



General

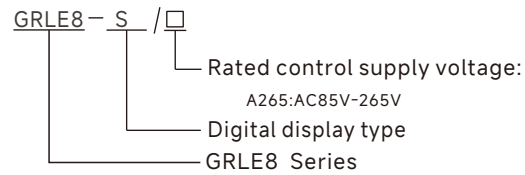
■ Applications

-Used for monitoring and measuring residual current in single-phase/ three-phase power systems.

■ Function Features

- Type A true RMS measurement.
- ZCT detection.
- LCD display, various parameters can be set through key.
- Test and Reset via front/remote.
- 2×SPDT relay output.
- DIN rail mounting.

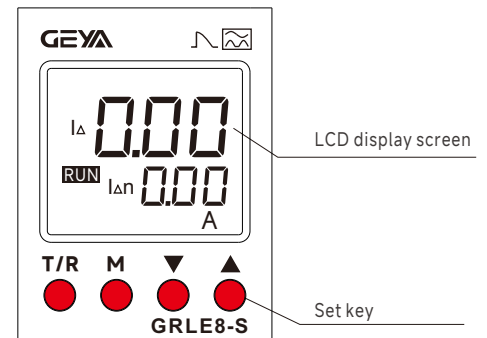
■ Model and connotation



Technical parameters

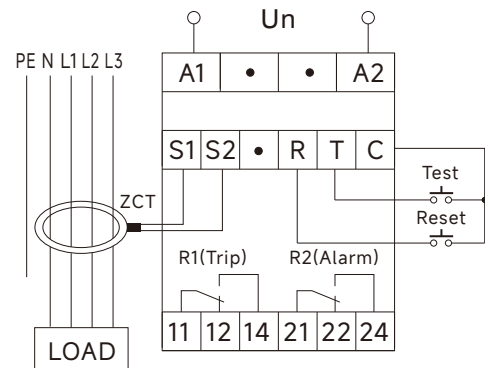
	GRLE8-S
Function	Earth leakage Relay
Supply terminals	A1-A2
Voltage range	AC85-265V 50/60Hz
Burden	3VA
Operation range	30mA to 30A
Trip level limits	85% of setvalue
Trip time delay	0 to 99.9sec
Power on time delay	0.5 to 99.9sec
Reset time	~2sec
Response time	≤30ms (if trip current≥5×setvalue) ≤50ms (if trip current=1×setvalue)
Hysteresis	5 to 40% of trip level
ZCT detection	absent or short
Accuracy	Trip: ±5% of set trip current Time: ±5% of set time±50ms
Reset mode	Manual/Auto reset
Output	2×SPDT
Current rating	10A/AC1
Switching voltage	250VAC/24VDC
Min.breaking capacity DC	500mW
Mechanical life	1×10 ⁷
Electrical life(AC1)	1×10 ⁵
Operating temperature	-20°C~+55°C
Storage temperature	-35°C~+75°C
Humidity	Up to 95% RH(non-condensing)
Mounting/DIN rail	Din rail EN/IEC 60715
Protection degree	IP20
Operating position	any
Overvoltage category	III.
Pollution degree	2
Max.cable size(mm ²)	1×2.5mm ² or 2×1.5mm ² 0.4N-m
Dimensions	90mm×36mm×64mm
Weight	118g
Standards	IEC 60947-2

Panel diagram



	Test and reset button
	Press and hold the setting key for 3 seconds to enter the setting. After modifying the setting, press and hold for 3 seconds to save the setting.
	Used to decrease values when setting parameters.
	Used to increase values when setting parameters.

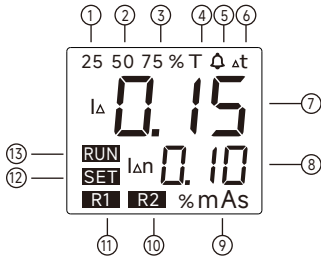
Wiring diagram



NOTE:

- 1.The cable connecting ZCT and the product should use shielded cable or twisted pair cable (≥ 1m).
- 2.The cable for remote control of "test" and "reset" should be ≤ 10m.

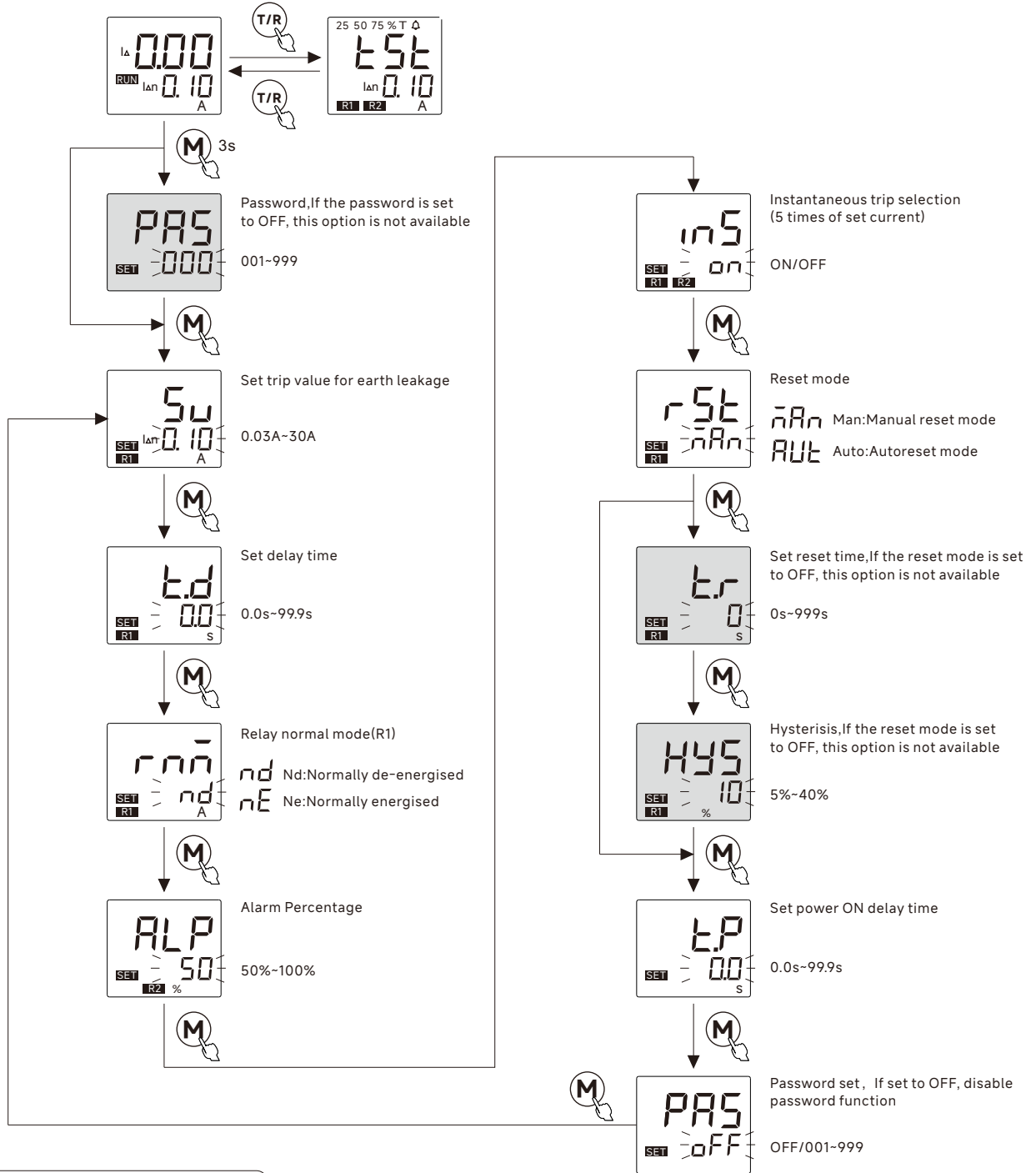
Display description



- ① For leakage current level $\geq 25\%$, continuously ON.
- ② For leakage current level $\geq 50\%$, continuously ON.
- ③ For leakage current level $\geq 75\%$, continuously ON.
- ④ Control Output (Trip) Indication.
- ⑤ Alarm Indication.
- ⑥ Delay Time Run indication.
- ⑦ Current residual current value.

- ⑧ Residual current action value.
- ⑨ Units display.
- ⑩ R2 contact action indication.
- ⑪ R1 contact action indication.
- ⑫ Display in parameter setting state.
- ⑬ Display in run state.

Parameter setting



NOTE:
 Short press \blacktriangledown \blacktriangle to increase or decrease the value, long press can be quickly set. If 60 seconds does not operate the key, it will exit automatically. You can press the **M** for 3 seconds at any time to exit the and save the setting.

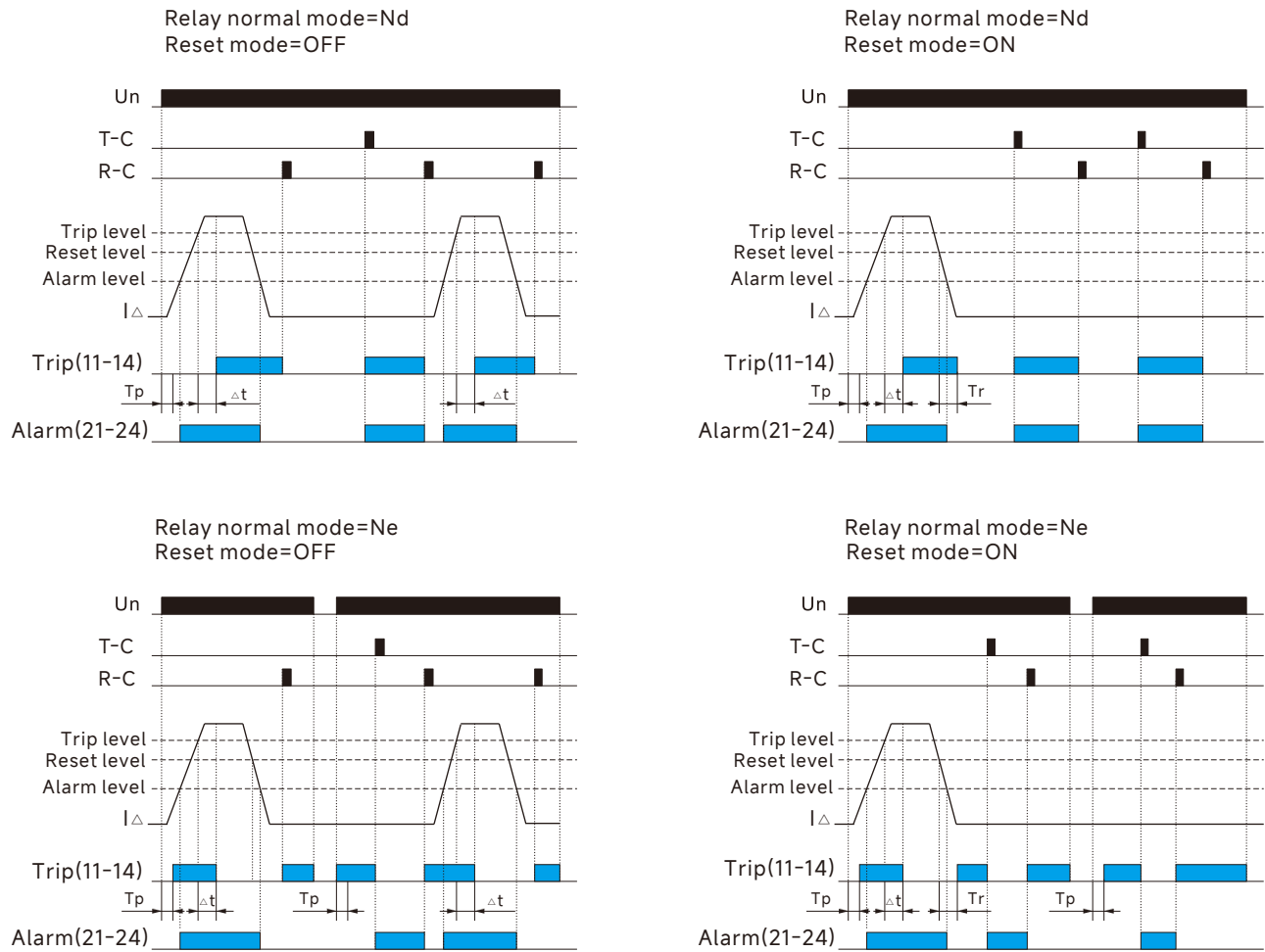
NOTE:
 In RUN mode, you can restore factory settings by simultaneously holding down \blacktriangledown and \blacktriangle 10 seconds, or you can clear the password through this operation.

Function

1. Test mode

The unit can be placed into a fault condition by pressing the "T/R" button on the front of the unit, it can also be tested by remotely short circuiting the T-C terminal and resetting the R-C terminal.

2. Function diagram

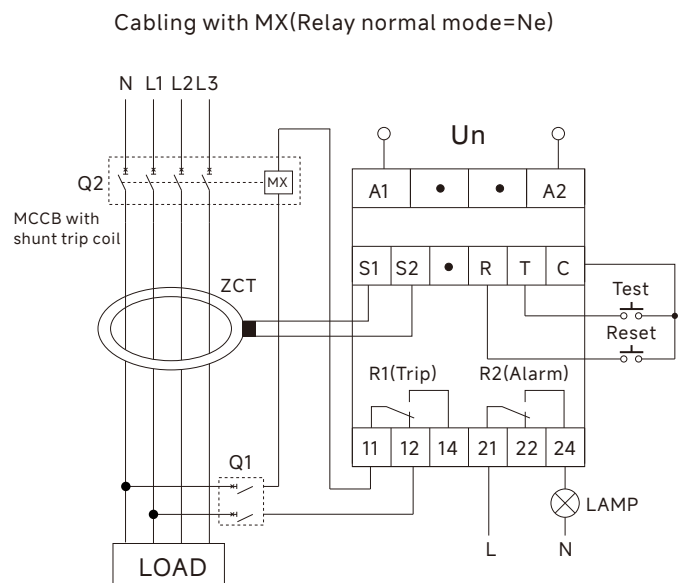
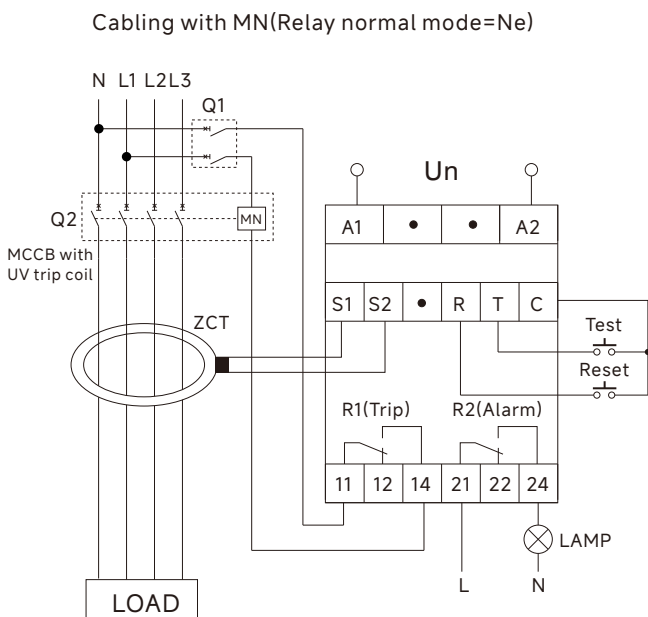


NOTE:

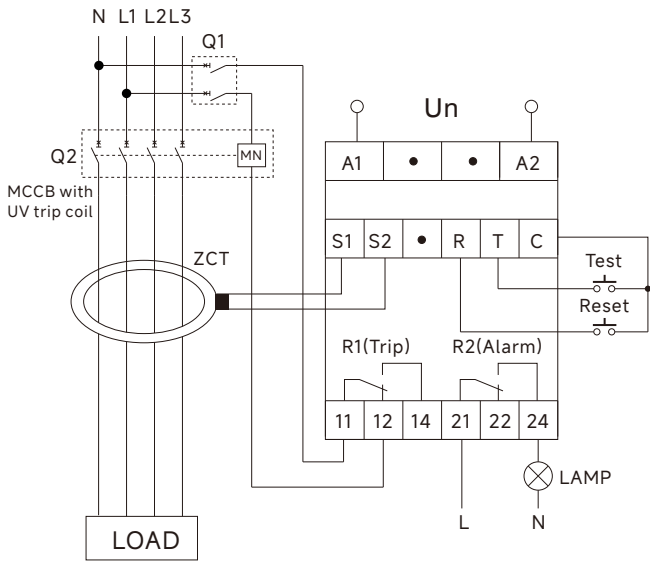
1. When $I_{\Delta n}$ is set to 0.03A, Δt is forced to be 0.
2. Alarm Relay Hysteresis is 10% of set alarm leakage current value.

T_p : power on delay time
 T_r : reset delay time

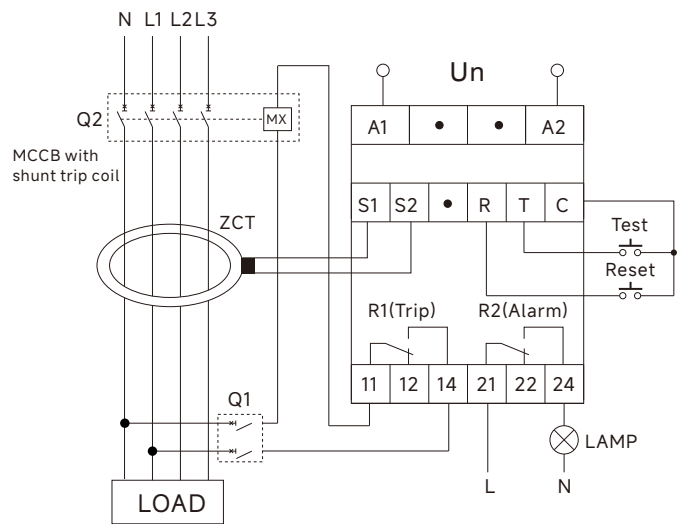
Connection diagram application



Cabling with MN(Relay normal mode=Nd)



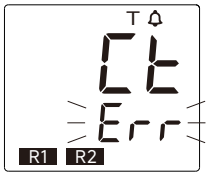
Cabling with MX(Relay normal mode=Nd)



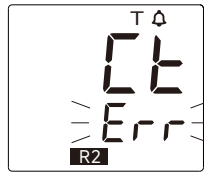
ZCT fault detection

When an open or short circuit is detected in ZCT, the display will be as follows:

Relay normal mode=Nd



Relay normal mode=Ne



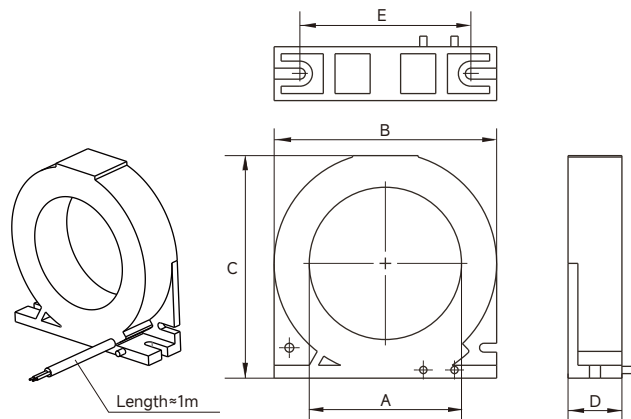
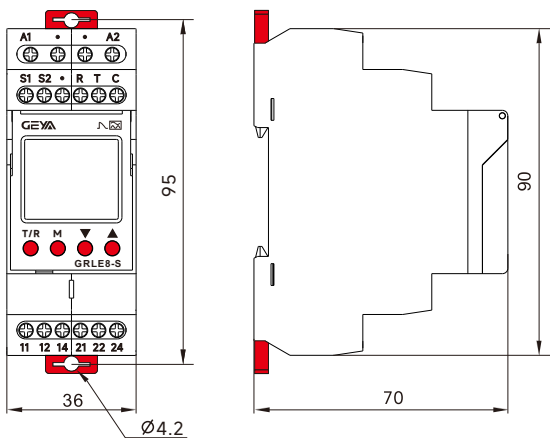
Accessory

TYPE	I _{max}	Dimensions(mm)					Weight (kg)
		A	B	C	D	E	
ZCT26AL	63A	∅26	51	45.6	18	395	0.063
ZCT45AL	100A	∅45	75	75.5	25.5	61	0.144
ZCT63AL	225A	∅63	96	100	25	76	0.190
ZCT80AL	400A	∅80	120	126	25	100	0.397
ZCT100AL	630A	∅100	140	146	25	118	0.583
ZCT150AL	1000A	∅150	200	205	30	170	0.895
ZCT200AL	1250A	∅200	240	247	40	210	1.2

NOTE:

- 1.ZCT need to purchase separately.
- 2.Please refer to ZCT datasheet for detailed technical parameters.
- 3.If you need ZCT in other shapes, please contact us.

Dimensions(mm)



Disposal of Electrical Waste
All electrical waste should be disposed of in compliance with current WEEE regulations.



Caution

The products must be installed by qualified electricians. All and any electrical connections of the time relay shall comply with the appropriate safety standards.