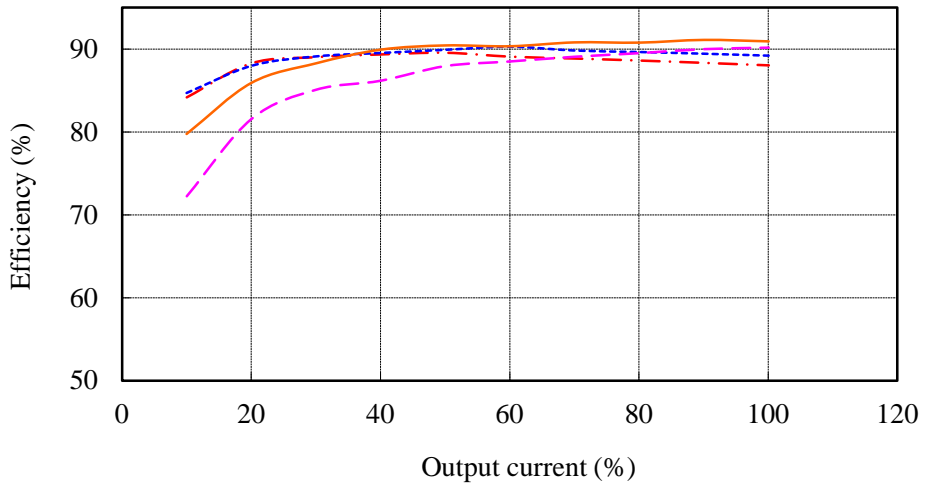


(3) 効率対出力電流

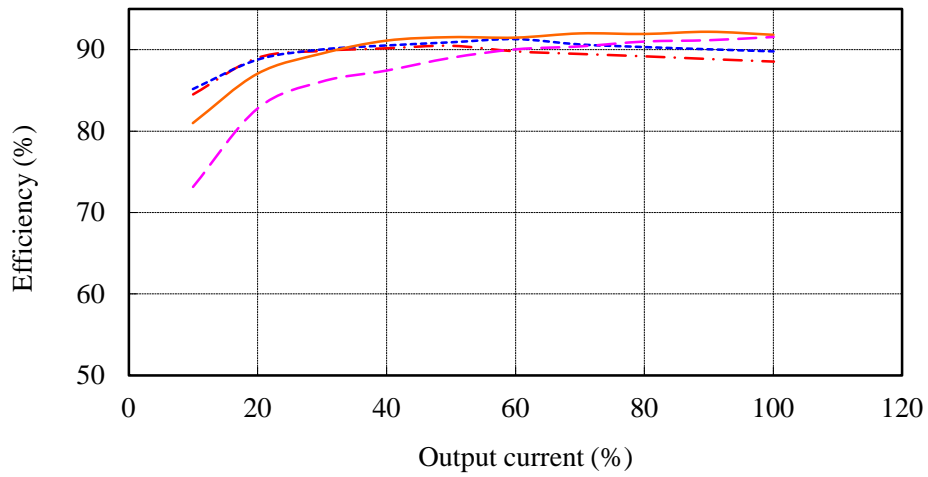
Efficiency vs. Output current

Conditions Vin : 88 VDC - - - -
 110 VDC - - - -
 220 VDC ————
 370 VDC - - - -

24V



48V

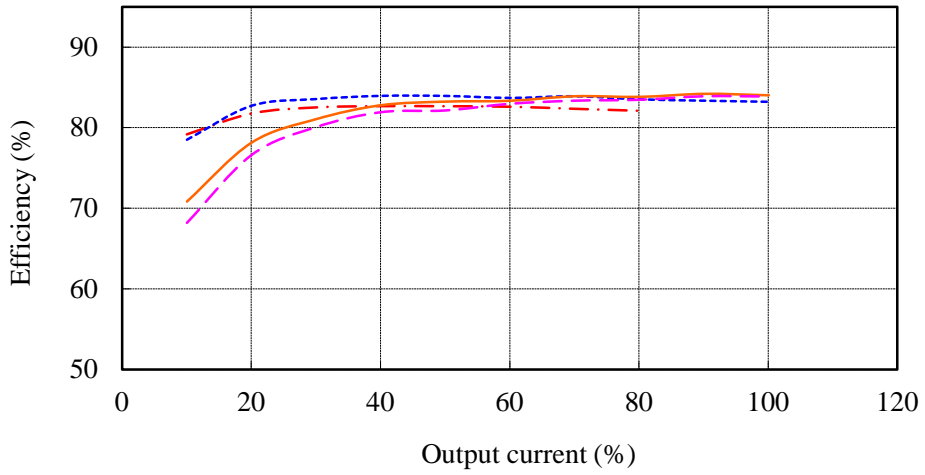


(3) 効率対出力電流

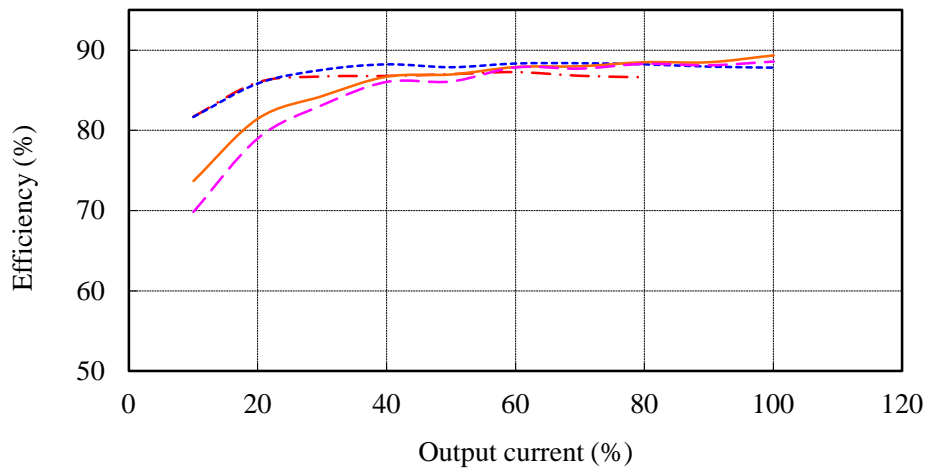
Efficiency vs. Output current

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

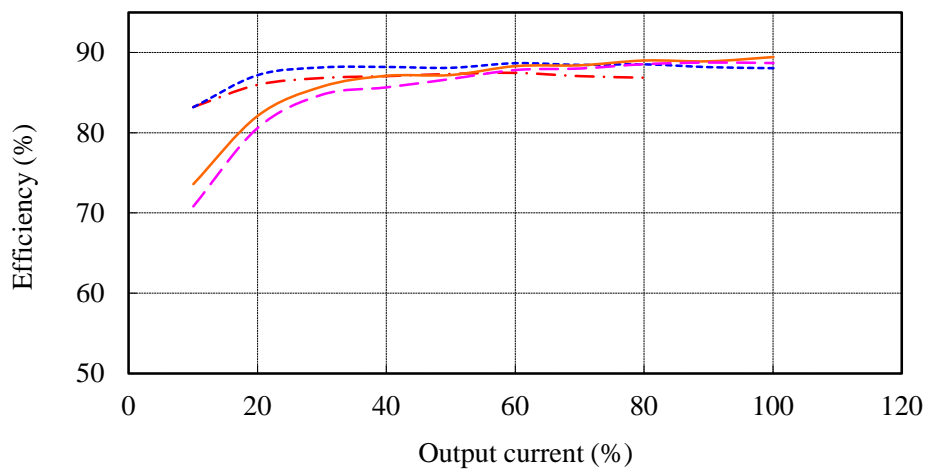
5V



12V



15V

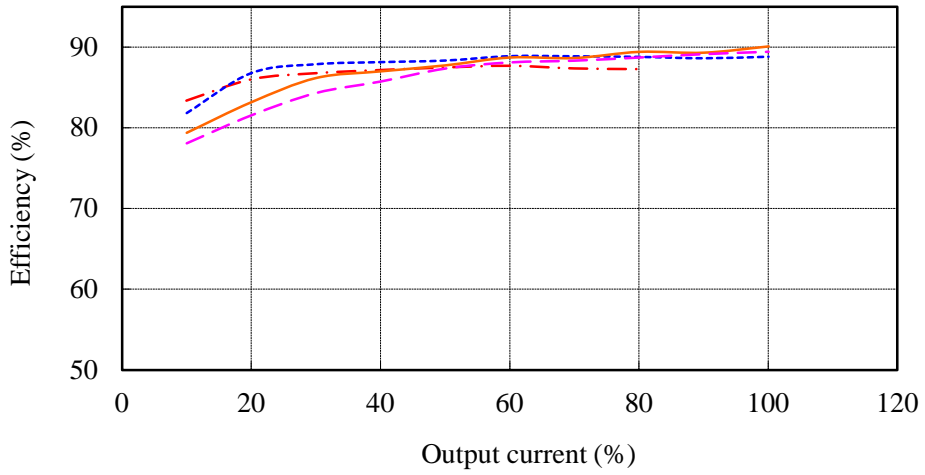


(3) 効率対出力電流

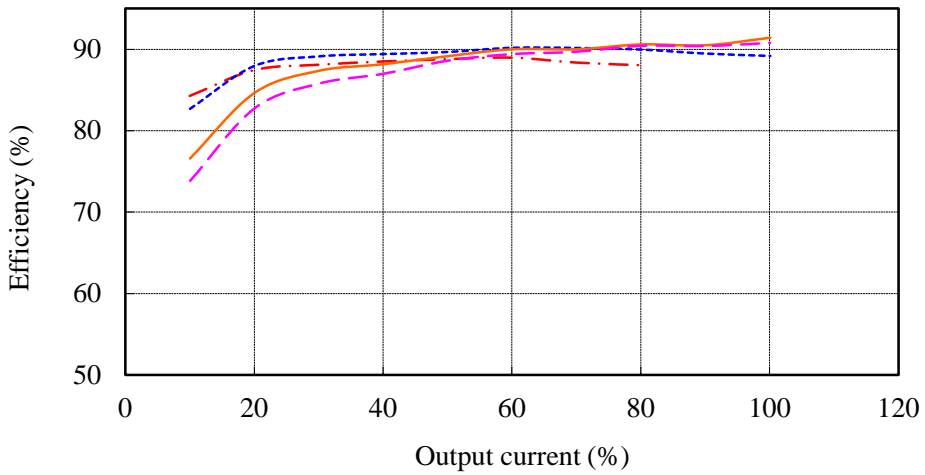
Efficiency vs. Output current

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

24V



48V



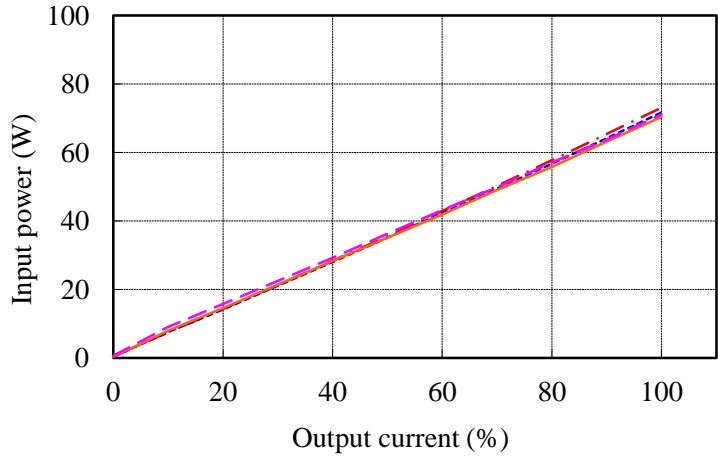
(4) 入力電力対出力電流

Input power vs. Output current

Conditions Vin : 88 VDC - - -
 110 VDC - - -
 220 VDC - - -
 370 VDC - - -
 Ta : 25 °C

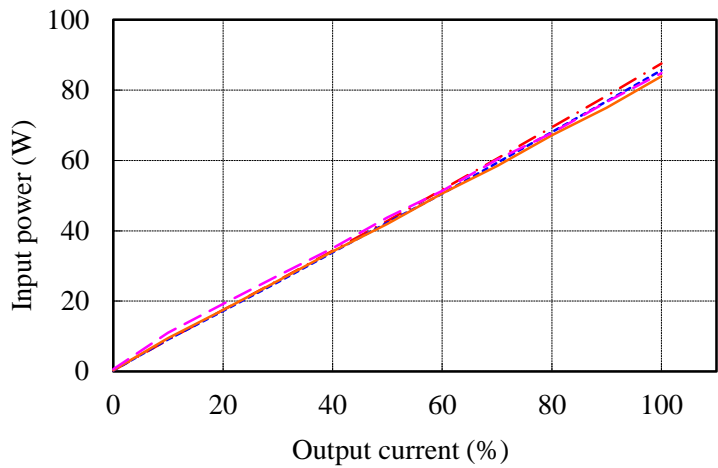
5V

Vin	Input power
	Iout : 0%
88VDC	0.40W
110VDC	0.42W
220VDC	0.44W
370VDC	0.70W



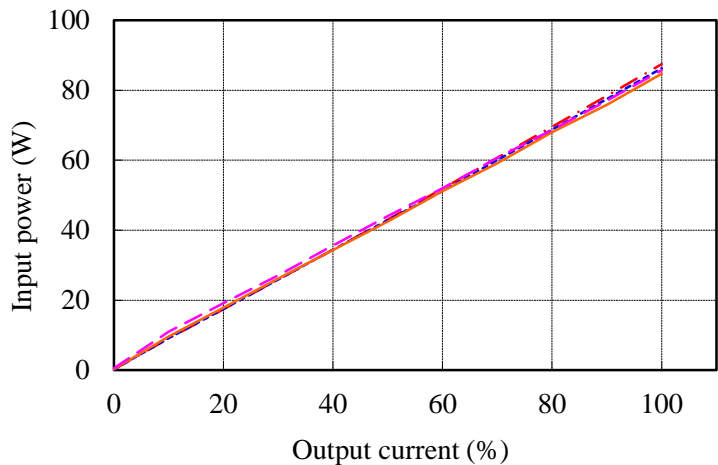
12V

Vin	Input power
	Iout : 0%
88VDC	0.29W
110VDC	0.30W
220VDC	0.38W
370VDC	0.64W



15V

Vin	Input power
	Iout : 0%
88VDC	0.22W
110VDC	0.23W
220VDC	0.32W
370VDC	0.56W



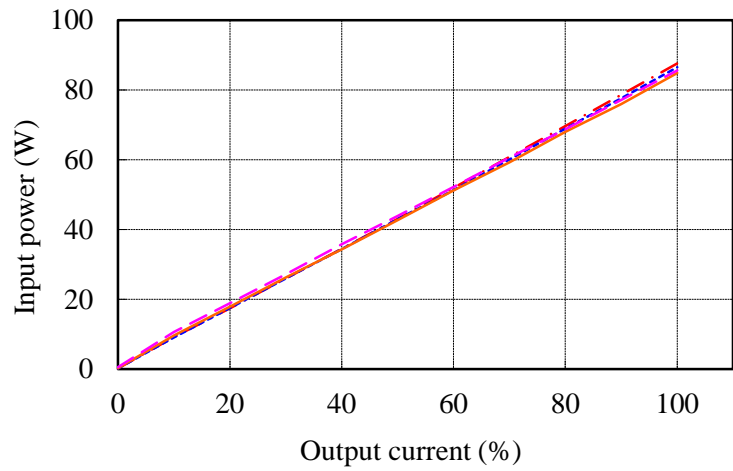
(4) 入力電力対出力電流

Input power vs. Output current

Conditions Vin : 88 VDC ---
 110 VDC - - -
 220 VDC ———
 370 VDC -·-·-
 Ta : 25 °C

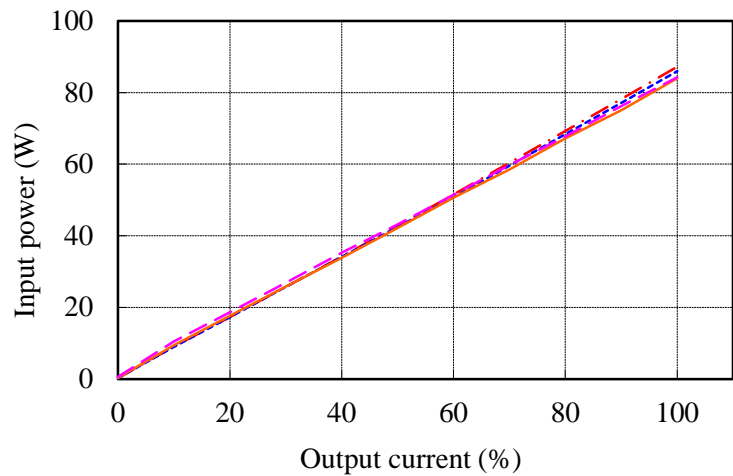
24V

Vin	Input power
	Iout : 0%
88VDC	0.25W
110VDC	0.26W
220VDC	0.36W
370VDC	0.60W



48V

Vin	Input power
	Iout : 0%
88VDC	0.26W
110VDC	0.27W
220VDC	0.35W
370VDC	0.59W



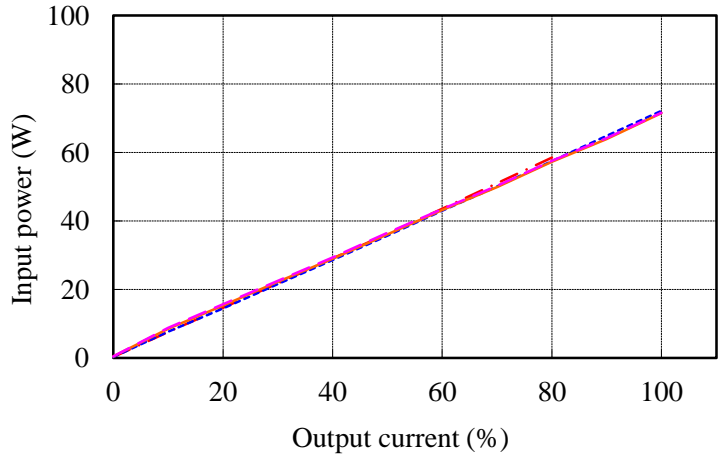
(4) 入力電力対出力電流

Input power vs. Output current

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

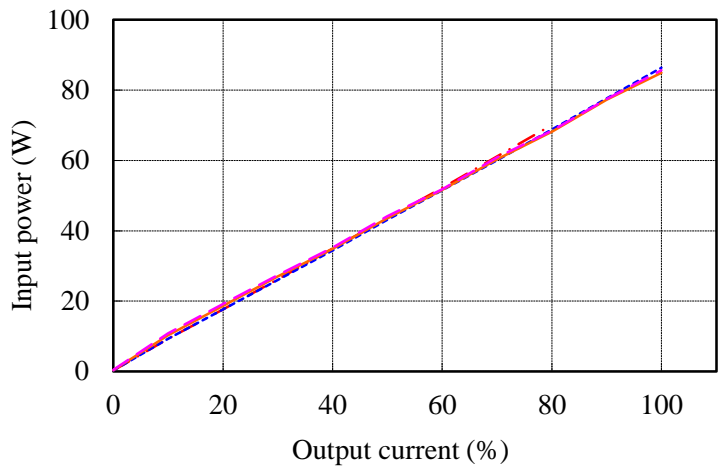
5V

Vin	Input power
	Iout : 0%
85VAC	0.35W
115VAC	0.35W
230VAC	0.48W
265VAC	0.55W



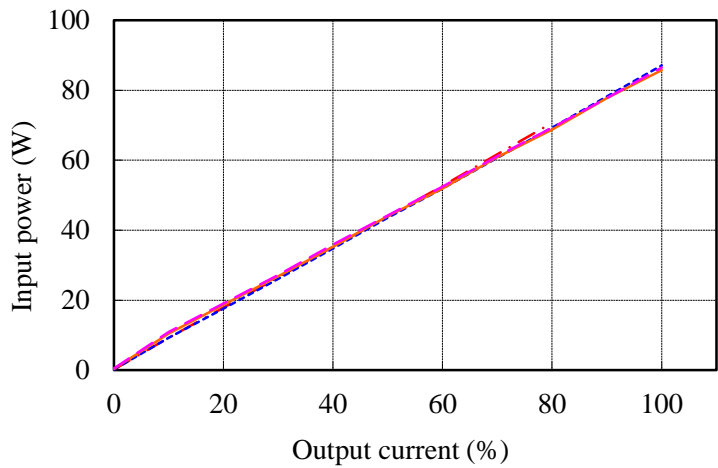
12V

Vin	Input power
	Iout : 0%
85VAC	0.28W
115VAC	0.29W
230VAC	0.41W
265VAC	0.48W



15V

Vin	Input power
	Iout : 0%
85VAC	0.22W
115VAC	0.24W
230VAC	0.38W
265VAC	0.45W



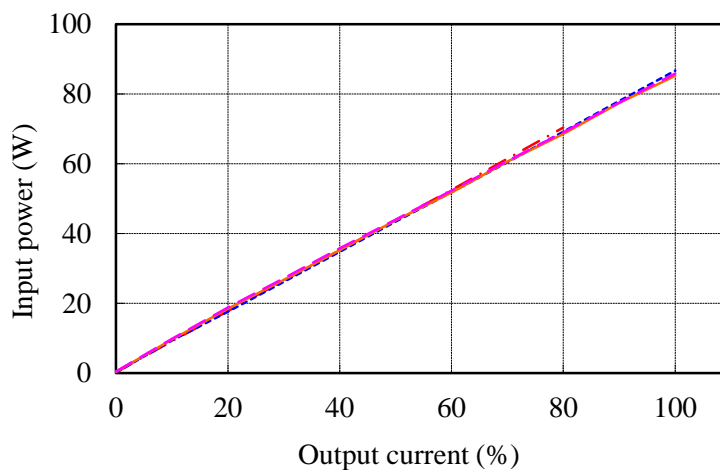
(4) 入力電力対出力電流

Input power vs. Output current

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

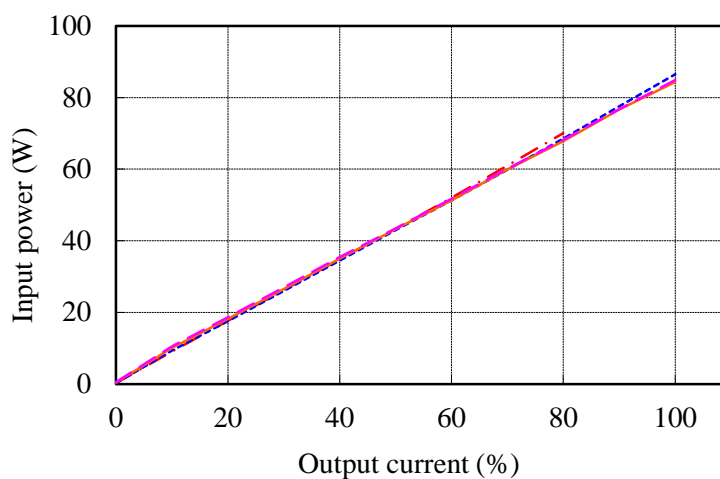
24V

Vin	Input power
	Iout : 0%
85VAC	0.24W
115VAC	0.26W
230VAC	0.40W
265VAC	0.46W



48V

Vin	Input power
	Iout : 0%
85VAC	0.26W
115VAC	0.28W
230VAC	0.43W
265VAC	0.50W



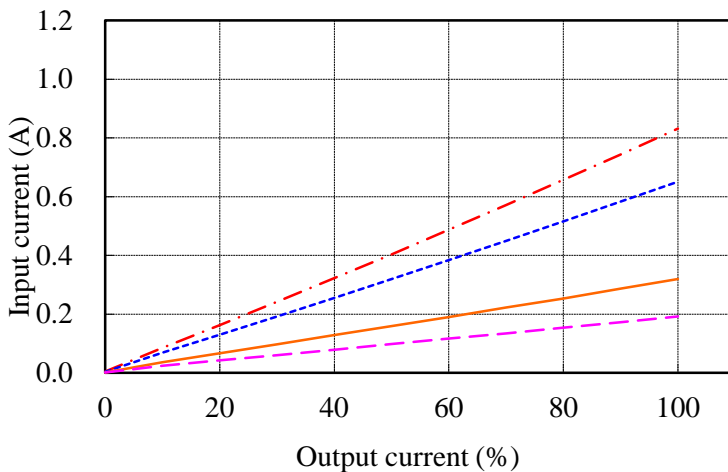
(5) 入力電流対出力電流

Input current vs. Output current

Conditions Vin : 88 VDC - - -
 110 VDC - - -
 220 VDC - - -
 370 VDC - - -
 Ta : 25 °C

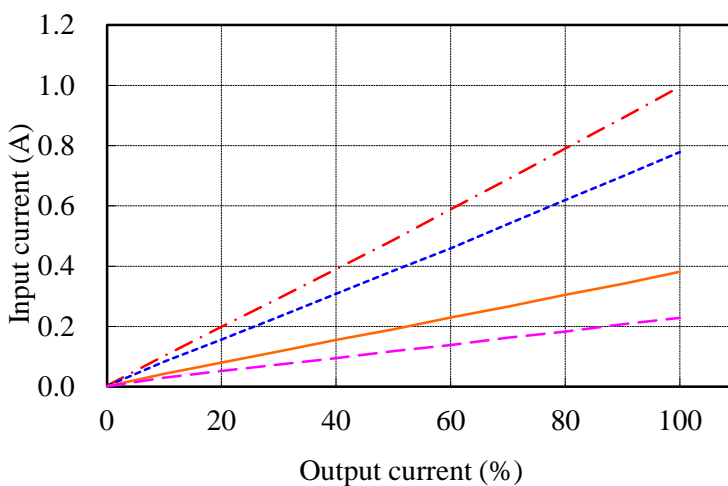
5V

Vin	Input current
	Iout : 0%
88VDC	0.005A
110VDC	0.004A
220VDC	0.002A
370VDC	0.002A



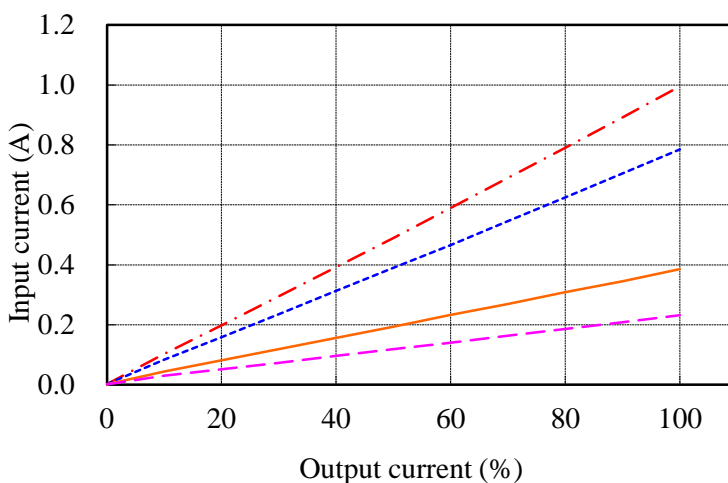
12V

Vin	Input current
	Iout : 0%
88VDC	0.003A
110VDC	0.003A
220VDC	0.002A
370VDC	0.002A



15V

Vin	Input current
	Iout : 0%
88VDC	0.003A
110VDC	0.002A
220VDC	0.001A
370VDC	0.002A



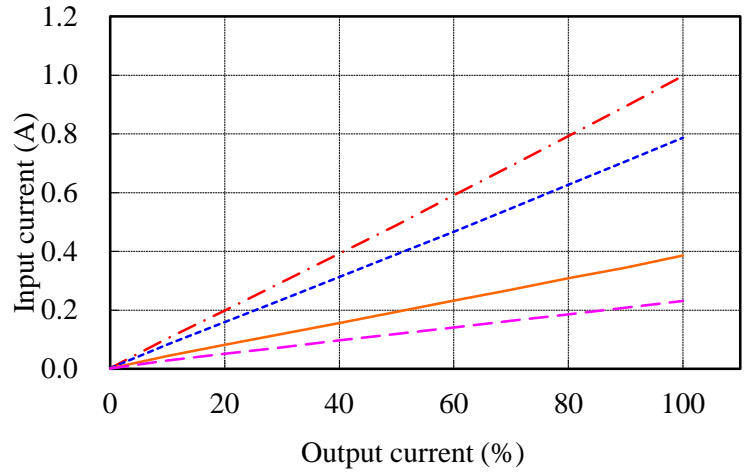
(5) 入力電流対出力電流

Input current vs. Output current

Conditions Vin : 88 VDC - - -
 110 VDC - - -
 220 VDC - - -
 370 VDC - - -
 Ta : 25 °C

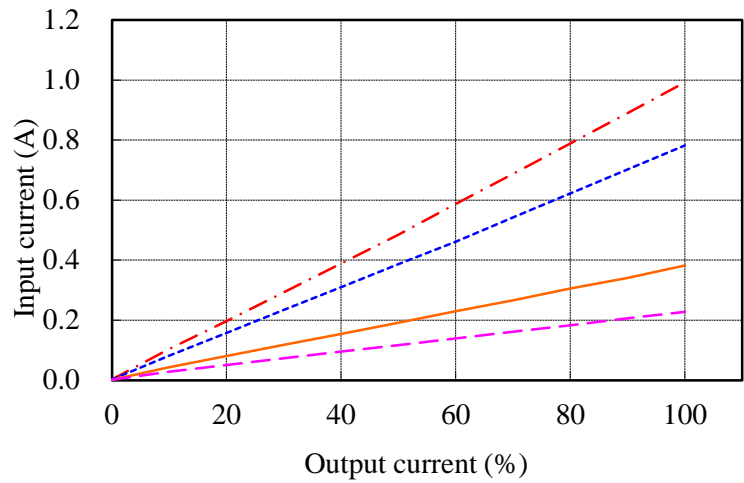
24V

Vin	Input current
	Iout : 0%
88VDC	0.003A
110VDC	0.002A
220VDC	0.002A
370VDC	0.002A



48V

Vin	Input current
	Iout : 0%
88VDC	0.003A
110VDC	0.002A
220VDC	0.002A
370VDC	0.002A



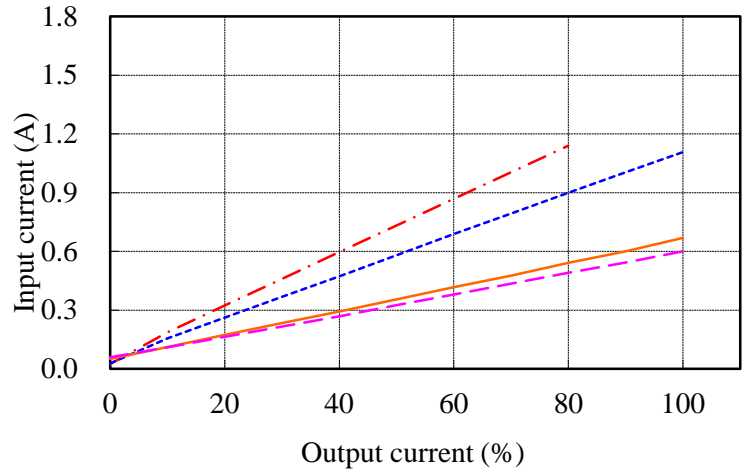
(5) 入力電流対出力電流

Input current vs. Output current

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

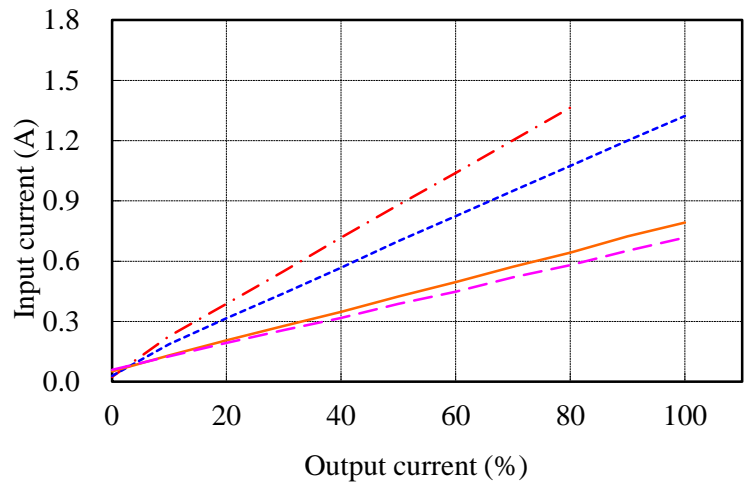
5V

Vin	Input current
	Iout : 0%
85VAC	0.024A
115VAC	0.028A
230VAC	0.051A
265VAC	0.059A



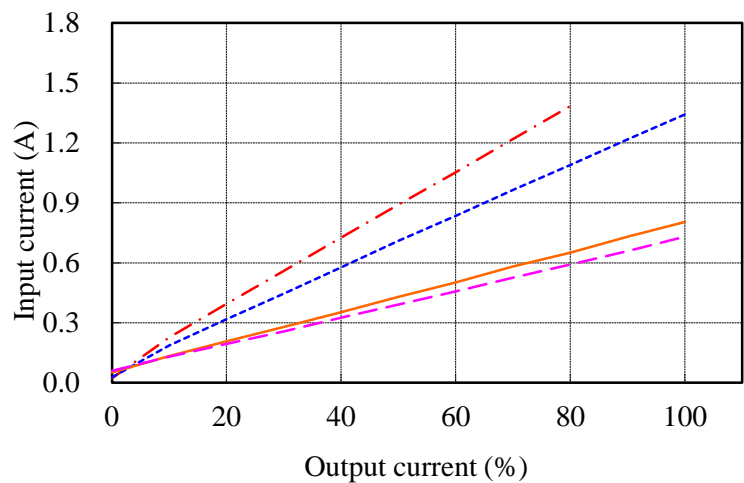
12V

Vin	Input current
	Iout : 0%
85VAC	0.024A
115VAC	0.028A
230VAC	0.051A
265VAC	0.059A



15V

Vin	Input current
	Iout : 0%
85VAC	0.023A
115VAC	0.028A
230VAC	0.052A
265VAC	0.059A



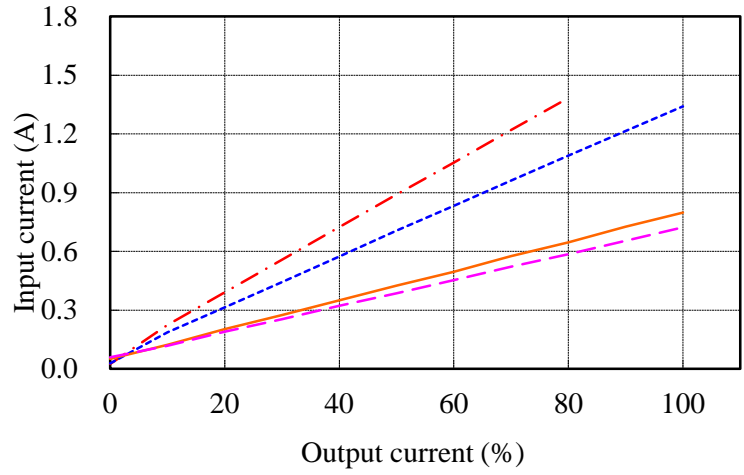
(5) 入力電流対出力電流

Input current vs. Output current

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

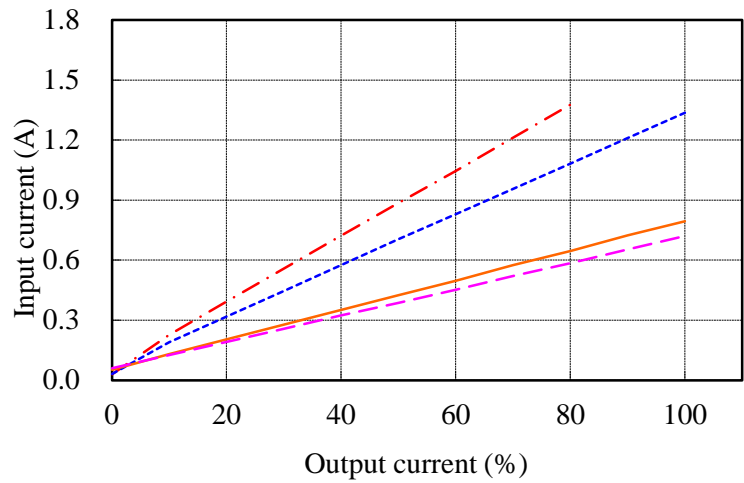
24V

Vin	Input current
	Iout : 0%
85VAC	0.025A
115VAC	0.029A
230VAC	0.052A
265VAC	0.059A



48V

Vin	Input current
	Iout : 0%
85VAC	0.030A
115VAC	0.032A
230VAC	0.052A
265VAC	0.060A

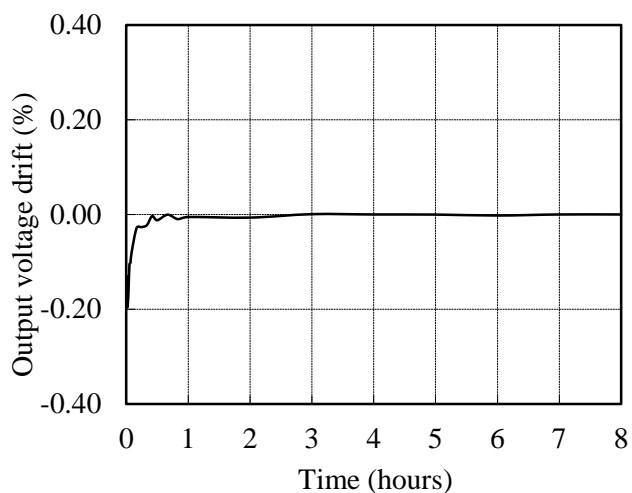


2.2 通電ドリフト特性

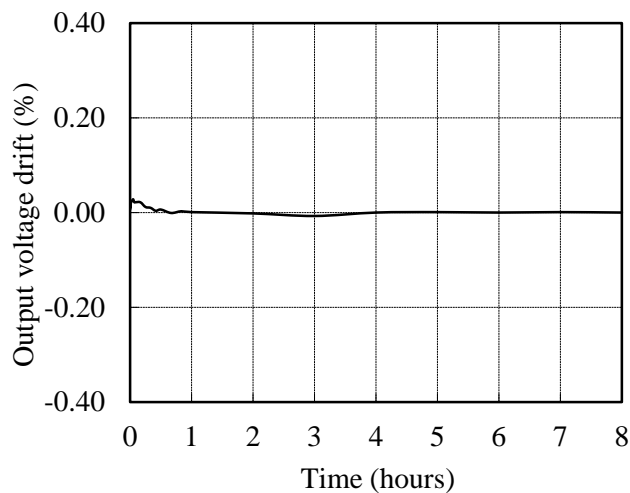
Warm up voltage drift characteristics

Conditions Vin : 110 VDC
 Iout : Full load
 Ta : 25 °C

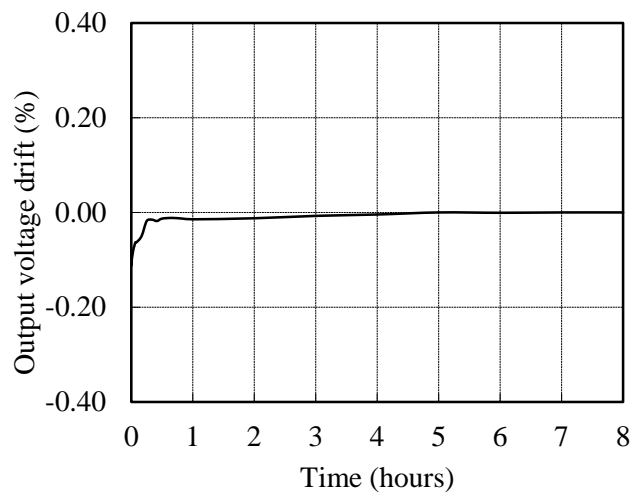
5V



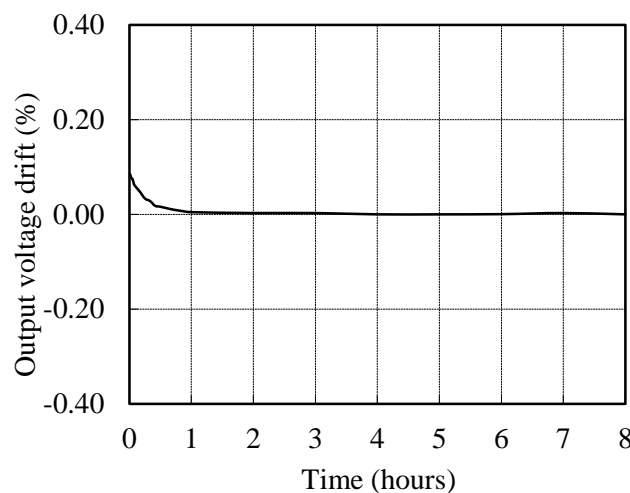
12V



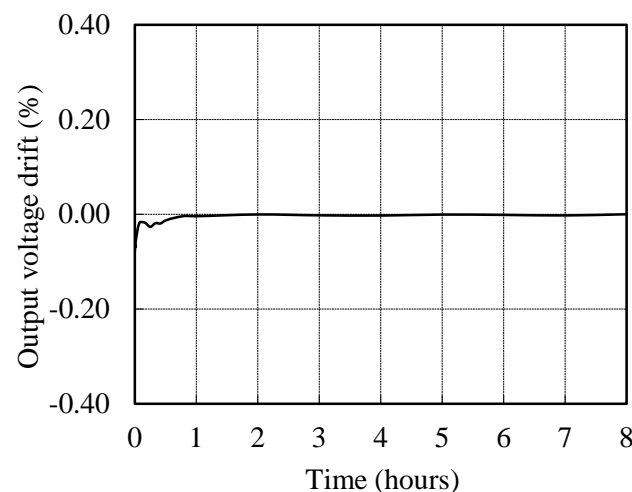
15V



24V



48V

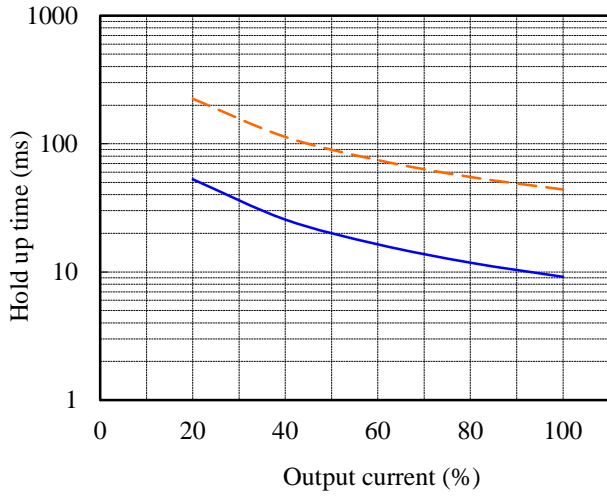


2.3 出力保持時間特性

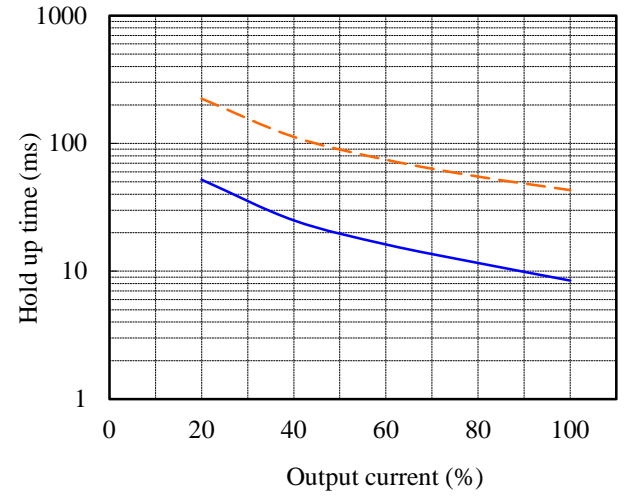
Hold up time characteristics

Conditions Vin : 110 VDC ————
 220 VDC - - - - -
 Ta : 25 °C

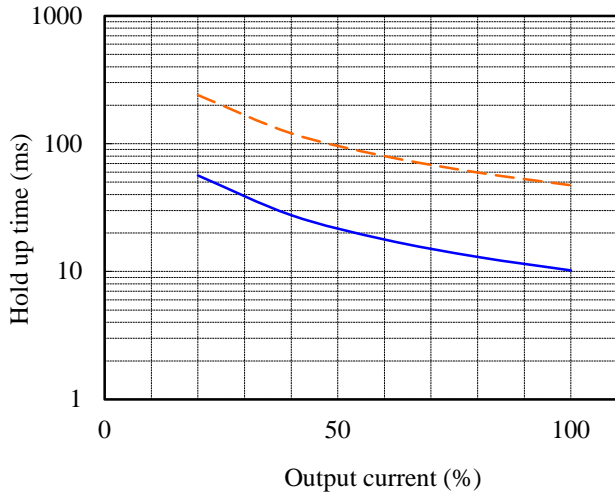
5V



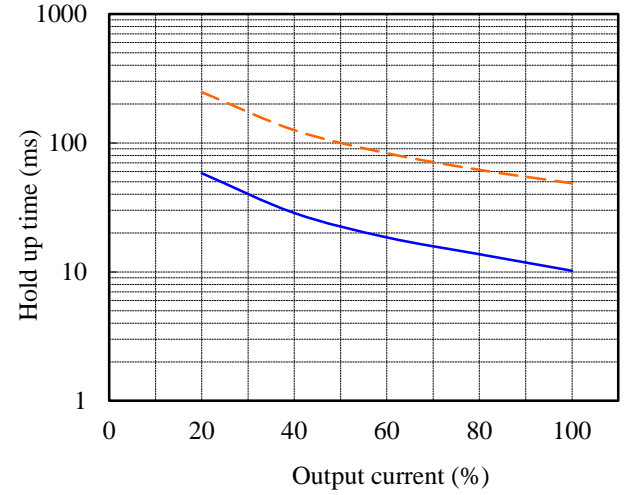
12V



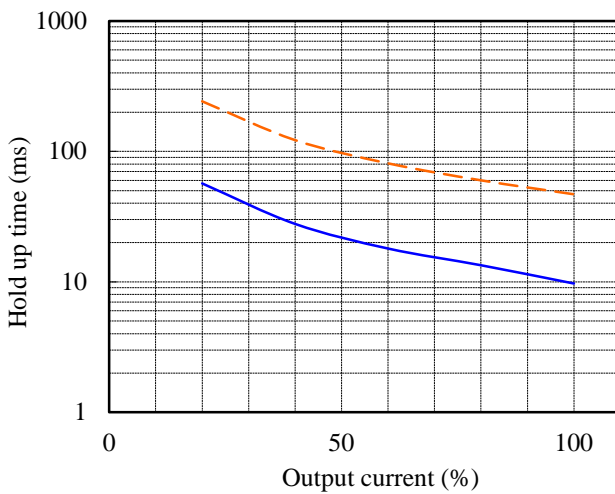
15V



24V



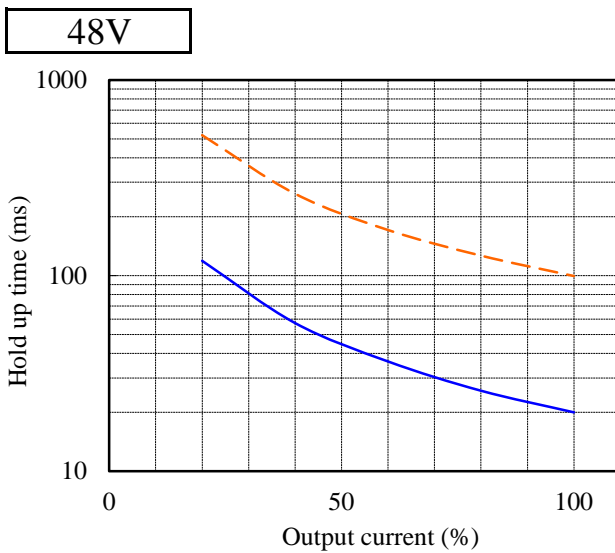
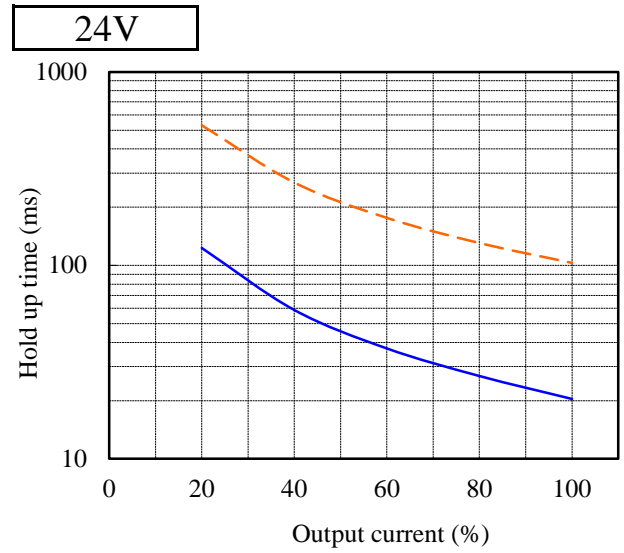
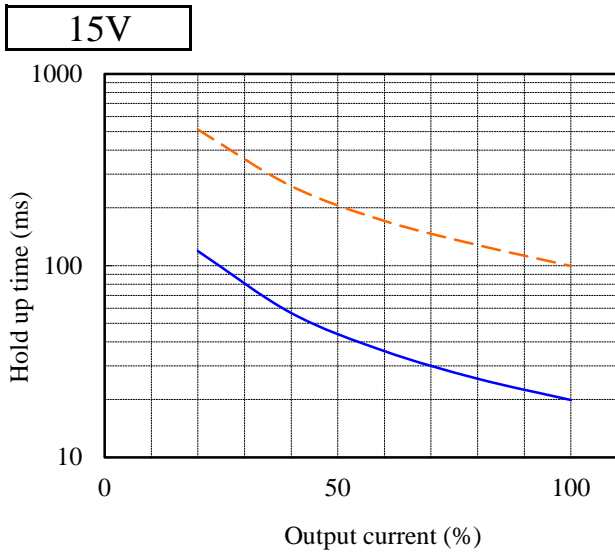
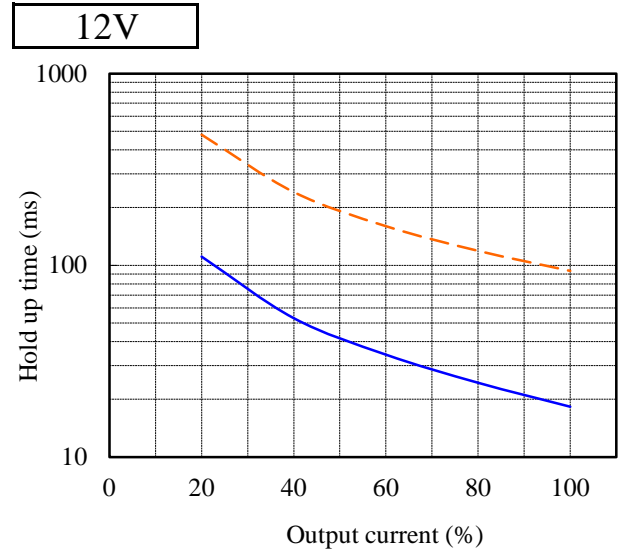
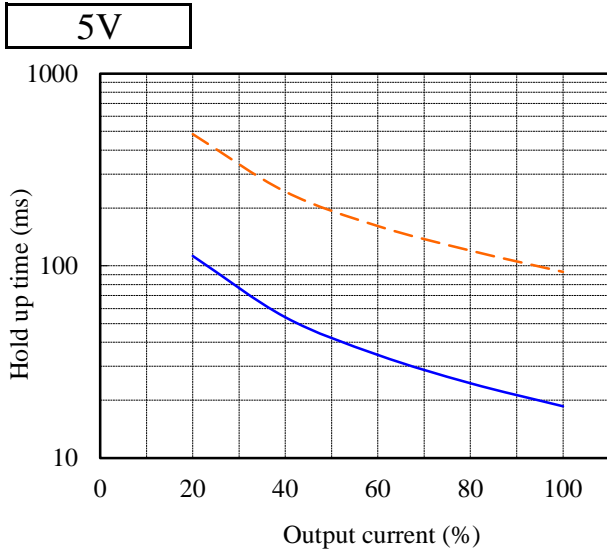
48V



2.3 出力保持時間特性

Hold up time characteristics

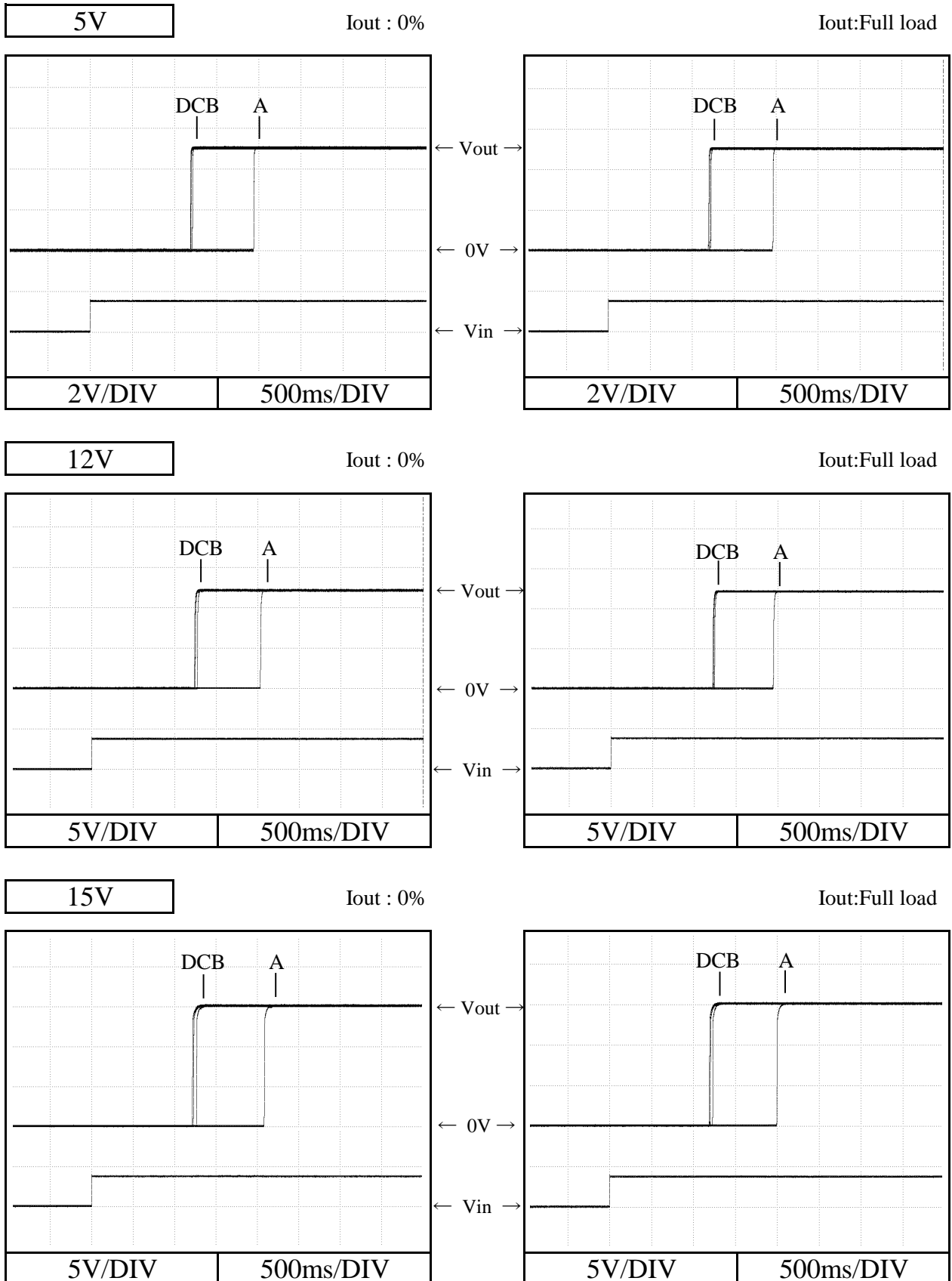
Conditions Vin : 115 VAC ——— (blue solid line)
 230 VAC - - - - - (orange dashed line)
 Ta : 25 °C



2.4 出力立ち上がり特性

Output rise characteristics

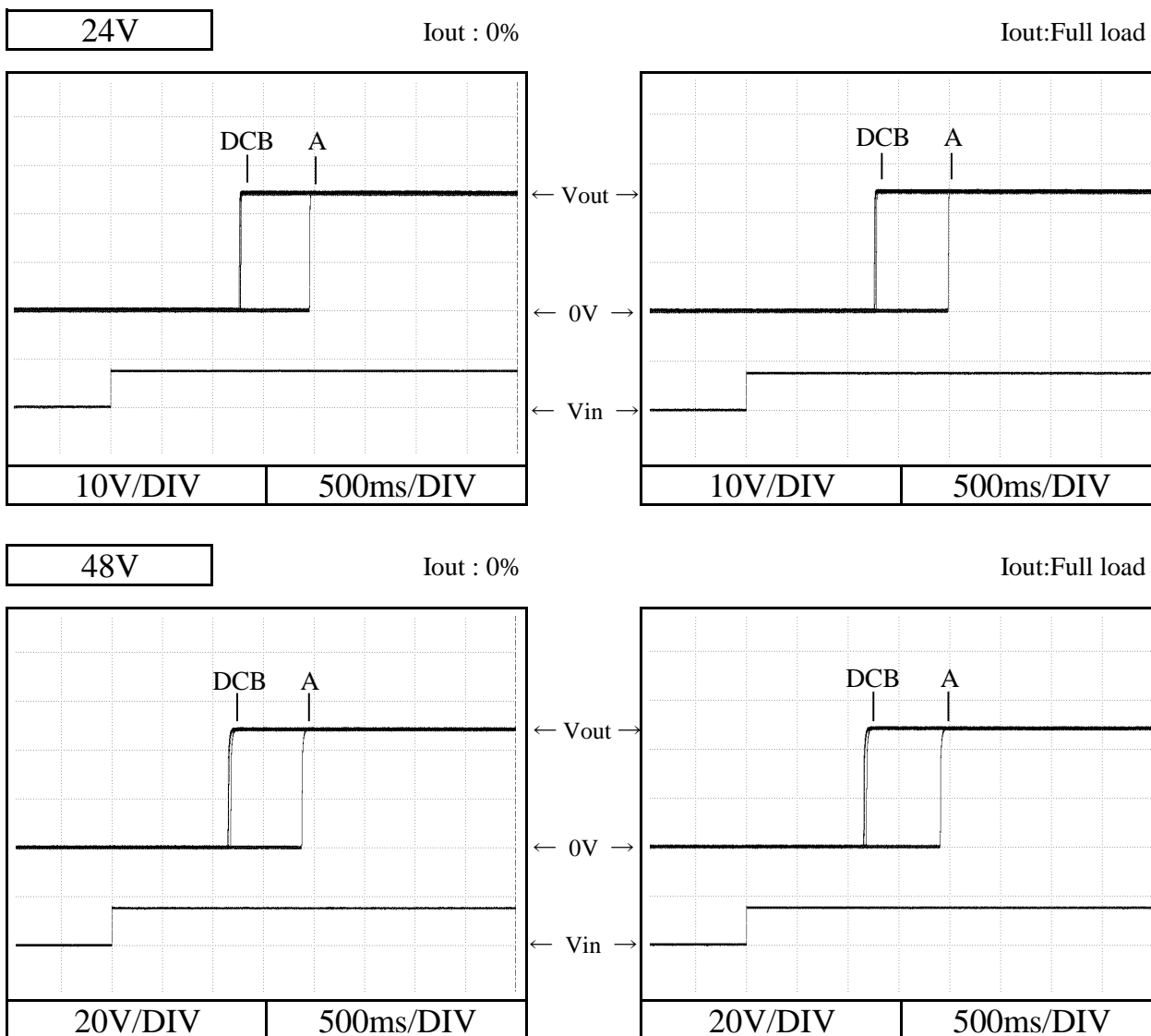
Conditions Vin : 88 VDC (A)
 110 VDC (B)
 220 VDC (C)
 370 VDC (D)
 Ta : 25 °C



2.4 出力立ち上がり特性

Output rise characteristics

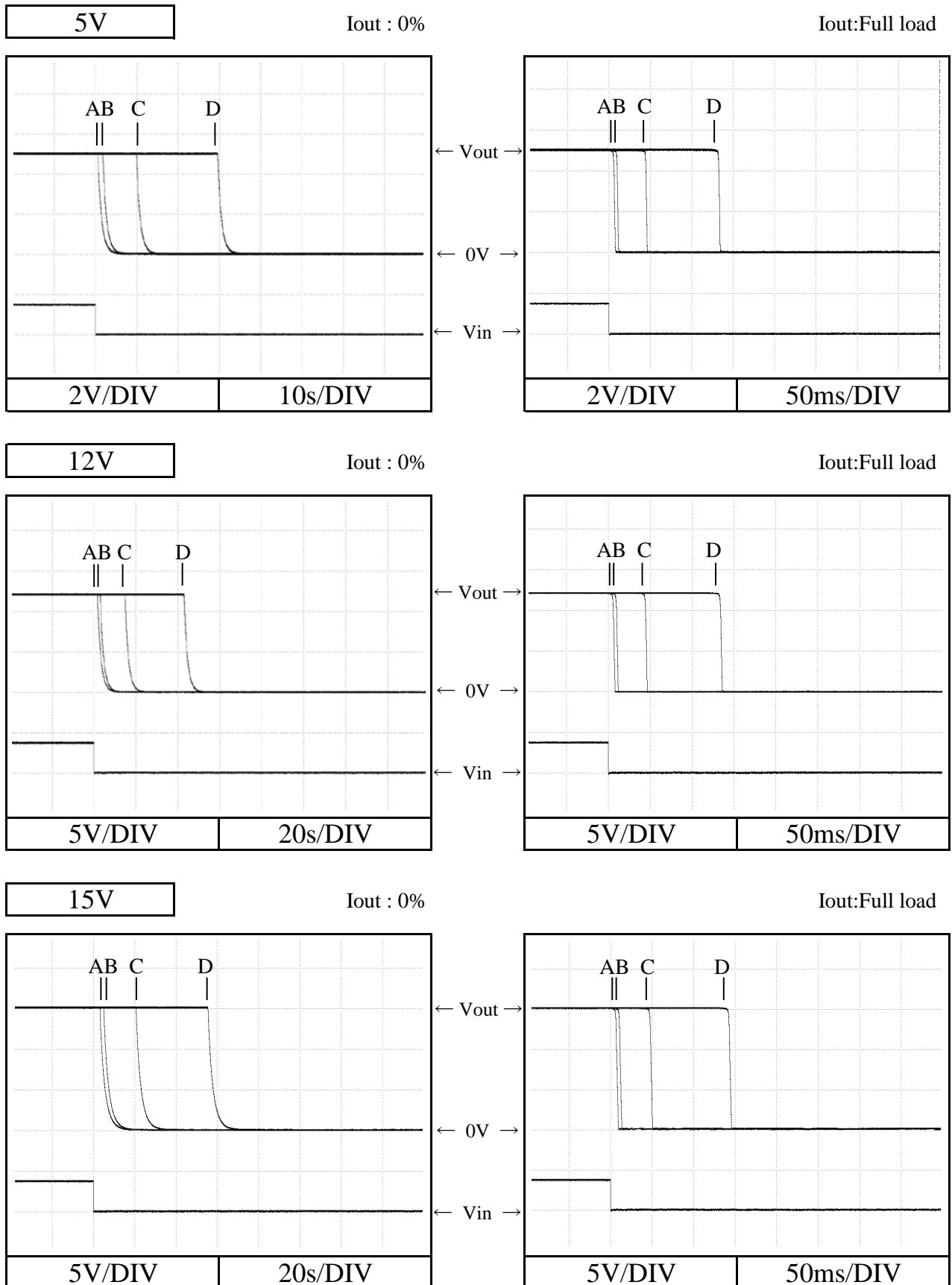
Conditions Vin : 88 VDC (A)
 110 VDC (B)
 220 VDC (C)
 370 VDC (D)
 Ta : 25 °C



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

CUS75EB

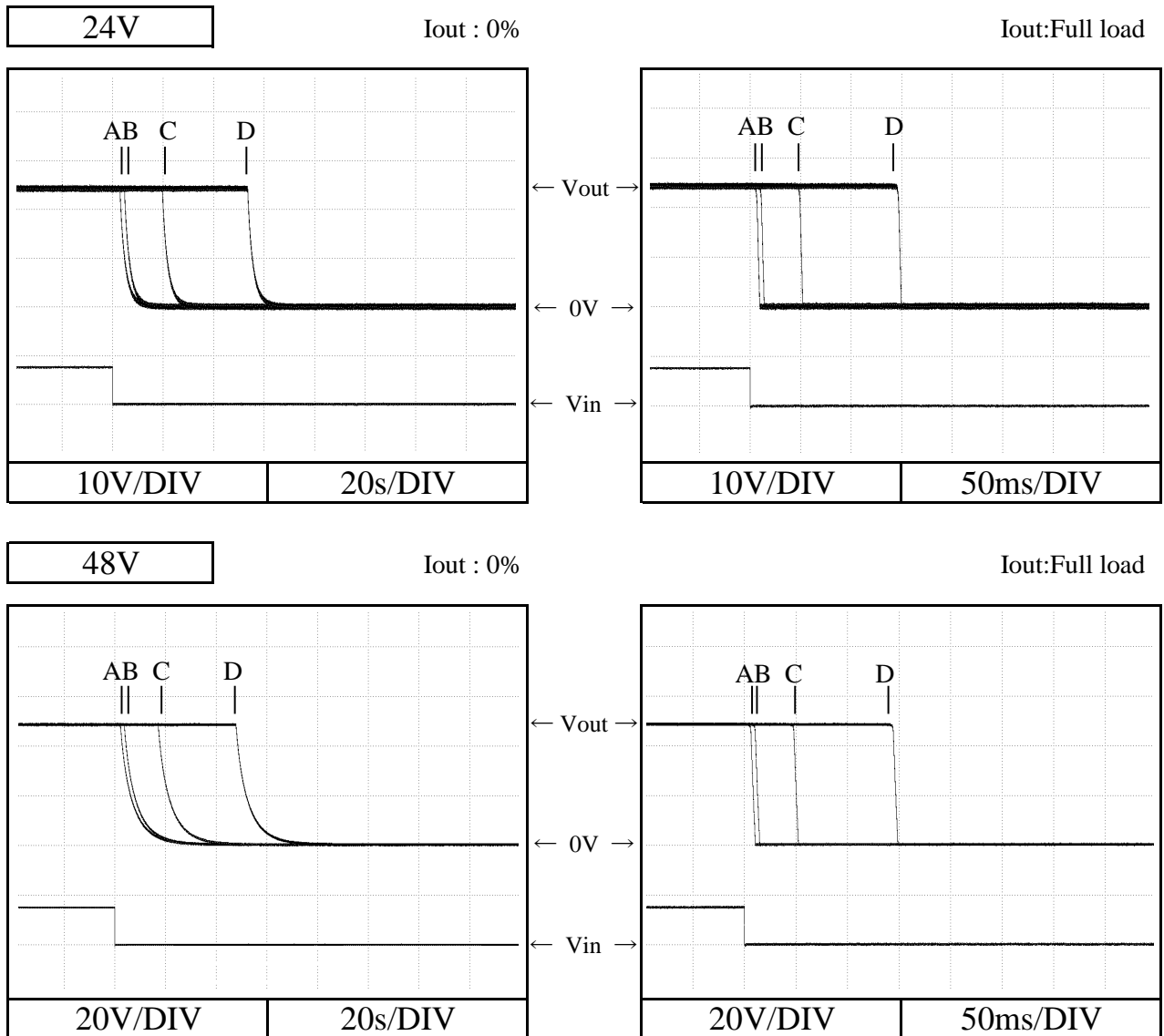
Conditions Vin : 88 VDC (A)
110 VDC (B)
220 VDC (C)
370 VDC (D)
Ta : 25 °C



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

CUS75EB

Conditions Vin : 88 VDC (A)
110 VDC (B)
220 VDC (C)
370 VDC (D)
Ta : 25 °C

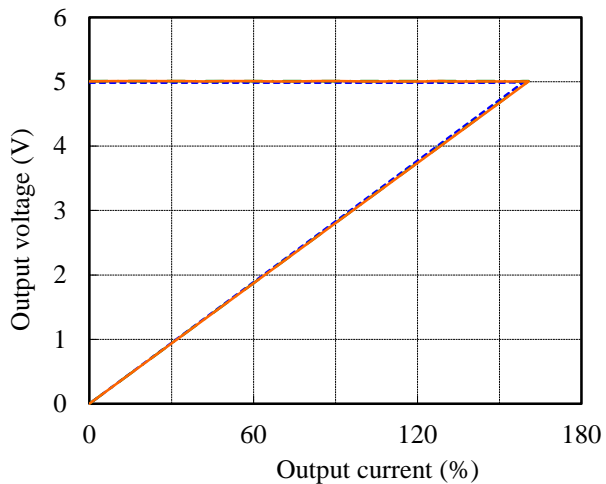


2.6 過電流保護特性

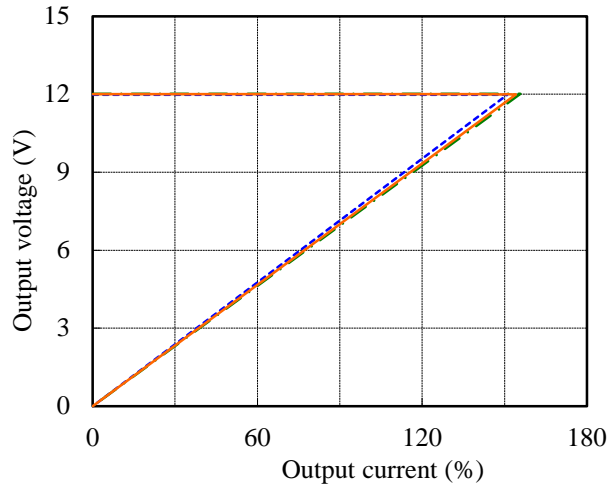
Over current protection (OCP) characteristics

Conditions Vin : 220 VDC
 Ta : -20 °C ---
 25 °C -.-
 50 °C —

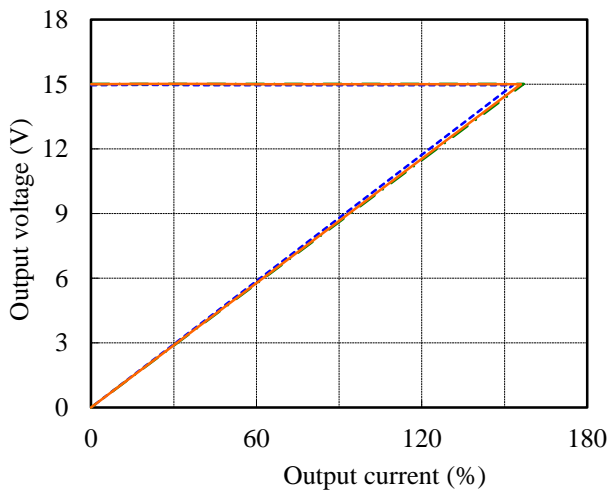
5V



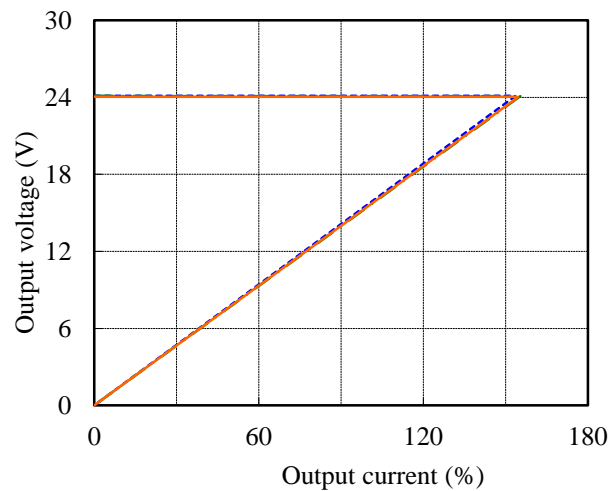
12V



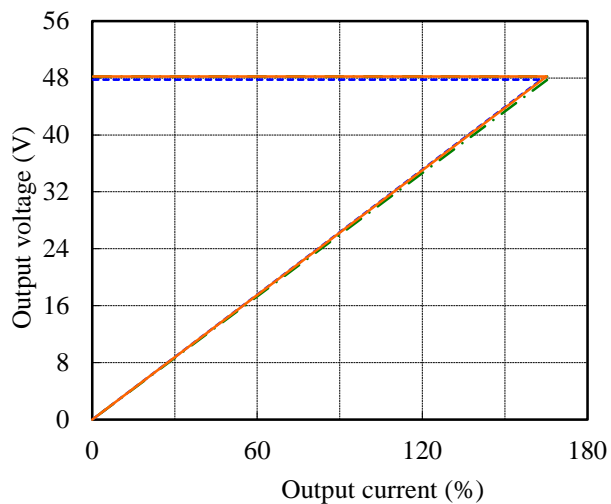
15V



24V



48V



2.7 過電圧保護特性

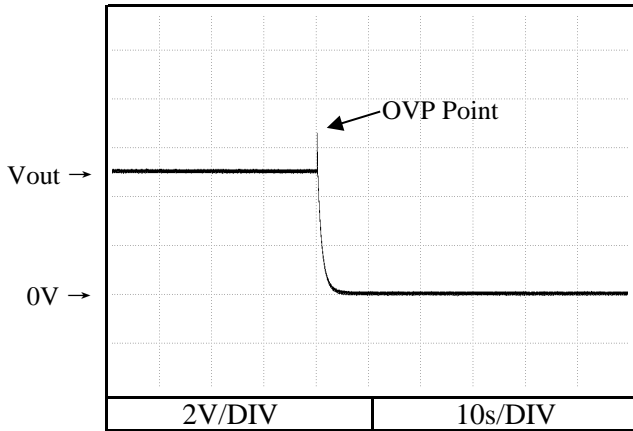
Over voltage protection (OVP) characteristics

Conditions Vin : 110 VDC

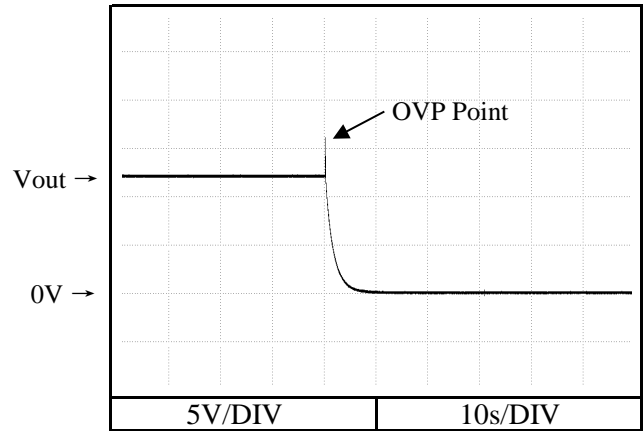
Iout : 0 %

Ta : 25 °C

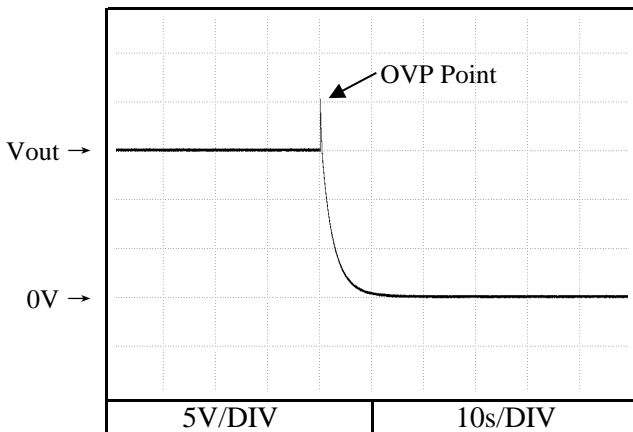
5V



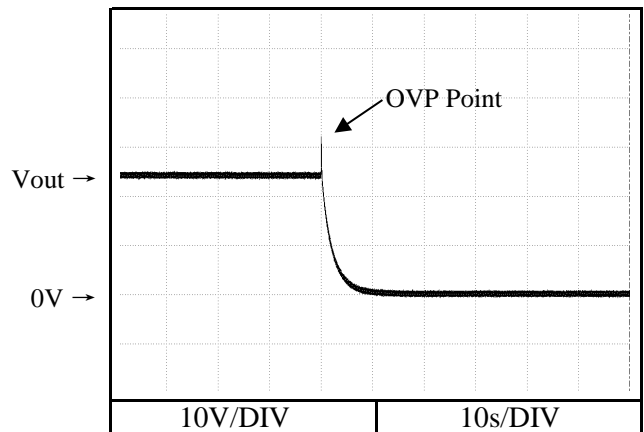
12V



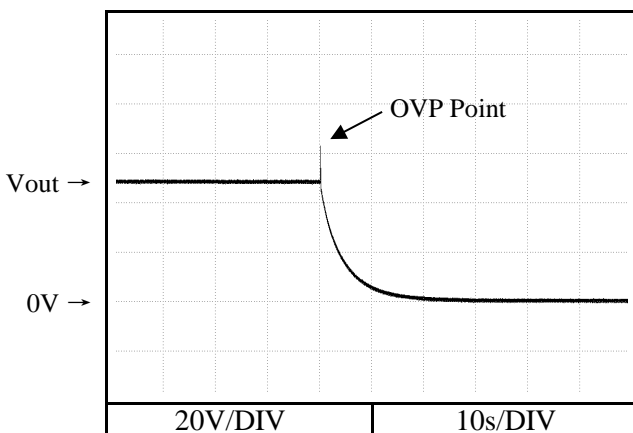
15V



24V



48V

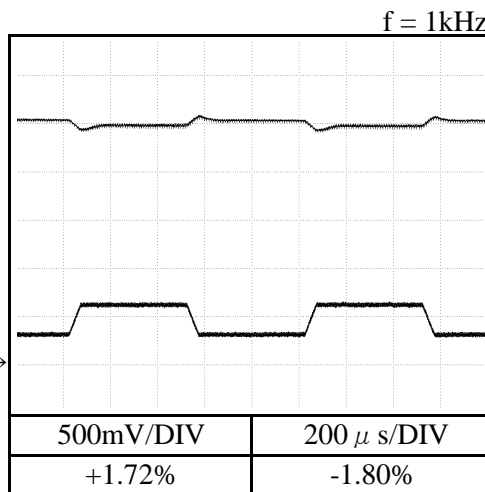
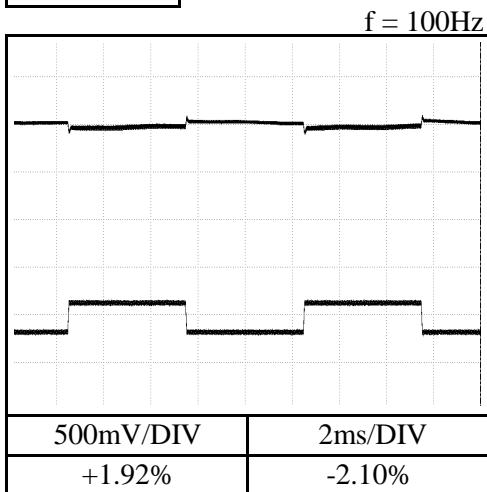


2.8 過渡応答（負荷急変）特性

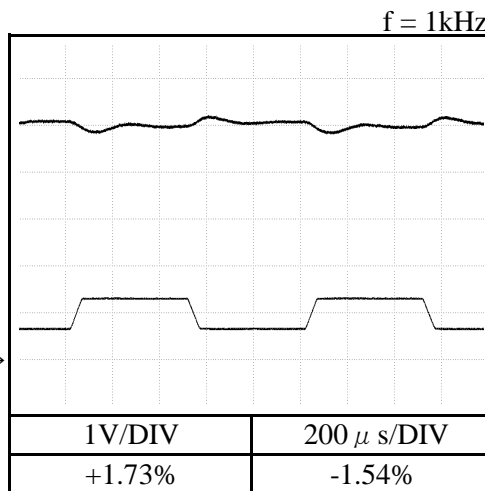
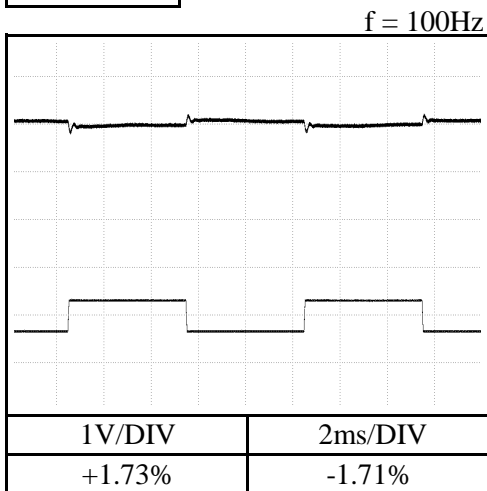
Dynamic load response characteristics

Conditions Vin : 110 VDC
 Iout : 50 % ↔ 100 %
 (tr = tf = 50us)
 Ta : 25 °C

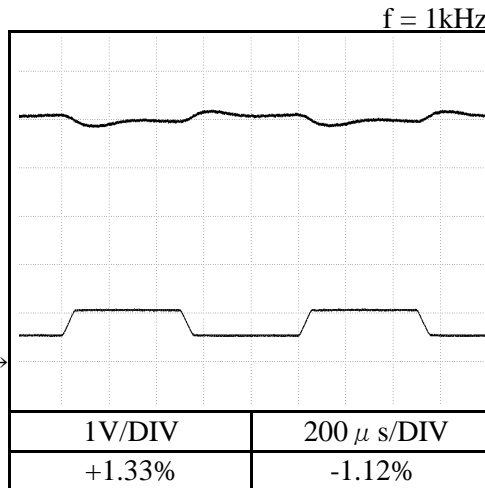
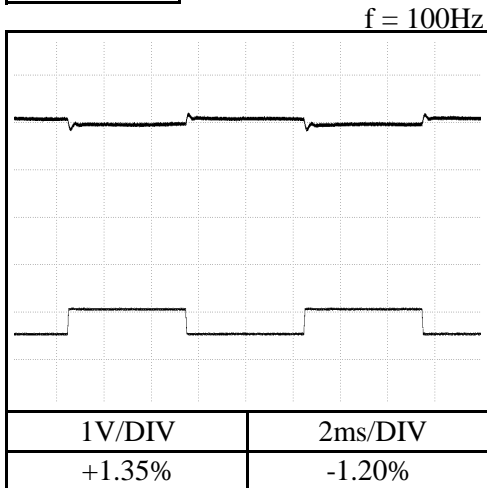
5V



12V



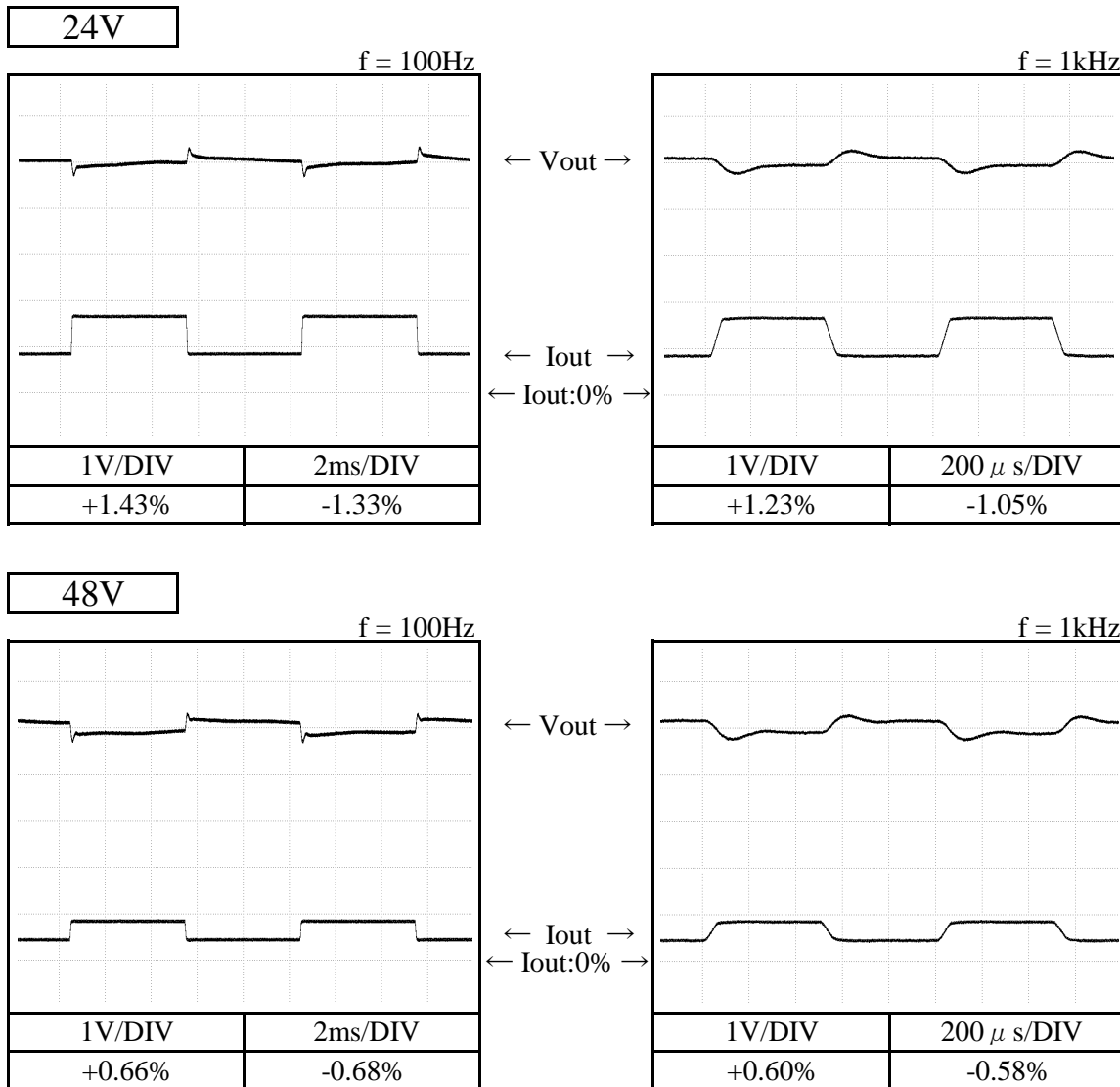
15V



2.8 過渡応答（負荷急変）特性

Dynamic load response characteristics

Conditions Vin : 110 VDC
 Iout : 50 % ↔ 100 %
 (tr = tf = 50us)
 Ta : 25 °C



2.9 入力電圧瞬停特性

Response to brown out characteristics

Conditions Ta : 25 °C
Iout : Full load

瞬停時間 Interruption time

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

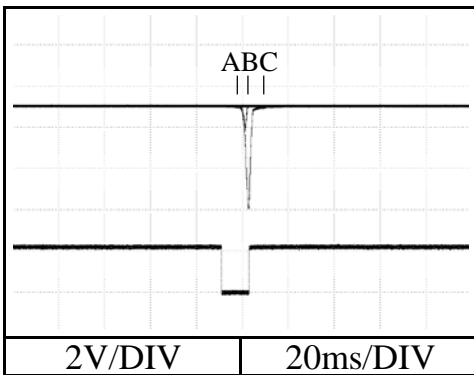
B : 出力電圧の低下が0Vまでいかない Output voltage drop down not reaching 0V.

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

5V

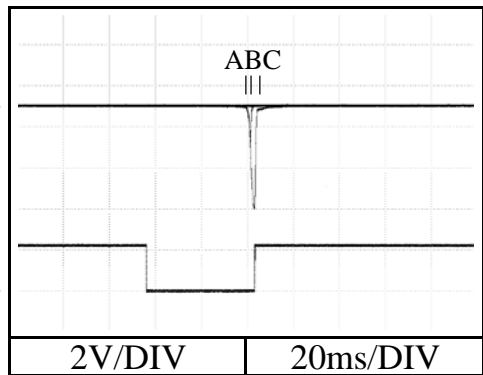
Vin : 110VDC

A = 7ms, B = 10ms, C = 12ms



Vin : 220VDC

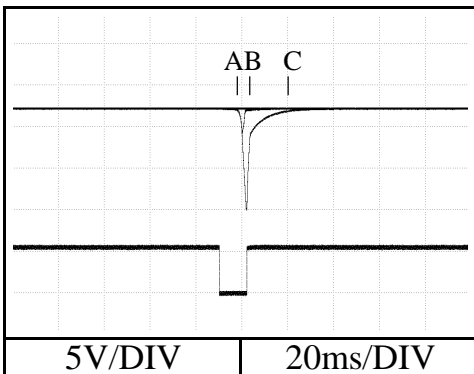
A = 41ms, B = 45ms, C = 47ms



12V

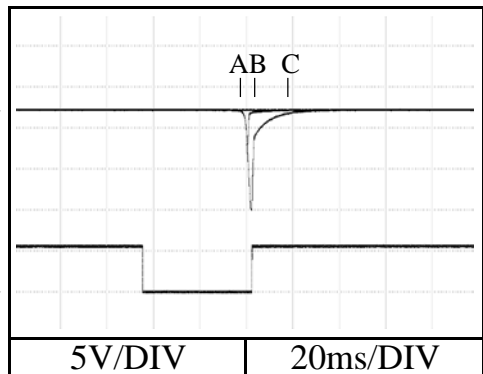
Vin : 110VDC

A = 8ms, B = 10ms, C = 12ms



Vin : 220VDC

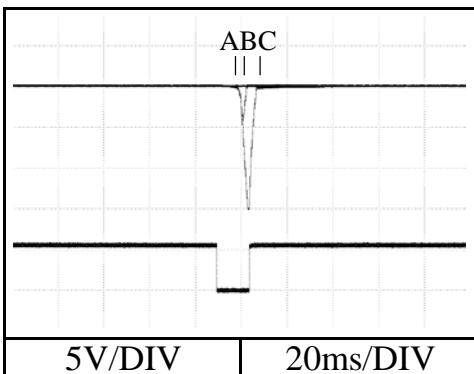
A = 42ms, B = 45ms, C = 47ms



15V

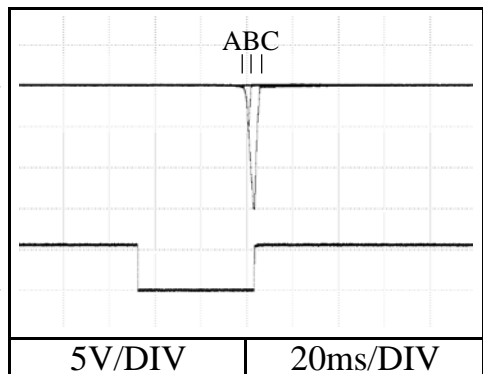
Vin : 110VDC

A = 8ms, B = 11ms, C = 14ms



Vin : 220VDC

A = 44ms, B = 48ms, C = 51ms



2.9 入力電圧瞬停特性

Response to brown out characteristics

Conditions Ta : 25 °C
Iout : Full load

瞬停時間 Interruption time

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

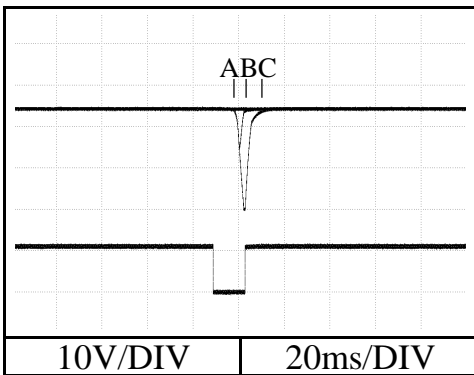
B : 出力電圧の低下が0Vまでいかない Output voltage drop down not reaching 0V.

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

24V

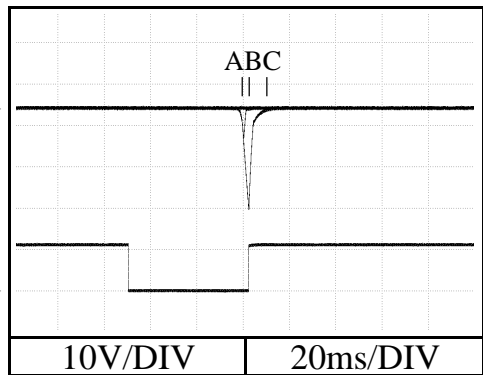
Vin : 110VDC

A = 9ms, B = 12ms, C = 14ms



Vin : 220VDC

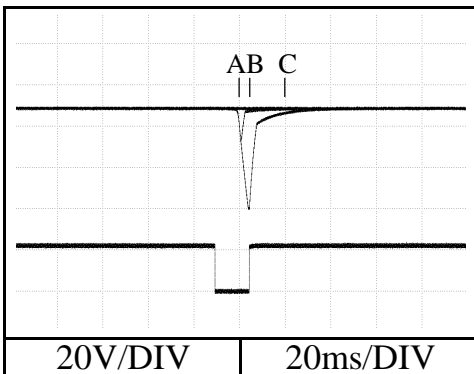
A = 47ms, B = 50ms, C = 52ms



48V

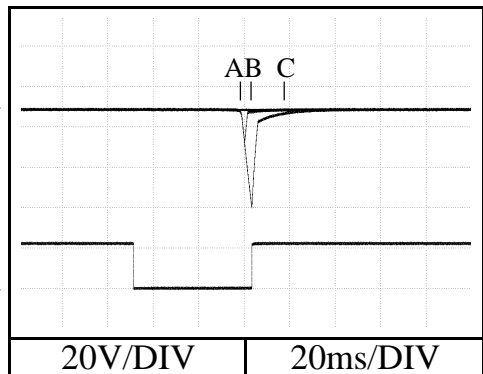
Vin : 110VDC

A = 9ms, B = 12ms, C = 15ms



Vin : 220VDC

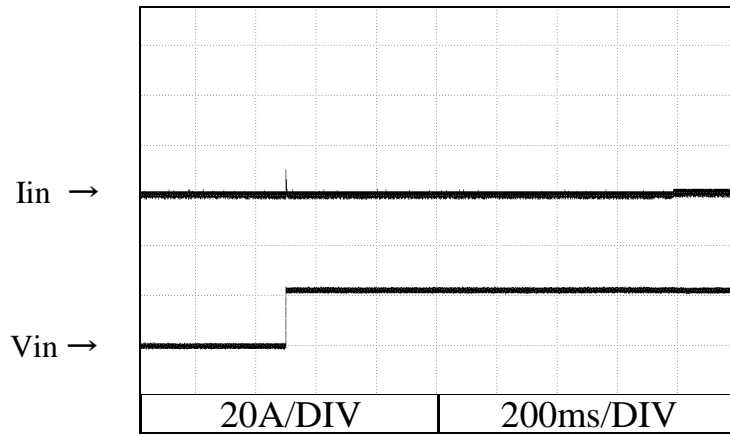
A = 47ms, B = 49ms, C = 52ms



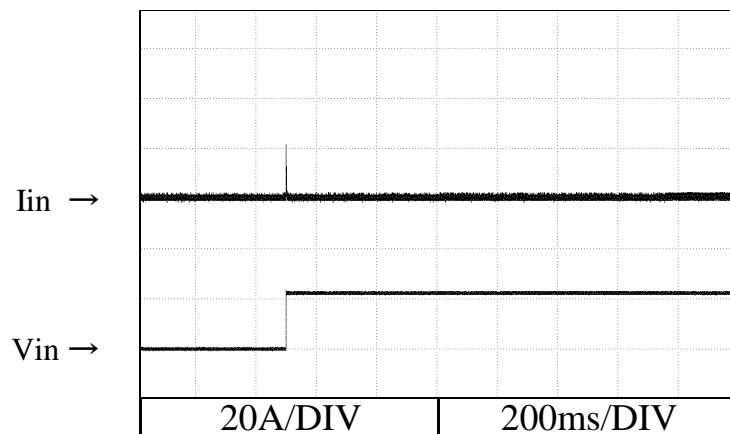
2.10 入力サージ電流 (突入電流) 波形
Inrush current waveform

5V

Conditions Vin : 110 VDC
Iout : Full load
Ta : 25 °C



Conditions Vin : 220 VDC
Iout : Full load
Ta : 25 °C

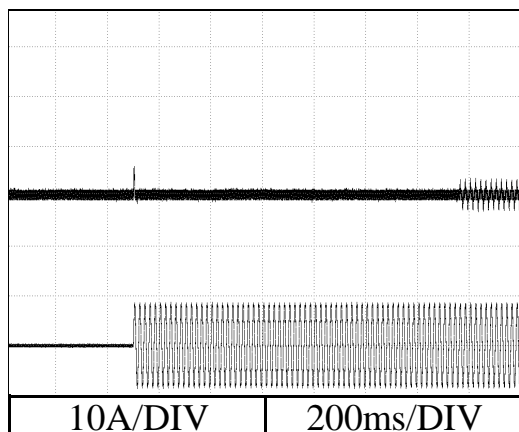


2.10 入力サージ電流 (突入電流) 波形
Inrush current waveform

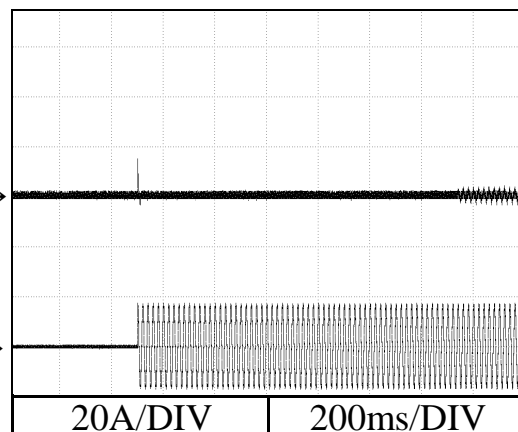
5V

Conditions Vin : 115 VAC
Iout : Full load
Ta : 25 °C

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

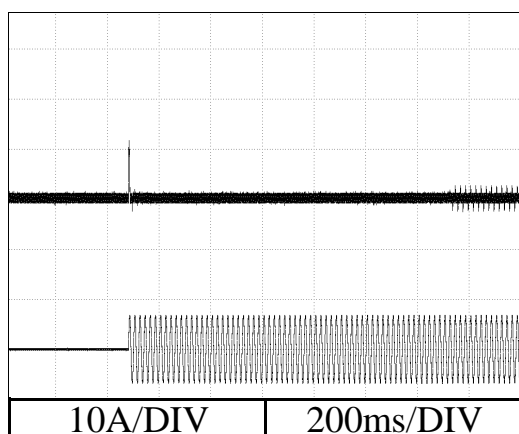


Switch on phase angle of input AC voltage
 $\phi = 90^\circ$

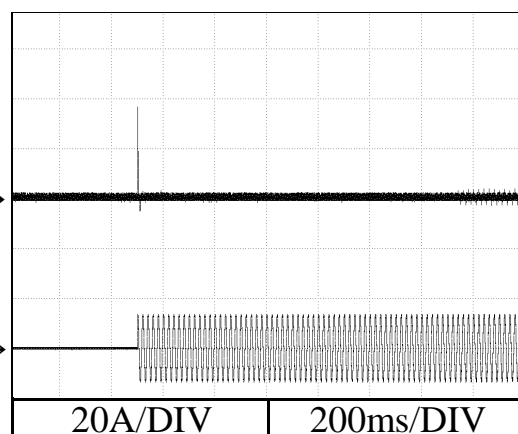


Conditions Vin : 230 VAC
Iout : Full load
Ta : 25 °C

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



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

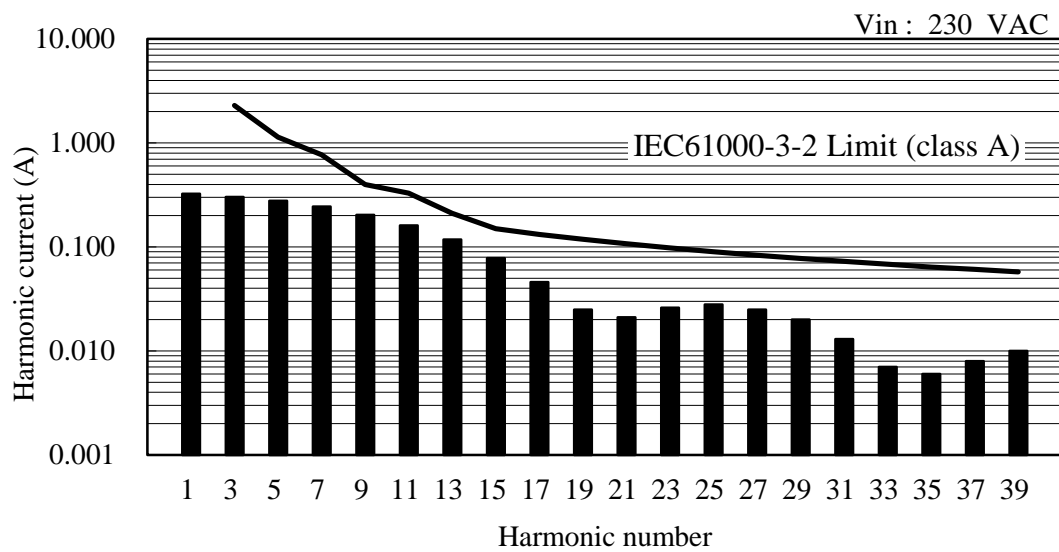
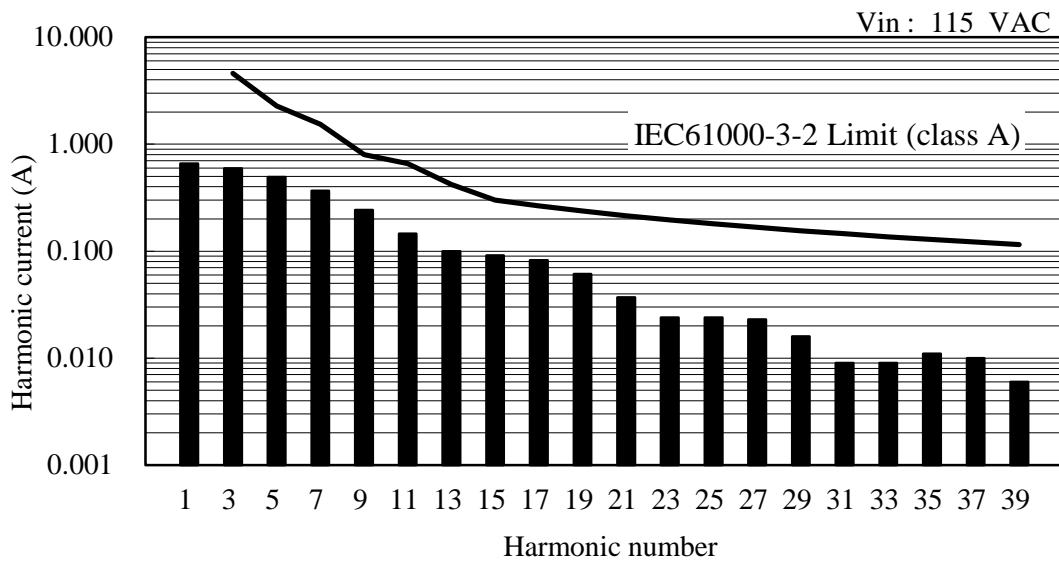


2.11 高調波成分

Input current harmonics

Conditions Iout : Full load
Ta : 25 °C

5V

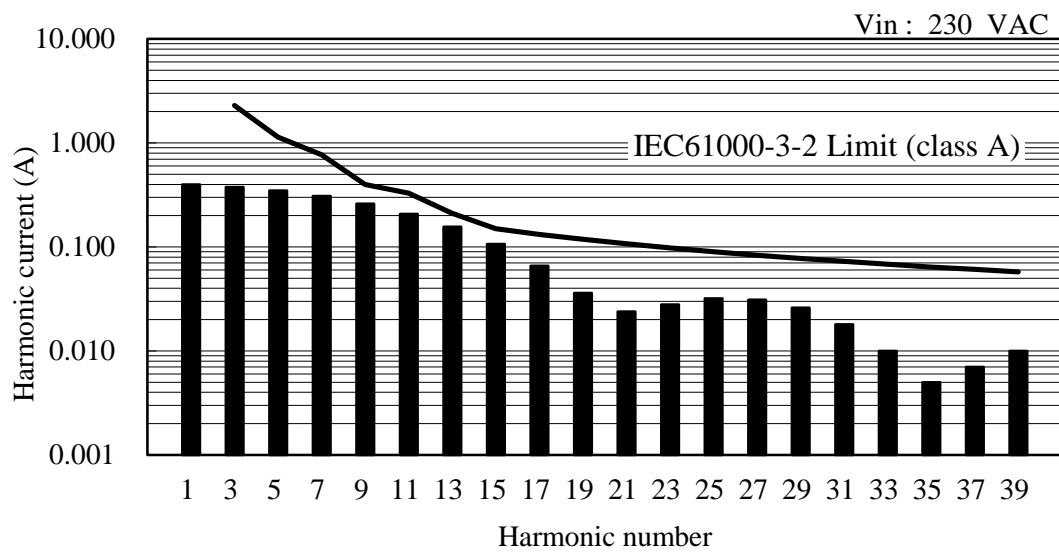
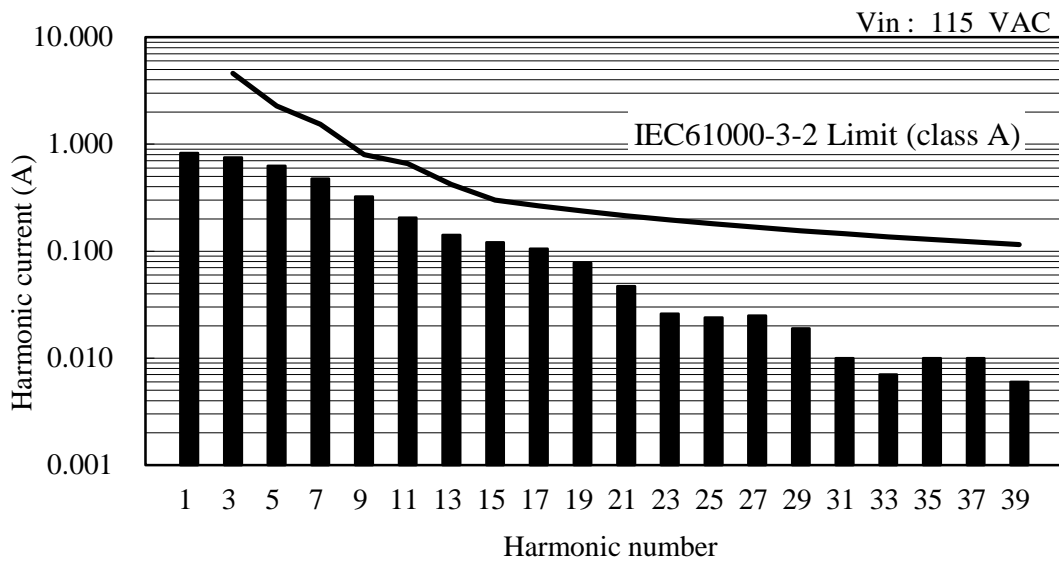


2.11 高調波成分

Input current harmonics

Conditions Iout : Full load
Ta : 25 °C

24V



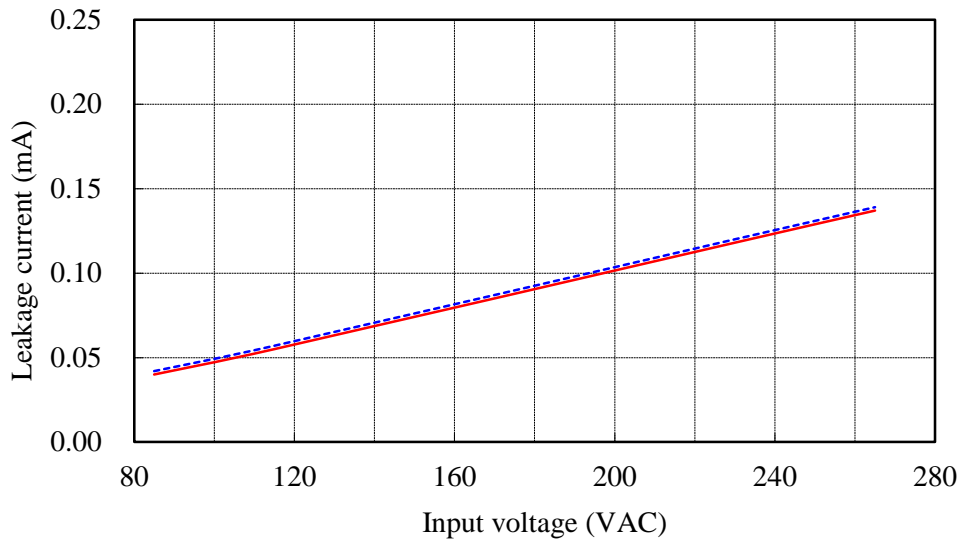
2.12 リーク電流特性

Leakage current characteristics

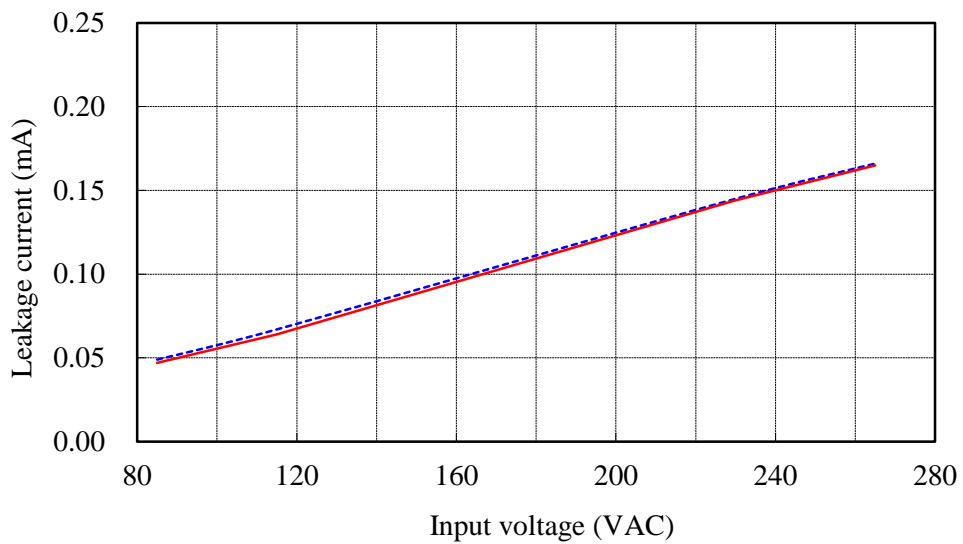
Conditions Iout : 0 % ---
 Full Load ---
 Ta : 25 °C
 Equipment used : MODEL 228
 (Simpson)

5V

f : 50 Hz



f : 60 Hz



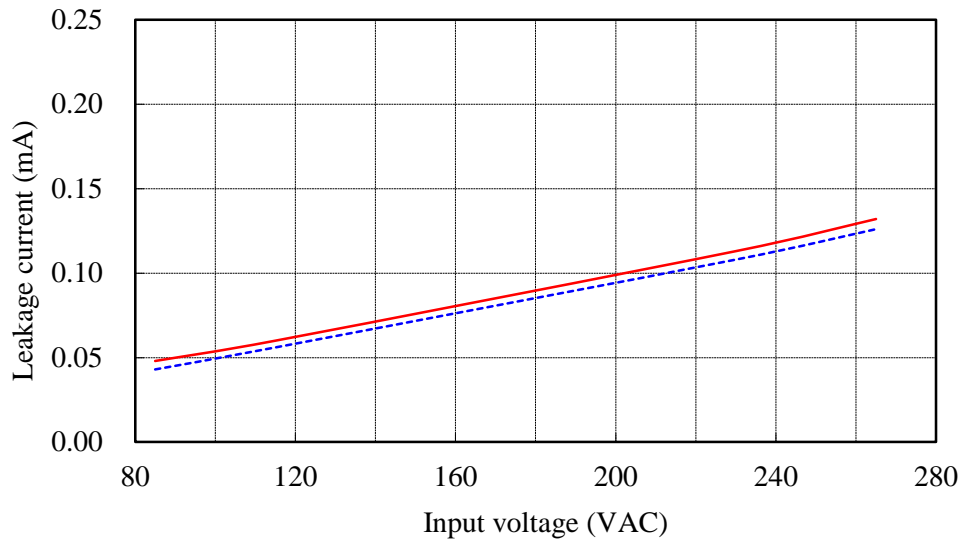
2.12 リーク電流特性

Leakage current characteristics

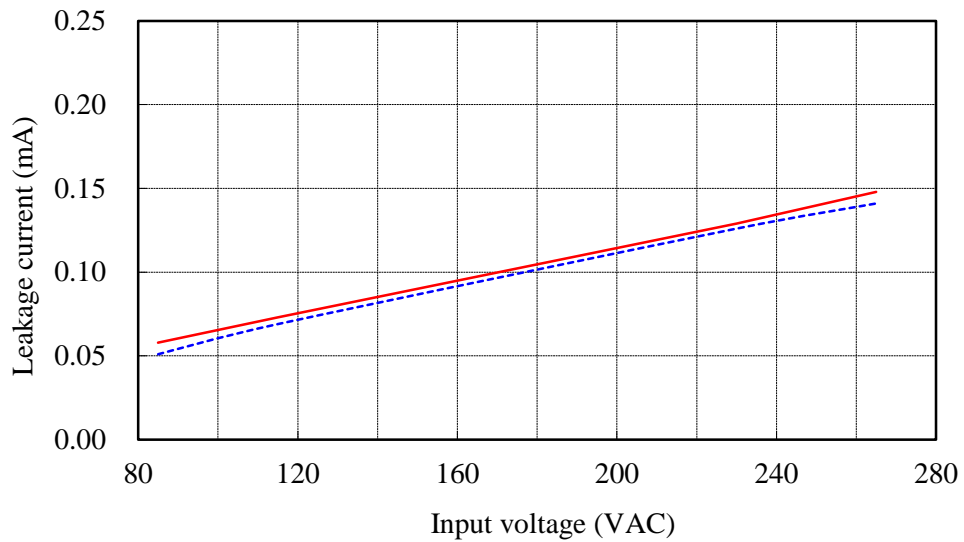
Conditions Iout : 0 % ---
 Full Load ---
 Ta : 25 °C
 Equipment used : MODEL 228
 (Simpson)

48V

f : 50 Hz



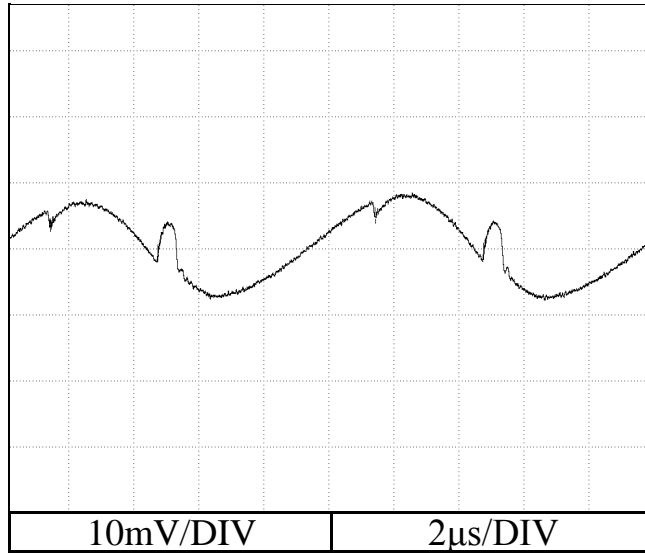
f : 60 Hz



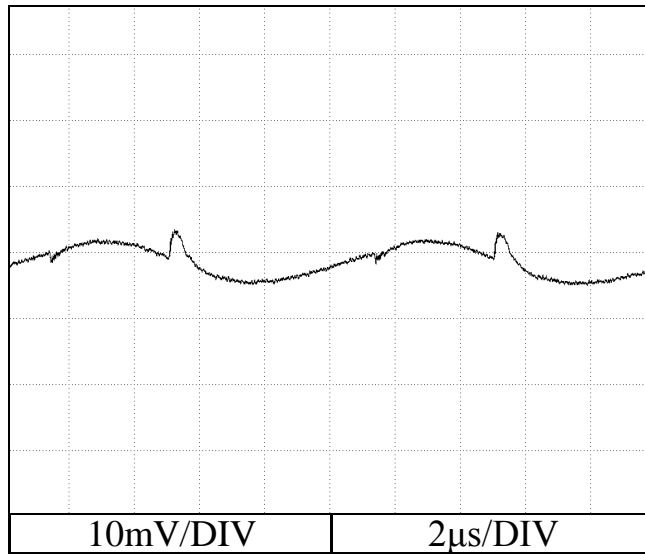
2.13 出力リップル、ノイズ波形
Output ripple and noise waveform

Conditions Vin : 110 VDC
Iout : Full load
Ta : 25 °C

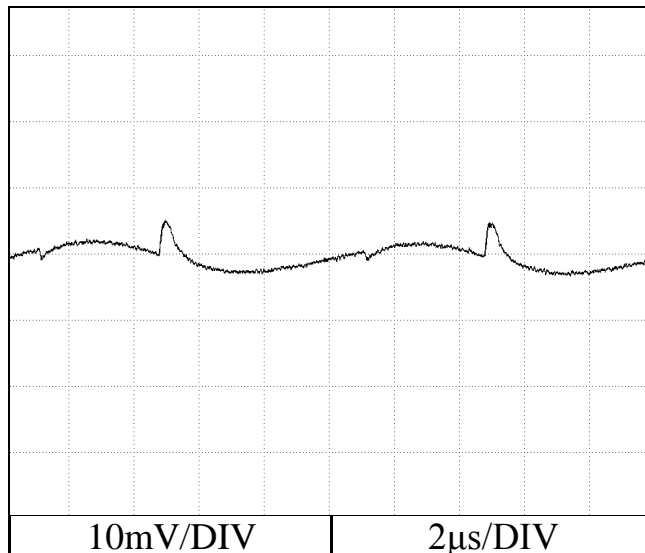
5V



12V



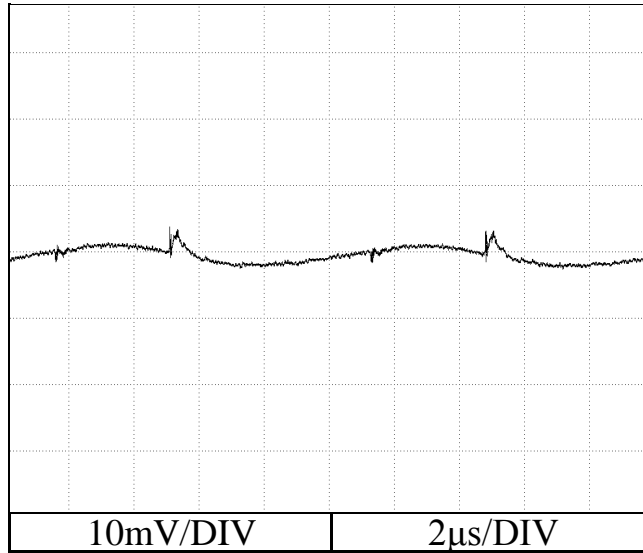
15V



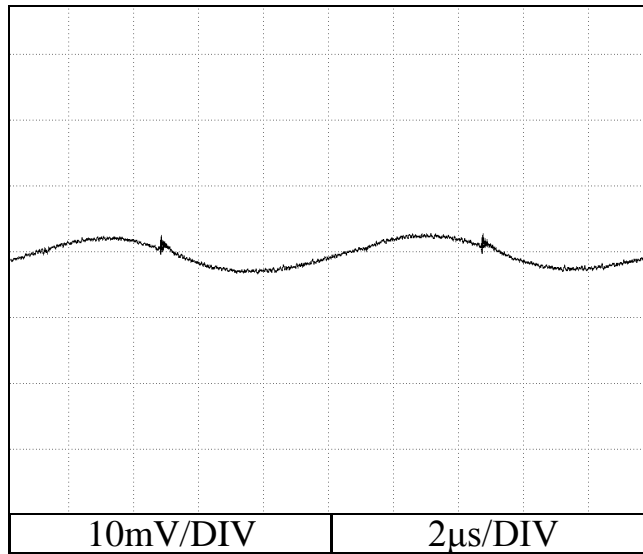
2.13 出力リップル、ノイズ波形
Output ripple and noise waveform

Conditions Vin : 110 VDC
Iout : Full load
Ta : 25 °C

24V



48V



2.14 EMI 特性

Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC
Iout : Full load
Ta : 25 °C

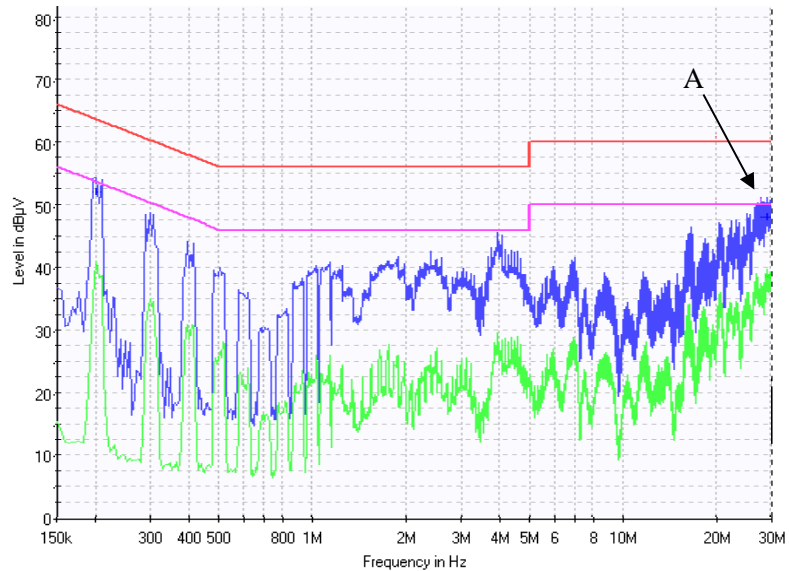
雑音端子電圧

Conducted Emission

5V

Phase : N

Point A (29.4MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	60.0	47.9
AV	50.0	38.6

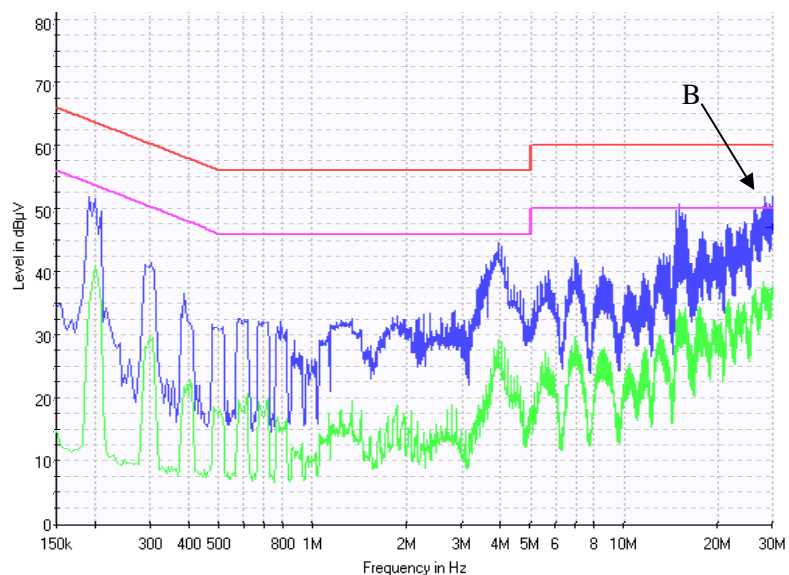


FCC Class B
QP Limit

FCC Class B
AV Limit

Phase : L

Point B (30MHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	60.0	46.9
AV	50.0	37.5



FCC Class B
QP Limit

FCC Class B
AV Limit

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

2.14 EMI 特性

Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC
Iout : Full load
Ta : 25 °C

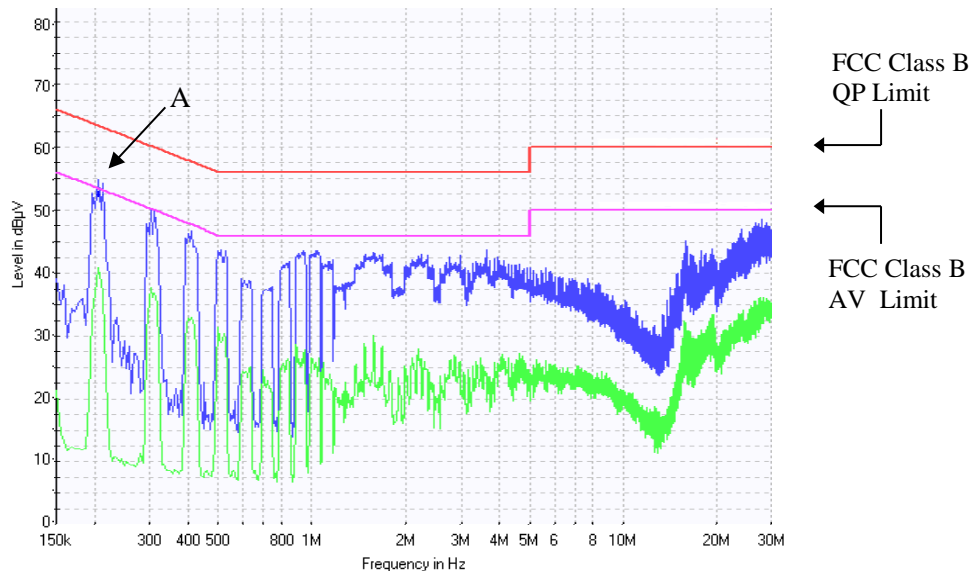
雑音端子電圧

Conducted Emission

12V

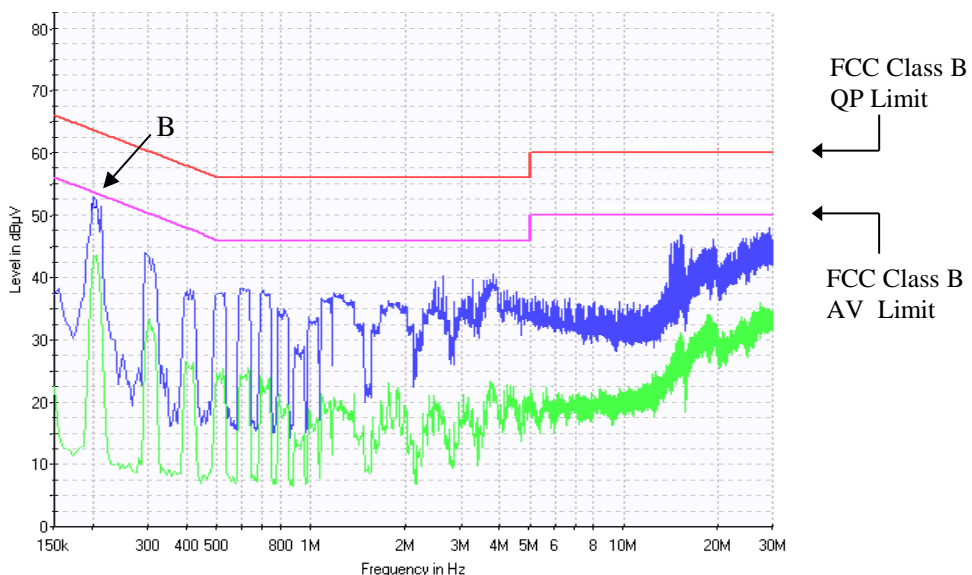
Phase : N

Point A (205KHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.0	52.4
AV	53.0	40.9



Phase : L

Point B (202KHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.0	50.7
AV	53.0	42.5



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

2.14 EMI 特性

Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC
Iout : Full load
Ta : 25 °C

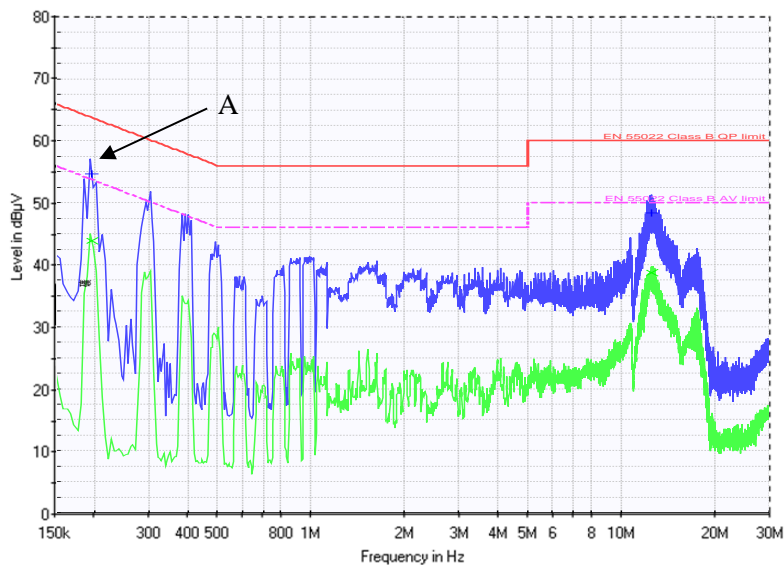
雑音端子電圧

Conducted Emission

15V

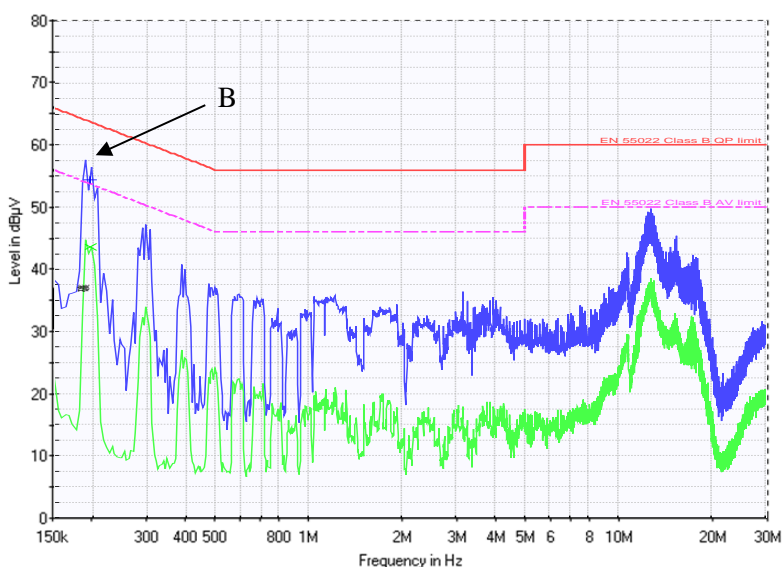
Phase : N

Ref. Data	Point A (0.197MHz)	
	Limit (dBuV)	Measure (dBuV)
QP	63.5	54.7
AV	53.5	45.0



Phase : L

Ref. Data	Point B (0.1965MHz)	
	Limit (dBuV)	Measure (dBuV)
QP	63.5	54.4
AV	53.5	45.0



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

2.14 EMI 特性

Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC
Iout : Full load
Ta : 25 °C

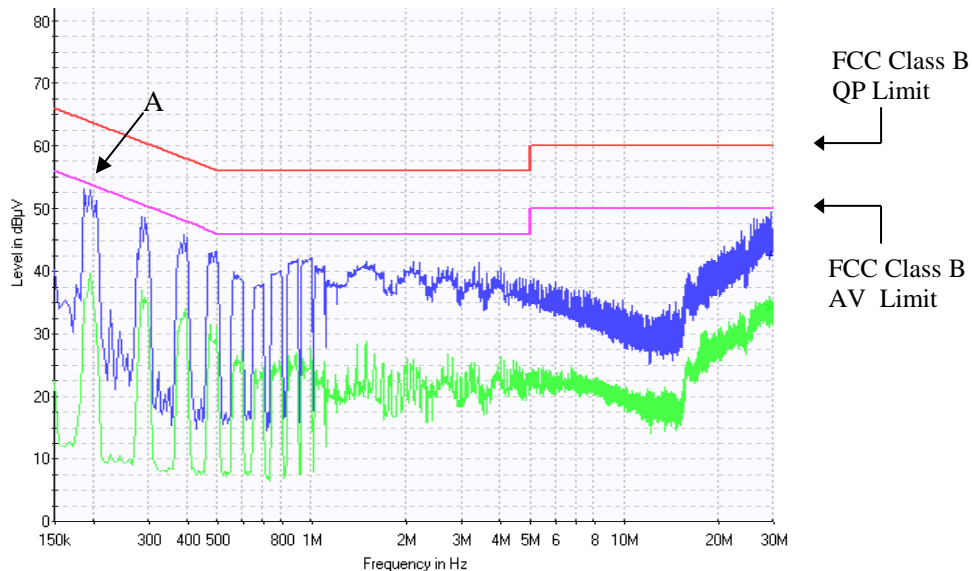
雑音端子電圧

Conducted Emission

24V

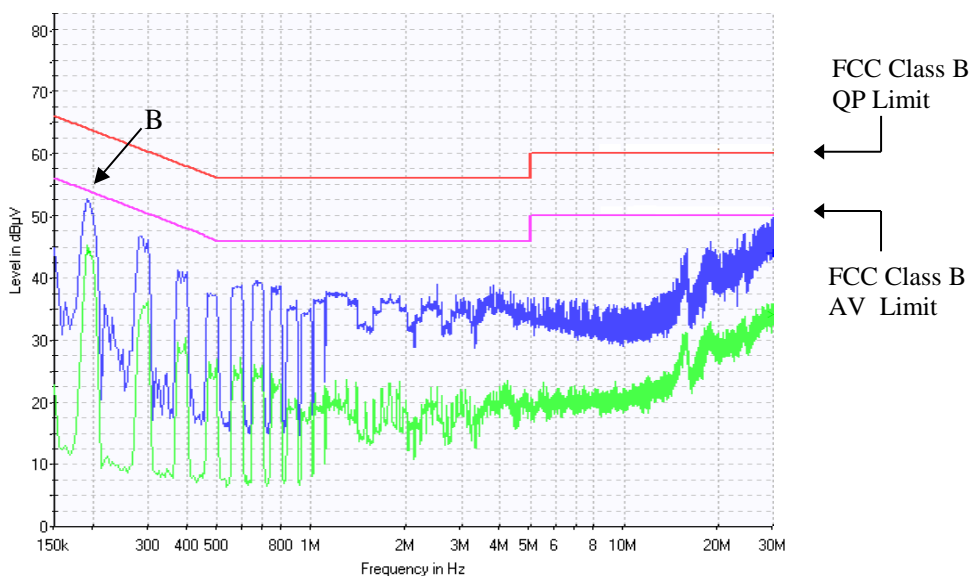
Phase : N

Point A (195KHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.0	50.8
AV	53.0	39.3



Phase : L

Point B (190KHz)		
Ref. Data	Limit (dBuV)	Measure (dBuV)
QP	63.0	50.3
AV	53.0	44.1



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

2.14 EMI 特性

Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC
Iout : Full load
Ta : 25 °C

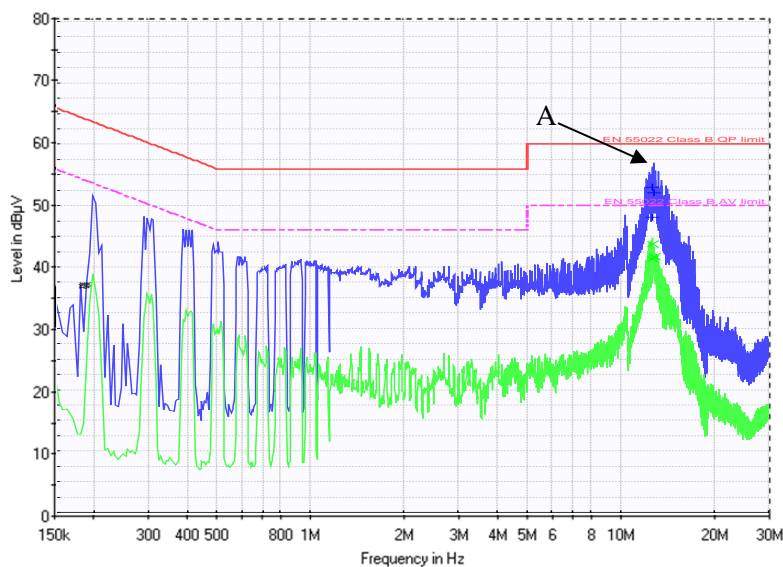
雑音端子電圧

Conducted Emission

48V

Phase : N

Ref. Data	Point A (12.65MHz)	
	Limit (dBuV)	Measure (dBuV)
QP	60.0	53.0
AV	50.0	44.0

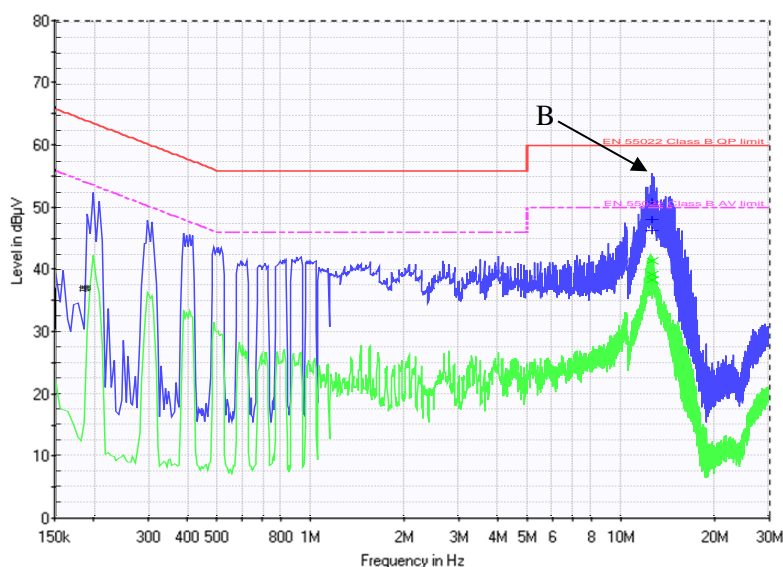


FCC Class B QP Limit

FCC Class B AV Limit

Phase : L

Ref. Data	Point B (12.66MHz)	
	Limit (dBuV)	Measure (dBuV)
QP	60.0	50.9
AV	50.0	41.4



FCC Class B QP Limit

FCC Class B AV Limit

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

2.14 EMI 特性

Electro-Magnetic Interference characteristics

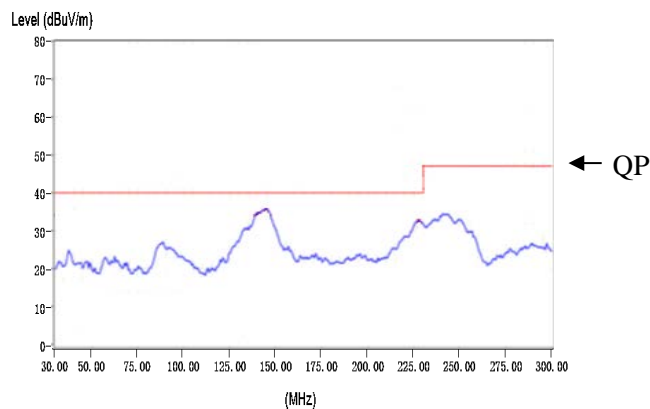
Conditions Vin : 230 VAC
Io : Full load
Ta : 25 °C

雑音電界強度

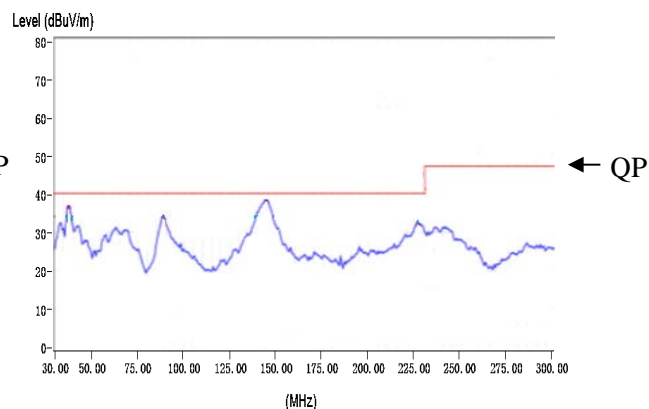
Radiated Emission

5V

HORIZONTAL

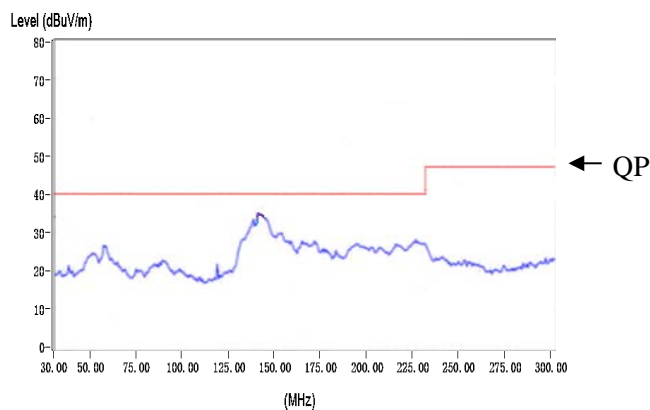


VERTICAL

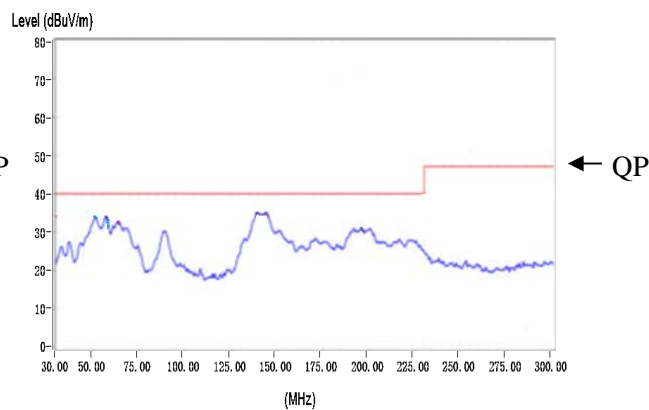


12V

HORIZONTAL

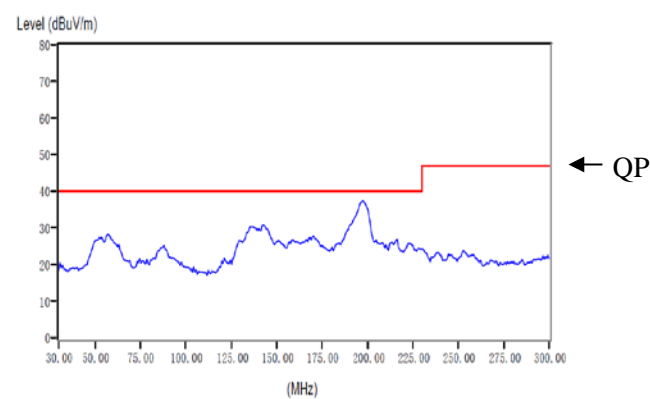


VERTICAL

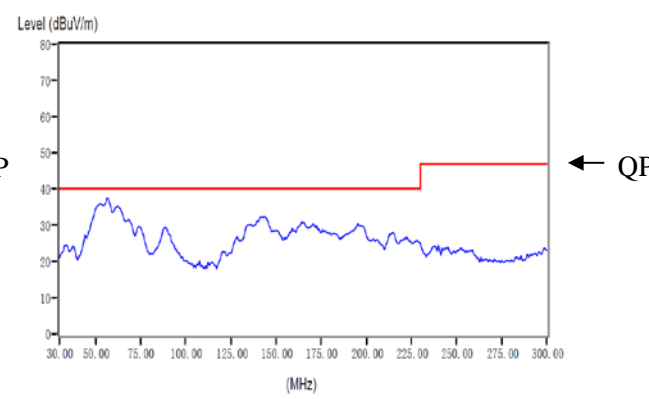


15V

HORIZONTAL



VERTICAL



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

表示はピーク値
Indication is peak values.

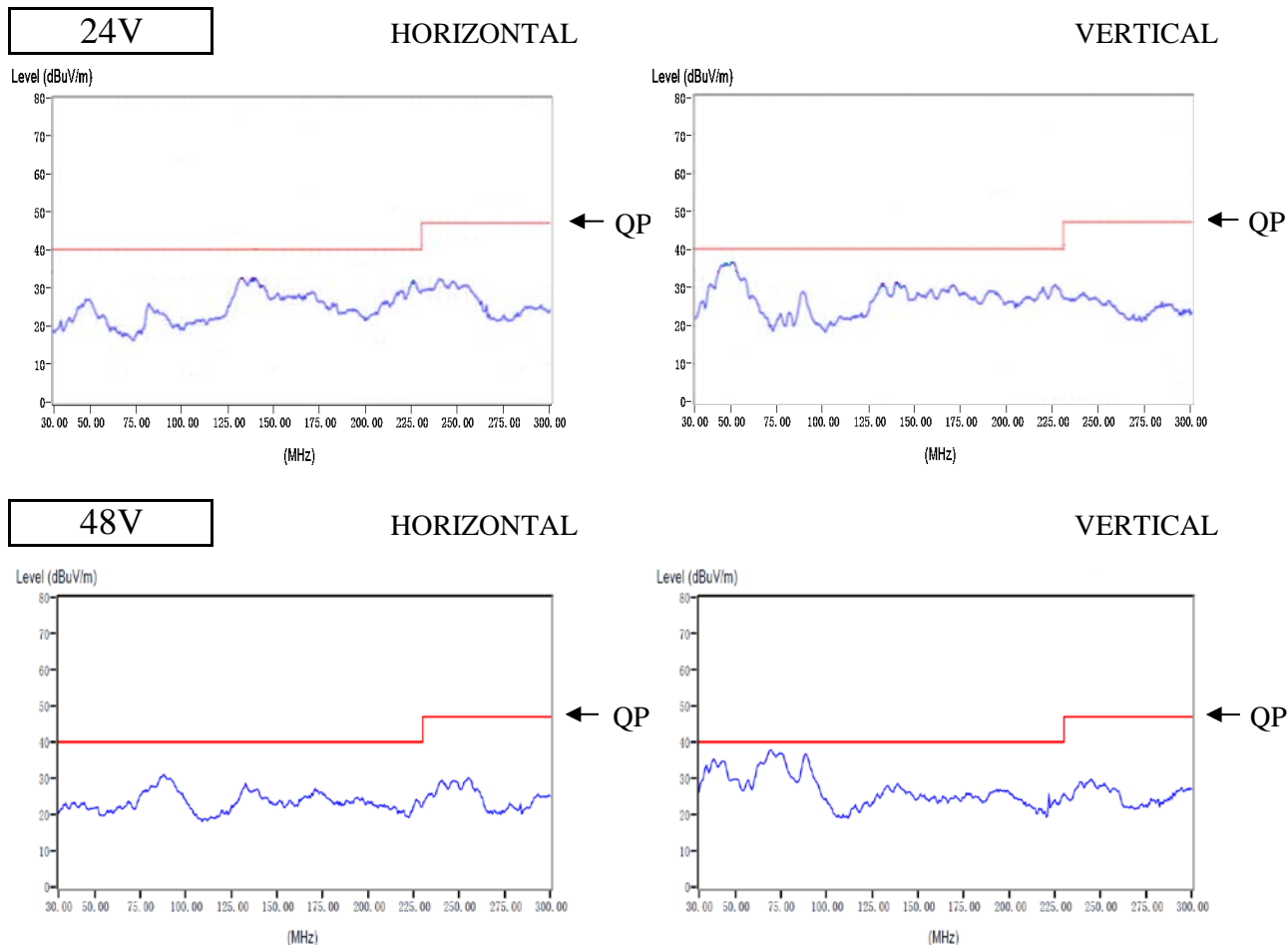
2.14 EMI 特性

Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC
Io : Full load
Ta : 25 °C

雑音電界強度

Radiated Emission



EN55011-Bの限界値はEN55032-Bの限界値と同じ

Limit of EN55011-B are same as its EN55032-B.

表示はピーク値

Indication is peak values.