

Power Supplies

AC Input

Multi Output, Long Life

CRM-GB Series

FEATURES

- Two floating type outputs.
- Remote ON-OFF.
- These low noise power supplies are CISPR standard compliant.



PART NUMBERS AND RATINGS

Part No.	Output power (W)	Output current(A)				
		Output voltage				
		5V	12V	12V	15V	15V
CRM-011GB	60		2.5	2.5		
CRM-012GB	60				2	2
CRM-013GB	45	3	2.5			

SPECIFICATIONS

Part No.		CRM-011GB	CRM-012GB	CRM-013GB
Rated output voltage, current*	V ₁	12V • 2.5A	15V • 2A	12V • 2.5A
	V ₂	12V • 2.5A	15V • 2A	5V • 3A
Maximum output power	W	60	60	45
Input requirements				
Input voltage Eac	V	85 to 132[Rating: 100-115]		
Input frequency	Hz	47 to 440[Single phase][Rating: 50-60]		
Input capacitance	VA	150max.[At maximum output power]		
Fuse rating	A	3.15[Internal]		
Surge current	A	15max./17max.[25°C, 100/115V, output rating, 1st surge current, reset after roughly 5s min.]		
Leakage current	mA	0.5max.(0.3typ.)[25°C, input and output ratings]		
Efficiency	%	78typ.[25°C, input and output ratings]		
Output characteristics				
Output voltage	V	12, 12	15, 15	12, 5
Maximum output current*	A	2.5, 2.5	2, 2	2.5, 3
Voltage variable range	V	5V: 4 to 5.5, 12V: 9.5 to 13.5, 15V: 12 to 16.5		
Overvoltage threshold	V	5V: 5.8 to 6.9, 12V: 13.7 to 15.7, 15V: 17 to 19		
Overcurrent threshold	A	5V: 3.3 to 4.2, 12V: 2.8 to 3.5, 15V: 2.2 to 2.8		
Voltage stability	Input variation	%	0.8max.(0.5typ.)[Within the input voltage range]	
	Load variation	%	0.8max.(0.4typ.)[10 to 100% load]	
	Temperature variation	%	1.2max.(0.4typ.)[0 to +50°C]	
	Drift	%	0.5max.[25°C, input and output ratings, after input voltage ON for 30min to 8h]	
	Ripple Ep-p	mV	5V: 50max. 12V: 80max. 15V: 80max.	
	Noise Ep-p	mV	Output voltage×1%+50max.[50MHz max., including ripple]	
Dynamic load	%/ms	±4max./1max.[50 to 100% sudden load change]		
Start up time	ms	150max.(100typ.)[25°C, input and output ratings]		
Hold up time	ms	20min.(30typ.)[25°C, input and output ratings]		
Accessory equipment				
Overvoltage protection		Voltage shielding type, recovers upon reset, set value fixed.		
Overcurrent protection		Fixed current and voltage threshold type, automatic recovery, set value fixed.		
Remote ON-OFF		Yes(RC(–) terminal is at the same level as V1(–) terminal.)		
Remote sensing		None		
Standards				
Safety standards		—		
Noise terminal voltage		CISPR standard compliant.		
Construction				
External dimensions H×W×L	mm	130×55×224		
Weight	kg	1.4max.		
Mounting method		Can be attached to 4 sides.		
Case material		Aluminum(Phosphoric acid anodized surface)		

* Current rating(maximum output current) is determined for 0 to +50°C. Derating is required when used outside this temperature range.

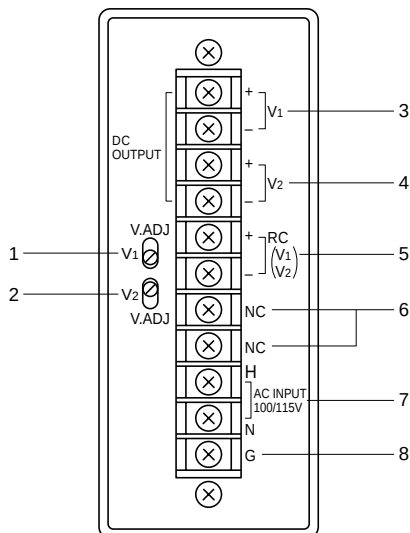
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TERMINAL DESIGNATIONS AND FUNCTIONS



Terminal No. 1: V₁ output voltage adjustment trim(V₁, V.ADJ)

Adjusts the V₁ output voltage.

Terminal No. 2: V₂ output voltage adjustment trim(V₂, V.ADJ)

Adjusts the V₂ output voltage.

Terminal No. 3: V₁ DC output terminals(V₁, +, -)

Connect to load.

Terminal No. 4: V₂ DC output terminals(V₂, +, -)

Connect to load (V₁ and V₂ are floating).

Terminal No. 5: Remote ON-OFF terminals(+RV, -RC)

Output is turned ON-OFF by disconnecting-connecting the RC terminals

(output ON when open).The RC(-) terminal is connected to the V₁ (-) terminal.

Terminal No. 6: No connection(NC)

This terminal should not be connected.

Terminal No. 7: AC input terminals(H, N, AC INPUT)

Connect to AC. 100/115V single phase power supply.

Terminal No. 8: Frame ground terminal(G)

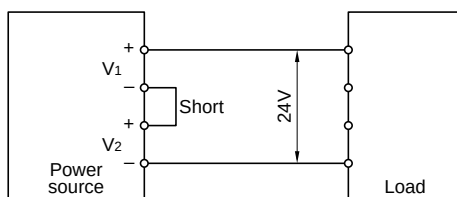
Connect to earth ground. This is connected to the case.

OUTPUT POWER USE GUIDELINES

The two outputs of the CRM type are entirely independent(isolated). Therefore the respective(+, -) outputs can be used independently or can be combined together.

Example(CRM-011GB)

Example application	Output voltage1 (V ₁)	Output voltage2 (V ₂)	Usage requirements
1	+12V • 2.5A	+12V • 2.5A	Ground the (-) sides of V ₁ and V ₂ .
2	+12V • 2.5A	-12V • 2.5A	Ground the (-) side of V ₁ and the(+) side of V ₂ .
3	-12V • 2.5A	-12V • 2.5A	Ground (+) sides of V ₁ and V ₂ .
4	+24V • 2.5A	—	Refer to diagram below.



- Can not be used in parallel to provide a 12V, 5A power source.

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