



Guangzhou Guantu Electronic Technology Co., Ltd
广州冠图电子科技有限公司

HIGH VOLTAGE SMPS PRODUCT MANUAL
高压模块电源产品手册

——2024——

COMPANY PROFILE 公司简介

Guangzhou Guantu Electronic Technology Co., Ltd. (named GTL-POWER) was founded in 2012, focusing on the developing, manufacturing, sales and service of small and medium power supply modules, including: conventional power supply, general high input voltage power supply module, customized high input voltage or high output voltage power supply modules.

We have developed many series products of high input voltage power supplies for photovoltaic power generation (for current combination box, photovoltaic tracking bracket) and energy storage system (including high-voltage home/household energy storage system, industrial and commercial energy storage system).

We are ready to provide power technical support, solution consultation and customized power supply services for any new or old customer.

广州冠图电子科技有限公司成立于 2012 年，是一家专注于中小功率模块电源、定制电源及相关产品的研发、生产、销售和服务的技术型企业。

主要产品有光伏高压输入模块电源、储能高压输入模块电源、高压输出模块电源、通用 AC/DC 模块电源、定制 AC/DC 模块电源、通用定压 DC/DC 模块电源、通用宽压 DC/DC 模块电源等多系列产品。所有产品都是自主研发，具备完全的知识产权。同时，公司以扎实的技术能力和丰富的行业经验，为客户提供电源产品及相关行业的项目咨询、系统设计和技术支持等服务。

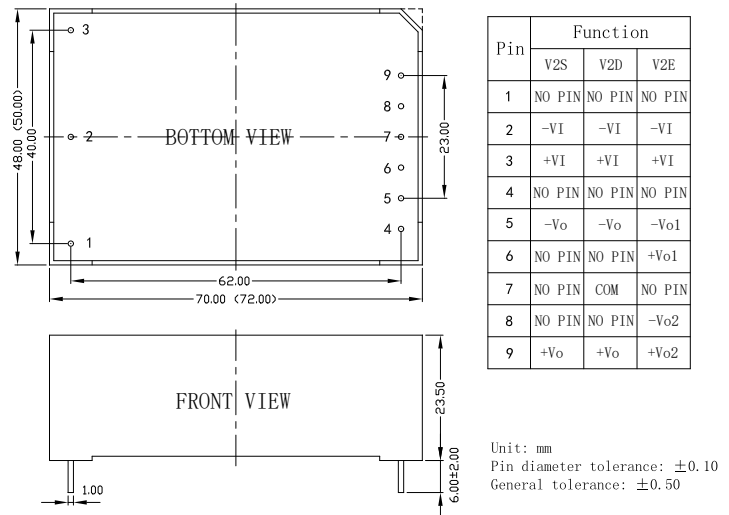
PIN DEFINITION 引脚定义

+VI	Positive input for DC/DC converter	输入正极
-VI	Negative input for DC/DC converter	输入负极，适用于 DC/DC 模块电源
+Vo	Positive output	输出正极
-Vo	Negative output	输出负极
Com	Common output for dual-output SMPS	输出公共地，适用于输出为正负双路的模块电源
Ctrl	Control PIN for on/off function	开/关机控制引脚
Trim	Trimming PIN for output voltage	输出电压调节引脚
NC	No connection PIN	无功能引脚，不能连接任何电路
No Pin	No PIN position	表示该位置没有引脚，也写作 NP
L	Live wire for AC/DC converter	交流输入火线，适用于 AC/DC 模块电源
N	Neutral wire for AC/DC converter	交流输入零线，适用于 AC/DC 模块电源

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GH15(25)-V2Xxx



DC-DC Power Supply Module Ultra wide input, isolated single/dual output

GH xx - V2 X xx

- _____ Output voltage in volt
- _____ S means single output, D means dual-output, E means isolated two outputs
- _____ Internal reserved letter and number
- _____ Rated output power in watt
- _____ Product series name, normally including two or three letters

Product Characteristics

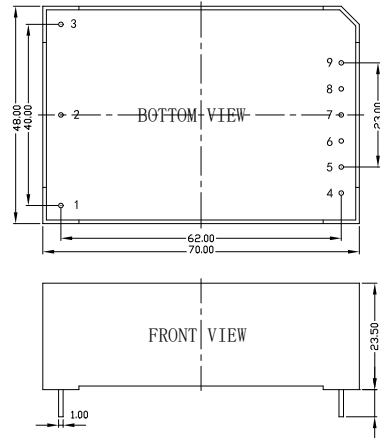
- Ultra wide input voltage range, 210-1200VDC
- High reliability, industrial grade
- Input and output isolation, 4000VDC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input protection: UVP, reversed polarity protection
- Output protection: OCP, SCP
- No minimum load requirement

Model Selection Table

Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin = 600VDC)
			Vo1/Io1	Vo2/Io2	
GH15-V2S05	70.0*48.0*23.5mm (Plastic case)	15W	5V/3000mA	-	73%
GH15-V2S12			12V/1250mA	-	80%
GH15-V2S15			15V/1000mA	-	81%
GH15-V2S24			24V/625mA	-	82%
GH15-V2D05			+5V/1500mA	-5V/1500mA	72%
GH15-V2D12			+12V/625mA	-12V/625mA	78%

GH15-V2D15			+15V/500mA	-15V/500mA	80%
GH15-V2D24			+24V/312mA	-24V/312mA	81%
GH15-V2E0505			5V/2000mA	5V/1000mA	73%
GH15-V2E0512			5V/2000mA	12V/420mA	76%
GH15-V2E0524			5V/2000mA	24V/210mA	78%
GH25-V2S05	72.0*50.0*23.5mm (Metal case)	25W	5V/5000mA	-	74%
GH25-V2S12			12V/2080mA	-	80%
GH25-V2S15			15V/1660mA	-	81%
GH25-V2S24			24V/1040mA	-	83%
GH25-V2D05			+5V/2500mA	-5V/2500mA	72%
GH25-V2D12			+12V/1040mA	-12V/1040mA	81%
GH25-V2D15			+15V/830mA	-15V/830mA	82%
GH25-V2D24			+24V/520mA	-24V/520mA	83%
GH25-V2E0505			5V/3000mA	5V/2000mA	72%
GH25-V2E0512			5V/3000mA	12V/830mA	74%
GH25-V2E0524			5V/3000mA	24V/420mA	75%

GH15(25)-C2Sxx-01

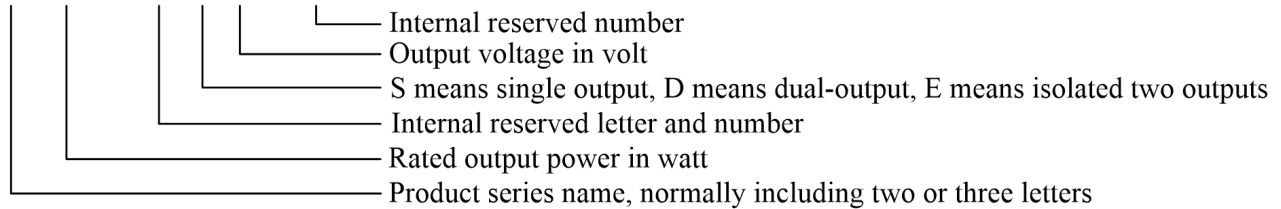


Pin	Function
1	NO PIN
2	-VI
3	+VI
4	NO PIN
5	-Vo
6	NO PIN
7	NO PIN
8	NO PIN
9	+Vo

Unit: mm
 Pin diameter tolerance: ± 0.10
 General tolerance: ± 0.50

DC-DC Power Supply Module Ultra wide input, isolated single output

GH xx - C2 S xx - 01



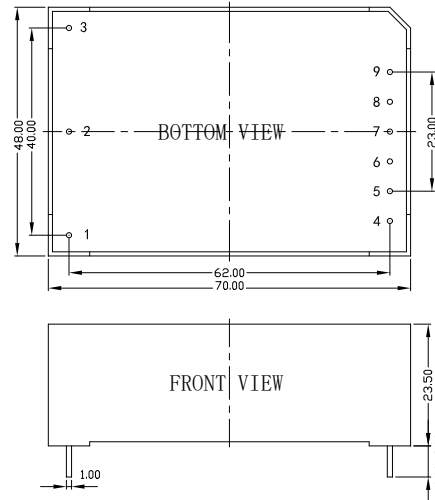
Product Characteristics

- Ultra wide input voltage range, 40-1000VDC
- Input reversed polarity protection
- Designed based on safety standards
- Output protection: OCP, SCP
- Input and output isolation, 4000VDC
- No minimum load requirement
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment

Model Selection Table

Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin = 600VDC)
			Vo	Io	
GH15-C2S05-01	70.0*48.0*23.5mm (Plastic case)	15W	5V	3000mA	71%
GH15-C2S12-01			12V	1250mA	74%
GH15-C2S15-01			15V	1000mA	75%
GH15-C2S24-01			24V	625mA	79%
GH25-C2S05-01	72.0*50.0*23.5mm (Metal case)	25W	5V	5000mA	74%
GH25-C2S12-01			12V	2080mA	78%
GH25-C2S15-01			15V	1660mA	79%
GH25-C2S24-01			24V	1040mA	82%

GH15-V2Xxx-S



Pin	Function		
	V2S	V2D	V2E
1	NO PIN	NO PIN	NO PIN
2	-VI	-VI	-VI
3	+VI	+VI	+VI
4	NO PIN	NO PIN	NO PIN
5	-Vo	-Vo	-Vo1
6	NO PIN	NO PIN	+Vo1
7	NO PIN	COM	NO PIN
8	NO PIN	NO PIN	-Vo2
9	+Vo	+Vo	+Vo2

Unit: mm
 Pin diameter tolerance: ± 0.10
 General tolerance: ± 0.50

DC-DC Power Supply Module Ultra wide input, isolated single/dual output

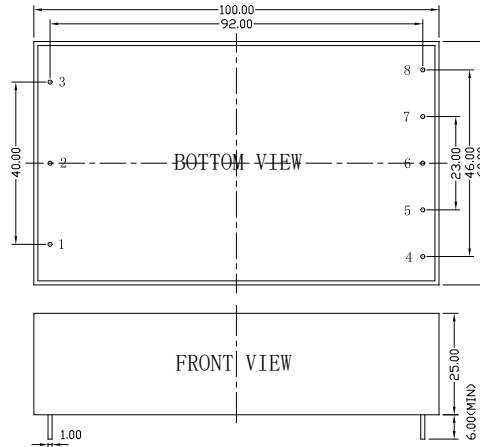
Product Characteristics

- Ultra wide input voltage range, 300-1500VDC
- High reliability, industrial grade
- Input and output isolation, 4000VDC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input protection: UVP, reversed polarity protection
- Output protection: OCP, SCP
- No minimum load requirement

Model Selection Table

Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency ($V_{in} = 600VDC$)
			Vo1/Io1	Vo2/Io2	
GH15-V2S05-S	70.0*48.0*23.5mm	15W	5V/3000mA	-	65%
GH15-V2S12-S			12V/1250mA	-	71%
GH15-V2S15-S			15V/1000mA	-	72%
GH15-V2S24-S			24V/625mA	-	78%
GH15-V2S32-S			32V/470mA	-	73%
GH15-V2D12-S			+12V/625mA	-12V/625mA	78%
GH15-V2D15-S			+15V/500mA	-15V/500mA	80%
GH15-V2E0512-S			5V/2000mA	12V/420mA	76%
GH15-V2E0515-S			5V/2000mA	15V/330mA	77%
GH15-V2E0524-S			5V/2000mA	24V/210mA	78%

GH25(40)-V2Sxx-S-UL



Pin PCB PAD recommendation

- Top/bottom paste/solder, D = 4mm
- Through hole, D = 1.3mm
- Four Vias, D = 0.4mm

Pin	Function
1	NO PIN
2	-VI
3	+VI
4	NO PIN
5	-Vo
6	NO PIN
7	+Vo
8	NO PIN

Unit: mm
 Pin diameter tolerance: ± 0.10
 General tolerance: ± 0.50

DC-DC Power Supply Module Ultra wide input, isolated single output

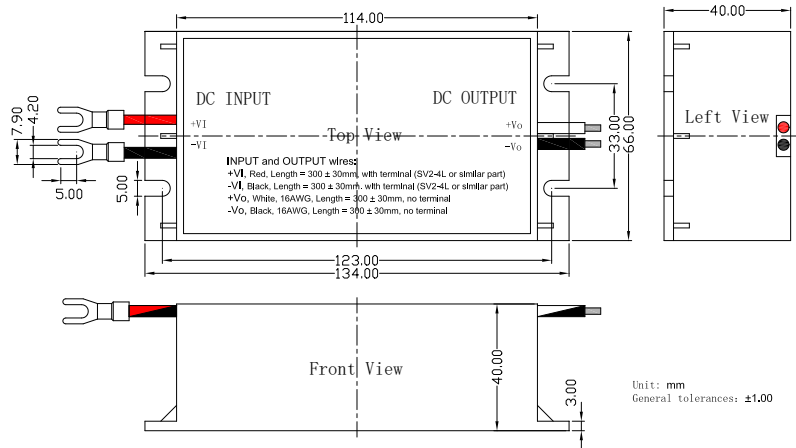
Product Characteristics

- Ultra wide input voltage range, 300-1500VDC
- Designed based on safety standards
- Input and output isolation, 4000VAC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input protection: UVP, reversed polarity protection
- Output protection: OCP, SCP
- No minimum load requirement

Model Selection Table

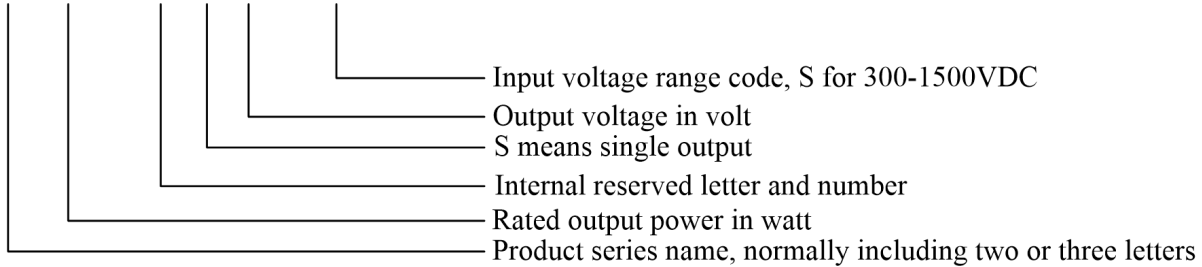
Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency ($V_{in}=1000VDC$)
			V_o	I_o	
GH25-V2S05-S-UL	100*60*25mm	20W	5V	4000mA	70%
GH25-V2S12-S-UL			12V	2080mA	72%
GH25-V2S24-S-UL			24V	1040mA	74%
GH25-V2S28-S-UL			28V	890mA	75%
GH25-V2S32-S-UL			32V	780mA	77%
GH40-V2S05-S-UL	100*60*25mm	30W	5V	6000mA	75%
GH40-V2S12-S-UL			12V	3330mA	78%
GH40-V2S24-S-UL			24V	1660mA	80%
GH40-V2S28-S-UL			28V	1430mA	81%
GH40-V2S32-S-UL			32V	1250mA	82%

GH50-V2Sxx-S



DC-DC Power Supply Module Ultra wide input, isolated single output

GH xx - V2 S xx - S



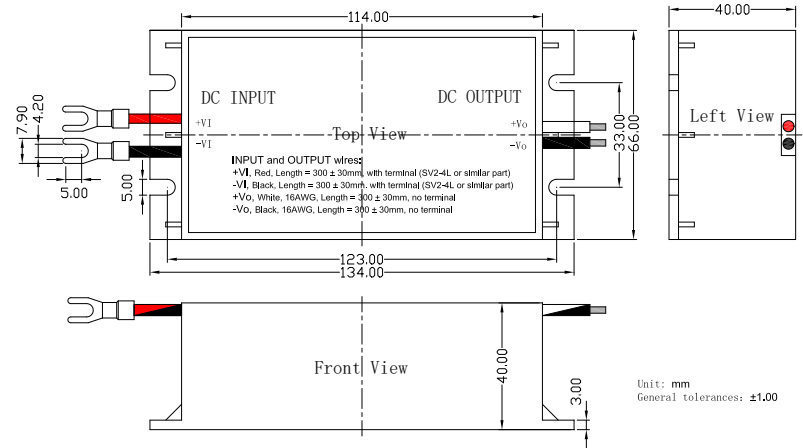
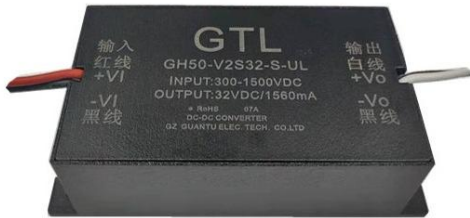
Product Characteristics

- Ultra wide input voltage range, 300-1500VDC
- High reliability, industrial grade
- Input and output isolation, 4000VDC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input protection: UVP, reversed polarity protection
- Output protection: OCP, SCP
- No minimum load requirement

Model Selection Table

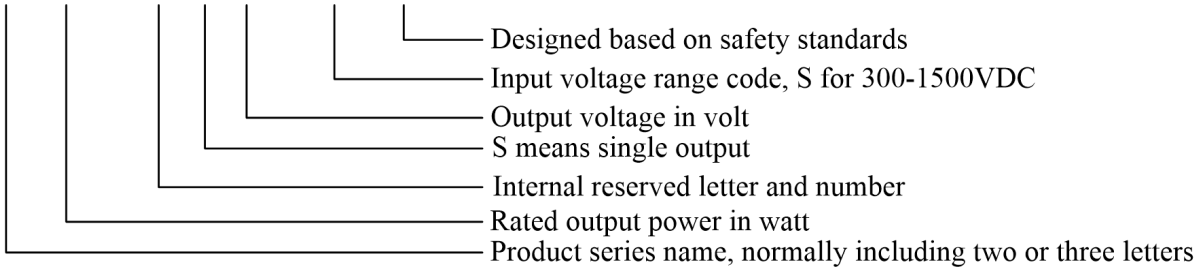
Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin=1000VDC)
			Vo	Io	
GH50-V2S12-S	134*66*40mm	50W	12V	4170mA	80%
GH50-V2S15-S			15V	3330mA	81%
GH50-V2S24-S			24V	2080mA	81%
GH50-V2S28-S			28V	1780mA	82%
GH50-V2S32-S			32V	1560mA	82%

GH50-V2Sxx-S-UL



DC-DC Power Supply Module Ultra wide input, isolated single output

GH xx - V2 S xx - S - UL



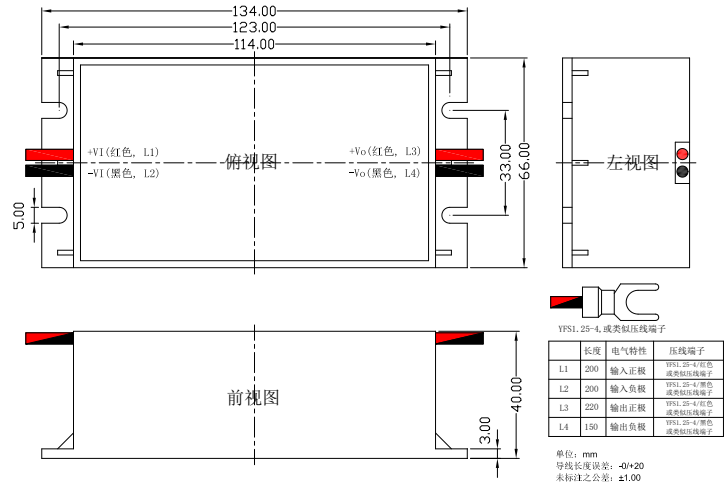
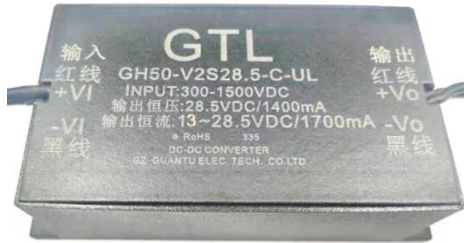
Product Characteristics

- Ultra wide input voltage range, 300-1500VDC
- Designed based on safety standards
- Input and output isolation, 4000VDC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input protection: UVP, reversed polarity protection
- Output protection: OCP, SCP
- No minimum load requirement

Model Selection Table

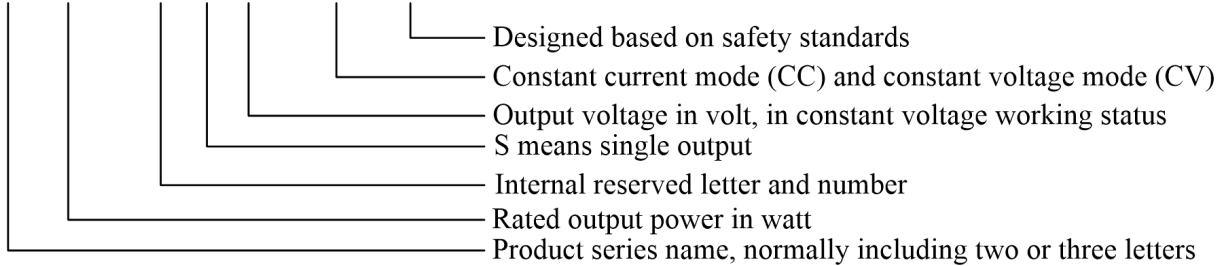
Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin=1000VDC)
			Vo	Io	
GH50-V2S12-S-UL	134*66*40mm	50W	12V	4170mA	80%
GH50-V2S15-S-UL			15V	3330mA	81%
GH50-V2S24-S-UL			24V	2080mA	81%
GH50-V2S28-S-UL			28V	1780mA	82%
GH50-V2S32-S-UL			32V	1560mA	82%

GH50-V2Sxx-C-UL



DC-DC Power Supply Module Ultra wide input, isolated single output

GH xx - V2 S xx - C - UL



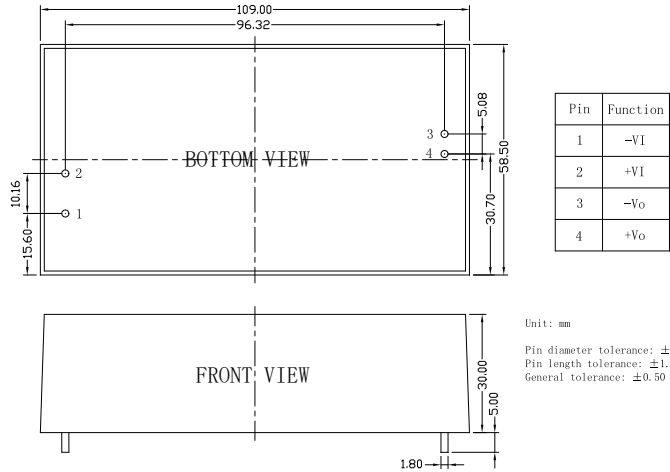
Product Characteristics

- Ultra wide input voltage range, 300-1500VDC
- Designed based on safety standards
- Input and output isolation, 4000VDC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input protection: UVP, reversed polarity protection
- Output protection: OCP, SCP
- No minimum load requirement

Model Selection Table

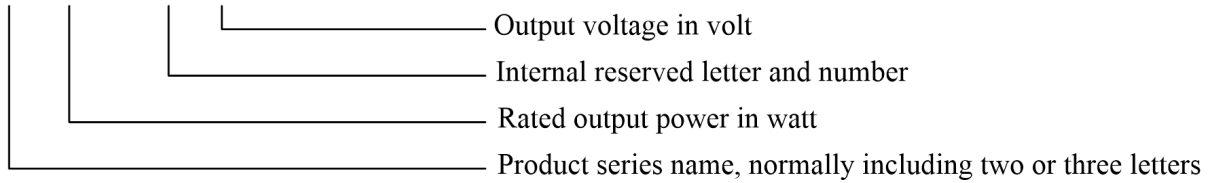
Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin=1000VDC)
			Mode	Vo / Io	
GH50-V2S24-C-UL	134*66*40mm	50W	CC mode	13-24V/2080mA	80%
			CV mode	24V/1800mA	
GH50-V2S28.5-C-UL			CC mode	13-28.5V/1700mA	81%
			CV mode	28.5V/1400mA	
GH50-V2S32-C-UL			CC mode	18-32V/1560mA	82%
			CV mode	32V/1300mA	

GH50-CNxx



DC-DC Power Supply Module Ultra wide input, isolated single output

GH xx - CN xx



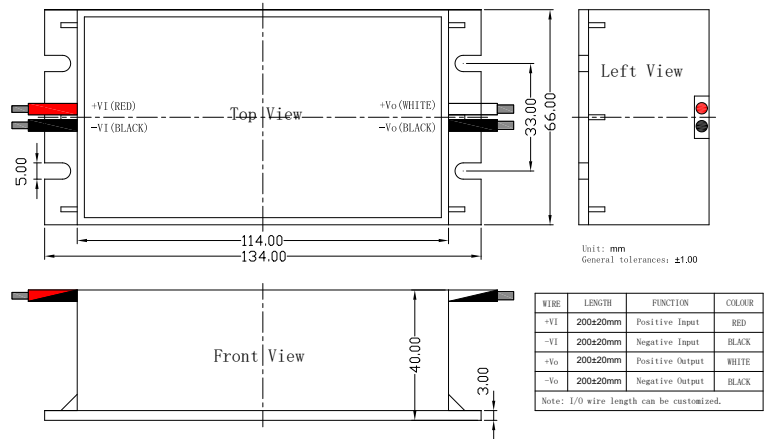
Product Characteristics

- Ultra wide input voltage range, 80-750VDC
- Input reversed polarity protection
- Designed based on safety standards
- Output protection, OCP and SCP
- Input and output isolation, 4000VDC
- No minimum load requirement
- Applications: energy storage system, photovoltaic power station, other high voltage input industrial equipment

Model Selection Table

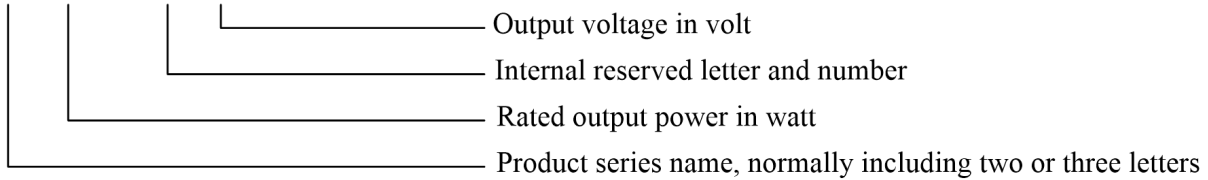
Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin=350VDC)
			Vo	Io	
GH50-CN12	109*58.5*30mm	50W	12V	4160mA	81%
GH50-CN15			15V	3330mA	83%
GH50-CN24			24V	2080mA	85%
GH50-CN28			28V	1780mA	85%
GH50-CN32			32V	1560mA	85%

GH60-CNxx



DC-DC Power Supply Module Ultra wide input, isolated single output

GH xx - CN xx



Product Characteristics

- Ultra wide input voltage range, 80-800VDC
- Standard, CE (EN62477-1)
- Input and output isolation, 4000VDC
- Applications: energy storage system, photovoltaic power station, other high voltage input industrial equipment
- Input reversed polarity protection
- 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 (Vin=400VDC)
			Vo	Io	
GH60-CN12	134*66*40mm	50W	12V	4160mA	80%
GH60-CN15			15V	4000mA	81%
GH60-CN24		60W	24V	2500mA	81%
GH60-CN28			28V	2140mA	82%
GH60-CN32			32V	1870mA	82%



VERIFICATION OF COMPLIANCE

No.:	LVD GZES2401000552AT
Applicant:	Guangzhou Guantu Electronic Technology Co., Ltd. No. 505, West Building, Jinghua Information Building, No. 138, Gaopu Road, Tianhe District, Guangzhou, China
Manufacturer:	Same as applicant
Product Name:	Switching Mode Power Supply
Product Description:	--
Model No.:	GH60-CN12, GH60-CN24
Trade Mark:	GTL
Rating:	Input: 80 - 800 VDC, Max. 1,5 A Output: GH60-CN12: 12 VDC, 0 - 4, 16 A GH60-CN24: 24 VDC, 0 - 2,5 A
Protection against Electric Shock:	--
Additional Information:	Build-in equipment
Sufficient samples of the product have been tested and found to be in conformity with	
Test Standard:	EN 62477-1:2012+A11:2014 + A1: 2017 + A12: 2021
as shown in the	
Test Report Number(s):	GZES240100055201

This Verification of Compliance has been granted to the applicant based on the results of tests, performed by Laboratory of SGS-CSTC Standards Technical Services Co., Ltd. on sample of the above-mentioned product in accordance with the provisions of the relevant harmonized standards under the Low Voltage Directive 2014/35/EU. The CE marking can be affixed, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives. The affixing of the CE marking presumes in addition that the conditions in annexes III and IV of the Directive are fulfilled.


 David Guo
 Technical Manager
 SGS-CSTC Standards Technical Services Co., Ltd.



2024-04-30

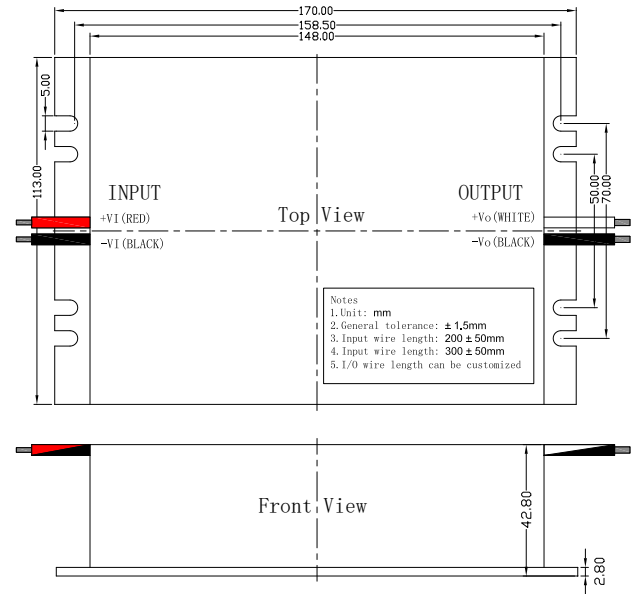
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Safety-VOC-F01/Rev.2.0/2024-03-25
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GH150-CNxx



DC-DC Power Supply Module Ultra wide input, isolated single output

Product Characteristics

- Ultra wide input voltage range, 100-1000VDC
- Standard, CE (EN62477-1)
- Input and output isolation, 4000VDC
- Applications: energy storage system, photovoltaic power station, other high voltage input industrial equipment
- Input reversed polarity protection
- 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 (Vin=500VDC)
			Vo	Io	
GH150-CN12	170.0*113*42.8mm	100W	12V	8330mA	81%
GH150-CN15			15V	6670mA	82%
GH150-CN24		150W	24V	6250mA	83%
GH150-CN27			27V	5550mA	85%
GH150-CN28			28V	5350mA	85%
GH150-CN32			32V	4680mA	86%
GH150-CN48			48V	3120mA	88%



VERIFICATION OF COMPLIANCE

No.: LVD GZES2401000553AT

Applicant: Guangzhou Guantu Electronic Technology Co., Ltd.
No. 505, West Building, Jinghua Information Building, No. 138,
Gaopu Road, Tianhe District, Guangzhou, Guangdong, China

Manufacturer: Same as applicant

Product Name: Switching Mode Power Supply

Product Description: --

Model No.: GH150-CN12, GH150-CN15, GH150-CN24

Trade Mark: **GTL**

Rating: Input: 100 - 1000 VDC, Max. 3 A
Output:
GH150-CN12: 12 VDC, 0 - 8,33 A
GH150-CN15: 15 VDC, 0 - 6,67 A
GH150-CN24: 24 VDC, 0 - 6,25 A

Protection against Electric Shock: --

Degree of Protection: --

Additional Information: Build-in equipment

Sufficient samples of the product have been tested and found to be in conformity with
Test Standard: EN 62477-1:2012+A11:2014 + A1: 2017 + A12: 2021

as shown in the
Test Report Number(s): GZES240100055301

This Verification of Compliance has been granted to the applicant based on the results of tests, performed by Laboratory of SGS-CSTC Standards Technical Services Co., Ltd. on sample of the above-mentioned product in accordance with the provisions of the relevant harmonized standards under the Low Voltage Directive 2014/35/EU. The CE marking can be affixed, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives. The affixing of the CE marking presumes in addition that the conditions in annexes III and IV of the Directive are fulfilled.




David Guo
Technical Manager

SGS-CSTC Standards Technical Services Co., Ltd.

2024-05-31

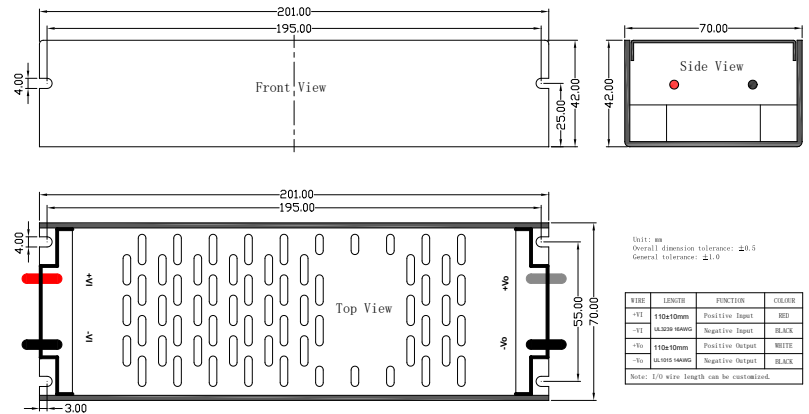
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Safety-VOC-F01/ Rev.2.0/ 2024-03-25
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GH150-V2SxxU-S



DC-DC Power Supply Module Ultra wide input, isolated single output

Product Characteristics

- Ultra wide input voltage range, 250-1500VDC
- Designed reference to safety standards
- 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

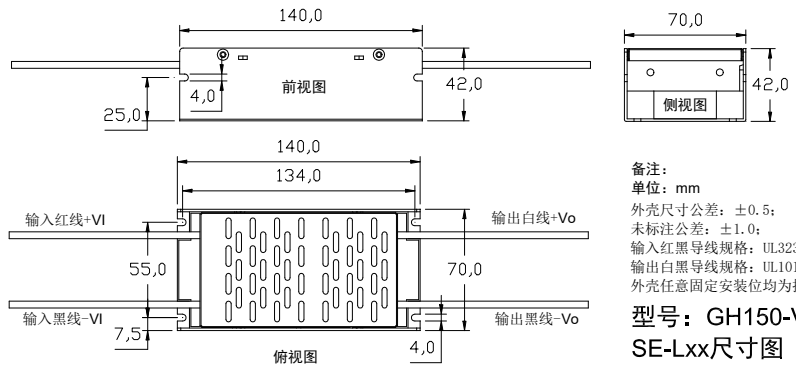
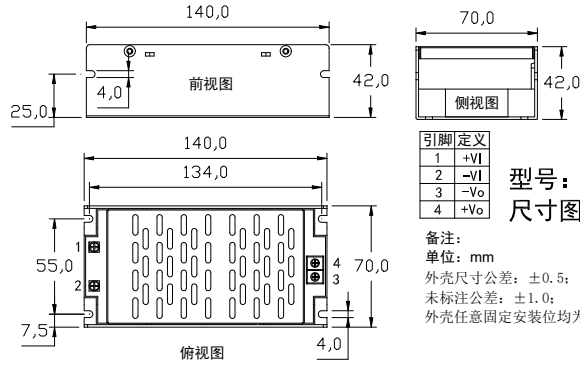
Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin=1000VDC)
			Vo	Io	
GH150-V2S12U-S	201*70*42mm	100W	12V	8330mA	80%
GH150-V2S15U-S			15V	6670mA	82%
GH150-V2S24U-S		150W	24V	6250mA	83%
GH150-V2S28U-S			28V	5350mA	85%
GH150-V2S32U-S			32V	4680mA	86%
GH150-V2S48U-S			48V	3120mA	86%

GH150-V2SxxU-SE

A-TYPE



B-TYPE



DC-DC Power Supply Module Ultra wide input, isolated single output

Product Characteristics

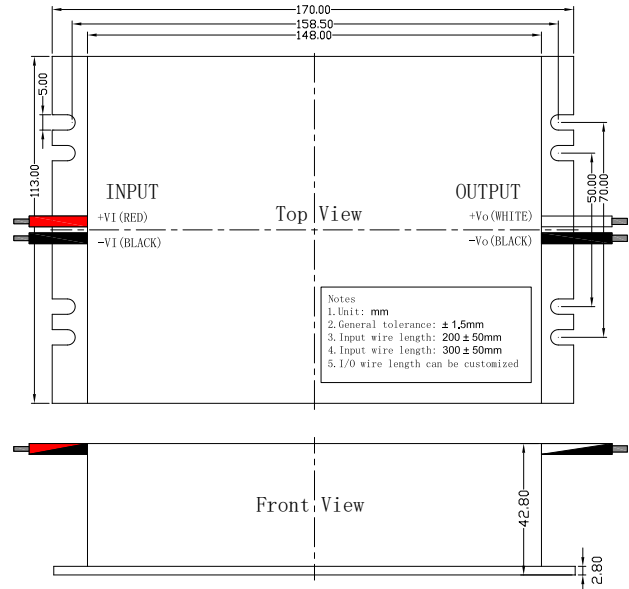
- Ultra wide input voltage range, 250-1500VDC
- Designed reference to safety standards
- Input and output isolation, 4000VAC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input reversed polarity protection, UVP
- Output protection,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

Model Selection Table

Model (A-TYPE)	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin=1000VDC)
			Vo	Io	
GH150-V2S12U-SE	140*70*42mm	100W	12V	8330mA	80%
GH150-V2S24U-SE			24V	6250mA	83%
GH150-V2S28U-SE			28V	5350mA	85%
GH150-V2S32U-SE			32V	4680mA	86%

Comment: for B-TYPE, model name should add the suffix "-Lxx", where xx is the wire length. For example, GH150-V2S28U-SE-L30, whose input and output wire length is 30mm.

GH150-V3Sxx-S-CE



DC-DC Power Supply Module Ultra wide input, isolated single output

Product Characteristics

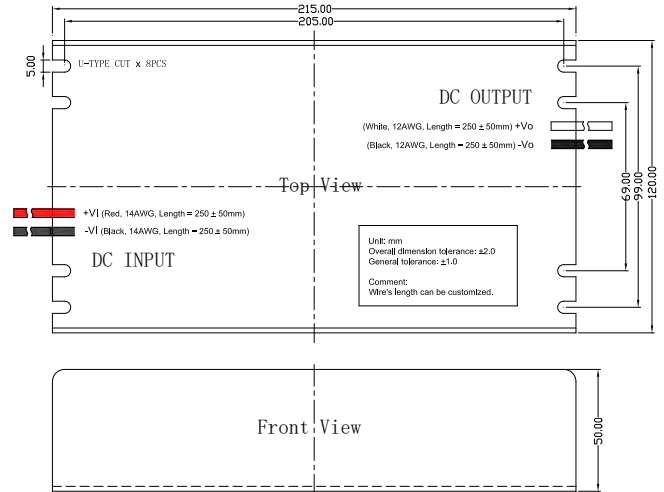
- Ultra wide input voltage range, 300-1500VDC
- Standard, CE (EN62109-1)
- Input and output isolation, 4000VDC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input reversed polarity protection, UVP
- Output protection, OCP and SCP
- No minimum load requirement

Model Selection Table

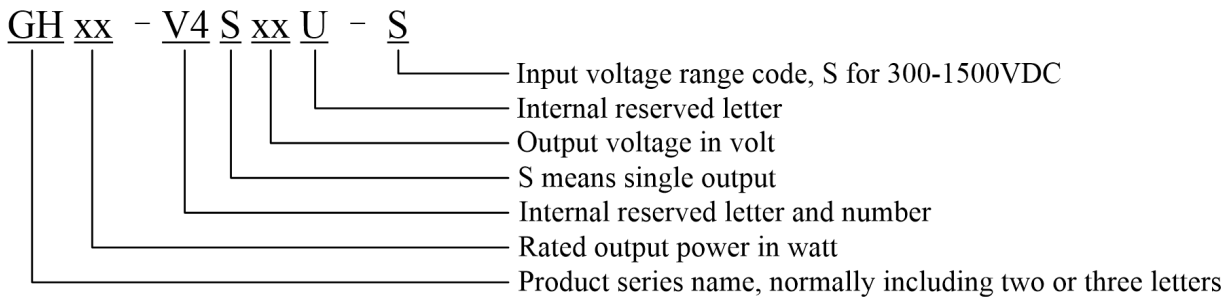
Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin=1000VDC)
			Vo	Io	
GH150-V3S12-S-CE	170.0*113*42.8mm	80W *120W pulse	12V	6670mA / *10000mA	80%
GH150-V3S15-S-CE			15V	5330mA / *8000mA	82%
GH150-V3S24-S-CE		100W *150W pulse	24V	4160mA / *6250mA	83%
GH150-V3S28-S-CE			28V	3570mA / *5350mA	85%
GH150-V3S32-S-CE			32V	3125mA / *4680mA	86%
GH150-V3S48-S-CE			48V	2080mA / *3120mA	88%

*Comment: for most applications, such as solar tracker, energy storage system, where pulse power is needed while average power is not high, GH150-V3S24-S-CE is suitable, please reference to the derating curves.

GH350-V4SxxU-S



DC-DC Power Supply Module Ultra wide input, isolated single output



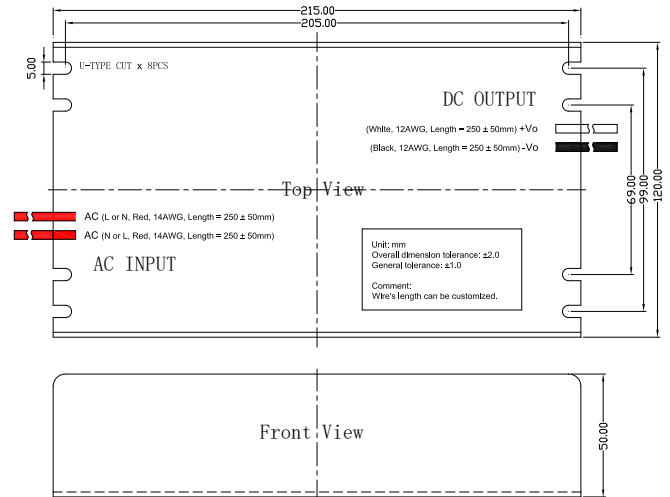
Product Characteristics

- Ultra wide input voltage range, 300-1500VDC
- High reliability, industrial grade
- Input and output isolation, 4000VDC
- 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

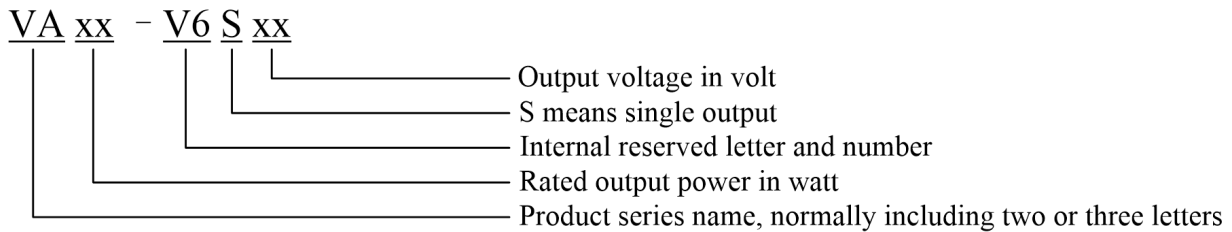
Model Selection Table

Model	Dimensions (L*W*H)	Rated power	Rated output voltage/current		Typical efficiency (Vin=1000VDC)
			Vo	Io	
GH350-V4S24U-S	215*120*50.0mm	350W	24V	14580mA	85%
GH350-V4S28U-S			28V	12500mA	85%
GH350-V4S32U-S			32V	10930mA	86%
GH350-V4S48U-S			48V	7290mA	88%
GH350-V4S110U-S			110V	3180mA	88%

VA350-V6Sxx



AC-DC Power Supply Module AC or DC input, isolated single output



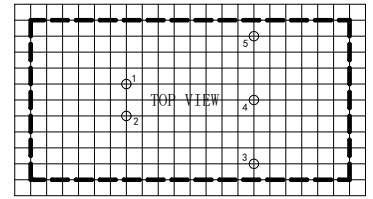
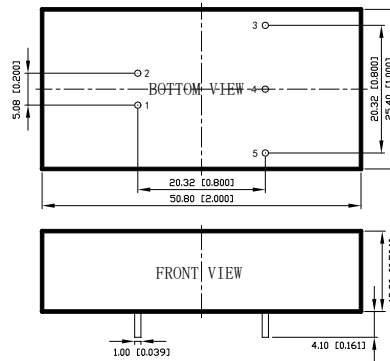
Product Characteristics

- Input voltage range, 600-1000VAC or 840-1400VDC
- High reliability, industrial grade
- Input and output isolation, 3000VAC
- Applications: photovoltaic power station, energy storage system, other high voltage input industrial equipment
- Input under voltage protection
- 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 (Vin=800VAC)
			Vo	Io	
VA350-V6S24	215*120*50.0mm	350W	24V	14580mA	83%
VA350-V6S28			28V	12500mA	83%
VA350-V6S32			32V	10930mA	85%
VA350-V6S48			48V	7290mA	86%

GSAXXXXHS(D)-4(8)



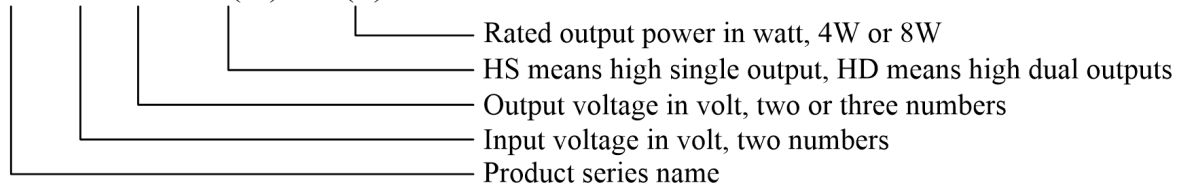
Note1. Grid 0.54mm±0.04mm
Note2. Advised through hole diameter, 1.5mm

Unit: mm[inch]
Pin diameter tolerance: ±0.10[±0.004]
General tolerance: ±0.50[±0.020]

Pin	1	2	3	4	5
Single output	-VI	+VI	+Vo	No Pin	-Vo
Dual output	-VI	+VI	+Vo	COM	-Vo

DC-DC Power Supply Module Low voltage input, high voltage output

GSA xx xxx HS(D) - 4(8)



Product Characteristics

- Input voltage range, 10-18VDC or 18-36VDC
- High voltage output, from 50VDC to 600VDC
- DIP 2"x1" package with international pin assignment
- High reliability, industrial grade
- Input and output isolation, 1500VDC
- No minimum load requirement
- Applications: industrial equipment, electrolytic capacitor charger, instruments, meters, medical equipment.

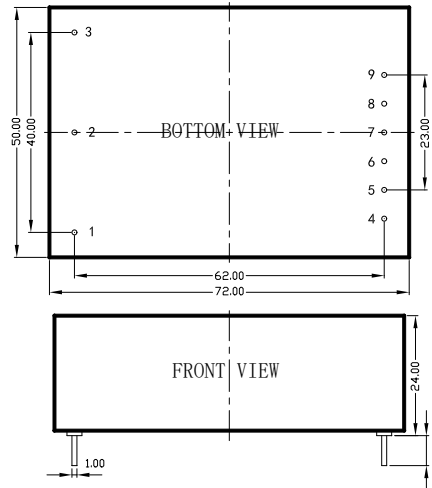
Model Selection Table

Model	Input voltage (VDC)			Vo (VDC)	Io (mA)	Typical efficiency (Vin=TYP)
	MIN	TYP	MAX			
GSA1250HS-8	10	12	18	50	160	80%
GSA12100HS-8				100	80	78%
GSA12150HS-8				150	53	77%
GSA12170HS-8				170	47	76%
GSA12200HS-8				200	40	75%
GSA12300HS-8				300	26	73%
GSA12400HS-8				400	20	72%
GSA12500HS-4				500	8	68%
GSA12600HS-4				600	6	61%

GSA2450HS-8	18	24	36	50	160	80%
GSA24100HS-8				100	80	79%
GSA24150HS-8				150	53	78%
GSA24170HS-8				170	47	76%
GSA24200HS-8				200	40	77%
GSA24300HS-8				300	26	75%
GSA24400HS-8				400	20	73%
GSA24500HS-4				500	8	66%
GSA24600HS-4				600	6	63%
GSA1250HD-8	10	12	18	±50	±80	78%
GSA12100HD-8				±100	±40	75%
GSA12150HD-8				±150	±26	73%
GSA12200HD-8				±200	±20	72%
GSA12250HD-4				±250	±8	68%
GSA12300HD-4				±300	±6	61%
GSA2450HD-8	18	24	36	±50	±80	79%
GSA24100HD-8				±100	±40	77%
GSA24150HD-8				±150	±26	76%
GSA24200HD-8				±200	±20	75%
GSA24250HD-4				±250	±8	73%
GSA24300HD-4				±300	±6	66%

Comment: Input voltage shall not exceed the maximum value, otherwise permanent and unrecoverable damage be caused.

GHAxxxxxHS(D)-xx

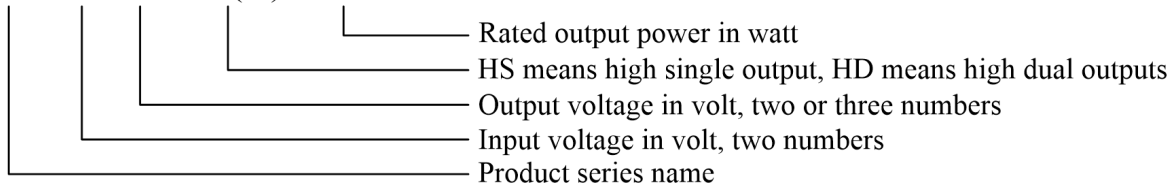


PIN	FUNCTION	
	HS-xx	HD-xx
1	NO PIN	NO PIN
2	-VI	-VI
3	+VI	+VI
4	NO PIN	NO PIN
5	-Vo	-Vo
6	NO PIN	NO PIN
7	NO PIN	COM
8	NO PIN	NO PIN
9	+Vo	+Vo

Unit: mm
 Pin diameter tolerance: ± 0.10
 General tolerance: ± 0.50

DC-DC Power Supply Module Low voltage input, high voltage output

GHA xx xxx HS(D) - xx



Product Characteristics

- International industry standard pin-out
- Metal case, good for heat dissipation
- Applicable to automation control equipment, instrumentation, communication equipment, smart home and other industrial and civil fields.
- Rated input voltage is 12VDC or 24VDC or 48VDC
- Input and output isolation, 1500VDC

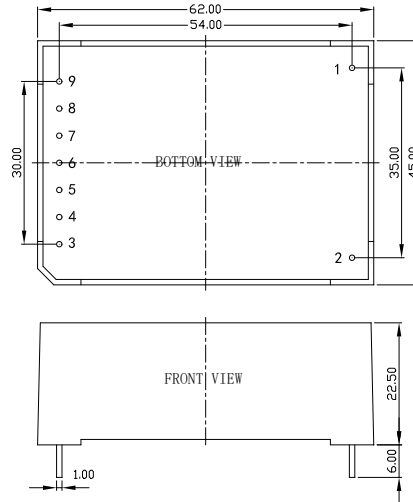
Model Selection Table

Model	Input voltage (VDC)			Output voltage (VDC)	Output current (mA)	TYP EFF (%)
	MIN	TYP	MAX			
GHA12100HS-20	10	12	18	100	200	82
GHA12200HS-20				200	100	82
GHA12300HS-20				300	67	81
GHA12400HS-20				400	50	80
GHA12100HD-20				± 100	100	82
GHA12150HD-20				± 150	67	81
GHA12200HD-20				± 200	50	80
GHA24100HS-25				18	24	36
GHA24200HS-25	200	125	84			
GHA24300HS-25	300	83	83			

GHA24400HS-25				400	63	82
GHA24100HD-25				±100	125	84
GHA24150HD-25				±150	83	83
GHA24200HD-25				±200	63	82
GHA24500HS-20				500	40	82
GHA24600HS-20				600	33	81
GHA24800HS-20	18	24	36	800	25	80
GHA241000HS-15				1000	15	79
GHA241200HS-15				1200	13	78
GHA241500HS-15				1500	10	76
GHA48100HS-30				100	300	86
GHA48200HS-30				200	150	86
GHA48300HS-30				300	100	85
GHA48400HS-30				400	75	84
GHA48100HD-30				±100	150	86
GHA48150HD-30				±150	100	85
GHA48200HD-30	36	48	72	±200	75	84
GHA48500HS-25				500	50	83
GHA48600HS-25				600	42	82
GHA48800HS-25				800	31	81
GHA481000HS-20				1000	20	80
GHA481200HS-20				1200	17	79
GHA481500HS-20				1500	13	77

Note: Input voltage should not exceed the maximum value, otherwise power supply module may be damaged.

GVA241000AS-30

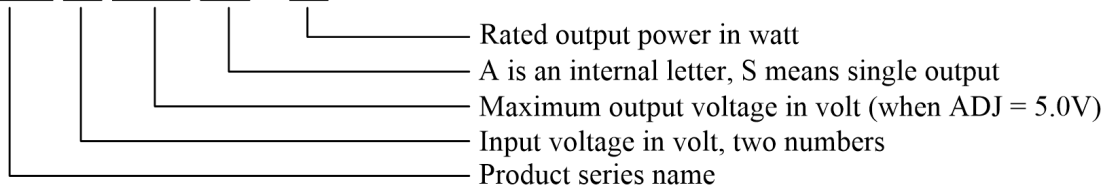


Pin	Function
1	-Vo
2	+Vo
3	+VI
4	-VI
5	GND
6	ADJ
7	Vref
8	Idis
9	Vdis

Unit: mm
Pin diameter tolerance: ± 0.10
Pin length tolerance: ± 2.00
General tolerance: ± 0.30

DC-DC Power Supply Module Low voltage input, non-isolated high voltage output

GVA 24 1000 AS - 30



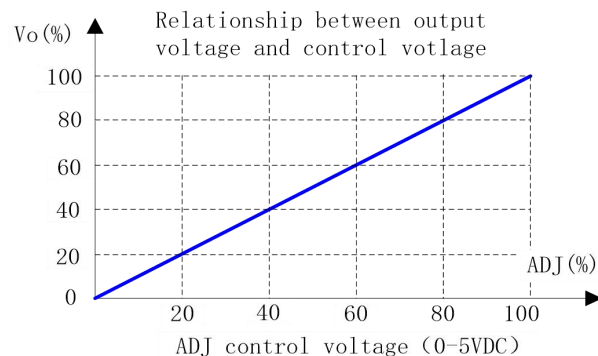
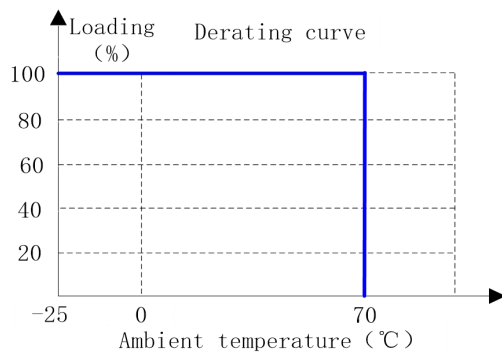
Product Characteristics

- Plastic case, full-seal glue, PCB assembled
- Non-isolated output voltage range, 0-1000VDC
- With voltage and current detection signal
- The output voltage is linearly adjustable (by ADJ PIN)
- It is suitable for automation control equipment, instrumentation, electrical power equipment, industrial control equipment, new energy vehicle charging and other fields, where a high DC voltage rail is needed.

Model Selection Table

Model	Input voltage (VDC)			Vo (VDC)		Io (mA)		TYP EFF (%)
	MIN	TYP	MAX	MIN	MAX	MIN	MAX	
GVA241000AS-30	21.6	24.0	26.4	0	1000	0	30	85

Test conditions for typical efficiency, $V_{in} = 24VDC$, $V_o = 500VDC/30mA$.



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