

CRBxxxx D-xW-A/B Serie High Voltage

(2:1) Wide Voltage Range Input, Regulated Output Module (0.1-10W)



B Model Product No.: **CRBXXXXD-B**

B Model Dimension: 50.8x25.4x10.14

A Model Product No. : **CRBXXXXD- A**

A Model Dimension: 25.4x25.4x10.14



Generalization

CRB Series power modules adopt the advanced DC-DC conversion and pressor technology, the unique vacuum insulation and encapsulation technical design, the metal shield case, which have the following characteristics: moisture-proof, shockproof, high efficiency, low noise, low temperature drift, anti-EMC electro-magnetic interference, etc. The modules are widely used in mine exploration, metallurgy, optical control technology, medical equipment, physical and chemical experimental analysis, etc.

Voltage Input: 4.5-9VDC, 9-18VDC, 18-36VDC Standard (2:1) wide voltage range input. Output power consumption: 2-10W.

Voltage output: 80VDC, 100VDC, 110VDC, 150VDC, 250VDC, have OTP, OCP, UVL, SCP poly-protection functions.

Technical Parameter

Output Specifications:		
Technical Specifications	Technical Parameter	Testing Conditions
Voltage Stability Accuracy	3.0%max	1%-100% load range
Voltage Regulation	0.5%max	full load
Load Regulation	±0.5%type. ±1.0%max (No load to full load)	0%-100% load range
Ripple and Noise	≤150mVp-p,max	20MHzband width
Dynamic Response Speed	≤150us	25% load-full load
Response Time	500ms	
Input Specifications:		
Input Voltage Range	(12VDC) 9 - 18VDC	
	(24VDC) 18 - 36VDC	
Linear Speed Rate	0.5%	low end- high end
General Specifications:		
Switch Frequency	150KHZ	Typical Value
Conversion Efficiency	See Model Selection Guide	
Isolation Voltage	Non-isolated	
Average Non-failure Interval Time	50000 hours	
Temperature Coefficient	0.02%/°C	
Environment Characteristics:		
Operating Temperature	-40°C - +85°C	
Storage Humidity	-55°C - +125°C	
Relative Humidity	10% - 90%	
Cooling Mode	free air	

Model Selection Guide:

Product Model	Input Volt. (VDC)		Output Volt. (VDC)	Output Current (mA)	Efficiency (%)
	Nominal Value	Input Range			
CRB12110D-2W5-A	12 .0	9.0~18.0	110	23	83
CRB12150D-2W-A	12 .0	9.0~18.0	150	14	83
CRB12250D-2W-A	12 .0	9.0~18.0	250	8	85
CRB24110D-2W-A	24 .0	18.0~36.0	110	18	83
CRB24250D-2W-A	24 .0	18.0~36.0	150	8	86
CRB12110D-3W-A	12 .0	9.0~18.0	110	27	83
CRB12150D-3W-A	12 .0	9.0~18.0	150	20	83
CRB12250D-3W-A	12 .0	9.0~18.0	250	12	85
CRB24110D-3W-A	24 .0	18.0~36.0	110	27	82
CRB24150D-3W-A	24 .0	18.0~36.0	150	20	83
CRB24250D-3W-A	24 .0	18.0~36.0	250	12	85
CRB12150D-5W-A	12 .0	9.0~18.0	150	34	85
CRB12250D-5W-A	12 .0	9.0~18.0	250	20	86
CRB24110D-5W-B	24 .0	18.0~36.0	110	45	85
CRB24150D-5W-B	24 .0	18.0~36.0	150	34	87
CRB24250D-5W-B	24 .0	18.0~36.0	250	20	88
CRB12150D-2W-B	12 .0	9.0~18.0	150	14	83
CRB12250D-2W-B	12 .0	9.0~18.0	250	8	85
CRB24110D-2W-B	24 .0	18.0~36.0	110	18	83
CRB24250D-2W-B	24 .0	18.0~36.0	150	8	86
CRB12110D-3W-B	12 .0	9.0~18.0	110	27	83
CRB12150D-3W-B	12 .0	9.0~18.0	150	20	83
CRB12250D-3W-B	12 .0	9.0~18.0	250	12	85
CRB24110D-3W-B	24 .0	18.0~36.0	110	27	82
CRB24150D-3W-B	24 .0	18.0~36.0	150	20	83
CRB24250D-3W-B	24 .0	18.0~36.0	250	12	85
CRB12150D-5W-B	12 .0	9.0~18.0	150	34	85
CRB12250D-5W-B	12 .0	9.0~18.0	250	20	86
CRB24110D-5W-B	24 .0	18.0~36.0	110	45	85
CRB24150D-5W-B	24 .0	18.0~36.0	150	34	87

CRB24250D-5W-B	24 .0	18.0~36.0	250	20	88
CRB12110D-6W-B	12 .0	9.0~18.0	110	55	83
CRB12150D-6W-B	12 .0	9.0~18.0	150	40	83
CRB12250D-6W-B	12 .0	9.0~18.0	250	25	80
CRB24110D-6W-B	24 .0	18.0~36.0	110	55	83
CRB24150D-6W-B	24 .0	18.0~36.0	150	40	83
CRB24250D-6W-B	24 .0	18.0~36.0	250	25	83
CRB12100D-8W-B	12 .0	9.0~18.0	100	80	83
CRB12150D-8W-B	12 .0	9.0~18.0	150	50	80
CRB12250D-8W-B	12 .0	9.0~18.0	250	30	82
CRB24100D-8W-B	24.0	18.0~36.0	100	80	83
CRB12250D-10W-B	12 .0	9.0~18.0	250	40	85
CRB12100D-10W-B	12 .0	9.0~18.0	100	100	80
CRB12150D-10W-B	12 .0	9.0~18.0	150	67	82
CRB24100D-10W-B	24 .0	18.0~36.0	100	100	82
CRB24150D-10W-B	24 .0	18.0~36.0	150	67	83
CRB24250D-10W-B	24 .0	18.0~36.0	250	40	85

**CRBXXXX- B B Model Connection Diagram (bottom view)****Examples of Model Selection****E.g.1:** Input Volt.: 9-18VDC; Output Volt.:110VDC; Output Power Consumption: 2.5W

A model dimension: 25.4 * 25.4 * 10.14 (mm)

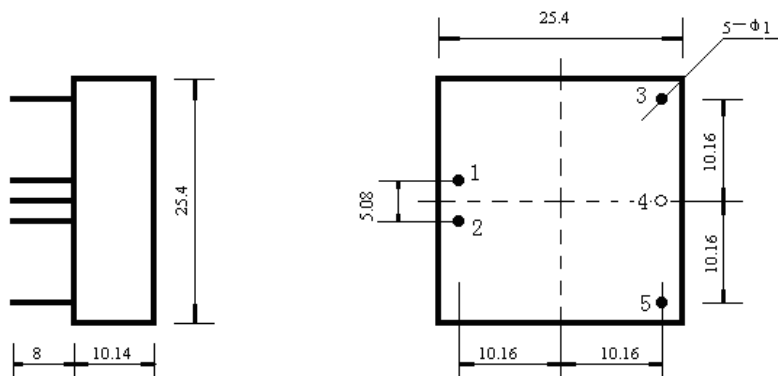
Corresponding Product Model No: **CRB12110D-2W5-A****E.g. 2:** Input Volt.: 18-36VDC; Output Volt.:150VDC; Output Power Consumption: 5W

B model dimension: 50.8 * 25.4 * 10.14 (mm)

Corresponding Product Model No: **CRB24150D-5W-B**

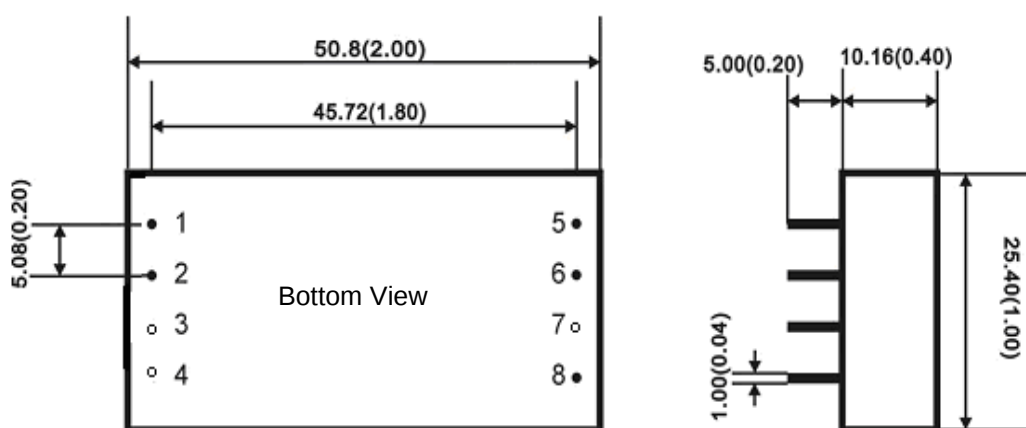
Dimension and Pin Definition

(1) A Model Dimension: 25.4x25.4x10.14 ; Unit: mm A Model Product No. : **CRBXXXXD- A** (bottom view)



PIN	A Model PIN Definition	
1	+Vin	Input +
2	GND	Input GND
3	+Vout	Output+
4	NC	Null
5	GND	Output GND

(2) B Model Dimension: 50.8x25.4x10.14 Unit: mm B Model Product No.: **CRBXXXXD- B** (bottom view)



PIN	B Model PIN Definition				
1	+Vin	Input +	5	+Vout	Output +
2	GND	Input GND	6	ADJ	Adjustment
3	REM	REM	7	NC	Null
4	GND	GND	8	GND	Output GND

Note: The specifications of this product is subject to changes without prior notice

1. For B model products (Dimension: 50.8mm x 25.4mm x 10.14mm), PIN3 can be changed into control terminal. Then PIN 3 must be set to 5V voltage, PIN 4 to the ground of 5V power supply, in that case, modules have normal output. Otherwise, without 5V voltage, the output voltage equals input voltage. PIN6 is voltage regulating terminal, add a 200K potentiometer between PIN6 and PIN5 to adjust output voltage, the adjusting range is $\pm 15V$ (When placing orders, user should mark out the model which has been adjusted and regulated).

2. When using in the products of which the output voltage is higher than 80V, user should add a 47UF filter capacitor (the value of pressure endurance of filter capacitor must meet the safety requirements).

3. Power module input has no reverse connection protection, in the process of connection, the polarity must be correct, otherwise, it may cause unrepairable damage.

4. Our company can design and manufacture the high-voltage output power module based on technical parameter from customers.