



SPECIFICATION

Product Name: LED Emergency Driver

Model No.: KE022 HB Series

Issue Date: January 6, 2025

CUSTOMER APPROVED

Type	Model	Updating	Date
A0	KE022 HB Series	The First Version	2024-05-14
A1	KE022 HB Series	Modify battery Specifications	2024-06-13
A2	KE022 HB Series	Modified wiring diagram	2024-09-07
A3	KE022 HB Series	Added test mode switching requirement	2025-01-06

Specification for LED Emergency Driver KE022 Built-in series

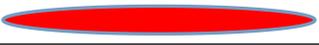
1. Features



- Constant power output LED emergency power supply with a wide output voltage range.
- Input relay switching.
- High safety, high performance, long life LifePO4 battery.
- With battery management.
- Manual test&automatic test selection.

2. Parameters

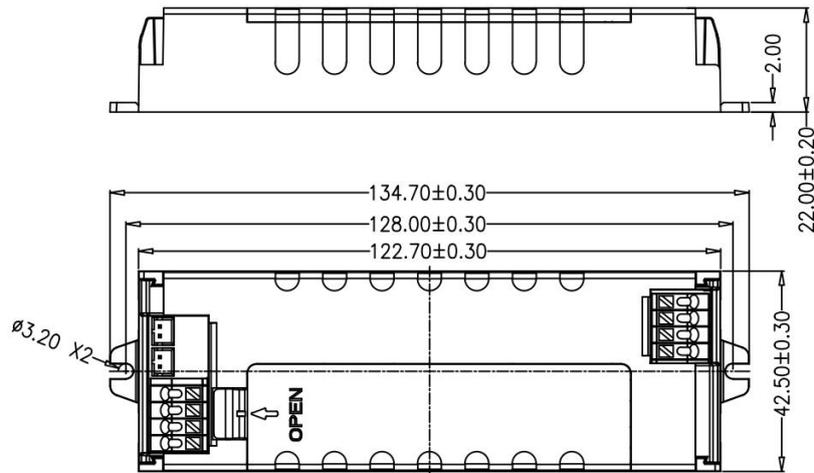
	KE022-	01AM180HB1	01AM180HB
	Charge Part	Rated input voltage	220-240Vac 50Hz /60Hz
Rated input current		0.06A Max. @230Vac	
Input inrush current		30A(twidth=100uS 50% Ipeak)@230Vac (Cold start at full load)	
Power factor		≥0.5@230Vac	
Input power		<3W	
Battery charging current (Max)		200mA	
Battery charging time		24 hours Max.	
Emergency Part		Operating mode	Emergency mode
	Load type	LED	
	Emergency power	1W	
	Emergency time	3hours	
	Load output current	100-15mA	20-5mA
	Load output voltage	10-60VDC	50-180VDC
Battery	LifePO4 (The battery capacity meets the emergency time at 25°C)	3.2V 1800mAh	
	Battery warranty	Warranty 5 year.	
Exception Driver Requirements	Surge current	8A	
	Input current	3 A Max.	
	Output current	2A	
LED Indication	Charging	Green light	
	Fault	Green light off	
Emergency Function Test	Manual test	Default	
	Auto test	Settable	

	Fault / test / Status	Reason	Charge Indicator Status
Auto Testing	Battery fully charged and operational	Standard daily use	 solid green
	Battery Charging	Initial Charge/Battery Top Up	 Flashing green 1 sec on 1 sec off
	Auto Test 3 Hours (every 12 months)	Periodic self test	 Flashing Green 3 sec on 1 sec off
	Auto Test 5 Min (every 30 days)	Periodic self test	 Flashing Green 3 sec on 3 sec off
	Duration test fault	Failed the 3 hour annual test	 Flashing Red 0.5 sec on 0.5 sec off
	LED fault	Not plugged in or damaged/faulty	 Flashing Red 2 sec on – 2 sec off
	Battery Disconnected/Faulty	Not plugged in or damaged/faulty	 solid red
	Emergency protection	Battery over-charge/deep discharge protection	Yes
Output over-voltage protection		Yes	
Output overload protection		Yes	
Output short circuit protection		Yes	
Operating Environment	Operating temperature/humidity	0°C ... +50°C humidity:20%-75%(without condensation)	
	Storage temperature/humidity	-5°C -35°C	
	Case Max. Temp(Tc)	75°C	
Safety & EMC	Withstand voltage	3000Vac 5mA 60s (Input “L N” – output “SEC+ SEC-“)	
	Safety standard	EN61347-1, 60598-2-22, 61347-2-7, 62034	
	EMC standard	EN55015, EN61000-3-2, EN61000-3-3	
	Battery standard	UN38.3	
	Environmental protection requirements	Compliant to RoHS	
	Certification	CE	
Others	Input/output(terminal/wiring) specification	Press terminal, wire diameter: 0.5-0.75mm ²	
	IP rating	IP20	
	Type of protection	Class 2	
	Installation type	Built-in installation	
	Installation dimension	134*42*22mm	
	Packaging requirement	White box+Instruction manual+clapboard+outer carton(K=A)	
	Weight :Emergency Power Supply	150g	
	Lifespan	5 Year @Ta (Battery not included)	

Notes:

All parameters are tested on the input voltage 230Vac,environment temperature 25°C ,unless otherwise specified.

3. Dimension (Unit: mm)



4. Wiring Diagram

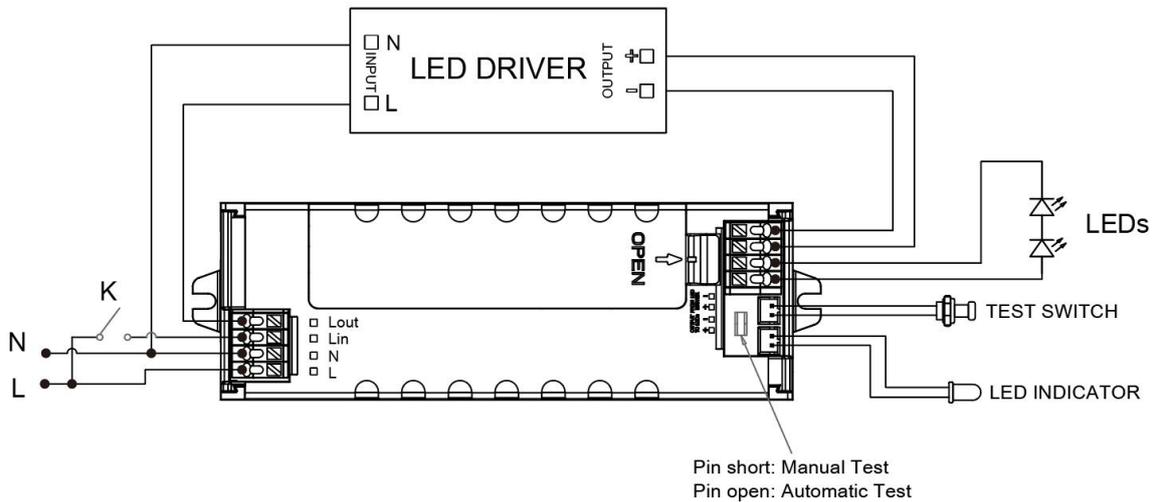


Fig.A

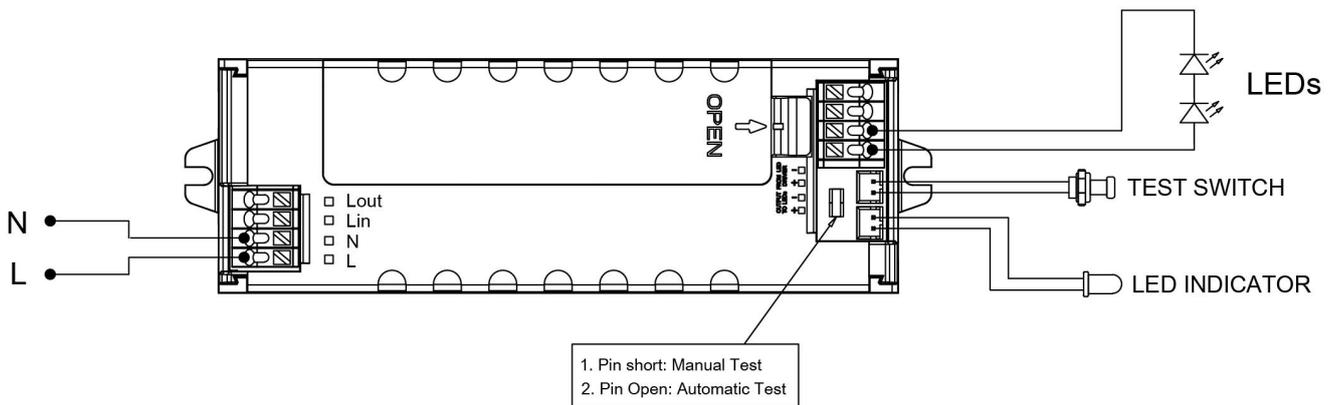


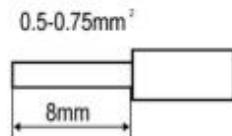
Fig.B

5. Manual and Automatic Test Set

— : Short □ : Open

Test Mode Set	J1
Automatic Test	□
Manual Test	—

6. Wire Preparation



- 1) Solid or Stranded wire type: 0.5 -0.75mm²
- 2) To access or remove the wires from the terminals, use a screwdriver to push the buttons down

7. Manual Test & Operation Instructions

- 1).Before installation, set Pin short: Manual Test.
- 2).Connect the wire according to wiring diagram.
- 3).L,N power on, Switch on S1. then the load lamp turns on, The emergency driver indicator light will turns green, emergency power supply normal charging. Turn off Switch S1, the load lamp turns off.
- 4).Emergency Simulation: Switch on, the load lamp turns on, press the switch(TEST SWITCH), then switch to emergency mode, the indicator light of emergency driver will be extinguished. Release the switch(TEST SWITCH), then lamp is powered by led driver, the indicator light will turn on.

8. Automatic Test & Operation Instructions

- 1).Before installation, set Pin open: Automatic Test.
- 2).Connect the wire according to wiring diagram. Remove the test switch on the LED Emergency Driver.
- 3).L,N power on, start the clock and periodic self test. To replace the battery, turn off the power supply, Re-time.

9. Battery Application Notice

- 1).The battery should be recharged and discharged semiannually in normal use conditions.
- 2).Do not connect to the circuit when the battery is not use to prevent over-discharge of the battery due to self-consumption of the circuit board.
- 3).Please keep the battery from the heat source when installing and using, and only be allowed to use in certain working temperature range.
- 4).The battery should be stored in a cool and dry environment.



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5).After long time storage, the battery is cycled every 12 months as required.

6).AC power is off, and the clock lasts for 7 days, Power on and re-time. To replace the battery, turn off the power supply, Re-time.

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