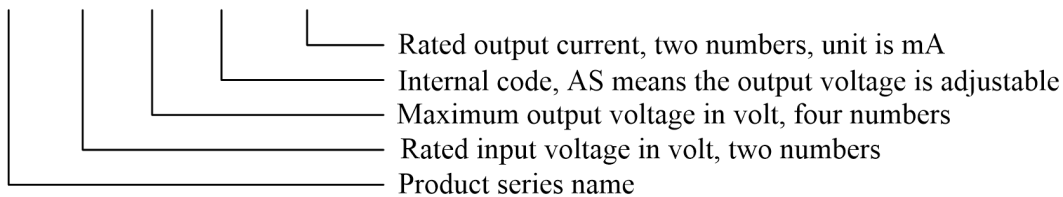


## GVAxxxxxxAS-xx

### DC-DC Power Supply Module

#### Low voltage input, non-isolated high voltage output

GVA xx xxxx AS - xx



### Product Characteristics

- Plastic case, full-seal glue, PCB assembled
- Non-isolated, high output voltage, high power
- With voltage and current detection signals
- The output voltage is linearly adjustable (by ADJ PIN)
- It is suitable for automation control equipment, instrumentation, electric power equipment, industrial control equipment, new energy vehicle charging and other fields, where DC high voltage 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
GVA121200AS-10	11.4	12.0	12.6	0	1200	0	10	62

TYP EFF Test condition is shown below.

GVA241000AS-30:  $V_{in} = 24VDC$ ,  $V_o = 500VDC/30mA$ .

GVA121200AS-10:  $V_{in} = 12VDC$ ,  $V_o = 600VDC/10mA$ .

## Input and Output Characteristics

Item	Test Condition / Description	MIN	TYP	MAX	
Input voltage range	GVA241000AS-30	21.6VDC	24.0VDC	26.4VDC	
	GVA121200AS-10	11.4VDC	12.0VDC	12.6VDC	
Input current	GVA241000AS-30, output is full load	-	1800mA	-	
	GVA121200AS-10, output is full load	-	2000mA	-	
Input filter type			PI		
Output voltage range	GVA241000AS-30	0VDC	-	1000VDC	
	GVA121200AS-10	0VDC	-	1200VDC	
ADJ voltage (Control voltage)	Input PIN, output voltage is set by ADJ				
	100% of ADJ = 5VDC	0	-	5VDC	
Vdis voltage	Output PIN, detection of output voltage. Range from 0VDC to 5VDC, corresponding to the output voltage range linearly.				
Idis voltage	Output PIN, detection of output current. Range from 0VDC to 5VDC, corresponding to the output current range linearly.				
Output voltage setting		-	±3%	±5%	
Load regulation	10% ~ 100%Io	-	±0.5%	±1%	
Line regulation	100%Io	-	±0.2%	±0.5%	
Ripple and noise	20MHz bandwidth (peak-peak value)	GVA241000AS-30	-	10VDC	-
		GVA121200AS-10	-	15VDC	-
SCP	Short circuit protection	Self recovery			

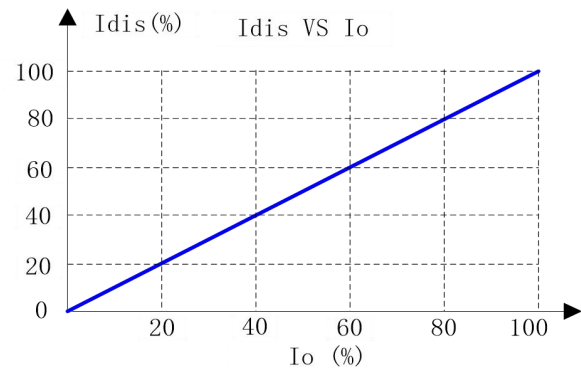
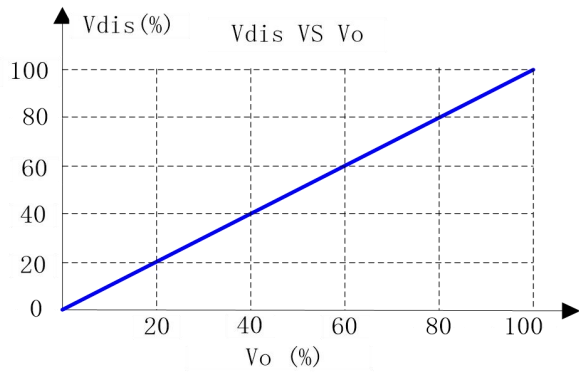
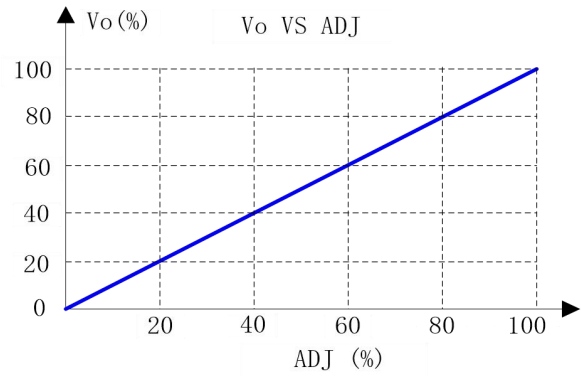
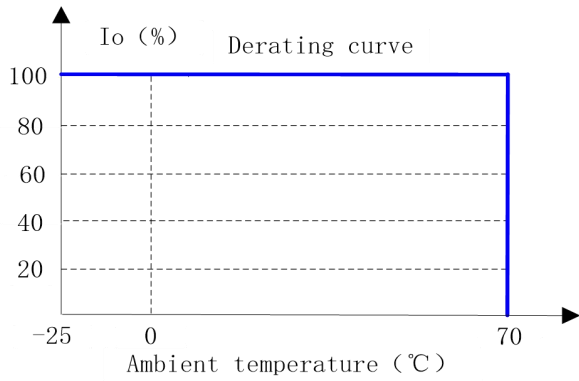
Comment1: Any inside negative network (-VI, -Vo and GND) is independent.

Comment2: The output current should be less than the value listed in Model Selection Table (it is 30mA for GVA241000AS-30, and 10mA for GVA121200AS-10). Pay more attention to check the output current if output voltage may be less than 50V.

## General Characteristics

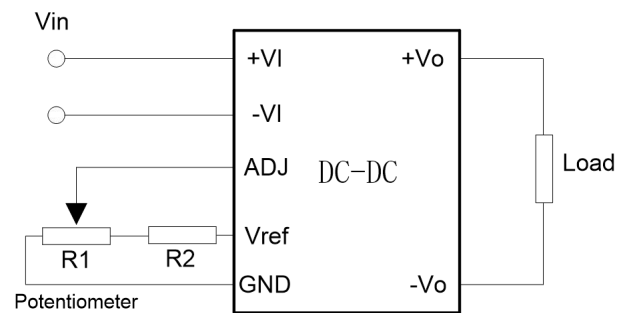
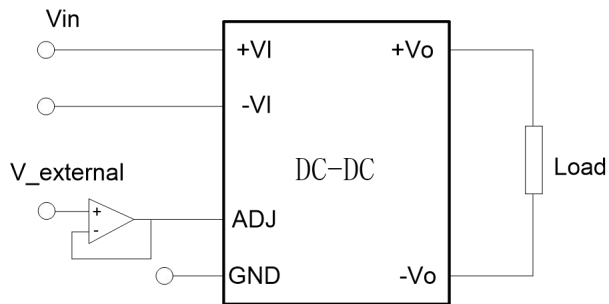
Item	Test Condition / Description	MIN	TYP	MAX
Storage temperature		-25°C	-	+70°C
Working temperature		-40°C	-	+105°C
Storage humidity		-	-	95%RH
MTBF	MIL-HDBK-217F@25°C	1000khs	-	-
Switching frequency		-	150kHz	-
Cooling method		Natural air cooling		
Weight		-	90g	-

## Derating curve and other characteristic curves

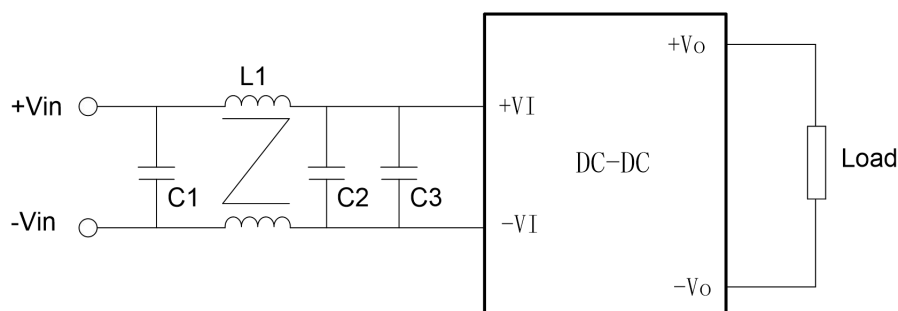


## Application Notes

### 1. Typical application



### 2. EMC recommendation circuit



### 3. Part recommendation

C1/C2/C3	Ceramic capacitor, 475K/50V
L1	Common-mode, the current rating should be higher than 2A

4. The power supply module **does not** support hot plug.

5. The power supply module **does not** support paralleled working

#### Notes:

- If not specified, the test condition is ambient temperature 25°C, humidity < 75%, input rated voltage and output rated load.
- All parameters listed in the data sheet are tested according to the company's enterprise standards.
- Guangzhou Guantu Electronic Technology Co., Ltd. has the right of final interpretation of the copyright and product.
- This version is 2025.11 A1. The specification may be changed without notice.
- GTL POWER can provide product customization service, please contact us or visit <http://www.gtl-power.com> and provide more detail technical requirements.