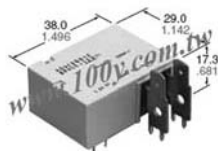




Relays & Solenoids

NAIS_PCB Relays

Detailed product specifications are available on: us.100y.com.tw



Characteristics

Max. operating speed (at rated load)	10 cpm	Shock resistance	Functional*7	Min. 200 m/s ² {20 G}
Initial insulation resistance*2	Min. 1,000 MΩ (at 500 V DC)		Destructive*8	Min. 1,000 m/s ² {100 G}
Initial breakdown voltage*3	Between open contacts	Vibration resistance	Functional*9	10 to 55Hz at double amplitude of 1.5mm
	Between contacts and coil		Destructive	10 to 55Hz at double amplitude of 2.0mm
Surge voltage between contact and coil*4	Min. 10,000 V (initial)	Conditions for operation, transport and storage*10 (Not freezing and condensing at low temperature)	Ambient temperature*11	-40°C to +65°C -40°F to +149°F
Set time*5 (at 20°C) (at nominal voltage)	Max. 20ms		Humidity	5 to 75% R.H.
Reset time*5 (at 20°C) (at nominal voltage)	Max. 20ms	Unit weight	Approx. 35 g 1.23 oz	
Temperature rise (at 65°C)*6	Max. 50°C (Coil; de-energized)			

Coil

Nominal operating power	
1 coil latching	500 mW
2 coil latching	1,000 mW

Part No.	Product No.	Manufacturer	Description	Coil Voltage	Type
46944	ADQ23Q012	NAIS	30A POWER LATCHING RELAY	12V	DQ



FEATURES

- Compact and high capacity using double contacts in series and permanent magnet installed.
(1,000A/3 times) cut-off possible (EB Relay 100A type)
- Compact and lightweight for space savings and improved gas mileage.

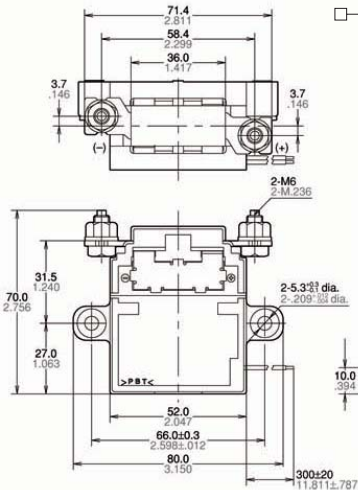
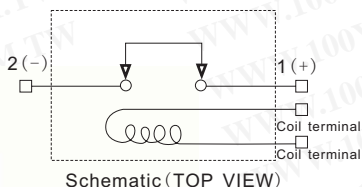
TYPICAL APPLICATIONS

Equipment requiring high capacity cutoff such as main power supplies for 42 V vehicles, motor assisters, quick recharging power supplies for AGVs (automatic guided vehicle), and motor controls for forklifts, etc.

SPECIFICATIONS

Contact

Type	100A	
Arrangement	1 Form A	
Between terminal voltage drop (Initial)	Max. 0.15 V (at 100 A), Max. 0.05 V (at 10 A), Max. 0.01 V (at 1 A)	
Material	Ag alloy (Cadmium free)	
Rating	Nominal switching capacity (resistive load)	100A 42V DC
	Max. carrying current	1,000A (0.1s)
	Min. switching capacity*1	1A 12V DC
	Max. cut-off current	1,000A 42V DC/3 cycle*1
Overload opening/closing rating	400A 55V DC/10 cycle	
Expected life (min. Operations)	Mechanical	10 ⁶
	Electrical*2	10 ⁴ (at 100A 42V DC)



Characteristics

Initial insulation resistance*3 (Initial) (at 500 V DC)	Min. 100MΩ	
Initial breakdown voltage (Initial)	Between open contacts	AC 1,500 Vrms for min.
	Between contact and coil	AC 2,500 Vrms for 1 min.
Operate time (at 20°C) (at nominal voltage)	Max. 30ms*4	
Release time (at 20°C) (at nominal voltage)	Max. 15ms	
Shock resistance	Functional*5	Min. 196 m/s ² {20.4G}
	Destructive*6	Min. 980 m/s ² {100G}
Vibration resistance	Functional*7	44.1 m/s ² {4.5G} 10 to 500Hz
	Destructive*8	44.1 m/s ² {4.5G} 10 to 200 Hz
Conditions for operation, transport and storage*9 (Not freezing and condensing at low temperature)	Ambient temperature	-40°C to +85°C -40°F to +185°F
Mass	300g 10.58oz	

Part No.	Product No.	Manufacturer	Description	Coil Voltage	Type
47114	AEB310012	NAIS	COMPACT BUT CUT OFF DC POWER CURRENT, POWER CAPSULE CONTACT RELAY.	12V	EB

FEATURES

- 1. High-voltage, high-current control capable**
400 V DC high-voltage switching cutoff has been achieved thanks to a sealed construction with mixed hydrogen gas and magnetic arc motion through use of a permanent magnet.
- 2. Compact & Low Operating Sound**
By using a capsule contact mechanism that is enclosed with hydrogen gas, high-capacity cutoff is possible even with a tiny contact gap. There is little operating sound, which does not change even when large currents are cut off.
- 3. Arc space unnecessary**
The enclosure box can be made smaller thanks to an arc-space-free construction in which the arc will not get out.
- 4. Safety** Since the contacts are enclosed in a sealed capsule structure, the arc will not get out, which ensures safety.

5. High contact reliability

The contact part is hermetically sealed with H2 mixed gas, hence the contact resistance remains stable regardless of the ambient conditions.

6. Mounting direction is not specified

The weight of the movable parts is light, and also the restoring force is large, hence the relay is relatively unaffected by gravity.

7. Coil voltage 24V DC type is also available

TYPICAL APPLICATIONS

- Electric Vehicle
- Hybrid Electric Vehicle
- Fuel-cell vehicle
- Construction machinery
- AGV (Automatic guided vehicle) (Unmanned transport carts)
- Battery inspection and testing equipment (charge and discharge control)

