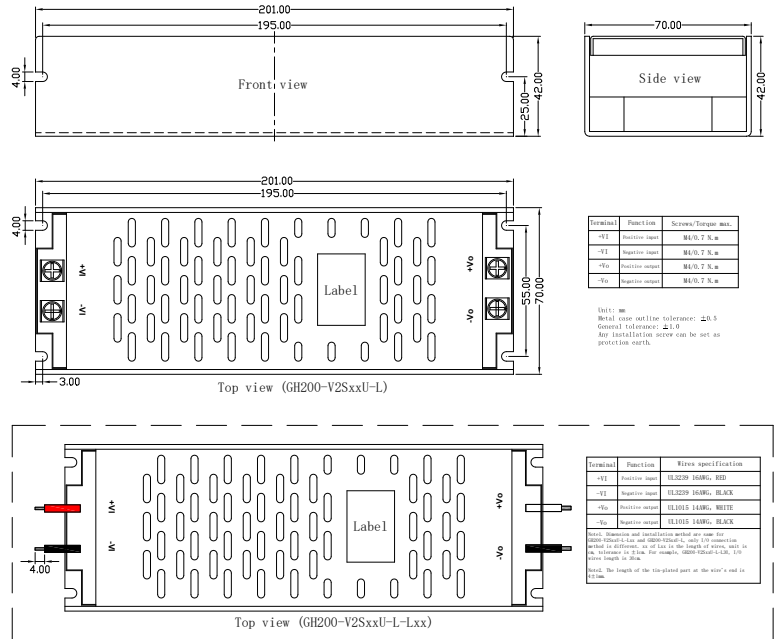




GH200-V2SxxU-S(-Lxx) DC-DC Power Supply Module Ultra wide input, isolated single output

Product Characteristics

- Ultra wide input voltage range, 250-1500VDC
- Designed reference to EN62109 and UL1741
- Input and output isolation, 4000VAC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input reversed polarity protection, UVP
- Output protection, OCP and SCP
- No minimum load requirement

Model Selection Table

Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency ($V_{in}=1000VDC$)
			V_o	I_o	
GH200-V2S12U-S	201*70*42mm	120W	12V	10000mA	80%
GH200-V2S15U-S			15V	8000mA	82%
GH200-V2S24U-S		200W	24V	8330mA	83%
GH200-V2S28U-S			28V	7140mA	85%
GH200-V2S32U-S			32V	6250mA	86%
GH200-V2S48U-S			48V	4160mA	86%

Note: Adding suffix of “-Lxx” means the module has input and output wires, “xx” is the length with unit of cm (default length is 11cm), please reference to the related description in the dimension drawing.

Input Characteristics

Item	Test Condition / Description	MIN	TYP	MAX
Input voltage range	DC input	250VDC	1000VDC	1500VDC
Input current	Vin = 1000VDC	-	400mA	-
Surge current	Vin = 250VDC	-	30A	-
Input UVP	Input under voltage trigger point	-	220VDC	-
	Input under voltage released point	-	240VDC	-
Input reversed polarity protection	If input polarity is reversed, the PSU should not be damaged	Available		
External input fuse	4A/1500V, time lag type is preferred	Required		

Output Characteristics

Item	Test Condition / Description	MIN	TYP	MAX
Voltage accuracy		-	±2%	-
Line regulation	100%Io	-	±1.5%	-
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		

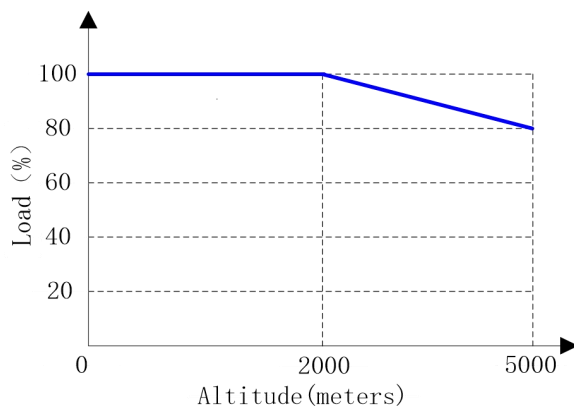
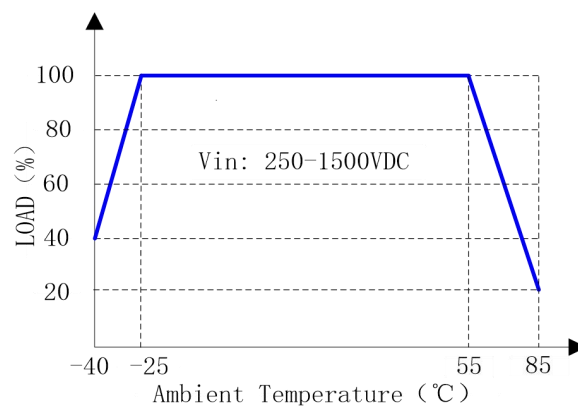
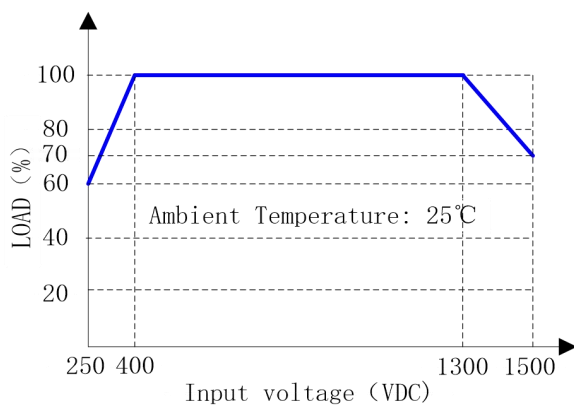
Remark *1: Oscilloscope probe should be connected with the paralleled combination of a 10uF high frequency low resistance electrolytic capacitor and a 0.1uF ceramic capacitor.

General Characteristics

Item	Test Condition / Description	MIN	TYP	MAX
Working temperature		-40℃	-	+85℃
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)			

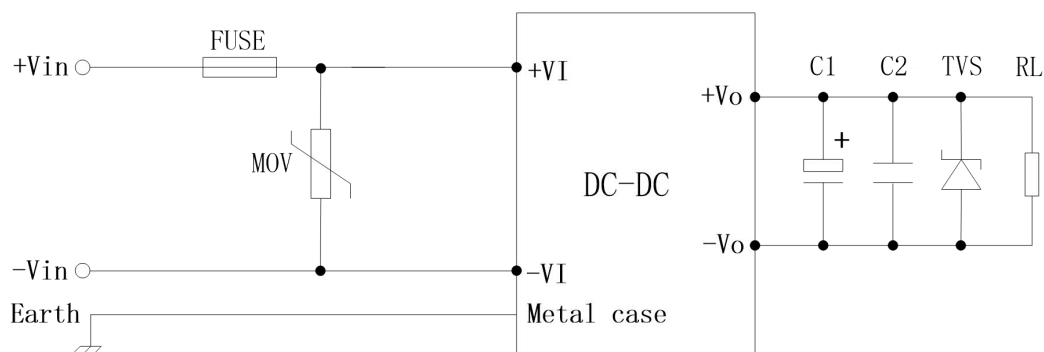
Derating Curves



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
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 1000VDC and output rated load.
- All parameters listed in the data sheet are tested according to the company's enterprise standards.
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