VEVOR

Upgrade · The Home Creator Way

LIFEPO4 BATTERY CHARGER

MODEL:UY900C-LF1240 / UY900C-HF1240 / UY1500-LF1260 / UY1500-HF1260 / UY1500-LF1280 / UY1500-HF1280 / UY600-LF2420 / UY600-HF2420 / UY600-LF3618 / UY600-HF3618

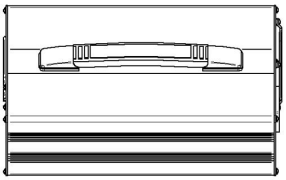
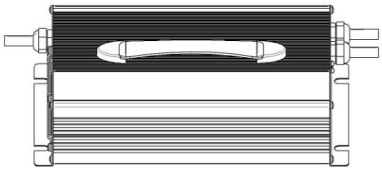
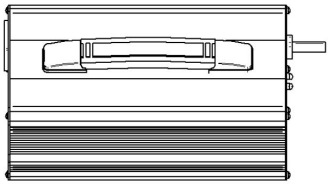
VEVOR Support Center

1	UY900C-LF1240		2	UY1500-LF1260	
3	UY1500-LF1280		4	UY600-LF2420	
5	UY600-HF2420		6	UY600-LF3618	
7	UY600-HF3618				

VEVOR
Upgrade·The Home Creator Way

LIFEPO4 BATTERY CHARGER

MODEL:UY900C-LF1240 / UY900C-HF1240 / UY1500-LF1260 / UY1500-HF1260 / UY1500-LF1280 / UY1500-HF1280 / UY600-LF2420 / UY600-HF2420 / UY600-LF3618 / UY600-HF3618

 UY900C-LF1240 / UY900C-HF1240	 UY1500-LF1260 / UY1500-HF1260 / UY1500-LF1280 / UY1500-HF1280
 UY600-LF2420 / UY600-HF2420 / UY600-LF3618 / UY600-HF3618	

(Visuals are for reference only. Product may differ)

This is the original instruction, please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.

	Warning-To reduce the risk of injury, user must read instructions manual carefully.
	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)This device may not cause harmful interference, and (2)this device must accept any interference received, including interference that may cause undesired operation.
	This product is subject to the provision of European Directive 2012/19/EC. The symbol showing a wheelie bin crossed through indicates that the product requires separate refuse collection in the European Union. This applies to the product and all accessories marked with this symbol. Products marked as such may not be discarded with normal domestic waste, but must be taken to a collection point for recycling electrical and electronic devices

1.The product complies with relevant standards and regulations. Installation of this device must comply with all applicable regulations, and it should only be operated in well-ventilated areas. Please read the user manual before installing and using this equipment.
2.Switch off the appliance and disconnect from supply before changing accessories or approaching parts that move in use.
3.Always disconnect the appliance from the supply if it is left unattended and before assembling, disassembling or cleaning.
WARNING: Use only an external supply with the following specifications:

See Table “Table 9”.

This appliance is intended to be used in household and similar applications such as:
– Supports charging for various devices such as electric vehicles and gardening tools.

WARNING

This Operating Manual covers information on safety and cautions. Please read it carefully before charging.

1.READ AND UNDERSTAND ALL SAFETY INFORMATION BEFORE USING THIS PRODUCT. Failure to follow these safety instructions may result in ELECTRICAL SHOCK, EXPLOSION, FIRE, which may result in a SERIOUS INJURY, DEATH, or PROPERTY DAMAGE.

2.Electrical Shock. Product is an electrical device that can shock and cause serious injury. Do not cut power cords. Do not submerge in water or get wet.

3.Explosion. Unmanned monitoring, incompatible, or damaged batteries can explode if used with product. Do not leave product unattended while in use. Do not attempt to jump start a damaged or frozen battery. Use product only with batteries of recommended voltage. Operate product in well ventilated areas.

4. Fire. Product is an electrical device that emits heat and is capable of causing burns. Do not cover product. Do not smoke or use any source of electrical spark or fire when operating product. Keep product away from combustible materials.

5.The plug must be plugged into a grounded outlet for use.

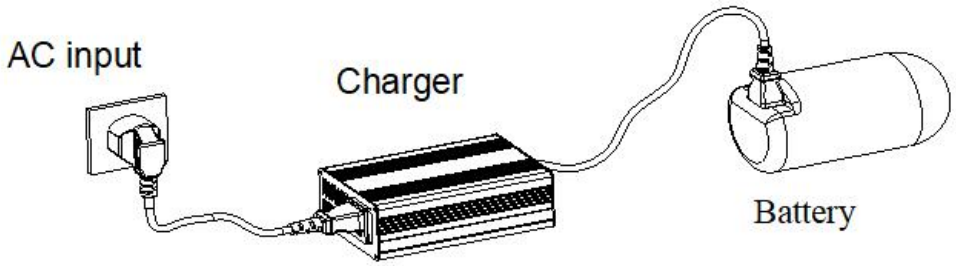
OVERVIEW

With CPU control and PFM technology, the charger has the advantages like high efficiency, good stability, low-carbon and energy-saving. Three-section charging mode ---- Controlling the charging current and voltage automatically and precisely, both ensure that battery is charged fully, and not over charged. Your battery life will be protected.

LED INDICATOR

Mode	LED1(Red Color) Status	LED2(White Color) Status	Charger state
Normal state	Red light always on	Green light flashes	Standby
	Red light always on	Red light always on	Charging
	Red light always on	Green light always on	Full
Fault state	Red light always on	Red light flashes 5 times	Overheat protection
	Red light always on	Red light flashes 3 times	Over-voltage protection
	Red light always on	Red light flashes 7 times	Over-current protection, short-circuit protection
	Red light always on	Red light flashes	Reverse connection protection

HOW TO CONNECT



1、Before using, please check the battery specification carefully, ensure that the battery matches the charge mode.

2、Connect the ring terminal of the charger to the batteries, positive to positive, negative to negative.

3、Plug the AC plug to the grid power.

ELECTRONIC CHARACTERISTICS

Item		UY900C-LF1240	UY900C-HF1240
Output	Charge voltage	14.6V	14.6V
	Charge current	40A ±5%	
	Charge complete current	4A ±0.3	
	Voltage fluctuation	±0.3V	
	Ripple voltage	≤2%$VOUT_{MAX}$	
Input	Efficiency	≥80%	
	Voltage Range	100-120VAC	220-240VAC
	Input current(type)	9.1A/115Vac	4.3A/230Vac
	Frequency range	60Hz	50Hz
	Vomit (type)	COLD START ≤50A at 230VAC	
	Leakage Current	＜0.75mA	
Test Standard(s)		UL1012	EN 60335-1

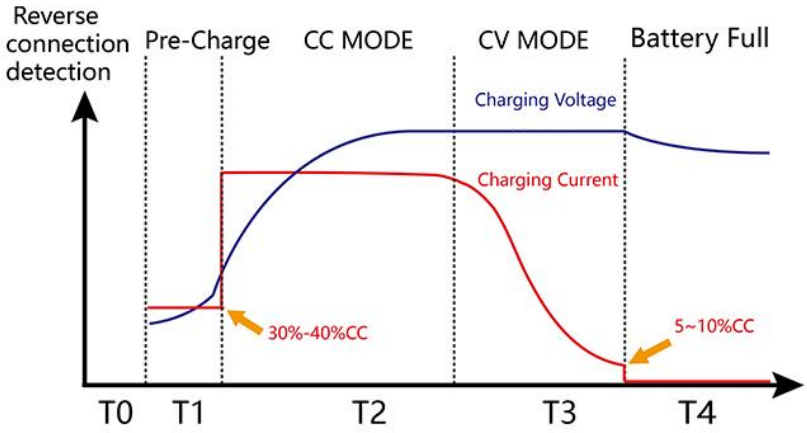
Item		UY1500-LF1260	UY1500-HF1260
Output	Charge voltage	14.6V	14.6V
	Charge current	60A ±5%	
	Charge complete current	6A ±0.3	
	Voltage fluctuation	±0.3V	
	Ripple voltage	≤2%$VOUT_{MAX}$	
Input	Efficiency	≥80%	
	Voltage Range	100-120VAC	220-240VAC
	Input current(type)	13.6A/115Vac	8.0A/230Vac
	Frequency range	60Hz	50Hz
	Vomit (type)	COLD START ≤50A at 230VAC	
	Leakage Current	＜0.75mA	
Test Standard(s)		UL1012	EN 60335-1

Item		UY1500-LF1280	UY1500-HF1280
Output	Charge voltage	14.6V	14.6V
	Charge current	80A±5%	
	Charge complete current	8A ±0.3	
	Voltage fluctuation	±0.3V	
	Ripple voltage	≤2%$VOUT_{MAX}$	
Input	Efficiency	≥80%	
	Voltage Range	100-120VAC	220-240VAC
	Input current(type)	18.2A/115Vac	10.6A/230Vac
	Frequency range	60Hz	50Hz
	Vomit (type)	COLD START ≤50A at 230VAC	
	Leakage Current	＜0.75mA	
Test Standard(s)		UL1012	EN 60335-1

Item		UY600-LF2420	UY600-HF2420
Output	Charge voltage	29.2V	29.2V
	Charge current	20A±5%	
	Charge complete current	2A ±0.3	
	Voltage fluctuation	±0.3V	
	Ripple voltage	≤2%$VOUT_{MAX}$	
Input	Efficiency	≥80%	
	Voltage Range	100-120VAC	220-240VAC
	Input current(type)	9.1A/115Vac	5.3A/230Vac
	Frequency range	60Hz	50Hz
	Vomit (type)	COLD START ≤50A at 230VAC	
	Leakage Current	＜0.75mA	
Test Standard(s)		UL1012	EN 60335-1

Item		UY600-LF3618	UY600-HF3618
Output	Charge voltage	43.8V	43.8V
	Charge current	18A±5%	
	Charge complete current	1.8A ±0.3	
	Voltage fluctuation	±0.3V	
	Ripple voltage	≤2%$VOUT_{MAX}$	
Input	Efficiency	≥80%	
	Voltage Range	100-120VAC	220-240VAC
	Input current(type)	12.3A/115Vac	7.2A/230Vac
	Frequency range	60Hz	50Hz
	Vomit (type)	COLD START ≤50A at 230VAC	
	Leakage Current	＜0.75mA	
Test Standard(s)		UL1012	EN 60335-1

CHARGE CURVE



1) **T0 Reverse Connection Detection**: Within the first 10 seconds after connecting to AC power, the charger maintains output shutdown while detecting battery polarity. If reversed connection is detected, a fault warning

will be triggered. With correct connection, the system automatically proceeds to the next stage.

2) **T1 Pre-charge Stage**: The charger initiates output with reduced current for preliminary charging. Directly applying high-current fast charging when battery voltage is over voltage would significantly degrade battery cycle life. This stage serves as a warm-up stage before high-current charging. During the initial 10 seconds, fixed low-current charging (30%-40% of CC current) is applied. If battery voltage remains low after 10 seconds, this stage continues. The system automatically advances when voltage reaches acceptable levels for high-current charging.

3) **T2 Constant Current (CC) Stage**: The charger delivers maximum output current for rapid charging. The stage automatically terminates when battery voltage reaches the maximum charging voltage.

4) **T3 Constant Voltage (CV) Stage**: The charger maintains output voltage at full-charge level while charging current gradually decreases. Charging completes when current drops to 5%-10% of maximum value, at which point the battery is determined as fully charged.

5) **T4 Battery Full Stage**: The output cuts off on till another battery has been connected.

MAINTENANCE

WARNING: Before conducting the following operations, make sure the charger is disconnected with the battery and power connection.

1.Clear dust on vents and fan regularly, to ensure the charger has good heat dissipation.

2.Periodically wipe the case with a cloth with some alcohol.

3.Do not use or store the charger in a place of humidity or high temperature.

MATTERS NEED ATTENTION

1.Don’t cover the charger or intake during charging.
2.The charger should be placed where children could not touch.
3.Please charging in indoor area where good ventilation and heat dissipation is. Prohibited charging where is humid, high temperature or a flammable, explosive gas surrounding.
4.It’s danger of high voltage in charger case please do not disassemble it unauthorized.
5.The losses caused by not operating according to the instruction manual operation, manufacturer does not bear any responsibility.
6.If the circuit breaker trips while using charger, please turn off other electrical appliances.
7.Due to line voltage drop, the charging current begins to decrease as it approaches the maximum charge voltage.
8.No charging or after charging complete, be sure to unplug the DC terminal and the AC terminal.

COMMON FAULTS AND HANDLING METHODS

Faults	Possible reasons	Handing methods
Charger or battery not connected properly	The charger is not connected to the power supply.	Please check if the connection line is broken and try again.
	Power input cable damaged.	Please check if the power input line is on and try again.
	Battery is not connected to the charger.	Please check if the battery is connected correctly and try again.
	Battery positive and negative terminals are reversed.	Please connect the positive and negative terminals of the battery correctly and try again.
Battery charging for a long time still can not be full	Battery is aged or damaged.	Replacement of new batteries.
	Battery and charger do not match.	Replace the charger with one that is compatible with this battery.
	Wrong setting of charging curve.	Resetting the appropriate charging curve.
Charger Indicator lights shows abnormal state	High ambient temperature.	Wait to lower the ambient temperature and reboot the test.
	BMS causes abnormal charger judgment .	Contact the original battery manufacturer to confirm BMS related specifications.
	Battery voltage mismatch	Check if the charger and battery specifications can be used together.
	Battery detection anomaly	Check if the battery status is normal.
	Charger enters the over voltage protection state.	The charger will automatically return to normal operation after waiting for the voltage to stabilize.
	Charger enters the over-current protection.	The charger will automatically return to normal operation after waiting for the current to stabilize.

ACCESSORIES LIST

Model	Accessories list
UY900C-LF1240	1. Adapter cable * 1 2. Power cord * 1 3. Instruction manual * 1
UY900C-HF1240	
UY1500-HF1260	
UY600-LF2420	
UY600-HF2420	
UY600-LF3618	
UY600-HF3618	
UY1500-LF1260	1. Adapter cable * 1 2. Instruction manual * 1
UY1500-LF1280	
UY1500-HF1280	



