

Specifications

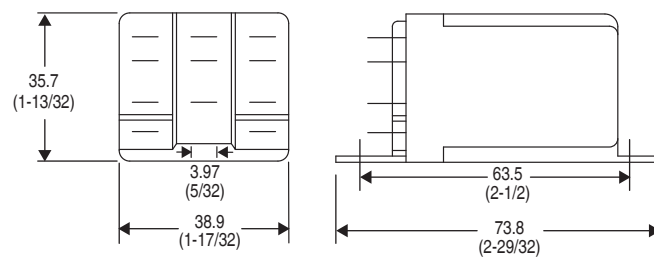
Cat. No. 700-HHF...										
Electrical Ratings										
Pilot Duty Rating±		SPST-NO-DM				NEMA A600				
		DPDT				NEMA B600				
		3PDT				NEMA B300				
Rated Thermal Current (I th)		SPST-NO-DM 30 A, DPDT 25A, 3PDT 20 A								
Rated Insulation Voltage (U _i)		250V IEC-300V UL/CSA								
Contacts	Inductive	SPST-NO-DM		Hp	DPDT		Hp	3PDT		Hp
		►][◄	◄][►		►][◄	◄][►		►][◄	◄][►	
	120V AC	60 A	6 A	1	30 A	3 A	1	30 A	3 A	1/2
	240V AC	30 A	3.0 A	1-1/2	15 A	1.5 A	1-1/2	15 A	1.5 A	—
	DC	28V DC, 30 A			28V DC, 13 A			—		
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								
		SPST-NO-DM			DPDT			3PDT		
		50 Hz	60 Hz		50 Hz	60 Hz		50 Hz	60 Hz	
Coil Consumption ±10%	AC Coils	Inrush	7.2 VA	6.3 VA	7.2 VA	6.3 VA	7.2 VA	6.3 VA	7.2 VA	6.3 VA
		Sealed	4.8 VA	4.2 VA	4.8 VA	4.2 VA	4.8 VA	4.2 VA	4.8 VA	4.2 VA
	DC Coils		1.4 W							
Max. Allowable Leakage		25% of VA								
		10% of W								
Design Specification/Test Requirements										
Dielectric Withstand Voltage	Pole-to-Pole	2200V AC								
	Contact-to-Pole	2200V AC								
	Contact-to-Frame	1600V AC								
Mechanical										
Mechanical Life Operations		5 x 10 ⁶								
Switching Frequency Operations		3600/Hr								
Coil Voltages		See Overview/Product Selection								
Operating Time at Nominal Voltage at 20 °C	Pickup	20 ms								
	Dropout	15 ms								
Maximum Operating Rate		4 Ops/s.								
Environmental										
Temperature	Operating	-30...+50 °C								
		(-22...+122 °F)								
	Storage	-30...+100 °C								
		(-22...+212 °F)								
Altitude		2000 m (6560 ft)								
Construction										
Insulating Material		Molded High Dielectric Material								
Enclosure		Transparent Dust Cover								
Contact Material		Silver Cadmium Oxide								
Terminal Markings		In accordance with EN50 0005								
Sockets		§								
Certifications		cURus Recognized, File E3125,Guide NLDX2/NLDX8, CE Marked								
Standards		UL 508, CSA 22.2 No.14, EN/IEC 60947-1, -5-1								

‡ NEMA Rating Chart is in 700-SG003_-EN-P.

§ Bulletin 700-HHF relay wiring and terminals are the quick connect/solder type 6.35 x 0.82 mm (0.250 x 0.032 in) termination.

Approximate Dimensions

Approximate Dimensions are shown in millimeters (inches). Approximate Dimensions are not intended to be used for manufacturing purposes.



Bulletin 700-HHF Relays

Specifications

Time Characteristics (according to VDE 0435, Part 2021)

Setting Accuracy	±5% of full scale
Repeatability	±0.2% of the setting values
Tolerance	Voltage: ±0.001%/ΔU Temperature: ±0.025%/°C

Supply

Supply Voltages	24...48V DC and 24...240V AC, 50/60 Hz (multi voltage)
Voltage Tolerance	-20...+20% (DC), -15...+10% (AC)
Power Consumption	0.5 W at 24V DC, 5 VA at 240V AC
Time Energized	100%
Reset Time	50 ms
Voltage Interruption	≤20 ms without reset (supply voltage)
Input Impedance	Relay ON: 3K-13K ohms Relay OFF: 0.7K-4K ohms
Cable Length (Supply Voltage Control)	Max. 250 m (800 ft)

Pulse Control (B1)

Pulse Duration	≥50 ms (AC), ≥30 ms (DC)
Input Voltage	Supply voltage range
Input Current	1 mA
Max. Leakage Current	400 micro Amps
Cable Length	Max. 250 m (800 ft) without parallel load between B1 and A2 Max. 50 m (160 ft) with load (<3 kΩ) between B1 and A2

Outputs

Contact Type	Relay as changeover switch
Dielectric Coil to Contact Withstand Voltage	5000 V
Switching Capacity	Voltage: 440V AC Current Ith (AC-1): 8 A (5 A for 700-FSQ) Power: 2000 VA According to IEC 947-5-1: 3 A/440V AC (inductive load, AC 14) 3 A/250V AC (inductive load, AC 15) 1 A/24V DC (inductive load, DC 13) According to UL 508: 1.5 A/250V AC (B300) 3 A/120V AC (B300)
Short-Circuit Resistance	10 A gL
Life	Mechanical: 30 million operations Electrical operations: 4 Mil. at 1 A/250V AC, cos φ = 1 0.2 Mil. at 6 A/250V AC, cos φ = 1 1.5 Mil. at 1 A/250V AC, cos φ = 0.3 0.3 Mil. at 3 A/250V AC, cos φ = 0.3 0.5 Mil. at 6 A/24V DC, resistive 2 Mil. at 4 A/24V DC, resistive 2 Mil. at 0.2 A/230V DC, resistive 1 Mil. at 0.4 A/24V DC, L/R = 20 ms 1 Mil. at 0.2 A/110V DC, L/R = 20 ms 1 Mil. at 0.1 A/230V DC, L/R = 20 ms
State Indicator	1 LED, combination signal

General Data

Insulation Characteristics	2 kVAC/50 Hz test voltage according to VDE 0435 and 6 kV 1.2/50 μs surge voltage according to IEC 947-1 between all inputs and outputs
EMC/Interference Immunity	Performance of following requirements: Surge capacity of the supply voltage according to IEC 1000-4-5: 4 kV 1.2/50 μs Burst according to IEC 1000-4-4: 6 kV 6/50 ns ESD discharge according to IEC 1000-4-2: Contact 8 kV, air 8 kV Electromagnetic HF field according to IEC 801-3 and conducted electromagnetic HF signal according to IEC 801-6: Level 3
EMC/Emission	Electromagnetic fields according to EN 55 022: class B
Safe Isolation	According to VDE 106, part 101
Climatic Withstand	56 Cycles (24 hr) at 25...40 °C and 95% relative humidity according to IEC 68-2-30 and IEC 68-2-3
Vibration Resistance	4 g in three axes at 10...500 Hz, test FC according to IEC 68-2-6
Shock Resistance	50 g according to IEC 68-2-27
Protection Class	Enclosure: IP 40 IP 30 (Single-function) Terminal: IP 20 according to IEC 947-1
Weight	100 g
Approval	UL, C-UL
Ambient Temperature	Open: -25...+60 °C Enclosed: -25...+45 °C Storage: -40...+85 °C
Terminals	Screw terminal M3.5 for Number 2 Posidrive, Philips, and slotted screws. Suitable for power screwdriver. Rated tightening torque 8.8 lb.-in. (0.8 N•m, max. 1.2 N•m). Dual-chamber system for terminal cross-sections of 1 x 0.5 mm ² ...2 x 2.5 mm ² (solid) or stranded 2 x 2.5 mm ² (flexible with sleeve), #20...14 AWG. Finger protection according to VDE 0106.
Mounting	Front mounting; For snap-on mounting on 35 mm DIN Rail or screw fixing by adapter and 2 screws (M4 type)
Disposal	Synthetic material without dioxin according to EC/EFTA notification Number 93/0141/D electrical contacts with cadmium
Certifications	cULus Listed (File No. E14840, Guide NKCR/NKCR7), CE Marked
Standards	EN/IEC 60947-1, EN/IEC 60947-5-1, UL 508, CSA 22.2 No. 14



Temp. Code T4A
2A 32VDC MAX.

Mounting: Product shall be installed in an enclosure constructed in accordance with the requirements of EN50021.