SPECIFICATION

Product Name: **LED Emergency Driver**

Model No.: **KE024 HE Series**

Issue Date: **April 22, 2025**

CUSTOMER APPROVED

Type	Model	Updating	Date
A0	KE024 HE Series		2024-05-10
A1	KE024 HE Series	Modify product features	2024-07-25
A2	KE024 HE Series	Modified wiring diagram	2024-09-07
A3	KE024 HE Series	Added test mode switching requirement	2025-01-06
A4	KE024 HE Series	Fix bug	2025-04-22

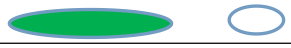
Specification for LED Emergency Driver KE024 HE Series C.W.

1. Features

- Constant power output LED emergency power supply with a wide output voltage range.
- Input relay switching.
- High safety, high performance, long life $LifePO_4$ battery.
- With battery management.
- Manual test&automatic test selection.

2. Parameters

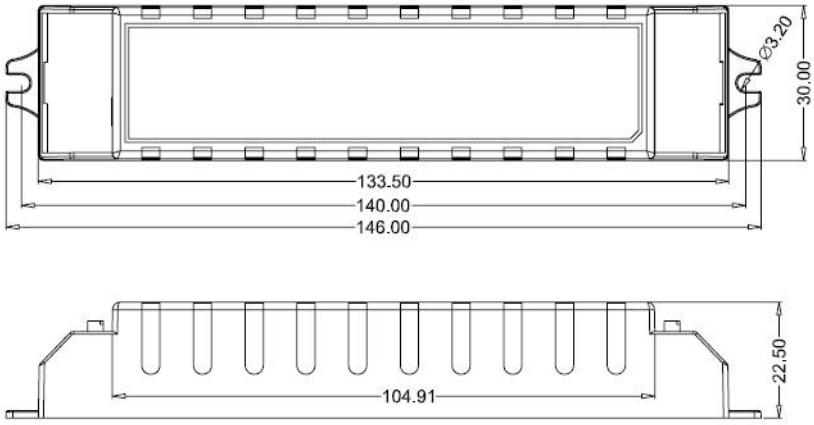
Charge Part	KE024	02AM180HE	03AM180HE	04AM180HE	05AM180HE
	Rated input voltage	220-240Vac 50Hz/60Hz			
	Rated input current	0.06A Max. @230Vac			
	Input inrush current	10A(Twidth=100us 50% Ipeak)@230Vac（Cold start at full load)			
	Power factor	≥0.5@230Vac			
	Input power	<4W@230Vac			
	Battery charging current	250mA	250mA	350mA	350mA
	Battery charging time	24 hours Max.			
Emergency Part	Operating mode	Emergency mode			
	Load type	LED			
	Emergency power	2W	2.5W	4W	5W
	Emergency time	3hours			
	Load output current	100-30mA	125-41mA	200-65mA	250-80mA
	Load output voltage	20-60Vdc			
Battery	$LifePO_4$ (The battery capacity meets the emergency time at 25℃)	6.4V 1.8Ah	6.4V 1.8Ah	6.4V 3.6Ah	6.4V 3.6Ah
	Battery warranty	Warranty 5 year @5~60℃.			
Exception Driver Requirements	Surge current	8A			
	Input current	3A Max.			
	Output current	2A Max.			
LED Indication (Manual test)	Charging	Green light			
	Fault	Green light off			
Emergency Function Test	Manual test	Default			
	Auto test	Settable			

Auto Testing	Fault / test / Status	Reason	Charge Indicator Status
	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	Automatic test failed	 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℃…+50℃humidity:20%-75%(without condensation)	
	Storage temperature/humidity	-5℃-35℃	
	Case Max. Temp(Tc)	75℃	
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	146*30*22.5mm	
	Packaging requirement	White box+Instruction manual+clapboard+outer carton(K=A)	
	Weight	75g (driver)	
	Lifespan	5 Year @Ta	

Notes：

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

3. Dimension (Unit: mm)



4. Battery Size (Unit: mm)

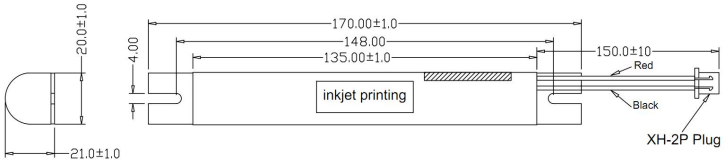


Fig.A

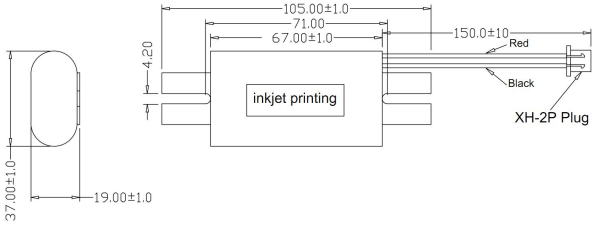


Fig.B

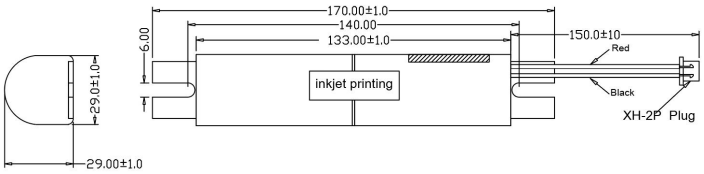


Fig.C

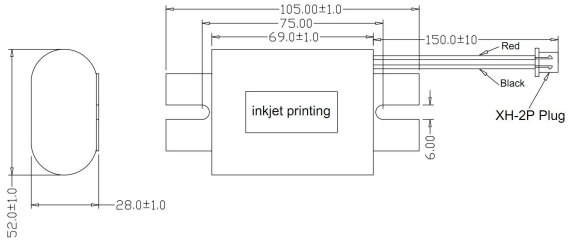


Fig.D

5. Wiring Diagram

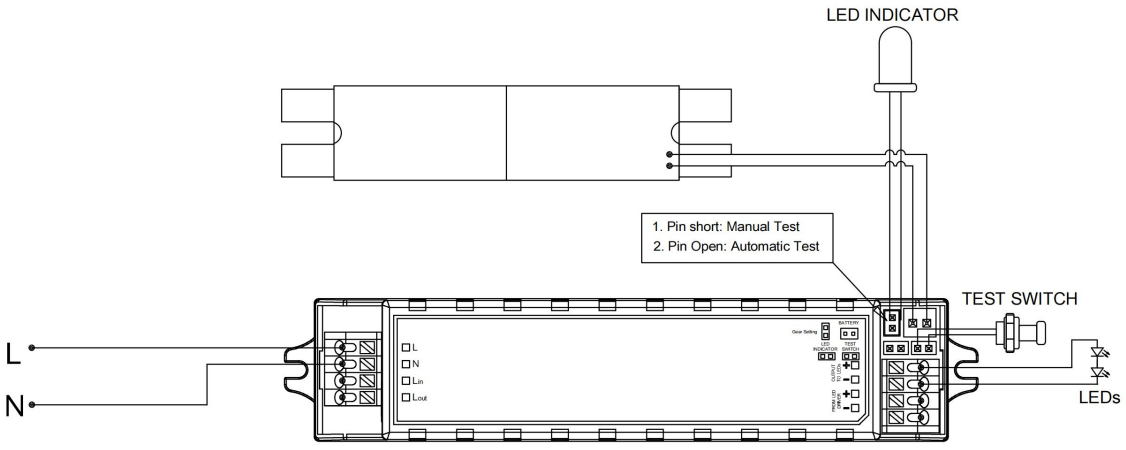


Fig.A

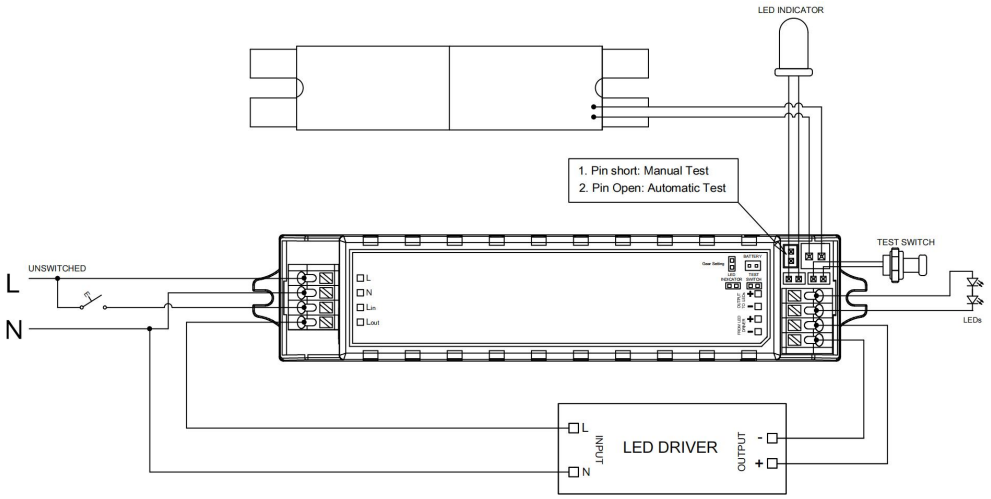


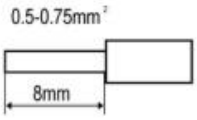
Fig.B

6. Manual and Automatic Test Set

▬: Short ▭ : Open

Test Mode Set	J1
Automatic Test	▭
Manual Test	▬

7. Wire Preparation



1).Solid or Stranded wire type：0.5 -0.75mm^2

2)To access or remove the wires from the terminals, use a screwdriver to push the buttons down

8. 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.

9. 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.

10. 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.

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.