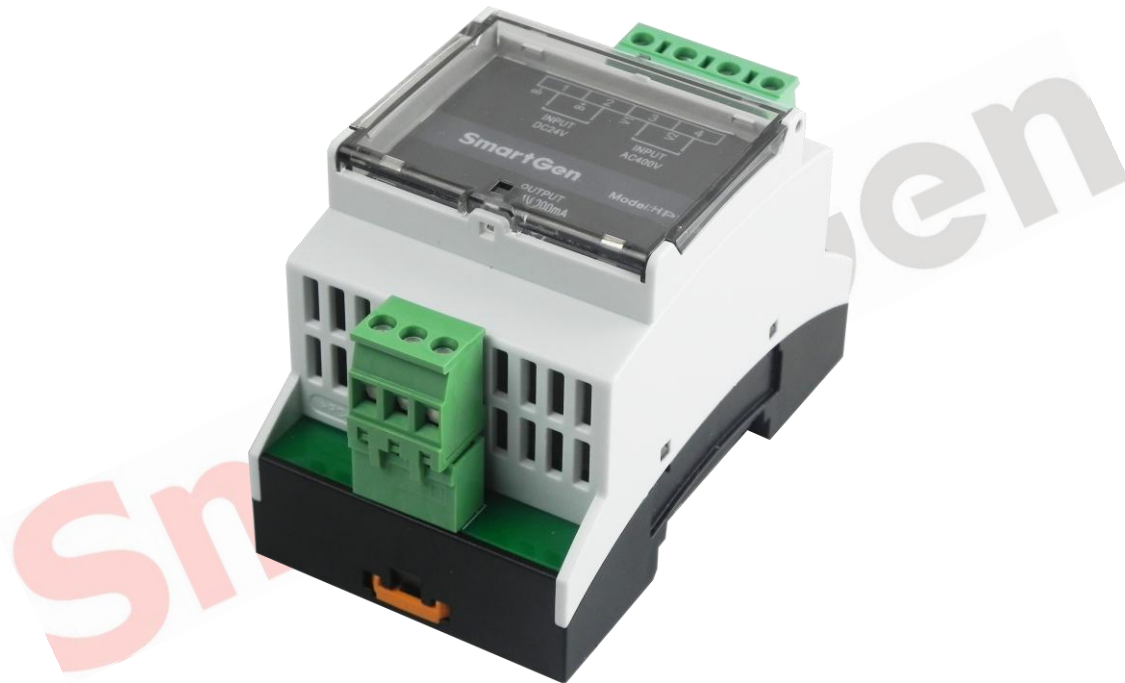




SmartGen
ideas for power

HPT300
POWER CONVERT MODULE
USER MANUAL



SMARTGEN (ZHENGZHOU) TECHNOLOGY CO., LTD.



Chinese trademark

SmartGen English trademark

SmartGen — make your generator *smart*

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Software Version

Date	Version	Note
2017-09-29	1.0	Original release.

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1 OVERVIEW

HPT300 Power Convert Module, composed by 1-path AC power input, 1-path DC power input, and 1 DC power output, can convert input AC power into DC power output through its internal circuit switching device. If there is only DC power input, it is output DC power directly; If both DC and AC power are available, HPT300 module prior chooses AC power supply; If AC power is unavailable or under voltage but DC power is normal to use, HPT300 will convert to DC power automatically.

HPT300 is widely used in Marine and stationary generation units supplied by DC and AC power with its compact structure and easy installation.

2 PERFORMANCE AND CHARACTERISTICS

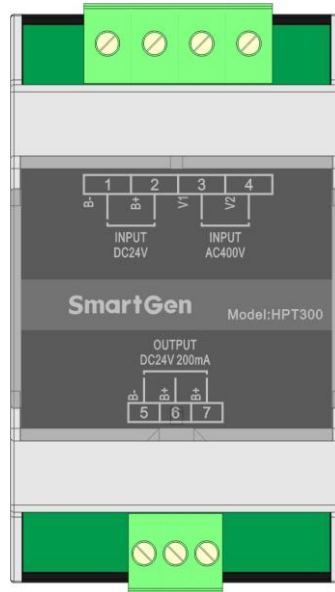
- a) Suit for AC power supply system.
- b) According to the voltage situation of DC/AC power select power supply. Choose AC power if both are available; and choose DC power if AC power is unavailable.
- c) 35mm guide rail installation or M4 screw mounting.
- d) Modular design and pluggable connection terminals; compact structure with easy mounting.

3 SPECIFICATION OPERATION

Items	Contents
Input	One power supplies is DC24V, the other one is AC400V
Output	DC24V 200mA
Max. Rated Output Power	4.8W
Overall Dimension	53.6mm*89.7mm*60.7mm
Working Conditions	Temperature: (-25~+70)°C; Humidity: (20~93)%
Storage Condition	Temperature: (-25~+70)°C
Net Weight	0.4kg

4 TERMINALS FUNCTIONS DESCRIPTION

HPT300 front terminal drawing is shown as follow,

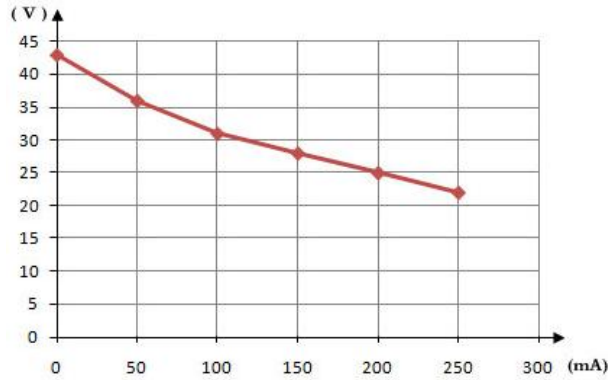


Terminals connection description is shown as follow,

No.	Function	Cable Size	Remark	
1	DC Input B-	1mm ²	Connect to DC negative electrode	Rated DC 24V
2	DC Input B+	1mm ²	Connect to DC positive electrode	
3	AC Input V1	1mm ²	AC power supply input with rated AC400V	
4	AC Input V2	1mm ²		
5	DC Output B-	1mm ²	Connect to controller negative electrode	Max. power DC24V, 200mA; if choose AC400V power supply, output voltage and current please reference to the following content.
6	DC Output B+	1mm ²	Connect to controller positive electrode	

Comparison of output voltage and output current is as follows,

No.	Output Current mA	Output Voltage V	Remark
1	0	43	
2	50	36	
3	100	31	
4	150	28	
5	200	25	
6	250	22	



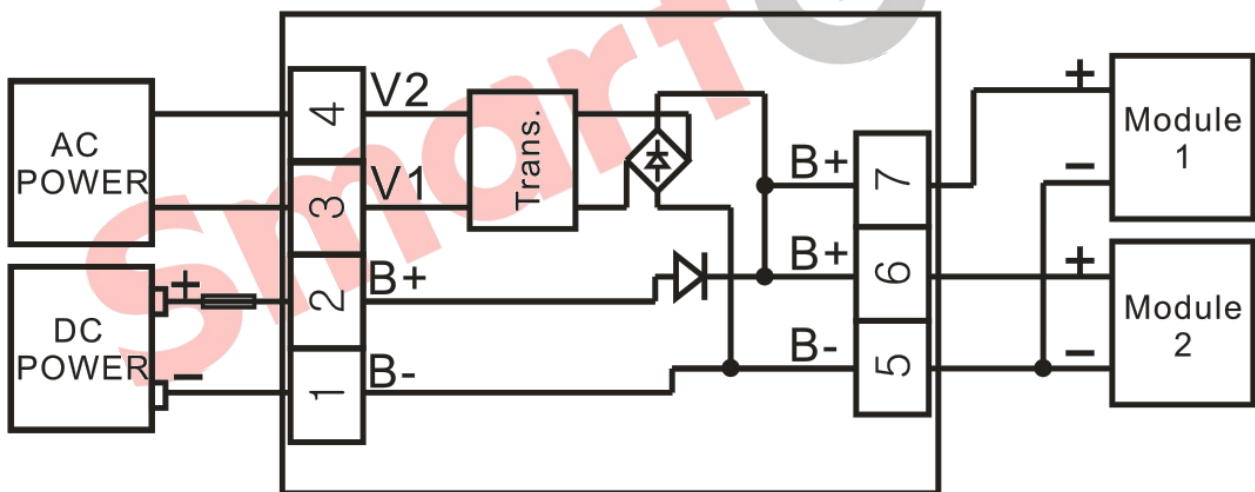
Output Voltage/Current Curve

5 FUNCTION DESCRIPTION

HPT300 Power Convert Module is aiming at to prior chooses AC power supply If both DC and AC power are available, and If AC power is unavailable or under voltage but DC power is normal to use, HPT300 will convert to DC power automatically.

HPT300 Power Convert Module mainly users for units with DC and AC to provide input power alone or at the same time, and choose supply power based on the voltage situation of DC/AC power.

6 TYPICAL APPLICATION



HPT300 Application Diagram

7 OVERALL DIMENSION

