

ERSC-Series
Non-Contact Secondary Short-circuit
Controller

Operating manual



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Table Contents

1. Instruction	2
2. Features	2
3. Application	2
4. Denomination	2
5. Product Type	3
6. Specification	4
7. Dimension	
7-1. Case I Type	4
7-2. Case II Type	5
7-3. Case III Type	5
7-4. Case V Type	6
8. Power circuit diagram	6
9. Internal connection diagram	7
10. Wiring diagram	7
11. Caution for operation	9

1. Instruction

In the speed control method of a wound-wire induction motor, a secondary resistance control method for controlling a slip (speed) by connecting a resistor from the outside of the secondary side (rotor) and a method for controlling both the primary voltage and the secondary side resistance of the motor are generally used. It is used.

In this control method, it is necessary to use a magnetic contactor to change the resistance value. When using the magnetic contactor, the frequency of open and close frequently occurs, and it takes a lot of time to repair or replace the contact point. And it makes many losses such as efficient maintenance of maintenance and lower productivity.

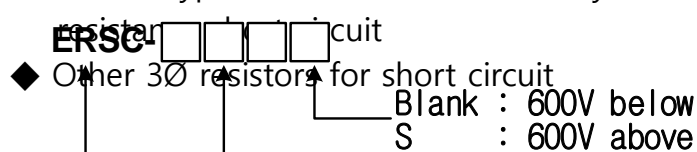
HANME TECHWIN Secondary Resistance Short-circuit Controller (hereinafter referred to as ERSC-Series) uses semiconductor devices instead of electromagnetic contactors to greatly improve facility management efficiency and productivity.

2. Features

- ◆ Operation status can be checked with LED
- ◆ Stable operating characteristic regardless of the variation of the primary voltage
- ◆ Prevent burn-out due to overheating of control element
- ◆ Efficient cooling fan control function
- ◆ Connection of forward and reverse parallel SCR by DELTA method
- ◆ Select controller as many steps as required

3. Application

- ◆ Wound type electric motor Secondary side (rotor) External



4. Denomination

Rated current (A)
Secondary resistance controller

5. Product Type

5-1. 1 stage

NO	Type	Rated current[A]	CASE size(Type)	Remarks
1	ERSC-050	50	I	
2	ERSC-100	100	I	
3	ERSC-125	125	II	
4	ERSC-150	150	II	
5	ERSC-200	200	III	
6	ERSC-250	250	III	
7	ERSC-300	300	III	
8	ERSC-350	350	III	
9	ERSC-400	400	III	
10	ERSC-500	500	IV	
11	ERSC-600	600	IV	
12	ERSC-800	800	IV	

- ☞ When the secondary rated voltage is 600V or more, it is an order specification.
- ☞ ERSC-500 and above are custom specifications.
- ☞ The appearance and dimensions above may be altered for enhanced functionality.

5-2. 4 stages

- It is a product made of one unit with 4 stages which is the basic structure of secondary resistance control. PCB and internal configuration are the same.

NO	Type	Rated current[A]	CASE size(Type)	Remarks
1	ERSC-4050-4	50	V	
2	ERSC-4100-4	100	V	
3	ERSC-4125-4	125	V	
4	ERSC-4150-4	150	V	

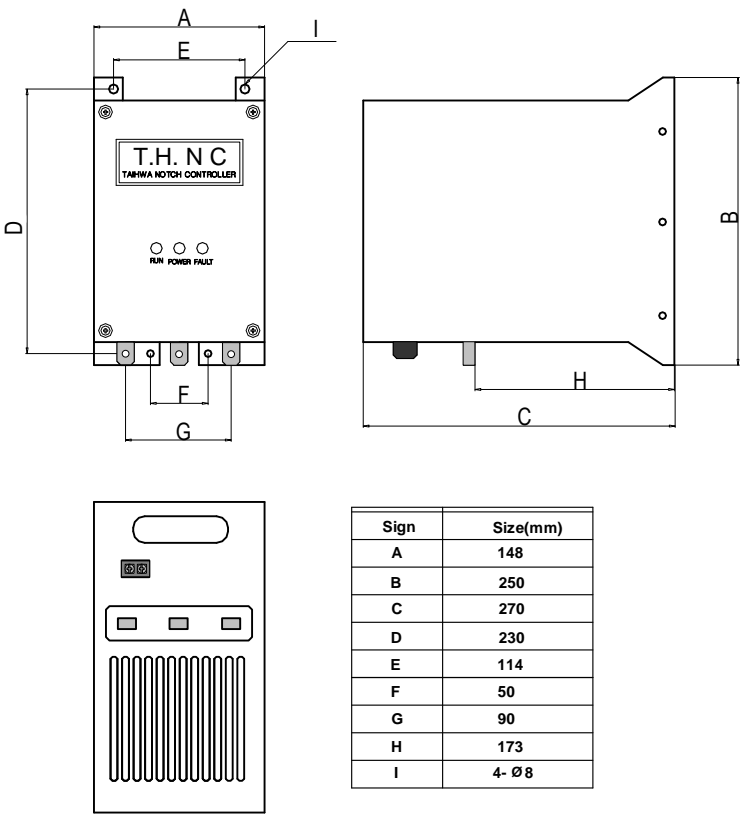
- ☞ When the secondary rated voltage is 600V or more, it is an order specification.
- ☞ ERSC-4150-4 and above are custom specifications.
- ☞ The appearance and dimensions above may be altered for enhanced functionality.

6. Specification

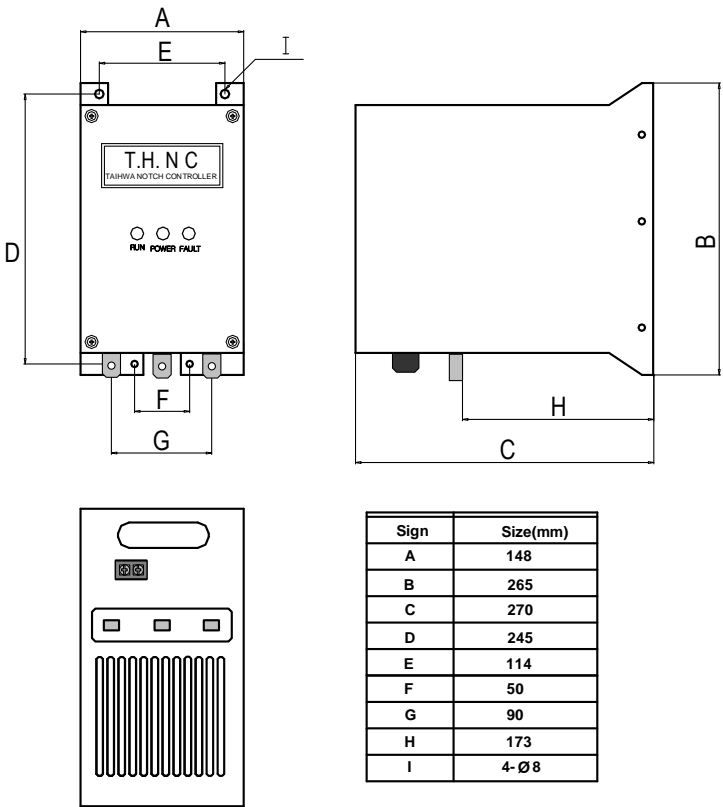
NO	Item	Contents
1	Operating power	AC 90V ~ AC 260V
2	FAN power	AC 220V / 110V or DC24V
3	Ambient temperature	-20 ~ +85°C
4	Location	Indoors (corrosive gas, dust free)
5	Humidity	90% RH or less (no condensation)
6	Cooling system	Natural cooling by heat sink or forced cooling by cooling fan
7	THERMOSTAT	85°C Normal Close

7. DIMENSION

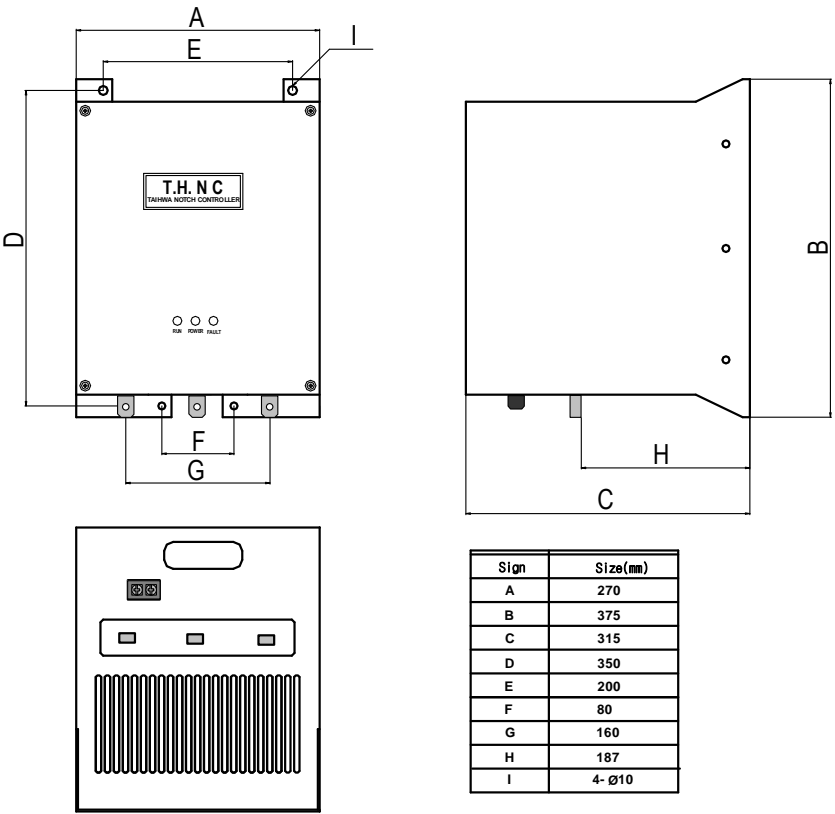
7-1. CASE TYPE I



7-2. CASE TYPE II

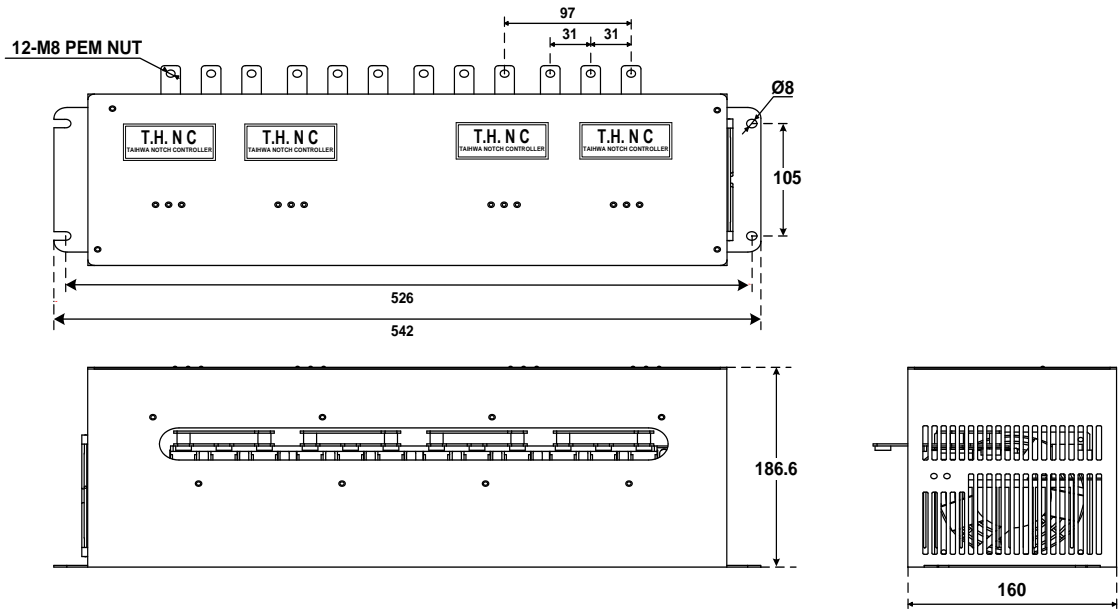


7-3. CASE TYPE III

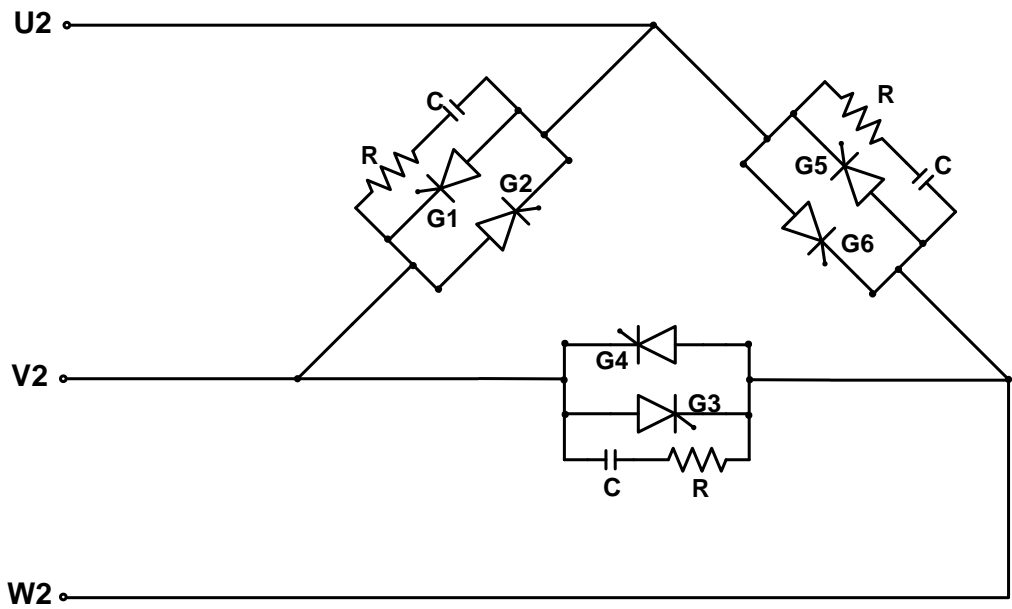


Non-Contact Secondary Short-circuit Controller

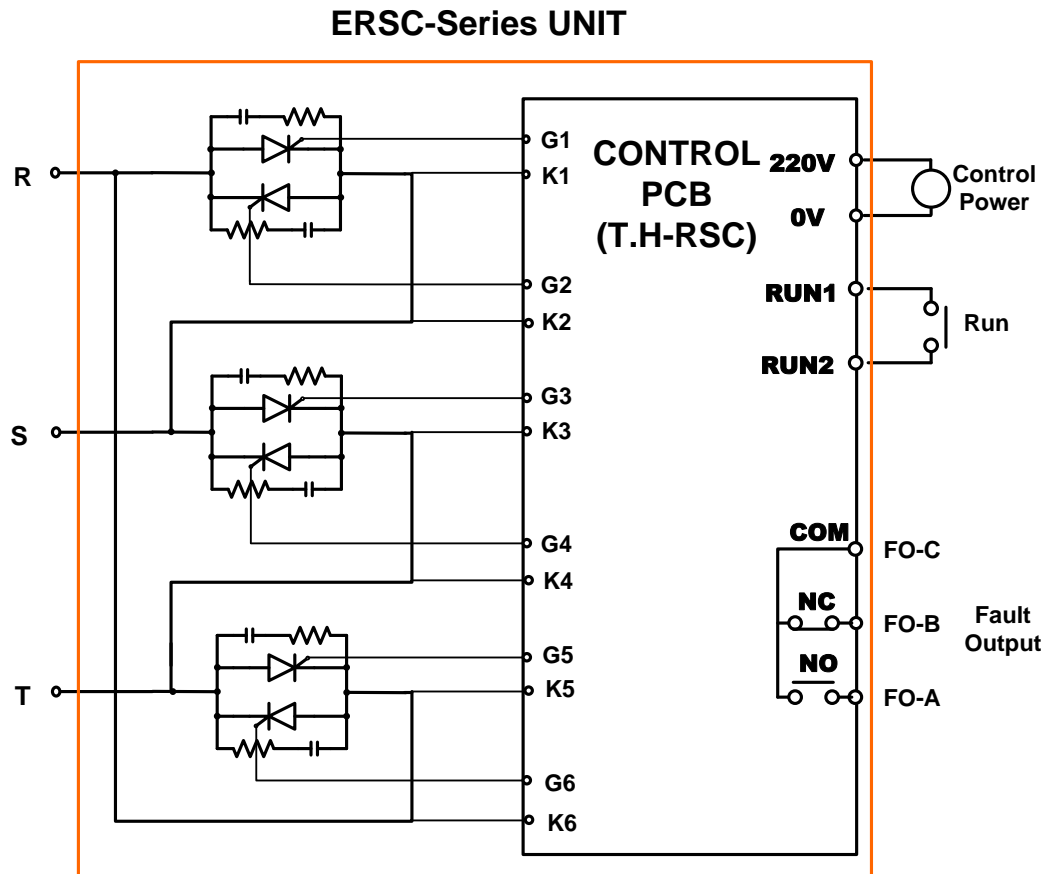
7-4. CASE TYPE V



8. Power circuit diagram

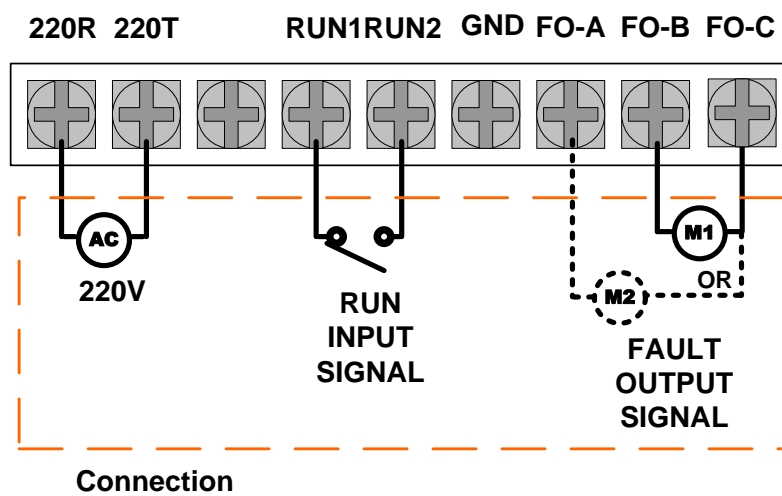


9. Internal connection diagram

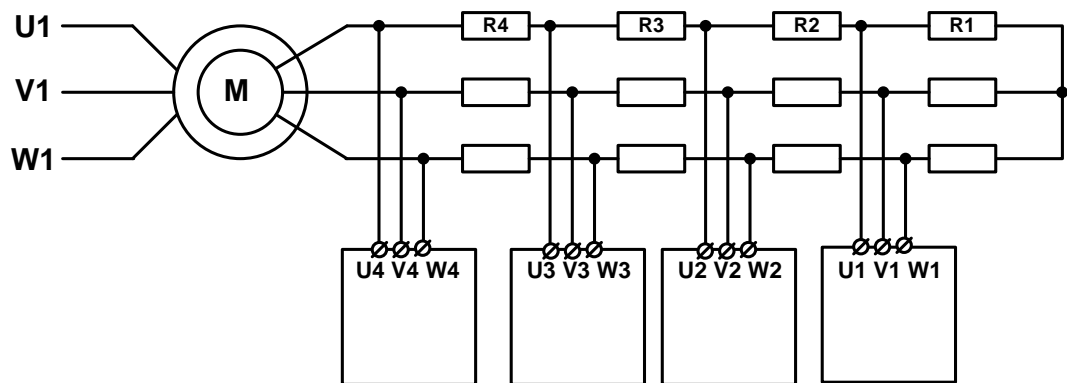


10. Wiring diagram

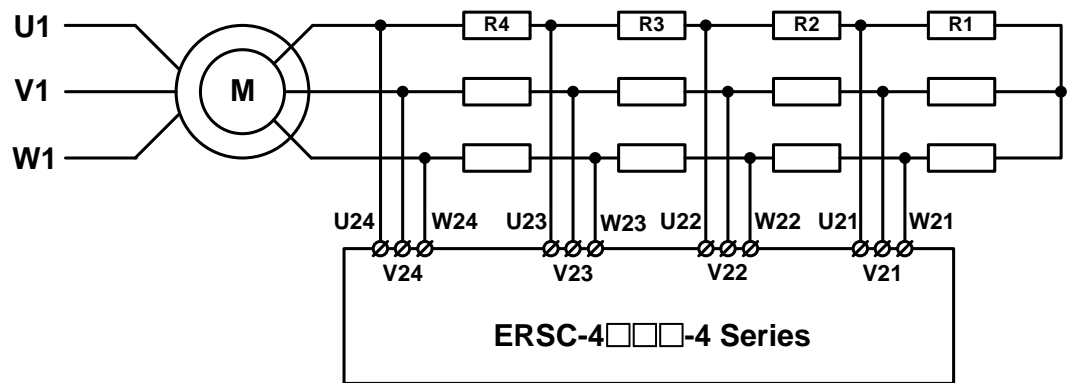
10-1. PCB Wiring diagram



10-2. Unit Wiring diagram



(STACK Step1)



(STACK Step4)

11. Caution for operation

- ◆ This product contains sensitive electronic components. Opening the lid of the product and touching the electronic components at will is dangerous and may cause a fatal malfunction.
- ◆ Be sure to turn off the power during maintenance and inspection.
- ◆ When checking the terminal block, check that the terminal is properly installed.
- ◆ Avoid moisture and organic matter in electronic equipment, and keep dust and other foreign matter from entering.
- ◆ Although this product is designed to withstand noise and surge in power supply, excessive noise, surge, etc. may cause abnormal operation. Please use stable power as much as possible.
- ◆ Avoid installation where vibration and impact are large.
- ◆ Avoid tightly closed places and places with excessive temperature rise.
- ◆ If any information not described in this manual is displayed, please contact our laboratory (031-498-9270).