

Product Details and Certifications

Cross Reference RA Part Number: 700-HG47A1-6 B

 Product: **700-HG47A1-6**

Description: 700-HG General Purpose Open-Style Power Relay, DPST-NO,
120V 50/60Hz, Magnetic Blowout



Representative Photo Only (actual product may vary based on configuration sections)

CONTROL RELAY DATA

Bulletin Number	700-HG General Purpose Relay
Contact Rating	40A Contact
Contact Configuration	DPST-NO Contact Arrangement
Coil Voltage	120V 50/60Hz
Relay Options	Magnetic Blowout

CERTIFICATIONS AND APPROVALS

UL
CSA
CE

For UL Certifications Directory:

<http://database.ul.com/cgi-bin/XYV/template/LISEXT/IFRAME/index.htm>


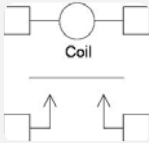


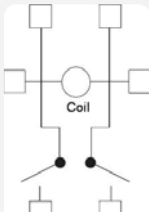

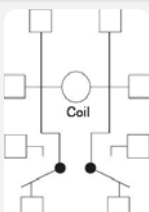
Bulletin No.	700-HG	700-HHF	700-HJ
Type	Power Relay	Power Relay	Magnetic Latching Relay
Features	<ul style="list-style-type: none"> Panel mount with screw terminals Optional magnetic blowouts for switching DC loads Optional snap action switch 	<ul style="list-style-type: none"> Flange mounted Optional LED 	<ul style="list-style-type: none"> Socket mounted Ideal for lighting applications
Contact Ratings			
Contact Form	SPST-N.O.-DM, SPDT, DPST-N.O., DPDT	SPST-NO-DM, DPDT, 3PDT	SPDT, DPDT (Single or Dual Coil)
Contact Type	Single	Single	Single
Contact Material	AgCdO	AgCdO	AgCdO
Max. operating current under resistive load	40 A	20 A (3PDT), 25 A (DPDT), 30 A (SPDT)	10 A
Min. permissible load	10V 50 mA	10V 50 mA 10V 100 mA (3PDT)	10V 50 mA
Coil Ratings			
Coil Voltage	AC: 24V, 120V, 240V, 277V, 480V DC: 12V, 24V, 48V, 110V, 220V, 250V	AC: 24V, 120V, 240V DC: 6V, 12V, 24V	AC: 24V, 120V, 240V DC: 12V, 24V
Permissible Coil Voltage Variation	85...110% of Nominal Voltage at 50 Hz 85...110% of Nominal Voltage at 60 Hz 80...110% of Nominal Voltage at DC	85...110% of Nominal Voltage at 50 Hz 85...110% of Nominal Voltage at 60 Hz 80...110% of Nominal Voltage at DC	85...110% of Nominal Voltage at 50 Hz 85...110% of Nominal Voltage at 60 Hz 80...110% of Nominal Voltage at DC
Electrical Ratings			
Dielectric Withstand Voltage	Pole-to-pole: 2200V AC Contact-to-coil: 2200V AC Contact-to-frame: 2200V AC	Pole-to-pole: 2200V AC Contact-to-coil: 2200V AC Contact-to-frame: 2200V AC	Pole-to-pole: 1500V AC Contact-to-coil: 1500V AC Contact-to-frame: 1500V AC
Electric Service Life (cycles)	100 000 minimum	100 000 minimum	100 000 minimum
Reference			
Certifications	CE, UL, CSA	CE, UR, CSA	CE, UR, CSA
Socket Cat. No(s).	—	—	700-HN153 700-HN154
Page Number	Web†	Web†	Web†

† Information for this product line is available on the Industrial Controls Catalog website: www.ab.com/catalogs.

Bulletin 700-HG Power Relay

Product Selection

Power Relay with Screw Terminals #6-32 for Coil, #8-32 for Contacts

	Description	Contact Ratings	Wiring Diagrams	Coil Voltage	Cat. No.* ‡
 SPST-NO-DM	SPST-NO-DM 1 Form X AgCdO Contacts	40 A (A600)		24V AC	700-HG45A24
				120V AC	700-HG45A1
				240V AC	700-HG45A2
				277V AC	700-HG45A27
				480V AC	700-HG45A4
				12V DC	700-HG45Z12
				24V DC	700-HG45Z24
				48V DC	700-HG45Z48
				110V DC	700-HG45Z1
				 SPDT	SPDT 1-pole 1 Form C AgCdO Contacts
120V AC	700-HG46A1				
240V AC	700-HG46A2				
12V DC	700-HG46Z12				
24V DC	700-HG46Z24				
48V DC	700-HG46Z48				
110V DC	700-HG46Z1				
 DPST-NO	DPST-NO 2-pole 2 Form A AgCdO Contacts	40 A (A600)		24V AC	700-HG47A24
				120V AC	700-HG47A1
				240V AC	700-HG47A2
				480V AC	700-HG47A4
				12V DC	700-HG47Z12
				24V DC	700-HG47Z24
				48V DC	700-HG47Z48
				110V DC	700-HG47Z1
 DPDT	DPDT 2-pole 2 Form C AgCdO Contacts	40 A (A600)		24V AC	700-HG42A24
				120V AC	700-HG42A1
				240V AC	700-HG42A2
				277V AC	700-HG42A27
				12V DC	700-HG42Z12
				24V DC	700-HG42Z24
				48V DC	700-HG42Z48
				110V DC	700-HG42Z1
				220V DC	700-HG42Z2
				250V DC	700-HG42Z25

* Auxiliary Snap Switch Option: Add suffix (-5) to the selected Bulletin 700-HG relay Cat. No., except for the 220V DC add (-5L).

‡ Magnetic Blowout Option: Add suffix (-6) to the selected Bulletin 700-HG relay Cat. No. (suppresses the arc when switching DC loads - ratings listed below).

Auxiliary Snap Action Switch

Contact	Material	Rating	Dielectric Withstand V (1 Min.)
SPDT (1 Form C)	Silver Cad. Ox.	10 A at 120 or 240 Resistive	1500V AC RMS Contact to Frame



Specifications

Cat. No. 700-HG...

Electrical Ratings

Pilot Duty Rating ‡	A600
Rated Thermal Current (I _{th})	40 A
Rated Insulation Voltage (U _i)	600V UL

Contact Ratings: AC Ratings SPST-NO-DM					Contact Ratings: AC Ratings SPDT, DPST - NO and DPDT						
Volts	Inductive			Resistive - Make/Break and Continuous	HP	Volts	Inductive			Resistive - Make/Break and Continuous	HP§
	Make	Break	Continuous				Make	Break	Continuous		
120	60 A	6 A	10 A	40 A	2	120	60 A	6 A	10 A	40 A	1 - 1/2
240	30 A	3 A	10 A	40 A		240	30 A	3 A	10 A	40 A	
480	15 A	1.5 A	10 A	12 A	2	480	15 A	1.5 A	10 A	5 A	1 - 1/2
600	12 A	1.2 A	10 A	10 A		600	12 A	1.2 A	10 A	5 A	

DC Ratings: Without Magnetic Blowouts - 28V 40 A - Make, Break and Continuous Est Drop 125V 1.2...3 A

DC Ratings: With Magnetic Blowouts:		SPST - NO - DM	SPDT, DPST - NO and DPDT
Make, Break and Continuous	110V	20 A	10 A
	220V	8 A	4 A
	325V	4 A	2 A
	500V	2 A	—

Permissible Coil Voltage Variation

- 80...100% of Nominal Voltage at 50 Hz
- 85...110% of Nominal Voltage at 60 Hz
- 80...110% of Nominal Voltage at DC

Coil Consumption ±10%	AC Coils	50 HZ		60 HZ	
		Inrush	13 VA	16 VA	Sealed
	DC Coils		2.0 W		

Design Specification/Test Requirements

Dielectric Withstand Voltage	Pole-to-Pole	2200V AC
	Contact to Pole	2200V
	Contact to Frame	2200V AC

Mechanical

Degree of Protection	Open Type	
Mechanical Life Operations	5 x 10 ⁶	
Switching Frequency Operations	1600/Hr	
Coil Voltage	See Overview/Product Selection	
Operating Time at Nominal Voltage at 20 °C	Pickup	40 ms
	Dropout	35 ms
Maximum Operating Rate	—	

Environmental

Temperature	Operating	-30...+55 °C
		(-22...+149 °F)
	Storage	-30...+65 °C
		(-22...+149 °F)
Altitude	2000 m (6560 ft.)	

Construction

Insulating Material	Molded Thermo
	Setting Plastic
Enclosure	—
Contact Material	Silver Cadmium Oxide
Terminal Markings on Socket	—
Sockets	N/A
Certifications	CSA Certified, File 225674, UL Listed, File E3125, Guide NLDX, CE Marked
Standards	UL 508, CSA 22.2 No. 14, EN/IEC 60947-1, -5-1

‡ NEMA Rating Chart is on page 19 of publication 700-SG003B-EN-P.
 § For DPDT only: 2 Hp Switching 2 Poles, 200...600V AV, 50/60 Hz.