

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:  $\pm 0.10$   
General tolerance:  $\pm 0.50$

## GHAxxxxHS(D)-xx DC-DC Power Supply Module Low input, isolated high voltage output

### 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

### 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				$\pm 100$	100	82
GHA12150HD-20				$\pm 150$	67	81
GHA12200HD-20	$\pm 200$	50	80			
GHA24100HS-25	18	24	36	100	250	84
GHA24200HS-25				200	125	84
GHA24300HS-25				300	83	83
GHA24400HS-25				400	63	82
GHA24100HD-25				$\pm 100$	125	84
GHA24150HD-25				$\pm 150$	83	83

GHA24200HD-25	18	24	36	±200	63	82
GHA24500HS-20				500	40	82
GHA24600HS-20				600	33	81
GHA24800HS-20				800	25	80
GHA241000HS-15				1000	15	79
GHA241200HS-15				1200	13	78
GHA241500HS-15				1500	10	76
GHA48100HS-30	36	48	72	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				±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.

### Output Characteristics

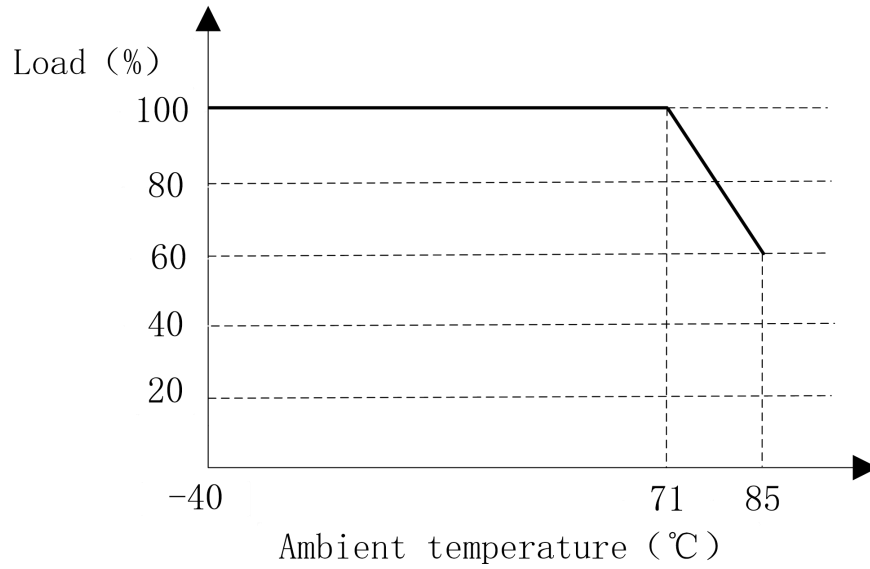
Item	Test Condition / Description	MIN	TYP	MAX
Output power		-	-	30W
Voltage accuracy		-	±2%	-
Line regulation	100%Io	-	±1%	±0.5%
Load regulation	10%-100%Io	-	±1%	±1%
Ripple and noise	20MHz bandwidth (peak-peak value)	-	±1%*Vo	-
SCP	Output short circuit protection	Self recovery		

### General Characteristics

Item	Test Condition / Description	MIN	TYP	MAX
Switching frequency		-	125kHz	-
Storage humidity		-	-	95%RH
Working temperature		-40℃	-	+85℃
Storage temperature		-40℃	-	+105℃
Isolation voltage	Input to output, 60seconds, ≤1mA	1500VDC	-	-

Insulation resistance	Input to output, 500VDC	1000MΩ	-	-
Weight		-	105g	-
Cooling method		Natural air cooling		

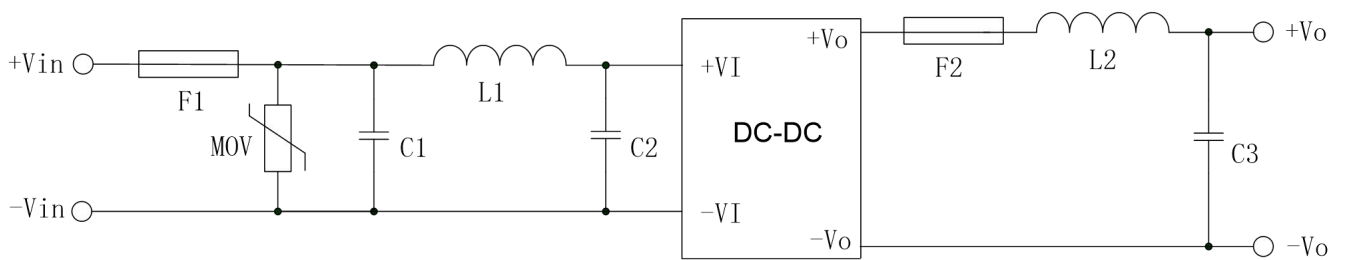
### Derating Curves



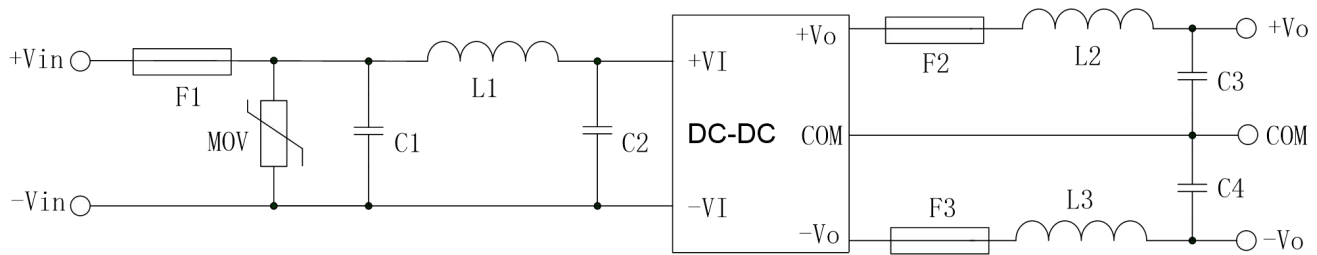
### Application Notes

#### 1. Application circuit recommendation

##### Single output



## Dual output



## 2. Part recommendation

F1	Input fuse, time lag fuse is advised.	
MOV	14D390K	For 12VDC input voltage
	14D560K	For 24VDC input voltage
	14D101K	For 48VDC input voltage
C1, C2	100uF/25V	For 12VDC input voltage
	47uF/50V	For 24VDC input voltage
	22uF/100V	For 48VDC input voltage
F2, F3	Output fuse, time lag fuse is advised.	
L1, L2, L3	2.2μH~10μH	
C3, C4	1.0μF~10μF, high frequency low resistance electrolytic capacitor is recommended.	

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

4. 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.
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