

CN300B110

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

SPECIFICATIONS (1/2)

CA898-01-01D

Model		CN300B110-12	CN300B110-13.8	CN300B110-15	CN300B110-24
ITEMS					
INPUT					
Input Voltage Range (DC)	(*7)(*8)	V	43 - 160		
Efficiency (Typ.)	(*1)	%	89.5	90.5	90
Input Current (Typ.)	(*1)	A	3.1	3.0	3.1
OUTPUT					
Nominal Output Voltage (DC)		V	12	13.8	15
Output Voltage Accuracy	(*1)	%	+/-1		
Output Voltage Range	(*9)	%	-20 / +20	-30 / +4	-20 / +20
Maximum Output Current		A	25	21.7	20
Maximum Output Power		W	300	299.5	300
Maximum Line Regulation	(*2)	mV	48	48	60
Maximum Load Regulation	(*3)	mV	96	96	120
Temperature Coefficient		-	0.02%/°C		
Maximum Ripple & Noise	(*9)	mV	150	150	150
Over Current Protection	(*4)	%	102 - 150		
Over Voltage Protection	(*5)(*8)	%	125 - 145	109 - 126	125 - 145
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.) Amplitude 0.825mm Constant (Maximum 49.0m/s ²) X,Y,Z 1 hour each IEC61373-Category 1-Grade B		
Shock		-	196.1m/s ² , IEC61373-Category 1-Grade B		
Cooling		-	Conduction Cooled		
ISOLATION					
Withstand Voltage	(*10)	-	Input-Baseplate : 2.5kVAC for 1min (20mA) Input-Output: 3.0kVAC for 1min (20mA) 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)		

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SPECIFICATIONS (2/2)

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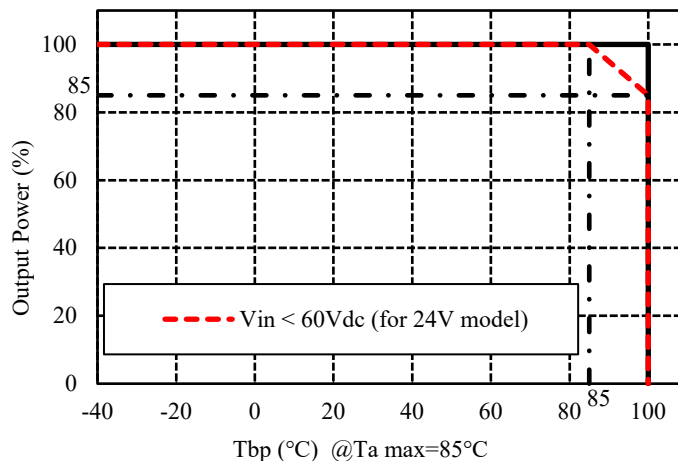
* Read instruction manual carefully, before using the power supply unit.

=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 (CA898-01-03_).
- *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.
- *11. This product consists of an aluminum board and a control board, and the aluminum board is resin-molded.
/CO model is coated only on the control board exposed from the resin mold.

Option list							
Model	Coating (*11)	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

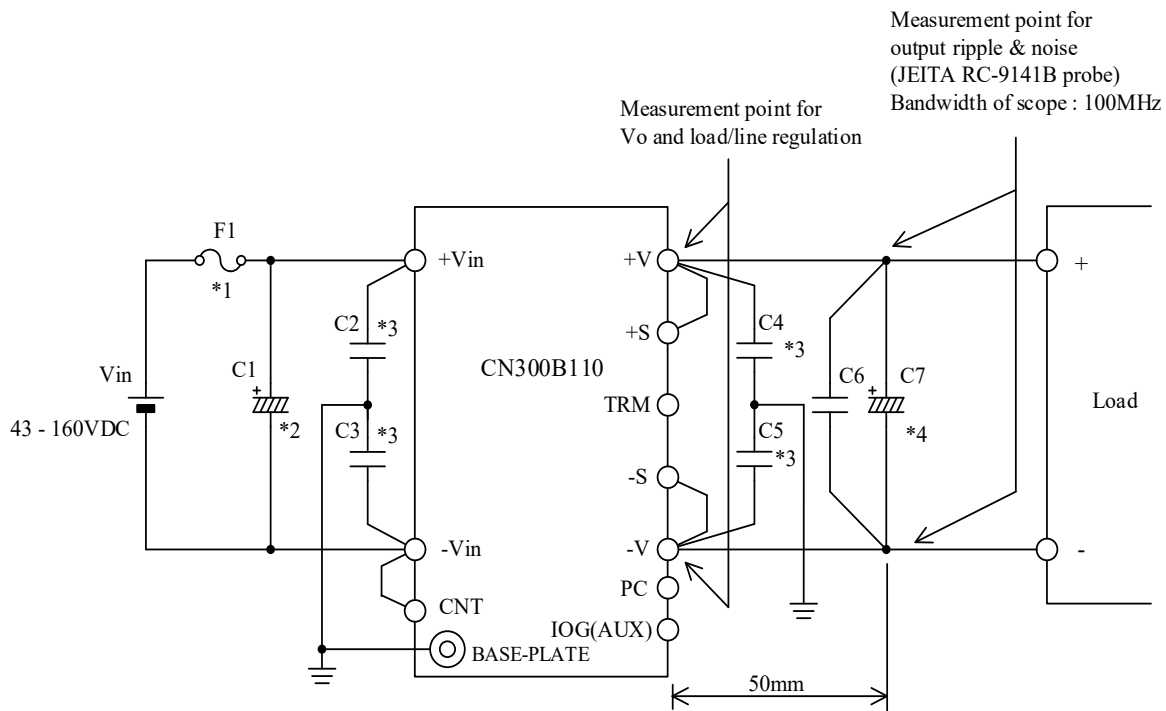
Derating Curve 1



CN300B110

CA898-01-02A

BASIC CONNECTION



External Components list

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

* 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

