

## 阅读申明

- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

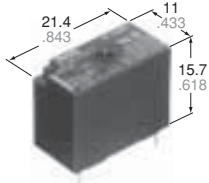
## Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .

**Panasonic**  
ideas for life

**SLIM TYPE POWER RELAY**

**JK RELAYS**



mm inch

## FEATURES

- **Compact & Slim design: 11.0 mm (length) × 21.4 mm (width) × 15.7 mm (height)**  
(.433×.843×.618 inch)
- **High capacity type (8 A) available**
- **Surge resistance: Min. 8,000 V between contact and coil**
- **High sensitivity: 200 mW nominal operating power**
- **Sealed type available**
- **VDE, TÜV, SEMKO also approved**

## SPECIFICATIONS

### Contact

Type	Standard type	High capacity type	
Arrangement	1 Form A		
Initial contact resistance, max. (By voltage drop 6 V DC 1 A)	100 mΩ		
Contact material	Silver alloy		
Rating (resistive load)	Nominal switching capacity	3 A 30 V DC 3 A 125 V AC	5 A 30 V DC 8 A 125 V AC
	Max. switching power	90 W, 500 VA	150 W, 1,250 V A
	Max. switching voltage	250 V AC, 110 V DC (0.3 A)	
	Max. switching current	3 A	8 A
Expected life (min. operations)	Mechanical (at 180 cpm)	5×10 <sup>6</sup>	
	Electrical (at 20 cpm) (at rated load)	10 <sup>5</sup>	

### Coil

Nominal operating power	Standard and high capacity type	200 mW

### Remarks

- \* Specifications will vary with foreign standards certification ratings.
- \*1 Measurement at same location as "Initial breakdown voltage" section
- \*2 Detection current: 10 mA
- \*3 Wave is standard shock voltage of  $\pm 1.2 \times 50\mu\text{s}$  according to JEC-212-1981
- \*4 Excluding contact bounce time
- \*5 Half-wave pulse of sine wave: 11ms; detection time: 10μs
- \*6 Half-wave pulse of sine wave: 6ms
- \*7 Detection time: 10μs
- \*8 Refer to 5. Conditions for operation, transport and storage mentioned in AMBIENT ENVIRONMENT.

### Characteristics

Max. operating speed	20 cpm	
Initial insulation resistance*1	Min. 100 MΩ at 500 V DC	
Initial breakdown voltage*2	Between open contacts	750 Vrms for 1 min.
	Between contact and coil	2,000 Vrms for 1 min.
Surge voltage between contact and coil*3	Min. 8,000 V	
Operate time*4 (at nominal voltage)	Approx. 4 ms	
Release time*4 (at nominal voltage) (without diode)	Approx. 2 ms	
Temperature rise (ambient temperature: 70°C)	Max. 45°C with nominal coil voltage and at maximum allowable contact current	
Shock resistance	Functional*5	Min. 98 m/s <sup>2</sup> {10 G}
	Destructive*6	Min. 980 m/s <sup>2</sup> {100 G}
Vibration resistance	Functional*7	10 to 55 Hz at double amplitude of 1.6 mm
	Destructive	10 to 55 Hz at double amplitude of 2 mm
Conditions for operation, transport and storage*8 (Not freezing and condensing at low temperature)	Ambient temp.	-40°C to +70°C -40°F to +158°F
	Humidity	5 to 85% R.H.
Unit weight	Approx. 7 g .25 oz	

## TYPICAL APPLICATIONS

- Home appliances  
Microwave ovens, Air conditioners
- Office equipment  
Photocopiers, Facsimiles
- Industrial machines  
NC machines

## ORDERING INFORMATION

Ex. JK 1a P F — 12 V

Contact capacity	Protective construction	Coil voltage (DC)
Nil: Standard 3 A P: High capacity 8A	Nil: Sealed type F: Flux-resistant type	3, 5, 6, 9, 12, 18, 24, 48 V

- Notes: 1. For TV-5 rated type, add suffix "-TV".  
For detailed specifications, please consult us.  
2. Standard packing: Carton: 100 pcs.; Case: 500 pcs.  
UL/CSA, VDE approved type is standard.

# TYPES

## 1. Standard type (3 A)

Coil voltage, V DC	Part No.	
	Sealed type	Flux-resistant type
3	JK1a-3V	JK1aF-3V
5	JK1a-5V	JK1aF-5V
6	JK1a-6V	JK1aF-6V
9	JK1a-9V	JK1aF-9V
12	JK1a-12V	JK1aF-12V
18	JK1a-18V	JK1aF-18V
24	JK1a-24V	JK1aF-24V
48	JK1a-48V	JK1aF-48V

## 2. High capacity type (8 A)

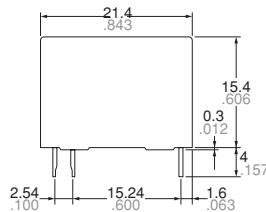
Coil voltage, V DC	Part No.	
	Sealed type	Flux-resistant type
3	JK1aP-3V	JK1aPF-3V
5	JK1aP-5V	JK1aPF-5V
6	JK1aP-6V	JK1aPF-6V
9	JK1aP-9V	JK1aPF-9V
12	JK1aP-12V	JK1aPF-12V
18	JK1aP-18V	JK1aPF-18V
24	JK1aP-24V	JK1aPF-24V
48	JK1aP-48V	JK1aPF-48V

## COIL DATA (at 20°C 68°F)

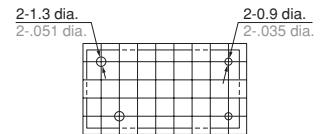
Nominal voltage, V DC	Pick-up voltage V DC (max.)	Drop-out voltage, V DC (min.)	Coil resistance $\Omega$ ( $\pm 10\%$ )	Nominal operating current, mA ( $\pm 10\%$ )	Nominal operating power, mW	Max. allowable voltage at 70°C, V DC
3	2.4	0.15	45	67	200	3.9
5	4.0	0.25	125	40	200	6.5
6	4.8	0.3	180	33	200	7.8
9	7.2	0.45	405	22	200	11.7
12	9.6	0.6	720	17	200	15.6
18	14.4	0.9	1,620	11	200	23.4
24	19.2	1.2	2,880	8.3	200	31.2
48	38.4	2.4	11,520	4.2	200	62.4

## DIMENSIONS

mm inch



PC board pattern (Bottom view)



Tolerance:  $\pm 0.1 \pm 0.004$

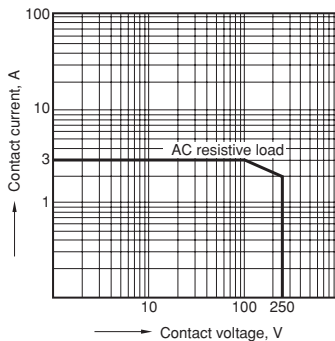


**Dimension:**  
 Max. 1mm .039 inch  
 1 to 5mm .039 to .197 inch  
 Min. 5mm .197 inch

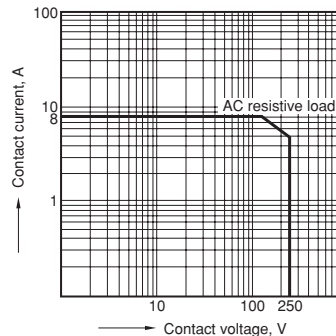
**General tolerance**  
 $\pm 0.2 \pm 0.008$   
 $\pm 0.3 \pm 0.012$   
 $\pm 0.4 \pm 0.016$

## REFERENCE DATA

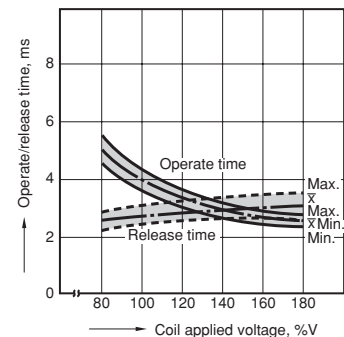
1-(1). Maximum value for switching capacity (Standard type)



1-(2). Maximum value for switching capacity (High capacity type)

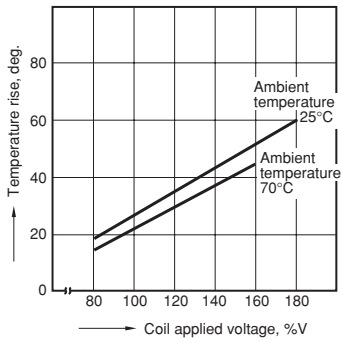


2. Operate/release time



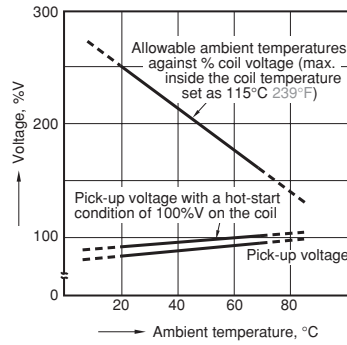
3. Coil temperature rise  
(High capacity type)

Measured portion: Inside the coil  
Contact current: 8 A



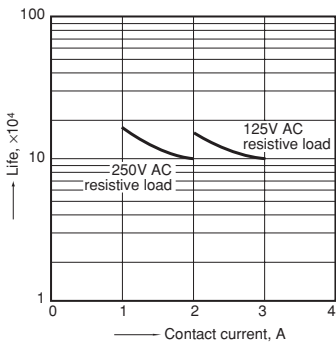
4. Ambient temperature characteristics  
(High capacity type)

Contact current: 8 A



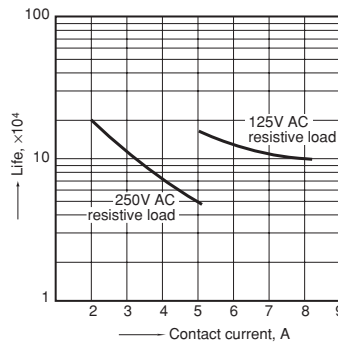
5.-(1) Life curve (Standard type)

Operation frequency: 20 times/min.  
(ON/OFF = 1.5s:1.5s)  
Ambient temperature: Room temperature



5.-(2) Life curve (High capacity type)

Operation frequency: 20 times/min.  
(ON/OFF = 1.5s:1.5s)  
Ambient temperature: Room temperature



**For Cautions for Use, see Relay Technical Information.**