

AUTOMATIC EMERGENCY DOOR OPENING SYSTEM

HK-200

Model : HK-200

DATA SHEET

- ❖ Emergency door opening.
- ❖ Induction 3 phase door motors 127V, 220V, 380V.
- ❖ Opens door only in front of door zone.
- ❖ Battery over charge and over discharge protection.
- ❖ Output for emergency valve.

PRELIMINARY

Description

The HK 200 is an emergency door opening system, which opens elevator door during power failure and allows passengers to leave the elevator.

The HK 200 provides also an emergency 12VDC output for an emergency release valve in hydraulic elevators.

During power failure when elevator car is brought to nearest floor and car is at the door zone as sensed by the N.O. magnetic sensor of the HK 200, the car door operator is activated and car elevator doors are opened. Opening time is adjusted by R23. The doors will stay open for 3 minutes and will be closed thereafter by HK 200.

The HK 200 supports induction (asynchronous) 3 phase door operator motors of voltage of 127VAC, 220VAC and 380VAC. The HK 200 detects power failure by sensing the top of the safety line, if power at this point is cut the HK 200 interprets this as power failure. The HK 200 does not monitor the mains power in order to detect power failure.

During door opening the HK 200 disconnects safety line to prevent lift controller to close door if power is resumed.

The HK 200 is equipped with an auxiliary output for activating a speech unit that announces passengers that a power failure has occurred, and that they should press on emergency lowering button and when car will reach the nearest floor, doors will open and they should leave the car.

The HK 200 has an on board sophisticated battery charger that is powered from 220V mains power. The charger protects batteries from being over charged and over discharged. If battery is over discharged the HK 200 cuts the safety line thus preventing elevator to work with discharged batteries and disfunctioning of HK 200.

The HK 200 has LEDs that when lighting indicate the following:

LED	Indication
D5	Battery is charging.
D8	Computer is functioning.
D10	Safety chain is disconnected.
D11	Safety line voltage OK (No power failure).
D12	Emergency 3 phase power is applied to motor.



Connector	Description
J1	Mains for battery charging
J2	Not Implemented
J3	To emergency lowering valve
J4	Safety line in, Safety line out
J5	Power failure detection
J6	Magnetic sensor
J7	Door motor output (to motor)
J8	Speech unit, Talk
J9	Door motor input (from control panel)



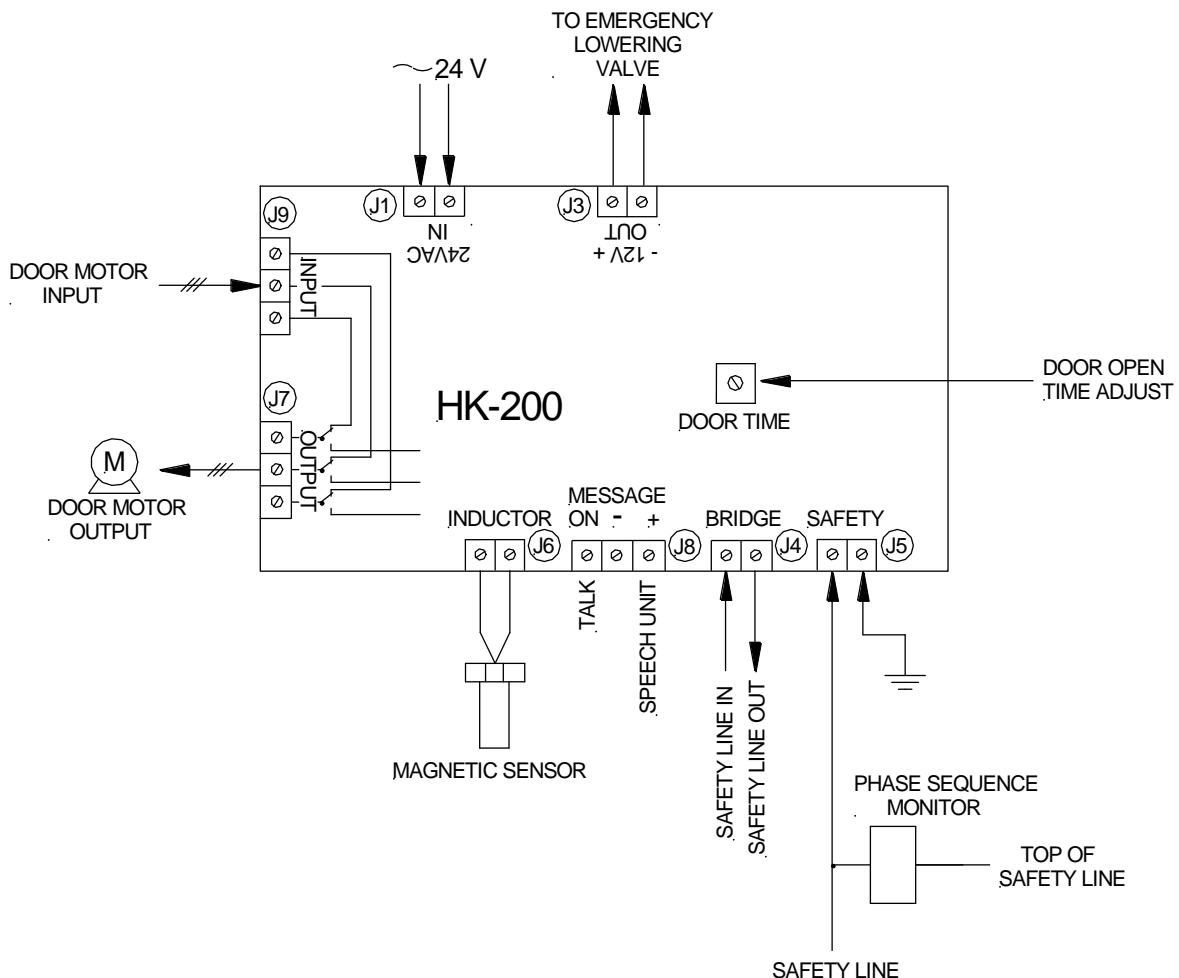
The system requires the following wiring:

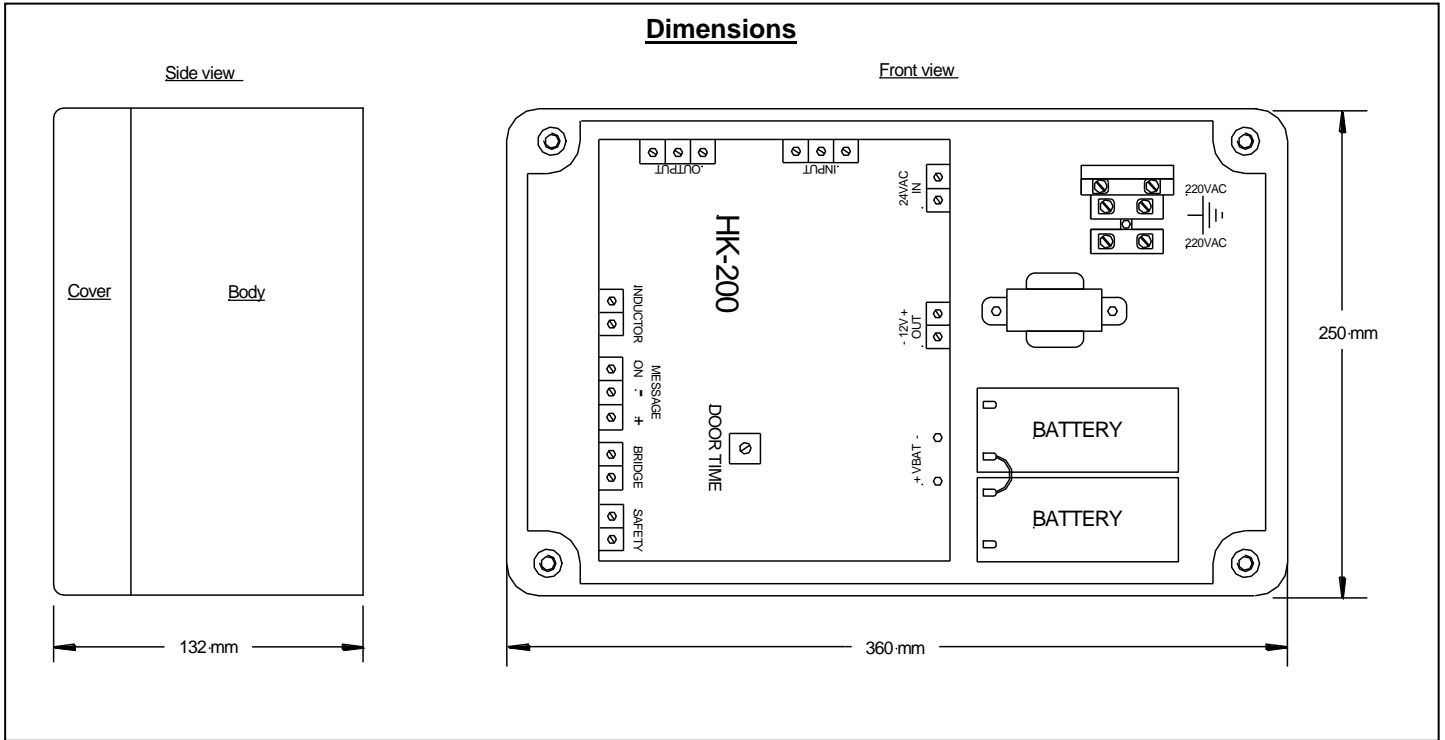
1. Supply voltage for battery charging.
2. Connection to safety line. For voltage monitoring.
3. Connection to magnetic sensor.
4. Connection to speech unit. (Option)
5. Passing safety line through HK 200. (J4)

Specification

1.	Motors Supported	3 phase induction (asynchronous) 127 VAC, 220 VAC, 380 VAC.
2.	Output Wave Form	3 phase reconstructed sine wave.
3.	Output Power to Motor	90 Watt max.
4.	Motor Moment	95% of nominal motor moment.
5.	Isolation Voltage	2 KV, motor conductors to HK 200.
6.	Safety Line Voltage	60 – 110 V AC/DC
7.	Magnetic Sensor	N.O. (Normally Open)
8.	Door Open Time	5 –25 Sec. Adjusted by R23.
9.	Battery	24V, 1.3 Vah lead acid.
10.	Battery Charge Method	Float Charge.
11.	Battery Protection	Over charge, over discharge.
12.	Power Failure Detection	Monitors safety line.
13.	Auxiliary Output	Speech unit.
14.	Output for Emergency Valves	12V, 1.8A

BLOCK DIAGRAM





Ordering Information

HK-200	Automatic Emergency Door Opening System.
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