# CN200B110

(This specification also applies to option models :/T, /CO, /AUX, /LC,/S) SPECIFICATIONS (1/2)

CA938-01-01B

| ITEMS \ Model | | | CN200B110-12 | CN200B110-13.8 | CN200B110-15 | CN200B110-24 |
|---|---|---|---|---|---|---|
| INPUT | | | | | | |
| Input Voltage Range (DC) | (*7)(*8) | V | 43 - 160 | | | |
| Efficiency (Typ.) | (*1) | % | 90 | 91 | 90 | 90 |
| Input Current (Typ.) | (*1) | A | 2.0 | 2.0 | 2.1 | 2.1 |
| OUTPUT | | | | | | |
| Nominal Output Voltage (DC) | | V | 12 | 13.8 | 15 | 24 |
| Output Voltage Accuracy | (*1) | % | +/-1 | | | |
| Output Voltage Range | (*9) | % | -20 / +20 | -30 / +4 | -20 / +20 | -20 / +10 |
| Maximum Output Current | | A | 16.7 | 14.5 | 13.4 | 8.4 |
| Maximum Output Power | | W | 200.4 | 200.1 | 201 | 201.6 |
| Maximum Line Regulation | (*2) | mV | 48 | 48 | 60 | 96 |
| Maximum Load Regulation | (*3) | mV | 96 | 96 | 120 | 192 |
| Temperature Coefficient | | - | 0.02%/°C | | | |
| Maximum Ripple & Noise | (*9) | mV | 150 | 150 | 150 | 240 |
| Over Current Protection | (*4) | % | 102 - 150 | | | |
| Over Voltage Protection | (*5)(*8) | % | 125 - 145 | 109 - 126 | 125 - 145 | 115 - 135 |
| FUNCTION | | | | | | |
| Remote ON/OFF Control | (*8) | - | Possible (SHORT : ON OPEN : OFF) | | | |
| Remote Sensing | (*8) | - | Possible | | | |
| Parallel Operation | (*8) | - | Possible | | | |
| Series Operation | (*8) | - | Possible | | | |
| I.O.G Signal | (*8) | - | Possible (Open Collector Output) *Except /AUX Model | | | |
| AUX - BIAS Power supply | (*8) | - | 10 - 14VDC (Maximum Load 10mA) *Only /AUX Model | | | |
| ENVIRONMENT | | | | | | |
| Operating Temperature | (*6)(*8) | - | -40°C - +100°C (Baseplate) | | | |
| Storage Temperature | | - | -40 - +100°C | | | |
| Operating Humidity | | - | 5 - 95%RH (No Dewdrop) | | | |
| Storage Humidity | | - | 5 - 95%RH (No Dewdrop) | | | |
| Vibration | | - | At No Operating, 10-55Hz (Sweep for 1min.)<br>Amplitude 0.825mm Constant (Maximum 49.0m/s2) X,Y,Z 1 hour each<br>IEC61373-Category 1-Grade B | | | |
| Shock | | - | 196.1m/s2 , IEC61373-Category 1-Grade B | | | |
| Cooling | | - | Conduction Cooled | | | |
| ISOLATION | | | | | | |
| Withstand Voltage | (*10) | - | Input-Baseplate : 2.5kVAC for 1min (20mA)<br>Input-Output: 3.0kVAC for 1min (20mA)<br>Output-Baseplate: 500VAC for 1min (20mA) | | | |
| Isolation Resistance | | - | More than 100MΩ at 25°C and 70%RH Output-Baseplate…500VDC | | | |
| STANDARD AND COMPLIANCE | | | | | | |
| Safety | | - | Approved by IEC/EN/UL/CSA 62368-1 (Altitude ≤ 5,000m) | | | |
| MECHANICAL | | | | | | |
| Weight (Typ.) | | g | 100 | | | |
| Size (W x H x D) | | mm | 61.0 x 12.7 x 57.9 (Refer to Outline Drawing) | | | |

# CN200B110

SPECIFICATIONS (2/2)

CA938-01-01B

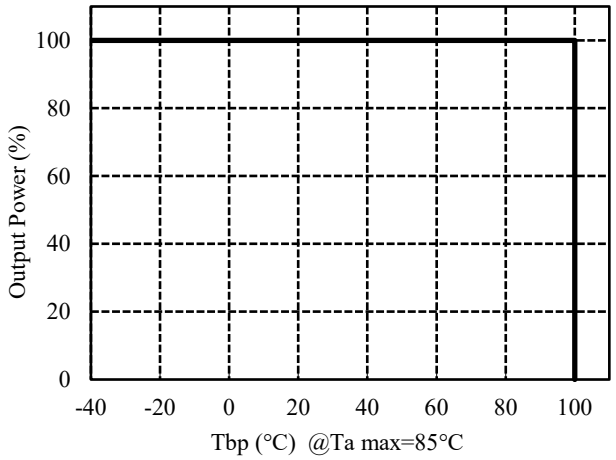
* Read instruction manual carefully, before using the power supply unit.

=NOTES=

*1. At 110VDC and maximum output current. (Baseplate Temperature = +25°C)
*2. 43 - 160VDC, Constant load.
*3. No Load - Full Load, Constant input voltage.
*4. Constant current limit type.
(Except /LC model, the others will delay hiccup when left in OCP condition with the output voltage less than LVP (Low Voltage Protection) level. Please refer to the instruction manual.)
*5. Standard model: automatic recovery ; Option model /LC: latch type.
*6. Rating - Refer to below Derating Curve 1.
- Load(%) is percent of maximum output current.
*7. Rating - Refer to Derating Curve 2 (CA938-01-03_).
*8. Refer to Instruction Manual.
*9. External components are necessary for operation.
(Refer to Basic Connection and Instruction Manual.)
*10.This specification applies to power supply module as stand-alone.

| Option list | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Coating | Non-threaded mounting holes φ3.3 | Auxiliary power | IOG | OVP/OTP | OCP (*4) | Terminal pin length |
| Standard model | - | - | - | ○ | Automatic recovery | Constant current limit+LVP | 5±0.5 mm |
| /T | - | ○ | - | ○ | | | |
| /CO | ○ | - | - | ○ | | | |
| /AUX | - | - | ○ | - | | | |
| /LC | - | - | - | ○ | Latch:Input or CNT reset | Constant current limit | |
| /S | - | - | - | ○ | Automatic recovery | Constant current limit+LVP | 3±0.5 mm |

Derating Curve 1



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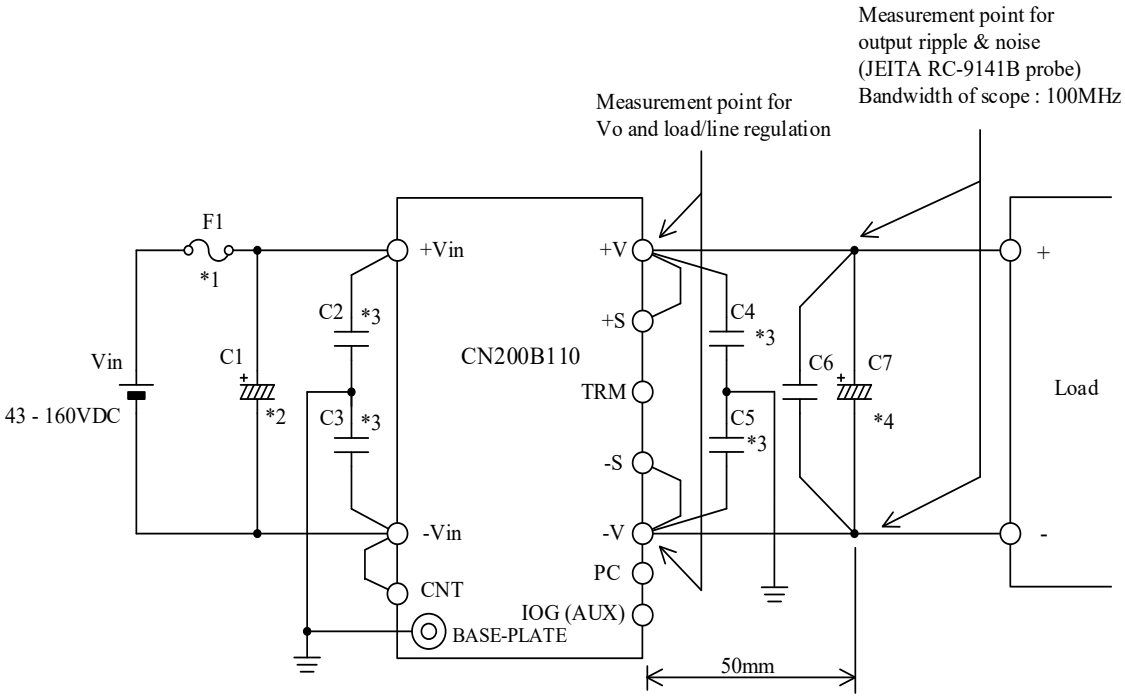
CA938-01-02A

BASIC CONNECTION




External Components list

| | | | | |
|---|---|---|---|---|
| F1: | 20A | | | |
| C1: | 220uF (Elec.) | C6: | 10uF (Ceramic) | |
| C2: | 4700pF | C7: | 12V | 1000uF (Elec.) |
| C3: | 4700pF | | 13.8V | 1000uF (Elec.) |
| C4: | 0.022uF | | 15V | 1000uF (Elec.) |
| C5: | 0.022uF | | 24V | 470uF (Elec.) |

* Read instruction manual carefully, before using the power supply unit.

==NOTES==

*1. Use an external fuse (fast blow type or normal blow type) for each unit.

*2. 1) Use low impedance electrolytic capacitor with excellent temperature characteristics.
2) If the impedance of input line is high, C1 capacitance must be more than 220uF.
3) Use more than two recommended capacitors in parallel when ambient temperature is -20°C or lower to reduce ESR.

*3. Put this capacitor as close as possible to I/O terminal and BASE-PLATE.

*4. 1) Use low impedance electrolytic capacitor with excellent temperature characteristics.
2) If ambient temperature is -20°C or lower, use more than three recommended capacitors in parallel to reduce ESR.

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Derating Curve 2

Output Voltage Trim up Range Limited v.s Input Voltage