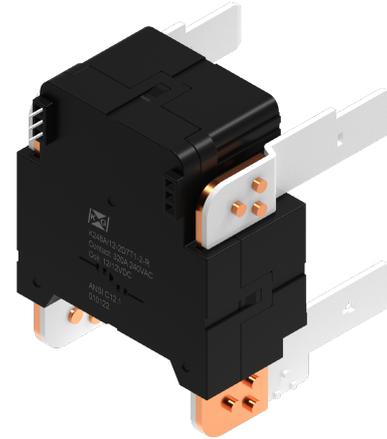


## HIGH POWER LATCHING RELAY

- 320A Latching Relay
- Electrical endurance: 6000 cycles
- 4kV dielectric strength between coil and contacts
- According to ANSI C12.1  
(Carrying current: 12kA / 66.7ms; 7kA / 100ms)
- Outline dimensions: (120.35 x 92.4 x 51.9)mm
- Contact resistance:  $\leq 0.15\text{m}\Omega$
- RoHS compliant materials and process



### Contact Data

Rated Load *	320A @ 240V
Contact form	2A or 2B
Contact material	AgSnO <sub>2</sub>
Contact resistance †	0.15mΩ (at 320A) ‡
Max. switching voltage	265 Vac
Max. carrying current	320 A
Max. switching current	320 A
Rated switching power	76,800 VA
Set time	$\leq 30$ ms
Reset time	$\leq 30$ ms
Electrical endurance **	6,000 cycles
Mechanical endurance ††	100,000 cycles
Construction	Dust Protected

### Characteristics

Insulation resistance	1,000MΩ (at 500 Vdc)
Dielectric strength:	
Coil to contact	4kVac for 1 min.
Across open contacts	2kVac for 1min.
Dielectric creepage	9.6 mm
Ambient temperature	-40°C to +85°C
Ambient humidity	5% - 85% RH
Vibration	1.5 mm (DA) 10 Hz to 55 Hz
Shock resistance:	
Functional §	98 m/s <sup>2</sup>
Survival ††	980 m/s <sup>2</sup>
Coil termination	PCB & QC
Load termination	QC
Unit weight	1200g

\* Load at which the relay can pass ANSI C12.1

† Data shown are initial values for each respective load contact pair

‡ Typical value for Initial Contact Resistance: Using a sample quantity of at least 20 units, take the average value from 5 continuous measurements from each sample

§ Unit may change state but is still functional

\*\* Applies to both Form 2A and Form 2B products; Power Factor: 1.0; 240Vac / 320A @ 23°C; Duty Cycle: 1s ON/ 9s OFF

†† Acceleration 980 m/s<sup>2</sup> (Duration 6 ms)

‡‡ Duty Cycle: 1s ON/ 1s OFF @ 23°C

## Coil Data

	Single Coil (Latching)	Dual Coil (Latching)
Coil Consumption	18W	36W
Pulse Duration	50ms	50ms

## Coil Resistance

( $\Omega \pm 10\%$ ) at 23°C

Nominal Coil Voltage	Min Set/Reset Voltage	Single Coil (Latching)	Dual Coil (Latching)
6Vdc	4.8Vdc	2 $\Omega$	2 x 1 $\Omega$
9Vdc	7.2Vdc	4.5 $\Omega$	2 x 2.25 $\Omega$
12Vdc	9.6Vdc	8 $\Omega$	2 x 4 $\Omega$
18Vdc	14.4Vdc	18 $\Omega$	2 x 9 $\Omega$
24Vdc	19.2Vdc	32 $\Omega$	2 x 16 $\Omega$
48Vdc	38.4Vdc	128 $\Omega$	2 x 64 $\Omega$

## Ordering Information

	K248	■	-	■	■	-	■	-	■	T	-Cxxxx
Relay Series											
Terminal Type:	A: See drawing X: Custom Design <sup>§§</sup>										
Coil Type:	S: Single Coil D: Dual Coil										
Coil Voltage <sup>***</sup> :	6, 9, 12, 18, 24, 48 Vdc										
Coil Polarity:	P: Positive N: Negative										
Coil terminal Position:	L: Left side termination R: Right side termination										
Load terminal Type:	Nil: Without external connection parts 1: Including external connection parts										
Contact Form:	2A: Form 2A – Normally Open (NO) 2B: Form 2B – Normally Closed (NC)										
Contact Material:	T: AgSnO <sub>2</sub>										
Custom Number:	Cxxxx: Where xxxx represents a unique number for custom relay terminal designs										

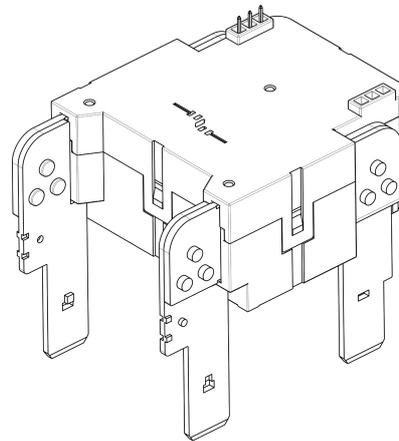
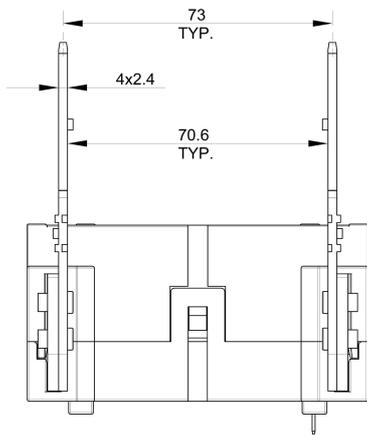
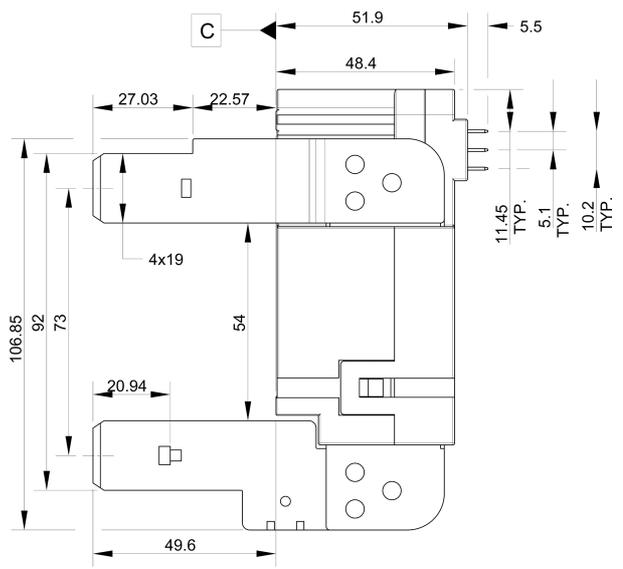
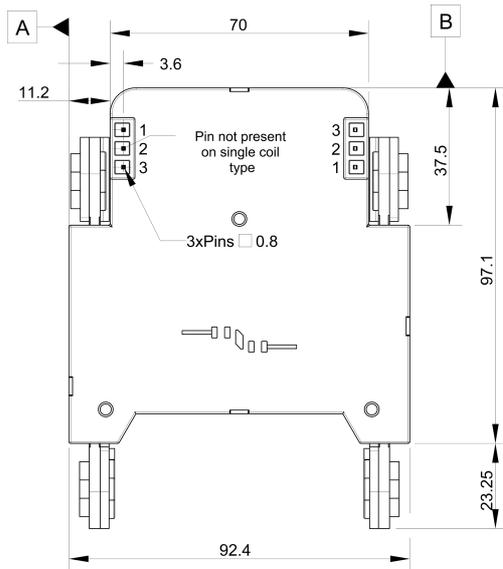
<sup>§§</sup> For custom designs, please contact KG Technologies. Integrated CT's, Hall-effect sensors, flex-wire, copper extension and brass terminals available

<sup>\*\*\*</sup> Coil voltage should be indicated in three-digit format (6Vdc = 006)

# Dimensional Drawings

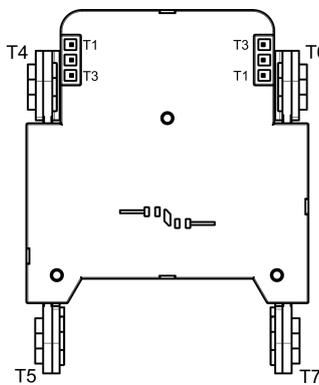
(Unit: mm)

**TYPE A: K248A-D012P-L1-2AT (TOP VIEW)**

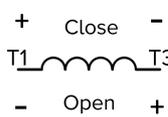


# Coil Wiring Diagrams

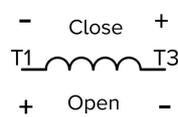
**Single Coil**



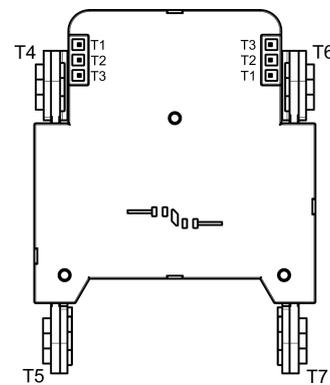
**Positive Polarity**



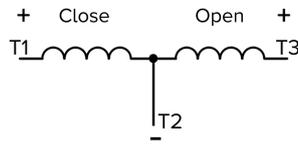
**Negative Polarity**



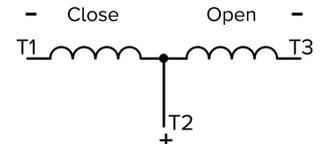
**Dual Coil**



**Positive Polarity**



**Negative Polarity**



## Application Notes

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1. It is possible that during transit or final assembly the relay could change state. Therefore, it is recommended that all relays be set to the desired state via a power supply.
2. In order to maintain an “Open” or “Closed” state of the relay, the coil voltage should reach the rated voltage. The pulse width should be 50ms minimum to ensure a proper change of state. DO NOT energize both T1 and T3 at the same time on a Dual Coil or energize the coil for longer than 1 minute (damage to the coil could occur).
3. Applying excessive heat to the relay terminals (soldering or welding) can cause damage to the internal structure of the relay and should be avoided.
4. Moving or bending the terminals can cause damage to the internal structure of the relay and should be avoided.
5. For definitions of terms used in this data sheet, see [glossary](#) at [www.kgtechnologies.net](http://www.kgtechnologies.net).



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more information

**Disclaimer:** This datasheet is for reference only. All specifications are subject to change without prior notice. KG Technologies, Inc. cannot predict every possible application for our relays. While we do our best to make our relays as versatile as possible, we highly recommend contacting our engineering team if you have any questions. KG Technologies, Inc. is not responsible for malfunctioning relays when operated outside the specified parameters given in this datasheet.