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# 'anasonic



#### **ACCESSORIES**

# (Sockets and Terminal sockets)

#### **FEATURES**

#### 1. HC Relay Sockets

In the table below, the socket suitable for each type of HC relay is indicated

- 1) Plug-in type sockets, PC board type sockets, and wrapping type sockets are available for HC relays.
- 2) Certified by UL and CSA
- 3) A hold-down clip is included in the package.



The fixing method is the same as for HC sockets, ordinary HC terminal sockets and HL sockets.

HC/HL-LEAF-SPRING-MK

#### 2. HC Relay Terminal sockets

In the table below, the terminal socket suitable for each type of HC relay is indicated by a black dot.

- 1) Ordinary terminal sockets and terminal sockets for DIN rail assembly are available.
- 2) Certified by UL/C-UL
- 3) A hold-down clip is included in the package.



The fixing method is the same as for sockets

The fixing method is the same as for the HC DIN rail terminal sockets

Ordinary terminal socket HC/HL-LEAF-SPRING-MK **DIN rail Terminal sockets** HC-LEAF-SPRING-K

#### SELECTOR CHART

#### 1. Sockets

		Product name	Part No.	Applicable HC relay (Plug-in type)									
Туре	No. of pole			S	Amber type								
туре	No. or pole	1 Toduct Hame	i aitivo.	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)	1 Form C	2 Form C	4 Form C	4 Form C (twin)	
	1-pole	HC1-socket	HC1-SS-K	•					•				
Diver in	2-pole	HC2-socket	HC2-SS-K		•					•			
Plug-in	3-pole	HC3-socket	HC3-SS-K		•	•				•			
	1/2/4-pole (common)	HC4-socket	HC4-SS-K	<b>▲</b> *1	<b>▲</b> *1		•	•	•	•	•	•	
	1-pole	HC1-socket for PC board	HC1-PS-K	•					•				
DO h	2-pole	HC2-socket for PC board	HC2-PS-K		•					•			
PC board	3-pole	HC3-socket for PC board	HC3-PS-K		•	•				•			
	1/2/4-pole (common)	HC4-socket for PC board	HC4-PS-K	<b>▲</b> *1	<b>▲</b> *1		•	•	•	•	•	•	
\\/	1/0/4 = -1- (	HC4-wrapping socket	HC4-WS-K	<b>▲</b> *1	<b>▲</b> *1		•	•	•	•	•	•	
Wrapping	1/2/4-pole (common)	HC4-wrapping socket (spring)	HC4-WS	<b>▲</b> *1	<b>▲</b> *1		•	•	•	•	•	•	

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

Notes: 1. Use the hold-down clip that is shipped with the socket.

2. Certified by UL and CSA (except for wrapping socket). (\*1) Please use with a max. carrying current no higher than 5 A.

#### 2. Terminal sockets (HC Terminal sockets)

				Standard packing		Applicable HC relay (Plug-in type)								
Туре	No of note	Item	Part No.			Standard type/With diode type (for DC)					Amber type			
	2/3-pole 1/2/4-pole (common)	Kom	Tarrio.	Carton	Case	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)	1 Form C	2 Form C	4 Form C	4 Form C (twin)
_	2-pole	HC2-slim type DIN terminal socket	HC2-SFD-S	20 pcs.	100 pcs.		•					•		
For DIN rail	2/3-pole	HC3-DIN	HC3-SFD-K	5 pcs.	50 pcs.		•	•				•		
Dirrian		HC vertical terminal socket	HC4-TSF-K	5 pcs.	50 pcs.	<b>▲</b> *2	•		•	•	•	•	•	•
-	2-pole	HC2-terminal socket	HC2-SF-K	10 pcs.	100 pcs.		•					•		
For general	2/3-pole	HC3-high terminal socket	HC3-HSF-K	5 pcs.	50 pcs.		•	•				•		
	1/2/4-pole (common)	HC-high terminal socket	HC4-HSF-K	5 pcs.	50 pcs.	<b>▲</b> *2	•		•	•	•	•	•	•

Notes: 1. Use the hold-down clip that is shipped with the socket.

2. Certified by UL/C-UL (except for HC4-TSF-K).

3. In order to prevent breakage and disfiguring, the screw tightening torque for the terminal socket should be within the range of 0.49 to 0.69 N·m {5 to 7kgf-cm}.

(\*2) Please use with a max. carrying current no higher than 7 A.

#### 3. Terminal sockets (HJ Terminal sockets)

Type  For DIN rail				Ctondor	d packing		Applicable HC relay (Plug-in type)							
	No. of pole	Item	Part No.	Statiuan	u packing	Standard t	type/With diode ty	pe (for DC)		Amber type				
				Carton	Case	2 Form C	4 Form C	4 Form C (twin)	2 Form C	4 Form C	4 Form C (twin)			
		HJ2-terminal socket	HJ2-SFD	- 10 pcs. 100 pc		•			•					
For	2-pole	HJ2-terminal socket (Finger protect type)	HJ2-SFD-S		100 pcs.	•			•					
DIN rail		HJ4-terminal socket	HJ4-SFD			<b>▲</b> *3	•	•	•	•	•			
	1/2/4-pole (common)	HJ4-terminal socket (Finger protect type)	HJ4-SFD-S			<b>▲</b> *3	•	•	•	•	•			

Note: When using HJ4-SFD/HJ4-SFD-S with HC relay 1 Form C/2 Form C as a set, please keep the terminal socket max. continuous current no higher than 5 A. (\*3) Please use with a max. carrying current no higher than 5 A.

#### **RATING**

#### **Specifications (Sockets)**

	Item		Performance										
Туре		HC1 Plug in terminal socket	HC1 PC board socket	HC2 Plug in terminal socket	HC2 PC board socket	HC3 Plug in terminal socket	HC3 PC board socket	HC4 Plug in terminal socket	HC4 PC board socket				
Contact arra	Contact arrangement		(1-pole)	2 Form C	2 Form C (2-pole) 3 Form C (2/3-pole common)		4 Form C (1/2/4-pole common)						
Max. continuous current (Ambient temperature: -50 to +70°C -58 to +158°F)		10A	10A	7A	7A	7A	7A	5A	5A				
	Between open contacts												
Breakdown voltage (Initial)	Between contact sets		2, 000 Vrms for 1 min. (Detection current: 10mA)										
(iiiidai)	Between contact and coil												
Initial insulat	ion resistance		100 MΩ between each terminal (500V DC)										

Note: When using 1/2 pole HC relay (10A, 7A rating) on a 4 Form C socket that is 1/2/4-pole common, please use within a range that does not exceed the max. continuous current (5A).

#### **Specifications (Terminal sockets)**

	Item		Performance										
	Туре		HC2 For DIN rail terminal sockets	HC2 For general terminal sockets	HC3 For DIN rail terminal sockets	HC3-high For general terminal sockets	eral For DIN rail vertical type F al terminal terminal		HC4 For general terminal sockets				
Contact arra	ingement		2 Form C (2-pole) 3 Form C (2/3-pole common				4 Forn	Form C (1/2/4-pole common)					
(Ambient ter	Max. continuous current (Ambient temperature: -50 to +70°C -58 to +158°F)		7A	7A	7A	7A	7A	7A	7A				
5	Between open contacts												
Breakdown voltage	Between contact sets	2, 000 Vrms for 1 min. (Detection current: 10mA)											
(Initial)	Between contact and coil												
Initial insulat	tion resistance	100 MO between each terminal (500V DC)											

Note: When using a 1-pole HC relay (10A) on 4 Form C terminal socket that is 1/2/4-pole common, please use within a range that does not exceed the max. continuous current (7A).

#### **DIMENSIONS** (mm inch)

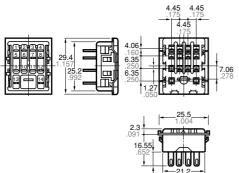
The CAD data of the products with a CAD Data mark can be downloaded from: http://industrial.panasonic.com/ac/e/

1. Plug-in type sockets HC1-Socket (HC1-SS-K)

### CAD Data



External dimensions



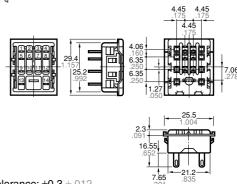
General tolerance: ±0.3 ±.012

HC2-Socket (HC2-SS-K)

#### CAD Data



External dimensions



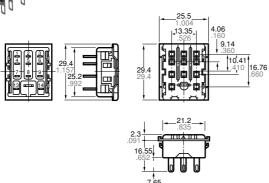
General tolerance:  $\pm 0.3 \pm .012$ 

HC3-Socket (HC3-SS-K)

#### CAD Data



External dimensions



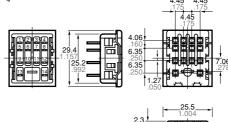
General tolerance:  $\pm 0.3 \pm .012$ 

HC4-Socket (HC4-SS-K)

#### **CAD Data**

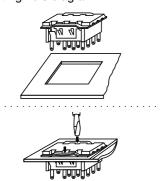


External dimensions

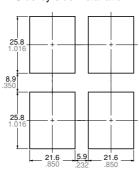


General tolerance:  $\pm 0.3 \pm .012$ 

#### Mounting hole diagram



#### Side-by-side installation



General tolerance: ±0.2 ±.008

 Installation is easy by inserting the socket from the top into the holes and by depressing the two down arrows on the retention fitting from the front.

Notes: 1. Applicable chassis board thickness is 1.0 to

With a relay mounted (HC2-SS-K)



Hold-down clip is packaged with the socket.

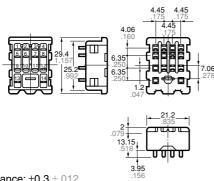
#### 2. PC board type sockets

HC1- PC board type socket (HC1-PS-K)

#### CAD Data



External dimensions



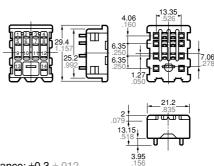
General tolerance: ±0.3 ±.012

HC2- PC board type socket (HC2-PS-K)

#### CAD Data



External dimensions



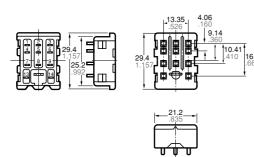
General tolerance: ±0.3 ±.012

HC3- PC board type socket (HC3-PS-K)

**CAD Data** 



External dimensions



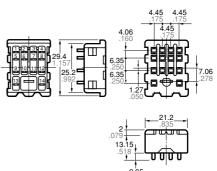
General tolerance: ±0.3 ±.012

HC4- PC board type socket (HC4-PS-K)

#### **CAD Data**

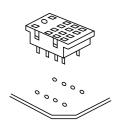


External dimensions



General tolerance: ±0.3 ±.012

PC board pattern (Bottom view)

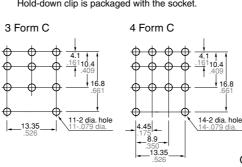


1 Form C 2 Form C

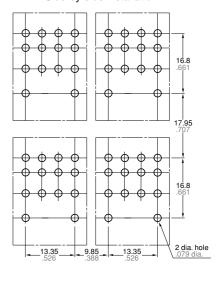
With a relay mounted



Hold-down clip is packaged with the socket.



Side-by-side installation



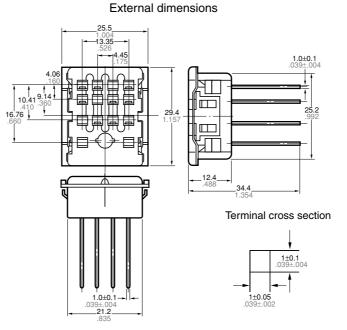
General tolerance:  $\pm 0.1 \pm .004$ 

#### 3. Wrapping type sockets

Standard wrapping type sockets (HC4-WS-K)

#### CAD Data





Hold-down clip (Hold-down clip is packaged with the socket)



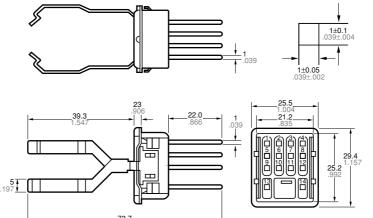
General tolerance:  $\pm 0.3 \pm .012$ 

Note: The external and mounting dimensions are the same for 1-pole (HC1-WS-K), 2-pole (HC2-WS-K), and 3-pole (HC3-WS-K) types. Only the number of terminals varies.

Wrapping type sockets with hold-down clip





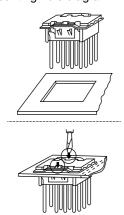


External dimensions

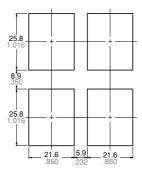
Terminal cross section

General tolerance: ±0.7 ±.028

#### Mounting hole diagram



#### Side-by-side installation



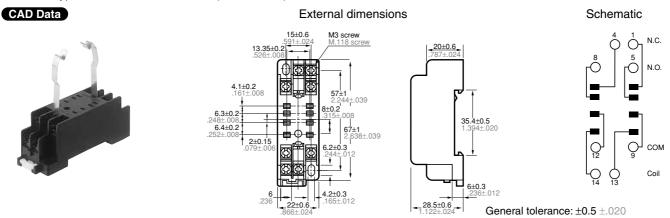
General tolerance: ±0.2 ±.008

Notes: 1. Applicable chassis board thickness is 1.0 to

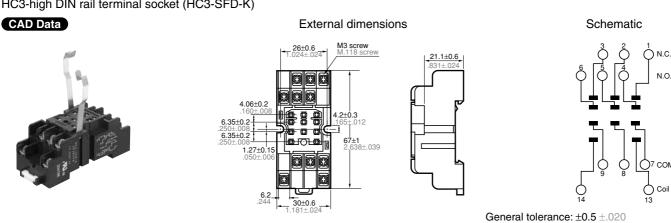
2.0 mm.
2. Installation is easy by inserting the socket from the top into the holes and by depressing the two down arrows on the retention fitting from the front.

#### 4. DIN rail Terminal sockets

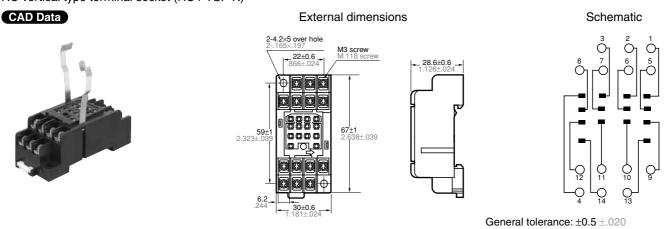
HC2-Slim type DIN rail terminal sockets (HC2-SFD-S)

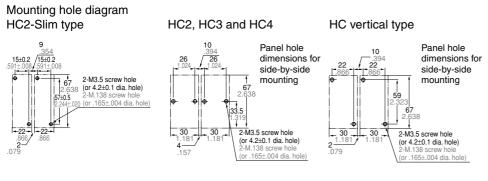


HC3-high DIN rail terminal socket (HC3-SFD-K)



HC vertical type terminal socket (HC4-TSF-K)





General tolerance: ±0.1 ±.004

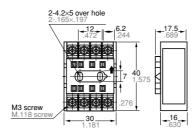
#### 5. Ordinary terminal sockets

HC2-terminal socket (HC2-SF-K for HC2)

#### CAD Data



#### External dimensions



#### Schematic





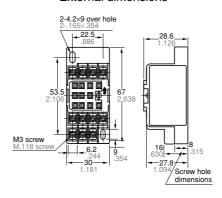
General tolerance:  $\pm 0.5 \pm .020$ 

#### HC3-high terminal socket (HC3-HSF-K) suitable for both HC2 and HC3

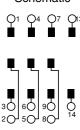
#### CAD Data



#### External dimensions



#### Schematic



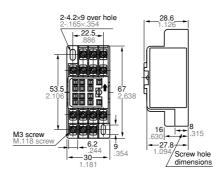
General tolerance:  $\pm 0.5 \pm .020$ 

#### HC4-high terminal socket (HC4-HSF-K) suitable for HC 1, 2 and 4

#### CAD Data



#### External dimensions



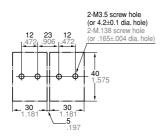
Schematic





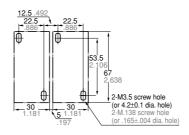
General tolerance:  $\pm 0.5 \pm .020$ 

# Mounting hole diagram HC2-SF-K



Panel hole dimensions for side-by-side mounting

#### HC3-HSF-K and HC4-HSF-K



Panel hole dimensions for side-by-side mounting

#### With a relay mounted (HC2-SF-K)



Hold-down clip is packaged with the terminal socket.

General tolerance: ±0.1 ±.004