



◆ Features

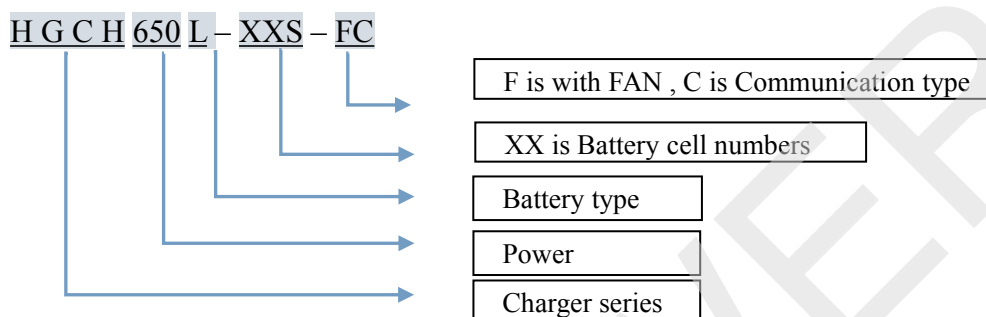
- Charger for all kind of Li-ion batteries and lead acid batteries
- Universal AC input , wide range of output voltage and current .
- Protection: Short circuit/Over voltage & Low voltage protection/Over current protection /Over temperature protection/Wrong polarity connection protection
- BMS wake up function and precharge function .
- Can be with Built-in CANBus .
- Charging curve setting by software , can be adjustable .
- Working temperature : -25°C ~+70°C
- LED indicator for all charging status
- 3 poles AC inlet IEC320-C14
- Meet UL/CE standard
- Metal case IP20 with thermal controlled fan
- 2 years warranty

◆ Description

HGCH650 is a 650W smart charger , with wide output voltage , build-in MCU to control the charging curve by software , and independent technology to detect the output voltage & current . Smart , universal with wide range ,green with high efficiency , safe and small size are its main features . This charger also can be with built-in CANBus to set the charging voltage or current , and monitor the charging process.

◆ Product model number

H G C H 650 L - XXS - FC



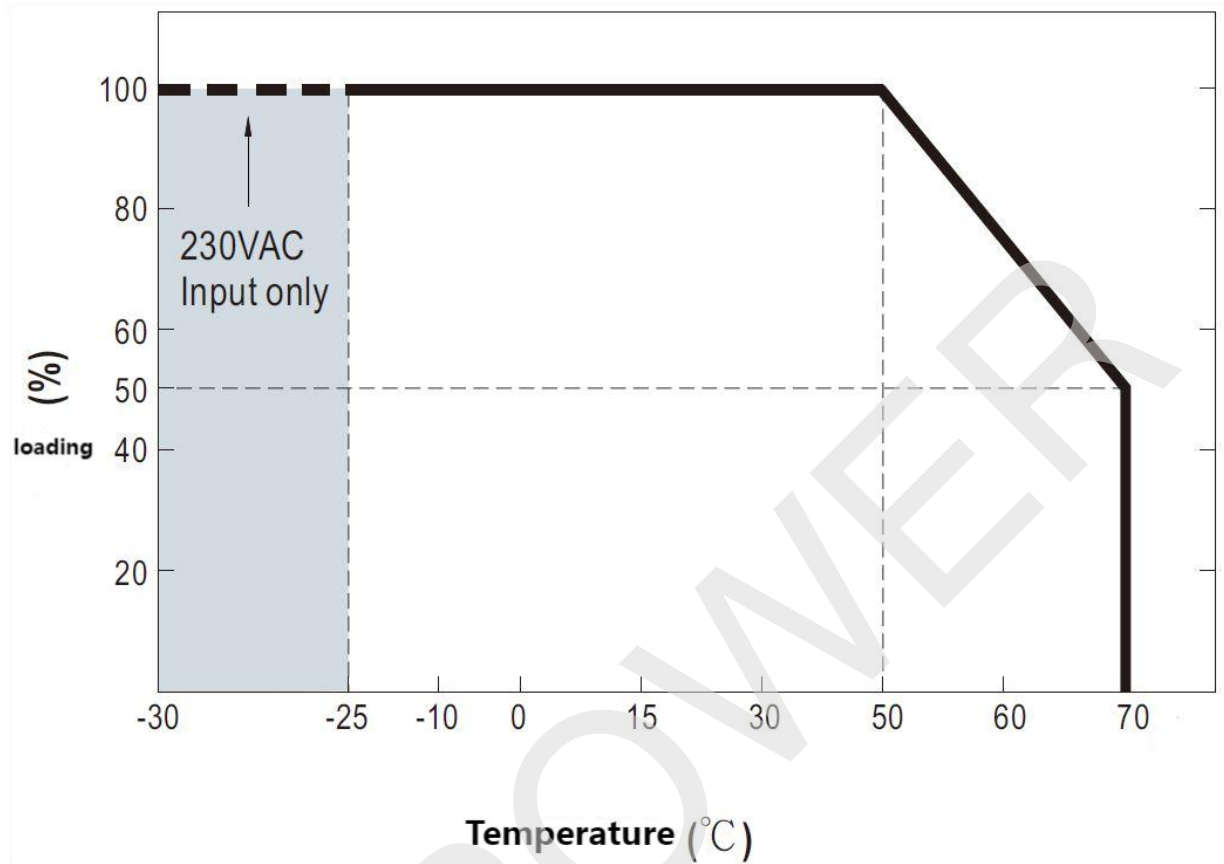
◆ Specifications

**Note : Output voltage & current can be changed based on different battery .
Model number can be changed based on different battery cell numbers .**

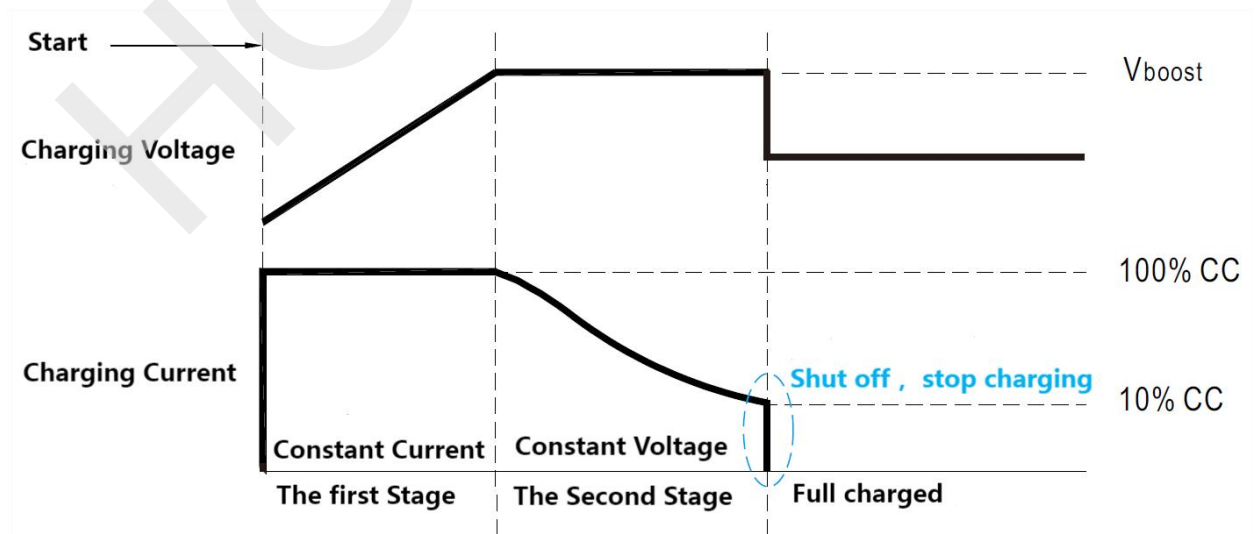
Model No.		HGCH650L-6S-F	HGCH650L-10S-F	HGCH650L-14S-F	HGCH650L-20S-F
Output	DC Voltage	25.2V	42.0V	58.8V	84.0V
	DC voltage range	15-25.2V	21-42.0V	30-58.8V	42-84.0V
	Max output current	25A	15A	11A	7.8A
	Max output power	630W	630W	646.8W	655.2W
	Recommended battery capacity	80Ah-250Ah	60Ah-150Ah	40Ah-120Ah	20Ah-80Ah
	LED indicator	Normal in Charging : Green blinking			
	Full charged : Green on				
	Self detection:Green & Red blinking by turns				
	Fault: Red blinking				
Input	Voltage range	90~264Vac			
	Frequency range	47~63Hz			
	Power factor	PF>0.98/115Vac,PF>0.95/230Vac(Full load)			
	Efficiency	90%	90%	92%	93%
	AC current	8.7A/115VAC 4A/230VAC			
	Inrush current	50A at 230VAC			

	Leakage current	<1mA/240VAC			
Protection	Short circuit	No output and repeated detection, recovers automatically once fault removed			
	Over Voltage	≥27V	≥44V	≥62V	≥88V
	Low voltage	Shut down once less than 90% of normal output voltage			
	Over current	Shut down once over 5% of max output current			
	Wrong polarity	No output			
	Over temperature	Shut down , recovers automatically once temperatures was down			
	Communication outage	Shut down , No output			
Function	Adjustable output voltage	Adjustable between 75~100% of the rated output voltage			
	Adjustable output constant current	Adjustable between 20~100% the rated output current			
Environment	Working temperature	-25~+70℃			
	Working humidity	20~90%RH			
	Storage temperature & humidity	-40~+85℃ , 10~95%RH			
	Vibration	Operating: 5-500Hz 0.5G 15min/2cycles X,Y,Z axes			
		Non operating: 5-500Hz 1G 15min/2cycles X,Y,Z axes			
Package: 5-500Hz 1.5G 15min/2cycles X,Y,Z axes					
Max working altitude	10,000 feet				
Safety & EMC	Safety standard	UL62368-1, TUV EN62368-1, EAC TP TC 004			
	Withstand voltage	I/P-O/P :3KVAC I/P-FG :1.5KVAC O/P-FG:0.5KVAC			
	Isolation resistance	I/P-O/P,I/P-FG, O/P-FG: 100M Ohms/500VDC/25 °C/70% RH			
	EMC Emission	EN55032(CISPR32)/EN55011(CISPR11)		Class B	
		EN55032(CISPR32)/EN55011(CISPR11)		Class A	
	EMC Immunity	EN55024, EN61204-3, EN61000-6-2			
		ESD	EN61000-4-2	Level3,8KV air; Level 2,4KV contact	
		Radiated	EN61000-4-3	Level 3	
		EFT/Burst	EN61000-4-4	Level 3	
		Surge	EN61000-6-2	2KV/line-line 4KV/Line-Earth	
		Conducted	EN61000-4-6	Level 3	
Magnetic Field		EN61000-4-8	Level 4		
Voltage Dips and Interruptions		EN61000-4-11	>95%dip periods,30% dip 25 periods, >95% interruptions 250 periods		
Safety & EMC	Safety standard	UL62368-1, TUV EN62368-1, EAC TP TC 004			
	Withstand voltage	I/P-O/P :3KVAC I/P-FG :1.5KVAC O/P-FG:0.5KVAC			
	Isolation resistance	I/P-O/P,I/P-FG, O/P-FG: 100M Ohms/500VDC/25 °C/70% RH			
Others	MTBF	>200000h(25 °C)			
	Dimension	217*140*67mm (L*W*H)			
	DC plug & cable	Available by customer requested			

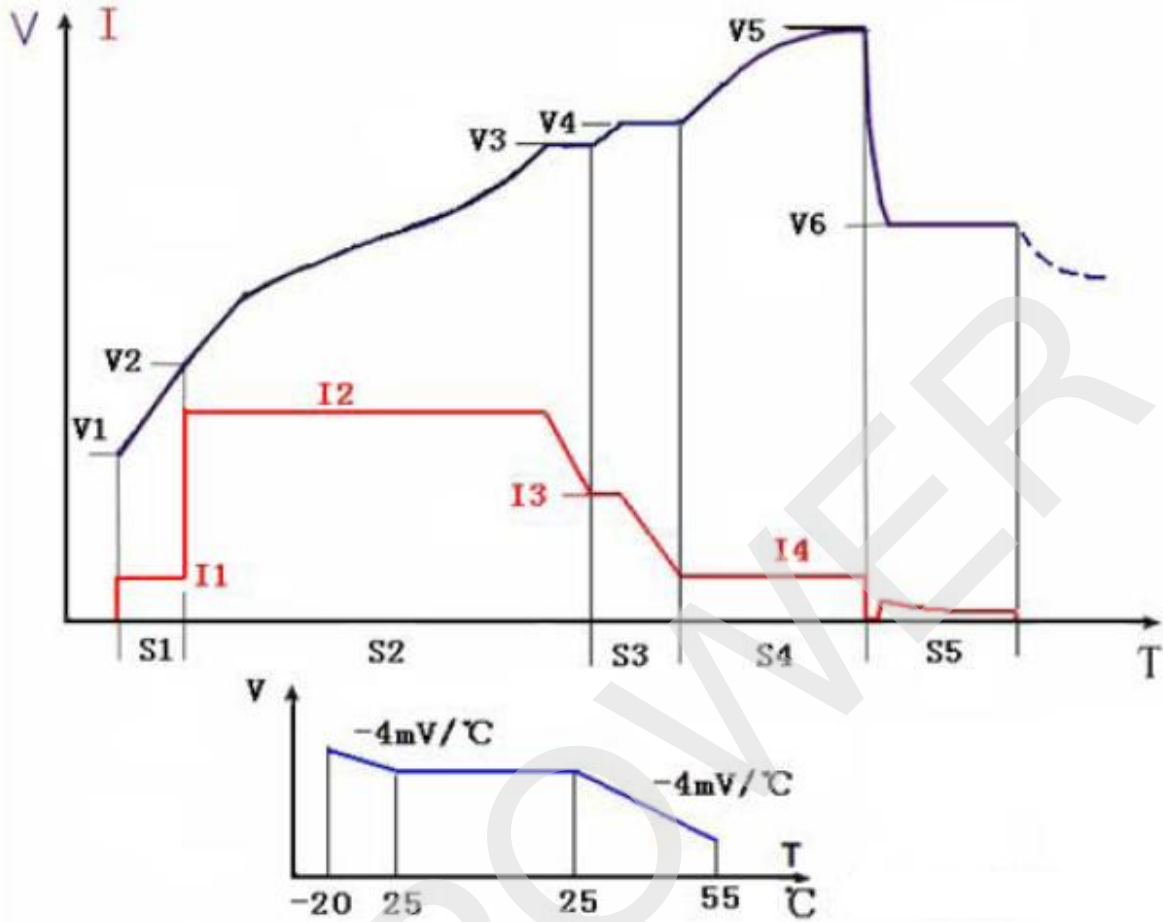
◆ **Derating Curve**



◆ **Charging curve** Li-ion battery CC/CV mode



◆ **Charging curve** Lead -acid battery



◆ **Mechanical Specification**

