



### Character

- ◇ 80A three sets of contacts switching simultaneously, auxiliary contact can be added
- ◇ Only impulse excitation needed, both for single and double coil.
- ◇ 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: (100 x 45 x 21) mm

### Contact Data

Contact Form	3B	
Contact Material	AgSnO <sub>2</sub>	
Contact Resistance	Max.1.0mΩ (1A 6VDC)	
Rated Load(Resistive)	80A 250VAC	
Max. Switching Voltage	380VAC	
Max. Switching Current	80A	
Max. Switching Power	20000VA	
Service Life	Mechanical Endurance	1×10 <sup>6</sup> OPS
	Electrical Endurance	6×10 <sup>3</sup> OPS
Max. Short-circuit Current	2500A/10ms	
	4500A/10ms (no explosion)	

### Characteristics

Operate Time	30ms Max.	
Release Time	30ms 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 μs)	Contact to Coil	12KVAC
Creepage Distance	8mm	
Unit Weight	About 200g	

### Environmental Data

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

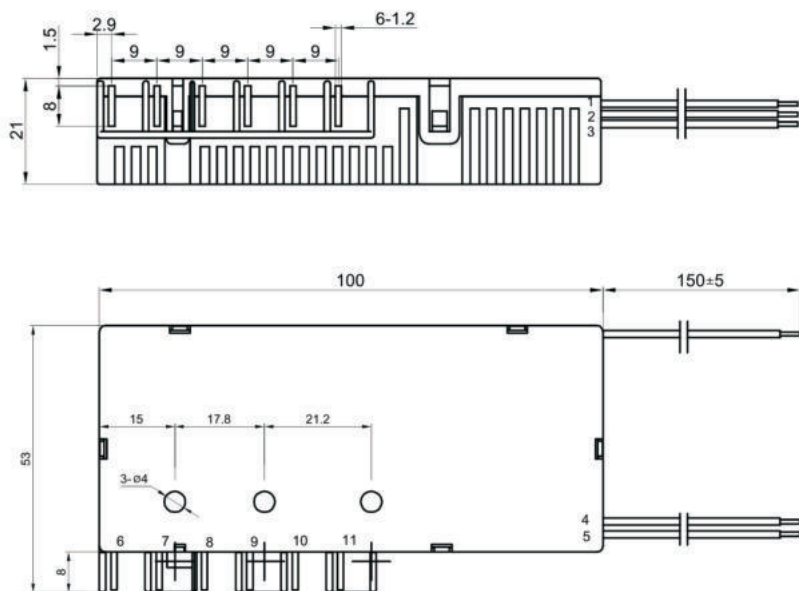
### Coil Data (20°C)

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			$\leq 6.3$	$\leq 6.3$	13.5	
<input type="checkbox"/> 12	48	24/24	3.0	6.0	$\leq 8.4$	$\leq 8.4$	18	$\geq 90$
<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

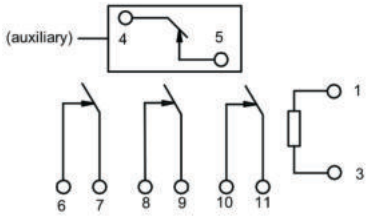
Code	Description
GRT508M	Relay Series
80A	Contact current
3B	Contact form: 3B:three sets of contacts remain closed
12VDC	Coil voltage: 9, 12, 24, 48V
S	Coil type: S: single coil D: double coil
XX	Terminal type: Custom design

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



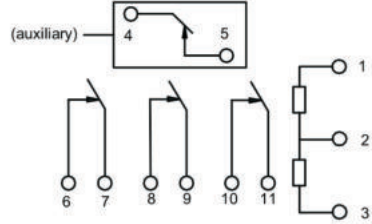
Note: No tolerance marked. If dimension  $\leq 1$ mm, the tolerance is  $\pm 0.2$ mm; if dimension 1-5mm, the tolerance is  $\pm 0.3$ mm; if dimension  $\geq 5$ mm, the tolerance is  $\pm 0.5$ mm.

### single coil



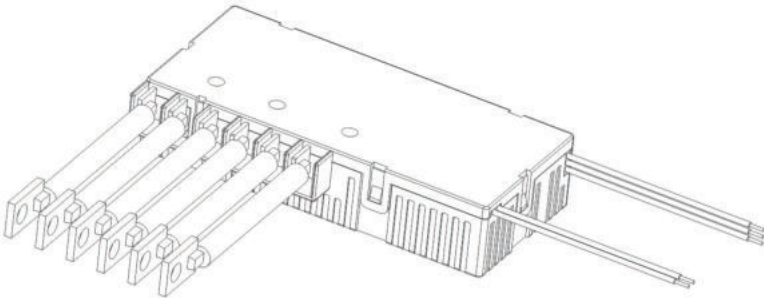
1 (+) 3 (-) 4-5, 6-7, 8-9, 10-11 Release(Open)  
3 (+) 1 (-) 4-5, 6-7, 8-9, 10-11 Operate(Close)  
4-5 auxiliary test contacts (optional choice)

### Double coil



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

### Typical Terminal Type



### Typical application

- Smart Meter