

SP105HCDC Converter Technical Specifications

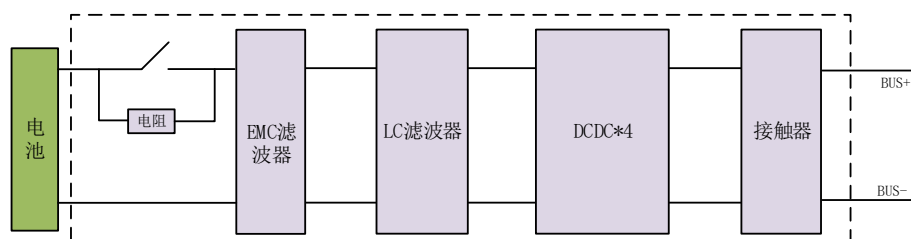
Version: V1. 2



1、 Product Introduction

It mainly uses third-generation semiconductors, is small in size and highly efficient. It has air duct isolation and good environmental adaptability. It is mainly used for battery charging and discharging, supports multiple operating modes, including CC, CV, CP at the battery end and CC, CV, CP at the bus end, 0ms switching between modes, supports multiple units in parallel operation, is friendly with the inverter, supports inverter on-grid and off-grid, and fast switching of charging and discharging.

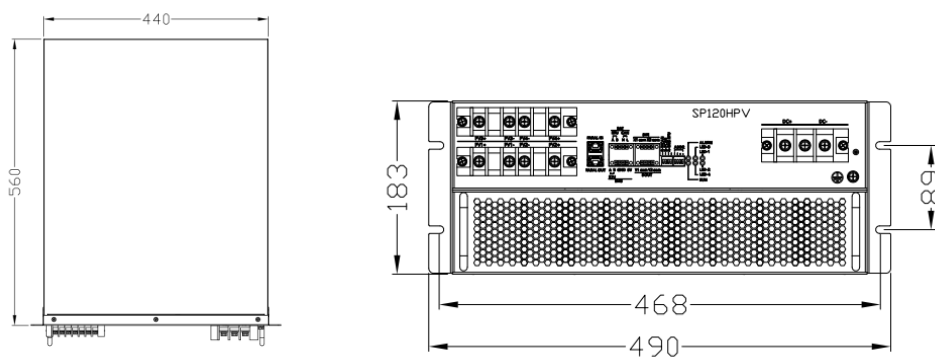
Main topology



Picture 1

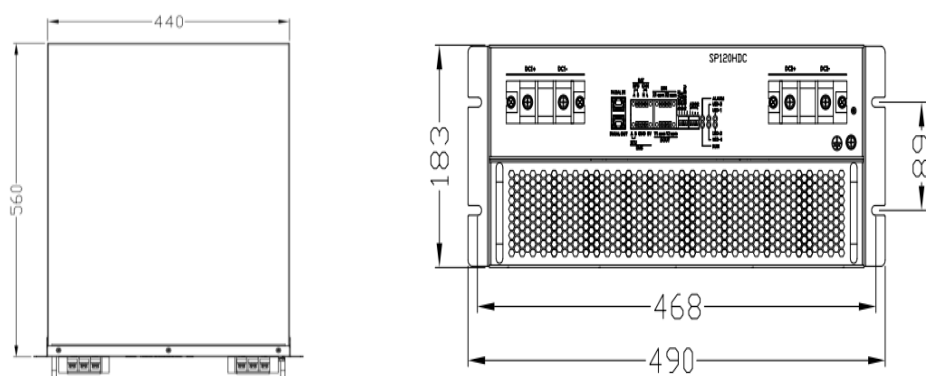
2、 Product model and size

The dimensions of SP105HCDC4 are shown in the figure below (unit: mm):



Picture 2

SP105HCDC1 are shown in the figure below (unit: mm):



Picture 3

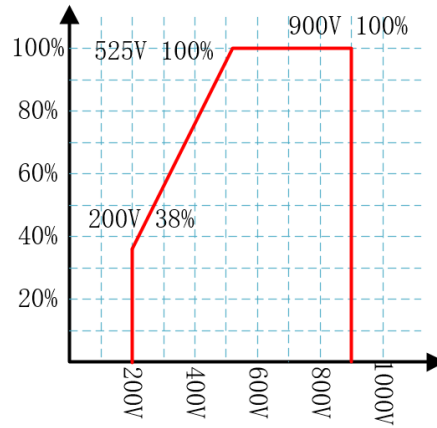
3、Specifications

1) parameter

parameter	SP105HCDC1	SP105HCDC4
Battery parameters		
Rated Power	105kW	105kW
Battery voltage range	200V-900V	
Rated voltage	525V	
Battery input number	1	4
Maximum battery current	200A	50A+50A+50A+50A
High voltage side parameters		
Voltage range	500V-900V	
Rated voltage	680V	
Maximum current	180A	
System Parameters		
Communication port	EMS : RS485 Battery: CAN or RS485	
DIDO	DI: 2 channels, DO: 2 channels	
Maximum efficiency	99.3%	
Installation	Insert frame	
loss	Standby <15W, no-load <100W	
weight	29KG	
size	W*H*D : 440*183*560mm	
Protection	IP5X (core control part)	
Temperature range	-30~60 °C	
Humidity range	5%~95%	
Cooling method	Intelligent forced air cooling	
noise	50dB	
altitude	4000m (>2000m derating)	
Protect	Over temperature protection, over current protection, over voltage protection, short circuit protection to ground	
Certification	CE, IEC62477, IEC62019, IEC6100	
Soft-start circuitry	Yes	

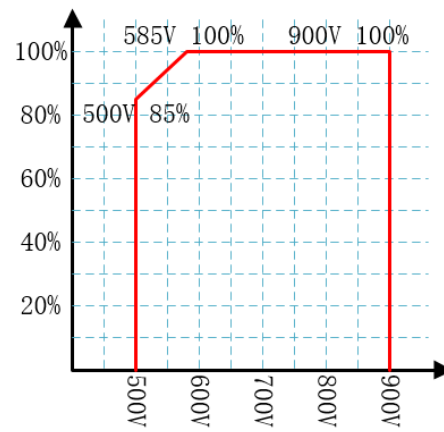
2) SP105HDC1/SP105HDC4 power derating curve

Battery voltage



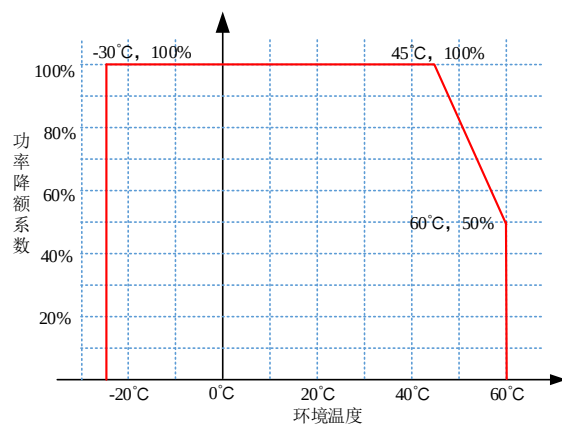
Picture 3

High voltage side voltage



Picture 4

3) Temperature derating curve



Picture 5