Features

- AC100-240V input for worldwide used with rechangeable AC cord C13 inlet
- Perfect for charging all Lithium ion/Polymer batteries
- 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
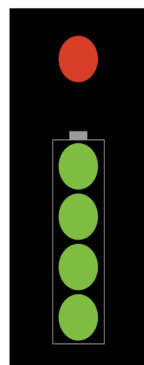- 2 years warranty

Applications

Suit battery:
- Li-ion battery   4 cells 5~32AH

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

Description

EPL100-XX series is a 100W 4 stages smart battery charger by MCU controlled with 4Leds indicator for battery charging
EPL100-XX programmed 4 stages Ip-Im-Um-Cut off charging process ,Stage "Ip" is a pre-charge function for deep dischargedbattery ,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/cell,until the charging current declined to 0.4A under until the charging current declined to 0.5A 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
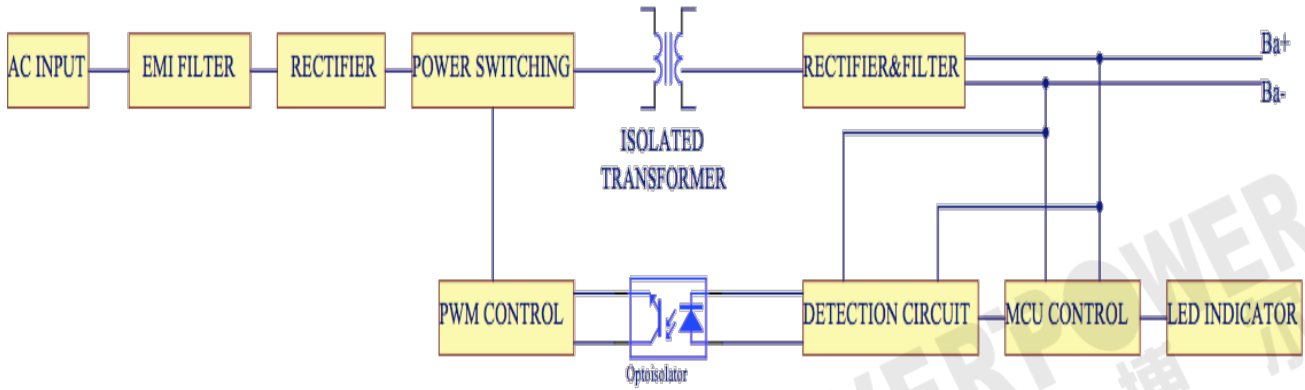- All Leds are"off" means no battery

Model Encoding

EPL100-XX

Output Voltage(12,16,24,36)
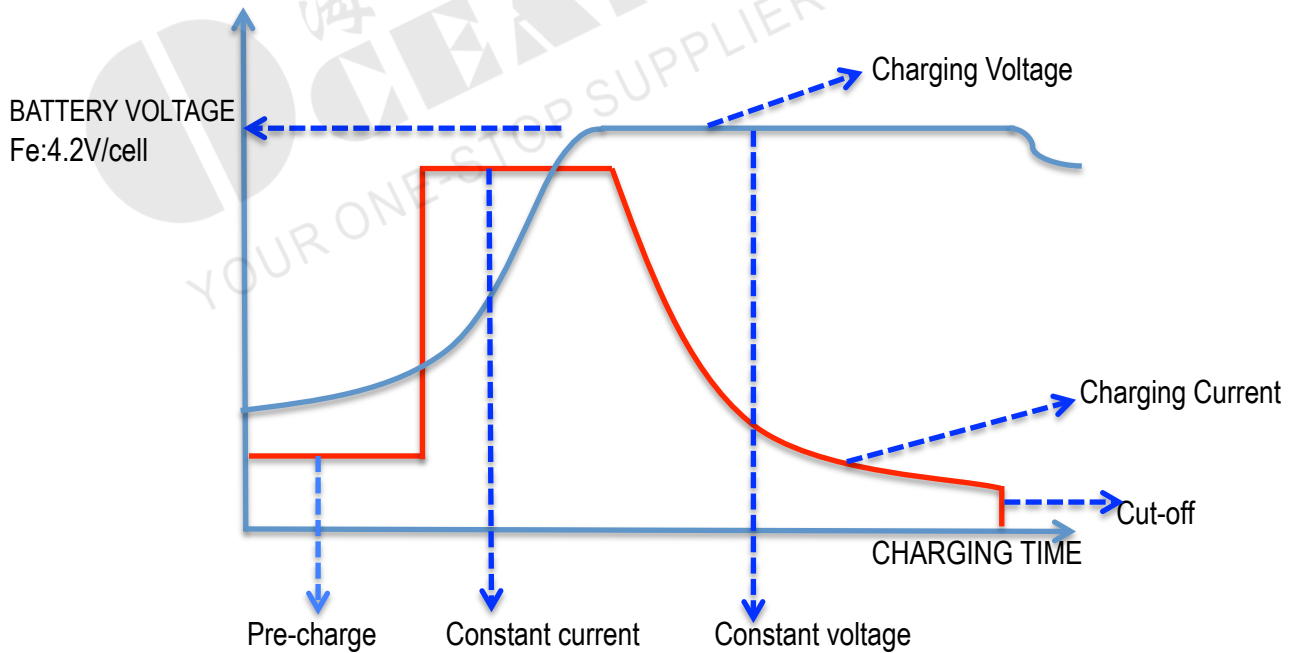Output power
Battery type L:Li-ion

■**Specification**

Model		EPL100-12	EPL100-16	EPL100-24	EPL100-42		
OUTPUT	DC Voltage	12.6V	16.8V	29.4V	42V		
	RATED CURRENT	5A	4.5A	3 A	2A		
	RATED POWER	63W	75.6W	88.2W	84W		
	VOLTAGE RANGE	7.5V~12.75V	10V~17V	17.5V~30V	25V~42.5V		
	CURRENT RANGE	±0.3A	±0.3A	±0.3A	±0.3A		
	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	0.8A/115 VAC 0.4A/230VAC					
FUNCTION	CHAEGING PROCESS	Ip-Im-Um-Cut off					
	CHARGING MODE	Fully automatically 4 stages by MCU controlled					
	CHARGE END CONDITION	>0.4A	>0.3A	>0.3A	>0.2A		
	CHARGING INDICATOR	Red LED:Power on 4Green LED:25%~100% battery capacity Green LED Flash:Fault					
	SUIT BATTERY	3cell Li 5~40Ah	4cells Li 5~32Ah	8cells Li 3-25Ah	10cells Li 2-15Ah		
	CHARGING TIME	1~8H					
PROTECTION	OVER VOLTAGE	12.75V(limited)	17V(limited)	30(limited)	42.5V(limited)		
	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					
ENVIRONMEN	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	UL60950 EN60950-1 EN55022 IEC60960-1					
	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	350g (only body)					
	SIZE	172X72X40 MM					
	CASE	PLASTIC PC 945					

■Block Diagram

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AC INPUT ── EMI FILTER ── RECTIFIER ── POWER SWITCHING ──[ISOLATED TRANSFORMER]── RECTIFIER&FILTER ── Ba+
                                                                                                    ── Ba-
                              PWM CONTROL ── Optoisolator ── DETECTION CIRCUIT ── MCU CONTROL ── LED INDICATOR
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■CHARGING CURVES

BATTERY VOLTAGE
Fe:4.2V/cell

Charging Voltage

Charging Current

Cut-off

CHARGING TIME

Pre-charge   Constant current   Constant voltage

■Mechanical Specification

72

INLET

172

40

LABEL

POWER
INDICATION

CHARGING
INDICATION

DC CABLE