



# Relays & Solenoids

## Plug-In Interface DC To AC Solid State Relays

Detailed product specifications are available on: [us.100y.com.tw](http://us.100y.com.tw)

### Characteristics (at 20°C 68°F, Input voltage ripple: 1% or less)

Item	AC output	Remarks
Operate time max.	(1/2 cycle of voltage sine wave) + 1 ms	
Release time, max.	(1/2 cycle of voltage sine wave) + 1 ms	
Insulation resistance, min.	10 <sup>9</sup> Ω between input and output	Using 500 V DC megger
Breakdown voltage	2,500 Vrms between input and output	Initial for 1 min.
Vibration resistance	Functional	10 to 55 Hz double amplitude of 1.5 mm
	Destructive	10 to 55 Hz double amplitude of 1.5 mm
Shock resistance	Functional	Min. 490 m/s <sup>2</sup> {50 G}
	Destructive	Min. 490 m/s <sup>2</sup> {50 G}
Ambient temperature	-30°C to +80°C -22°F to +176°F	
Storage temperature	-30°C to +100°C -22°F to +212°F	
Operational method	Zero-cross (Turn-ON and Turn-OFF)	

Part No.	Product No.	Manufacturer	Description	Vin	Irms	Vrms
47535	AQE12105	NAIS	NAIS_AQ-E SOLID STATE RELAY	5 V DC	1A	75 to 250 V AC



### Schematic

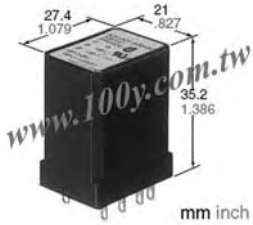
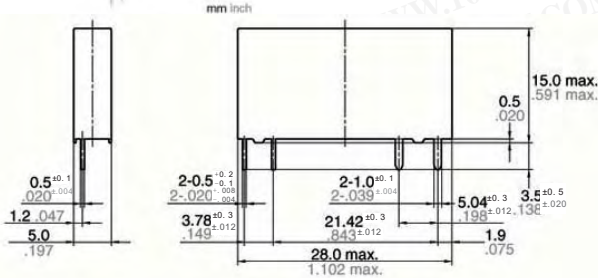
#### AC type

Input                      Output



#### DC type

Input                      Output



### FEATURES

- Suitable for high-capacity and high-frequency switching
- Same size, same terminal arrangement as HC relay  
Sockets for HC relays are applicable
- Two load types available: DC output type (2 A, 3 A)  
AC output type (2 A, 3 A)
- Wide range of input voltage: 3 V to 28 V

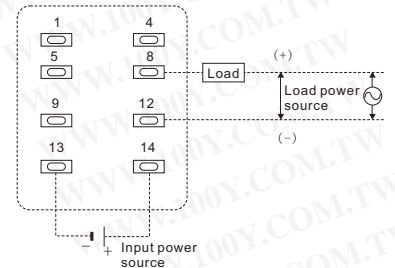
### TYPICAL APPLICATIONS

- Drive for small-sized motor, heater, solenoid and electromagnetic valves.
- NC machine
  - Printing machine
  - Machine tool
  - Robot for industrial use
  - Wrapping and packing machine

### Characteristics (at 20°C 68°F, Input voltage ripple: 1% or less)

Item	Type	AC output	Remarks
		AQF3A2-ZT3/28 VDC	
Operate time max.		(1/2 cycle of voltage sine wave) + 1 ms	
Release time, max.		(1/2 cycle of voltage sine wave) + 1 ms	
Insulation resistance, min.		100 M Ω between input and output	Initial at 500 V DC
Breakdown voltage		2,000 Vrms between input and output	Initial for 1 min.
Vibration resistance	Functional	10 to 55 Hz double amplitude of 3 mm	10 min. for X, Y, Z axes
	Destructive	10 to 55 Hz double amplitude of 3 mm	1 hour for X, Y, Z axes
Shock resistance	Functional	Min. 980 m/s <sup>2</sup> {100 G}	4 times each for X, Y, Z axes
	Destructive	Min. 980 m/s <sup>2</sup> {100 G}	5 times each for X, Y, Z axes
Ambient temperature		-30°C to +80°C -22°F to +176°F	
Storage temperature		-30°C to +100°C -22°F to +212°F	
Operational method		Zero-cross (Turn-ON and Turn-OFF)	

### Terminal connection diagram (Bottom view)



Part No.	Product No.	Manufacturer	Description	Vin	Irms	Vrms
47561	AQF3A2-ZT3/28VDC	NAIS	NAIS_AQ-F SOLID STATE RELAY	3 to 28 V DC	3A	75 to 250 V AC

### FEATURES

1. Space saving, Vertical size with a maximum thickness of 4.5 mm.  
Mounting space has been reduced to 30% (compared to conventional SSR's) while meeting high density PC board mounting requirements.
2. 1A and 2A load types available
3. Zero-cross type and Random type available
4. High dielectric strength of 3,000V AC (between input and output)
5. Snubber circuit integrated  
The snubber circuit is integrated to prevent malfunction caused by the rapid rise of voltage on the output side, such as inductive load and current.

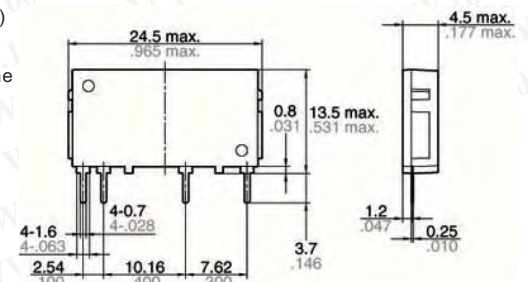
### TYPICAL APPLICATIONS

- Manufacturing equipment
- Air conditioners
- NC machines
- Computers
- Injection molders
- Robots

### Schematic

#### AC type

Input                      Output



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