


Product Details and Certifications

Cross Reference RA Part Number: 700-HF32A1 B

 Product: **700-HF32A1**

Description: 700-HF General Purpose Miniature Square Base Relay,
DPDT, 120V 50/60Hz



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

CONTROL RELAY DATA

Bulletin Number	700-HF Miniature Square Base Relay
Contact Rating	12A Standard Contact
Contact Configuration	DPDT Contact Arrangement
Coil Voltage	120V 50/60Hz
Relay Options	No Additional Options

CERTIFICATIONS AND APPROVALS

UL

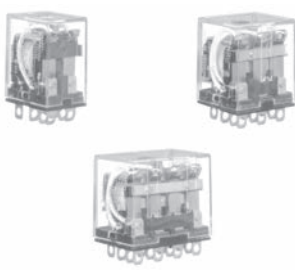
CSA

CE


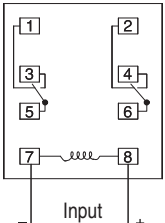
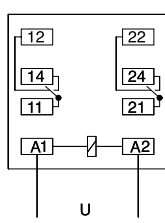
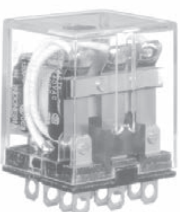
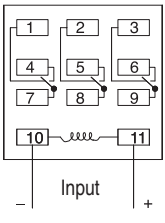
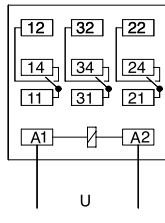
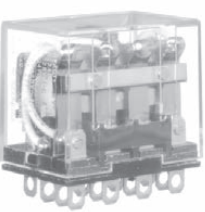
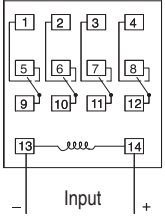
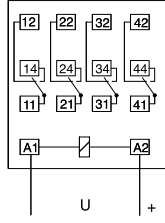
For UL Certifications Directory:

<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

Bulletin No.	700-HA	700-HB	700-HD	700-HF
Type	General-Purpose Relay	General-Purpose Relay	General-Purpose Relay	General-Purpose Relay
Features	<ul style="list-style-type: none"> Pin-style terminals Standard ON/OFF flag indicator Electrical schematic on face Clear cover for visual inspection Optional Push-to-test and manual override Optional LED 	<ul style="list-style-type: none"> Blade-style quick connect terminals Standard ON/OFF flag indicator Electrical schematic on face Clear cover for visual inspection Optional push-to-test and manual override Optional LED 	<ul style="list-style-type: none"> Flange-mounted Blade-style quick connection terminals Clear cover for visual inspection 	<ul style="list-style-type: none"> Square-base Plug-in quick connect solder terminals Optional push-to-test and LED
Contact Ratings				
Contact Form	DPDT, 3PDT	DPDT, 3PDT	DPDT, 3PDT	DPDT, 3PDT, 4PDT
Contact Type	Single	Single	Single	Single
Contact Material	AgNi, AgNi + Gold	AgCdO	AgCdO	AgCdO
Max. operating current under resistive load	700-HA: 10 A -HAX: 6 A	15 A	15 A	10 A
Min. permissible load	700-HA 10V 5 mA 700-HAB 5V 5 mA 700-HAX 6V 1mA	10V 10 mA	10V 10 mA	5V 100 mA
Coil Ratings				
Coil Voltage	AC: 6, 12, 24, 48, 110, 120, 208, 230, 240, 277V DC: 6, 12, 24, 36, 48, 60, 80, 110, 125, 140, 220V	AC: 6, 12, 24, 120, 240V DC: 6, 12, 24, 48, 110V	AC: 6V, 12V, 24V, 120V, 208V, 240V DC: 6V, 12V, 24V, 48V, 110V	AC: 6V, 12V, 24V, 120V, 240V DC: 6V, 12V, 24V, 48V, 110V
Permissible Coil Voltage Variation	80...110% of Nominal Voltage at 50 Hz 80...110% of Nominal Voltage at 60 Hz 80...110% of Nominal Voltage at DC	80...110% of Nominal Voltage at 50 Hz 80...110% of Nominal Voltage at 60 Hz 80...110% of Nominal Voltage at DC	80...110% of Nominal Voltage at 50 Hz 80...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: 2000V Contact-to-coil: 2000V Contact-to-frame: 2000V	Pole-to-pole: 2500V Contact-to-coil: 4000V Contact-to-frame: 2500V	Pole-to-pole: 2500V Contact-to-coil: 4000V Contact-to-frame: 2500V	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	200 000 minimum, 500 000 minimum (DPDT)
Reference				
Certifications	CE, cULus, cURus, CSA, Lloyds	CE, cULus, cURus, CSA, Lloyds	CE, UR, CSA, Lloyds	CE, UR, CSA
Socket Cat. No(s).	700-HN100, 700-HN101, 700-HN125, 700-HN126, 700-HN204, 700-HN205	700-HN153, 700-HN154	—	700-HN116, 700-HN138, 700-HN139
Page Number	page 9-9	page 9-20	page 9-26	page 9-29

	<p>Bulletin 700-HF — Square Base Relay</p> <ul style="list-style-type: none"> • 10 A contact rating • DPDT, 3PDT, 4PDT • Plug-in quick connect solder terminals • Options: LED, push-to-test operator 	<p>Table of Contents</p> <p>Product Selection this page</p> <p>Accessories..... 9-30</p> <p>Specifications 9-31</p> <p>Approximate Dimensions..... 9-32</p> <p>Standards Compliance and Certifications</p> <p>See Specification table in this section, page 9-31 .</p>
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Product Selection
Square Base with Quick Connect/Solder Style Terminations

	Description	Contact Rating	Wiring Diagrams		Coil Voltage	Cat. No. *⊛
			U.S./Canada	International		
 <p>DPDT 2-pole 2 Form C AgCdO Contacts</p> <p>Socket</p>	10 A	 <p>Input</p> <p>700-HN116</p>	 <p>U</p> <p>700-HN116</p>	6V AC	700-HF32A06	
				12V AC	700-HF32A12	
				24V AC	700-HF32A24	
				120V AC	700-HF32A1	
				240V AC	700-HF32A2	
				6V DC	700-HF32Z06	
				12V DC	700-HF32Z12	
				24V DC	700-HF32Z24	
				48V DC	700-HF32Z48	
				110V DC	700-HF32Z1	
 <p>3PDT 3-pole 3 Form C AgCdO Contacts</p> <p>Socket</p>	10 A	 <p>Input</p> <p>700-HN138</p>	 <p>U</p> <p>700-HN138</p>	6V AC	700-HF33A06	
				12V AC	700-HF33A12	
				24V AC	700-HF33A24	
				120V AC	700-HF33A1	
				240V AC	700-HF33A2	
				6V DC	700-HF33Z06	
				12V DC	700-HF33Z12	
				24V DC	700-HF33Z24	
				48V DC	700-HF33Z48	
				110V DC	700-HF33Z1	
 <p>4PDT 4-pole 4 Form C AgCdO Contact</p> <p>Socket</p>	10 A	 <p>Input</p> <p>700-HN139</p>	 <p>U</p> <p>700-HN139</p>	6V AC	700-HF34A06	
				12V AC	700-HF34A12	
				24V AC	700-HF34A24	
				120V AC	700-HF34A1	
				240V AC	700-HF34A2	
				6V DC	700-HF34Z06	
				12V DC	700-HF34Z12	
				24V DC	700-HF34Z24	
				48V DC	700-HF34Z48	
				110V DC	700-HF34Z1	

* Pilot Light Option: Add suffix (-4) to the selected Bulletin 700-HF Relay Cat. No. except for the 240V AC units, add (-4L).

⊛ Manual Operator and LED Option: Add suffix (-1-4) to the selected Bulletin 700-HF Relay Cat. No., except for the 240V AC units, add (-1-4L).

Specifications*

Cat. No. 700-HF...				
Electrical Ratings				
Pilot Duty Rating		C300		
Rated Thermal Current (I_{th})		10 A		
Rated Insulation Voltage (U)		250V IEC, 300 UL/CSA		
Contacts	Inductive	Make	Break	Hp
		►][◄	◄][►	
	120V AC	29 A	2.9 A	1/2
	240V AC	14 A	1.4 A	1/3
	General Purpose	10 A, 240V AC		
Resistive		10 A, 30V DC		
Min. Low Energy Permissible Load		5V, 100 mA		
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		
Coil Consumption ±10%	AC Coils		50 Hz	60 Hz
		Inrush	2.4 VA	2.1 VA
		Sealed	1.6 VA	1.4 VA
	DC Coils	0.9 W (Bul. No. 700-HF32) 1.4 W (Bul. No. 700-HF33) 1.5 W (Bul. No. 700-HF34)		
Max. Allowable Leakage		25% of VA		
		10% of W		
Design Specification/Test Requirements				
Dielectric Withstand Voltage	Pole-to-Pole		1500V AC	
	Contact to Pole		1500V AC	
	Contact to Frame		1500V AC	
Mechanical				
Degree of Protection		Open Type (Sockets)		
Mechanical Life Operations		30 x 10 ⁶		
Switching Frequency Operations		3600/hr		
Coil Voltages		See Product Selection		
Operating Time at Nominal Voltage at 20 °C	Pickup	15 ms		
	Dropout	15 ms		
Maximum Operating Rate		4 Ops/s		
Shock (Mechanical Durability)		100 G		
Shock (Malfunction Durability)		20 G		
Environmental				
Temperature	Operating	-30...+55 °C (-22...+131 °F)		
	Storage	-55...+85 °C (-67...+185 °F)		
Altitude		2000 m (6560 ft)		
Construction				
Insulating Material		Molded High-Dielectric Material		
Enclosure		Transparent Dust Cover		
Contact Material		Silver Cad. Ox.		
Terminal Markings on Socket		In accordance with EN50 0005		
Sockets		8-Blade Socket (DPDT) Cat. No. 700-HN116 11-Blade Socket (3PDT) Cat. No. 700-HN138 14-Blade Socket (4PDT) Cat. No. 700-HN139		
Certifications		CSA Certified (File No. 75088), UL Recognized (File No. E3125, Guide NLDX 2), CE Marked		
Standards		UL 508, CSA 22.2 No. 14, EN/IEC 60255-1		

* Performance Data – See this catalog, Important- 3.

