



### Character

- ◇ 90A three sets of contacts switching capability
- ◇ Apply to State Grid three-phase meter
- ◇ Only impulse excitation needed, both for single and double coil.
- ◇ Low power consumption, small in size
- ◇ Custom assemblies available with flexible wire and/or copper straps, and/or with integrated shunt
- ◇ 4KV dielectric strength between coil and contacts
- ◇ RoHS compliant
- ◇ IEC62055-31 UC2 compliant
- ◇ Outline dimensions: (98 x 41 x 36) mm

### Contact Data

Contact Form	3B	
Contact Material	AgSnO <sub>2</sub>	
Contact Resistance	Max.1.0mΩ (1A 6VDC)	
Rated Load(Resistive)	90A 250VAC	
Max. Switching Voltage	380VAC	
Max. Switching Current	90A	
Max. Switching Power	22500VAC	
Service Life	Mechanical Endurance	1×10 <sup>7</sup> OPS
	Electrical Endurance	6×10 <sup>7</sup> OPS
Max. Short-circuit Current		2500A/10ms
		4500A/10ms(no explosion)

### Characteristics

Operate Time	40ms Max.	
Release Time	40ms Max.	
Insulation Resistance (500VDC)	1000MΩ Min.	
Dielectric Strength (50/60hz, 1min)	Contact to Coil	4000VAC
	Across Open Contacts	2000VAC
	Contact to contact	4000VAC
Surge Voltage (1.2/50 μ s)	Contact to Coil	20KVAC
Creepage Distance	8mm	
Unit Weight	About 245g	

### Environmental Data

Ambient Temperature	-40°C ~ +70°C	Relative Humidity	5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	98m/s <sup>2</sup>

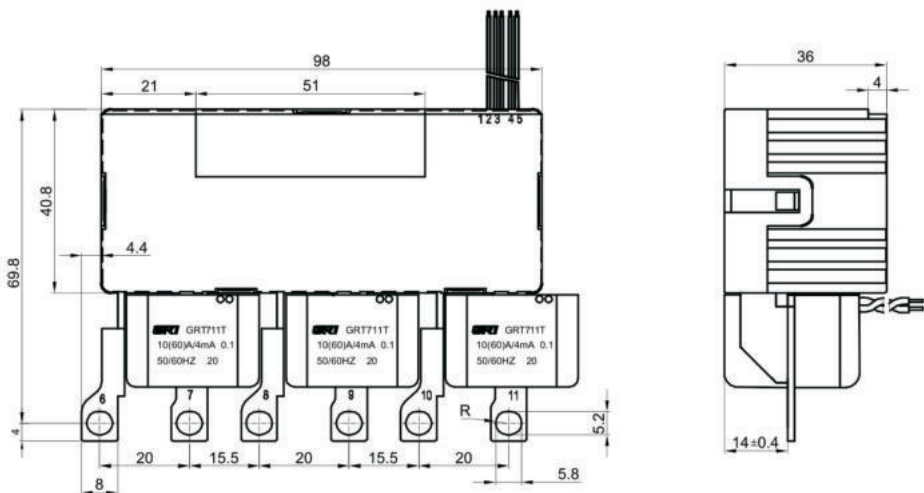
### Coil Data (20°C)

Coil Voltage (VDC)	Coil Resistance( $\Omega$ ) $\pm 10\%$		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
<input type="checkbox"/> 9	27	13.5/13.5	3.0	6.0	$\leq 6.3$	$\leq 6.3$	13.5	$\geq 100$
<input type="checkbox"/> 12	48	24/24			$\leq 8.4$	$\leq 8.4$	18	
<input type="checkbox"/> 24	192	96/96			$\leq 16.8$	$\leq 16.8$	36	
<input type="checkbox"/> 48	768	384/384			$\leq 33.6$	$\leq 33.6$	72	

### Ordering information

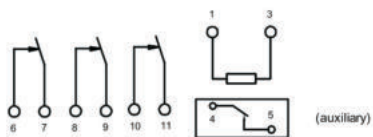
GRT508FA	90A	3B	12VDC	S	XX	Terminal type:	Custom design
						Coil type:	S: single coil D: double coil
						Coil voltage:	6, 9, 12, 24, 48V
						Contact form:	3B: three sets of contacts remain closed
						Contact current:	90A
						Relay Series:	GRT508FA

### Dimensional Drawings/Wiring Diagrams(unit:mm)



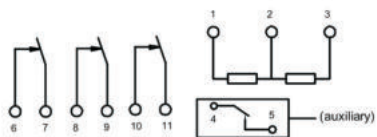
Note: No tolerance marked. If dimension  $\leq 1$ mm, the tolerance is  $\pm 0.2$ mm; if dimension 1-5mm, the tolerance is  $\pm 0.3$ mm; if dimension  $\geq 5$ mm, the tolerance is  $\pm 0.5$ mm.

### single coil



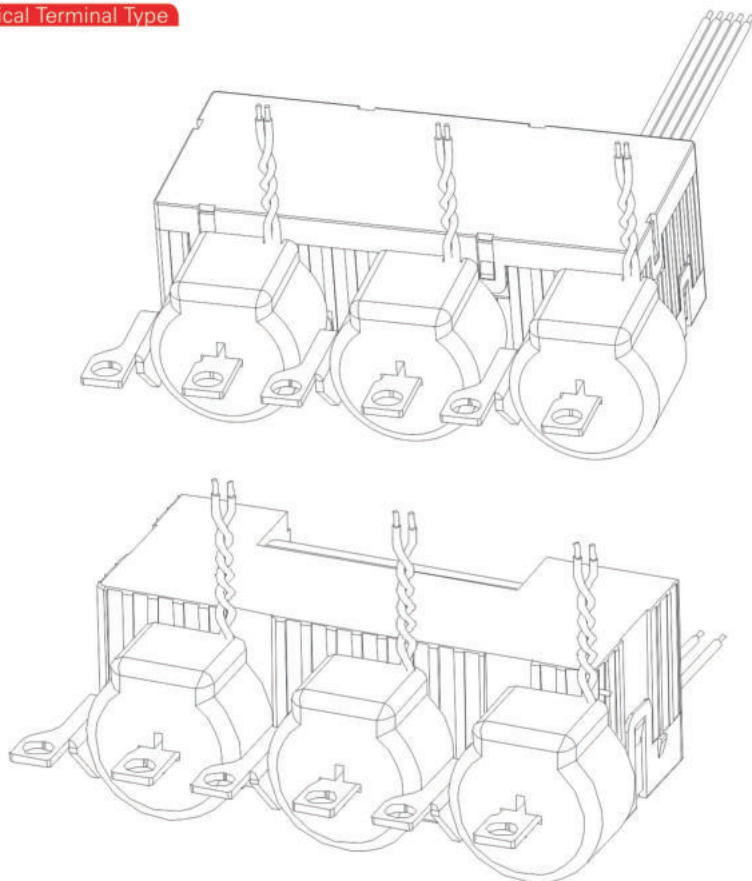
1(+)/3(-) 6-7 8-9 10-11 Release(Open)  
3(+)/1(-) 6-7 8-9 10-11 Operate(Close)  
4-5 auxiliary test contacts (optional choice)

### Double coil



1(+)/2(-) 6-7 8-9 10-11 Release(Open)  
3(+)/2(-) 6-7 8-9 10-11 Operate(Close)  
4-5 auxiliary test contacts (optional choice)

### Typical Terminal Type



### Typical application

- Smart Meter
- Power Composite Switch