

CCG60-24-xx

SPECIFICATIONS (1/2)

C311-01-01

ITEMS		MODEL	CCG60-24-03	CCG60-24-05	CCG60-24-12	CCG60-24-15	CCG60-24-24
INPUT (*11)							
Input Voltage Range (DC)		V	9 - 36				
Efficiency (Typ.)		(*1) %	90	92	93	93	93
Input Current (Typ.)		(*1) A	1.84	2.72	2.69	2.69	2.69
OUTPUT							
Nominal Output Voltage (DC)		V	3.3	5	12	15	24
Output Voltage Accuracy		(*1) %	+/-2				
Maximum Output Current		A	12	12	5	4	2.5
Maximum Output Power		W	39.6	60	60	60	60
Maximum Line Regulation		(*2) mV	13.2	20	48	60	96
Maximum Load Regulation		(*3) mV	13.2	20	48	60	96
Maximum Temperature Coefficient		-	0.02% / °C				
Maximum Ripple & Noise		(*4) mV	70	70	95	95	95
Output Voltage Range (DC)		(*4) V	3.3 - 3.63	4.5 - 5.5	10.8 - 13.2	13.5 - 16.5	21.6 - 26.4
PROTECTIVE FUNCTION							
Over Current Protection		(*5) -	105% minimum				
Over Voltage Protection		(*6)(*7) %	125 - 150				
FUNCTION							
Remote ON/OFF Control		(*7) -	Possible				
Remote Sensing		-	None				
Parallel Operation		-	None				
Series Operation		(*7) -	Possible				
ENVIRONMENT							
Operating Temperature		(*8) -	-40°C to +110°C(Case) , -40°C to +85°C(Ambient)				
Storage Temperature		-	-55°C to +125°C				
Operating Humidity		-	5 to 95%RH (Non Condensing)				
Storage Humidity		-	5 to 95%RH (Non Condensing)				
Vibration		(*9) -	At No Operating, 10-55Hz (Sweep for 1min.) Amplitude 1.65 mm Constant (Maximum 98m/s ²) X,Y,Z 1 hour each				
Shock		(*9) -	Less than 490.3m/s ²				
Cooling		-	Convection Cooling / Forced Air Cooling				
ISOLATION							
Withstand Voltage		(*10) -	Input-Case : 1.0kVDC for 1min. (10mA) , Input-Output : 1.5kVDC for 1min. (10mA) , Output-Case : 1.0kVDC for 1min. (10mA)				
Isolation Resistance		-	More than 100MΩ at 25°C and 70%RH, Output - Case 500VDC				
STANDARD AND COMPLIANCE							
Safety		-	Approved by IEC/EN/UL/CSA62368-1 (Altitude ≤ 5,000m)				
MECHANICAL							
Weight (Typ.)		g	30				
Size (W x H x D)		mm	25.4 x 13.0 x 25.4 (Refer to Outline Drawing)				

CCG60-24-xx

SPECIFICATIONS (2/2)

C311-01-01

*Read Instruction Manual carefully, before using the power supply unit.

=NOTES=

*1. At 24VDC input voltage and maximum output current. (Ambient Temperature = +25°C.)

*2. 9 - 36VDC input voltage, constant load.

*3. No Load - Full Load, constant input voltage.

*4. External components are needed for operation. (Refer to Instruction Manual.)

*5. OCP TYPE : Hiccup, Automatic recovery.

*6. OVP TYPE : Output shut down, Manual reset. (Line off or Control off.)

*7. Refer to Instruction Manual.

*8. Rating - Refer to Output Derating Curve in Instruction Manual.

*9. The result is evaluated by TDK-Lambda standard measurement conditions.

The final equipment should be evaluated to meet its requirements.

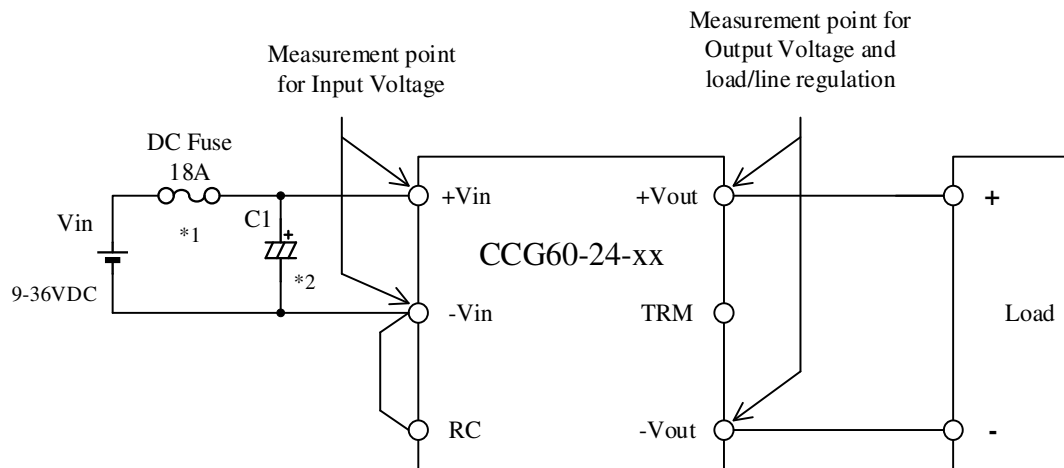
*10. This specification applies to power supply module as stand-alone.

*11. Input recycling : wait time > 10ms. (Refer to Instruction Manual.)

CCG60-24-xx

C311-01-02

BASIC CONNECTION



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

==NOTES==

*1. Use an external DC fuse for each unit.

*2. Put input capacitor.

$C1$: Electrolytic capacitor More than 50V, 150uF

- 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 above.