

■ **Features**

- AC100-240V input for worldwide used with rechargeable AC cord C13 inlet
- Perfect for charging all Li-ion battery
- Fully automatic 4 stages charging process by MCU controlled
- Green 4Leds indicator for battery charging and Red Led indicator for Power on
- Output constant current for faster charging
- Protections: Short circuit/OVP/OCP/Overload/Polarity reversed
- 100% full load and burn-in test
- High efficiency, long life and high reliability
- 2 years warranty

■ **Applications**

Suit battery:

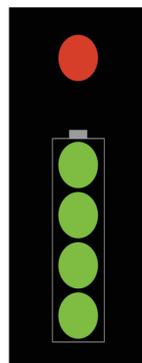
- Li-ion battery 4 cells 6~40AH

e-bike, motorcycle, electric vehicle, electric tools, emergency light, R/C toys, portable electronics devices, field detection instrument

■ **Description**

EP60XXLX series is a 60W 4 stages smart battery charger by MCU controlled with 4Leds indicator for battery charging. EP60XXLX programmed 4 stages Ip-Im-Um-Cut off charging process, Stage "Ip" is a pre-charge function for deep discharged battery, it is helpful for battery's cycle life. when battery recovered by Ip small current, stage "Ip" will output bulk current. Then, "Um" stage is followed, the output voltage is limited at 4.2V/cells, until the charging current declined to 0.4A under. At this stage, the battery is charged completely and the charger will cut off output automatic.

■ **Display Panel**



Power on LED

Charging process indicator

- Indicate battery capacity from 25% to 100% when charging
- All LEDs flashing means battery polarity reversed or output shorted
- All Leds are "off" means no battery

■ **Model Encoding**

EP60XXL/X

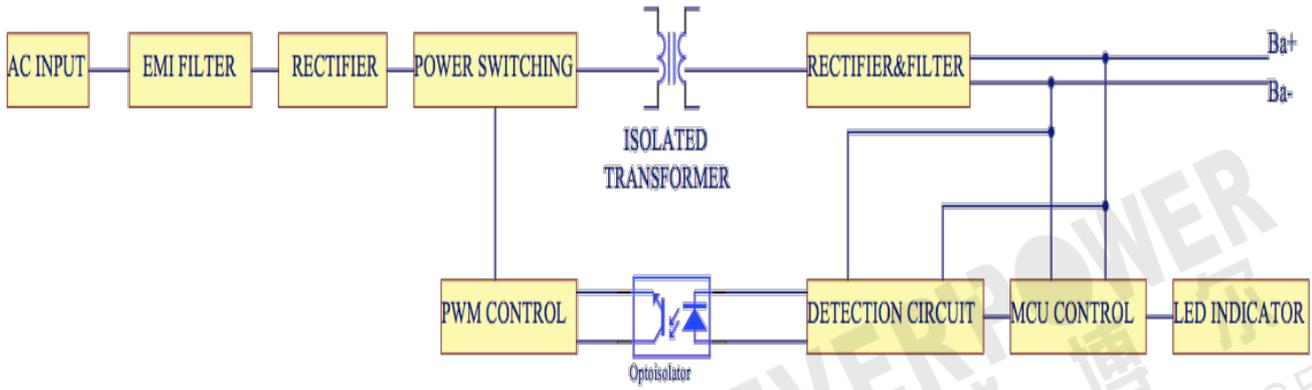


Battery type L:LI-ION X:battery cells
Output voltage:(12or 24)
Output power

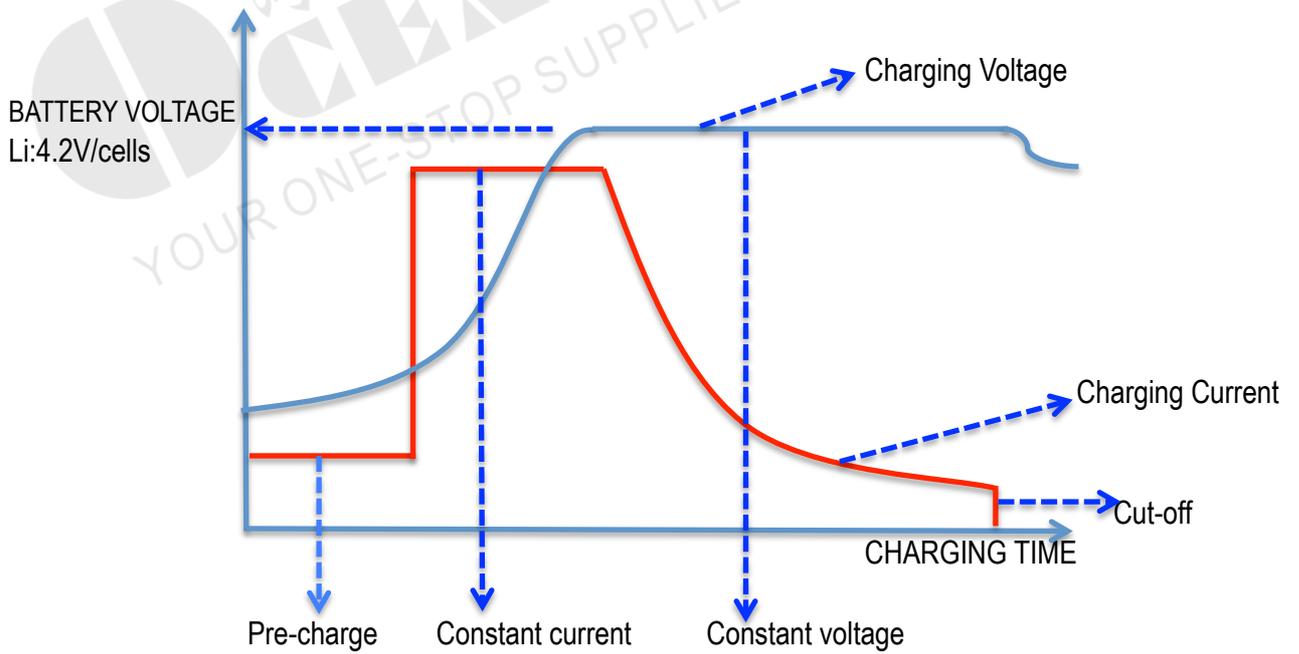
■ Specification

Model		EP6012L3	EP6012L4	EP6024L6	EP6024L7		
OUTPUT	DC Voltage	12.6V	16.8V	25.6V	29.4V		
	RATED CURRENT	4A	3.5A	2A	2A		
	RATED POWER	50.4W	58.8W	51.2W	58.8W		
	VOLTAGE RANGE	7.5V~12.75V	10V~17V	15V~25.6V	17.5V~29.4V		
	CURRENT RANGE	±0.3A	±0.3A	±0.2A	±0.2A		
	VOLTAGE TOLERANCE	±1%	±1%	±1%	±1%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%		
INPUT	VOLTAGE RANGE	100~240VAC					
	FREQUENCY RANGE	47~63Hz					
	EFFICIENCY	80%	80%	80%	80%		
	AC CURRENT	0.6A/115 VAC 0.3A/230VAC					
FUNCTION	CHARGING PROCESS	Ip-Im-Um-Cut off					
	CHARGING MODE	Fully automatically 4 stages by MCU controlled					
	CHARGE END CONDITION	>0.4A	>0.3A	>0.2A	>0.2A		
	CHARGING INDICATOR	Red LED:Power on 4Green LED:25%~100% battery capacity Green LED Flash:Fault					
	SUIT BATTERY	3cell li 4~60Ah	4cells li 6~40Ah	6cells Li 3- 30Ah	7cells li 3~30Ah		
	CHARGING TIME	1~12H					
PROTECTION	OVER VOLTAGE	12.6V	16.8V	25.6V	29.4V		
	OVER LOAD	110~140% rated output power					
	OUTPUT SHORTED	Green LED Flash/Hiccup mode,recovers automatically after fault condition is removed					
	POLARITY REVERSED	Green LED Flash/Hiccup mode,recovers automatically after fault condition is removed					
ENVIRONMENT	WORKING TEMP.	-10 ~ +50°C					
	WORKING HUMIDITY	20~90% RH NON-CONDENSING					
	STORAGE TEMP.,HUMIDITY	-10 ~ +50°C 20~90%					
	Cooling	Natural convection					
	water poof	IP64 Dust protected,water splashing resistance					
	IMPACT	1 Meter drop test>=3times					
SAFETY	SAFETY STANDARDS	EN60950-1 EN55022 EN6900 RoHs					
	EMC STANDARD	T.B.D					
	MTBF	30000 Hrs MIL-HDBK-217F					
	ESD	8KV					
	ISOLATION RESISTNCE	i/p to o/p: 3000V (1 min.)					
	MAX.TEMP.RISE	< 40°C on casing					
MECHANICAL	WEIGHT	300g (only body)					
	SIZE	120*67*41MM					
	CASE	PLASTIC PC 945					

■ **Block Diagram**



■ **CHARGING CURVES**



■ **Mechanical Specification**

