

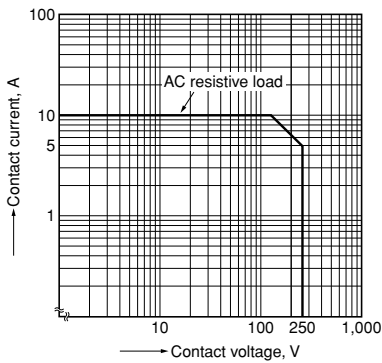
### 3. Expected electrical life

Condition: Resistive load, at 20°C 68°F, at 20 times/min., with diode

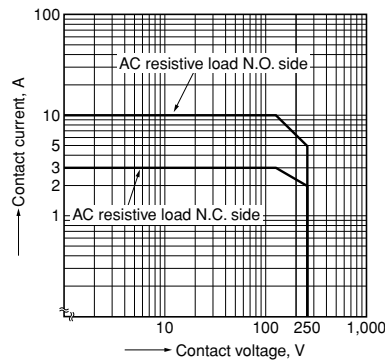
Type		Switching capacity	No. of operations
1 Form A (at 20 times/min.)		10 A 125 V AC	5×10 <sup>4</sup>
		5 A 250 V AC	5×10 <sup>4</sup>
		5 A 30 V DC	10 <sup>5</sup>
1 Form C (at 20 times/min.)	N.O.	10 A 125 V AC	5×10 <sup>4</sup>
		5 A 250 V AC	5×10 <sup>4</sup>
		5 A 30 V DC	10 <sup>5</sup>
	N.C.	3 A 125 V AC	2×10 <sup>5</sup>
		2 A 250 V AC	2×10 <sup>5</sup>
		1 A 30 V DC	10 <sup>5</sup>

## REFERENCE DATA

1.-(1) Max. switching capacity (1 Form A type)

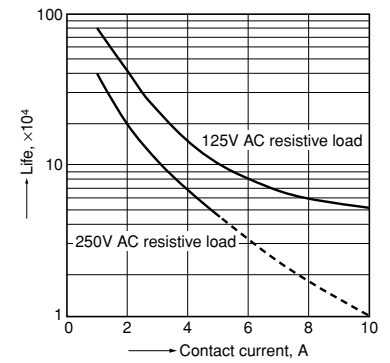


1.-(2) Max. switching capacity (1 Form C type)



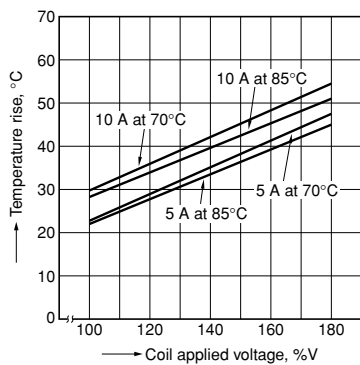
2. Life curve (N.O. side)

Ambient temperature: room temperature



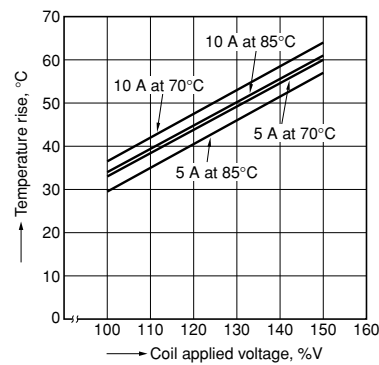
3.-(1) Coil temperature rise (1 Form A type)

Measured portion: Inside the coil  
Contact carrying current: 5 A, 10 A



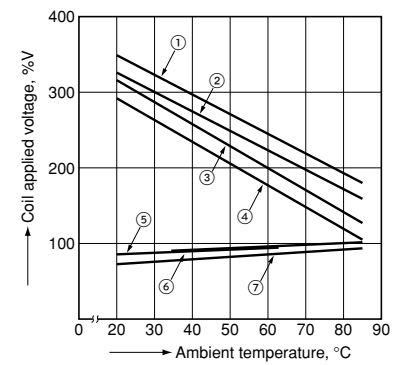
3.-(2) Coil temperature rise (1 Form C type)

Measured portion: Inside the coil  
Contact carrying current: 5 A, 10 A



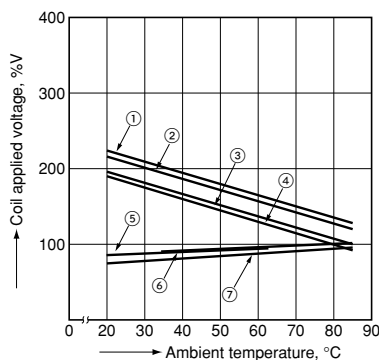
4.-(1) Ambient temperature characteristics (1 Form A type)

Contact carrying current: 5 A, 10 A



4.-(2) Ambient temperature characteristics (1 Form C type)

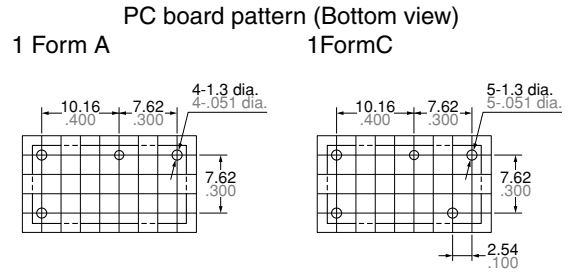
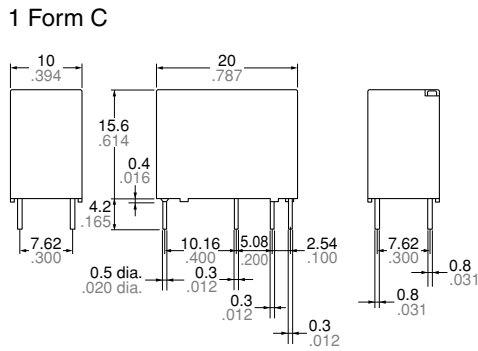
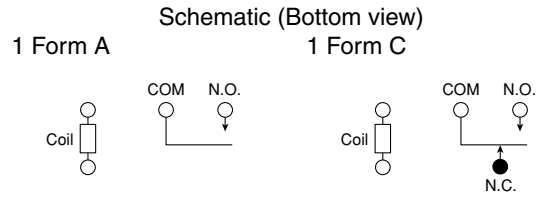
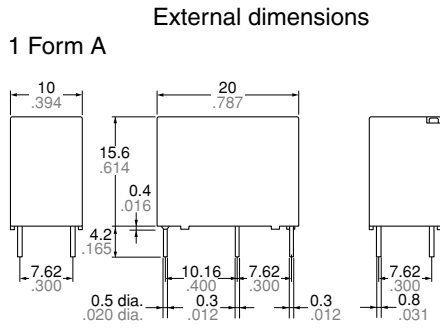
Contact carrying current: 5 A, 10 A



- ① Allowable ambient temperature against % coil voltage (max. inside the coil temperature set as 130°C 266°F) (Carrying current: 5 A)
- ② Allowable ambient temperature against % coil voltage (max. inside the coil temperature set as 130°C 266°F) (Carrying current: 10 A)
- ③ Allowable ambient temperature against % coil voltage (max. inside the coil temperature set as 115°C 239°F) (Carrying current: 5 A)
- ④ Allowable ambient temperature against % coil voltage (max. inside the coil temperature set as 115°C 239°F) (Carrying current: 10 A)
- ⑤ Pick-up voltage with a hot-start condition of 100%V on the coil (Carrying current: 10 A)
- ⑥ Pick-up voltage with a hot-start condition of 100%V on the coil (Carrying current: 5 A)
- ⑦ Pick-up voltage

**DIMENSIONS** (mm inch)

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



Tolerance:  $\pm 0.1 \pm 0.04$

**Dimension:**  
 Less than 1mm .039inch:  $\pm 0.2 \pm 0.08$   
 Min. 1mm .039inch less than 5mm .197 inch:  $\pm 0.3 \pm 0.12$   
 Min. 5mm .197 inch:  $\pm 0.4 \pm 0.16$

**General tolerance**  
 $\pm 0.2 \pm 0.08$   
 $\pm 0.3 \pm 0.12$   
 $\pm 0.4 \pm 0.16$

**SAFETY STANDARDS**

Type	UL/C-UL (Recognized)*1					VDE (Certified)				
	File No.	Contact	Load	Temp.	Cycles	File No.	Contact	Load	Temp.	Cycles
1 Form C (ALQ1**)	E43028	N.O.	10A 125V AC, General Use	40°C 104°F	5 × 10 <sup>4</sup>	40032836	N.O.	10A 250V AC (cosφ=1.0)	85°C 185°F	10 <sup>4</sup>
			5A 277V AC, General Use	40°C 104°F	10 <sup>5</sup>			10A 250V AC (cosφ=0.4)	85°C 185°F	10 <sup>4</sup>
			5A 240V AC, Resistive	80°C 176°F	10 <sup>5</sup>			5A 250V AC (cosφ=1.0)	85°C 185°F	5 × 10 <sup>4</sup>
			5A 30V DC, General Use	40°C 104°F	10 <sup>5</sup>			5A 30V DC (0ms)	85°C 185°F	10 <sup>4</sup>
			4FLA/4LRA 277V AC, AC Motor	105°C 221°F	10 <sup>5</sup>			—	—	—
			3FLA/18LRA 240V AC, AC Motor	85°C 185°F	10 <sup>5</sup>			—	—	—
			1/6HP 125V AC, AC Motor Starting	40°C 104°F	10 <sup>3</sup>			—	—	—
			1/6HP 277V AC, AC Motor Starting	40°C 104°F	10 <sup>3</sup>			—	—	—
		N.C.	3A 240V AC, Resistive	80°C 176°F	10 <sup>5</sup>		3A 250V AC (cosφ=0.4)	85°C 185°F	10 <sup>4</sup>	
			3A 125V AC, General Use	40°C 104°F	10 <sup>5</sup>		—	—	—	
			2A 277V AC, General Use	40°C 104°F	10 <sup>5</sup>		—	—	—	
			2A 30V DC, Resistive	40°C 104°F	10 <sup>5</sup>		—	—	—	
			—	—	—		—	—	—	
			—	—	—		—	—	—	
1 Form A (ALQ3**)	E43028	N.O.	10A 125V AC, General Use	40°C 104°F	5 × 10 <sup>4</sup>	40032836	N.O.	10A 250V AC (cosφ=1.0)	85°C 185°F	10 <sup>4</sup>
			10A 125V AC, Carry Only	85°C 185°F	5 × 10 <sup>4</sup>			10A 250V AC (cosφ=0.4)	85°C 185°F	10 <sup>4</sup>
			5A 277V AC, General Use	40°C 104°F	10 <sup>5</sup>			5A 250V AC (cosφ=1.0)	85°C 185°F	5 × 10 <sup>4</sup>
			5A 240V AC, General Use	105°C 221°F	6 × 10 <sup>3</sup>			5A 30V DC (0ms)	85°C 185°F	10 <sup>4</sup>
			5A 30V DC, General Use	40°C 104°F	10 <sup>5</sup>			—	—	—
			4FLA/4LRA 277V AC, AC Motor Starting	105°C 221°F	10 <sup>5</sup>			—	—	—
			1/6HP 277V AC, AC Motor Starting	40°C 104°F	10 <sup>3</sup>			—	—	—
			1/6HP 125V AC, AC Motor Starting	40°C 104°F	10 <sup>3</sup>			—	—	—
			4A 125V AC, Resistive Load	105°C 221°F	10 <sup>5</sup>			—	—	—
			2A 120V AC, Tungsten Load	105°C 221°F	6 × 10 <sup>3</sup>			—	—	—
			1A 125V AC, Pilot Duty	105°C 221°F	10 <sup>5</sup>			—	—	—
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Type	CQC		
	File No.	Contact	Load
1 Form C (ALQ1**)	CQC14002108384	N.O.	5A 250V AC
		N.C.	2A 250V AC
1 Form A (ALQ3**)		N.O.	5A 250V AC

Note: \*1. CSA standard: Certified by C-UL