# CUS600M

# EVALUATION DATA

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Terminology used

| | Definition | |
|---|---|---|
| Vin | ..... | Input voltage |
| Vout | ..... | Output voltage |
| Iin | ..... | Input current |
| Iout | ..... | Output current |
| Ta | ..... | Ambient temperature |
| Vstb | ..... | Output voltage of standby |
| Istb | ..... | Output current of standby |

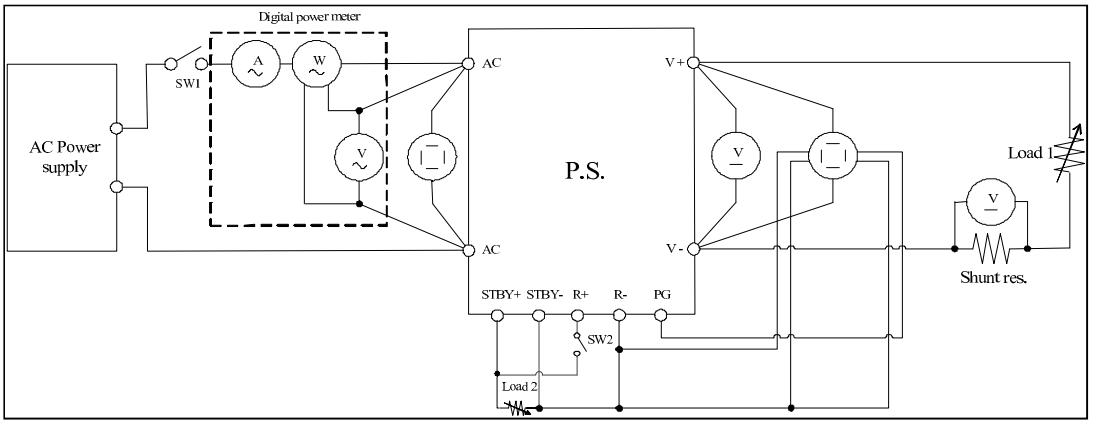
※ Test results are reference data based on our measurement condition.

## 1. Evaluation Method

1-1. Circuit used for determination

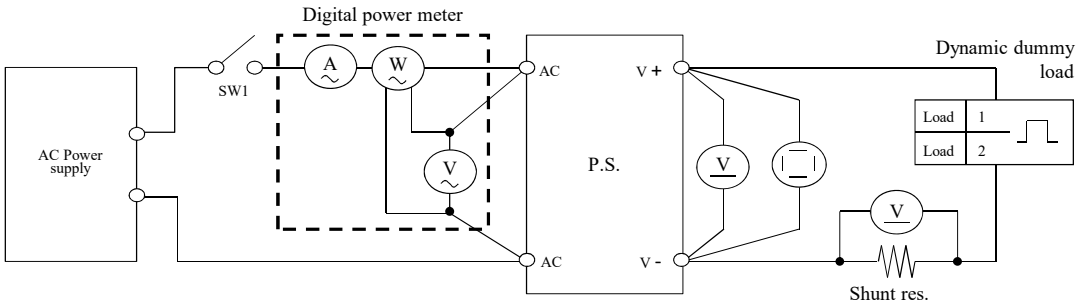
Circuit 1 used for determination

- Steady state data
- Warm up voltage drift characteristics
- Hold up time characteristics
- Output rise characteristics
- Output fall characteristics
- Over current protection (OCP) characteristics
- Over voltage protection (OVP) characteristics
- Response to brown out characteristics
- Various signal

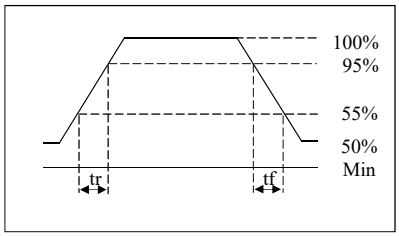



Circuit 2 used for determination

- Dynamic load response characteristics

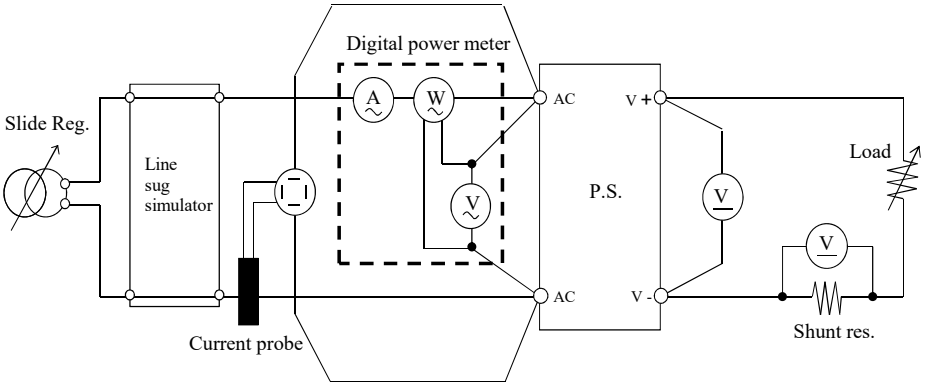



Output current waveform
Iout 50% <==> 100%



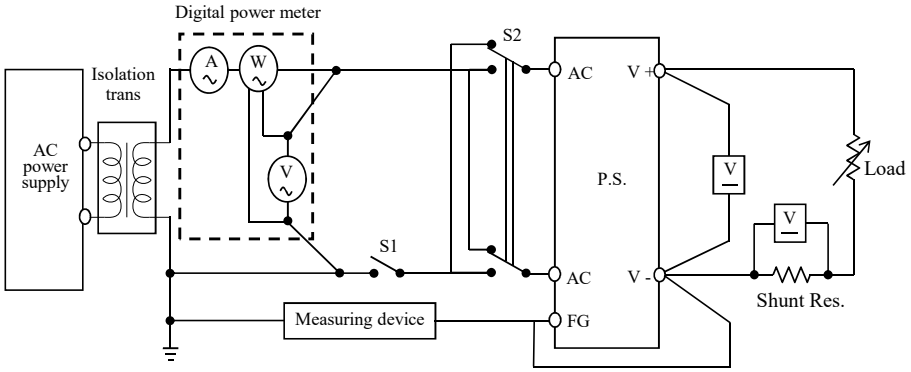
Circuit 3 used for determination

・Inrush current waveform



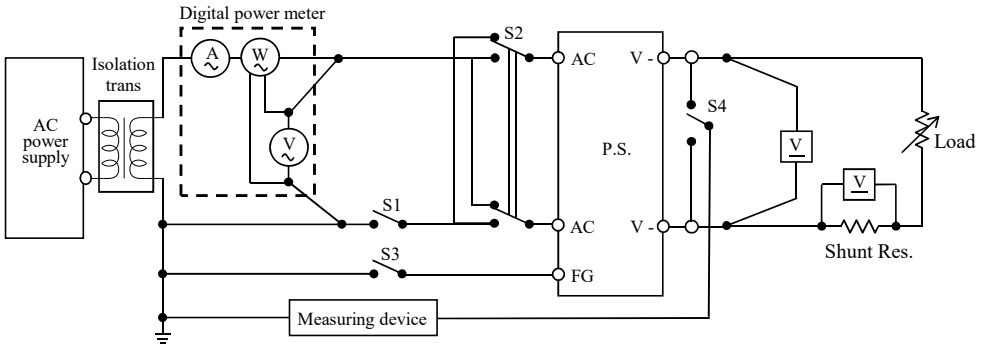

Circuit 4 used for determination

・Earth leakage current characteristics




Measure in all possible combination of position of S2 with :
S1 closed (normal condition), and S1 open (single fault condition)

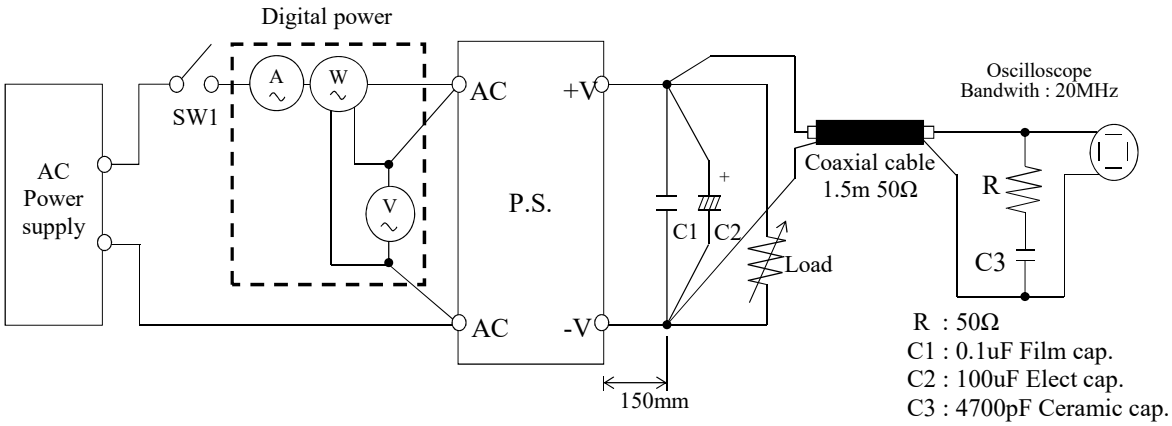
・Patient leakage current




CLASS I equipment:
S1, S3 closed, measure under all possible position of S2 & S4.
Single fault condition: S1 open with S3 close or S1 close with S3 open.

Circuit 5 used for determination

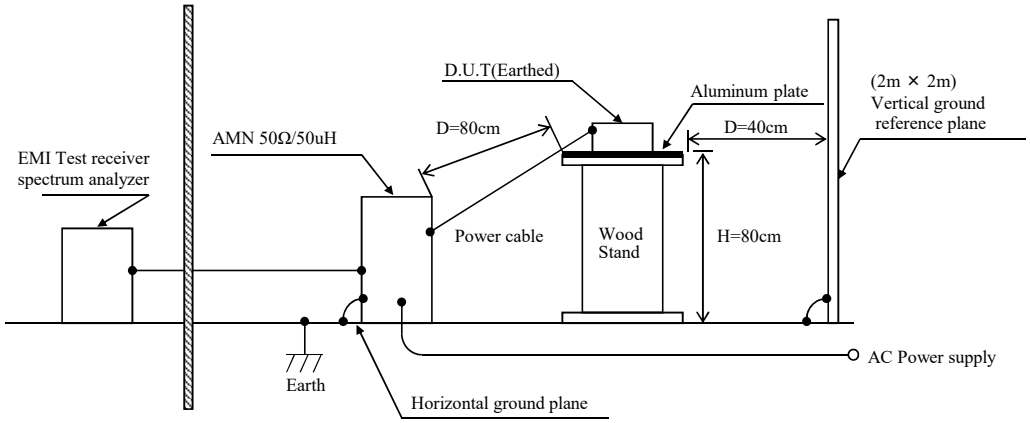
・Output ripple and noise waveform



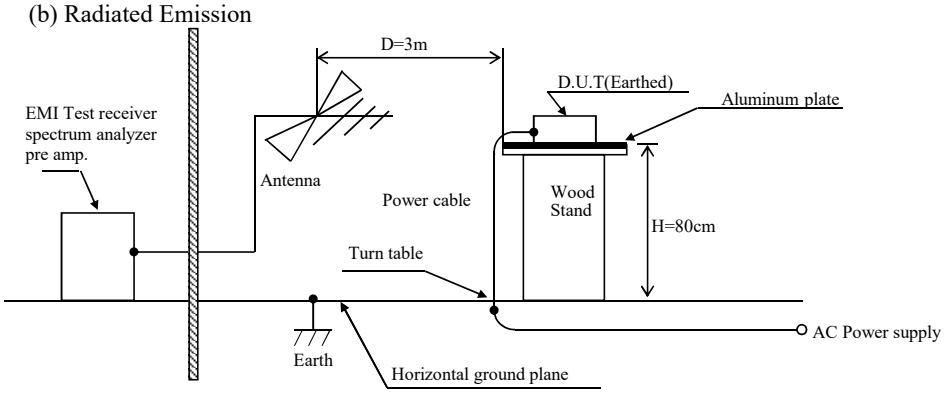

Configuration used for determination

・Electro-Magnetic Interference characteristics

(a) Conducted Emission




(b) Radiated Emission



1-2. List of equipment used

| | EQUIPMENT USED | MANUFACTURER | MODEL NO. |
|---|---|---|---|
| 1 | DIGITAL STORAGE OSCILLOSCOPE | YOKOGAWA ELECT. | DL2054 |
| 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 | EARTH LEAKAGE CURRENT METER | SIMPSON | 228 |
| 9 | PATIENT LEAKAGE CURRENT METER | SIQ | SIQ16042 |
| 10 | CONTROLLED TEMP. CHAMBER | TABAI-ESPEC | 63203 |
| 11 | EMI TEST RECEIVER | ROHDE & SCHWARZ | ESCI-03 |
| 12 | LISN | ROHDE & SCHWARZ | ENV216 |
| 13 | BROADBAND ANTENNA | SCHWARZBECK | VULB9168 |
| 14 | LINE SUG SIMULATOR | TAKAMISAWA | PSA-210 |

## 2. Characteristics

### 2-1. Steady state data

(1) ､Regulation - line and load, Temperature drift / Start up voltage and Drop out voltage

12V

1. Regulation - line and load

Condition Ta : 25 °C
Iout : 100 % ( 50A )
Istb : 0 %
Cooling : Forced Air

| Iout \ Vin | 85VAC | 115VAC | 230VAC | 265VAC | Line regulation | |
|---|---|---|---|---|---|---|
| 0% | 12.026V | 12.026V | 12.026V | 12.025V | 1mV | 0.008% |
| 50% | 12.013V | 12.013V | 12.012V | 12.013V | 1mV | 0.008% |
| 100% | - | 12.011V | 12.011V | 12.011V | 0mV | 0.000% |
| Load regulation | 13mV | 15mV | 15mV | 14mV | | |
| | 0.108% | 0.125% | 0.125% | 0.117% | | |

2. Temperature drift

Condition Vin : 115 VAC
Iout : 100 % ( 50A )
Istb : 0 %
Cooling : Forced Air

| Ta | -20°C | +25°C | +55°C | Temperature stability | |
|---|---|---|---|---|---|
| Vout | 11.994V | 12.011V | 12.010V | 17mV | 0.142% |

3. Start up voltage and Drop out voltage

Condition Ta : 25 °C
Iout : 80 % ( 40A )
Istb : 0 %
Cooling : Forced Air

| | |
|---|---|
| Start up voltage (Vin) | 77.8VAC |
| Drop out voltage (Vin) | 76.7VAC |

24V

1. Regulation - line and load

Condition Ta : 25 °C
Iout : 100 % ( 25A )
Istb : 0 %
Cooling : Forced Air

| Iout \ Vin | 85VAC | 115VAC | 230VAC | 265VAC | Line regulation | |
|---|---|---|---|---|---|---|
| 0% | 24.025V | 24.029V | 24.029V | 24.032V | 7mV | 0.029% |
| 50% | 24.010V | 24.011V | 24.011V | 24.011V | 1mV | 0.004% |
| 100% | - | 24.008V | 24.009V | 24.009V | 1mV | 0.004% |
| Load regulation | 15mV | 21mV | 20mV | 23mV | | |
| | 0.062% | 0.088% | 0.083% | 0.096% | | |

2. Temperature drift

Condition Vin : 115 VAC
Iout : 100 % ( 25A )
Istb : 0 %
Cooling : Forced Air

| Ta | -20°C | +25°C | +55°C | Temperature stability | |
|---|---|---|---|---|---|
| Vout | 23.986V | 24.008V | 23.988V | 22mV | 0.092% |

3. Start up voltage and Drop out voltage

Condition Ta : 25 °C
Iout : 80 % ( 20A )
Istb : 0 %
Cooling : Forced Air

| | |
|---|---|
| Start up voltage (Vin) | 77.8VAC |
| Drop out voltage (Vin) | 76.7VAC |

48V

1. Regulation - line and load

Condition Ta : 25 °C
Iout : 100 % ( 12.6A )
Istb : 0 %
Cooling : Forced Air

| Iout \ Vin | 85VAC | 115VAC | 230VAC | 265VAC | Line regulation | |
|---|---|---|---|---|---|---|
| 0% | 48.110V | 48.116V | 48.116V | 48.117V | 7mV | 0.015% |
| 50% | 48.083V | 48.083V | 48.082V | 48.083V | 1mV | 0.002% |
| 100% | - | 48.087V | 48.087V | 48.086V | 1mV | 0.002% |
| Load regulation | 27mV | 33mV | 34mV | 34mV | | |
| | 0.056% | 0.069% | 0.071% | 0.071% | | |

2. Temperature drift

Condition Vin : 115 VAC
Iout : 100 % ( 12.6A )
Istb : 0 %
Cooling : Forced Air

| Ta | -20°C | +25°C | +55°C | Temperature stability | |
|---|---|---|---|---|---|
| Vout | 48.002V | 48.087V | 48.098V | 96mV | 0.200% |

3. Start up voltage and Drop out voltage

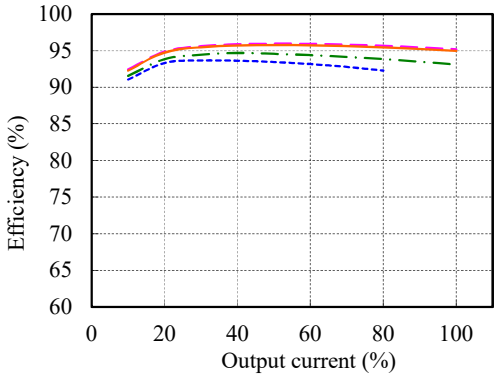
Condition Ta : 25 °C
Iout : 80 % ( 10.1A )
Istb : 0 %
Cooling : Forced Air

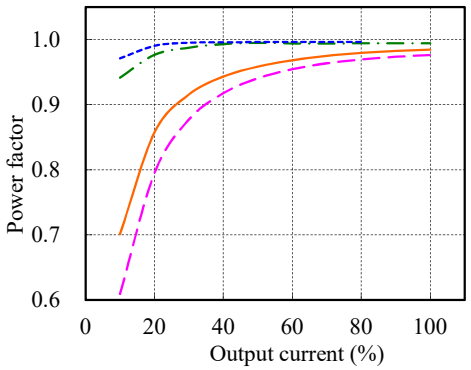
| | |
|---|---|
| Start up voltage (Vin) | 77.8VAC |
| Drop out voltage (Vin) | 76.7VAC |

(2) Efficiency and Power factor vs. Output current

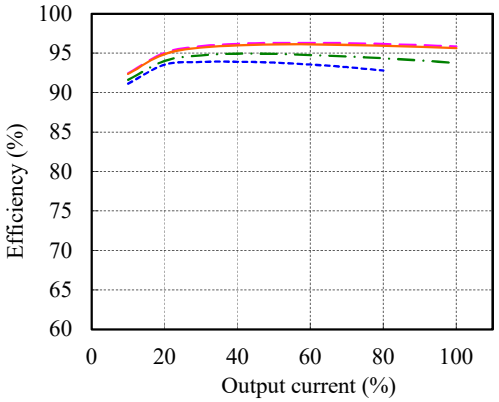
Conditions Vin : 85 VAC
115 VAC
230 VAC
265 VAC
Ta : 25 ℃
Istb : 0 %
Cooling : Forced air

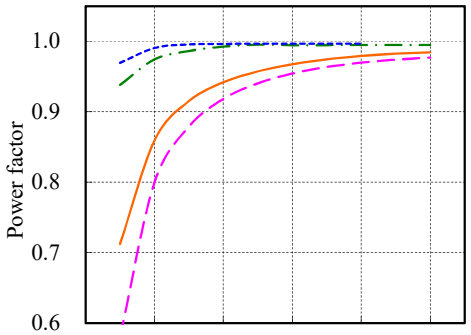
12V



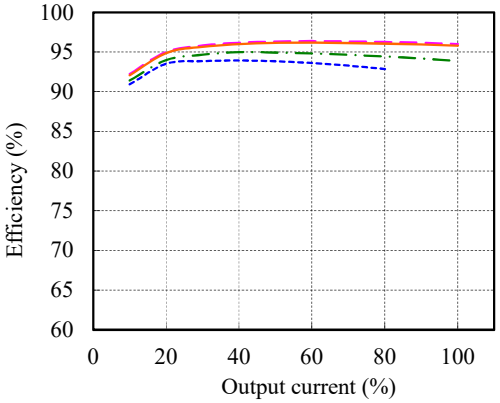



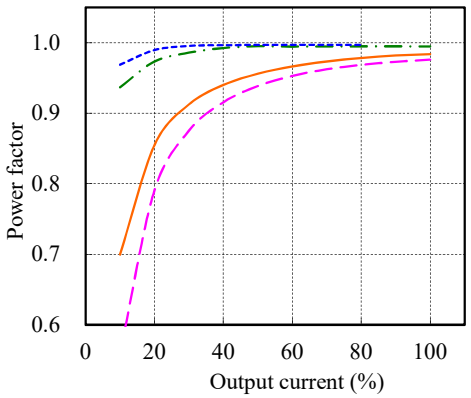

24V




48V



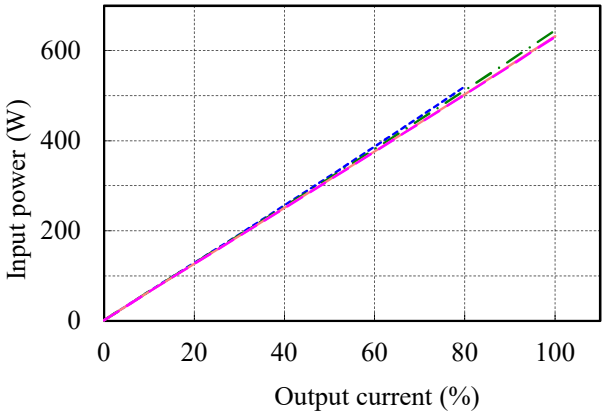



(3) Input power vs. Output current

Conditions Vin : 85 VAC
115 VAC
230 VAC
265 VAC
Ta : 25 ℃
Istb : 0 %
Cooling : Forced air

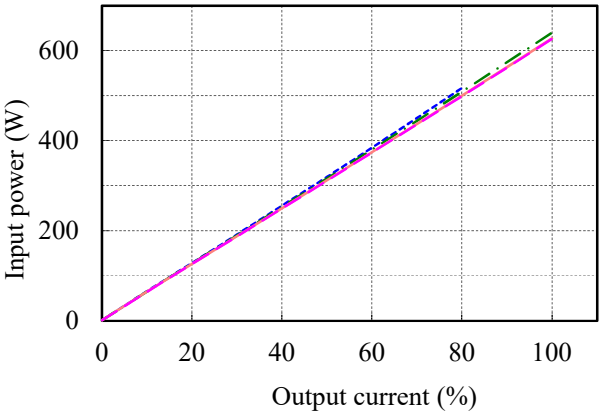
12V

| Vin | Input power | |
|---|---|---|
| | Iout : 0% | Remote OFF |
| 85VAC | 1.5W | 0.13W |
| 115VAC | 1.2W | 0.16W |
| 230VAC | 1.2W | 0.39W |
| 265VAC | 1.2W | 0.48W |



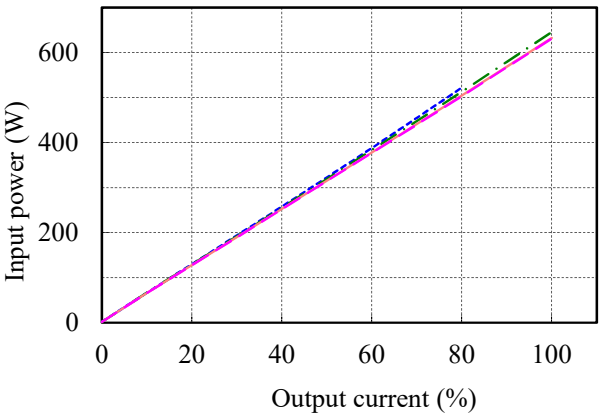

24V

| Vin | Input power | |
|---|---|---|
| | Iout : 0% | Remote OFF |
| 85VAC | 1.7W | 0.13W |
| 115VAC | 1.4W | 0.16W |
| 230VAC | 1.3W | 0.39W |
| 265VAC | 1.3W | 0.46W |




48V

| Vin | Input power | |
|---|---|---|
| | Iout : 0% | Remote OFF |
| 85VAC | 1.9W | 0.14W |
| 115VAC | 1.6W | 0.18W |
| 230VAC | 1.5W | 0.40W |
| 265VAC | 1.6W | 0.49W |

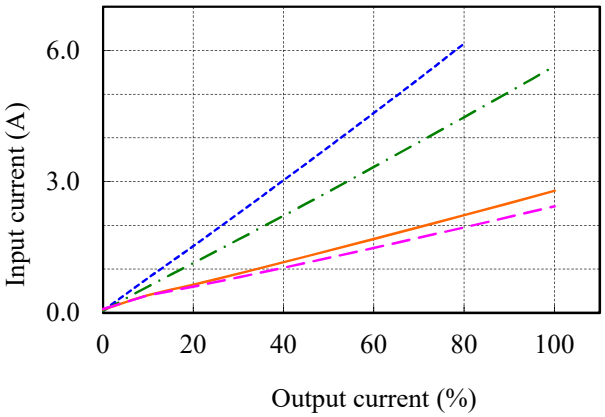


(4) Input current vs. Output current

Conditions Vin : 85 VAC
115 VAC
230 VAC
265 VAC
Ta : 25 °C
Cooling : Forced air

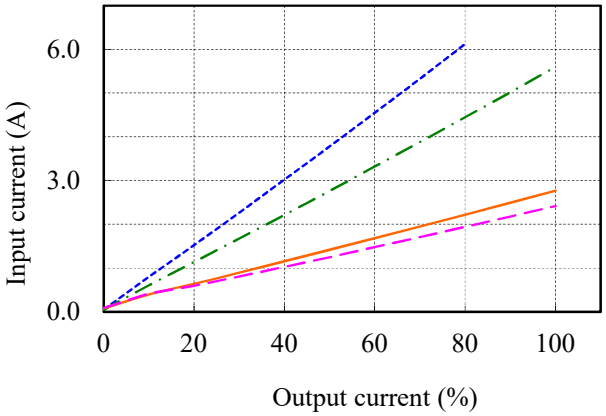
12V

| Vin | Input current | |
|---|---|---|
| | Iout : 0% | Remote OFF |
| 85VAC | 0.05A | 0.03A |
| 115VAC | 0.05A | 0.04A |
| 230VAC | 0.08A | 0.07A |
| 265VAC | 0.09A | 0.08A |



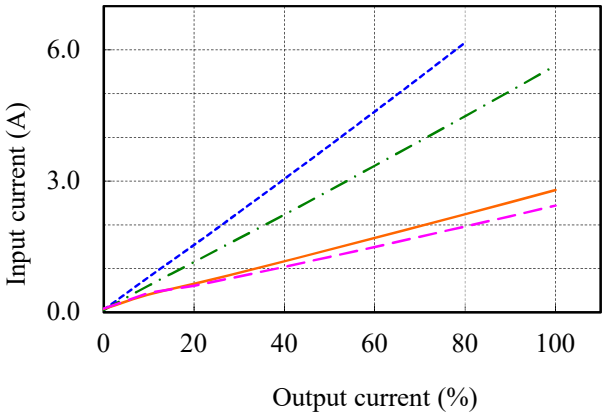

24V

| Vin | Input current | |
|---|---|---|
| | Iout : 0% | Remote OFF |
| 85VAC | 0.05A | 0.03A |
| 115VAC | 0.05A | 0.04A |
| 230VAC | 0.08A | 0.07A |
| 265VAC | 0.09A | 0.08A |



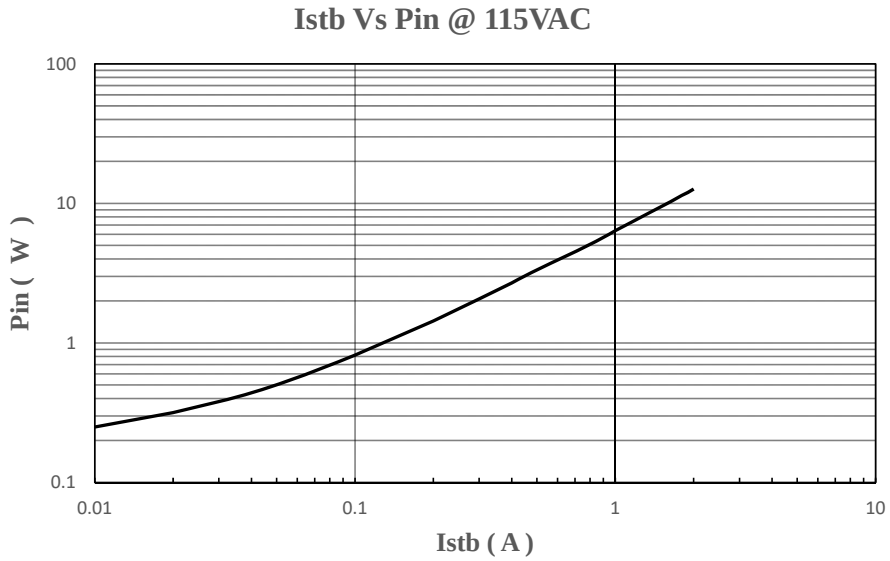

48V

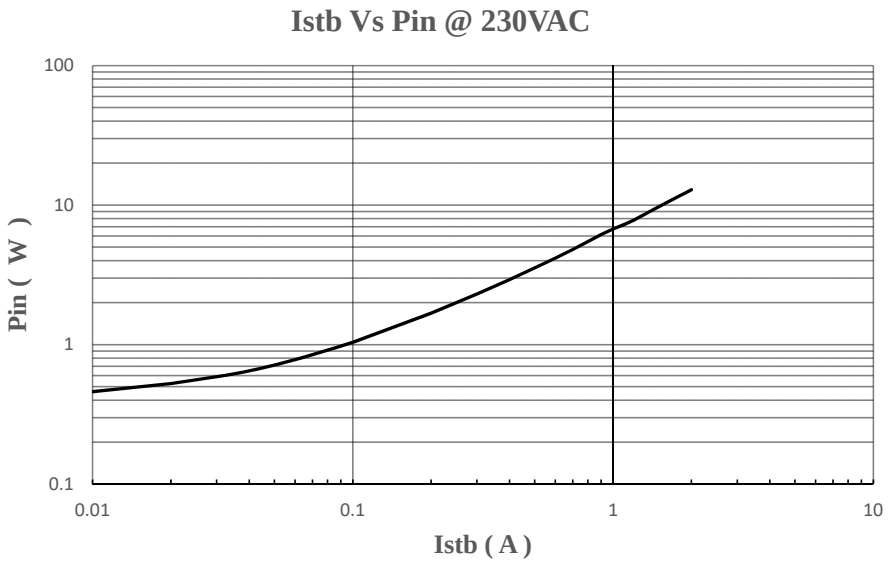
| Vin | Input current | |
|---|---|---|
| | Iout : 0% | Remote OFF |
| 85VAC | 0.05A | 0.03A |
| 115VAC | 0.05A | 0.04A |
| 230VAC | 0.08A | 0.07A |
| 265VAC | 0.09A | 0.08A |



(5) Input power vs. Output current @ Remote OFF

Condition Remote OFF

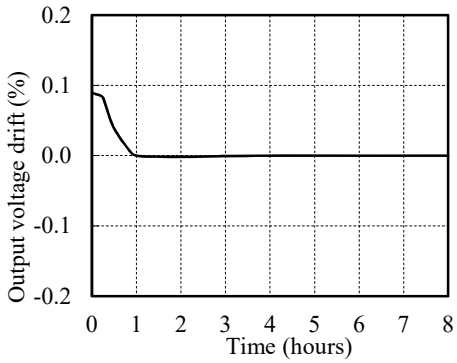


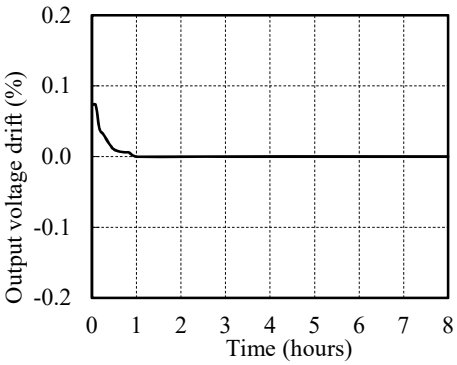
## 2-2. Warm up voltage drift characteristics

Conditions Vin : 115 VAC
Iout : 100 %
Ta : 25 °C
Istb : 100%
Cooling : Forced Air

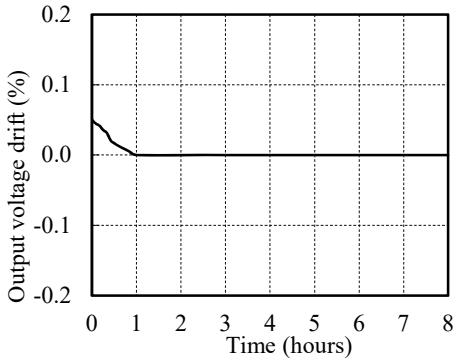
12V




24V

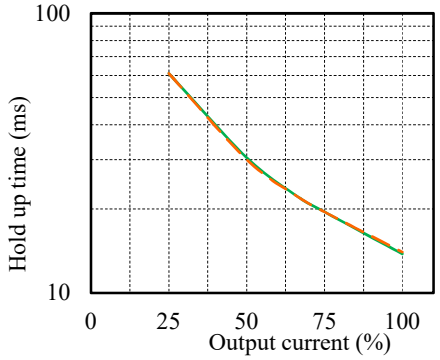


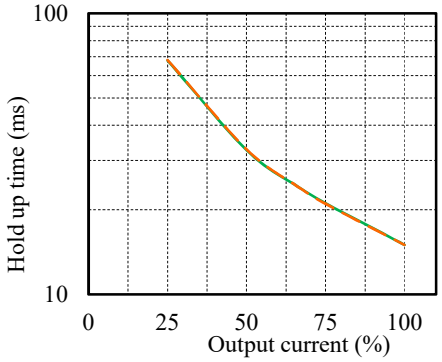

48V

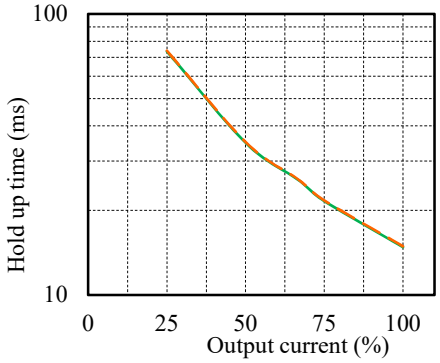



## 2-3. Hold up time characteristics

Conditions Vin : 115 VAC
230 VAC
Ta : 25 °C
Istb : 100%
Cooling : Forced Air



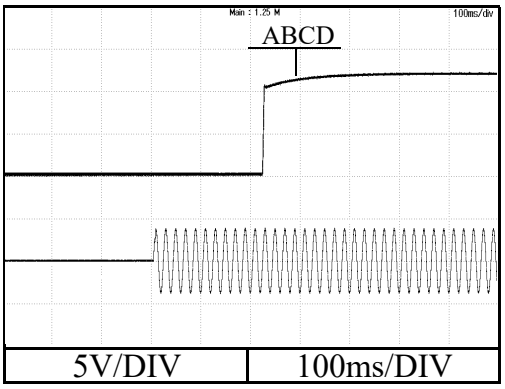



2-4. Output rise characteristics

Conditions Vin : 85 VAC (A)
115 VAC (B)
230 VAC (C)
265 VAC (D)
Istb : 100 %
Ta : 25 °C
Cooling : Forced Air

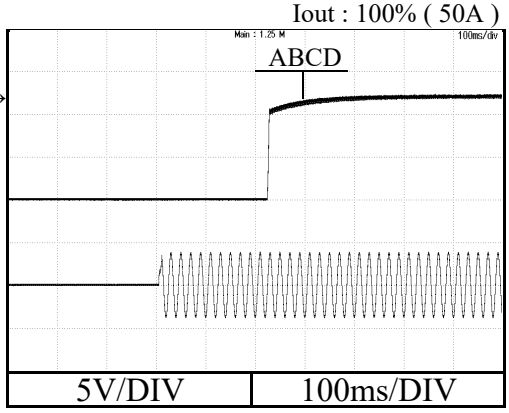
12V

Iout : 0%



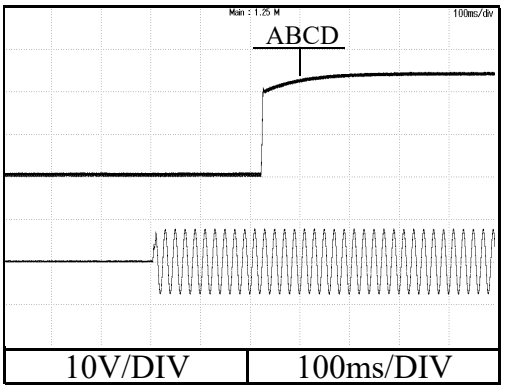

← Vout →
← 0V →
← Vin →

Iout : 100% ( 50A )



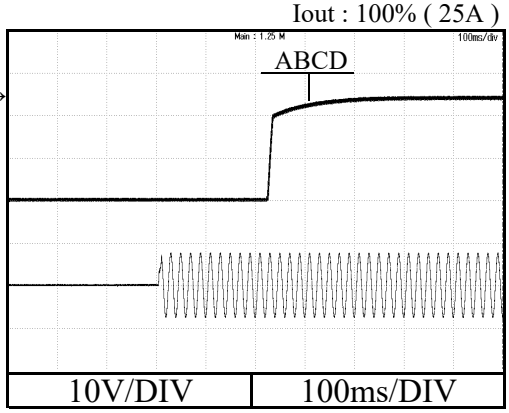

24V

Iout : 0%



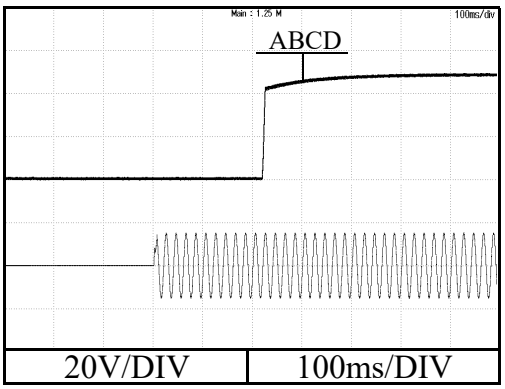

← Vout →
← 0V →
← Vin →

Iout : 100% ( 25A )



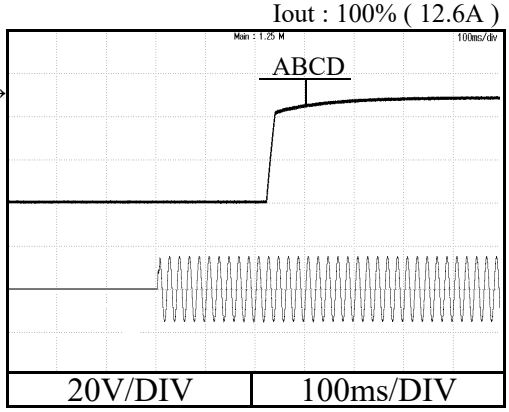

48V

Iout : 0%




← Vout →
← 0V →
← Vin →

Iout : 100% ( 12.6A )

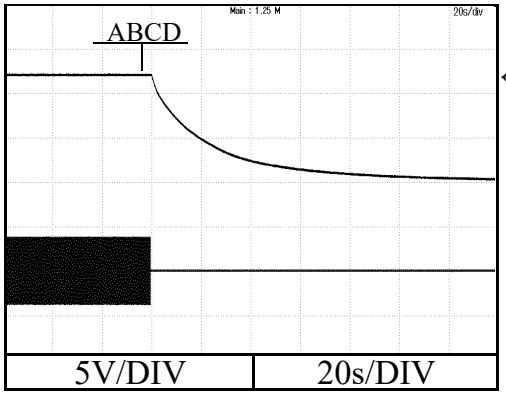


2-5. Output fall characteristics

Conditions Vin : 85 VAC (A)
115 VAC (B)
230 VAC (C)
265 VAC (D)
Istb : 100 %
Ta : 25 °C
Cooling : Forced Air

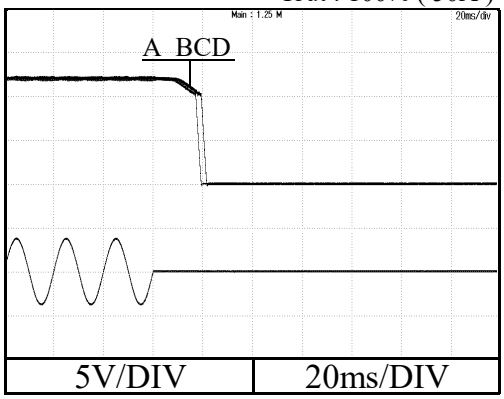
12V

Iout : 0%



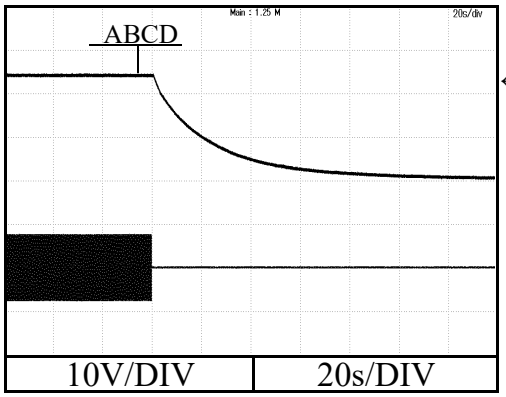

← Vout →
← 0V →
← Vin →

Iout : 100% ( 50A )



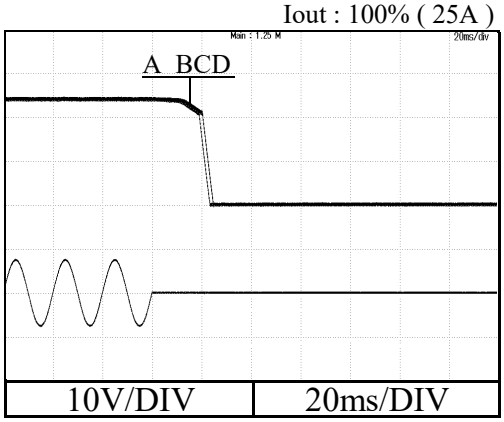

24V

Iout : 0%



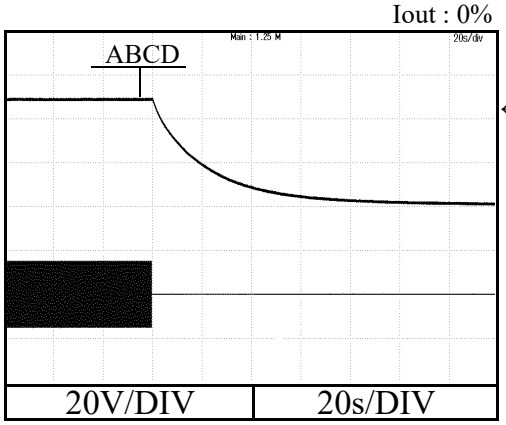

← Vout →
← 0V →
← Vin →

Iout : 100% ( 25A )



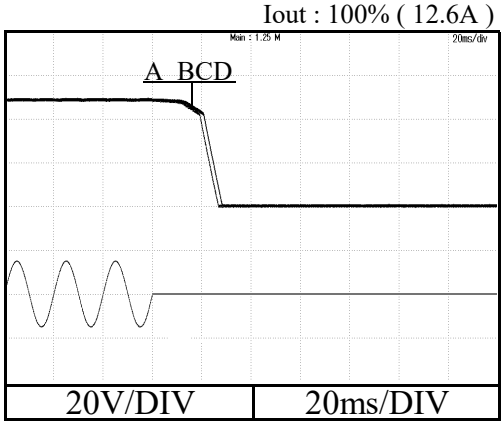

48V

Iout : 0%




← Vout →
← 0V →
← Vin →

Iout : 100% ( 12.6A )

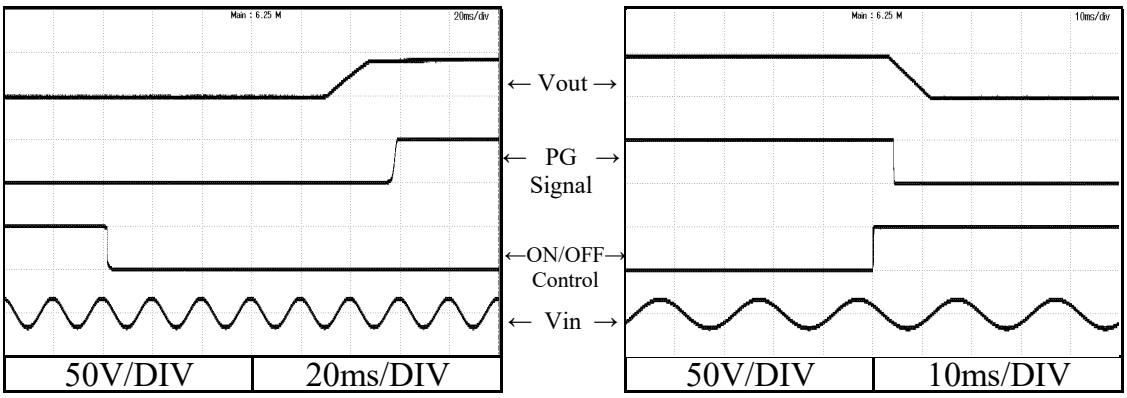


2-6. Various signal

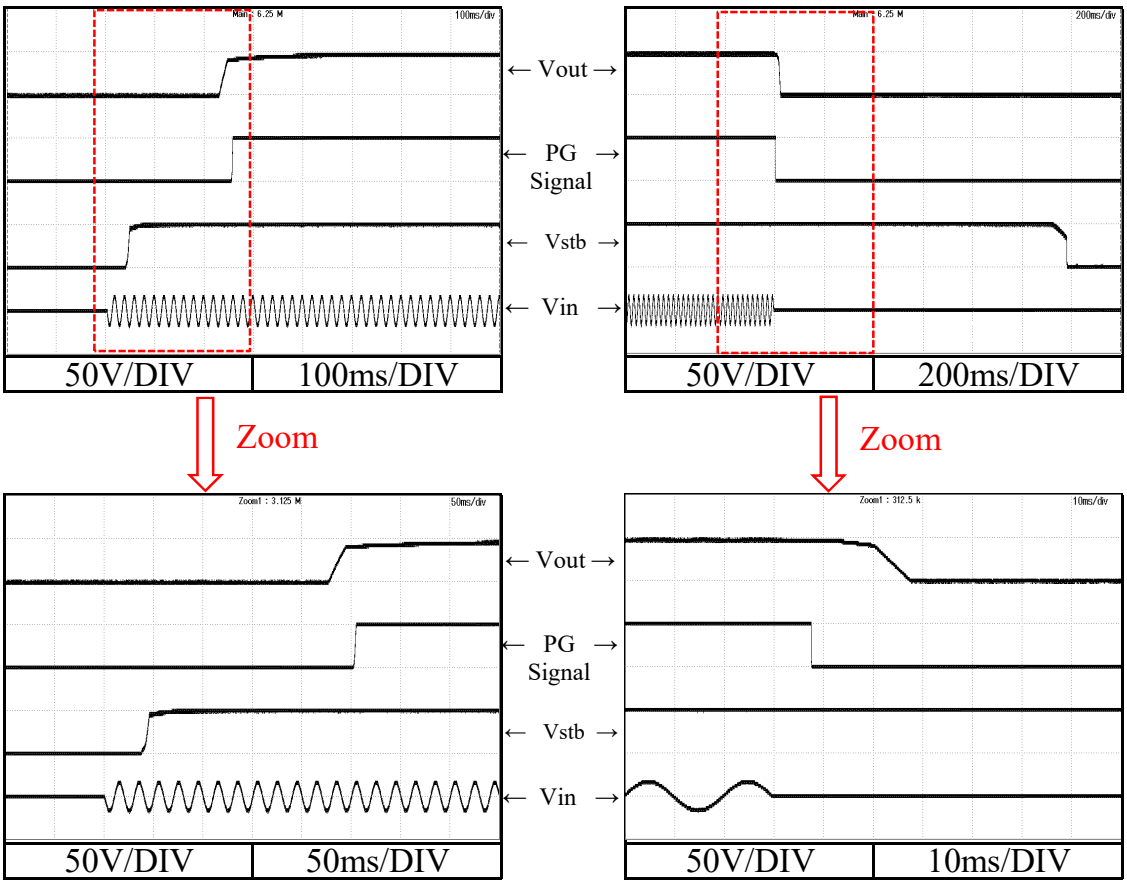
Conditions Vin : 115 VAC
Iout : 100 %
Istb : 100 %
Ta : 25 °C
Cooling : Forced Air

Output rise, fall characteristics with Remote ON/OFF Control

48V



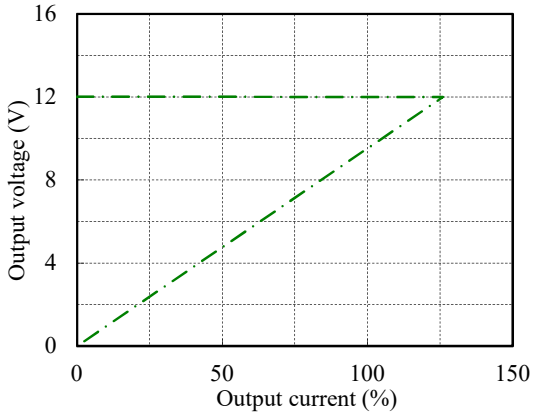

Output rise, fall characteristics with Input voltage ON/OFF



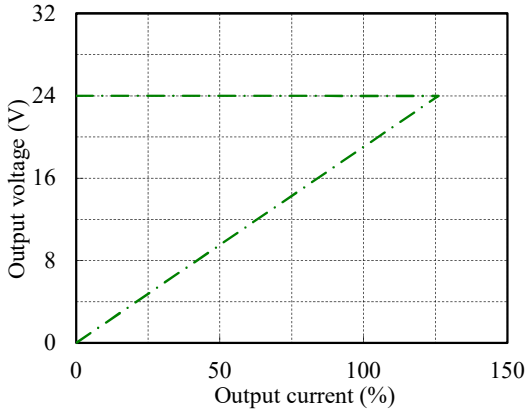
## 2-7. Over current protection (OCP) characteristics

Conditions Vin : 115 VAC
Ta : 25 ℃
Cooling : Forced Air

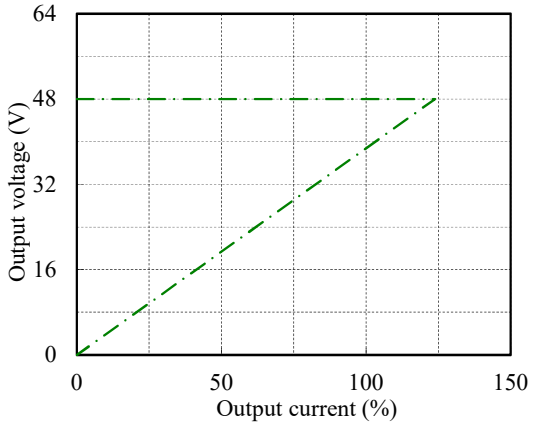
12V




24V



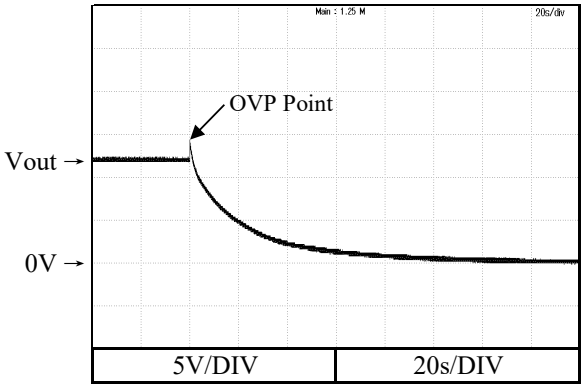

48V



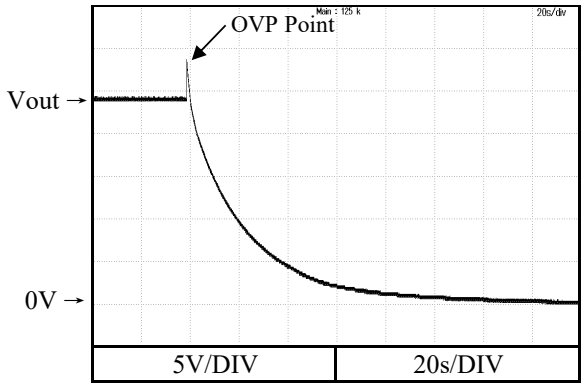

## 2-8. Over voltage protection (OVP) characteristics

Conditions Vin : 115 VAC
Iout : 0 %
Ta : 25 ℃

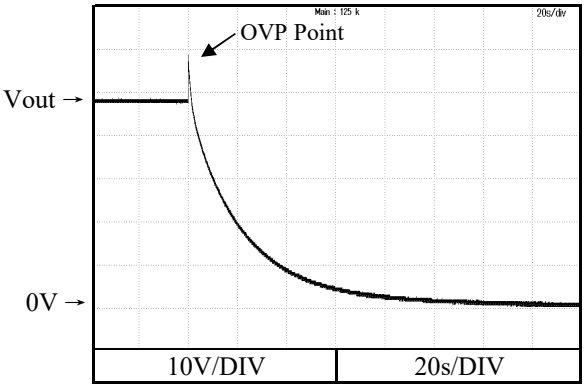
12V




24V




48V

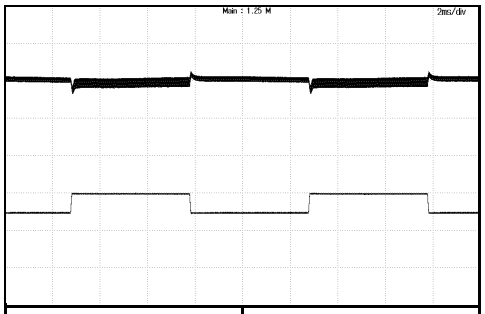


2-9. Dynamic load response characteristics

Conditions Vin : 115 VAC
Iout : 50 % ↔ 100 %
(tr = tf = 50us)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

12V

f = 100Hz

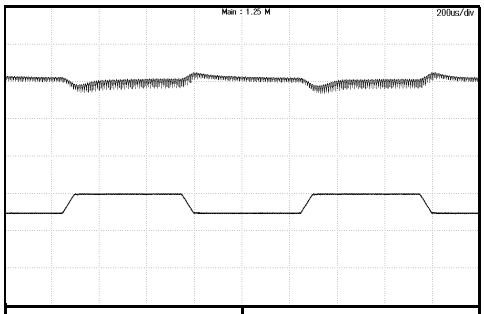


| 500mV/DIV | 2ms/DIV |
|---|---|
| +1.04% | -1.45% |

←Vout→

←Iout→
←Iout:0%→

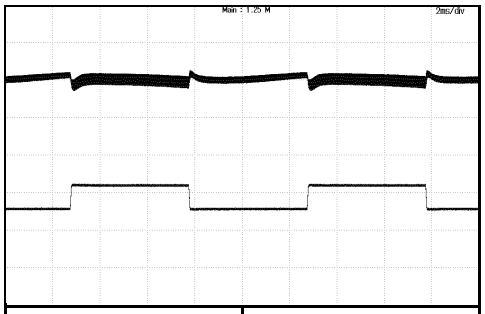
f = 1kHz



| 500mV/DIV | 200µs/DIV |
|---|---|
| +0.99% | -1.36% |

24V

f = 100Hz

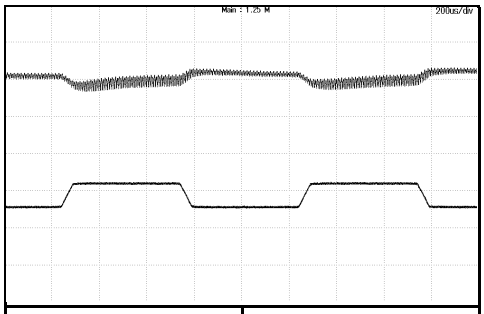


| 500mV/DIV | 2ms/DIV |
|---|---|
| +0.55% | -0.60% |

←Vout→

←Iout→
←Iout:0%→

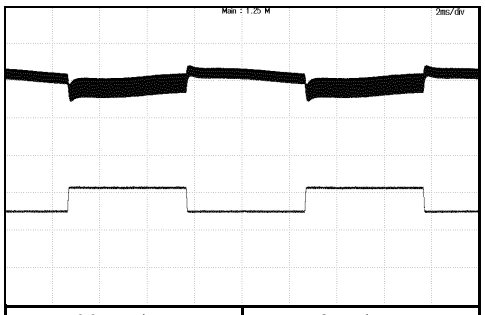
f = 1kHz



| 500mV/DIV | 200µs/DIV |
|---|---|
| +0.65% | -0.69% |

48V

f = 100Hz

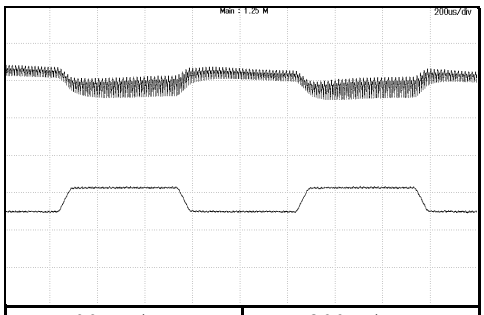


| 500mV/DIV | 2ms/DIV |
|---|---|
| +0.44% | -0.34% |

←Vout→

←Iout→
←Iout:0%→

f = 1kHz



| 500mV/DIV | 200µs/DIV |
|---|---|
| +0.44% | -0.54% |

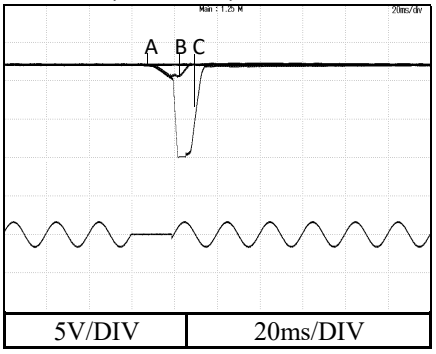
2-10. Response to brown out characteristics

Conditions Iout : 100 %
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Interruption time
A : Output voltage does not drop.
B : Output voltage drop down to 20~40% of the nominal output voltage.
C : Output voltage drops until 0V.

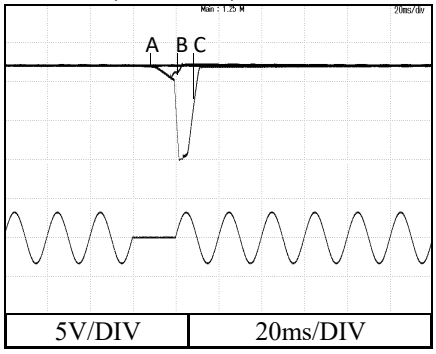
12V

Vin : 115VAC
A = 11ms, B = 17ms, C = 19ms



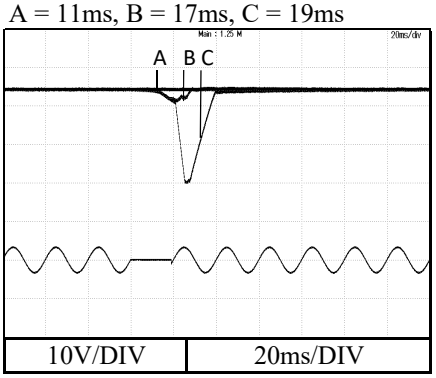

←Vout→
←0V→
←Vin→

Vin : 230VAC
A = 11ms, B = 17ms, C = 20ms



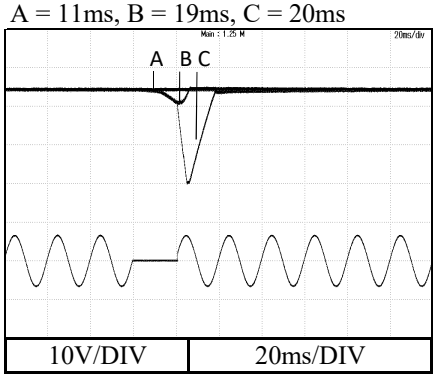

24V

Vin : 115VAC
A = 11ms, B = 17ms, C = 19ms



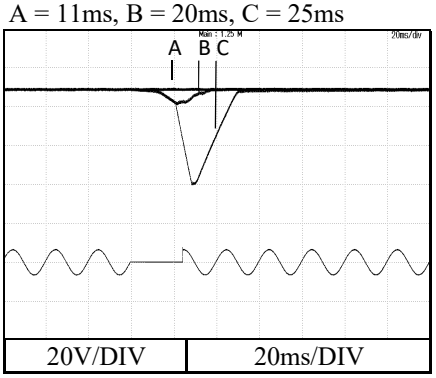

←Vout→
←0V→
←Vin→

Vin : 230VAC
A = 11ms, B = 19ms, C = 20ms



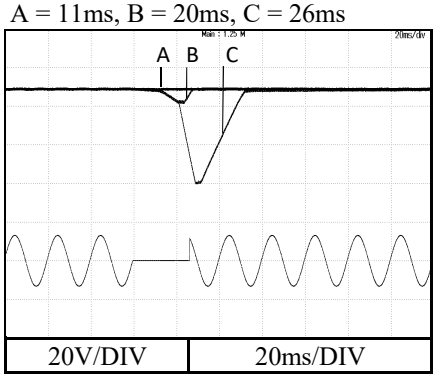

48V

Vin : 115VAC
A = 11ms, B = 20ms, C = 25ms




←Vout→
←0V→
←Vin→

Vin : 230VAC
A = 11ms, B = 20ms, C = 26ms

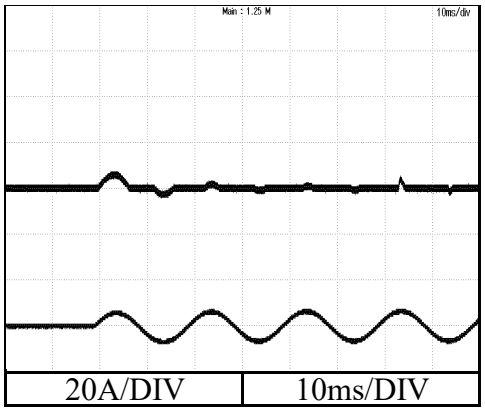


2-11. Inrush current waveform

Conditions Vin : 115 VAC
Iout : 12.6 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

48V

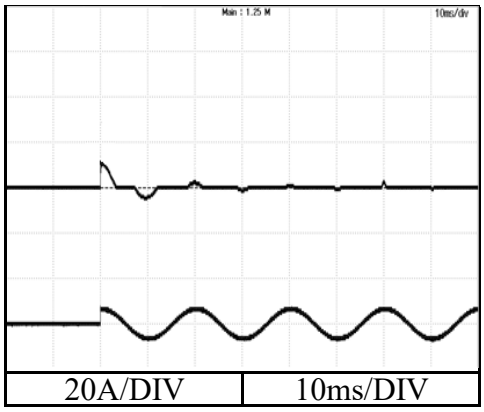
Switch on phase angle of input AC voltage
ϕ = 0°




← Iin →

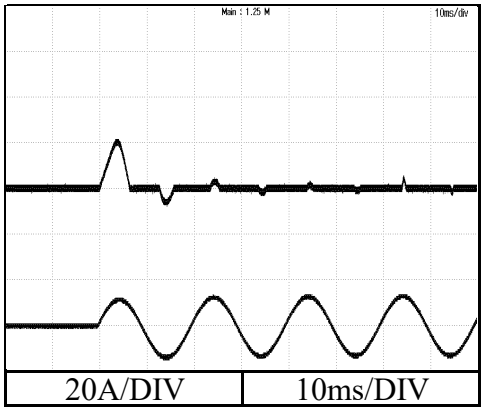
← Vin →

Switch on phase angle of input AC voltage
ϕ = 90°




Conditions Vin : 230 VAC
Iout : 12.6 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

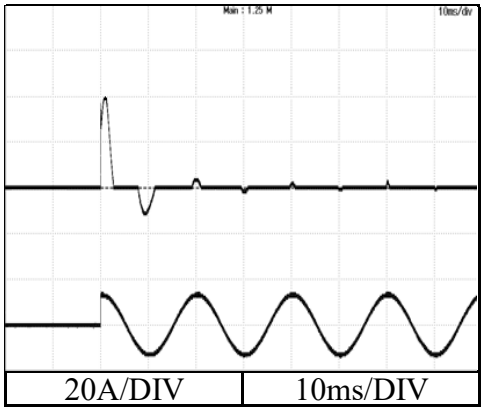
Switch on phase angle of input AC voltage
ϕ = 0°




← Iin →

← Vin →

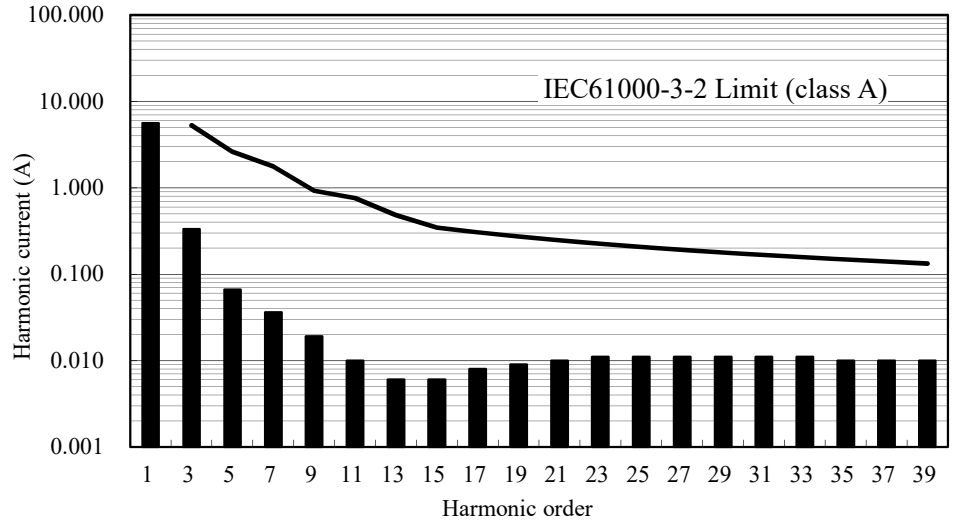
Switch on phase angle of input AC voltage
ϕ = 90°



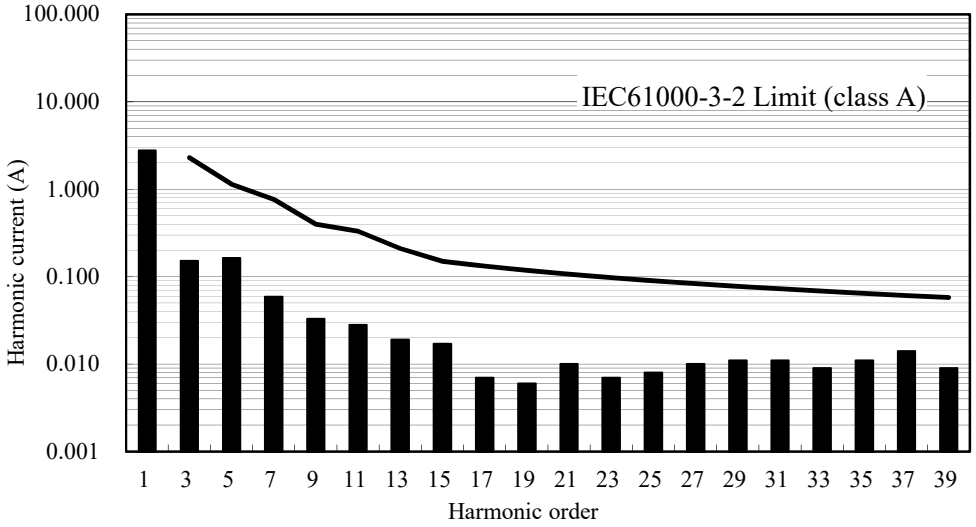
2-12. Input current harmonics

Conditions
Vin : 115 VAC
Iout : 13 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

48V




Conditions
Vin : 230 VAC
Iout : 13 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

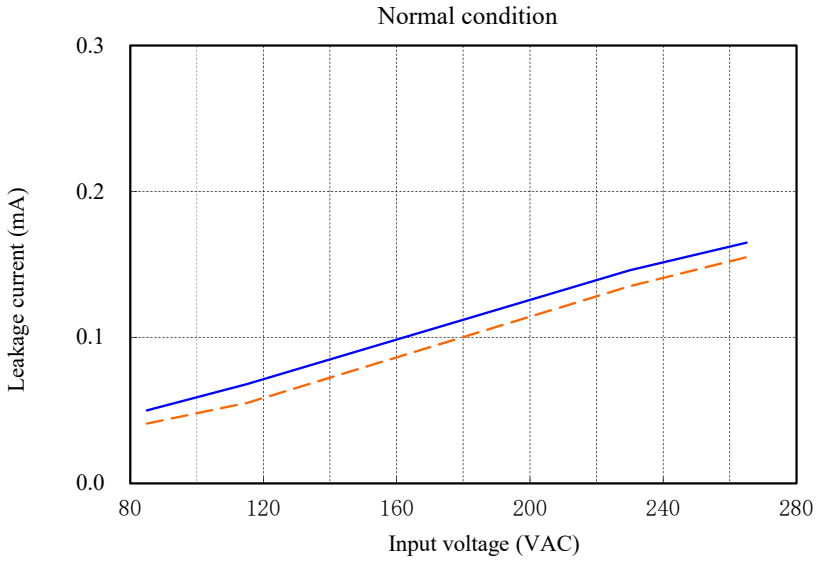


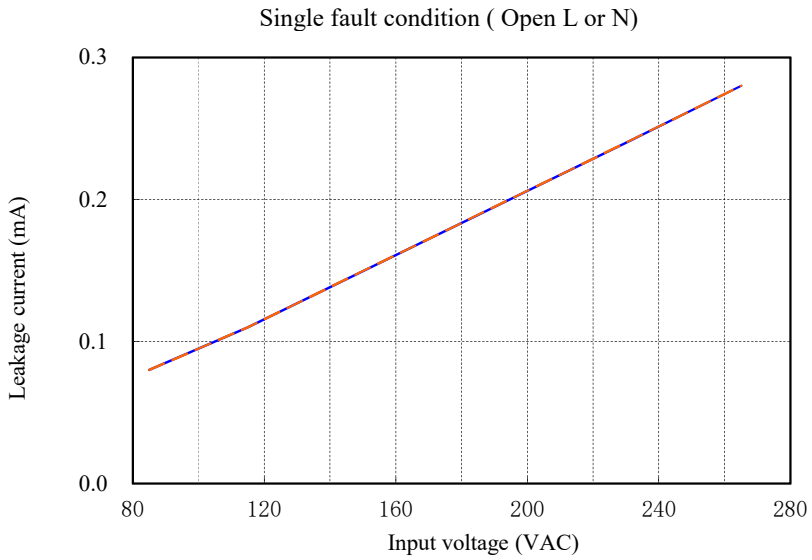
2-13. Leakage current characteristics

Earth leakage current of CLASS I equipment

Conditions Iout : 0 %
100 %
Ta : 25 °C
Istb : 100 %
f : 60 Hz
Cooling : Forced Air

48V



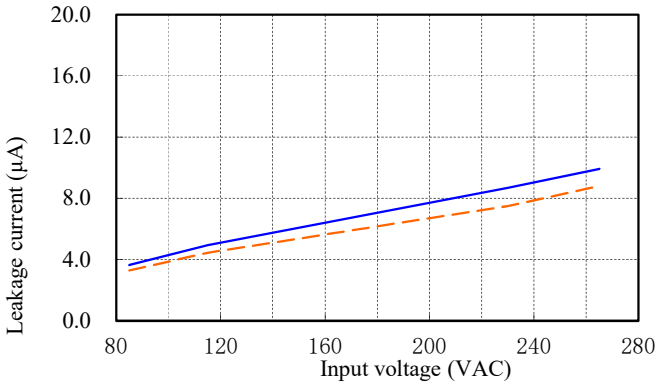
2-13. Leakage current characteristics

Patient leakage current of CLASS I equipment

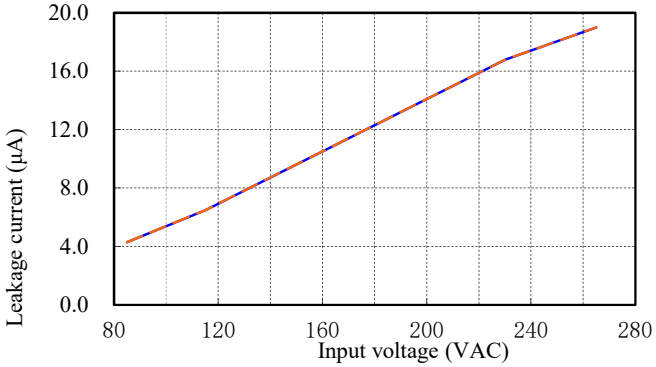
Conditions Iout : 0 % ——
100 % - - - -
Ta : 25 °C
Istb : 100 %
f : 60 Hz
Cooling : Forced Air

48V

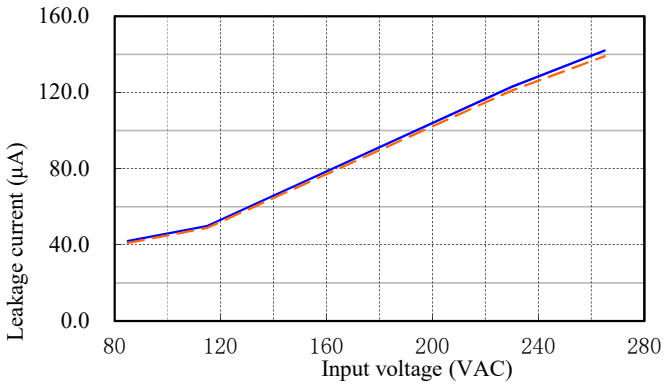
Normal condition




Single fault condition (Open L or N)




Single fault condition (Open FG)

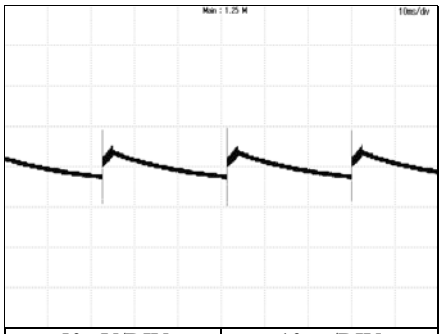


2-14. Output ripple and noise waveform

Conditions Vin : 115 VAC
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

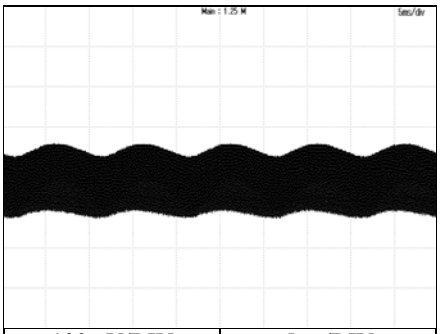
12V

Iout : 0 %



50mV/DIV | 10ms/DIV

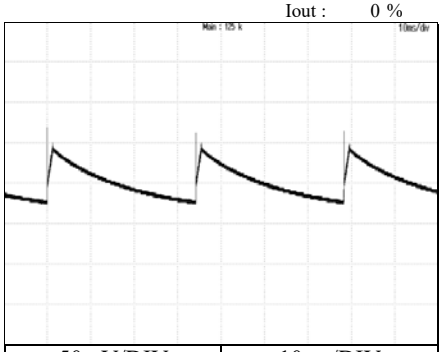
Iout : 100 %



100mV/DIV | 5ms/DIV

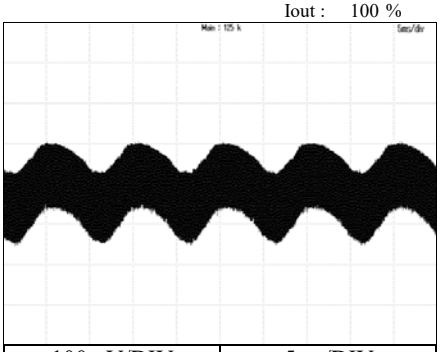
24V

Iout : 0 %



50mV/DIV | 10ms/DIV

Iout : 100 %



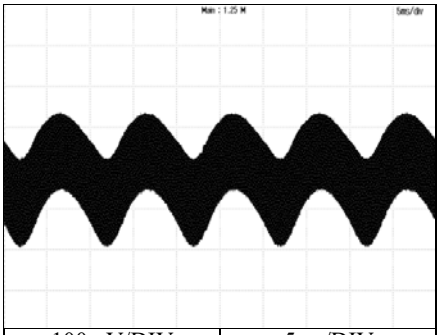
100mV/DIV | 5ms/DIV

48V

Iout : 0 %

100mV/DIV | 5ms/DIV

Iout : 100 %



100mV/DIV | 5ms/DIV

2-15. Electro-Magnetic Interference characteristics

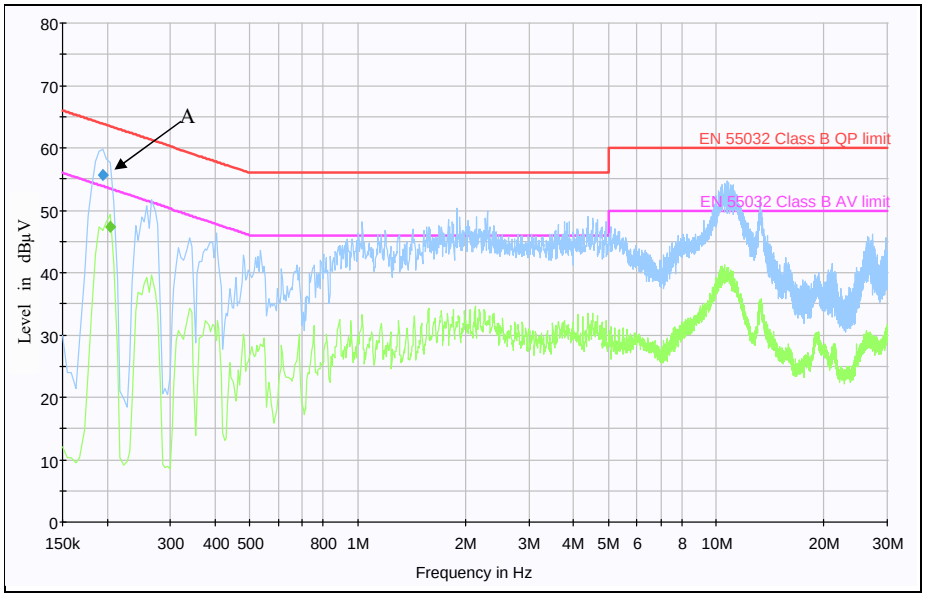
Conditions Vin : 115 VAC
Iout : 50 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Conducted Emission

12V

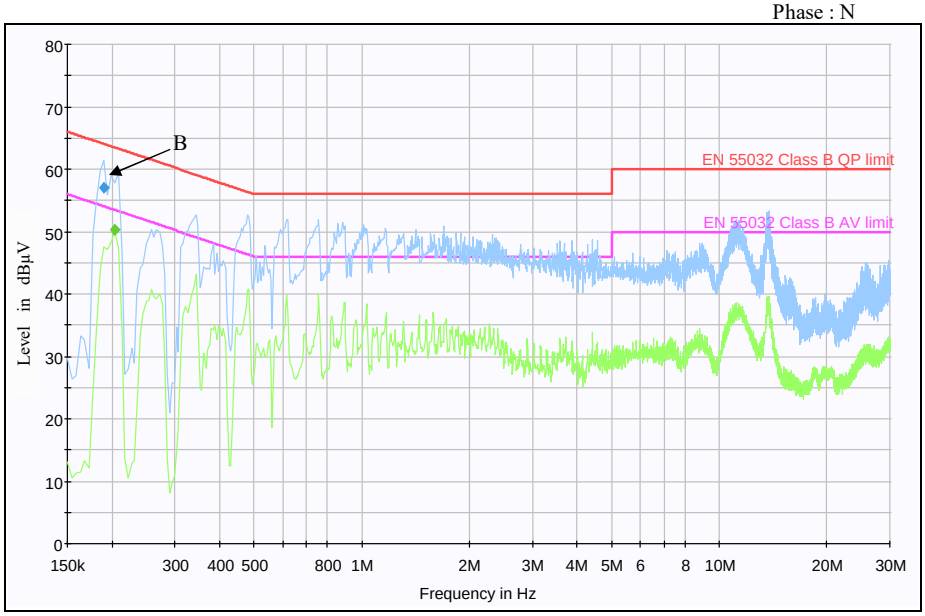
Phase : L

| Ref. Data | Point A (195kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 63.8 | 55.6 |
| AV | 53.4 | 47.4 |




Phase : N

| Ref. Data | Point B (190kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 64.0 | 56.9 |
| AV | 53.4 | 50.0 |



2-15. Electro-Magnetic Interference characteristics

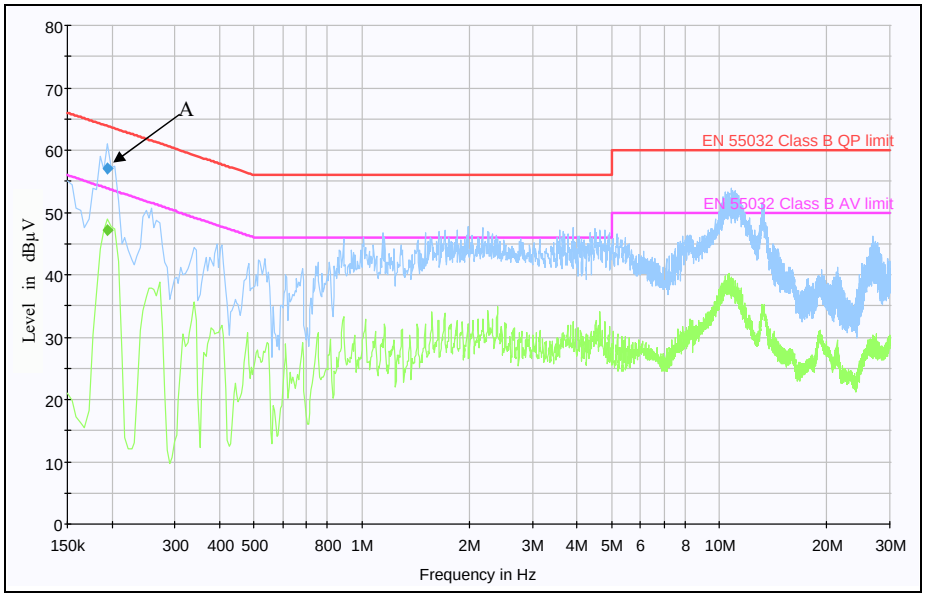
Conditions Vin : 230 VAC
Iout : 50 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Conducted Emission

12V

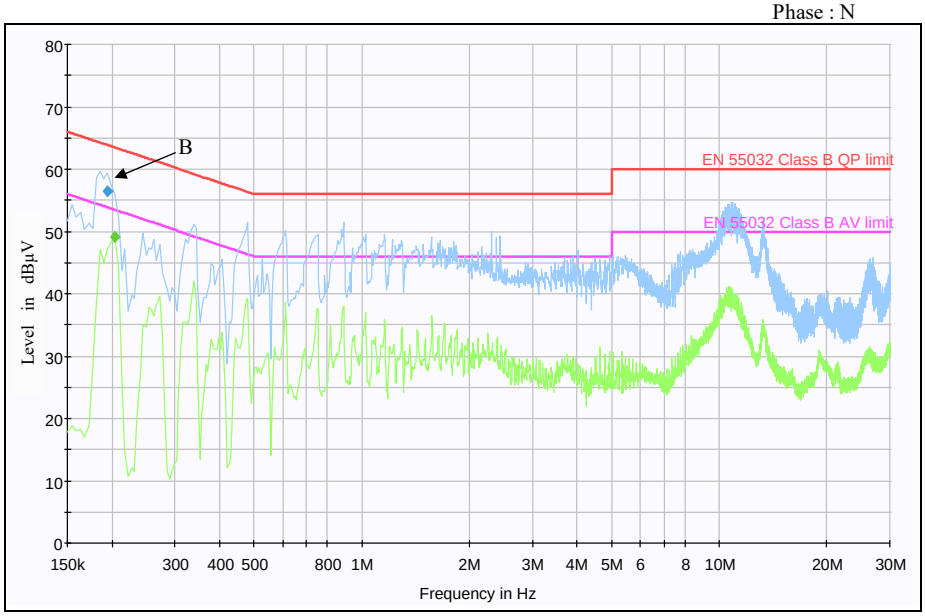
Phase : L

| Ref. Data | Point A (195kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 63.8 | 56.9 |
| AV | 53.8 | 47.2 |




Phase : N

| Ref. Data | Point B (195kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 63.8 | 56.5 |
| AV | 53.4 | 49.0 |



2-15. Electro-Magnetic Interference characteristics

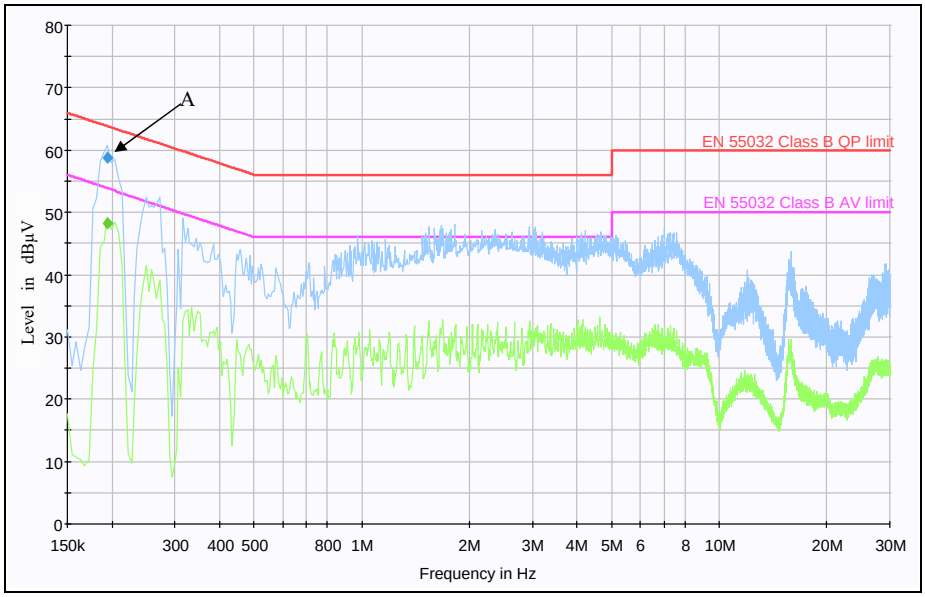
Conditions Vin : 115 VAC
Iout : 25 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Conducted Emission

24V

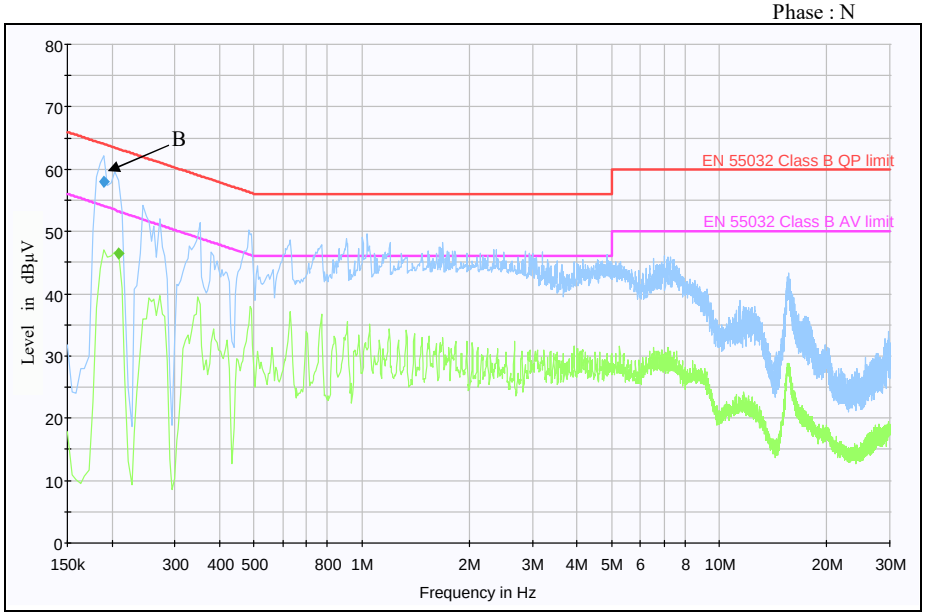
Phase : L

| Ref. Data | Point A (195kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 63.8 | 58.9 |
| AV | 53.8 | 48.3 |




Phase : N

| Ref. Data | Point B (190kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 64.0 | 57.9 |
| AV | 53.3 | 46.4 |



2-15. Electro-Magnetic Interference characteristics

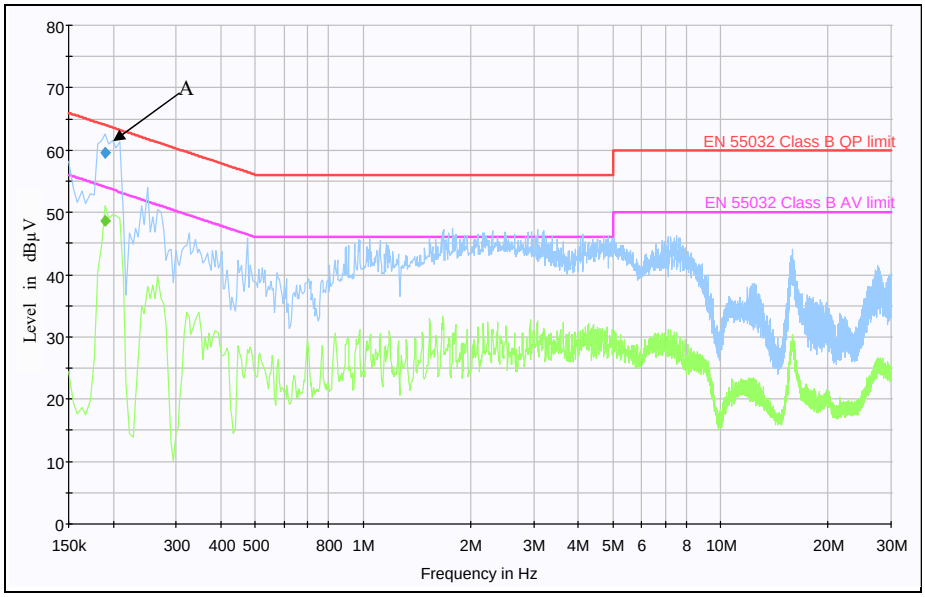
Conditions Vin : 230 VAC
Iout : 25 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Conducted Emission

24V

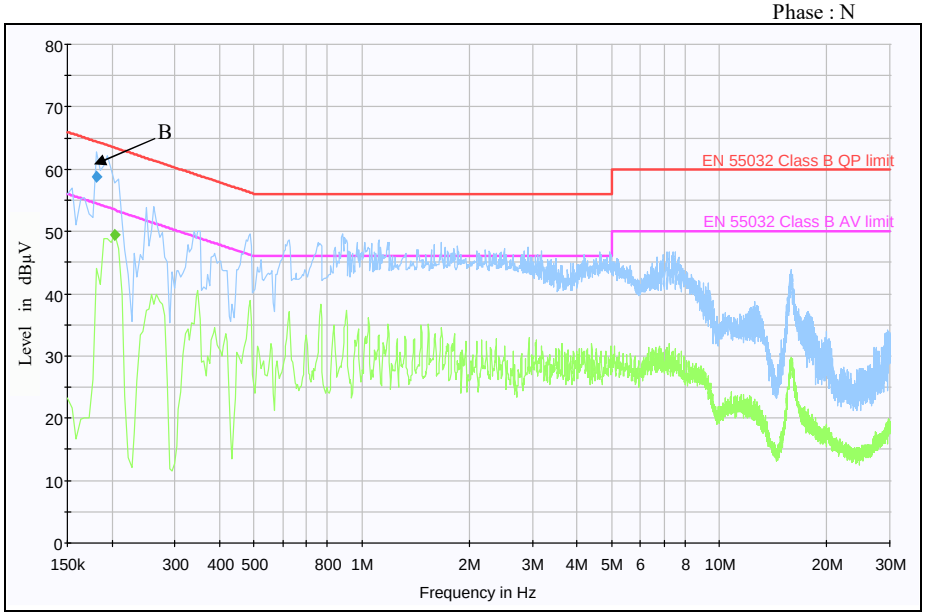
Phase : L

| Ref. Data | Point A (190kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 64.0 | 59.5 |
| AV | 54.0 | 48.7 |




Phase : N

| Ref. Data | Point B (181kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 64.4 | 58.7 |
| AV | 53.4 | 49.4 |



2-15. Electro-Magnetic Interference characteristics

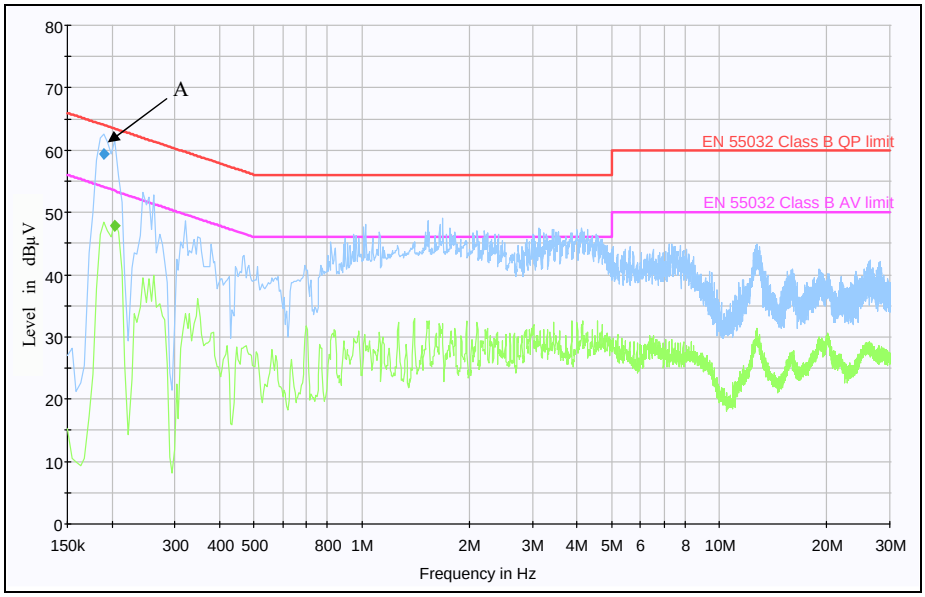
Conditions Vin : 115 VAC
Iout : 12.6 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Conducted Emission

48V

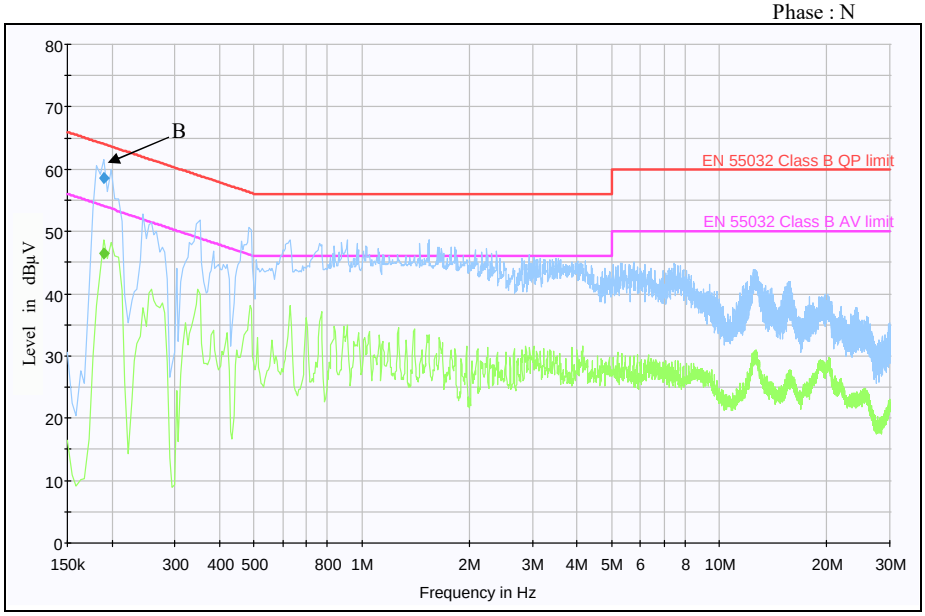
Phase : L

| Ref. Data | Point A (190kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 64.0 | 59.3 |
| AV | 53.4 | 47.9 |




Phase : N

| Ref. Data | Point B (190kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 64.0 | 58.7 |
| AV | 54.0 | 46.5 |



2-15. Electro-Magnetic Interference characteristics

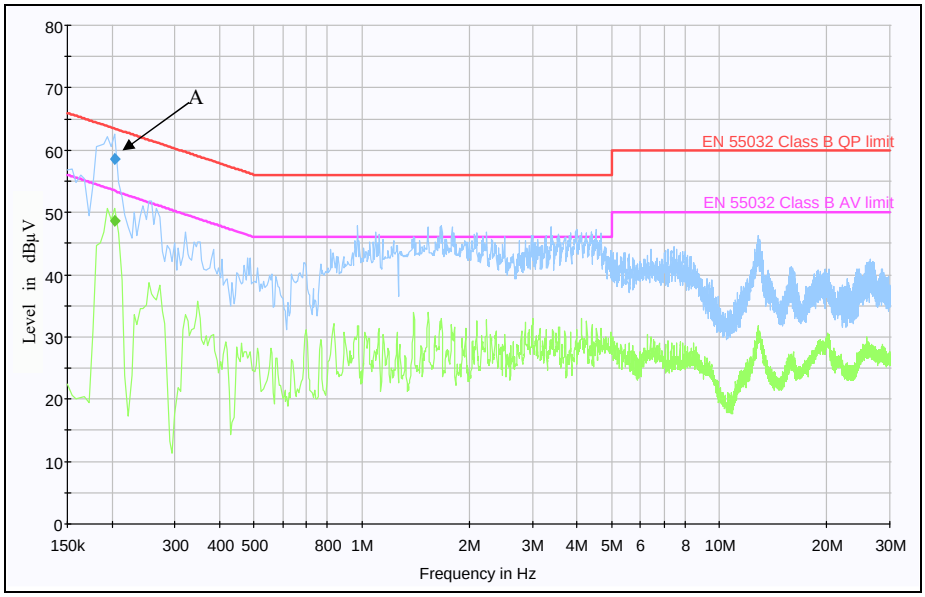
Conditions Vin : 230 VAC
Iout : 12.6 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Conducted Emission

48V

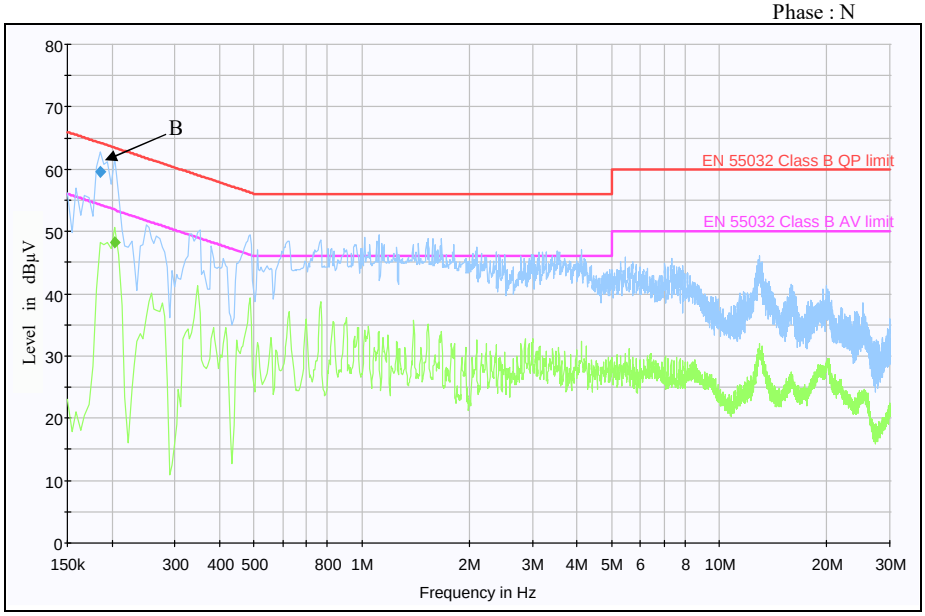
Phase : L

| Ref. Data | Point A (204kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 63.4 | 58.6 |
| AV | 53.4 | 48.7 |




Phase : N

| Ref. Data | Point B (186kHz) Limit (dB) | Measure (dB) |
|---|---|---|
| QP | 64.2 | 59.6 |
| AV | 53.4 | 48.3 |



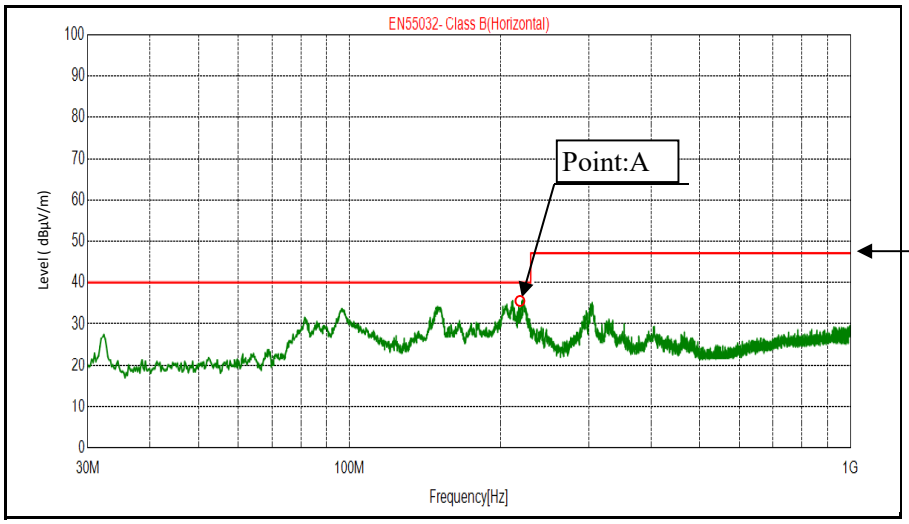
2-15. Electro-Magnetic Interference characteristics

Conditions Vin : 115 VAC
Iout : 50 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Radiated Emission

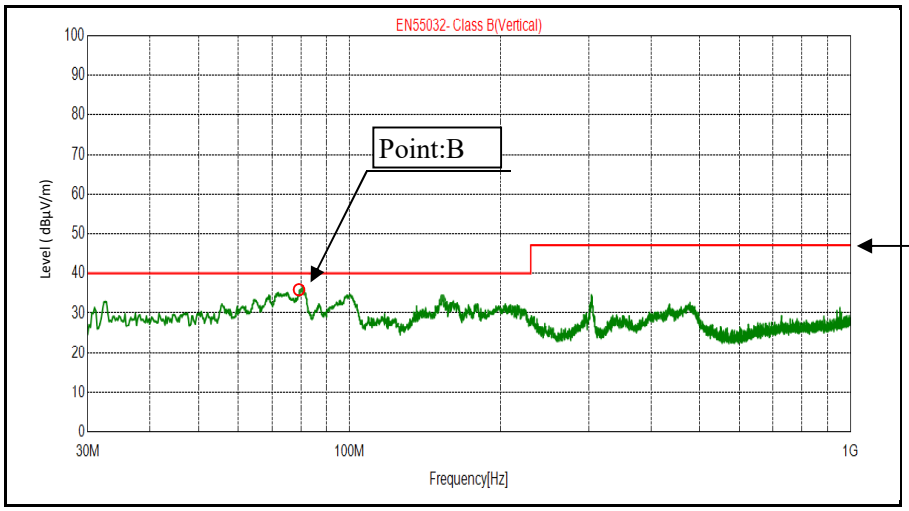
12V

HORIZONTAL




| Ref. Data | Point A (223MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 36.5 |

VERTICAL




| Ref. Data | Point B (150MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 34.6 |

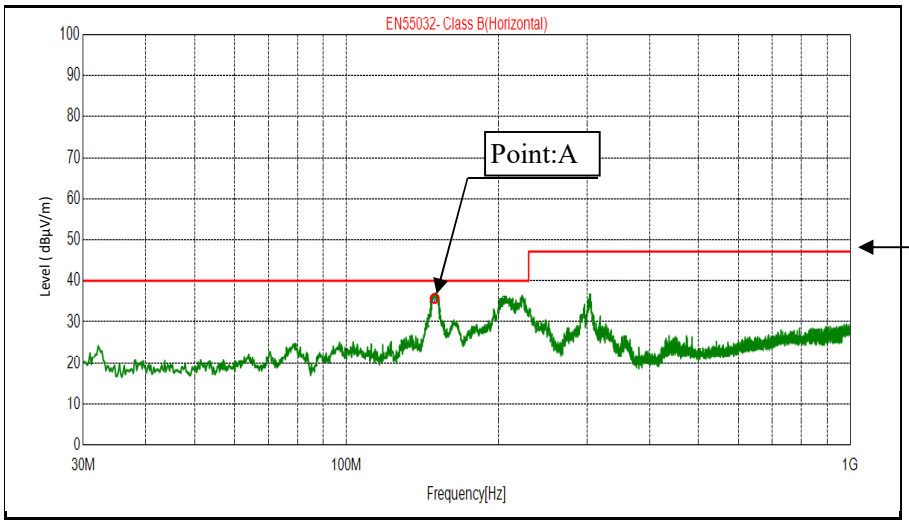
2-15. Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC
Iout : 50 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Radiated Emission

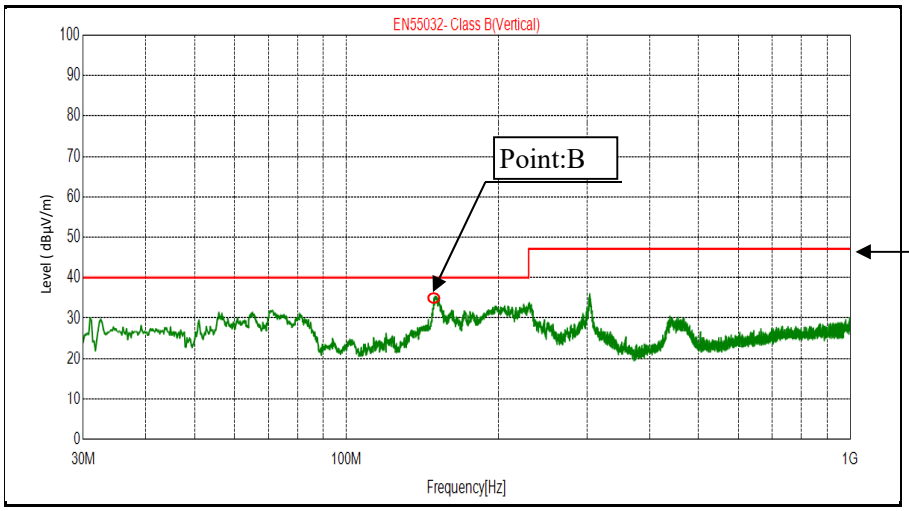
12V

HORIZONTAL




| Ref. Data | Point A (150MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 35.5 |

VERTICAL




| Ref. Data | Point B (150MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 35.6 |

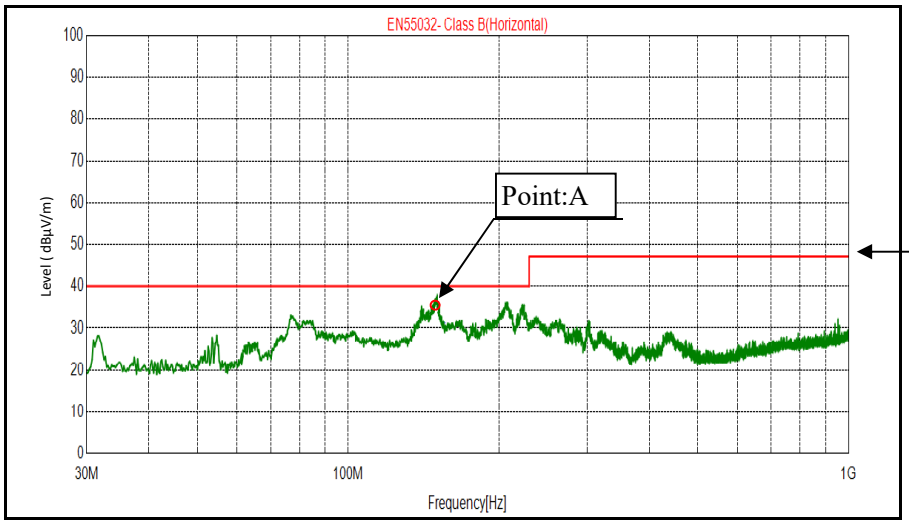
2-15. Electro-Magnetic Interference characteristics

Conditions Vin : 115 VAC
Iout : 25 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Radiated Emission

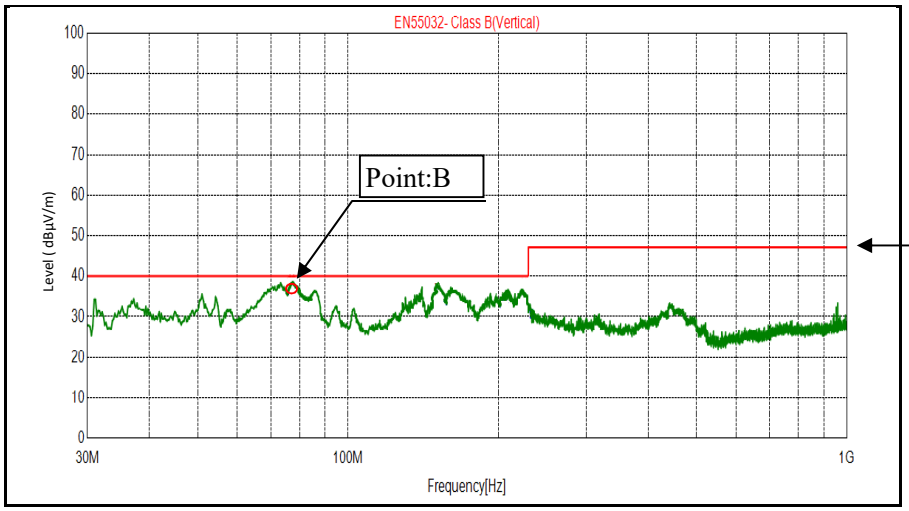
24V

HORIZONTAL




| Ref. Data | Point A (150MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 34.6 |

VERTICAL




| Ref. Data | Point B (77MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 36.0 |

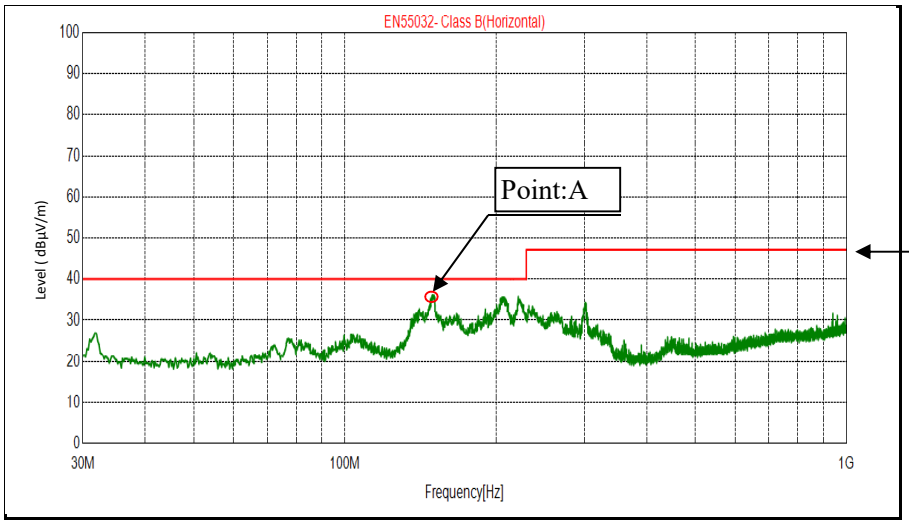
2-15. Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC
Iout : 25 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Radiated Emission

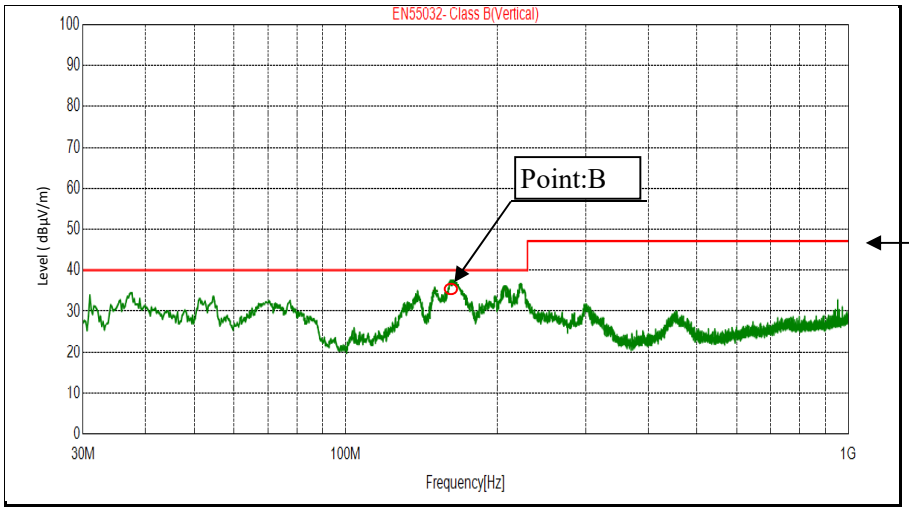
24V

HORIZONTAL




| Ref. Data | Point A (150MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 37.0 |

VERTICAL




| Ref. Data | Point B (160MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 35.2 |

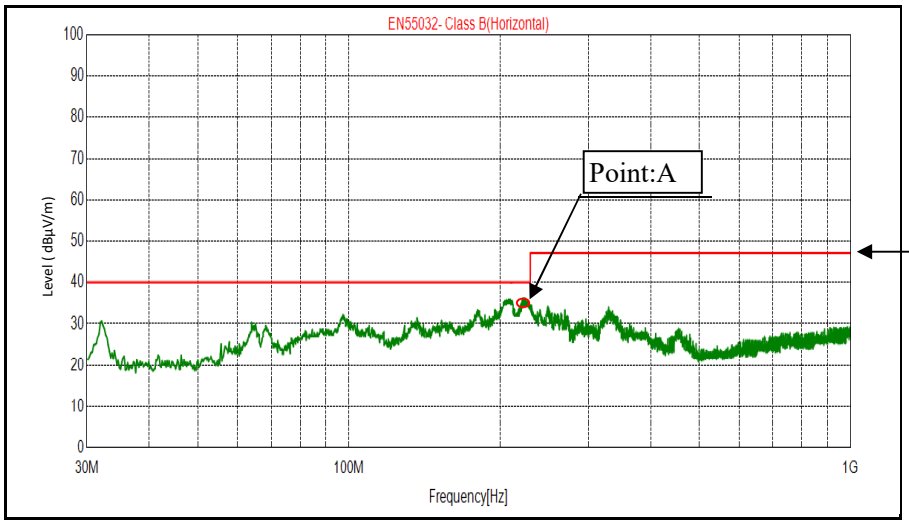
2-15. Electro-Magnetic Interference characteristics

Conditions Vin : 115 VAC
Iout : 12.6 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Radiated Emission

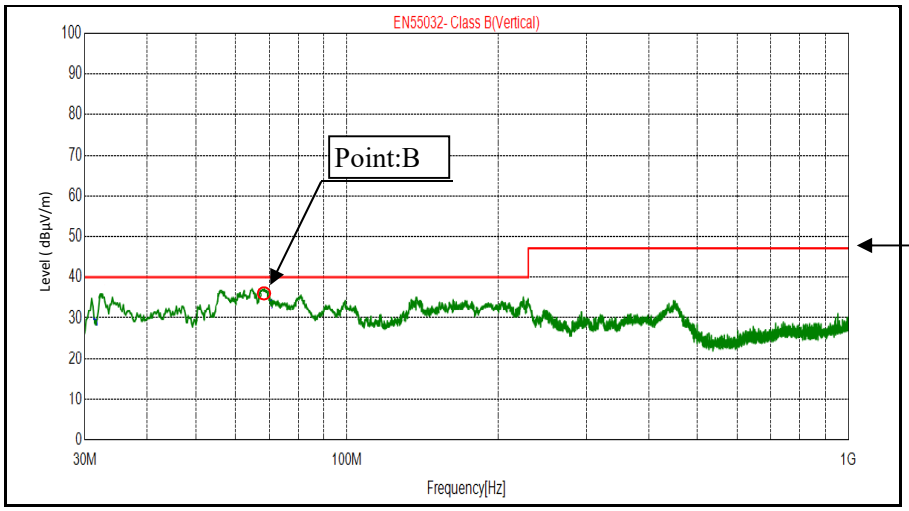
48V

HORIZONTAL




| Ref. Data | Point A (224MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 33.3 |

VERTICAL




| Ref. Data | Point B (68MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 35.8 |

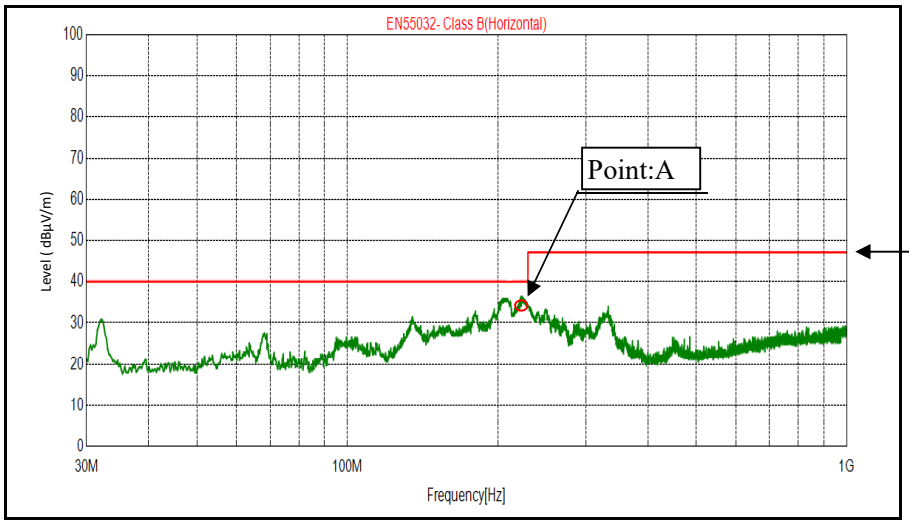
2-15. Electro-Magnetic Interference characteristics

Conditions Vin : 230 VAC
Iout : 12.6 A (100%)
Istb : 100 %
Ta : 25 ℃
Cooling : Forced Air

Radiated Emission

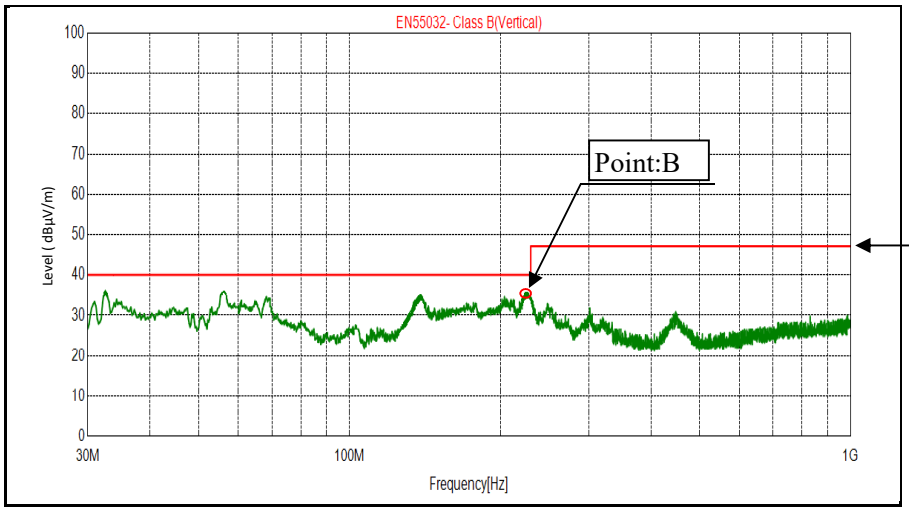
48V

HORIZONTAL




| Ref. Data | Point A (225MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 33.0 |

VERTICAL




| Ref. Data | Point B (223MHz) Limit (dBuV) | Measure (dBuV) |
|---|---|---|
| QP | 40.0 | 36.0 |