



Compliance with RoHS Directive

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

TYPES

Types	Load current	Load voltage	Input voltage	Part No.
AC output	2A	75 to 250V AC	3 to 28V DC	AQF2A2-ZT3/28V DC
	3A			AQF3A2-ZT3/28V DC
DC output	2A	3 to 60V DC		AQF2AD1-3/28V DC
	3A			AQF3AD1-3/28V DC

SPECIFICATIONS

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

Item	Type	AC output		DC output		Remarks
		2A	3A	2A	3A	
Input side	Input voltage	3 to 28 V DC				*1
	Input impedance	Approx. 1.6 kΩ				
	Drop-out voltage, min.	0.8 V DC				
Load side	Max. load current	2 A*2	3 A*2	2 A*2	3 A*2	Ta = Max. 40°C 104°F
	Load voltage	75 to 250 V AC		3 to 60 V DC		
	Non-repetitive surge current	80 A*3		5 A*3	6 A*3	AC: In one cycle at 60 Hz DC: 1 s
	Max. "OFF-state" leakage current	5 mA		1 mA		AC: at 60 Hz 200 V DC: at 60 V
	Max. "ON-state" voltage drop	1.6 V				at max. carrying current
	Min. load current	50 mA*4		5 mA*4		

Standard packing: Carton 20 pcs., Case 200 pcs.

Notes: *1. Refer to REFERENCE DATA "3. Input current vs. input voltage".

*2. Refer to REFERENCE DATA "1. Load current vs. ambient temperature".

*3. Refer to REFERENCE DATA "2. Non-repetitive surge current vs. carrying time".

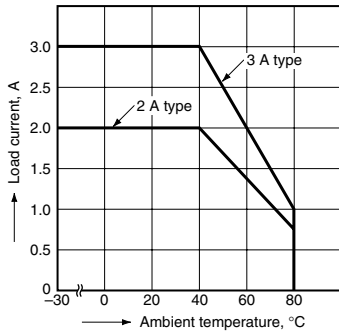
*4. When the load current is less than the rated minimum load current, please refer to "Cautions for Use of SSR".

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

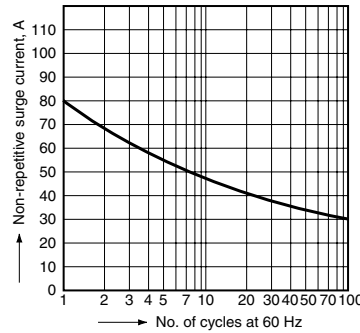
Item	Type	AC output		DC output		Remarks
		2A	3A	2A	3A	
Operate time max.		1/2 cycle of voltage sine wave + 1 ms		0.5 ms		
Release time, max.		1/2 cycle of voltage sine wave + 1 ms		2 ms		
Insulation resistance, min.		100 MΩ between input and output				at 500 V DC
Breakdown voltage		2,000 Vrms between input and output				for 1 min.
Vibration resistance	Destructive	10 to 55 Hz double amplitude of 3 mm				1 hour for X, Y, Z axes
	Functional	10 to 55 Hz double amplitude of 3 mm				10 min. for X, Y, Z axes
Shock resistance	Destructive	Min. 980 m/s ² {100 G}				5 times each for X, Y, Z axes
	Functional	Min. 980 m/s ² {100 G}				4 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)		—		

REFERENCE DATA

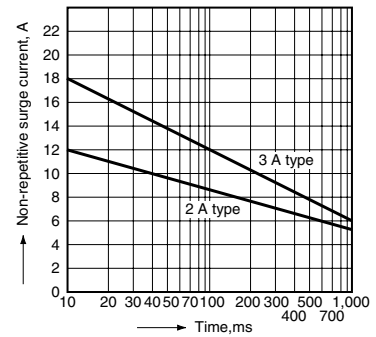
1. Load current vs. ambient temperature



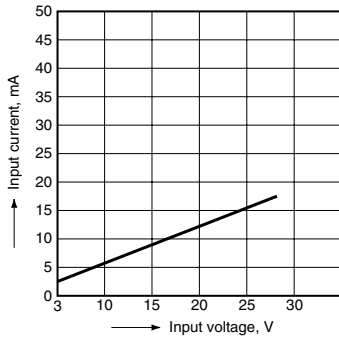
2-(1). Non-repetitive surge current vs. carrying time (AC output type)



2-(2). Non-repetitive surge current vs. carrying time (DC output type)



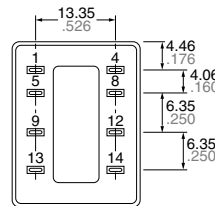
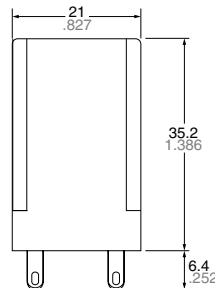
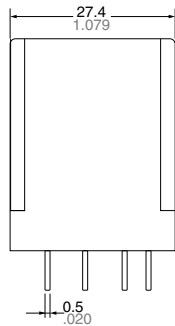
3. Input current vs. input voltage



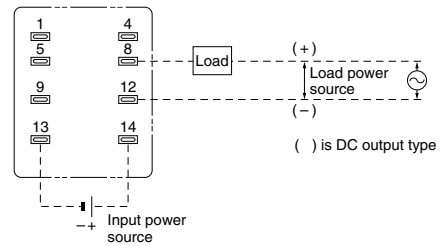
DIMENSIONS (mm inch)

The CAD data of the products with a **CAD Data** mark can be downloaded from: <http://panasonic-electric-works.net/ac>

CAD Data



Terminal connection diagram (Bottom view)



Recommended Temperature Controllers

<KT4H Temperature Controller>

Our temperature controller is recommended for use with our Solid State Relays.

Features

- Data can be collected using the RS485 communications interface via a PLC.
- Improved visibility using a negative type LCD and backlight.
- Depth-wise length (chassis dimension) is 56 mm 2.205 inch.

Substitute part numbers

Power supply	Control output	Part No.
100 to 240 V AC	Relay contact	AKT4H111100

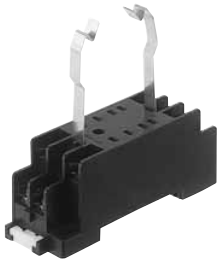
*For detailed product information about temperature controllers, please refer to our website: http://panasonic-denko.co.jp/ac/e/fasys/component/temperature_controller/



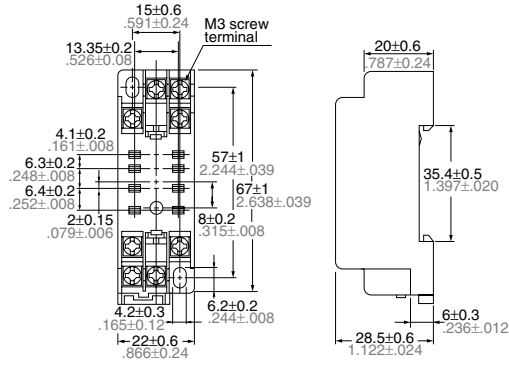
AQ-F

5. DIN socket for HC2-vertical type

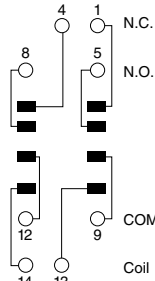
CAD Data



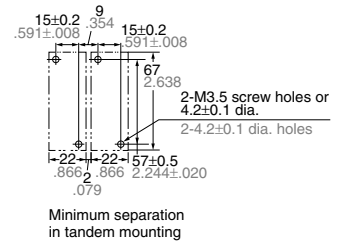
HC2-SFD-S



Schematic



Mounting dimension (Bottom view)

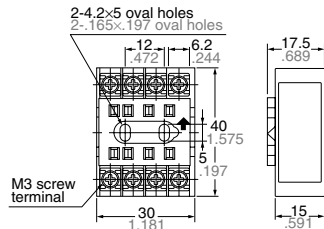


6. General socket

CAD Data



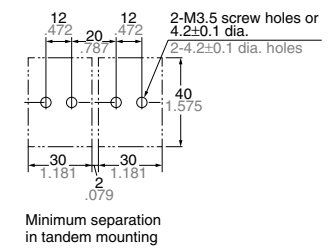
HC2-SF-K



Schematic



Mounting dimension (Bottom view)



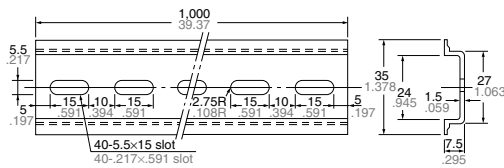
Note: HC3-HSF-K and HC4-HSF-K can be also used.

Mounting rail

CAD Data



AT8-DLA1

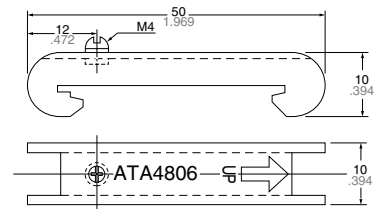


Fastening plate

CAD Data



ATA4806



For Cautions for Use.