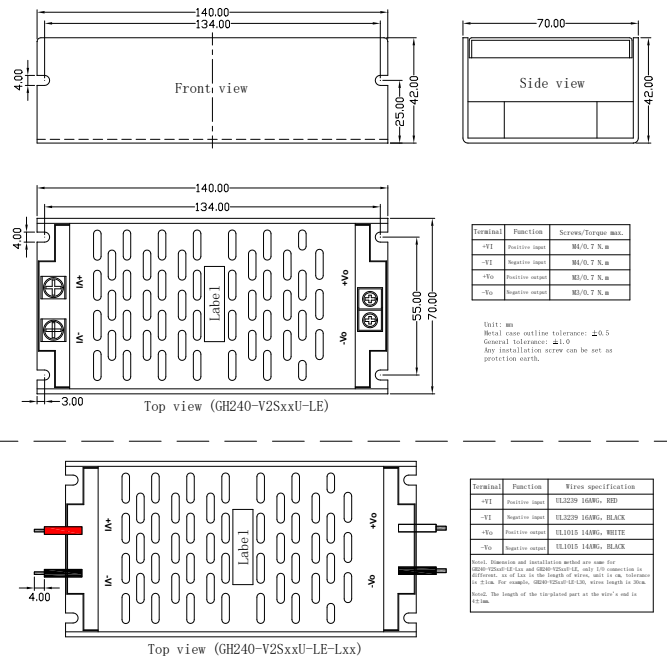




GH240-V2SxxU-LE(-Lxx)

DC-DC Power Supply Module

Ultra wide input, isolated single output

Product Characteristics

- Ultra wide input voltage range, 250-1000VDC
- 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)	Output power		Output voltage/current		Typical efficiency ($V_{in}=600VDC$)
		RATED	PULSE	RATED	PULSE	
GH240-V2S12U-LE	140*70*42mm	100W	160W (10min)	12V/8.33A	12V/13.3A	82%
GH240-V2S15U-LE				15V/6.67A	15V/10.6A	83%
GH240-V2S24U-LE		150W	240W (10min)	24V/6.25A	24V/10.0A	87%
GH240-V2S28U-LE				28V/5.35A	28V/8.57A	87%
GH240-V2S32U-LE				32V/4.68A	32V/7.50A	88%
GH240-V2S48U-LE				48V/3.12A	48V/5.00A	90%

Note: Adding suffix of “-Lxx” means the module has input and output wires, “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	DC input	250VDC	600VDC	1000VDC
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		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*2	Output short circuit protection	Self recovery		
Minimum load		0	-	-
Start-up delay time		-	3s	-
Hold-up time		-	10ms	-
Hot plug		Prohibited		
Paralleled working		Prohibited		

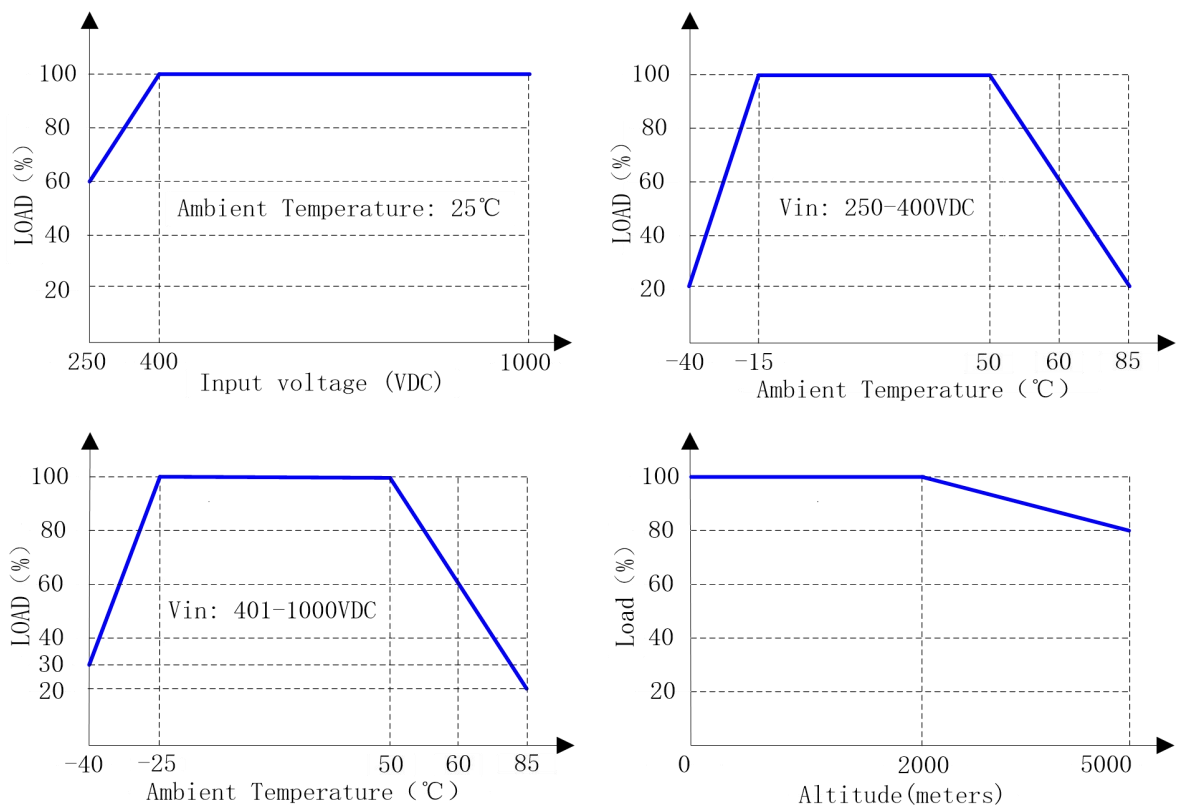
Remark *1: Oscilloscope probe should be connected with the paralleled combination of a 10uF high frequency low resistance electrolytic capacitor and a 0.1uF ceramic capacitor.

General Characteristics

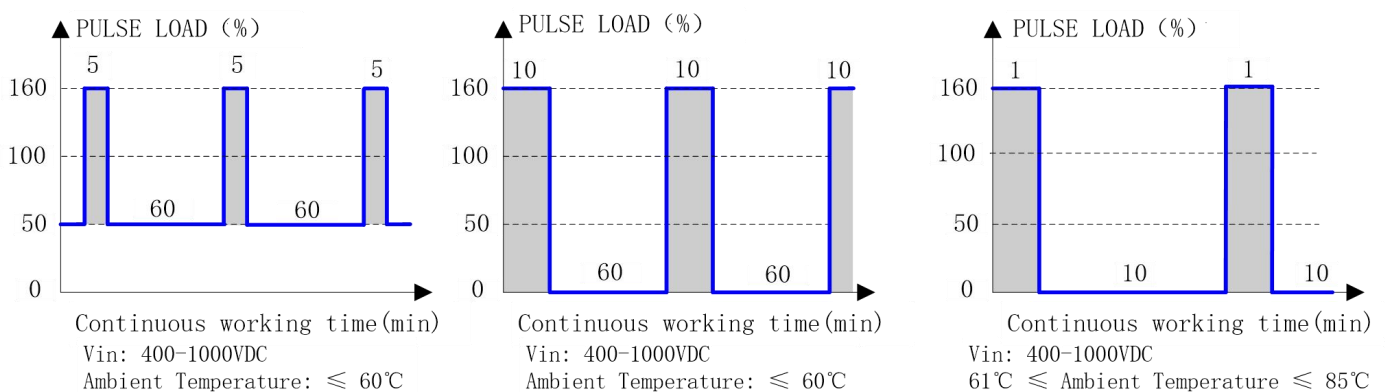
Item	Test Condition / Description	MIN	TYP	MAX
Working temperature		-40℃	-	+85℃
Storage temperature		-40℃	-	+85℃
Storage humidity		-	-	95%RH
Switching frequency		-	65kHz	-

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		-	500g	-
Cooling method	Natural air cooling (forced air cooling is recommended.)			

Derating Curves

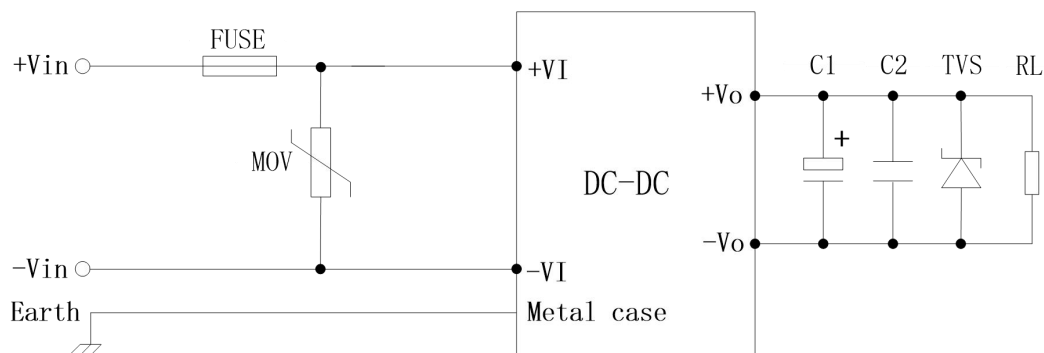


Comment: Derating should be considered base on temperature, input voltage and altitude.



Application Notes

1. Application circuit recommendation



2. Input part recommendation

Component	Function and description	Recommendation
FUSE	Cut off fault circuit	Required, 5A/1000V
MOV	Absorb surge energy	Varistor, 142KD14

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 600VDC and output rated load.
- All parameters listed in the data sheet are tested according to the company's enterprise standards.
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