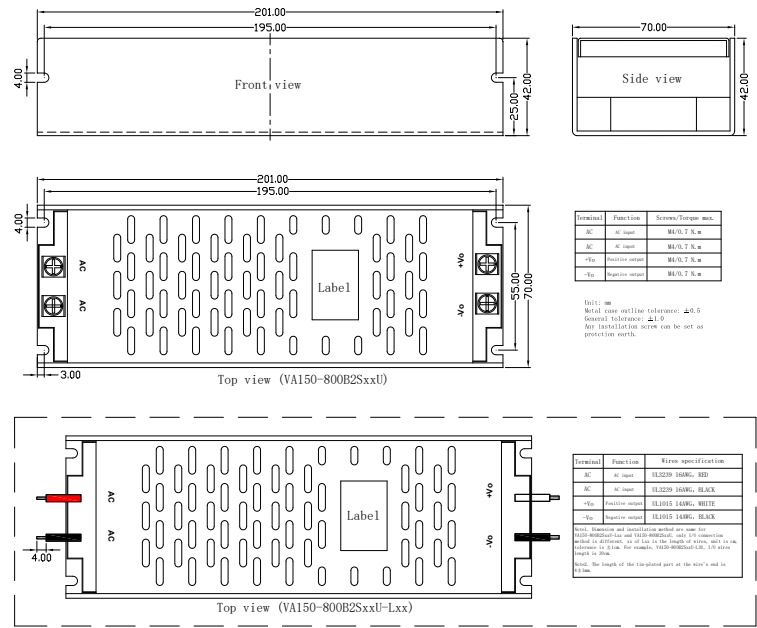




VA150-800B2SxxU(-Lxx)

AC-DC Power Supply Module

AC or DC input, isolated single output

Product Characteristics

- Input voltage range, 300-1000VAC or 300-1500VDC
- High reliability, industrial grade
- Input and output isolation, 4000VAC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input under voltage protection (UVP)
- Output protection, OCP and SCP
- No minimum load requirement

Model Selection Table

Model (A-TYPE)	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin=800VAC)
			Vo	Io	
VA150-800B2S12U	201*70*42mm	100W	12V	8330mA	82%
VA150-800B2S15U			15V	6770mA	82%
VA150-800B2S24U		150W	24V	6250mA	83%
VA150-800B2S28U			28V	5350mA	85%
VA150-800B2S32U			32V	4680mA	86%
VA150-800B2S48U			48V	3120mA	86%

Note: Suffix of “-Lxx” means the module has input and output wires, and “xx” is the length with unit of cm, please reference to the related description in the dimension drawing.

Input Characteristics

Item	Test Condition / Description		MIN	TYP	MAX
Input voltage range	AC input		300VAC	800VAC	1000VAC
	DC input		300VDC	1000VDC	1500VDC
Input current	Vin = 800VAC		-	500mA	-
Surge current	Vin = 800VAC		-	60A	-
Input UVP	Input under voltage trigger point	For AC input	-	155VAC	-
		For DC input		220VDC	
	Input under voltage released point	For AC input	-	170VAC	-
		For DC input		240VDC	
External input fuse			Required		

Output Characteristics

Item	Test Condition / Description		MIN	TYP	MAX
Voltage accuracy			-	±2%	-
Line regulation	100%Io		-	±1%	-
Load regulation	10%-100%Io		-	±1.5%	-
Ripple and noise*1	20MHz bandwidth (Peak-peak value)		-	300mV	-
OCP	Output over current protection		≥110%Io, Self recovery		
SCP	Output short circuit protection		Self recovery		
Minimum load			0	-	-
Start-up delay time			-	3s	-
Hold-up time			-	10ms	-
Hot plug			Prohibited		
Paralleled working			Prohibited		

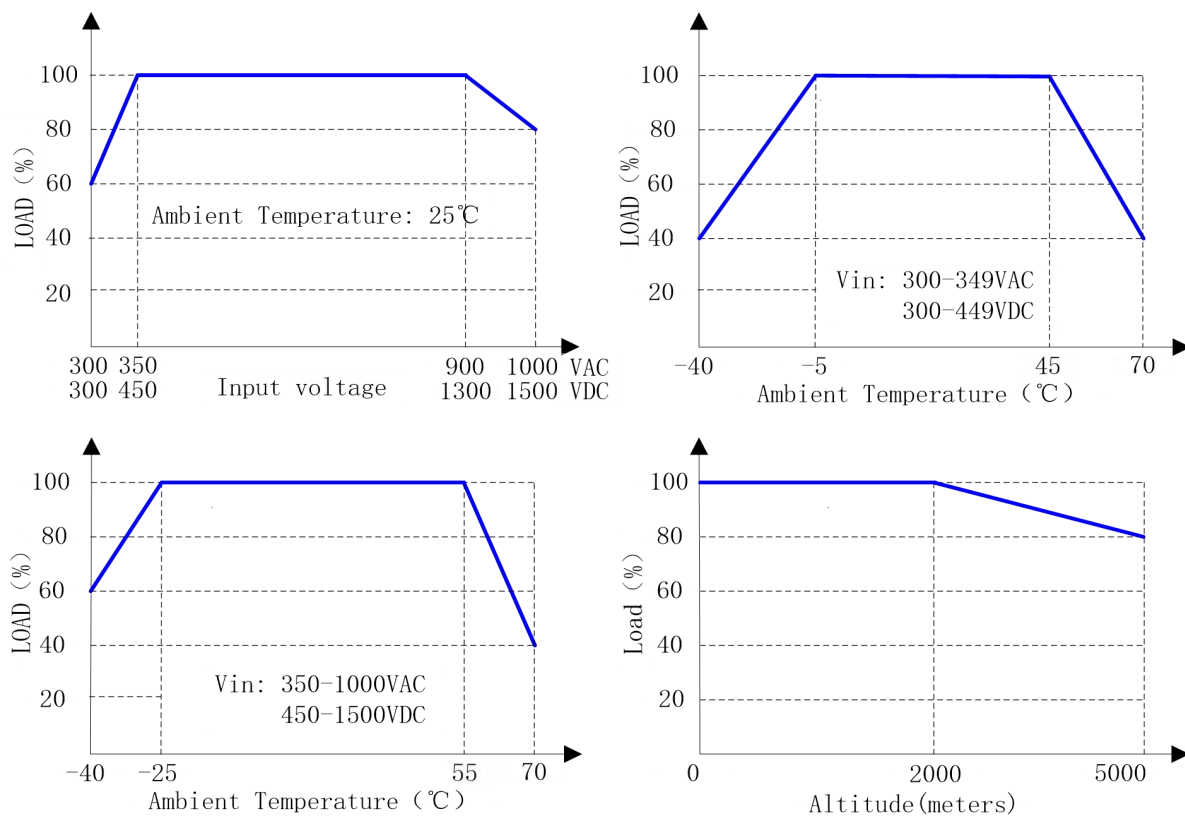
Remark *1: Oscilloscope probe should be connected with the paralleled combination of a 10uF high frequency low resistance electrolytic capacitor and a 0.1uF ceramic capacitor.

General Characteristics

Item	Test Condition / Description		MIN	TYP	MAX
Working temperature			-40℃	-	+70℃
Storage temperature			-40℃	-	+85℃
Storage humidity			-	-	95%RH
Switching frequency			-	65kHz	-

Isolation voltage	Input to output, 60s, $\leq 5\text{mA}$	4000VAC	-	-
	Input to case, 60s, $\leq 5\text{mA}$	2000VAC	-	-
	output to case, 60s, $\leq 5\text{mA}$	2000VAC	-	-
MTBF	MIL-HDBK-217F@25°C	215000h	-	-
Weight		-	680g	-
Cooling method	Natural air cooling (forced air cooling is recommended.)			

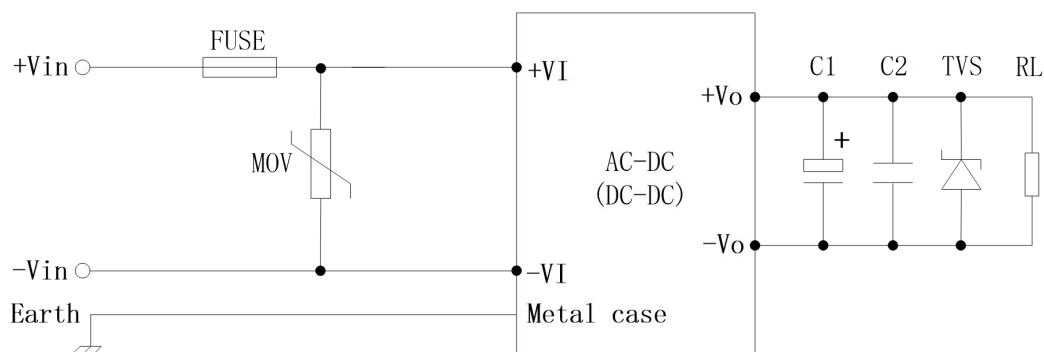
Derating Curves



Comment: Derating should be considered base on temperature, input voltage and altitude.

Application Notes

1. Application circuit recommendation



2. Input part recommendation

Component	Function and description	Recommendation
FUSE	Cut off fault circuit	Required, 5A/1500V, time lag type is advised
MOV	Absorb surge energy	Varistor, two 112KD14 in series

3. Output part recommendation

Output voltage	C1	C2	TVS	RL
12V	680 μ F/25V	1 μ F/50V	1.5KE18CA	User load
15V	680 μ F/25V	1 μ F/50V	1.5KE20CA	
24V	470 μ F/35V	1 μ F/50V	1.5KE30CA	
28V	470 μ F/35V	1 μ F/50V	1.5KE36CA	
32V	220 μ F/50V	1 μ F/50V	1.5KE39CA	
48V	100 μ F/63V	1 μ F/100V	1.5KE62CA	

Remarks:

- C1: Output filter electrolytic capacitor, high frequency low resistance electrolytic capacitor is recommended.
- C2: Ceramic capacitor to suppress high frequency noise.
- TVS: Transient suppression diode to protect post-stage circuit (user load).

Notes:

- If not specified, the test condition is ambient temperature 25℃, humidity < 75%, input voltage 800VAC and output rated load.
- All parameters listed in the data sheet are tested according to the company's enterprise standards.
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