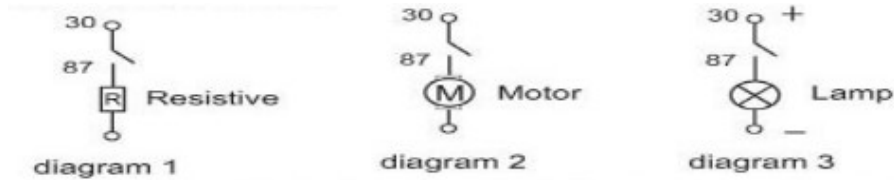


1 CONTACT DATA

Contact Arrangement	1 Form A, 1 Form C
Voltage drop (Initial)	Typ.: 30mV (at 10A) Max.: 250mV (at 10A)
Max. switching current	70A
Max. continous current ¹⁾	70A(at 23°C); 50A(at 85°C)
Max. switching voltage ²⁾	50VDC
Min. contact load	1A 6VDC
Mechanical endurance	1 x 10 ⁷ (300ops/min.)
Electrical endurance	See below chart

Load voltage	Load type		Load current	On/Off ratio		Electrical endurance	Contact material	Load wiring diagram	Ambient temp.
				On	Off				
Standard 13.5VDC	Resistive	Make	70A	2s	2s	1x10 ⁵	AgSnO ²	See dia. 1	See ambient temp. curve
		Break	70A						
	Motor	Make ¹⁾	150A	2s	4s	1x10 ⁵	AgSnO ²	See dia. 1	
		Break	50A						
	Lamp ²⁾	Make	4x60	0.5s	10s	1x10 ⁵	AgSnO ²	See dia. 1	
		Break	W						
Standard 27VDC	Resistive	Make	40A	2s	2s	1x10 ⁵	AgSnO ²	See dia. 1	
		Break	40A						

- 1□ Corresponds to the peak inrush current on initial actuation(motor).
- 2□ The lode in the table excludes flasher. When applied in flasher, a special silver alloy(AgSnO2)contact material should be used. Please heed the anode.
- 3□ The lode wiring diagrams are listed below:



- 4) Loafs mentioned in this chart is for relays with no parallel diode or Zener Diode. For those with parallel diode. Zener Diode or other components, please us for more technical supports

2□CHARACTERISTICS

Insulation resistance	100MΩ (at 500VDC)
Dielectric strength	500VAC 1min. leakage current less than 1mA
Operate time	Typ.: 6ms Max. 10ms(at nomi. vol.)
Release time	Typ.: 4ms Max. 7ms ³⁾
Vibration Resistance ⁴⁾	10-500Hz 176m/s ²
Shock resistance ⁴⁾	294m/s ²
Ambient temp.	-40°C to 125°C
Unit weight	Approx. 38g
Termination	QC, PCB ⁵⁾
Construction	Wash tight, Dust protected
Mechanical data ⁶⁾	cover retention (pull & push):200N min. terminal retention (pull & push):100N min. terminal resistance to bending(front&side): 10N min. ⁷⁾

- 1) For 70A type, measured when applying 100% rated voltage on coil.
- 2) For 70A type, see "load limit curve" for details.
- 3) The value is measured when voltage drops suddenly from normal voltage to 0 VDC and coil is not paralleled with suppression circuit.
- 4) When energized, release time of NO contacts shall not exceed 100 micro s.
- 5) Since it is an environmental friendly product, please select lead-free solder when welding.
The recommended soldering temperature and time is 240°C to 260°C, 2s to 5s.
- 6) Only valid for QC version and PCB version.
- 7) Test point is at 2mm away from terminal end, and after removing testing force, the terminal transfiguration shall not exceed 0.5mm.

3 COIL DATA

Standard type(1.6W)

At 23 °C

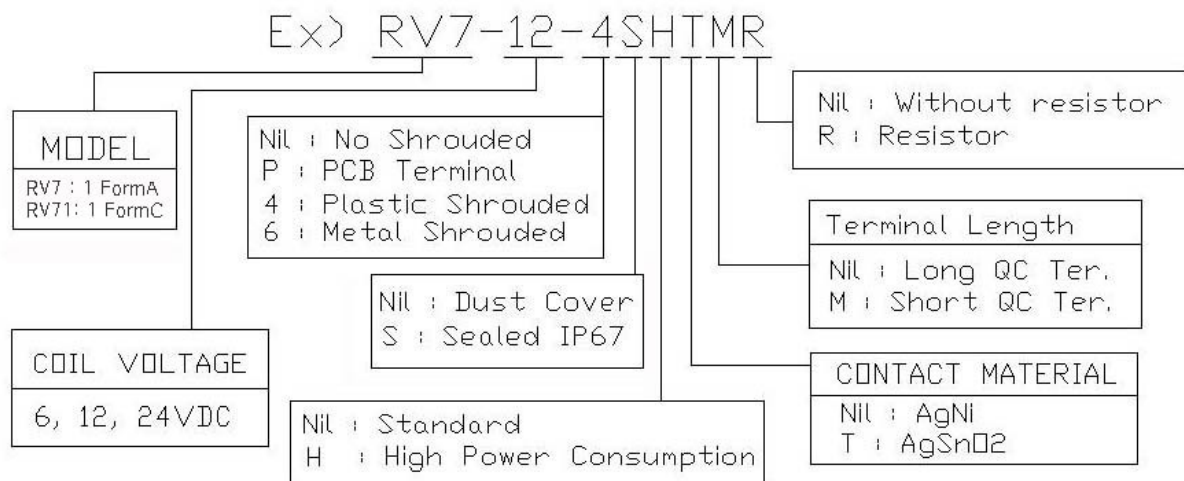
Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Coil Resistance x(+/-10%)Ω	Parallel Resistance x(+/-5%)Ω	Equivalent resistance Ω	Power consumption W	Max.allowable overdrive vol. ¹⁾ VDC	
							at 23°C	at 85°C
6	3.6	0.6	22.5	-	-	1.6	10	9
6	3.6	0.6	22.5	180	20	1.8	9	9
12	7.2	1.2	90	-	-	1.6	21	18
12	7.2	1.2	90	680	79.5	1.8	18	18
24	14.4	2.4	360	-	-	1.6	43	34
24	14.4	2.4	360	2,700	317.6	1.8	36	34

High Power consumption type(2.2W)

At 23 °C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Coil Resistance x(+/-10%)Ω	Parallel Resistance x(+/-5%)Ω	Equivalent resistance Ω	Power consumption W	Max.allowable overdrive vol. ¹⁾ VDC	
							at 23°C	at 85°C
6	3.6	0.6	18	-	-	2.0	9	7
6	3.6	0.6	18	180	16.4	2.2	9	7
12	7.2	1.2	72	-	-	2.0	19	14
12	7.2	1.2	72	680	65.1	2.2	18	14

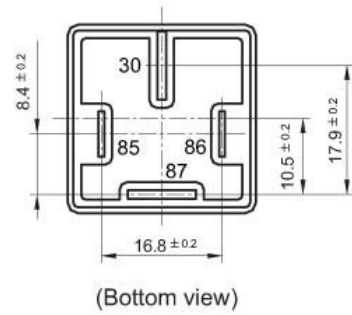
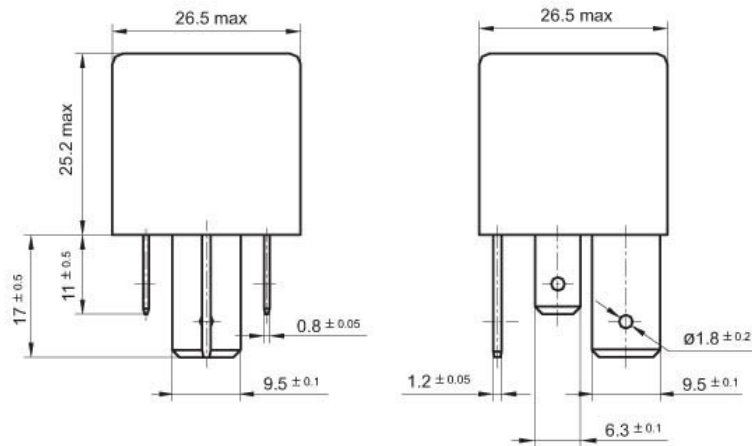
4 ORDERING CODE



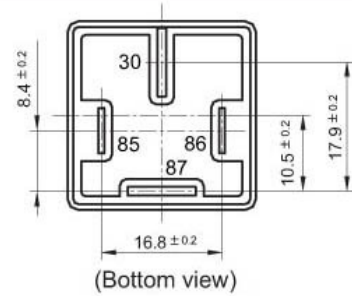
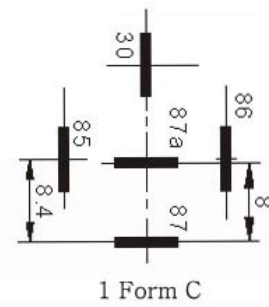
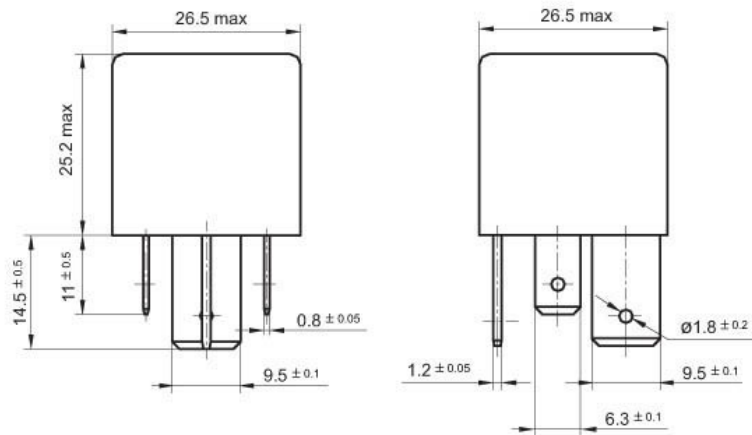
5 OUTLINE DIMENSIONS AND WIRING DIAGRAM

Outline Dimensions

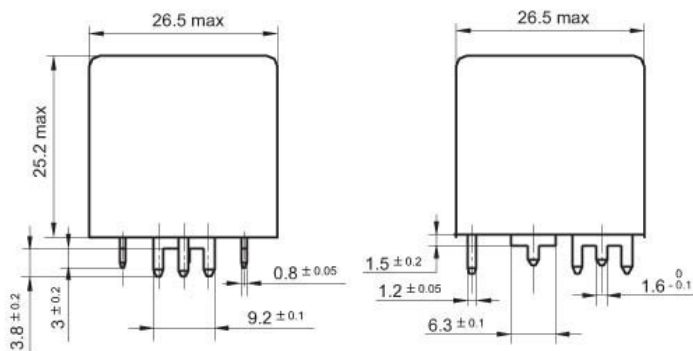
Long terminal & QC type



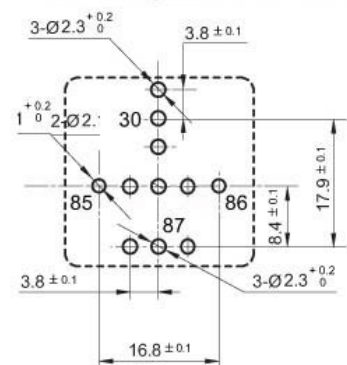
Short terminal & QC type



PCB type

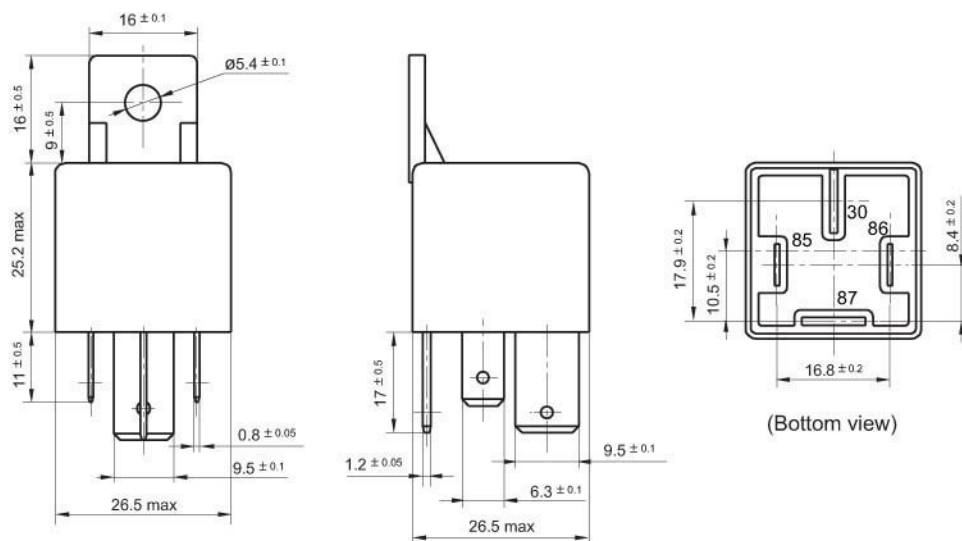


PCB Layout (Bottom view)

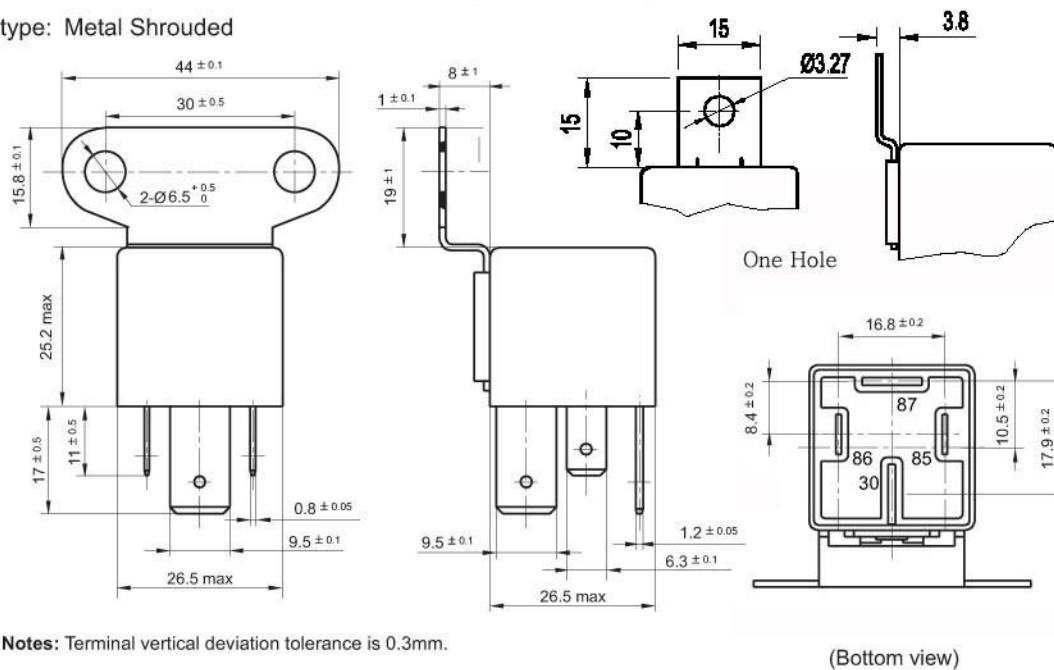


4 type: Plastic Shrouded

Outline Dimensions

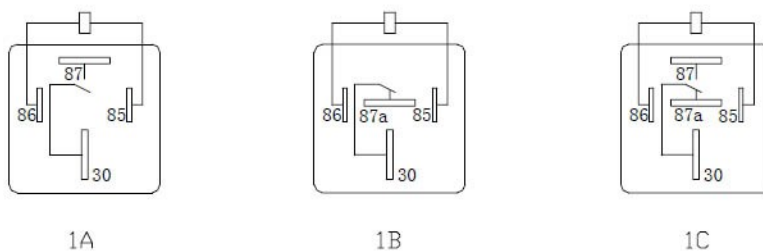


6 type: Metal Shrouded



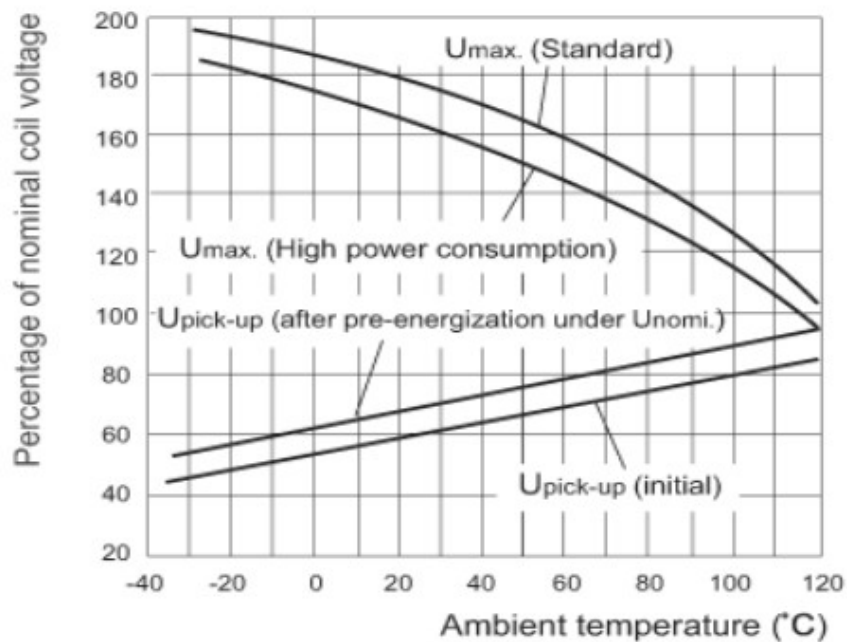
Notes: Terminal vertical deviation tolerance is 0.3mm.

Wiring Diagram



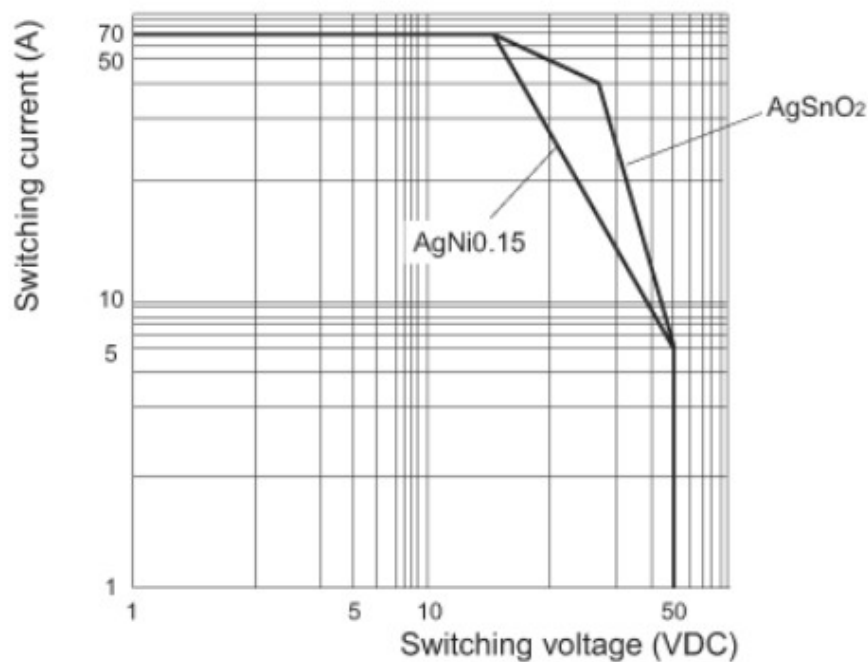
6. USEFUL CORVE

1. Coil operating voltage range



- 1□ The curve is applicable under the condition of no contact load applied.
- 2□ The operating voltage is connected with coil energized time and voltage. After energized, the operating voltage will increase.
- 3□ The maximum allowable coil temperature is 180°C. For the coil temperature rise which is measured by resistance is average value, we recommend the coil temperature should be below 170°C under the different application ambient coil voltage and different load etc.

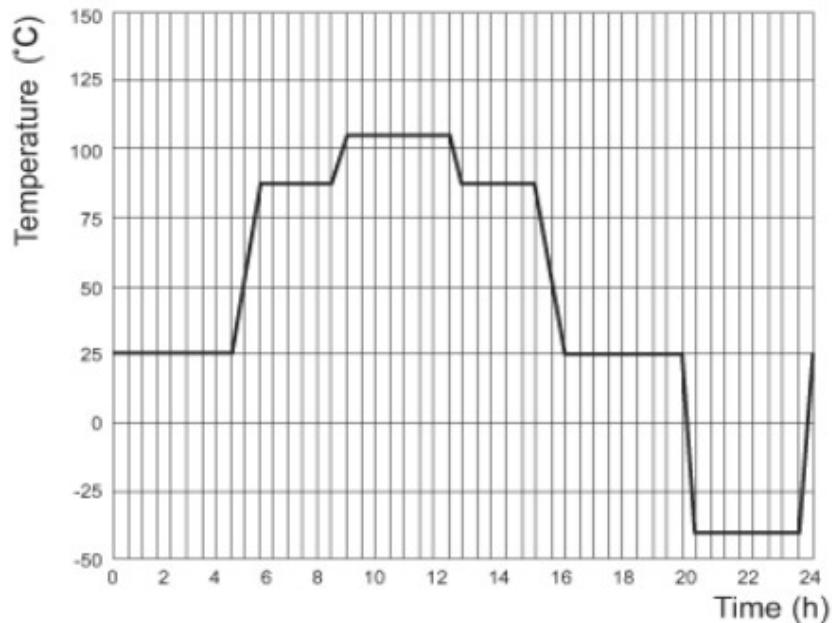
2. Load limit curve



- 1) The contact load is resistive.

2) The load and electrical endurance tests are made according to “CONTACT DATA” parameters’ table. If actual load voltage, current , or operate frequency is different from “CONTACT DATA” table, please arrange corresponding tests for confirmation.

3. Ambient temperature curve of the electrical endurance test



- 1) The minimum temperature is -40°C.
- 2) The maximum temperature is 105°C.

Disclaimer

This datasheet is for the customers’ reference. All the specification are subject to change without notice. We could not evaluate the performance and all the parameters for every possible application. Thus the user should be in right position to choose the suitable for their own application.