Zhejiang Great Electrical Co., Ltd

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POWER LATCHING RELAY

—— CATALOGUE ——

Although this catalogue has been checked several times for correctness, it is for reference only, and the actual product shall prevail.



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ISO9001-2000 ISO14001:2004 OHSAS 18001:2007

ABOUT GREAT

Zhejiang Great Electrical Co., Ltd. is located in Yaozhuang Town, Jiashan County, Zhejiang Province, the core demonstration area of the Yangtze River Delta. It is a national high-tech enterprise specializing in the research and development, production and sales of latching relays, miniature current transformers and manganese copper shunts.

The company has passed ISO9001-2015 quality system, ISO14001:2015 environmental management system and OHSAS18001:2007 occupational health and safety management system certifications, and its main products have passed CQC, VDE, TUV, UL, ROHS and other product certifications. Since its establishment in 2003, the company has a number of inventions and utility model patents for latching relays and current transformers. It is one of the drafters of industry standards JB/T10923 "Latching Relays for Electronic Energy Meters", JB/T10665 "Miniature Current Transformers for Electric Energy Meters" and JB/T10667 "Miniature Voltage Transformer for Electric Energy Meter" .

The company has its own factory covering an area of 50,000 square meters, equipped with multiple automated production lines and full-process testing and experimental equipment. It produces over 50 series and hundreds of specifications of products, with an annual output of more than 50 million magnetic latching relays and over 6 million current transformers. The company's products are sold throughout the country and in more than ten countries and regions in Europe, America and Asia. It has established long-term and stable cooperative relationships with many first-class electricity meter enterprises at home and abroad. Through unremitting efforts, the company has successfully advanced into the international high-end market of the industry and enjoys a high reputation and influence within the industry.

In the increasingly competitive global market, the company adheres to the principle of "people-oriented, honesty and trustworthiness" to create a win-win situation with all partners.





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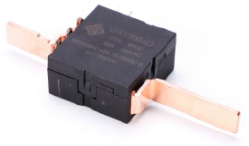
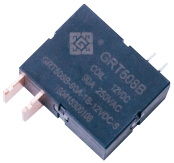
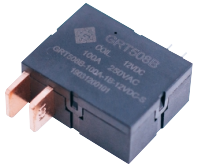
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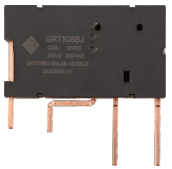
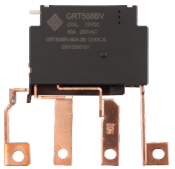
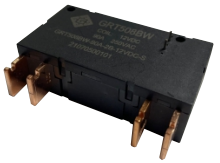


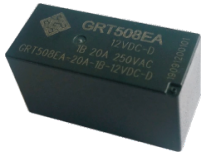
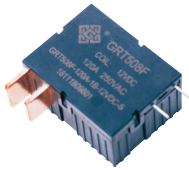


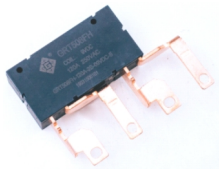
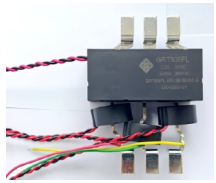
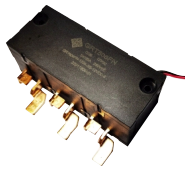


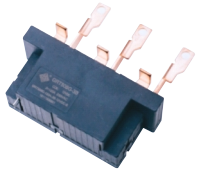
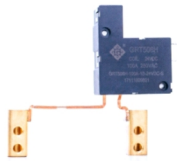


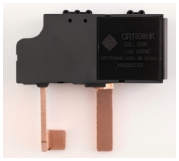
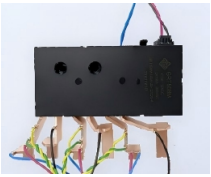
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Contact Data	Rated Load (resistive)		80A 250VAC	60A 250VAC	90A 250VAC	100A 250VAC
	Contact Form		1B	1B	1B	1H/1B
	Contact Material		$AgSnO_2$	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
	Contact Resistance (1A 6VDC)		Max.1.0mΩ	Max.1.0mΩ	Max.1.0mΩ	Max.1.0mΩ
	Max. Switching Current		80A	60A	90A	100A
	Max. Switching Voltage		250VAC	250VAC	250VAC	250VAC
	Max. Switching Power		20KVA	15KVA	22.5KVA	25KVA
Coil Data	Coil Voltage		(5~48)VDC	(5~48)VDC	(5~48)VDC	(5~48)VDC
	Coil Power		1.5W,3.0W	1.5W, 3.0W	1.5W, 3.0W	Normal2.0W,4.0W / Low-power1.5W,3.0W
Service Life	Mechanical		$1X10^5$	$1X10^5$	$1X10^5$	$1X10^5$
	Electrical		60A $1X10^4$ ‖ 80A $3X10^3$	$1X10^4$	$1X10^4$	100A $5X10^3$ ‖ 80A $1X10^4$
	Max. Short-Circuit Current		1500A/10ms	2500A/10ms	2500A/10ms	2500A/10ms
Characteristics	Max. Operate/Release Time		20ms	20ms	20ms	20ms
	Min. Insulation Resistance (500VDC)		1000MΩ	1000MΩ	1000MΩ	1000MΩ
	Dielectric Strength (50/60 Hz, 1Min)	Contact & Coil	4000VAC	4000VAC	4000VAC	4000VAC
		Contact & Contact	2000VAC	2000VAC	2000VAC	2000VAC
		Pole & Pole	\	\	\	\
Ambient Temperature			-40°C～+85°C	-40°C～+85°C	-40°C～+85°C	-40°C～+85°C
Installation form			Fast Connection	Fast Connection	Fast Connection	Fast Connection
Unit Weight			40g	37g	40g	45g
Security Certification			\	\	UC2	UC2
Page			17	20	23	26

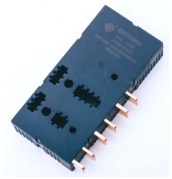
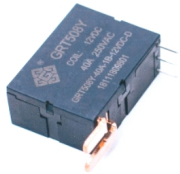
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Dimension (mm)			38X30X16.5	64X36.5X18.3	52.5X35X17.7	55.6X30X16.5
Contact Data	Rated Load (resistive)		90A 250VAC	90A 250VAC	80A 250VAC	80A 250VAC
	Contact Form		1B	2B	2B	2B
	Contact Material		$AgSnO_2$	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
	Contact Resistance (1A 6VDC)		Max.1.0mΩ	Max.1.0mΩ	Max.1.0mΩ	Max.1.0mΩ
	Max. Switching Current		90A	90A	80A	80A
	Max. Switching Voltage		250VAC	250VAC	250VAC	250VAC
	Max. Switching Power		22.5KVA	22.5KVA	20KVA	20KVA
Coil Data	Coil Voltage		(5~48)VDC	(5~48)VDC	(5~48)VDC	(5~48)VDC
	Coil Power		1.5W,3.0W	3.0W,6.0W	3.0W,6.0W	3.0W,6.0W
Service Life	Mechanical		$1X10^5$	$1X10^5$	$1X10^5$	$1X10^5$
	Electrical		$1X10^4$	$1X10^4$	$1X10^4$	$1X10^4$
	Max. Short-Circuit Current		2500A/10ms	2500A/10ms	2500A/10ms	2500A/10ms
Characteristics	Max. Operate/Release Time		20ms	30ms	30ms	40ms
	Min. Insulation Resistance (500VDC)		1000MΩ	1000MΩ	1000MΩ	1000MΩ
	Dielectric Strength (50/60 Hz, 1Min)	Contact & Coil	4000VAC	4000VAC	4000VAC	4000VAC
		Contact & Contact	2000VAC	2000VAC	2000VAC	2000VAC
		Pole & Pole	\	4000VAC	4000VAC	4000VAC
Ambient Temperature			-40°C～+85°C	-40°C～+85°C	-40°C～+85°C	-40°C～+85°C
Installation form			Fast Connection	Fast Connection	Fast Connection	Fast Connection
Unit Weight			40g	100g	60g	59.2g
Security Certification			\	\	\	\
Page			29	32	35	38

TYPE			GRT508EA	GRT508F	GRT508FA	GRT508FA-3B
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Dimension (mm)			29X12.7X15.7	42X32X20.8	39.1X31.9X17	98X40.8X36
Contact Data	Rated Load (resistive)		16A/20A 250VAC ‖ 16A 250VAC	120A 250VAC	80A 250VAC	80A 250VAC
	Contact Form		1B ‖ 1C	1B/1H	1B	3B
	Contact Material		$AgSnO_2$	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
	Contact Resistance (1A 6VDC)		Max.50mΩ	Max.1.0mΩ	Max.1.0mΩ	Max.1.0mΩ
	Max. Switching Current		16A/20A ‖ 20A	120A	80A	80A
	Max. Switching Voltage		277VAC	250VAC	250VAC	380VAC
	Max. Switching Power		4KVA	30KVA	20KVA	20KVA
Coil Data	Coil Voltage		(5~24)VDC	(5~48)VDC	(5~48)VDC	(5~48)VDC
	Coil Power		0.5W,1.0W	3.0W,6.0W	1.0W,2.0W	3.0W,6.0W
Service Life	Mechanical		$1X10^5$	$1X10^5$	$1X10^5$	$1X10^5$
	Electrical		16A $1X10^5$/ 20A $6X10^4$ ‖ 16A $5X10^4$	120A $6X10^3$ ‖ 100A $1X10^4$	80A $6X10^3$ ‖ 60A $1X10^4$	80A $6X10^3$ ‖ 60A $1X10^4$
	Max. Short-Circuit Current		500A/2ms ‖ 200A/2ms	3000A/10ms	1800A/10ms	2500A/10ms
Characteristics	Max. Operate/Release Time		10ms	20ms	30ms	30ms
	Min. Insulation Resistance (500VDC)		1000MΩ	1000MΩ	1000MΩ	1000MΩ
	Dielectric Strength (50/60 Hz, 1Min)	Contact & Coil	4000VAC ‖ 2000VAC	4000VAC	4000VAC	4000VAC
		Contact & Contact	1000VAC ‖ 750VAC	2000VAC	1500VAC	2000VAC
		Pole & Pole	\	\	\	4000VAC
Ambient Temperature			-40°C～+70°C	-40°C～+85°C	-40°C～+70°C	-40°C～+85°C
Installation form			Fast Connection	Fast Connection	Fast Connection	Fast Connection
Unit Weight			11g	65g	40g	245g
Security Certification			\	UC3	CQC Certification Number:9001036713	UC2
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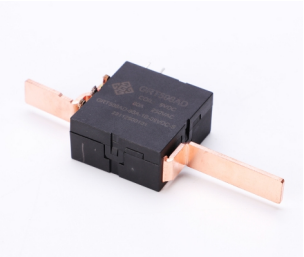
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Contact Data	Rated Load (resistive)		100A 250VAC	100A 250VAC	80A 250VAC	120A 250VAC
	Contact Form		1B	2B	3B	3B
	Contact Material		$AgSnO_2$	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
	Contact Resistance (1A 6VDC)		Max.1.0mΩ	Max.1.0mΩ	Max.1.0mΩ	Max.1.0mΩ
	Max. Switching Current		100A	120A	80A	120A
	Max. Switching Voltage		250VAC	250VAC	380VAC	250VAC
	Max. Switching Power		25KVA	25KVA	20KVA	30KVA
Coil Data	Coil Voltage		(9~24)VDC	(5~48)VDC	(5~48)VDC	(5~48)VDC
	Coil Power		1.2W,2.4W	4.0W,8.0W	3.0W,6.0W	3.0W,6.0W
Service Life	Mechanical		$1X10^5$	$1X10^5$	$1X10^5$	$1X10^5$
	Electrical		$6X10^3$	100A $1X10^4$ ‖ 120A $5X10^3$	60A $1X10^4$ ‖ 80A $6X10^3$	120A 230VAC $6X10^3$ 100A 230VAC $1X10^4$
	Max. Short-Circuit Current		2200A/10ms	3000A/10ms	1500A/10ms	3000A/10ms
Characteristics	Max. Operate/Release Time		30ms	40ms	30ms	40ms
	Min. Insulation Resistance (500VDC)		1000MΩ	1000MΩ	1000MΩ	1000MΩ
	Dielectric Strength (50/60 Hz, 1Min)	Contact & Coil	4000VAC	4000VAC	4000VAC	4000VAC
		Contact & Contact	2000VAC	2000VAC	2000VAC	2000VAC
		Pole & Pole	\	4000VAC	4000VAC	4000VAC
Ambient Temperature			-40°C～+70°C	-40°C～+85°C	-40°C～+85°C	-40°C～+85°C
Installation form			Fast Connection	Fast Connection	Fast Connection	Fast Connection
Unit Weight			62g	170g	155g	240g
Security Certification			\	\	\	UC2、UC3
Page			54	57	60	63

TYPE			GRT508G-3B	GRT508H	GRT508HA	GRT508HC
Picture						
Dimension (mm)			103X46.5X41.6	52X43X22	70X52X21.9	58X40X20.8
Contact Data	Rated Load (resistive)		120A 250VAC	120A 250VAC	100A 250VAC	100A 250VAC
	Contact Form		3B	1B	2B	1B
	Contact Material		$AgSnO_2$	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
	Contact Resistance (1A 6VDC)		Max.1.0mΩ	Max.1.0mΩ	Max.1.0mΩ	Max.1.0mΩ
	Max. Switching Current		120A	120A	100A	100A
	Max. Switching Voltage		380VAC	250VAC	250VAC	440VAC/28VDC
	Max. Switching Power		30KVA	30KVA	25KVA	25KVA/2.8KW
Coil Data	Coil Voltage		(5~48)VDC	(5~48)VDC	(5~48)VDC	(5~48)VDC
	Coil Power		7.0W,14.0W	3.0W,6.0W	4.0W,8.0W	2.25W,4.5W
Service Life	Mechanical		$1X10^5$	$5X10^5$	$1X10^5$	$1X10^5$
	Electrical		120A $6X10^3$ ‖ 100A $1X10^4$	120A $6X10^3$ ‖ 100A $1X10^4$	100A $6X10^3$ ‖ 80A $1X10^4$	$6X10^3$
	Max. Short-Circuit Current		3000A/10ms	3000A/10ms	3000A/10ms	1500A/10ms
Characteristics	Max. Operate/Release Time		60ms	30ms	40ms	25ms
	Min. Insulation Resistance (500VDC)		1000MΩ	1000MΩ	1000MΩ	1000MΩ
	Dielectric Strength (50/60 Hz, 1Min)	Contact & Coil	4000VAC	4000VAC	4000VAC	4000VAC
		Contact & Contact	2000VAC	2000VAC	2000VAC	2000VAC
		Pole & Pole	4000VAC	\	4000VAC	\
Ambient Temperature			-40°C~+85°C	-40°C~+85°C	-40°C~+85°C	-40°C~+85°C
Installation form			Fast Connection	Fast Connection	Fast Connection	Fast Connection
Unit Weight			350g	73g	170g	95g
Security Certification			UC3	UC3	UC3	\
Page			66	69	75	78

TYPE			GRT508HE	GRT508HK	GRT508M-80A	GRT508M-100A
Picture						
Dimension (mm)			48X52X30	65X32X21.3	100X53X21	110X52X24
Contact Data	Rated Load (resistive)		150A 220VAC	150A 250VAC	80A 250VAC	100A 250VAC
	Contact Form		1B	1B	3B	3B
	Contact Material		$AgSnO_2$	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
	Contact Resistance (1A 6VDC)		Max.0.6mΩ	Max.0.5mΩ	Max.1.0mΩ	Max.1.0mΩ
	Max. Switching Current		150A	150A	80A	100A
	Max. Switching Voltage		253VAC	440VAC/28VDC	380VAC	276VAC
	Max. Switching Power		33KVA	37.5KVA/4.2KW	20KVA	25KVA
Coil Data	Coil Voltage		(5~48)VDC	(6~24)VDC	(5~48)VDC	(5~48)VDC
	Coil Power		3.0W,6.0W	9.0W,18.0W	3.0W,6.0W	5.0W,10.0W
Service Life	Mechanical		$1X10^5$	$5X10^4$	$1X10^5$	$1X10^5$
	Electrical		150A $1X10^4$ ‖ 120A $5X10^3$	$1X10^4$	80A $6X10^3$ ‖ 60A $1X10^4$	100A $1X10^4$ ‖ 120A $6X10^3$
	Max. Short-Circuit Current		3000A/10ms	6000A/10ms (No explosion)	2500A/10ms	3000A/10ms
Characteristics	Max. Operate/Release Time		20ms	25ms	30ms	60ms
	Min. Insulation Resistance (500VDC)		1000MΩ	1000MΩ	1000MΩ	1000MΩ
	Dielectric Strength (50/60 Hz, 1Min)	Contact & Coil	4000VAC	4000VAC	4000VAC	4000VAC
		Contact & Contact	2000VAC	2500VAC	2000VAC	2000VAC
		Pole & Pole	\	\	4000VAC	4000VAC
Ambient Temperature			-40°C～+85°C	-40°C～+85°C	-40°C～+70°C	-40°C～+85°C
Installation form			Fast Connection	Fast Connection	Fast Connection	Fast Connection
Unit Weight			130g	102g	200g	300g
Security Certification			\	UC3	UC2	UC3
Page			81	84	87	90

TYPE			GRT508M-120A	GRT508MH-120A	GRT508R	GRT508Y-40A/25A
Picture						
Dimension (mm)			110X52X24	115X64.5X26	54.6X41X19.3	38.8X28.7X15
Contact Data	Rated Load (resistive)		120A 250VAC	120A 250VAC	60A 250VAC	1B 40A 250VAC ‖ 1C 25A 250VAC
	Contact Form		3B/3H	3B	2B	1B/1C
	Contact Material		$AgSnO_2$	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
	Contact Resistance (1A 6VDC)		Max.1.0mΩ	Max.1.0mΩ	Max.1.5mΩ	1B Max.2.0mΩ ‖ 1C Max.5.0mΩ
	Max. Switching Current		120A	120A	60A	1B 40A ‖ 1C 25A
	Max. Switching Voltage		380VAC	276VAC	250VAC	1B 250VAC ‖ 1C 440VAC
	Max. Switching Power		30KVA	30KVA	15KVA	1B 10KVA ‖ 1C 6.25KVA
Coil Data	Coil Voltage		(5~48)VDC	(5~48)VDC	(5~48)VDC	(5~48)VDC
	Coil Power		5.0W,10.0W	5.0W,10.0W	3.5W,7.0W	1.0W,2.0W
Service Life	Mechanical		$1X10^5$	$1X10^5$	$1X10^5$	$5X10^5$
	Electrical		100A $1X10^4$ ‖ 120A $6X10^3$	100A $5X10^3$/100A $5X10^3$ ‖ 120A $1X10^4$	60A $6X10^3$ ‖ 40A $1X10^4$	1B $2X10^4$ ‖ 1C $3X10^4$
	Max. Short-Circuit Current		3000A/10ms	3000A/10ms	1500A/10ms	750A/10ms
Characteristics	Max. Operate/Release Time		60ms	60ms	30ms	20ms
	Min. Insulation Resistance (500VDC)		1000MΩ	1000MΩ	1000MΩ	1000MΩ
	Dielectric Strength (50/60 Hz, 1Min)	Contact & Coil	4000VAC	4000VAC	4000VAC	4000VAC
		Contact & Contact	2000VAC	2000VAC	1500VAC	1500VAC
		Pole & Pole	4000VAC	4000VAC	4000VAC	
Ambient Temperature			-40°C～+85°C	-40°C～+85°C	-40°C～+70°C	-40°C～+85°C
Installation form			Fast Connection	Fast Connection	Fast Connection	PCB-Type
Unit Weight			300g	240g	90g	1B 40g ‖ 1C 44g
Security Certification			UC3	UC3		VDE Certification Number：40039308
Page			93	96	99	102

TYPE			GRT508Y-50A/40A	GRT508Y-50A(1.5mm开距)	GRT508Y-90A	GRT508YC-80A
Picture						
Dimension (mm)			39X30.2X15	39X30.2X15	39X30.2X15	41X33X16.5
Contact Data	Rated Load (resistive)		1B 50A 250VAC ‖ 1C 40A 250VAC	50A 250VAC	90A 220VAC	80A 220VAC
	Contact Form		1B/1C	1B	1B	1C
	Contact Material		$AgSnO_2$	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
	Contact Resistance (1A 6VDC)		1B Max.5.0mΩ ‖ 1C Max.10.0mΩ	Max.5.0mΩ	Max.5.0mΩ	Max.2.0mΩ
	Max. Switching Current		1B 50A ‖ 1C 40A	50A	90A	80A
	Max. Switching Voltage		440VAC	440VAC	440VAC	250VAC
	Max. Switching Power		1B 12.5KVA ‖ 1C 10KVA	12.5KVA	22.5KVA	17.6KVA
Coil Data	Coil Voltage		(5~48)VDC	(5~48)VDC	(5~48)VDC	(5~48)VDC
	Coil Power		1.0W,2.0W	1.5W,3.0W	3.0W,6.0W	1.5W,3.0W
Service Life	Mechanical		$1X10^6$	$1X10^5$	$1X10^6$	$5X10^5$
	Electrical		1B $3X10^4$ ‖ 1C $1X10^4$	$3X10^4$	$1X10^4$	80A $1X10^3$ ‖ 60A $6X10^3$
	Max. Short-Circuit Current		1B 1200A/10ms ‖ 1C 750A/10ms	1200A/10ms	1200A/10ms	750A/10ms
Characteristics	Max. Operate/Release Time		20ms	20ms	20ms	30ms
	Min. Insulation Resistance (500VDC)		1000MΩ	1000MΩ	1000MΩ	1000MΩ
	Dielectric Strength (50/60 Hz, 1Min)	Contact & Coil	4000VAC	4000VAC	4000VAC	4000VAC
		Contact & Contact	1500VAC	1500VAC	1500VAC	1500VAC
		Pole & Pole	\	\	\	\
Ambient Temperature			-40°C～+85°C	-40°C～+85°C	-40°C～+85°C	-40°C～+85°C
Installation form			PCB-Type	PCB-Type	PCB-Type	PCB-Type
Unit Weight			44g	44g	34g	46g
Security Certification			\	\	\	\
Page			105	110	113	116



Character

- ◇ 80A contact switching capability
- ◇ Only impulse excitation needed,both for single and double coil
- ◇ Low power consumption with great load capability，small in size
- ◇ Accessories can be welded according to customer requirements
- ◇ RoHS compliant
- ◇ Outline dimensions: (32 x 30 x 15) mm

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		80A 250VAC
Max. Switching Voltage		250VAC
Max.Switching Current		80A
Max.Switching Power		20000VA
Endurance	Mechanical	1×10^5OPS
	Electrical	1×10^4OPS (60A 250VAC)
		3×10^3OPS (80A 250VAC)
Max.Short-Circuit Current		1500A/10ms

Characteristics

Operate Time		20ms Max.
Release Time		20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60Hz 1Min	Contact&Coil	4000VAC
	Contact&Contact	2000VAC
	Pole&Pole	
Surge Voltage (1.2/50 μ s)	Contact&Coil	6KV
Creepage Distance		8mm
Weight(Without Annexs)		About 40g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Impact	Stability	98m/s²
			Strength	980m/s²

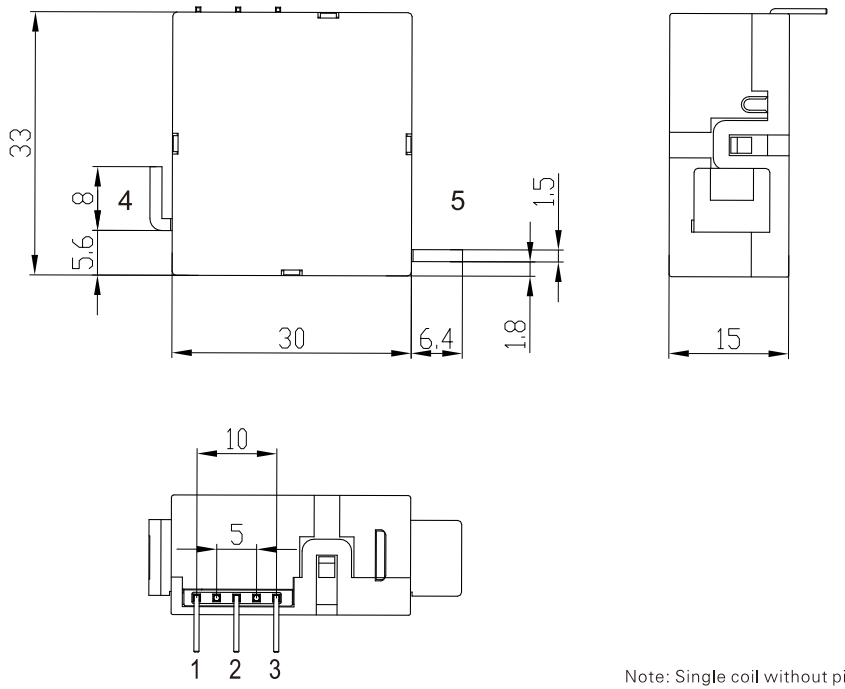
Coil Data(20℃)

Coil Voltage (VDC)	Coil Resistance (Ω) ± 10% Single	Coil Resistance (Ω) ± 10% Double	Coil Power(w) Single	Coil Power(w) Double	Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowable Overvoltage (VDC)	Minimum Pulse Duration (ms)
☐ 5	16.7	8.3/8.3	1.5	3.0	≤3.5	≤3.5	10	50
☐ 6	24	12/12			≤4.2	≤4.2	12	
☐ 9	54	27/27			≤6.3	≤6.3	18	
☐ 12	96	48/48			≤8.4	≤8.4	24	
☐ 24	384	192/192			≤16.8	≤16.8	48	

Ordering information

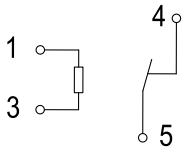
GRT508AD	80A	1B	12VDC	S	XX		
						Terminal type:	Custom design
						Coil type:	S: single coil D:double coil
						Coil voltage:	5, 6, 9, 12, 24, 48V
						Contact form:	1B
						Contact current:	80A
						Relay Series:	GRT508AD

Dimensional Drawings/Wiring Diagrams(unit:mm)



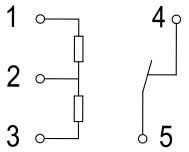
Note: Single coil without pin "2"

single coil



1(+)3(−)4-5 Release (Open)
3(+)1(−)4-5 Operate (Close)

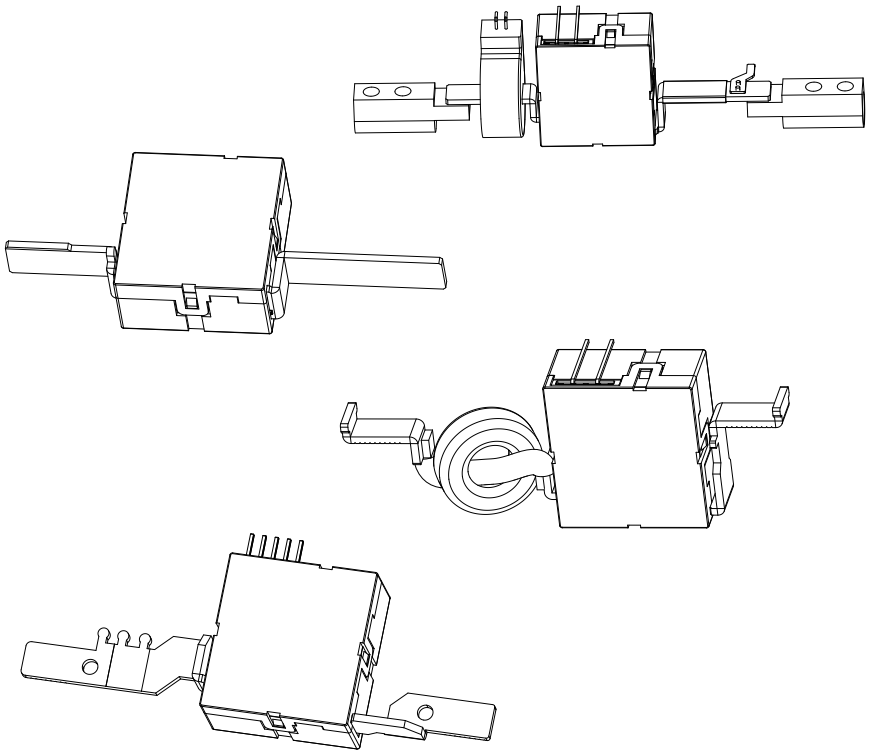
double coil



1(+)2(−)4-5 Release (Open)
3(+)2(−)4-5 Operate (Close)

Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type



Typical application

- Smart Meter
- Electric Remote Control
- Electrical Leakage Protector



Character

- ◇ 60A contact switching capability.
- ◇ Only impulse excitation needed, both for single and double coil.
- ◇ Low power consumption, small in size and low cost.
- ◇ Custom assembliese available with flexible wire and/or copper.
- ◇ RoHS compliant.
- ◇ Outline dimensions: 38x30x16.5 (mm)

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ(1A 6VDC)
Rated Load(Resistive)		60A 250VAC
Max. Switching Voltage		250VAC
Max. Switching Current		60A
Max. Switching Power		15000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4OPS
Max. Short-circuit Current		2500A/10ms
		4500A/10ms(no explosion)

Characteristics

Operate Time		20ms Max.
Release Time		20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60Hz, 1Min)	Contact to Coil	4000VAC
	Across Open Contacts	2000VAC
	Contact to contact	
Surge Voltage (1.2/50 μs)	Contact to Coil	10KV
Creepage Distance		8mm
Unit Weight		About 37g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 6	24	12/12	1.5	3.0	≤4.2	≤4.2	12	≥50
□ 9	54	27/27			≤6.3	≤6.3	18	
□ 12	96	48/48			≤8.4	≤8.4	24	
□ 24	384	192/192			≤16.8	≤16.8	48	

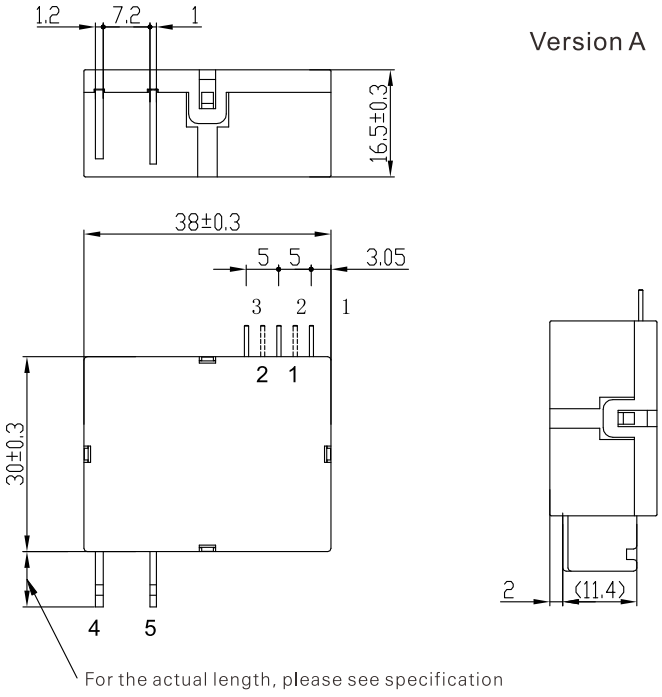
Ordering information

GRT508B | 60A | 1B | 12VDC | S | XX

Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	1B:a set of contacts remain closed
Contact current:	60A
Relay Series:	GRT508B

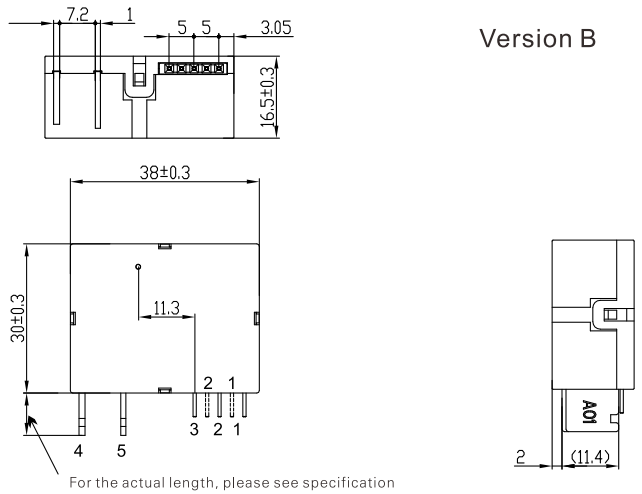
Dimensional Drawings/Wiring Diagrams(unit:mm)

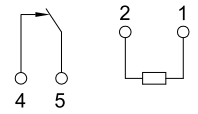
Version A



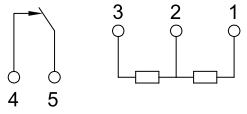
Note: 1.For single coil, the pin marked as dotted line;
2.No dimensional tolerance noted:±0.3mm.

Version B





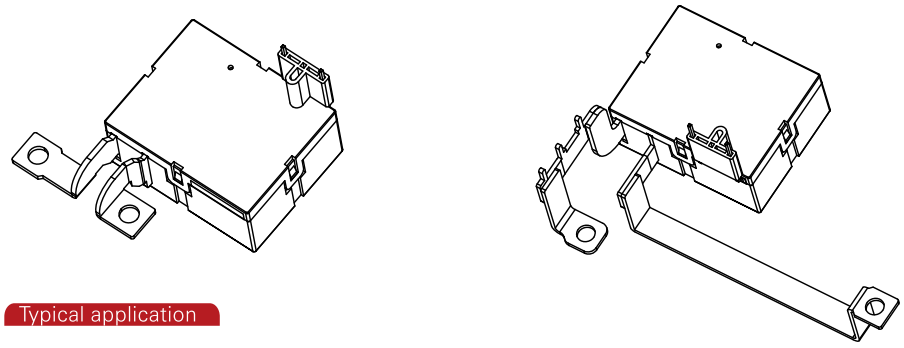
4-5Release(Open) 1(+)2(−)
4-5Operate(Close) 1(−)2(+)



4-5Release(Open) 1(+) 2(−)
4-5Operate(Close) 3(+) 2(−)

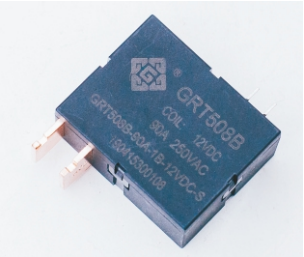
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type



Typical application

●Smart Meter ●Electric Remote Control ●Electrical Leakage Protector



Character

- ◇ 90A contact switching capability
- ◇ 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: (38 x 30 x 16.5) mm

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		90A 250VAC
Max. Switching Voltage		250VAC
Max. Switching Current		90A
Max. Switching Power		22500VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4OPS
Max. Short-circuit Current		2500A/10ms
		4500A/10ms(no explosion)

Characteristics

Operate Time		20ms Max.
Release Time		20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60hz, 1min)	Contact to Coil	4000VAC
	Across Open Contacts	2000VAC
	Contact to contact	
Surge Voltage (1.2/50 μ s)	Contact to Coil	10KV
Creepage Distance		8mm
Unit Weight		About 40g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 6	24	12/12	1.5	3.0	≤4.2	≤4.2	12	≥50
□ 9	54	27/27			≤6.3	≤6.3	18	
□ 12	96	48/48			≤8.4	≤8.4	24	
□ 24	384	192/192			≤16.8	≤16.8	48	

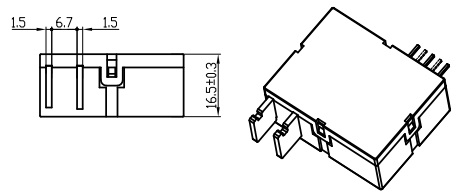
Ordering information

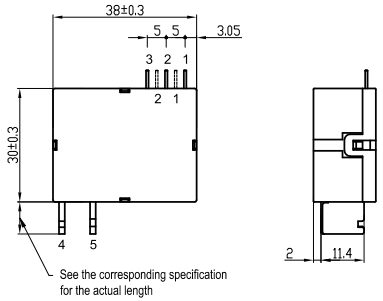
GRT508B 90A 1B 12VDC S XX

Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	1B:a set of contacts remain closed
Contact current:	90A
Relay Series:	GRT508B

Dimensional Drawings/Wiring Diagrams(unit:mm)

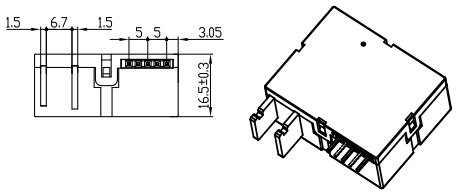
Version A

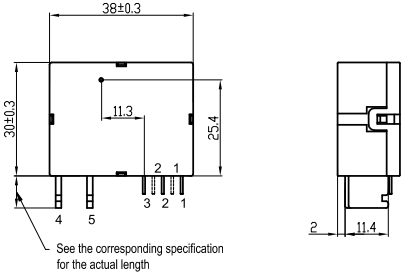




Note: 1.For single coil, the pin marked as dotted line;
2.No dimensional tolerance noted:±0.3mm.

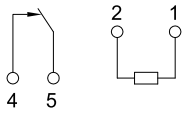
Version B





Note: 1.For single coil, the pin marked as dotted line;
2.No dimensional tolerance noted:±0.3mm.

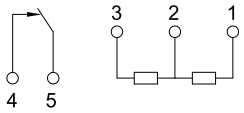
Single Coil



4-5 Reset (Open) 1(+)2(−)

4-5 Set (Close) 1(−)2(+)

Double Coil

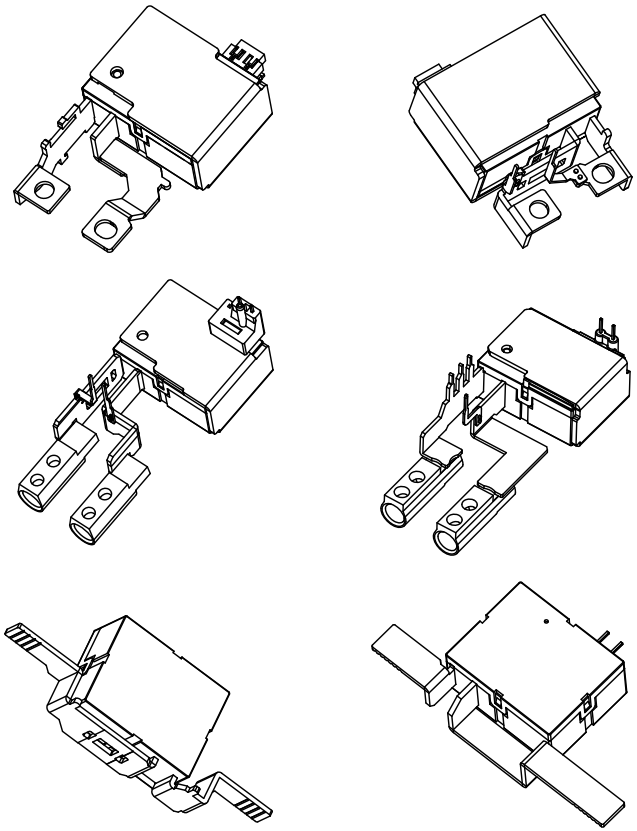


4-5 Reset (Open) 1(+) 2(−)

4-5 Set (Close) 3(+) 2(−)

Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type



Typical application

●Smart Meter ●Electric Remote Control ●Electrical Leakage Protector



Character

- ◇ 100A contact switching capability
- ◇ 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: (39 × 30 × 16.8) (mm)

Contac Data

Contact Form		1B/1H (double contact)
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		100A 250VAC
Max. Switching Voltage		250VAC
Max. Switching Current		100A
Max. Switching Power		25000VAC
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	5×10^3OPS(100A 250VAC)
		1×10^4OPS(80A 250VAC)
Max. Short-circuit Current		2500A/10ms
		4500A/10ms(no explosion)

Note: 1H represents double contact

Characteristics

Operate Time		20ms Max.
Release Time		20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60Hz, 1Min)	Contact to Coil	4000VAC
	Across Open Contacts	2000VAC
	Contact to contact	
Surge Voltage (1.2/50 μ s)	Contact to Coil	10KV
Creepage Distance		8mm
Unit Weight		About 45g

Environmental Data

Ambient Temperature	−40℃ ~ +85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

conventional version

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	18	9/9	2.0	4.0	≤4.2	≤4.2	12	≥50
☐ 9	40.5	20.3/20.3			≤6.3	≤6.3	18	
☐ 12	72	36/36			≤8.4	≤8.4	24	
☐ 24	288	144/144			≤16.8	≤16.8	48	

low power version

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	24	12/12	1.5	3.0	≤4.2	≤4.2	12	≥50
☐ 9	54	27/27			≤6.3	≤6.3	18	
☐ 12	96	48/48			≤8.4	≤8.4	24	
☐ 24	384	192/192			≤16.8	≤16.8	48	

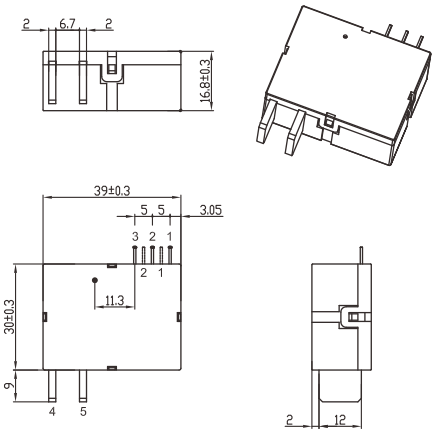
Ordering information

GRT508B | 100A | 1B | 12VDC | S | XX

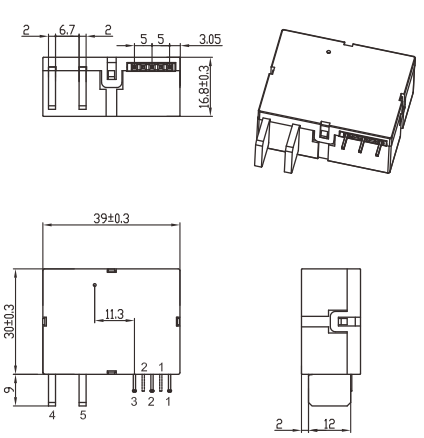
Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	1B:a set of contacts remain closed
Contact current:	100A
Relay Series:	GRT508B

Dimensional Drawings/Wiring Diagrams(unit:mm)

VERSION:A



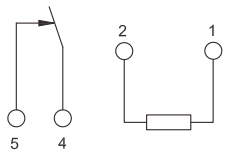
VERSION:B



Note: The broken line stands for the pins of single coil

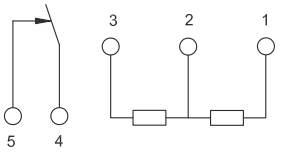
Note: The broken line stands for the pins of single coil

Single coil



1（+）2（-） 4-5 Release(Open)
2（+）1（-） 4-5 Operate(Close)

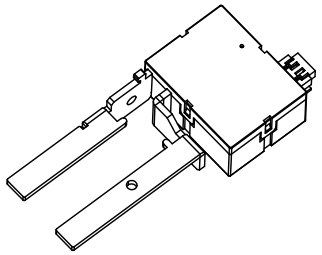
Double coil

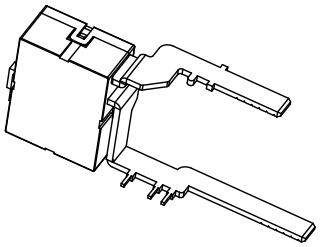


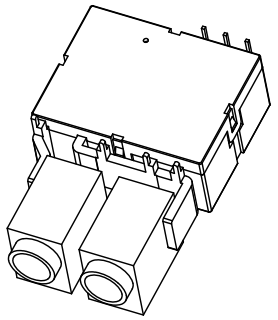
1（+）2（-） 4-5 Release(Open)
3（+）2（-） 4-5 Operate(Close)

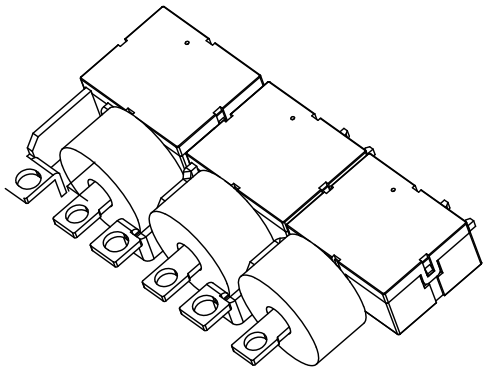
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type









Typical application

- Smart Meter
- Electric Remote Control
- Electrical eaae Protector



Character

- ◇ 90A contact switching
- ◇ PCB soldering type
- ◇ Environmental protection products (compliant with RoHS)
- ◇ Conforms to IEC62055–31 UC2 standard
- ◇ Dimensions: 38 × 30 × 16.5 (mm)

Contact Data

Contact Form	1B
Contact Material	$AgSnO_2$
Contact Resistance	Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)	90 A 250VAC
Max. Switching Voltage	250VAC
Max. Switching Current	90A
Max. Switching Power	22500VA
Mechnical Endurance	1×10^5OPS
Max.Short–Circuit Current	2500A/10ms
	4500A/10ms (no explosion)

Characteristics

Operate Time		20ms Max.
Release Time		20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60hz, 1min)	Contact to Coil	4000VAC
	Across Open Contacts	2000VAC
	Contact to contact	
Surge Voltage (1.2/50 μ s)	Contact to Coil	10KV
	Detection Contact	6KV
Creepage Distance		8mm
Unit Weight		About 40g

Electrical Endurance

Voltage(VAC)	Current(A)	PF	ON:OFF	Frequency	Ambient Temperature
250	90	COS ϕ =1	10s:20s	10000	Room Temperature

Environmental Data

Ambient Temperature	–40℃～+85℃	Relative Humidity	5%-85% RH
Vibration	10-55Hz 1.5mm	Shock Functional	98m/s²
		Shock Survival	980m/s²

Coil Data(20℃)

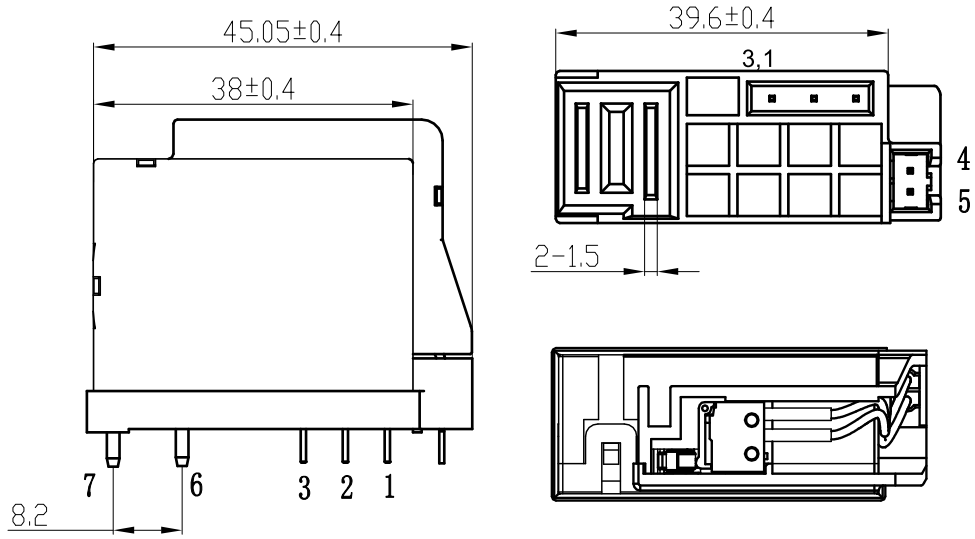
Coil Voltage (VDC)	Coil Resistance (Ω) ± 10% Single	Coil Resistance (Ω) ± 10% Double	Coil Power(w) Single	Coil Power(w) Double	Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowable Overvoltage (VDC)	Minimum Pulse Duration (ms)
☐ 5	16.7	8.3/8.3			≤3.5	≤3.5	10	
☐ 6	24	12/12			≤4.2	≤4.2	12	
☐ 9	54	27/27	1.5	3.0	≤6.3	≤6.3	18	50
☐ 12	96	48/48			≤8.4	≤8.4	24	
☐ 24	384	192/192			≤16.8	≤16.8	48	

Ordering information

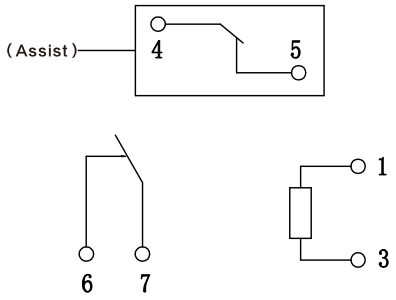
GRT508BG 90A 1B 12VDC S XX

Terminal type:	Custom design
Coil type:	S: single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	1B:1 groups are normally closed
Contact current:	90A
Relay Series:	GRT508BG

Dimensional Drawings/Wiring Diagrams(unit:mm)

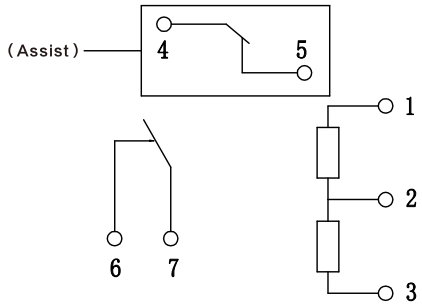


Single Coil



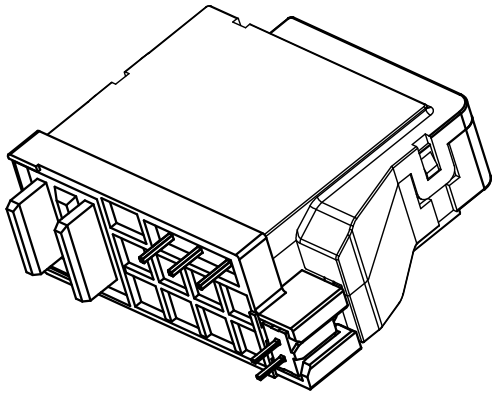
1(+)3(−)4−5、6−7open
3(+)1(−)4−5、6−7close
4−5 is an auxiliary detection contact (optional)

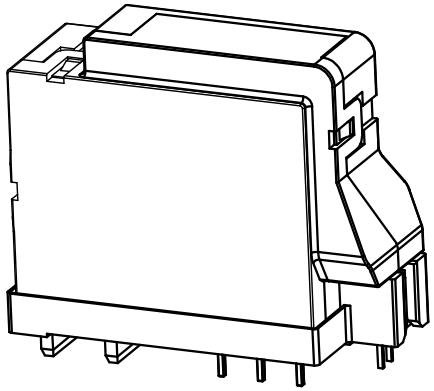
Double Coil



1(+)2(−)4−5、6−7open
3(+)2(−)4−5、6−7close
4−5 is an auxiliary detection contact (optional)

Typical Terminal Type





Typical application

- Smart Meter
- Electric Remote Control
- Electrical Leakage Protector



Character

- ◇ 90A contact switching capability
- ◇ 2−pole latching relay
- ◇ T1 in & T4 out design
- ◇ Support welding accessories according to customer requirements
- ◇ RoHS compliant
- ◇ IEC62055−31 UC2 compliant
- ◇ Outline Dimension:(64x36.5x18.3)mm

Contact Data

Contact Form	2B
Contact Material	$AgSnO_2$
Contact Resistance	Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)	90A 250VAC
Max. Switching Voltage	250VAC
Max.Switching Current	90A
Max.Switching Power	22500VA
Mechanical	1×10^5OPS
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&Coil	4000VAC
	Contact&Contact	2000VAC
	Pole&Pole	4000VAC
Creepage Distance		8mm
Weight(Without Annexs)		About 100g

Electrical Endurance

Voltage(VAC)	Current(A)	PF	ON:OFF	Frequency	Ambient Temperature
230	90	COS ϕ =1	10s:20s	10000	Room Temperature
250	60	COS ϕ =1	10s:20s	5000	Room Temperature
		COS ϕ =0.5	10s:20s	5000	Room Temperature

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Impact	Stability	98m/s²
			Strength	980m/s²

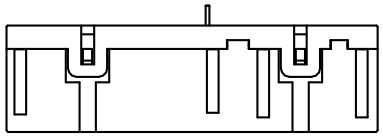
Coil Data(20℃)

Coil Voltage (VDC)	Coil Resistance (Ω) ± 10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowable Overvoltage (VDC)	Minimum Pulse Duration (ms)
	Single	Double	Single	Double				
□ 6	12	6/6	3.0	6.0	≤4.2	≤4.2	9	≥80
□ 9	27	13.5/13.5			≤6.3	≤6.3	13.5	
□ 12	48	24/24			≤8.4	≤8.4	18	
□ 24	192	96/96			≤16.8	≤16.8	36	

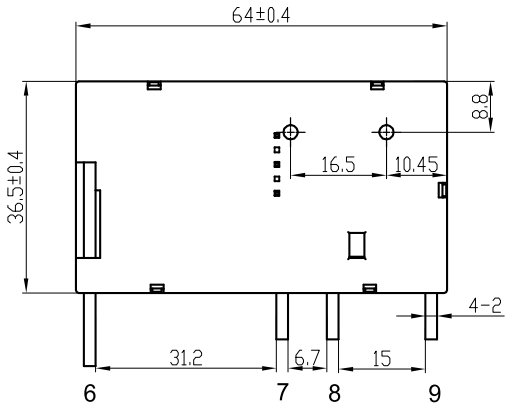
Ordering information

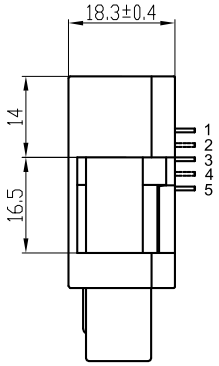
GRT508BJ	90A	2B	12VDC	S	XX	
						Terminal type: Custom design
						Coil type: S: single coil D:double coil
						Coil voltage: 5, 6, 9, 12, 24, 48V
						Contact form: 2B: 2 groups are normally closed
						Contact current: 90A
						Relay Series: GRT508BJ

Dimensional Drawings/Wiring Diagrams(unit:mm)

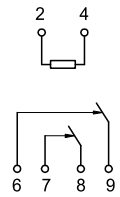


Note:1.For single coil,the pin marked as dotted line;
2.No dimensional tolerance noted: ± 0.3mm.



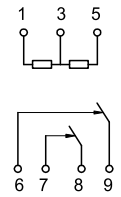


single coil



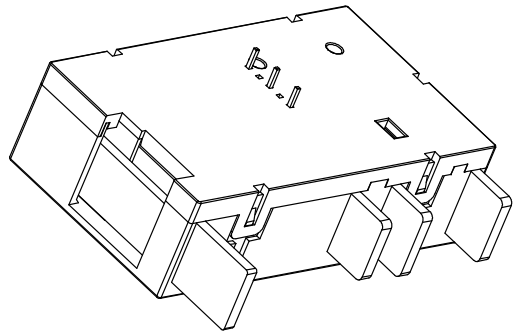
2(+)4(-) 6-9、7-8 Reset(Open)
2(-)4(+) 6-9、7-8 Set(Close)

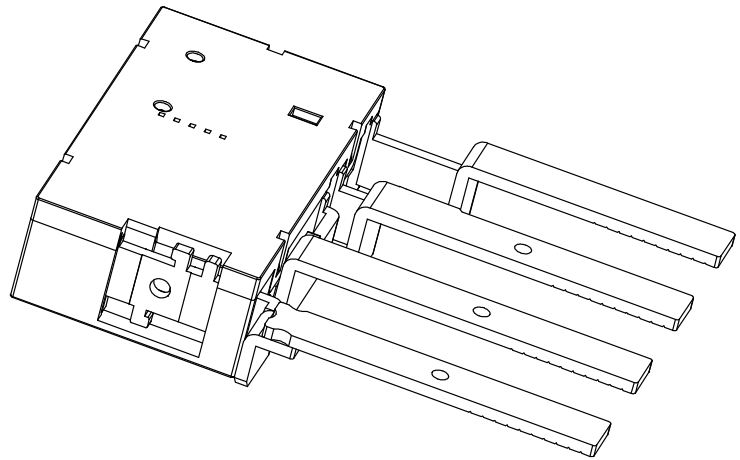
double coil



1(+)3(-) 6-9、7-8 Reset(Open)
3(+)5(-) 6-9、7-8 Set(Close)

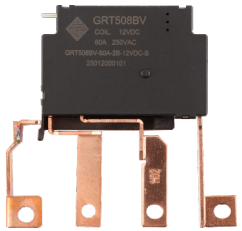
Typical Terminal Type





Typical application

- Smart Meter
- Electric Remote Control
- Electrical Leakage Protector



Character

- ◇ 80A contact switching capability
- ◇ 2–pole latching relay
- ◇ T1 in & T4 out design
- ◇ Support welding accessories according to customer requirements
- ◇ RoHS compliant
- ◇ IEC62052 –31，IEC62055 –31 UC2 compliant
- ◇ Outline Dimension:(52.5x35x17.7)mm

Contact Data

Contact Form	2B
Contact Material	$AgSnO_2$
Contact Resistance	Max.1 .0mΩ
Rated Load(Resistive)	80A 250VAC
Max. Switching Voltage	250VAC
Max. Switching Current	80A
Max. Switching Power	20000VA
Mechnical Endurance	1×10^5OPS
Max. hort-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 μ s)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 60g

Electrical Endurance

Voltage(VAC)	Current(A)	PF	ON:OFF	Frequency	Ambient Temperature
250	80	COS ϕ =1	10s:20s	10000	Room Temperature
250	60	COS ϕ =1	10s:20s	5000	Room Temperature
		COS ϕ =0.5	10s:20s	5000	Room Temperature

Environmental Data

Ambient Temperature	–40℃ ~ +85℃	Relative Humidity	5%-85% RH
Vibration	10-55Hz 1.5mm	Shock — Functional	98m/s²
		Shock — Survival	980m/s²

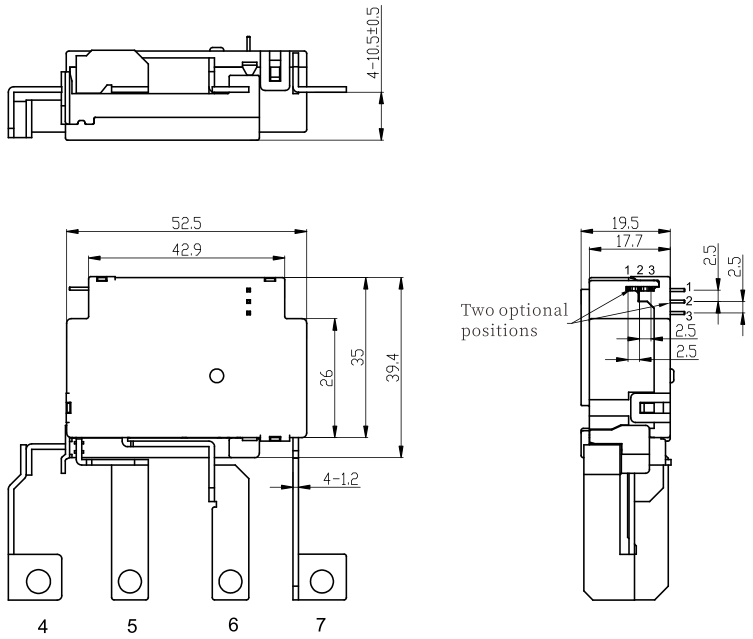
Coil Data(20℃)

Coil Voltage (VDC)	Coil Resistance (Ω) ± 10% Single	Coil Resistance (Ω) ± 10% Double	Coil Power(w) Single	Coil Power(w) Double	Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowable Overvoltage (VDC)	Minimum Pulse Duration (ms)
☐ 6	12	6/6	3.0	6.0	≤4.8	≤4.8	12	≥80
☐ 9	27	13.5/13.5			≤7.2	≤7.2	18	
☐ 12	48	24/24			≤9.6	≤9.6	24	

Ordering information

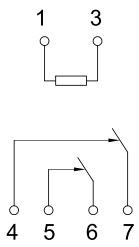
GRT508BV	80A	2B	12VDC	S	XX		
						Terminal type:	Custom design
						Coil type:	S: single coil D:double coil
						Coil voltage:	5, 6, 9, 12, 24, 48V
						Contact form:	2B: 2 groups are normally closed
						Contact current:	80A
						Relay Series:	GRT508BV

Dimensional Drawings/Wiring Diagrams(unit:mm)



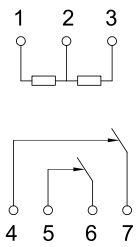
Note:
1.The terminal size can be customized according to customer needs;
2.No dimensional tolerance noted: ±4mm.

Single Coil



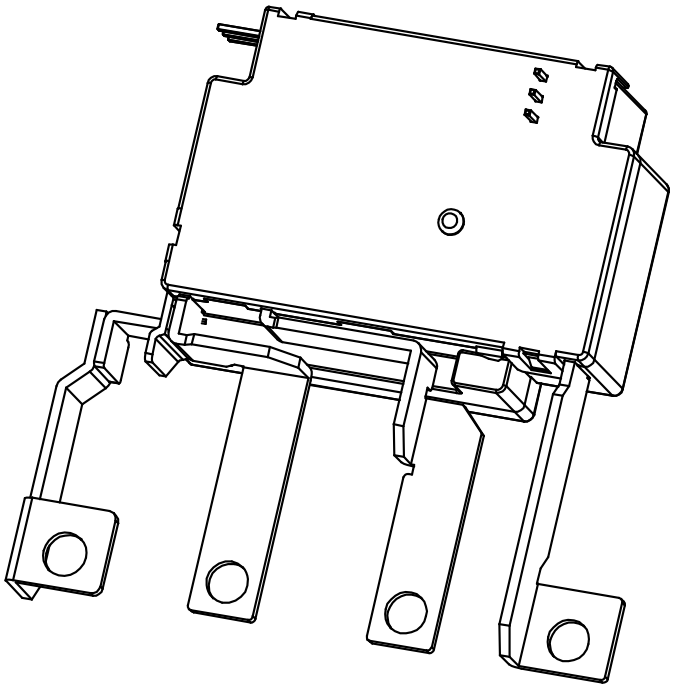
1(+)3(-) 4-7、5-6 Reset(Open)
1(-)3(+) 4-7、5-6 Set(Close)

Double Coil



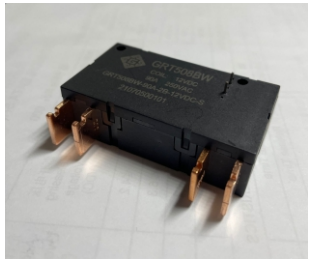
1(+)2(-) 4-7、5-6 Reset(Open)
3(+)2(-) 4-7、5-6 Set(Close)

Typical Terminal Type



Typical application

- Smart Meter
- Electric Remote Control
- Electrical Leakage Protector



Character

- ◇ 80A contact switching capability
- ◇ Only impulse excitation needed,both for single and double coil
- ◇ Low power consumption with great load capability，small in size
- ◇ Accessories can be welded according to customer requirements
- ◇ RoHS compliant
- ◇ Complies with IEC62052-31 UC2 standard
- ◇ Outline dimensions: (55.6 x 30 x 16.5) mm

Contact Data

Contact Form		2B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		80A 250VAC
Max. Switching Voltage		250VAC
Max.Switching Current		80A
Max.Switching Power		20000VA
Endurance	Mechanical	1×10^5OPS
	Electrical	1×10^4OPS
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&Coil	4000VAC
	Contact&Contact	2000VAC
	Pole&Pole	4000VAC
Surge Voltage (1.2/50 μ s)	Contact&Coil	6KV
Creepage Distance		8mm
Weight(Without Annexs)		About 59.2g

Environmental Data

Ambient Temperature	-40℃ ~ +85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Impact	Stability	98m/s²
			Strength	980m/s²

Coil Data(20℃)

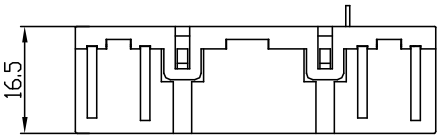
Coil Voltage (VDC)	Coil Resistance (Ω) ± 10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowable Overvoltage (VDC)	Minimum Pulse Duration (ms)
	Single	Double	Single	Double				
□ 6	12	6/6	3.0	6.0	≤4.2	≤4.2	9	≥80
□ 9	27	13.5/13.5			≤6.3	≤6.3	13.5	
□ 12	48	24/24			≤8.4	≤8.4	18	
□ 24	192	96/96			≤16.8	≤16.8	36	

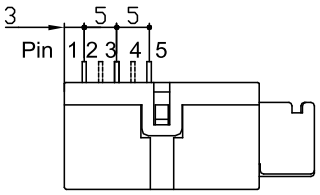
Ordering information

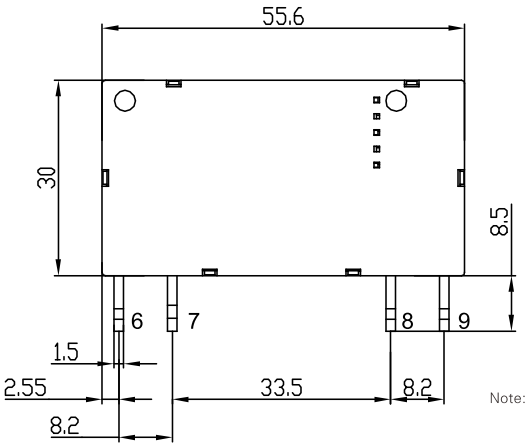
GRT508BW 80A 2B 12VDC S XX

Terminal type:	Custom design
Coil type:	S: single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	2B: 2 groups are normally closed
Contact current:	80A
Relay Series:	GRT508BW

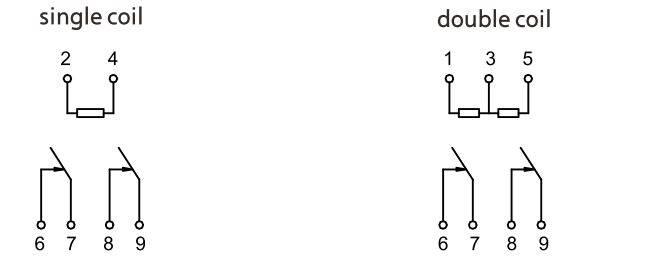
Dimensional Drawings/Wiring Diagrams(unit:mm)







Note: 1. for single coil, please refer to the two dotted line PINs
2. unmarked tolerance is ±0.3mm

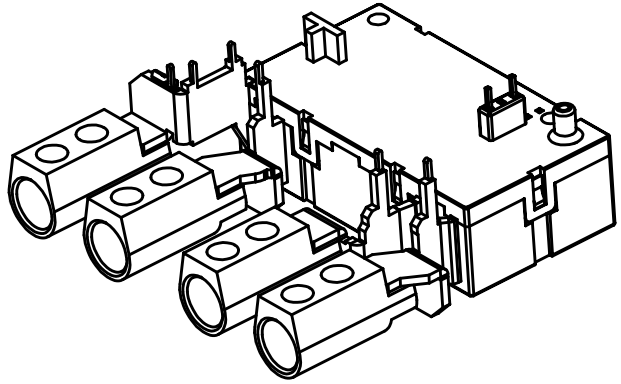


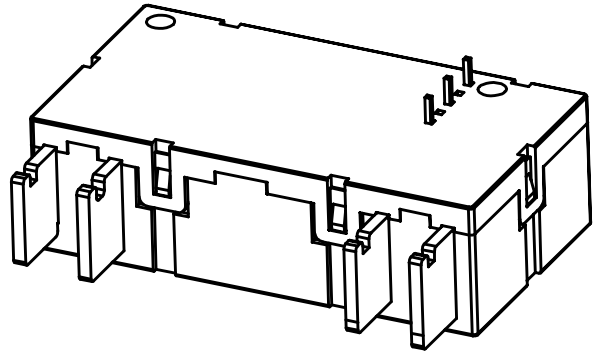
2(+)4(−)6-7、8-9Release (Open)
2(−)4(+)6-7、8-9 Operate (Close)

1(+)3(−)6-7、8-9 Release (Open)
3(+)5(−)6-7、8-9 Operate (Close)

Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

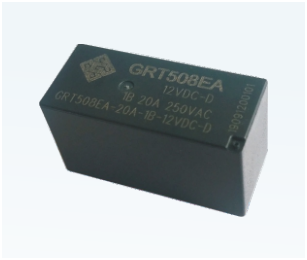
Typical Terminal Type





Typical application

- Smart Meter
- Electric Remote Control
- Electrical Leakage Protector



Character

- ◇ 20A contact switching capability
- ◇ Only impulse excitation needed, both for single and double coil.
- ◇ 4KV dielectric strength between coil and contacts
- ◇ RoHS compliant
- ◇ Outline dimensions: (29 x 12.7 x 15.7) mm

Contact Data

Contact Form		1B	1C
Contact Material		$AgSnO_2$	$AgSnO_2$
Contact Resistance		Max.50mΩ(1A 6VDC)	Max.50mΩ(1A 6VDC)
Rated Load(Resistive)		16A/20A 250VAC	16A 250VAC
Max. Switching Voltage		277VAC	277VAC
Max. Switching Current		16A/20A	16A
Max. Switching Power		4000VA	4000VA
Mechanical		1×10^5OPS	1×10^5OPS
Electrical	Resistive	1×10^5OPS (16A 250VAC)	1×10^5OPS (16A 250VAC)
	Resistive	6×10^4OPS (20A 250VAC)	6×10^4OPS (20A 250VAC)
	Electronic rectifier	2×10^4OPS (1200A 120VAC)	2×10^4OPS (1200A 120VAC)
Max. Short-circuit Current		500A/2ms	200A/2ms

Characteristics

Operate Time		10ms Max.	10ms Max.
Release Time		10ms Max.	10ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.	1000MΩ Min.
Dielectric Strength (50/60Hz, 1Min)	Contact to Coil	4000VAC	2000VAC
	Across Open Contacts	1000VAC	750VAC
	Contact to contact		
Surge Voltage (1.2/50 μ s)	Contact to Coil	4KV	4KV
Creepage Distance		8mm	6mm
Unit Weight		About 11g	About 11g

Environmental Data

Ambient Temperature	−40℃～+70℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

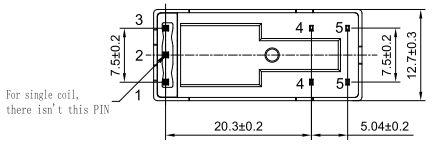
Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 5	50	25/25	0.5	1.0	≤3.75	≤3.75	7.5	≥50
☐ 6	72	36/36			≤4.5	≤4.8	9	
☐ 9	162	81/81			≤6.75	≤6.75	13.5	
☐ 12	288	144/144			≤9	≤8.9	18	
☐ 24	1152	576/576			≤18	≤18	36	

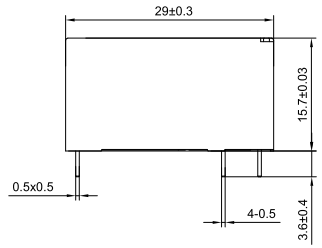
Ordering information

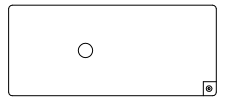
GRT508EA	20A	1B	12VDC	S	XX	
					Terminal type:	Custom design
				Coil type:		S: single coil D:double coil
			Coil voltage:			5, 6, 9, 12, 24V
		Contact form:				1B:a set of contacts remain closed
	Contact current:					20A
Relay Series:						GRT508EA

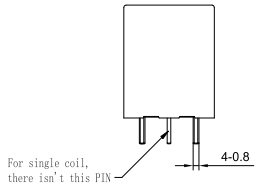
Dimensional Drawings/Wiring Diagrams(unit:mm)

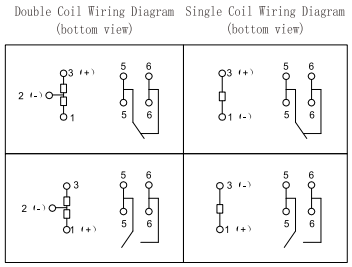
VERSION:1





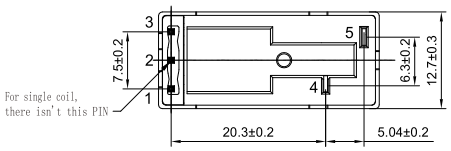


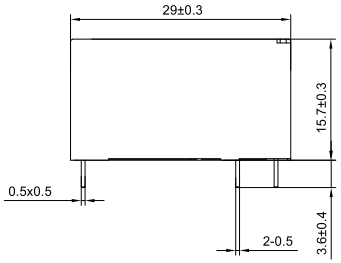


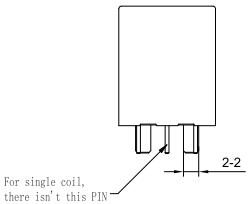


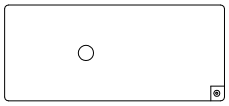
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

VERSION:2



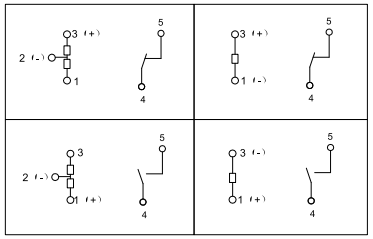






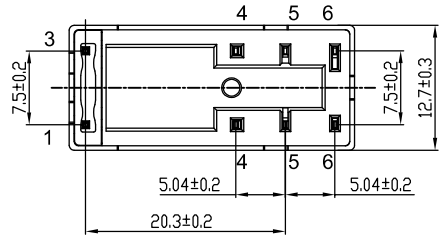
Double Coil Wiring Diagram (bottom view)

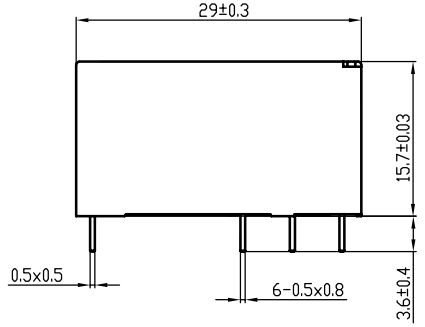
Single Coil Wiring Diagram (bottom view)

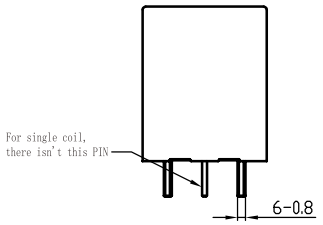


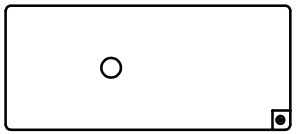
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

VERSION: 3



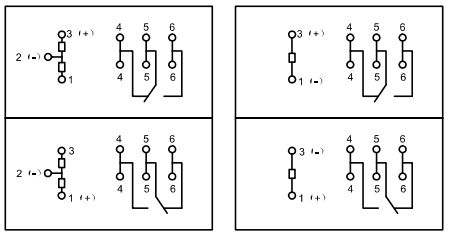




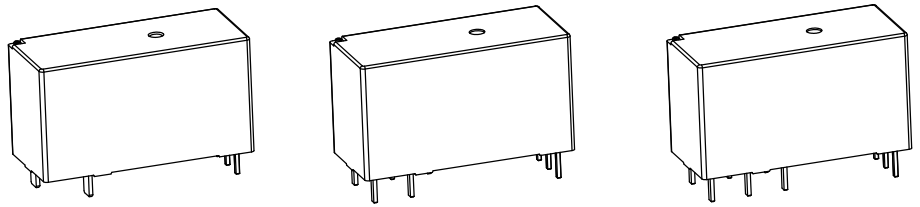


Double Coil Wiring Diagram (bottom view)

Single Coil Wiring Diagram (bottom view)

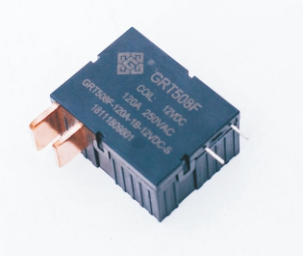


Typical Terminal Type



Typical application

Smart Meter



Character

- ◇ 120A contact switching capability
- ◇ Only impulse excitation needed,both for single and double coil.
- ◇ Low power consumption,small in size
- ◇ Custom assemblies available with flexible wire and/orcopper straps,and/or with integrated shunt
- ◇ 4KV dielectric strength betweencoil and contacts
- ◇ RoHS compliant
- ◇ IEC62055-31 UC3 compliant
- ◇ Outline dimensions:(42 x 32 x 20.8)mm

Contact Data

Contact Form		1B/1H
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ(1A 6VDC)
Rated Load(Resistive)		120A 250VAC
Max. Switching Voltage		250VAC
Max. Switching Current		120A
Max. Switching Power		30000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4OPS(100A 250VAC)
		6×10^3OPS(120A 250VAC)
Max. Short-circuit Current		3000A/10ms
		6000A/10ms(no explosion)

Characteristics

Operate Time		20ms Max.
Release Time		20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60hz, 1min)	Contact to Coil	4000VAC
	Across Open Contacts	2000VAC
	Contact to contact	
Surge Voltage (1.2/50μs)	Contact to Coil	9KV
Creepage Distance		8mm
Unit Weight		About 65g

Environmental Data

Ambient Temperature	−40℃～+70℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

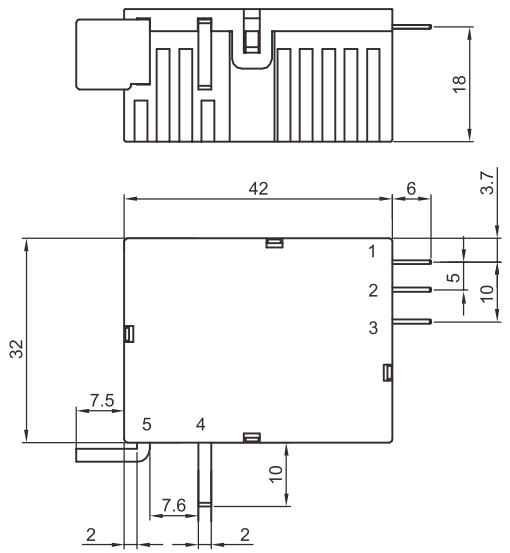
Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	12	6/6	3.0	6.0	≤4.2	≤4.2	9	≥50
☐ 9	27	13.5/13.5			≤6.3	≤6.3	13.5	
☐ 12	48	24/24			≤8.4	≤8.4	18	
☐ 24	192	96/96			≤16.8	≤16.8	36	

Ordering information

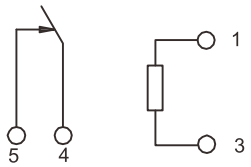
GRT508F	120A	1B	12VDC	S	XX	
					Terminal type:	Custom design
				Coil type:		S:single coil D:double coil
			Coil voltage:			5, 6, 9, 12, 24, 48V
		Contact form:				1B:a set of contacts remain closed
	Contact current:					120A
Relay Series:						GRT508F

Dimensional Drawings/Wiring Diagrams(unit:mm)



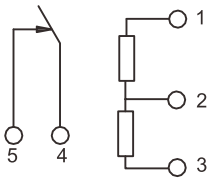
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Single coil



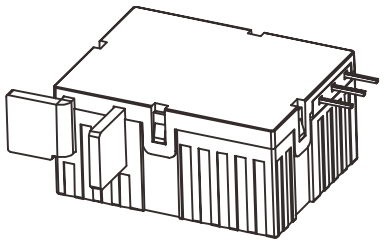
1 (+) 3 (-) 4-5 Release(Open)
3 (+) 1 (-) 4-5 Operate(Close)

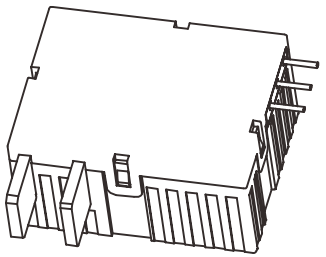
Double coil



1 (+) 2 (-) 4-5 Release(Open)
3 (+) 2 (-) 4-5 Operate(Close)

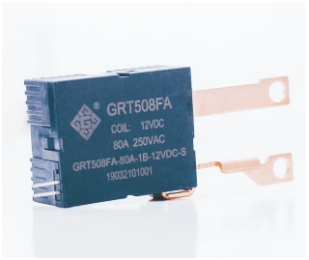
Typical Terminal Type





Typical application

●Smart Meter ●Electric Remote Control



Character

- ◇ 80A contact switching capability
- ◇ 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
- ◇ Outline dimensions: (39.1 x 31.9 x 17) mm
- ◇ CQC Certificate No.: 9001036713

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		80A 250VAC
Max. Switching Voltage		250VAC
Max. Switching Current		80A
Max. Switching Power		20000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	6×10^3OPS(80A 250VAC)
		1×10^4OPS(60A 250VAC)
Max. Short-circuit Current		1800A/10ms

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	1500VAC
	Contact to contact	
Surge Voltage (1.2/50 μ s)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 40g

Environmental Data

Ambient Temperature	−40℃～+70℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	36	18/18	1.0	2.0	≤4.2	≤4.2	9	≥50
☐ 9	81	40.5/40.5			≤6.3	≤6.3	13.5	
☐ 12	144	72/72			≤8.4	≤8.4	18	
☐ 24	576	288/288			≤16.8	≤16.8	36	

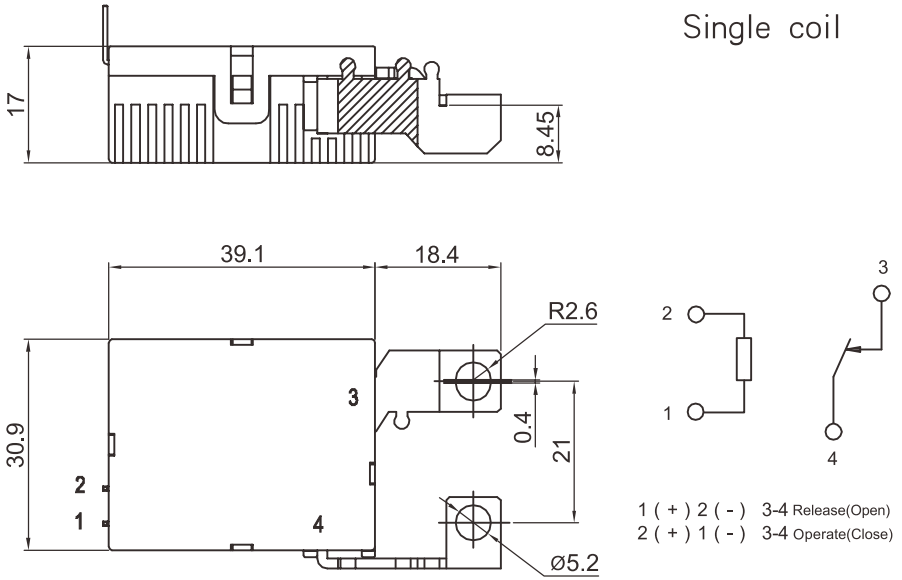
Ordering information

GRT508FA | 80A | 1B | 12VDC | S | XX

Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	1B:a set of contacts remain closed
Contact current:	80A
Relay Series:	GRT508FA

Dimensional Drawings/Wiring Diagrams(unit:mm)

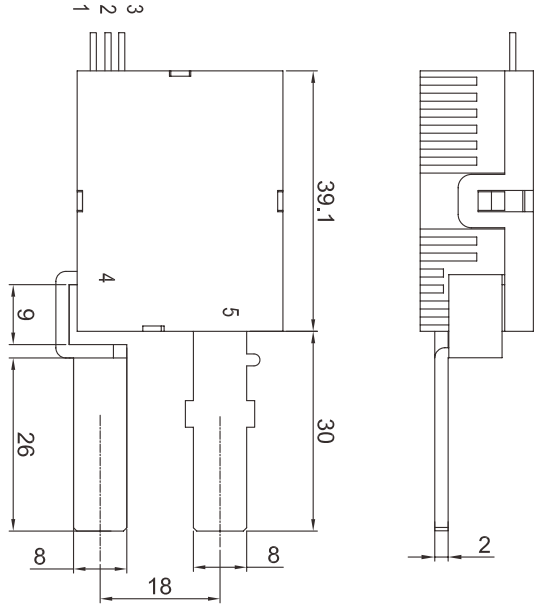
Single coil

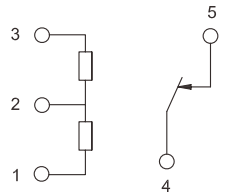


1 (+) 2 (-) 3-4 Release(Open)
2 (+) 1 (-) 3-4 Operate(Close)

Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Double coil

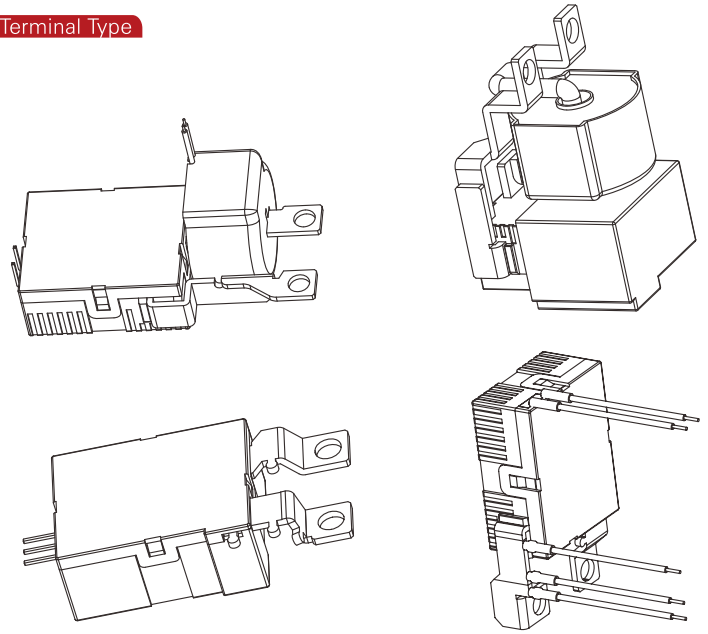




1 (+) 2 (-) 4-5 Release(Open)
3 (+) 2 (-) 4-5 Operate(Close)

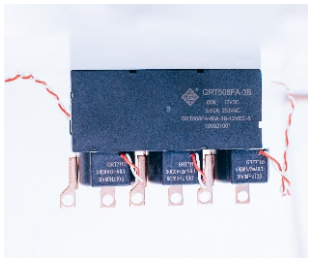
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type



Typical application

- Smart Meter



Character

- ◇ 80A 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 40.8x 36) mm

Contact Data

Contact Form		3B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1 .0mΩ (1A 6VDC)
Rated Load(Resistive)		80A 250VAC
Max. Switching Voltage		380VAC
Max. Switching Current		80A
Max. Switching Power		20000VAC
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4OPS(60A 250VAC)
		6×10^3OPS(80A 250VAC)
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 μ s)	Contact to Coil	10KV
Creepage Distance		8mm
Unit Weight		About 245g

Environmental Data

Ambient Temperature	–40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

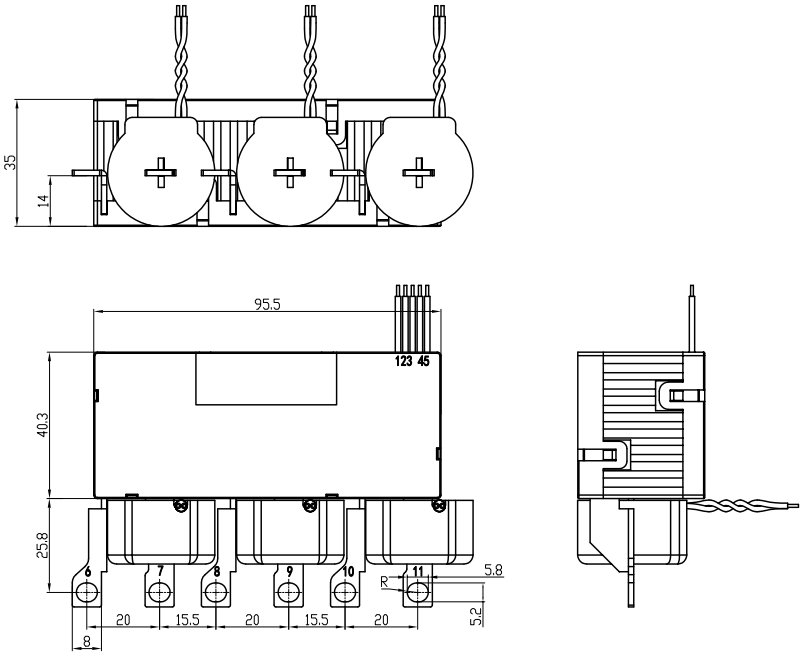
Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 9	27	13.5/13.5	3.0	6.0	≤6.3	≤6.3	13.5	≥120
☐ 12	48	24/24			≤8.4	≤8.4	18	
☐ 24	192	96/96			≤16.8	≤16.8	36	
☐ 48	768	384/384			≤33.6	≤33.6	72	

Ordering information

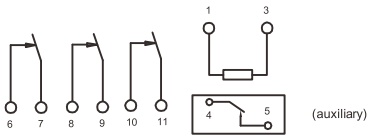
GRT508FA	80A	3B	12VDC	S	XX	
					Terminal type:	Custom design
				Coil type:		S:single coil D:double coil
			Coil voltage:			5, 6, 9, 12, 24, 48V
		Contact form:				3B:three sets of contacts remain closed
	Contact current:					80A
Relay Series:						GRT508FA

Dimensional Drawings/Wiring Diagrams(unit:mm)



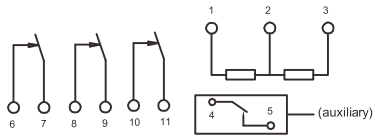
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

single coil



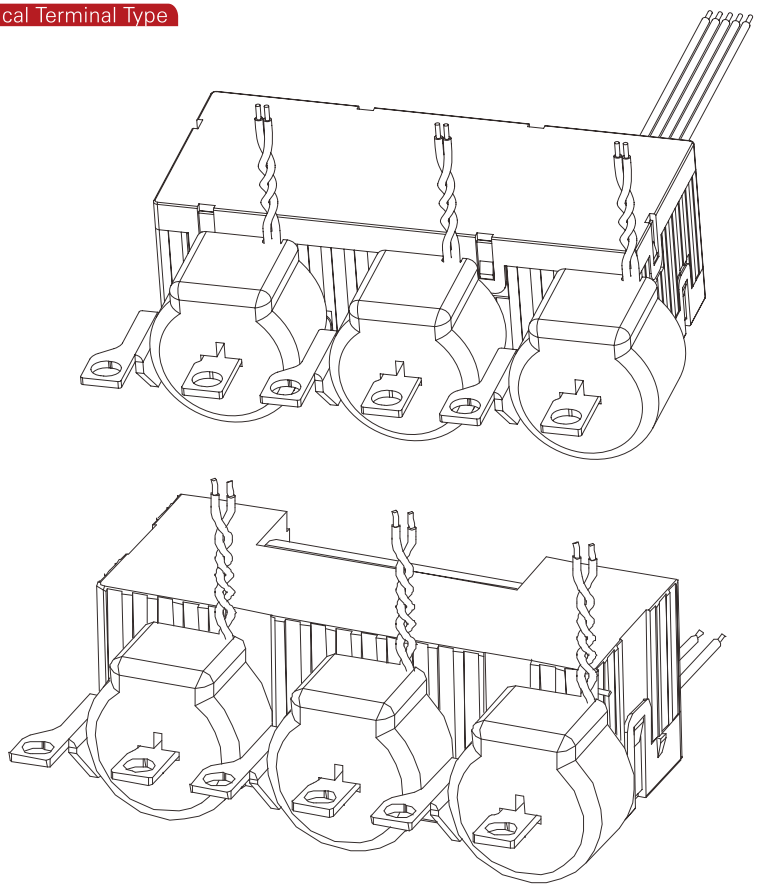
1(+)3(-) 6-7 8-9 10-11 Release(Open)
3(+)1(-) 6-7 8-9 10-11 Operate(Close)
4-5 auxiliary test contacts (optional choice)

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



Character

◇ 100A contact switching capability.
◇ Only impulse excitation needed, single coil available only.
◇ Low power consumption, small in size.
◇ Custom assembliese available with flexible wire and/or copper.
◇ RoHS compliant.
◇ Outline dimensions: 43.5x35x17.2 (mm)

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		100A 250VAC
Max. Switching Voltage		250VAC
Max. Switching Current		100A
Max. Switching Power		25000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	6×10^3OPS
Max. Short-circuit Current		2200A/10ms

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	
Surge Voltage (1.2/50μs)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 62g

Environmental Data

Ambient Temperature	−40℃～+70℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

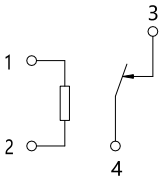
Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 9	67.5	33.75/33.75	1.2	2.4	≤6.3	≤6.3	9	60
□ 12	120	60/60			≤8.4	≤8.4	18	
□ 24	480	240/240			≤16.8	≤16.8	36	

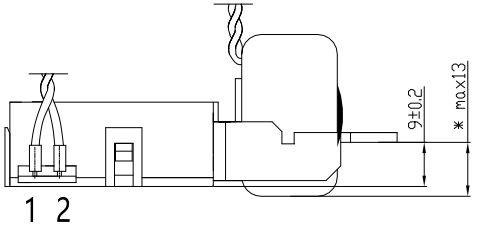
Ordering information

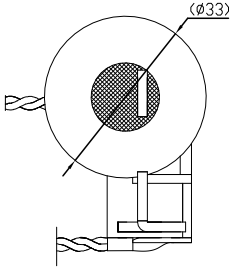
GRT508FA	100A	1B	12VDC	S	XX	
						Terminal type: Custom design
						Coil type: S:single coil D:double coil
						Coil voltage: 9, 12, 24V
						Contact form: 1B:a set of contacts remain closed
						Contact current: 100A
						Relay Series: GRT508FA

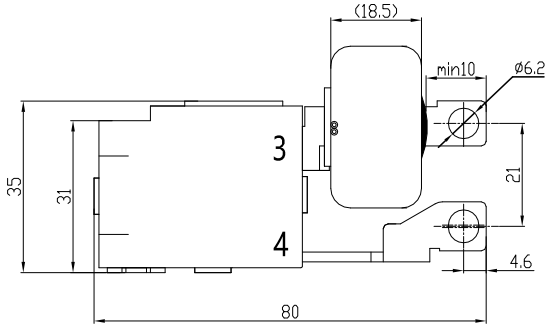
Dimensional Drawings/Wiring Diagrams(unit:mm)



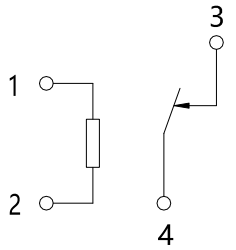
1(1)2(+)3-4 Release(Open)
1(+)2(-)3-4 Operate(Close)

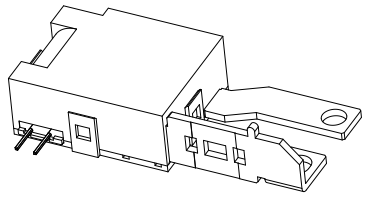




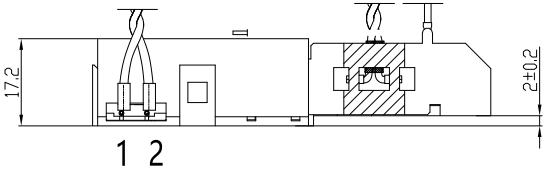


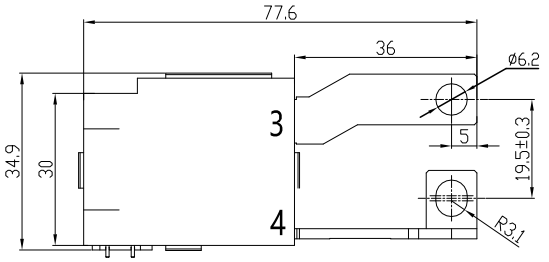
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.



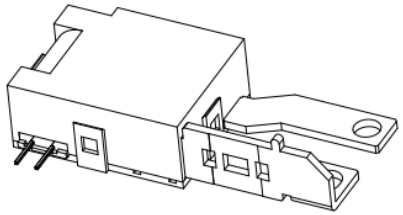


1(-)2(+)3-4 Release(Open)
1(+)2(-)3-4 Operate(Close)



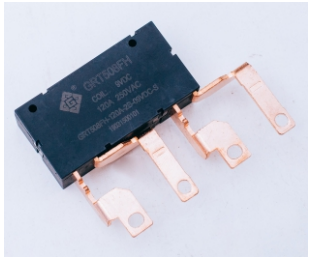


Typical Terminal Type



Typical application

●Smart Meter



Character

- ◇ 100A two sets of contacts switching capability
- ◇ 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 UC3 compliant
- ◇ Outline dimensions: (65 x 33 x 20.8) mm

Contact Data

Contact Form		2B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		100A 250VAC
Max.Switching Voltage		250VAC
Max.Switching Current		120A
Max.Switching Power		25000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4OPS(100A 250VAC)
		5×10^3OPS(120A 250VAC)
Max.Short-circuit Current		3000A/10ms
		6000A/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 (1.2/50μs)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 170g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

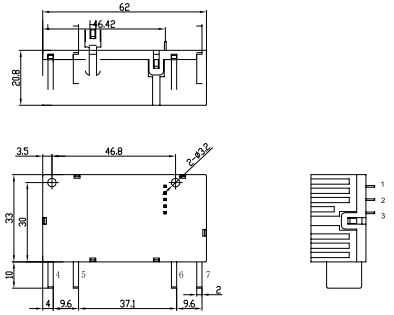
Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 6	9	4.5/4.5	4.0	8.0	≤4.2	≤4.2	9	≥90
□ 9	20.25	10.2/10.2			≤6.3	≤6.3	13.5	
□ 12	36	18/18			≤8.4	≤8.4	18	
□ 24	144	72/72			≤16.8	≤16.8	36	

Ordering information

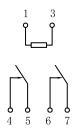
GRT508FH 100A 2B 12VDC S XX

Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	2B:two sets of contacts remain closed
Contact current:	100A
Relay Series:	GRT508FH

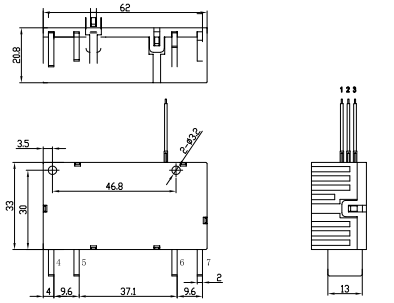
Dimensional Drawings/Wiring Diagrams(unit:mm)



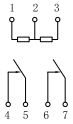
单线圈



1 (+) 3 (-) 4-5、6-7 Release(Open)
1 (-) 3 (+) 4-5、6-7 Operate(Close)



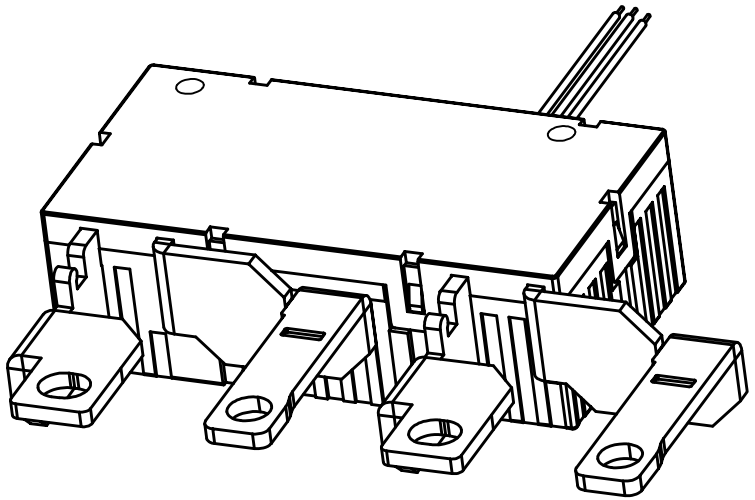
双线圈



1 (+) 2 (-) 4-5、6-7 Release(Open)
3 (+) 2 (-) 4-5、6-7 Operate(Close)

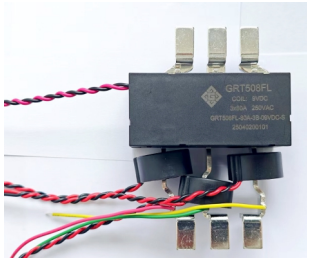
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type



Typical application

●Smart Meter ●Electric Remote Control ●Electrical Leakage Protector



Character

- ◇ 80A contact switching
- ◇ Only pulse excitation is needed, and it can work with single or double coils.
- ◇ Welding accessories can be customized according to customer requirements.
- ◇ Environmental protection products (compliant with RoHS)
- ◇ Dimensions: 63.5 × 29 × 29 (mm)

Contact Data

Contact Form	3B
Contact Material	$AgSnO_2$
Contact Resistance	Max.1 .0mΩ (1A 6VDC)
Rated Load(Resistive)	80 A 250VAC
Max. Switching Voltage	380VAC
Max. Switching Current	80A
Max. Switching Power	20000VA
Mechnical Endurance	1×10^5OPS
Max.Short–Circuit Current	1500A/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 μ s)	Contact to Coil	8KV
Creepage Distance		8mm
Unit Weight		About 155g

Electrical Endurance

Voltage(VAC)	Current(A)	PF	ON:OFF	Frequency	Ambient Temperature
250	60	COS ϕ =1	10s:20s	10000	Room Temperature
	80	COS ϕ =1	10s:20s	6000	Room Temperature

Environmental Data

Ambient Temperature	–40˚C ~ +85˚C	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data(20℃)

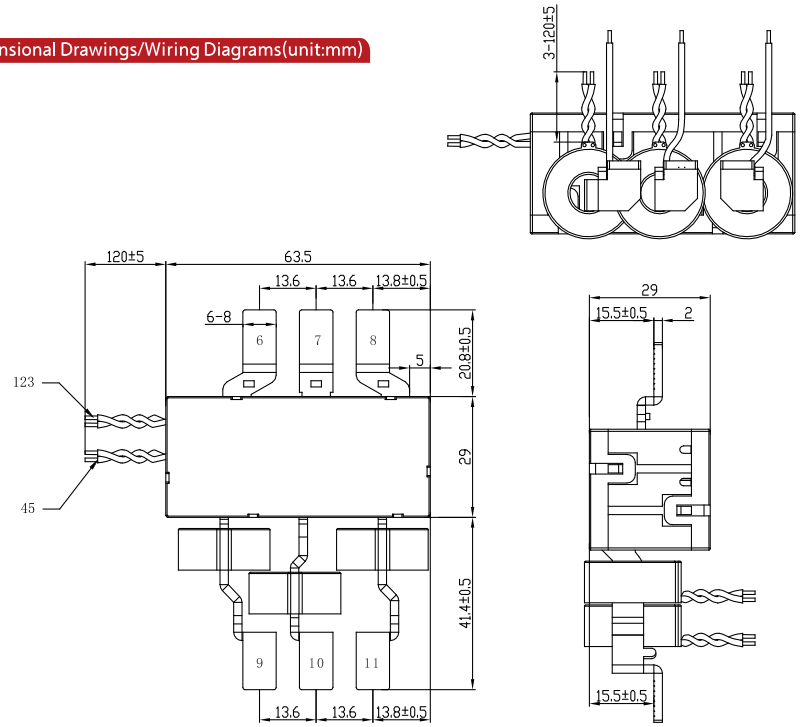
Coil Voltage (VDC)	Coil Resistance (Ω) ± 10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowable Overvoltage (VDC)	Minimum Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 5	8.4	4.2/4.2	3.0	6.0	≤3.5	≤3.5	7.5	100
☐ 6	12	6/6			≤4.2	≤4.2	9	
☐ 9	27	13.5/13.5			≤6.3	≤6.3	13.5	
☐ 12	48	24/24			≤8.4	≤8.4	18	
☐ 24	192	96/96			≤16.8	≤16.8	36	

Ordering information

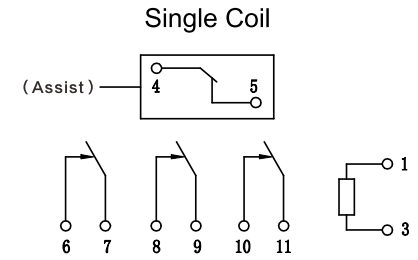
GRT508FL | 80A | 3B | 12VDC | S | XX

Terminal type:	Custom design
Coil type:	S: single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	3B:3 groups are normally closed
Contact current:	80A
Relay Series:	GRT508FL

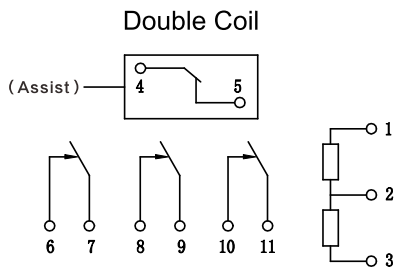
Dimensional Drawings/Wiring Diagrams(unit:mm)



Note:
If the product does not specify tolerances, the tolerance is ±0.2mm when the size ⩽ 1mm; the tolerance is ±0.3mm when the size is between 1-5mm; the tolerance is ±0.5mm when the size ⩾ 5mm.

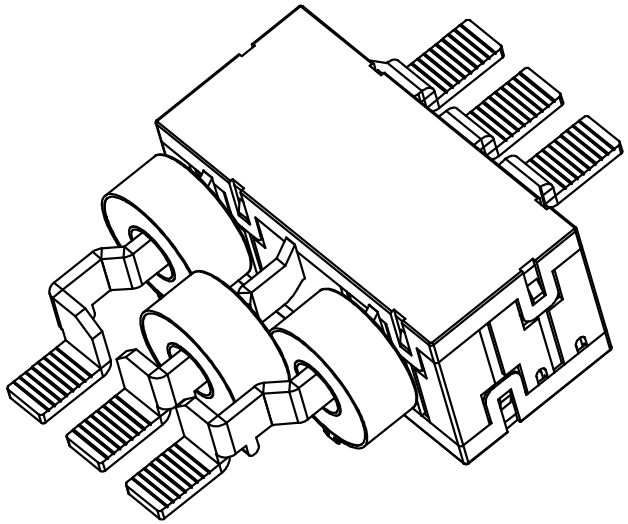


1(+)3(−)4−5, 6−7, 8−9, 10−11 open
3(+)1(−)4−5, 6−7, 8−9, 10−11 close
4−5 is an auxiliary detection contact (optional)



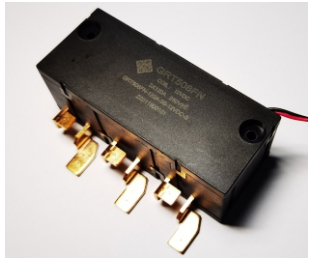
1(+)2(−)4−5、6−7、8−9、10−11 open
3(+)2(−)4−5、6−7、8−9、10−11 close
4−5 is an auxiliary detection contact (optional)

Typical Terminal Type



Typical application

- Smart Meter
- Electric Remote Control
- Electrical Leakage Protector



Character

- ◇ 120A three sets of contacts switching capability
- ◇ 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
- ◇ Outline dimensions: (98.2×40.3×37.7) mm
- ◇ Compliant to UC2, UC3 clauses of IEC62052-31

Contact Data

Contact Form		3B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		120A 250VAC
Max.Switching Voltage		250VAC
Max.Switching Current		120A
Max.Switching Power		30000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4 OPS(100A 230VAC)
		6×10^3 OPS(120A 230VAC)
Max.Short-circuit Current		3000A/10ms
		6000A/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 (1.2/50μs)	Contact to Coil	10KVAC
Creepage Distance		8mm
Unit Weight		About 240g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

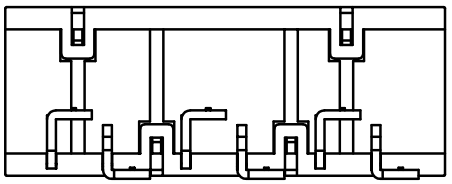
Coil Data (20℃)

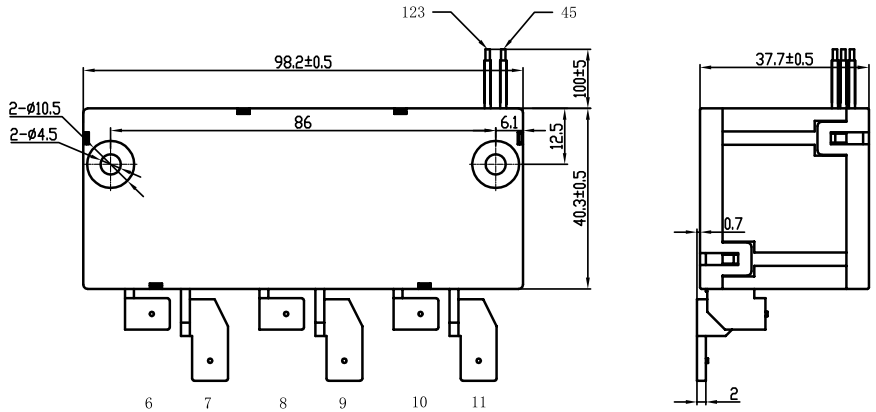
Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 5	8.4	4.2/4.2			≤3.5	≤3.5	7.5	
□ 6	12	6/6			≤4.2	≤4.2	9	
□ 9	27	13.5/13.5	3.0	6.0	≤6.3	≤6.3	13.5	≥120
□ 12	48	24/24			≤8.4	≤8.4	18	
□ 24	192	96/96			≤16.8	≤16.8	36	

Ordering information

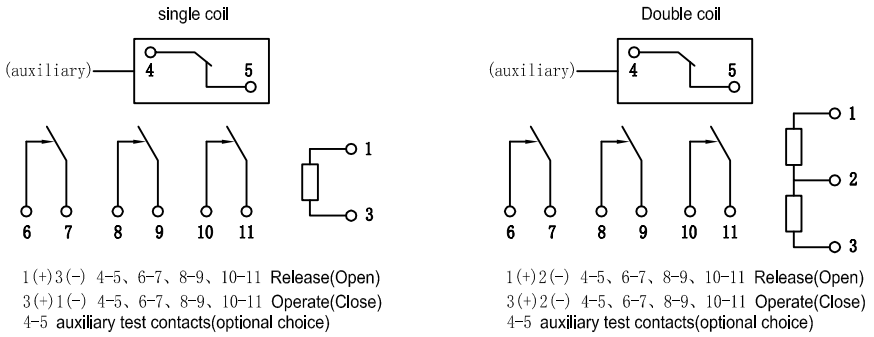
GRT508FH	120A	3B	12VDC	S	XX	
					Terminal type:	Custom design
				Coil type:		S:single coil D:double coil
			Coil voltage:			5, 6, 9, 12, 24, 48V
		Contact form:				3B:three sets of contacts remain closed
	Contact current:					120A
Relay Series:						GRT508FN

Dimensional Drawings/Wiring Diagrams(unit:mm)





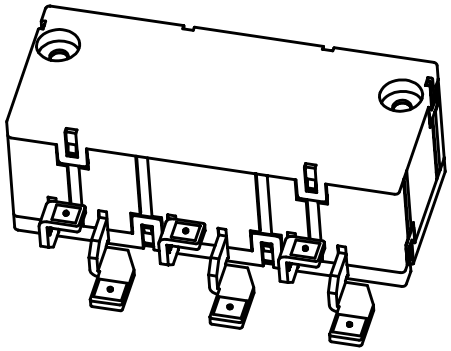
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.



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)

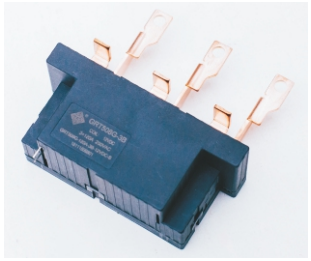
1(+)2(−) 4-5、6-7、8-9、10-11 Release(Open)
3(+)2(−) 4-5、6-7、8-9、10-11 Operate(Close)
4-5 auxiliary test contacts(optional choice)

Typical Terminal Type



Typical application

- Smart Meter



Character

- ◇ 120A three sets of contacts switching capability
- ◇ 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 UC3 compliant
- ◇ Outline dimensions: (103 x 46.5 x 41.6) mm

Contact Data

Contact Form		3B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		120A 250VAC
Max. Switching Voltage		380VAC
Max. Switching Current		120A
Max. Switching Power		30000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4OPS (100A 250VAC)
		6×10^3OPS (120A 250VAC)
Max. Short-circuit Current		3000A/10ms
		6000A/10ms(no explosion)

Characteristics

Operate Time		60ms Max.
Release Time		60ms 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 (1.2/50μs)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 350g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

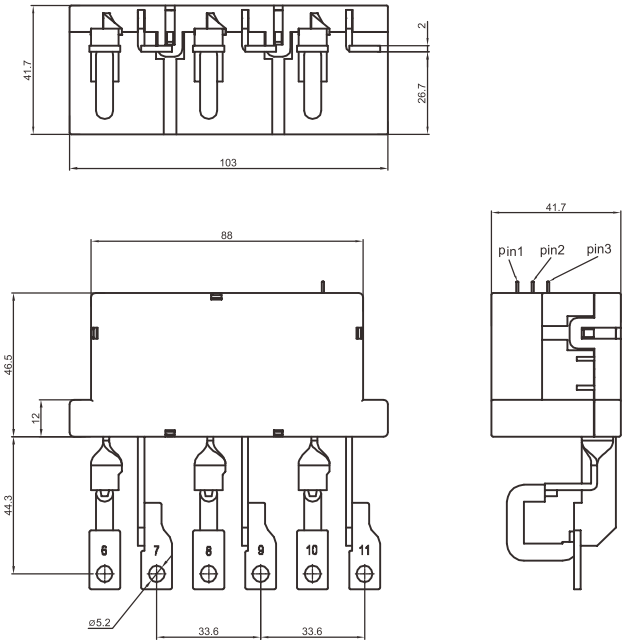
Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 9	11.6	5.8/5.8	7.0	14.0	≤6.3	≤6.3	13.5	≥120
□ 12	20.6	10.3/10.3			≤8.4	≤8.4	18	
□ 24	82.3	41.2/41.2			≤16.8	≤16.8	36	
□ 48	329	165/165			≤33.6	≤33.6	72	

Ordering information

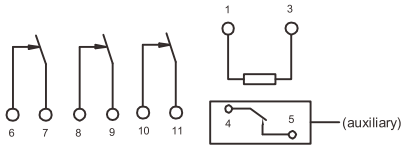
GRT508G	120A	3B	12VDC	S	XX		
						Terminal type:	Custom design
						Coil type:	S:single coil D:double coil
						Coil voltage:	5, 6, 9, 12, 24, 48V
						Contact form:	3B:three sets of contacts remain closed
						Contact current:	120A
						Relay Series:	GRT508G

Dimensional Drawings/Wiring Diagrams(unit:mm)



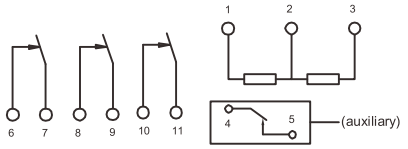
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

single coil



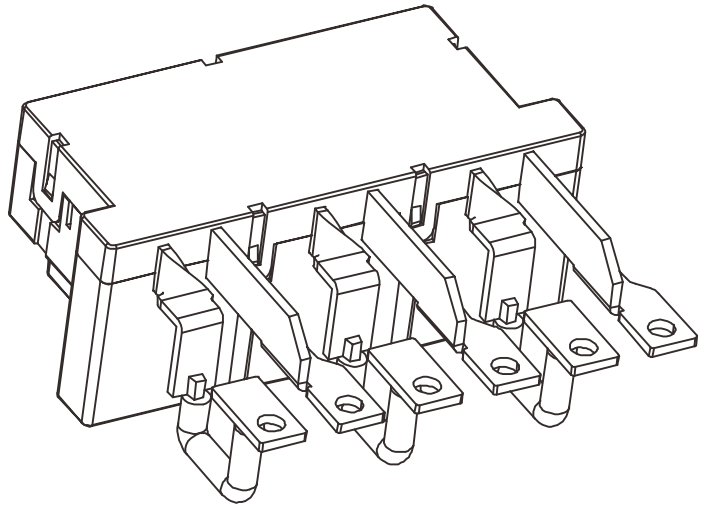
1(+)3(-) 6-7 8-9 10-11 Release(Open)
3(+)1(-) 6-7 8-9 10-11 Operate(Close)
4-5 auxiliary test contacts (optional choice)

Double coil



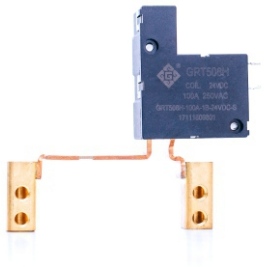
1(+)2(-) 6-7 8-9 10-11 Release(Open)
3(+)2(-) 6-7 8-9 10-11 Operate(Close)
4-5 auxiliary test contacts (optional choice)

Typical Terminal Type



Typical application

●Smart Meter ●Electric Remote Control ●Electrical Leakage Protector



Character

- ◇ 120A contact switching capability
- ◇ 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 UC3 compliant
- ◇ Outline dimensions: (52 x 43 x 22) mm

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		120A 250VAC
Max. Switching Voltage		250VAC
Max. Switching Current		120A
Max. Switching Power		30000VA
Service Life	Mechnical Endurance	5×10^5OPS
	Electrical Endurance	1×10^4OPS(100A 250VAC)
		6×10^3OPS(120A 250VAC)
Max. Short-circuit Current		3000A/10ms
		6000A/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	
Surge Voltage (1.2/50 μ s)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 73g

Environmental Data

Ambient Temperature	–40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

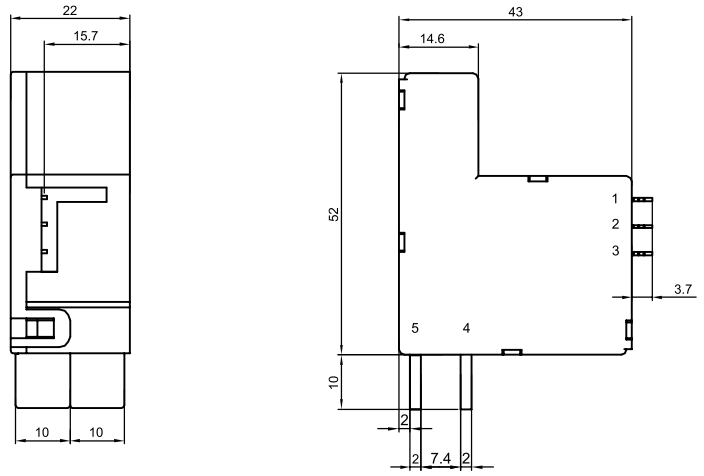
Coil Voltage (VDC)	Coil Resistance(Ω)±10% Single	Coil Resistance(Ω)±10% Double	Coil Power(w) Single	Coil Power(w) Double	Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
☐ 6	12	6/6	3.0	6.0	≤4.2	≤4.2	9	≥90
☐ 9	27	13.5/13.5			≤6.3	≤6.3	13.5	
☐ 12	48	24/24			≤8.4	≤8.4	18	
☐ 24	192	96/96			≤16.8	≤16.8	36	

Ordering information

GRT508H	120A	1B	12VDC	S	XX	
						Terminal type: Custom design
						Coil type: S:single coil D:double coil
						Coil voltage: 5, 6, 9, 12, 24,48V
						Contact form: 1B:a set of contacts remain closed
						Contact current: 120A
						Relay Series: GRT508H

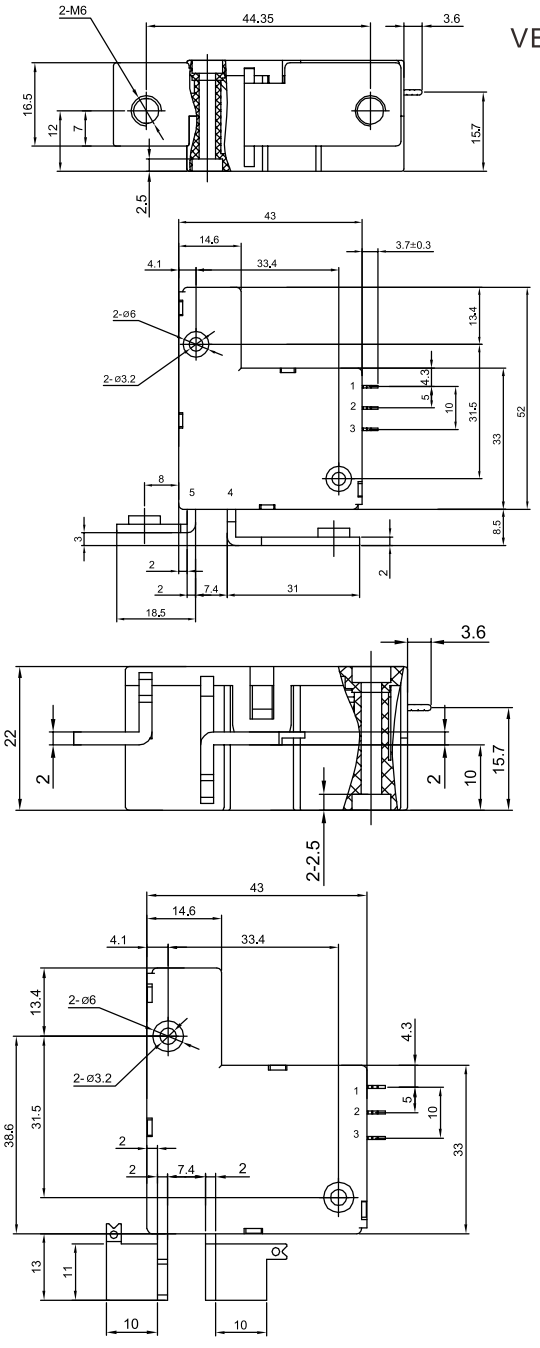
Dimensional Drawings/Wiring Diagrams(unit:mm)

VERSION : A (two sets of contacts)



Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

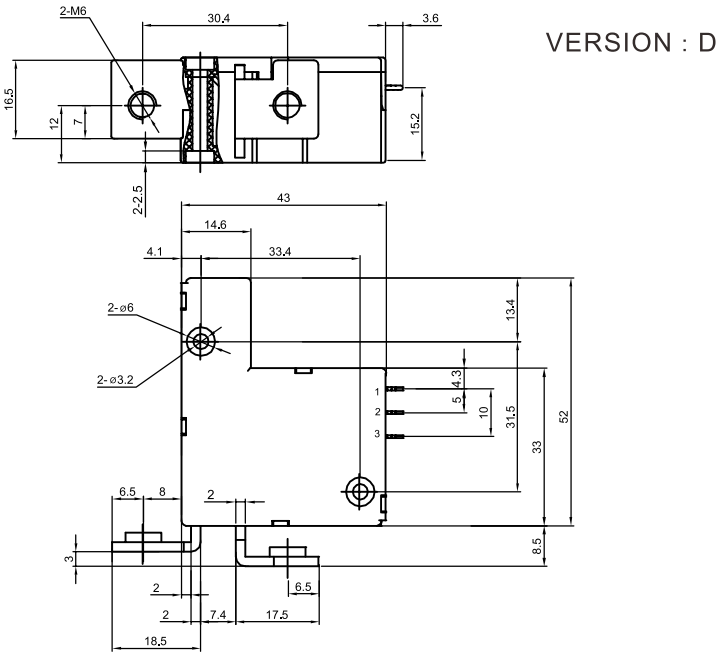
VERSION : B



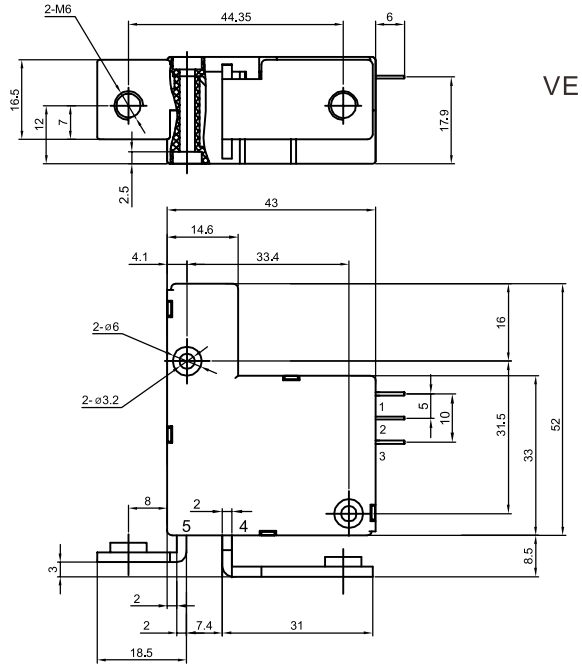
VERSION : C

Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

VERSION : D

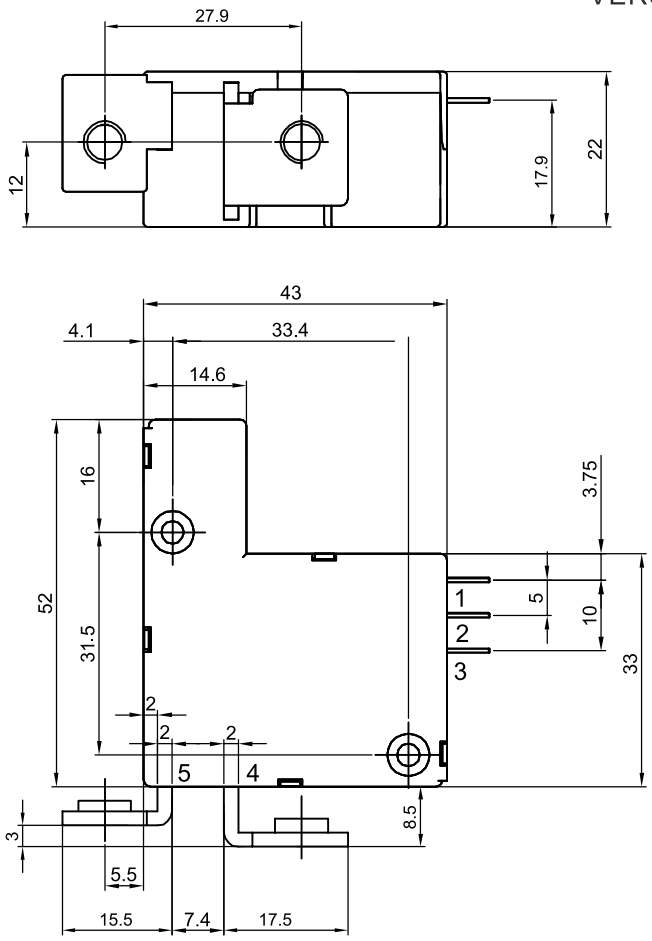


VERSION : E

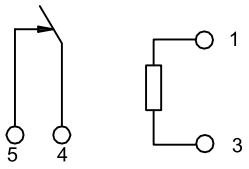


Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

VERSION : F

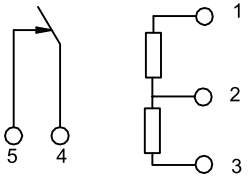


Single coil



1 (+) 3 (-) 4-5 Release(Open)
3 (+) 1 (-) 4-5 Operate(Close)

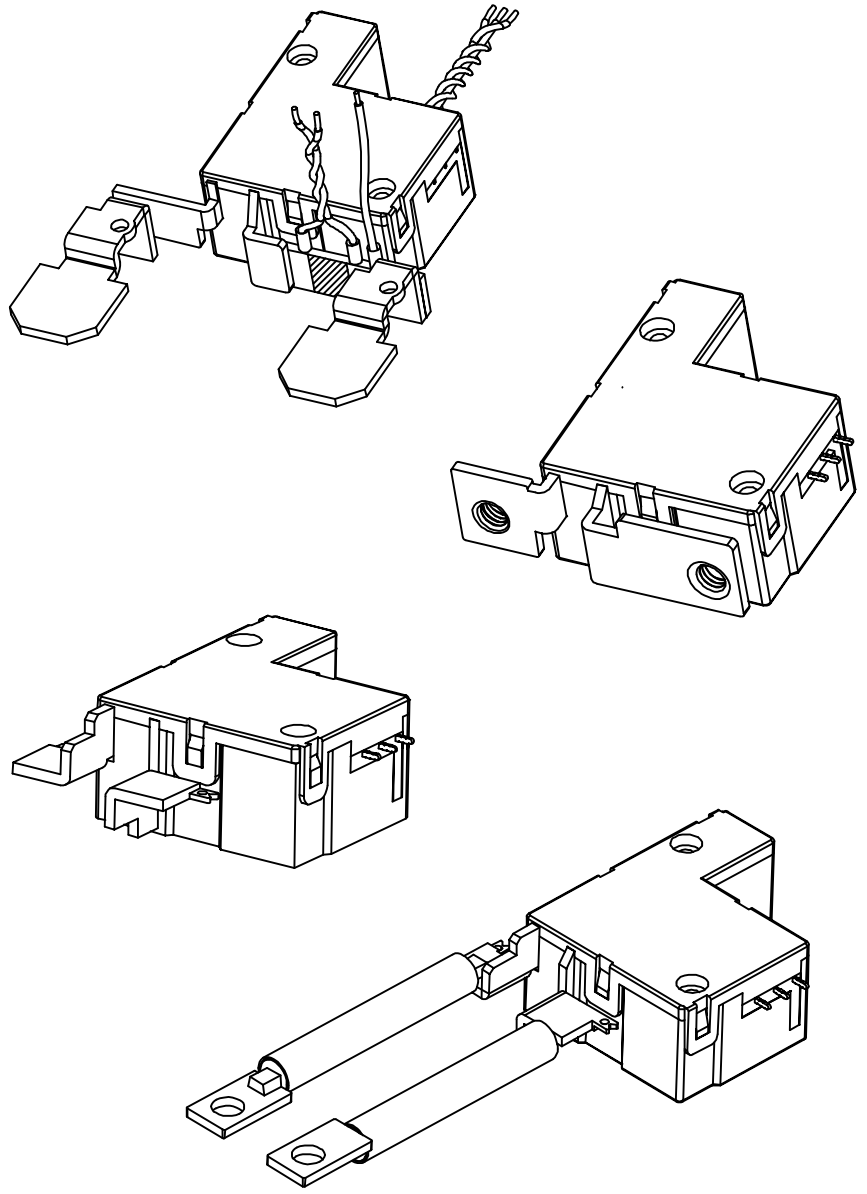
Double coil



1 (+) 2 (-) 4-5 Release(Open)
3 (+) 2 (-) 4-5 Operate(Close)

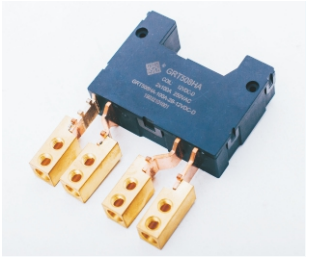
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type



Typical application

- Smart Meter



Character

- ◇ 100A two sets of contacts switching capability
- ◇ 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 UC3 compliant
- ◇ Outline dimensions: (70 x 52 x 22) mm

Contact Data

Contact Form		2B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		100A 250VAC
Max.Switching Voltage		250VAC
Max.Switching Current		100A
Max.Switching Power		25000VA
Service Life	Mechnical Endurance	1×10^6OPS
	Electrical Endurance	6×10^3OPS (100A 250VAC)
		1×10^4OPS (80A 250VAC)
Max.Short-circuit Current		3000A/10ms
		6000A/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	6KV
Creepage Distance		8mm
Unit Weight		About 170g

Environmental Data

Ambient Temperature	–40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 9	20.3	10.1/10.1	4.0	8.0	≤6.3	≤6.3	13.5	≥100
□ 12	36	18/18			≤8.4	≤8.4	18	
□ 24	144	72/72			≤16.8	≤16.8	36	
□ 48	576	288/288			≤33.6	≤33.6	72	

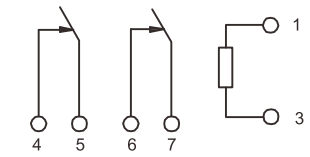
Ordering information

GRT508HA 100A 2B 12VDC S XX

Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	2B:two sets of contacts remain closed
Contact current:	100A
Relay Series:	GRT508HA

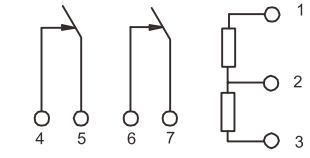
Dimensional Drawings/Wiring Diagrams(unit:mm)

Single coil

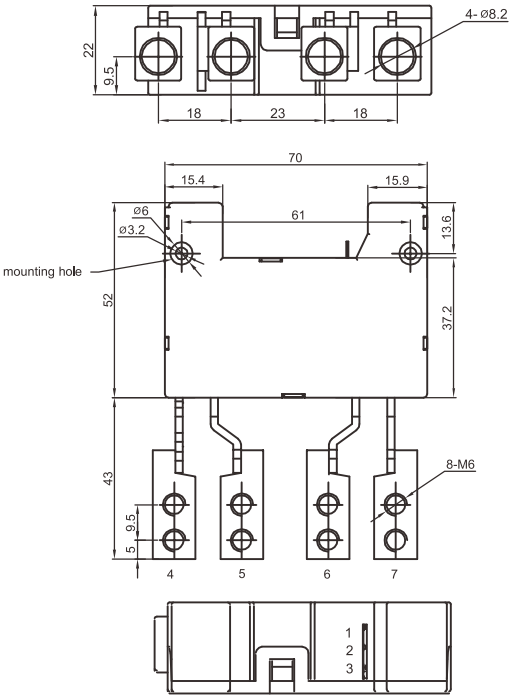


1 (+) 3 (-) 4-5、6-7 Release(Open)
3 (+) 1 (-) 4-5、6-7 Operate(Close)

Double coil

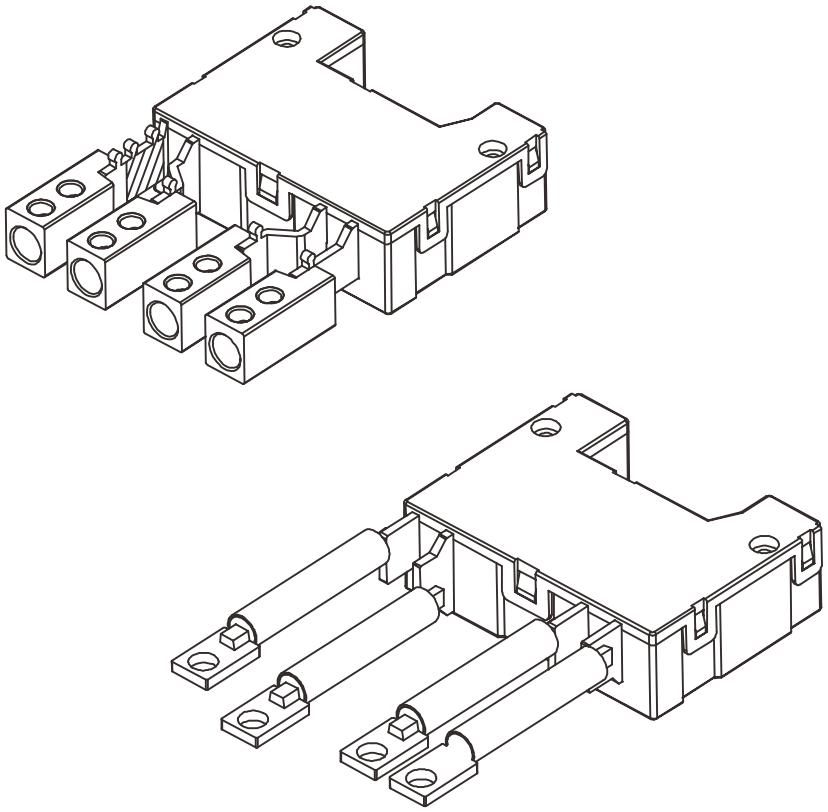


1 (+) 2 (-) 4-5、6-7 Release(Open)
3 (+) 2 (-) 4-5、6-7 Operate(Close)



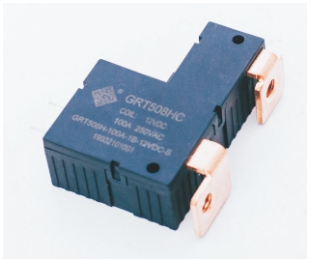
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type



Typical application

●Smart Meter ●Electric Remote Control ●Electrical Leakage Protector



Character

- ◇ 100A contact switching capability
- ◇ 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
- ◇ Outline dimensions: (58 x 40 x 20.8) mm

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		100A 250VAC
Max. Switching Voltage		440VAC/28VDC
Max. Switching Current		100A
Max. Switching Power		25000VA/2800W
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	6×10^3OPS
Max. Short-circuit Current		1500A/10ms

Characteristics

Operate Time		25ms Max.
Release Time		25ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60hz, 1min)	Contact to Coil	4000VAC
	Across Open Contacts	2000VAC
	Contact to contact	
Surge Voltage (1.2/50μs)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 95g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

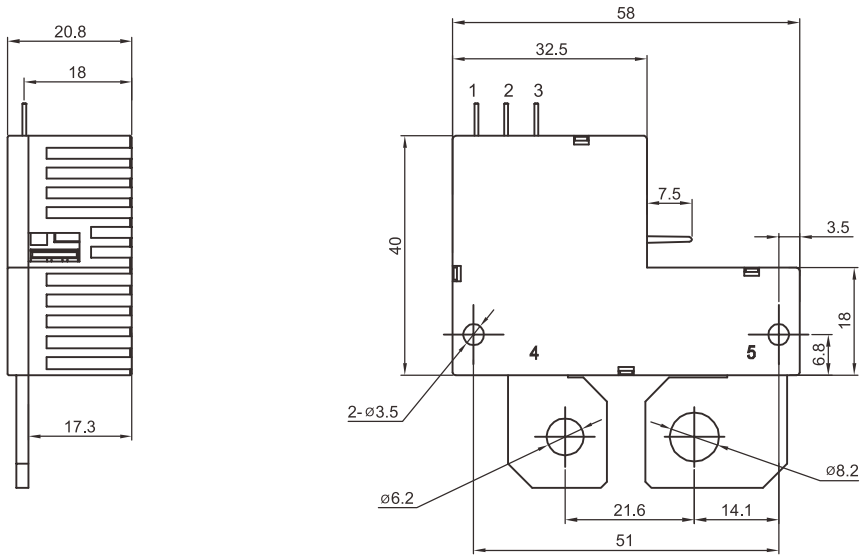
Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	16	8/8	2.25	4.5	⩽4.2	⩽4.2	9	⩾90
☐ 9	36	18/18			≤6.3	≤6.3	13.5	
☐ 12	64	32/32			≤8.4	≤8.4	18	
☐ 24	256	128/128			≤16.8	≤16.8	36	

Ordering information

GRT508HC 100A 1B 12VDC S XX

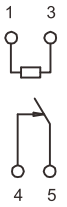
Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	1B:a set of contacts remain closed
Contact current:	100A
Relay Series:	GRT508HC

Dimensional Drawings/Wiring Diagrams(unit:mm)



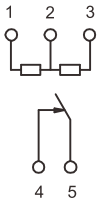
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

single coil



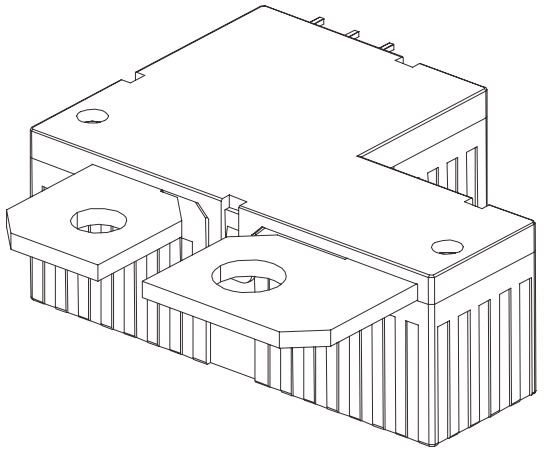
1 (+) 3 (-) 4-5 Release(Open)
3 (+) 1 (-) 4-5 Operate(Close)

Double coil



1 (+) 2 (-) 4-5 Release(Open)
3 (+) 2 (-) 4-5 Operate(Close)

Typical Terminal Type



Typical application

●smart meter ●power composite switch



Character

- ◇ 150A contact switching capability
- ◇ Only impulse excitation needed, both for single and double coil.
- ◇ Low power consumption, small in size
- ◇ RoHS compliant
- ◇ Outline dimensions: (48 × 52 × 30)mm

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.0.6mΩ
Rated Load(Resistive)		150A 220VAC
Max. Switching Voltage		253VAC
Max. Switching Current		150A
Max. Switching Power		33000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4OPS(150A 250VAC)
		5×10^3OPS(120A 250VAC)
Max. Short-circuit Current		3000A/10ms
		6000A/10ms (no explosion)

Characteristics

Operate Time		20ms Max.
Release Time		20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60hz, 1min)	Contact to Coil	4000VAC
	Across Open Contacts	2000VAC
	Contact to contact	
Surge Voltage (1.2/50 μ s)	Contact to Coil	10KV
Creepage Distance		8mm
Unit Weight		About 130g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

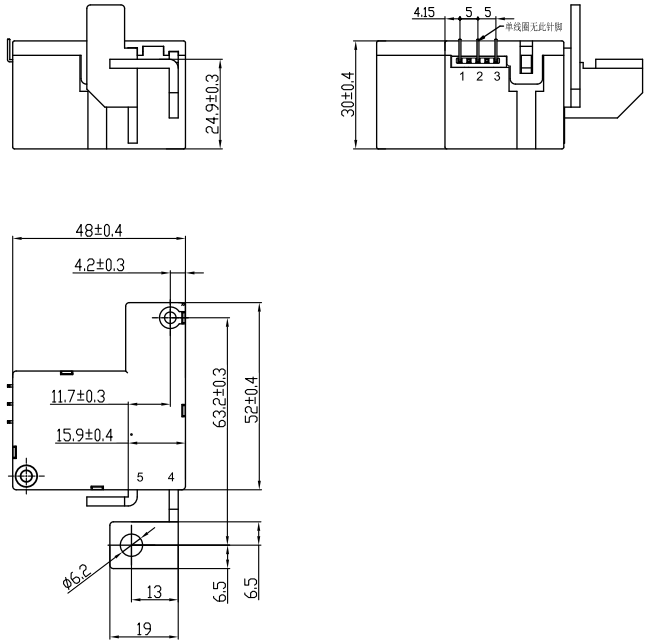
Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10% Single	Coil Resistance(Ω)±10% Double	Coil Power(w) Single	Coil Power(w) Double	Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
□ 6	12	6/6	3.0	6.0	≤4.2	≤4.2	9	≥80
□ 9	27	13.5/13.5			≤6.3	≤6.3	13.5	
□ 12	48	24/24			≤8.4	≤8.4	18	
□ 24	192	96/96			≤16.8	≤16.8	36	

Ordering information

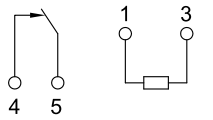
GRT508HE	150A	1B	12VDC	S	XX	
						Terminal type: Custom design
						Coil type: S:single coil D:double coil
						Coil voltage: 6, 9, 12, 24,48V
						Contact form: 1B: a set of contacts remain closed
						Contact current: 150A
						Relay Series: GRT508HE

Dimensional Drawings/Wiring Diagrams(unit:mm)



Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

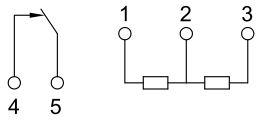
Single Coil



4-5 Reset (Open) 1(−)3(+)

4-5 Set (Close) 1(+)3(−)

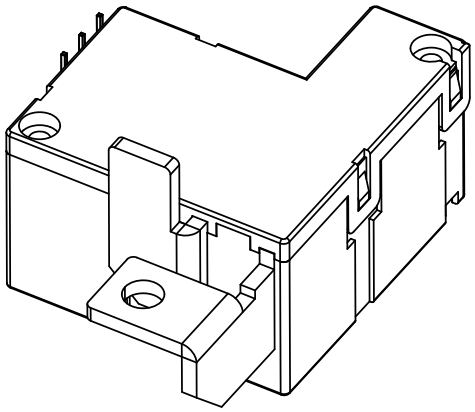
Double Coil



4-5 Reset (Open) 3(+) 2(−)

4-5 Set (Close) 1(+) 2(−)

Typical Terminal Type



Typical application

●Smart Meter ●Electric Remote Control ●Electrical Leakage Protector



Character

- ◇ 150A load switch
- ◇ Single channel relay
- ◇ One in one out installation plan
- ◇ Accessories can be welded according to customer requirements
- ◇ Environmentally friendly products (compliant with RoHS)
- ◇ Compliant with IEC62052−31 UC3 standard
- ◇ Dimensions: 65 × 32 × 21.3 (mm)

Contact Data

Contact Form	1B
Contact Material	$AgSnO_2$
Contact Resistance	Max.0.5mΩ
Rated Load(Resistive)	150A 250VAC
Max. Switching Voltage	440VAC/28VDC
Max. Switching Current	150A
Max. Switching Power	37500VA/4200W
Mechnical Endurance	5×10^4OPS
Max.Short−Circuit Current	6000A/10ms (no explosion)

Characteristics

Operate Time		25ms Max.
Release Time		25ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60hz, 1min)	Contact to Coil	4000VAC
	Across Open Contacts	2500VAC
	Contact to contact	
Surge Voltage (1.2/50 μ s)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 102g

Electrical Endurance

Voltage(VAC)	Current(A)	PF	ON:OFF	Frequency	Ambient Temperature
250	150	COS ϕ =1	10s:20s	5000	Room Temperature
		COS ϕ =0.5	10s:20s	5000	Room Temperature

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data(20℃)

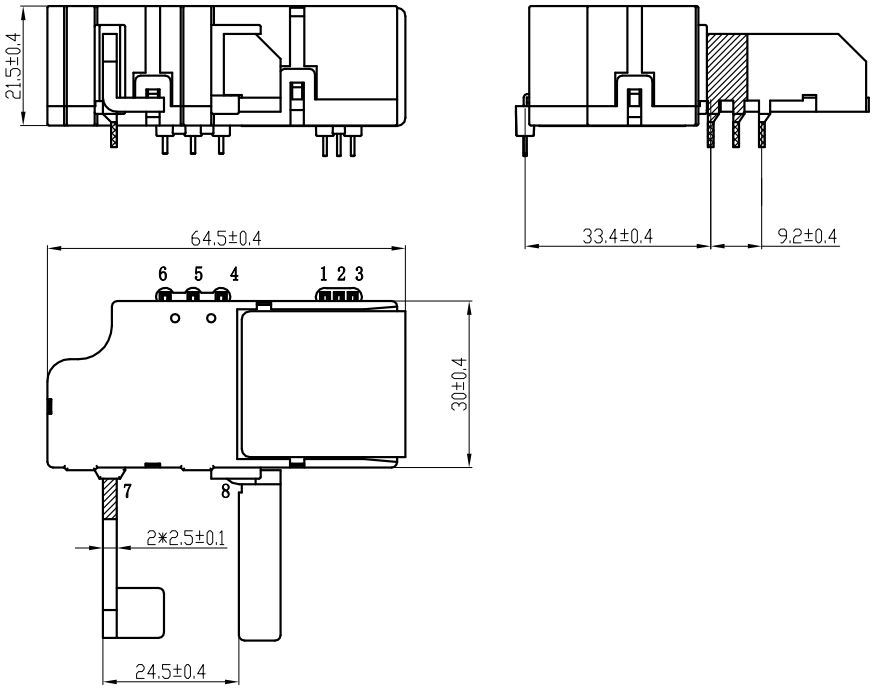
Coil Voltage (VDC)	Coil Resistance (Ω) ± 10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowable Overvoltage (VDC)	Minimum Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	4	2/2	9.0	18.0	≤4.2	≤4.2	9	90
☐ 9	9	4.5/4.5			≤6.3	≤6.3	13.5	
☐ 12	16	8/8			≤8.4	≤8.4	18	
☐ 24	64	32/32			≤16.8	≤16.8	36	

Ordering information

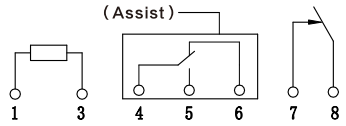
GRT508HK 150A 1B 12VDC S XX

Terminal type:	Custom design
Coil type:	S: single coil D:double coil
Coil voltage:	6, 9, 12, 24
Contact form:	1B:1 groups are normally closed
Contact current:	150A
Relay Series:	GRT508HK

Dimensional Drawings/Wiring Diagrams(unit:mm)

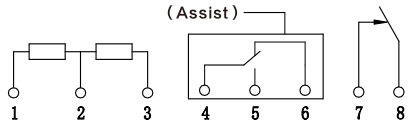


Single Coil



1 (+) 3 (−) 4–6, 7–8 open 4–5 close
3 (+) 1 (−) 4–6, 7–8 close 4–5 open
4、5、6 are auxiliary detection contacts (optional)

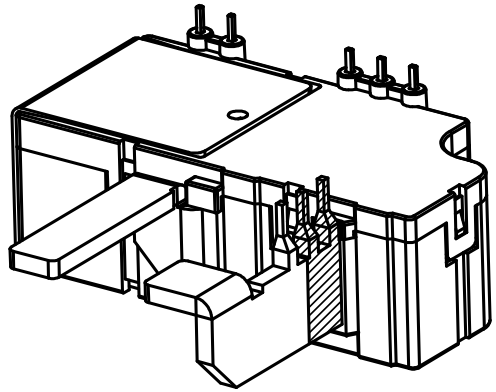
Double Coil

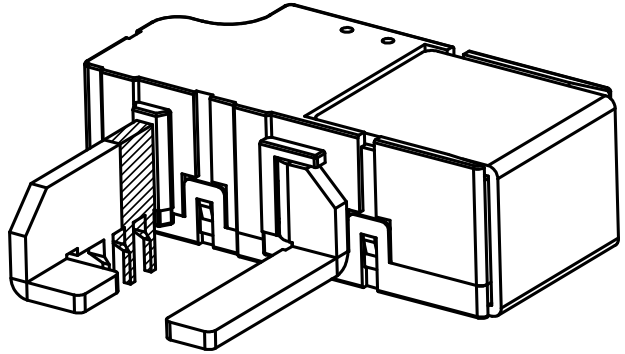


1 (+) 2 (−) 4–6, 7–8 open 4–5 close
3 (+) 2 (−) 4–6, 7–8 close 4–5 open
4、5、6 are auxiliary detection contacts (optional)

Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type





Typical application

- Smart Meter
- Electric Remote Control
- Electrical Leakage Protector



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 53 x 21) mm

Contact Data

Contact Form		3B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		80A 250VAC
Max. Switching Voltage		380VAC
Max. Switching Current		80A
Max. Switching Power		25000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	6×10^3OPS (80A 250VAC)
		1×10^4OPS (60A 250VAC)
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 μ s)	Contact to Coil	5KV
Creepage Distance		8mm
Unit Weight		About 200g

Environmental Data

Ambient Temperature	−40℃～+70℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

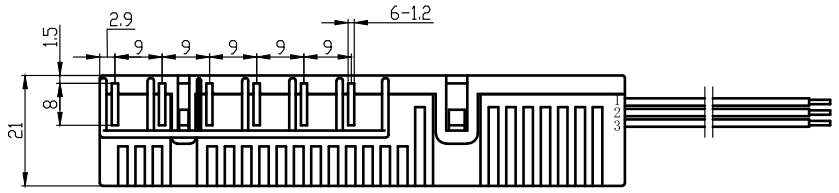
Coil Data (20℃)

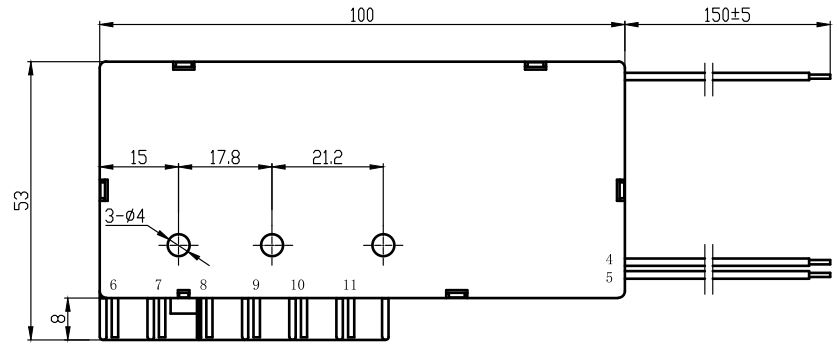
Coil Voltage (VDC)	Coil Resistance(Ω)±10% Single	Coil Resistance(Ω)±10% Double	Coil Power(w) Single	Coil Power(w) Double	Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
☐ 9	27	13.5/13.5	3.0	6.0	≤6.3	≤6.3	13.5	≥120
☐ 12	48	24/24			≤8.4	≤8.4	18	
☐ 24	192	96/96			≤16.8	≤16.8	36	
☐ 48	768	384/384			≤33.6	≤33.6	72	

Ordering information

GRT508M	80A	1B	12VDC	S	XX	
					Terminal type:	Custom design
				Coil type:		S:single coil D:double coil
			Coil voltage:			5, 6, 9, 12, 24, 48V
		Contact form:				3B:three sets of contacts remain closed
	Contact current:					80A
Relay Series:						GRT508M

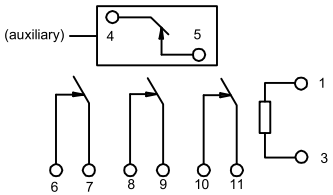
Dimensional Drawings/Wiring Diagrams(unit:mm)





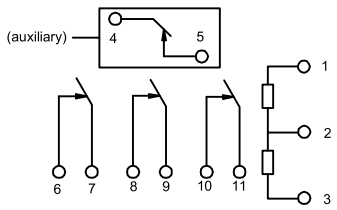
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

single coil



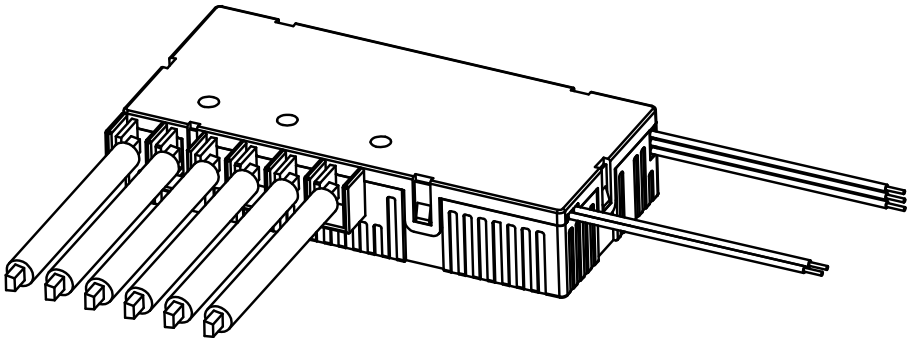
1 (+) 3 (-) 4-5、6-7、8-9、10-11 Release(Open)
3 (+) 1 (-) 4-5、6-7、8-9、10-11 Operate(Close)
4-5 auxiliary test contacts (optional choice)

Double coil



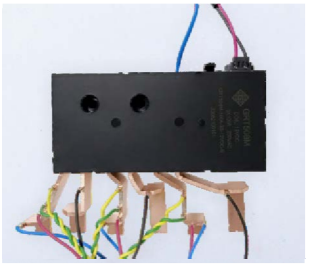
1 (+) 2 (-) 4-5、6-7、8-9、10-11 Release(Open)
3 (+) 2 (-) 4-5、6-7、8-9、10-11 Operate(Close)
4-5 auxiliary test contacts (optional choice)

Typical Terminal Type



Typical application

●Smart Meter



Character

◇ Three sets of 100A 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 UC compliant
◇ Outline dimensions: (110 x 52 x 24) mm

Contact Data

Contact Form		3B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		100A 250VAC
Max. Switching Voltage		276VAC
Max. Switching Current		100A
Max. Switching Power		25000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4OPS(100A 250VAC)
		6×10^3OPS(120A 250VAC)
Max. Short-circuit Current		3000A/10ms
		6000A/10ms(no explosion)

Characteristics

Operate Time		60ms Max.
Release Time		60ms 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	6KV
Creepage Distance		8mm
Unit Weight		About 300g

Environmental Data

Ambient Temperature	−40℃ ~ +85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

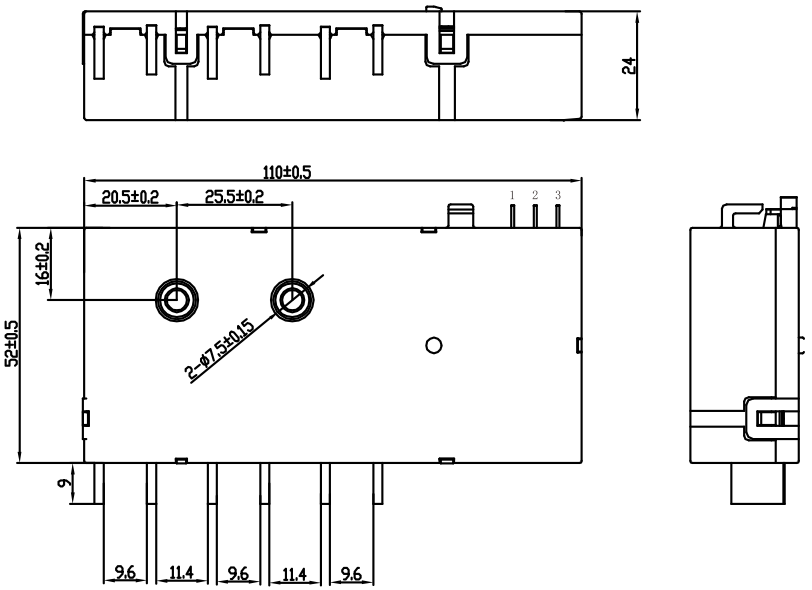
Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 6	7.2	3.6/3.6	5.0	10.0	≤4.2	≤4.2	9	⩾100
□ 9	16.2	8.1/8.1			≤6.3	≤6.3	13.5	
□ 12	28.8	14.4/14.4			≤8.4	≤8.4	18	
□ 24	115.2	57.6/57.6			≤16.8	≤16.8	36	

Ordering information

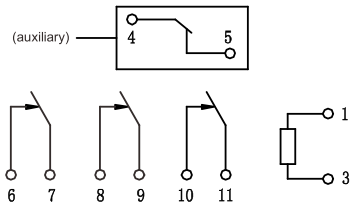
GRT508M 100A 3B 12VDC S XX

Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	3B:three sets of contacts remain closed
Contact current:	100A
Relay Series:	GRT508M

Dimensional Drawings/Wiring Diagrams(unit:mm)

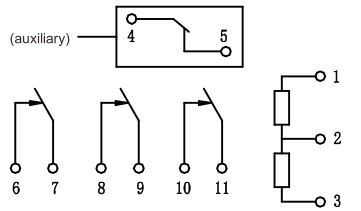


Single coil



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)

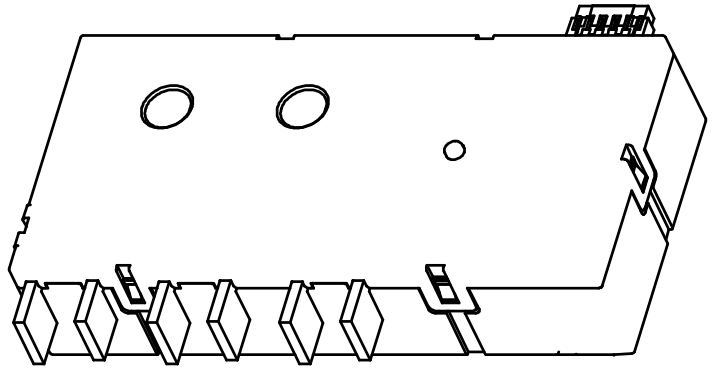
Double coil



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)

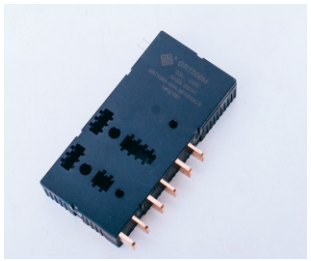
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type



Typical application

- Smart Meter



Character

- ◇ 120A 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 UC compliant
- ◇ Outline dimensions: (110 x 52 x 24) mm

Contact Data

Contact Form		3B/3H(double contact)
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		100A 250VAC
Max. Switching Voltage		380VAC
Max. Switching Current		120A
Max. Switching Power		25000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	1×10^4OPS(100A 250VAC)
		6×10^3OPS(120A 250VAC)
Max. Short-circuit Current		3000A/10ms
		6000A/10ms(no explosion)

Characteristics

Operate Time		60ms Max.
Release Time		60ms 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	4KV
Creepage Distance		8mm
Unit Weight		About 300g

Environmental Data

Ambient Temperature	–40°C ~ +85°C	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

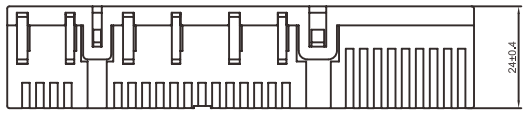
Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	7.2	3.6/3.6	5.0	10.0	≤4.2	≤4.2	9	≥120
☐ 9	16.2	8.1/8.1			≤6.3	≤8.4	13.5	
☐ 12	28.8	14.4/14.4			≤8.4	≤16.8	18	
☐ 24	115.2	57.6/57.6			≤16.8	≤16.8	36	

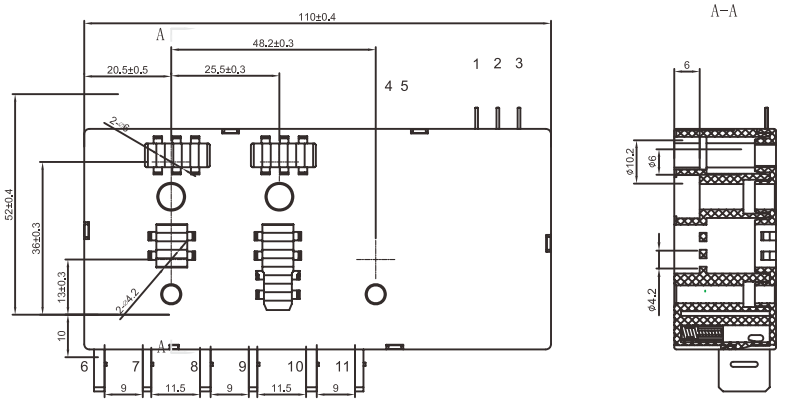
Ordering information

GRT508M 120A 3B 12VDC S XX

Terminal type:	Custom design
Coil type:	S: single coil D: double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	3B:three sets of contacts remain closed
Contact current:	120A
Relay Series:	GRT508M

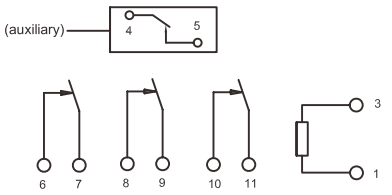
Dimensional Drawings/Wiring Diagrams(unit:mm)





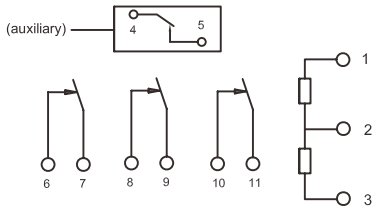
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Single coil



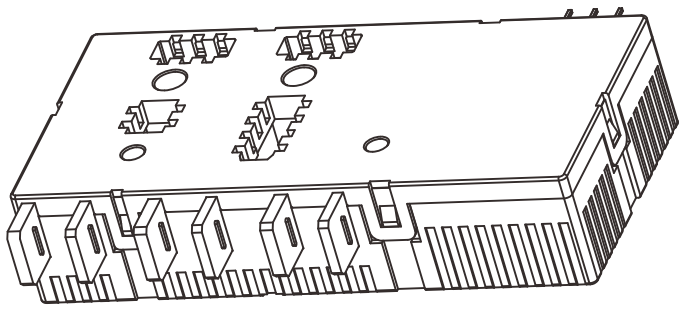
1（+）3（-） 4-5、6-7、8-9、10-11 Release(Open)
3（+）1（-） 4-5、6-7、8-9、10-11 Operate(Close)
4-5 auxiliary test contacts (optional choice)

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



Character

- ◇ Three groups of 120A can be switched simultaneously, with auxiliary contacts available
- ◇ Only pulse excitation is required, and single or double coil operation is possible
- ◇ Support welding accessories according to customer requirements
- ◇ RoHS compliant
- ◇ IEC62052–31 UC3 compliant
- ◇ Outline Dimension:(115x64.5x26)mm

Contact Data

Contact Form	3B
Contact Material	$AgSnO_2$
Contact Resistance	Max.1.0mΩ
Rated Load(Resistive)	120A 250VAC
Max. Switching Voltage	276VAC
Max. Switching Current	120A
Max. Switching Power	30000VA
Mechnical Endurance	1×10^5OPS
Max. hort-circuit Current	30000A/10ms
	6000A/10ms (no explosion)

Characteristics

Operate Time		60ms Max.
Release Time		60ms 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	10KV
Creepage Distance		8mm
Unit Weight		About 240g

Electrical Endurance

Voltage(VAC)	Current(A)	PF	ON:OFF	Frequency	Ambient Temperature
230	100	COS ϕ =1	10s:20s	5000	Room Temperature
	100	COS ϕ =0.5	10s:20s	5000	Room Temperature
	120	COS ϕ =1	10s:20s	10000	Room Temperature

Environmental Data

Ambient Temperature	–40℃ ~ +85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data(20℃)

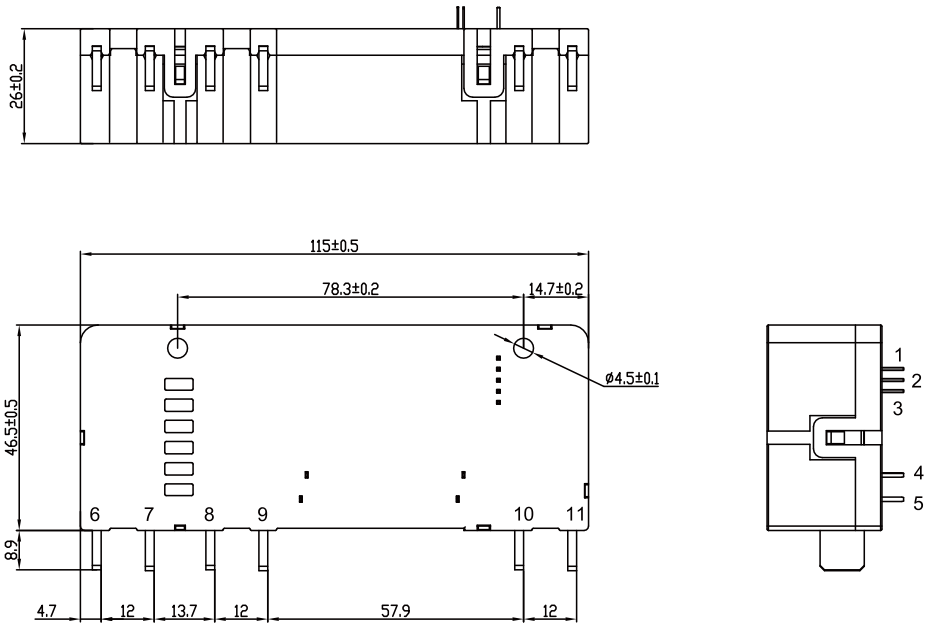
Coil Voltage (VDC)	Coil Resistance (Ω) ± 10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowable Overvoltage (VDC)	Minimum Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	7.2	3.6/3.6	5.0	10.0	≤4.2	≤4.2	12	120
☐ 9	16.2	8.1/8.1			≤6.3	≤6.3	18	
☐ 12	28.8	14.4/14.4			≤8.4	≤8.4	24	
☐ 24	115.2	57.6/57.6			≤16.8	≤16.8	48	
☐ 48	460.8	230/230			≤33.6	≤33.6	96	

Ordering information

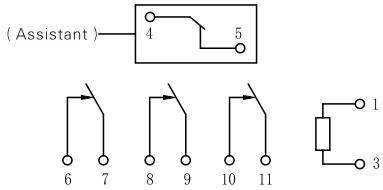
GRT508MH 120A 3B 12VDC S XX

Terminal type:	Custom design
Coil type:	S: single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	3B: 3 groups are normally closed
Contact current:	120A
Relay Series:	GRT508MH

Dimensional Drawings/Wiring Diagrams(unit:mm)

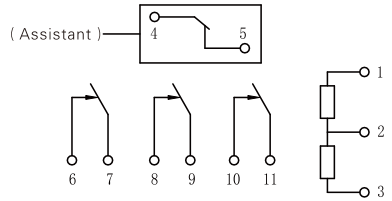


Single Coil



1 (+) 3 (–) 4–5, 6–7, 8–9, 10–11 closed
3 (+) 1 (–) 4–5, 6–7, 8–9, 10–11 disconnected
4–5 are auxiliary detection contacts (optional)

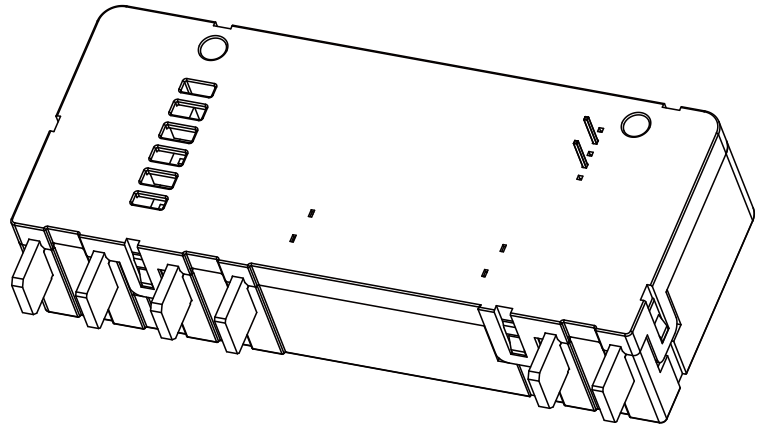
Double Coil



1 (+) 2 (–) 4–5, 6–7, 8–9, 10–11 closed
3 (+) 2 (–) 4–5, 6–7, 8–9, 10–11 disconnected
4–5 are auxiliary detection contacts (optional)

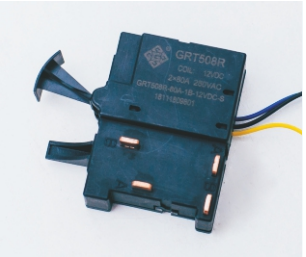
Note: The product does not have a tolerance specified. When the size is ⩽ 1mm, the tolerance is ± 0.2mm;
When the size is between 1–5mm, the tolerance is soil 0.3mm; When the size is ⩾ 5mm, the tolerance is ± 0.5mm

Typical Terminal Type



Typical application

- Smart Meter



Character

- ◇ 60A contact switching capability
- ◇ Only impulse excitation needed, both for single and double coil, control by manual switch
- ◇ Low power consumption, small in size
- ◇ 4KV dielectric strength between coil and contacts
- ◇ RoHS compliant
- ◇Outline dimensions: (54.6 x 41 x 19.3) mm

Contact Data

Contact Form		2B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1 .5mΩ (1A 6VDC)
Rated Load(Resistive)		60A 250VAC
Max. Switching Voltage		250VAC
Max. Switching Current		60A
Max. Switching Power		15000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	6×10^3OPS (60A 250AVC)
		1×10^4OPS (40A 250AVC)
Max. Short-circuit Current		1500A/10ms

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	1500VAC
	Contact to contact	4000VAC
Surge Voltage (1.2/50 μ s)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 90g

Environmental Data

Ambient Temperature	−40˚C ~ +70˚C	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

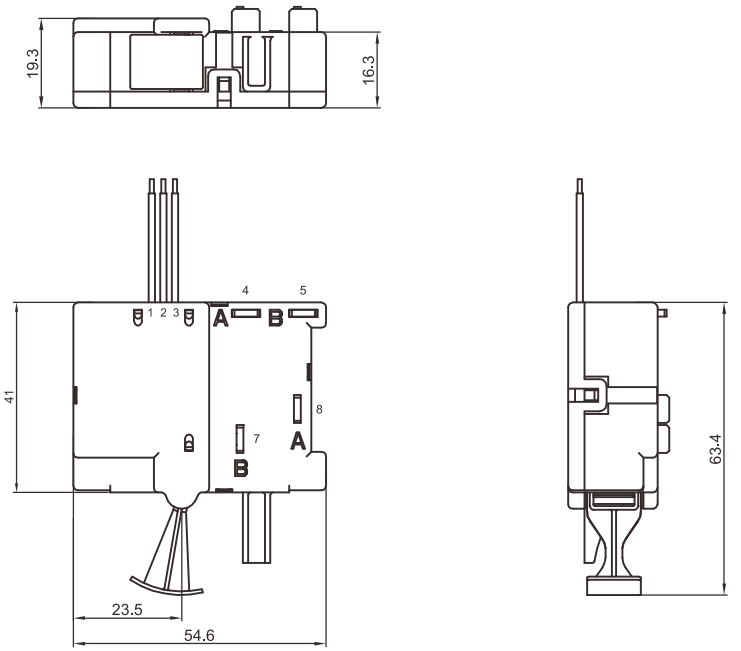
Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 9	23.1	11.6/11.6	3.5	7.0	≤6.3	≤6.3	13.5	≥100
□ 12	41.1	20.6/20.6			≤8.4	≤8.4	18	
□ 24	164.6	82.3/82.3			≤16.8	≤16.8	36	
□ 48	658.3	329.1/329.1			≤33.6	≤33.6	72	

Ordering information

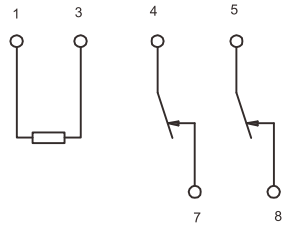
GRT508R	60A	2B	12VDC	S	XX	
						Terminal type: Custom design
						Coil type: S:single coil D:double coil
						Coil voltage: 5, 6, 9, 12, 24, 48V
						Contact form: 2B:two sets of contacts remain closed
						Contact current: 60A
						Relay Series: GRT508R

Dimensional Drawings/Wiring Diagrams(unit:mm)



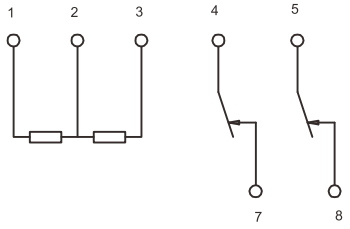
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

single coil



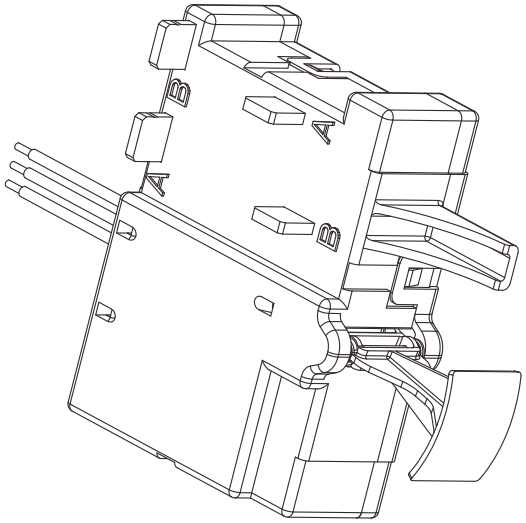
1 (+) 3 (-) 4-7、5-8、6-9 Release(Open)
3 (+) 1 (-) 4-7、5-8、6-9 Operate(Close)

Double coil



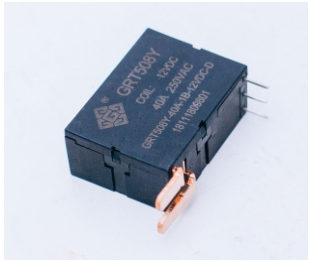
1 (+) 2 (-) 4-7、5-8、6-9 Release(Open)
3 (+) 2 (-) 4-7、5-8、6-9 Operate(Close)

Typical Terminal Type



Typical application

●Smart Meter ●Power Composite Switch



Character

◇ 40A/25A contact switching capability
◇ Only impulse excitation needed, both for single and double coil.
◇ Low power consumption, strong load capability
◇ Small in size, PCB type installation
◇ 4KV dielectric strength between coil and contacts
◇ RoHS compliant
◇ Outline dimensions: (38.8 x 28.7 x 15) mm
◇ VDE certificate No.: 40039308

Contact Data

Contact Form		1C	1B
Contact Material		$AgSnO_2$	$AgSnO_2$
Contact Resistance		Max.5.0mΩ (1A 6VDC)	Max.2.0mΩ (1A 6VDC)
Rated Load(Resistive)		25A 250VAC	40A 250VAC
Max. Switching Voltage		440VAC	250VAC
Max. Switching Current		25A	40A
Max. Switching Power		6250VA	10000VA
Service Life	Mechnical Endurance	5×10^5OPS	5×10^5OPS
	Electrical Endurance	3×10^4OPS	2×10^4OPS
Max. Short-circuit Current		750A/10ms	750A/10ms

Note:1C represents a set of conversion type contacts
1B represents a set of normally closed type contacts

Characteristics

Operate Time		20ms Max.	20ms Max.
Release Time		20ms Max.	20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.	1000MΩ Min.
Dielectric Strength (50/60Hz, 1Min)	Contact to Coil	4000VAC	4000VAC
	Across Open Contacts	1500VAC	1500VAC
	Contact to contact		
Surge Voltage (1.2/50 μ s)	Contact to Coil	5KV	5KV
Creepage Distance		8mm	8mm
Unit Weight		About 44g	About 40g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

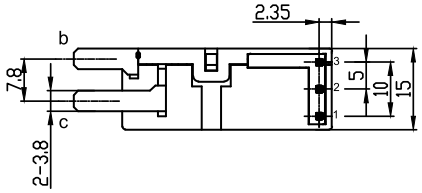
Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	36	18/18	1.0	2.0	≤4.5	≤4.5	9	≥50
☐ 9	81	40.5/40.5			≤6.75	≤6.75	13.5	
☐ 12	144	72/72			≤9	≤9	18	
☐ 24	576	288/288			≤18	≤18	36	

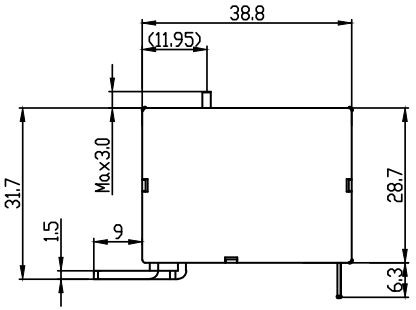
Ordering information

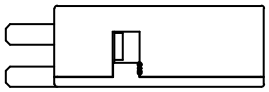
GRT508Y | 25A | 1C | 12VDC | S | XX

Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	1C:a set of conversion type contacts
Contact current:	25A
Relay Series:	GRT508Y

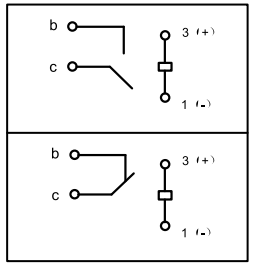
Dimensional Drawings/Wiring Diagrams(unit:mm)



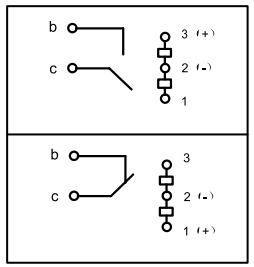




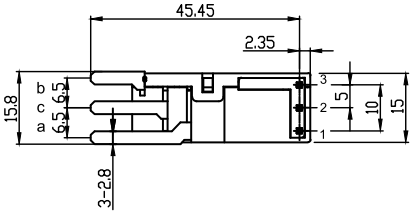
Single coil

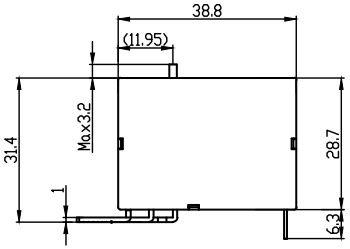


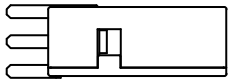
Double coil



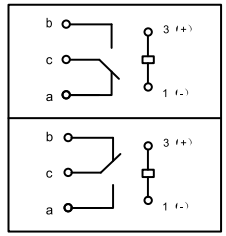
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.



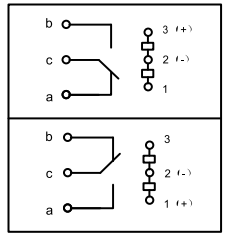




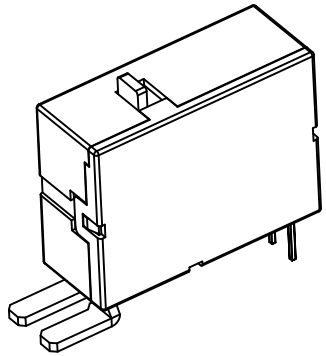
Single coil

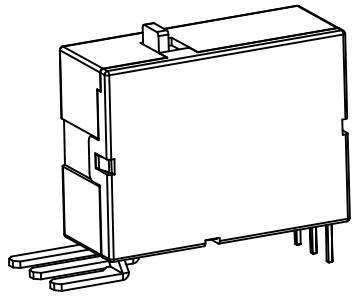


Double coil



Typical Terminal Type





Typical application

●Smart Meter ●Smart Home



Character

- ◇ 50A/40A contact switching capability
- ◇ Only impulse excitation needed, both for single and double coil.
- ◇ Low power consumption, strong load capability
- ◇ Small in size, PCB type installation
- ◇ RoHS compliant
- ◇ Outline dimensions: (39 x 30.2 x 15) mm

Contact Data

Contact Form		1B	1C
Contact Material		$AgSnO_2$	$AgSnO_2$
Contact Resistance		Max.5.0mΩ (1A 6VDC)	Max.10.0mΩ (1A 6VDC)
Rated Load(Resistive)		50A 250VAC	40A 250VAC
Max. Switching Voltage		440VAC	440VAC
Max. Switching Current		50A	40A
Max. Switching Power		12500VA	10000VA
Service Life	Mechnical Endurance	1×10^6OPS	1×10^6OPS
	Electrical Endurance	3×10^4OPS	1×10^4OPS
Max. Short-circuit Current		1200A/10ms	750A/10ms

Characteristics

Operate Time		20ms Max.	20ms Max.
Release Time		20ms Max.	20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.	1000MΩ Min.
Dielectric Strength (50/60Hz, 1Min)	Contact to Coil	4000VAC	4000VAC
	Across Open Contacts	1500VAC	1500VAC
	Contact to contact		
Surge Voltage (1.2/50 μs)	Contact to Coil	5KV	4KV
Creepage Distance		8mm	6mm
Unit Weight		About 44g	About 44g

Environmental Data

Ambient Temperature	−40℃～+85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 5	25	12.5/12.5	1.0	2.0	≤3.75	≤3.75	7.5	≥50
☐ 6	36	18/18			≤4.5	≤4.5	9	
☐ 9	81	40.5/40.5			≤6.75	≤6.75	13.5	
☐ 12	144	72/72			≤9	≤9	18	
☐ 24	576	288/288			≤18	≤18	36	
☐ 48	2304	1152/1152			≤36	≤36	72	

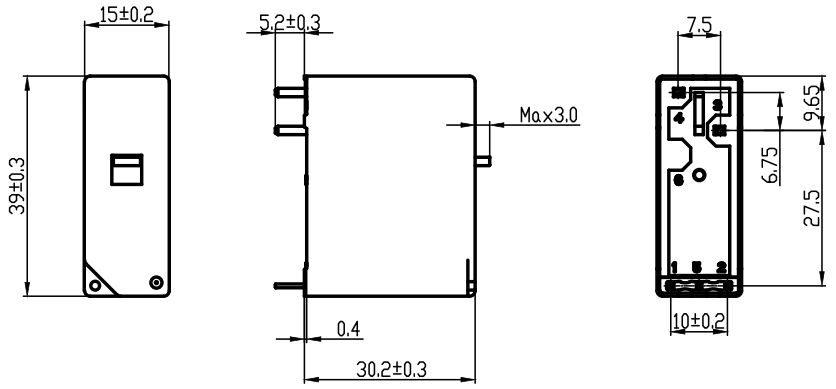
Ordering information

GRT508Y | 50A | 1C | 12VDC | S | XX

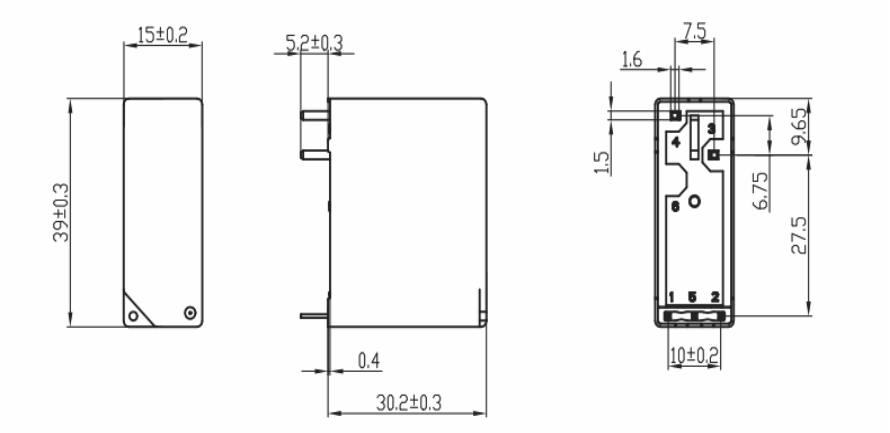
Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	1C:a set of contacts remain closed
Contact current:	50A
Relay Series:	GRT508Y

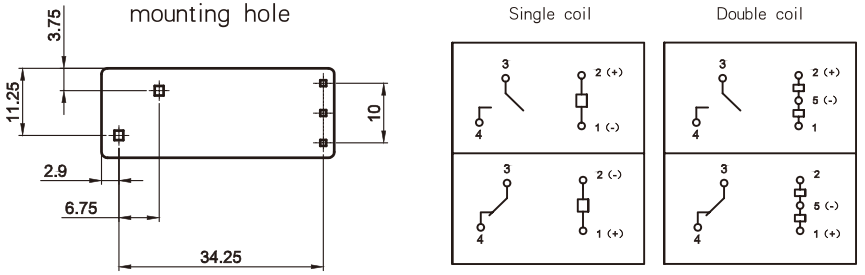
Dimensional Drawings/Wiring Diagrams(unit:mm)

VERSION:1B



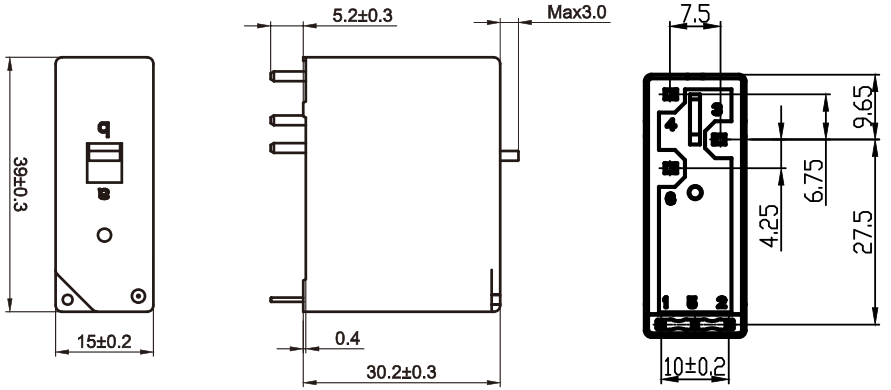
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

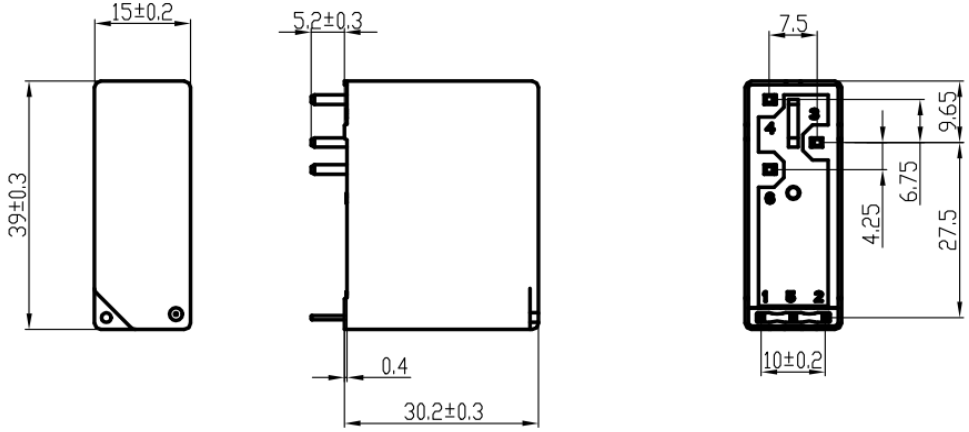


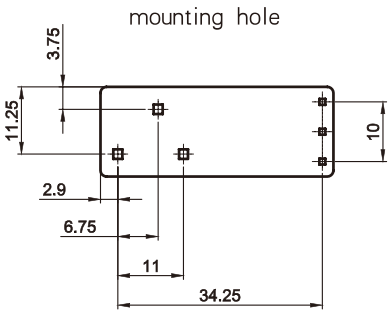


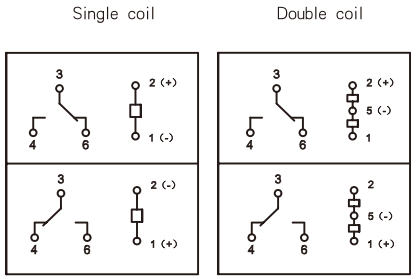
Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

VERSION:1C

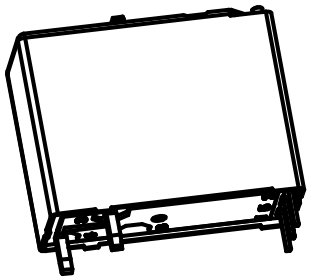


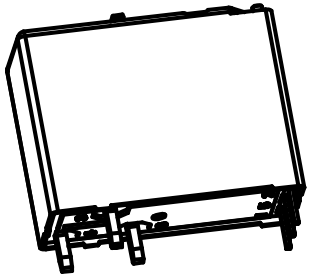






Typical Terminal Type





Typical application

●Smart Meter ●Electric Remote Control ●Smart Home



Character

◇ 50A contact switching capability
◇ Only impulse excitation needed, both for single and double coil.
◇ Low power consumption, strong load capability
◇ Small in size, PCB type installation
◇ RoHS compliant
◇ Outline dimensions: (39 x 30.2 x 15) mm
◇ Contact opening distance ⩾1.5mm

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.5.0mΩ (1A 6VDC)
Rated Load(Resistive)		50A 250VAC
Max. Switching Voltage		440VAC
Max. Switching Current		50A
Max. Switching Power		12500VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	3×10^4OPS
Max. Short-circuit Current		1200A/10ms

Characteristics

Operate Time		20ms Max.
Release Time		20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60Hz, 1Min)	Contact to Coil	4000VAC
	Across Open Contacts	1500VAC
	Contact to contact	
Surge Voltage (1.2/50 μ s)	Contact to Coil	5KV
Creepage Distance		8mm
Unit Weight		About 44g

Environmental Data

Ambient Temperature	−40℃ ~ +85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	$98m/s^2$
			Survival	$980m/s^2$

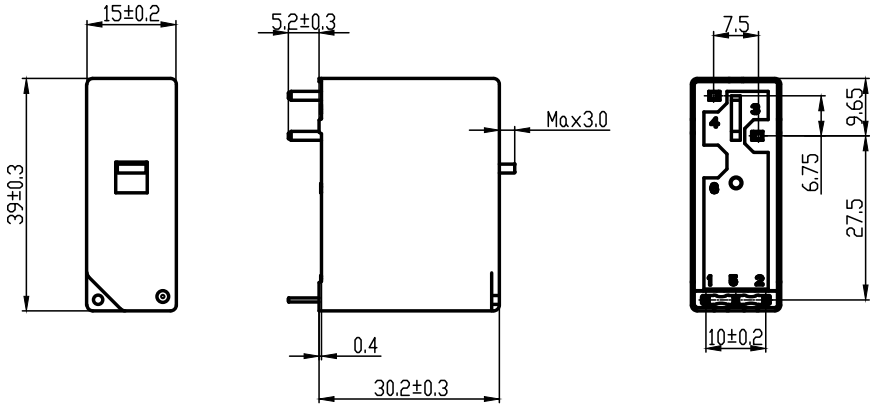
Coil Data (20℃)

Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 5	16.7	8.3/8.3	1.5	3.0	≤3.75	≤3.75	7.5	≥50
☐ 6	24	12/12			≤4.5	≤4.5	9	
☐ 9	54	27/27			≤6.75	≤6.75	13.5	
☐ 12	96	48/48			≤9	≤9	18	
☐ 24	384	192/192			≤18	≤18	36	
☐ 48	1536	768/768			≤36	≤36	72	

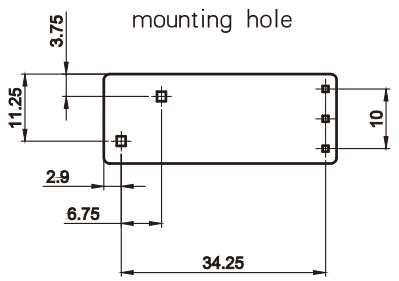
Ordering information

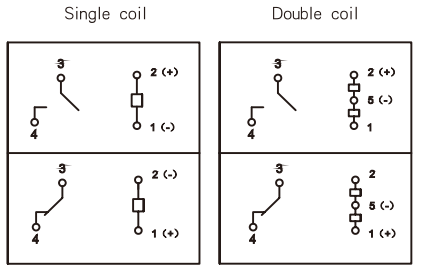
GRT508Y	50A	1B	12VDC	S	XX	
						Terminal type: Custom design
						Coil type: S:single coil D:double coil
						Coil voltage: 5, 6, 9, 12, 24, 48V
						Contact form: 1B:a set of contacts remain closed
						Contact current: 50A
						Relay Series: GRT508Y

Dimensional Drawings/Wiring Diagrams(unit:mm)

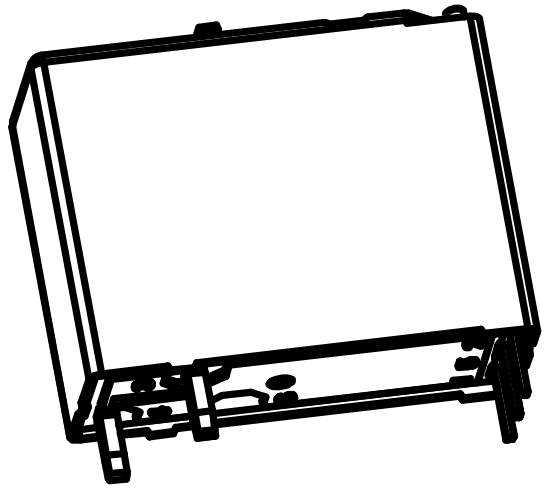


Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.





Typical Terminal Type



Typical application

●Smart Meter ●Electric Remote Control ●Smart Home



Character

- ◇ 90A contact switching capability
- ◇ Only impulse excitation needed,both for single and double coil
- ◇ Low power consumption with great load capability
- ◇ Small size, PCB type installation
- ◇ ROHS complant
- ◇ Outline dimensions: (39 x 30.2 x 15) mm

Contact Data

Contact Form		1B
Contact Material		$AgSnO_2$
Contact Resistance		Max.5.0mΩ (1A 6VDC)
Rated Load(Resistive)		90A 250VAC
Max. Switching Voltage		440VAC
Max.Switching Current		90A
Max.Switching Power		22500VA
Endurance	Mechanical	1×10^6OPS
	Electrical	1×10^4OPS
Max.Short-Circuit Current		1200A/10ms

Characteristics

Operate Time		20ms Max.
Release Time		20ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60Hz 1Min	Contact&Coil	4000VAC
	Contact&Contact	1500VAC
	Pole&Pole	
Surge Voltage (1.2/50 μ s)	Contact&Coil	5KV
Creepage Distance		8mm
Weight(Without Annexs)		About 34g

Environmental Data

Ambient Temperature	−40℃ ~ +85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Impact	Stability	98m/s²
			Strength	980m/s²

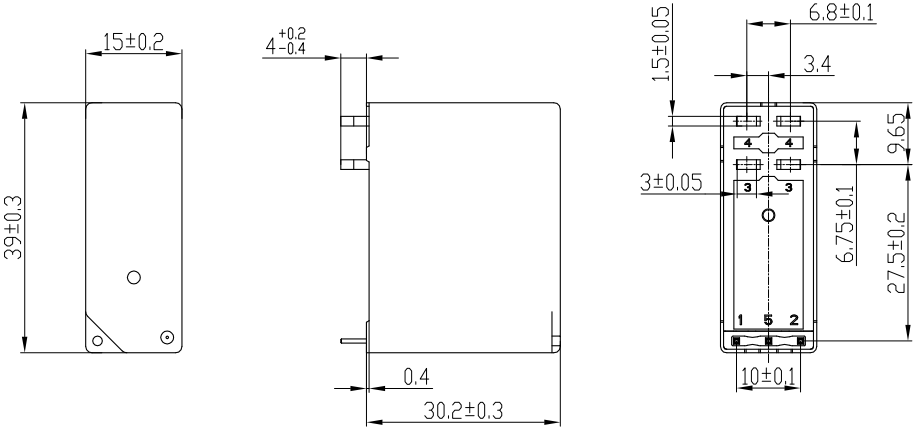
Coil Data(20℃)

Coil Voltage (VDC)	Coil Resistance (Ω) ± 10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowable Overvoltage (VDC)	Minimum Pulse Duration (ms)
	Single	Double	Single	Double				
☐ 6	12	6/6	3.0	6.0	≤4.5	≤4.5	9	≥50
☐ 9	27	13.5/13.5			≤6.75	≤6.75	13.5	
☐ 12	48	24/24			≤9	≤9	18	
☐ 24	192	96/96			≤18	≤18	36	

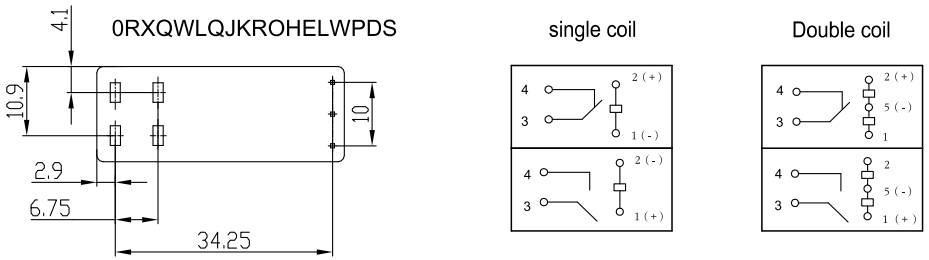
Ordering information

GRT508Y	90A	1B	12VDC	S	XX	
					Terminal type:	Custom design
					Coil type:	S: single coil D:double coil
					Coil voltage:	6,9,12,24V
					Contact form:	1B：1groups are normally closed
					Contact current:	90A
					Relay Series:	GRT508Y

Dimensional Drawings/Wiring Diagrams(unit:mm)



Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

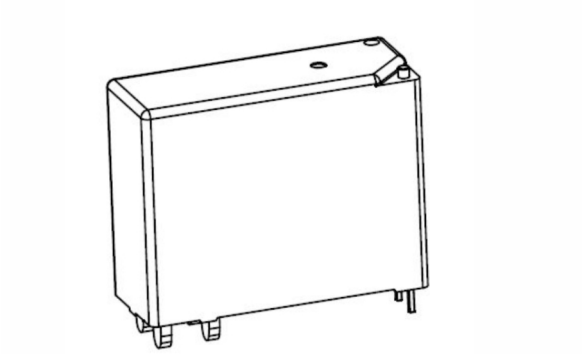




Character

- ◇ 80A 1C latching relay
- ◇ Only impulse excitation needed, both for single and double coil.
- ◇ Low power consumption, small in size
- ◇ RoHS compliant
- ◇ Outline dimensions: (41 × 33 × 16.5)mm

Typical Terminal Type



Typical application

- Smart Meter
- Electric Remote Control
- Electrical Leakage Protector

Contact Data

Contact Form		1C
Contact Material		$AgSnO_2$
Contact Resistance		Max.2.0mΩ
Rated Load(Resistive)		80A 220VAC
Max. Switching Voltage		250VAC
Max. Switching Current		80A
Max. Switching Power		17600VA
Service Life	Mechnical Endurance	5×10^5OPS
	Electrical Endurance	6×10^3OPS(60A 220VAC)
		1×10^3OPS(80A 220VAC)
Max. Short-circuit Current		750A/10ms

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	1500VAC
	Contact to contact	
Surge Voltage (1.2/50 μ s)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 46g

Environmental Data

Ambient Temperature	−40˚C ~ +85˚C	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

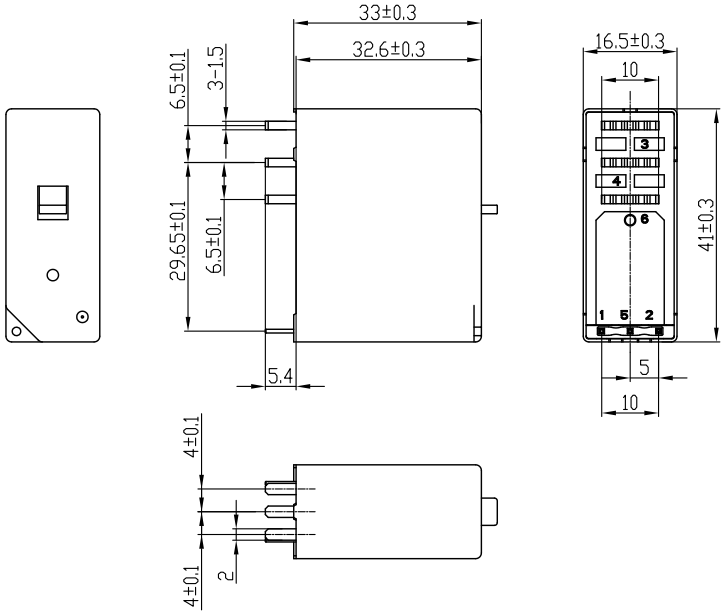
Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 5	16.7	8.3/8.3	1.5	3.0	≤3.5	≤3.5	7.5	≥80
□ 6	24	12/12			≤4.2	≤4.2	9	
□ 9	54	27/27			≤6.3	≤6.3	13.5	
□ 12	96	48/48			≤8.4	≤8.4	18	
□ 24	384	192/192			≤16.8	≤16.8	36	

Ordering information

GRT508YC 80A 1C 12VDC S XX

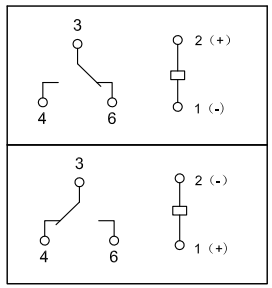
Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24,48V
Contact form:	1C: a set of conversion type contacts
Contact current:	80A
Relay Series:	GRT508YC

Dimensional Drawings/Wiring Diagrams(unit:mm)

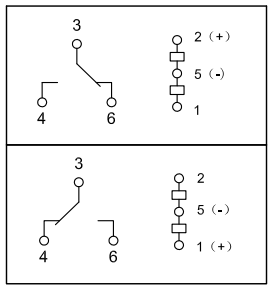


Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

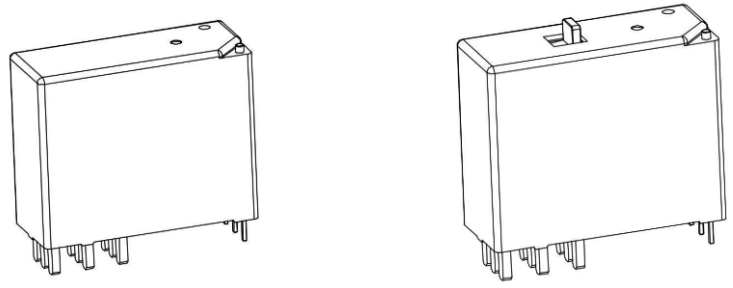
Single coil



Double coil



Typical Terminal Type



Typical application

- Smart Home

Notes:

1.The factory defaults of relay contacts is set to be closed (reset state), however, due to the transportation or installation, contacts may be impacted, and change its state, so it is necessary to take action to reset before usage (access to power).

2.To be sure latching relay operating reliably, the excitation voltage to coil is to be attained rating, the setting of pulse width should be more than rating, long time (more than 1 min) applied voltage to coil is not acceptable.

3.PCB type latching relay, suggested welding temperature is 240℃-260℃, time is 2S-5S. Please do not adopt reflow soldering. Normally, the temperature for wave soldering is required 250℃ and time is ≤2S.

4.Latching relay which is without copper braided wires, the load leading pin can neither be tin soldered nor be wrenched. Don't do any extra force to load.

5.When screws or bolt is used for load leading terminal of latching relay, please be sure to connect tightly, in case of any damage or the other safety accident causing by over temperature rise.

6.Due to limited signal wire strength of coil or shunts, do not twist or pull the signal wire, it is easy to get it broken.

7.Please handle gently when doing coming inspection and usage, preventing falling to impact the parameters. Distinguish the product which needs destructive inspection with normal products when entering to the factory, forbidding using it.

Statement:

Product specification brochure is for reference only. GRT can't ensure relays meet all performance parameters in each specific application field.

Customers should choose the right products as per specific using conditions.

Compile date:July 30, 2021