

■ **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:

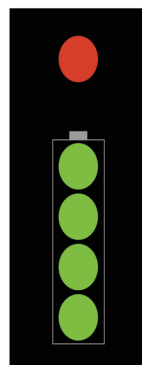
- Li-ion battery 3 cells 4~60AH

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

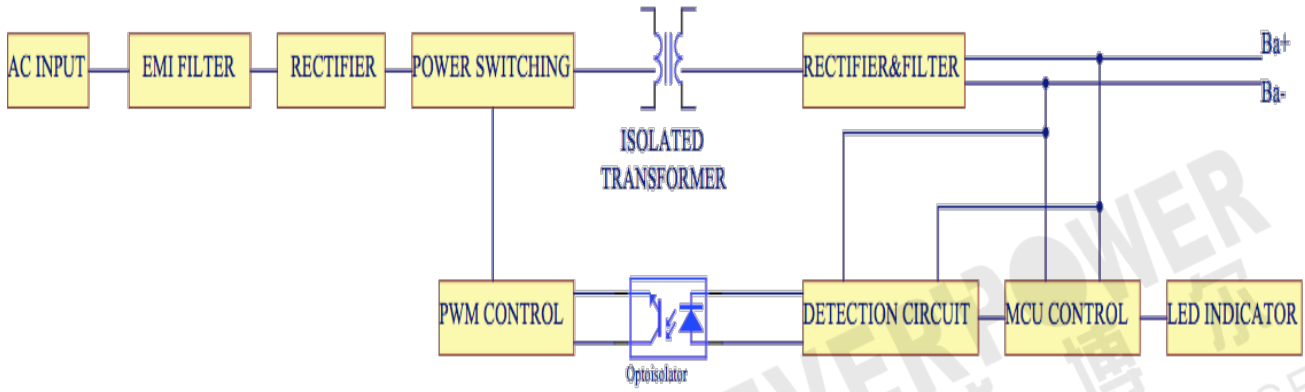
Output voltage: (12 or 24)

Output power

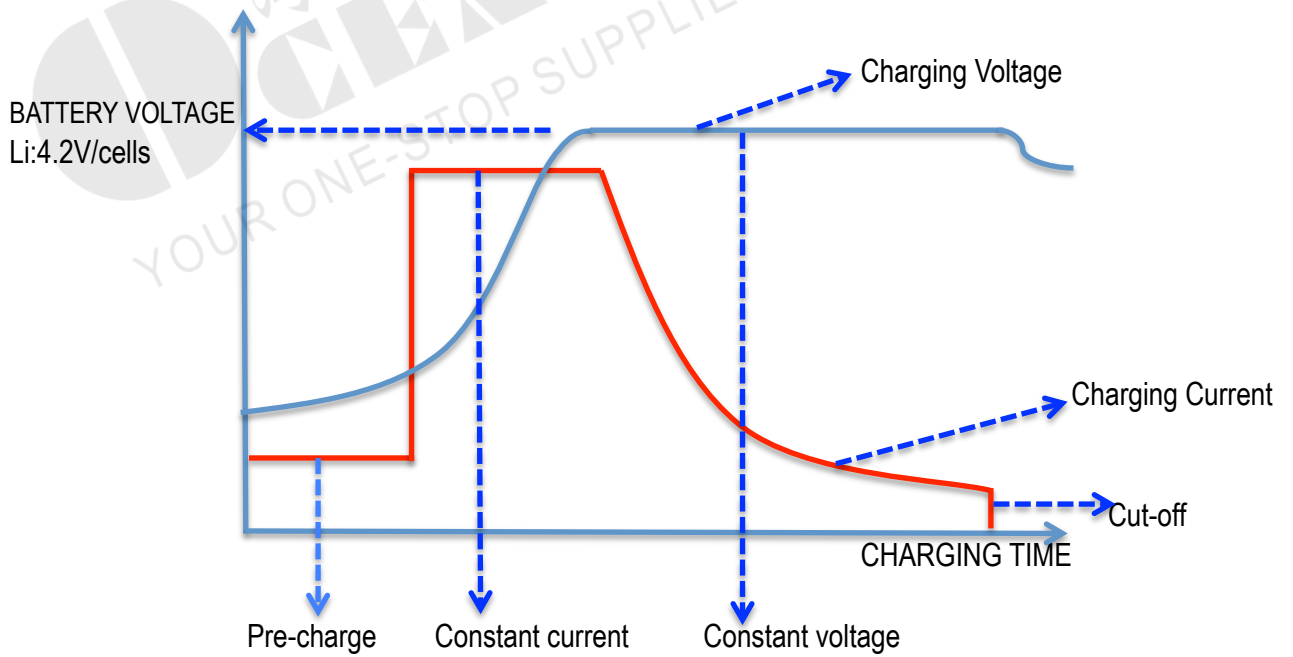
■ Specification

| 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**

