EVERPOWER 艾威博尔

100W MCU controlled 4 stage smart battery charger EPL100-XX series

■ 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:

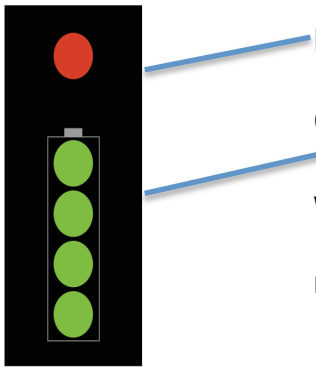
■ Li-ion battery 3 cells 5~40AH

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

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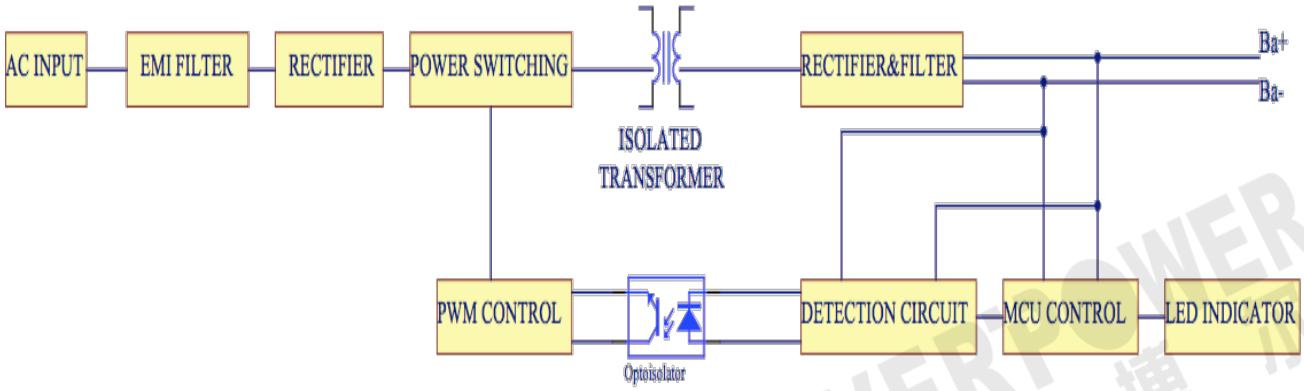
100W MCU controlled smart 4-stages battery charger EPL100-XX series

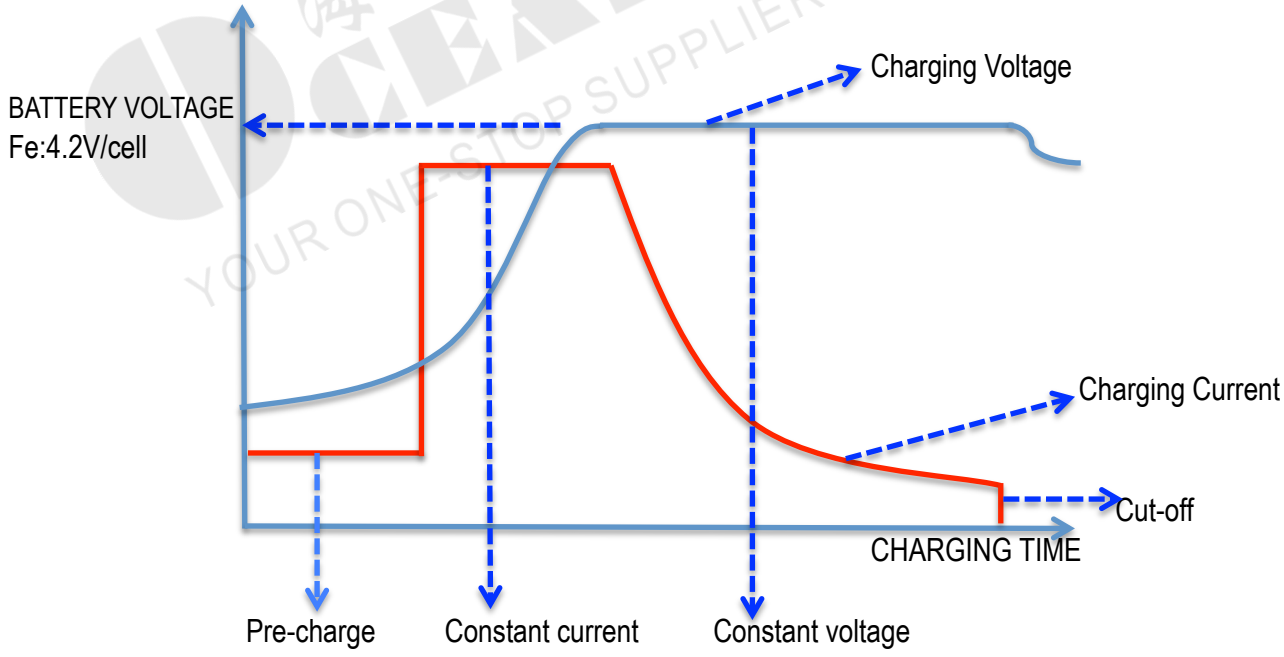
■Specification

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



■CHARGING CURVES



■Mechanical Specification