Power Relay

High-power Relay that Breaks 20 A, Carries 20 A, and Withstands 60-A Inrush

- Miniature, high-capacity power relay ideal for incorporation in non-industrial equipment to switch such loads as motor, transformer, lamp, heater, etc.
- Creepage distance of more than 4 mm.
- Nonflammable insulating materials employed meet UL94V-0





Ordering Information

Classification	Contact form	Coil terminal	Load contact terminal	Model
Standard model	SPST-NO	PCB terminal	Quick connect #250	G4F-11123T
	SPDT			G4F-1123T
UL/CSA approved model	SPST-NO			G4F-11123T-US
	SPDT			G4F-1123T-US
VDE/TÜV approved model	SPST-NO			G4F-11123T-TU
	SPDT			G4F-1123T-TU

Note: 1. When ordering, add the rated coil voltage to the model number Example: G4F-1123T, 12 VDC Rated coil voltage

Specifications

■ Coil Ratings

Voltage	Current	Resistance	Coil inductance (H) (ref. value)		Must operate voltage	Must release voltage	Max. voltage	Power consumption (approx.)
			Armature OFF	Armature ON	%	of rated volta	ge	
12 VDC	75 mA	160 Ω	1.3	1.9	70% max.	10% min.	110%	0.9 W
24 VDC	37.5 mA	640 Ω	5.8	9.5	Ī			

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerances of ±10%.

2. Performance characteristic data are measured at 23°C coil temperature.

■ Contact Ratings

Model	G4F-1123T(-US) (-TU)		G4F-11123T(-US) (-TU)		
Load	Resistive load (cosφ = 1)	Inductive load (cosφ = 0.4)	Resistive load (cosφ = 1)	Inductive load (cosφ = 1)	
Rated load	15 A at 220 VAC	10 A at 220 VAC	20 A at 220 VAC	15 A at 220 VAC	
Max. inrush current	55 A		60 A		
Rated carry current	20 A				
Max. switching voltage	250 VAC				
Max. switching current	15 A 20 A				
Max. switching power	3,300 VA	2,200 VA	4,400 VA	3,300 VA	
Failure rate (reference value)	100 mA at 5 VDC	·			

■ Characteristics

Contact resistance	$30~\text{m}\Omega$ max.	
Operate time	20 ms max.	
Release time	10 ms max.	
Operating frequency	Mechanical: 18,000 operations/hour Electrical: 1,800 operations/hour (under rated load)	
Insulation resistance	100 MΩ min. (at 500 VDC)	
Dielectric strength	2,000 VAC, 50/60 Hz for 1 minute (1,000 VAC between contacts of same polarity)	
Vibration resistance	Destruction: 10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude)	
Shock resistance	Destruction: 1,000 m/s ² Malfunction: 200 m/s ²	
Ambient temperature	Operating: -25°C to 55°C (with no icing)	
Ambient humidity	Operating: 5% to 85%	
Endurance	Mechanical: 5,000,000 operations min. (at operating frequency of 18,000 operations/hour) Electrical: 200,000 operations min. (at operating frequency of 1,800 operations/hour under rated load)	
Weight	Approx. 40 g	

Note: The data shown above are initial values.

■ Motor Load Ratings (Reference Only)

Model	Load conditions	Operating frequency	Electrical Endurance
G4F-1123T	110 VAC (cosφ = 0.7) Inrush: 55 A (0.2 sec.) Break: 15 A	ON: 1 sec. OFF: 10 sec.	200 (X 10 ³ operations min.)
G4F-11123T	110 VAC (cosφ = 0.7) Inrush: 60 A (0.2 sec.) Break: 20 A		

■ Approved Standard

UL508 484 Recognitions (File No. E41643)

Model	Coil ratings	Contact ratings	Operations
G4F-()-US	5 to 100 VDC	15 A, 30 VDC (Resistive) 10 A, 250 VAC (General use)	6 x 10 ³ 30 x 10 ³

CSA C22.2 No. 14 (File No. LR 35535)

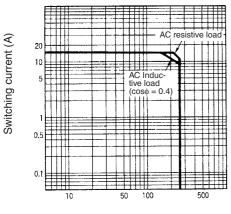
Model	Coil ratings	Contact ratings	Operations
G4F-()-US	5 to 100 VDC	15 A, 250 VAC (Resistive) 15 A, 30 VDC (Resistive)	6 x 10 ³
		1 HP 125/250 VAC (Motor load) TV-3 AC	25 x 10 ³

TÜV File No. R9151218 (IEC 255, EN 60335-1, VDE 0435)

Model	Coil ratings	Contact ratings	Operations
G4F-()-TU		15 A, 250 VAC (cosφ=1) 10 A, 250 VAC (cosφ=0.4) 20 A, 250 VAC (cosφ=1) 15 A, 250 VAC (cosφ=0.4)	100 x 10 ³

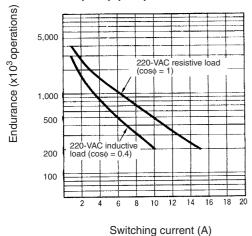
Engineering Data

Maximum Switching Power G4F-1123T(-US) (-TU)

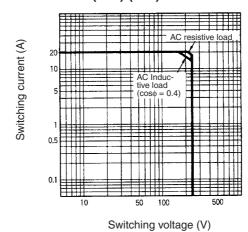


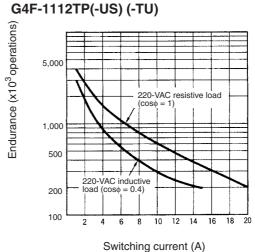
Switching voltage (V)

Electrical Endurance G4F-1123T(-US) (-TU)



G4F-11123T(-US) (-TU)



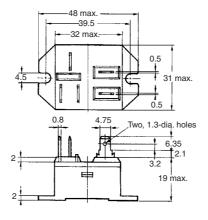


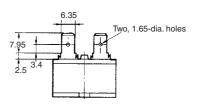
Dimensions

Note: All units are in millimeters unless otherwise indicated.

G4F-11123T(-US) (-TU)

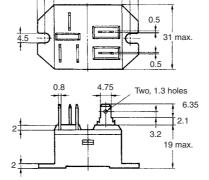




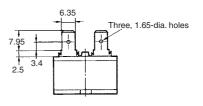


G4F-1123T(-US) (-TU)





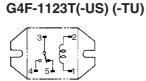
48 max. ——39.5-—32 max



Terminal Arrangement/Internal Connections (Top View)

G4F-11123T(-US) (-TU)

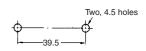
3 2 2



Mounting Holes G4F-11123T(-US) (-TU)

-39.5

Two, 4.5 holes



G4F-1123T(-US) (-TU)

Note: This type has no polarity.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. J041-E1-06

In the interest of product improvement, specifications are subject to change without notice.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for General Purpose Relays category:

Click to view products by Omron manufacturer:

Other Similar products are found below:

```
APF30318 JVN1AF-4.5V-F PCN-105D3MHZ 5JO-10000S-SIL 5JO-1000CD-SIL 5JO-400CD-SIL LY2S-AC220/240 LYQ20DC12 6031007G 6131406HQ 6-1393099-3 6-1393099-8 6-1393122-4 6-1393123-2 6-1393767-1 6-1393843-7 6-1415012-1 6-1419102-2 6-1423698-4 6-1608051-6 6-1608067-0 6-1616170-6 6-1616248-2 6-1616282-3 6-1616348-2 6-1616350-1 6-1616350-8 6-1616358-7 6-1616359-9 6-1616360-9 6-1616931-6 6-1617039-1 6-1617052-1 6-1617090-2 6-1617090-5 6-1617347-5 6-1617353-3 6-1617801-8 6-1617802-2 6-1618107-9 6-1618248-4 M83536/1-027M CX-4014 MAHC-5494 MAVCD-5419-6 703XCX-120A 7-1393100-5 7-1393111-7 7-1393144-5 7-1393767-8
```