

Product Details and Certifications

Cross Reference RA Part Number: 700-HRM12TA17 C

 Product: **700-HRM12TA17**

Description: 700-HR General Purpose Dial Timing Relay, On-Delay Timing Relay, Two Timed Contacts, On-Delay, 0.05 seconds to 300 Hours, DPDT Timed, 100...240V AC 50/60Hz / 100...125V DC



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

CONTROL RELAY DATA

Bulletin Number	700-HR Multi-Function Timing Relay
Type of Timer	Single Function, Two Timed Contacts
Timing Mode	On-Delay
Contact Configuration	DPDT Timed Contact Arrangement
Timing Range	0.05 seconds to 300 hours
Coil Voltage	100...240V AC 50/60Hz / 100...125V DC

CERTIFICATIONS AND APPROVALS

UL	
CSA	
CE	
EN	
C-Tick	
EN	
For UL Certifications Directory:	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm



Bulletin No.	700-FE	700-FS	700-HR52, -HRP, -HRS, -HRT, -HRV	700-HRM/-HRC	700-HRF
Type	DIN Rail Timer	DIN Rail Timer	Multifunction Timer	On-Delay Timer	Twin Timer
Features	<ul style="list-style-type: none"> Only 17.5 mm wide 5 A contact rating Multifunction or single function No additional socket required 	<ul style="list-style-type: none"> Only 22.5 mm wide 8 A contact rating Multifunction or single function No additional socket required Optional: <ul style="list-style-type: none"> Star-delta timing function True off-delay timing function Hazardous location certification 	<ul style="list-style-type: none"> Dial timing relays 5 A contact rating Multiple programmable timing ranges Tube base pin style terminals Multi-voltage inputs Timed contacts and instantaneous contacts Transistor outputs Single function and multi-function 7 different operating modes 	<ul style="list-style-type: none"> Dial timing relays 5 A contact rating Multiple programmable timing ranges Tube base pin-style terminals Multi-voltage inputs Timed contacts and instantaneous contacts Transistor outputs Single function and multi-function 	<ul style="list-style-type: none"> Independent ON and OFF settings 14 time ranges 8-pin models available Dial timing relays UL508
Control Outputs: Time Limit Instantaneous	1 N.O. or SPDT timed	SPDT or DPDT or 2 N.O. + 1 common	DPDT Timed, Transistor SPDT Timed/Instantaneous	DPDT Timed, Transistor SPDT Timed/Instantaneous	DPDT Timed
Operation Modes:	On-delay Off-delay One shot Repeat cycle-pulse Fleeting off-delay Pulse converter	11 Different timing modes	On-Delay Off-Delay One Shot Repeat Cycle Off Start Repeat Cycle On Start Signal On/Off-Delay On-Delay One Shot	On-Delay	Repeat Cycle Off Start Repeat Cycle On Start
Time Range	0.05 s...10 hr	0.05 s...60 hr	0.05 s...300 h	0.05 s...300 h	0.05 s...300 h
Supply Voltage	24V AC/DC 110...240V AC 24...48V AC/DC 24...240V AC	12V DC 24V...48V DC 24V...240V AC	12...48V DC 24...48V AC 100...240V AC 100...125V DC	12...48V DC 24...48V AC 100...240V AC 100...125V DC	12V DC 24V AC/DC 48...125V DC 100...240V AC
Contact Rating at 120V AC	5 A	8 A	5 A	5 A	5 A
Certifications	CE, cULus	CE, cULus	cURus, CE, C-Tick	cURus, CE, C-Tick	cURus, CE, C-Tick
Socket Cat. No(s).	DIN Rail or panel mount	DIN Rail or panel mount	700-HN100 OR 700-HN101 700-HN125 OR 700-HN126	700-HN100 700-HN125	700-HN100 700-HN125
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Bulletin 700 ON-Delay Timing Relays

- Socket or Panel Mounted
- Timing Range From 0.05 s...300 h
- 8-pin base for socket cat. nos. 700-HN100, -HN125, -HN108
- Trigger: Power on
- Reset: Power off

Timing Mode	Supply Voltage	Trigger Options	Reset Options	Outputs	Cat. No.
ON-Delay (A)	24...48V AC/DC	Power On	Power Off	SPDT Timed + Instantaneous Contact	700-HRC12TU24
	24...48V AC 12...48V DC			DPDT	700-HRM12TU24
	100...240V AC	Power On	Power Off	DPDT	700-HRM12TA17
				SPDT Timed + Instantaneous Contact	700-HRC12TA17



Timing mode description

A	D	E	B	B2	C	J
ON-Delay	OFF-Delay	One Shot	Repeat Cycle OFF-Start	Repeat Cycle ON-Start	Signal ON/OFF-Delay	One Shot

Bulletin 700-HRF Repeat Cycle Timing Relays

- Socket or Panel Mounted
- Independently adjustable on- and off-time
- 8-Pin base for socket cat. nos. 700-HN100, -HN125, and -HN108
- DPDT contact outputs
- Trigger: Power on
- Reset: Power off



Cat. No. Explanation

700 – HRF 7 2 D Z12
 a b c d e

a

Timer Type	
Code	Description
HRF	Repeat cycle with adjustable ON/OFF times

b

Function	
Code	Description
7	Repeat cycle with OFF start
8	Repeat cycle with ON start

c

Contact Output	
Code	Description
2	DPDT

d

Time Range	
Code	Description
D	0.05 s...30 hr

e

Supply Voltage	
Code	Description
A18	100...240V AC, 50/60 Hz
U25	24V AC, 50/60 Hz; 24V DC
Z12	12V DC
Z45	48...125V DC





	700-HR, -HRS, -HRV	700-HRP	700-HRC	700-HRM	700-HRF	700-HRY	700-HRQ	700-HRT (Transistor Outputs)	
Electrical Ratings									
Pilot Duty Rating	NEMA B300								
Thermal Current (I_{th})	5 A								
Make	▶] [◀	120V AC	30 A						—
	▶] [◀	240V AC	15 A						—
Break	◀] [▶	120V AC	3 A						—
	◀] [▶	240V AC	1.5 A						—
Hp at 120V	1/6 Hp (0.12 kW)	1/4 Hp (0.18 kW)		1/6 Hp (0.12 kW)		1/4 Hp (0.18 kW)	1/6 Hp (0.12 kW)	—	
Hp at 240V	1/3 Hp (0.25 kW)								
Resistive Load	5 A at 250V AC/30V DC								
Inductive Load	AC-15 @ 250V AC, 3 A/DC-13 @ 30V DC, 0.5 A								
Accuracy of Operating Time	±0.2 % FS max. (±0.2 % ±10 ms max. in a range of 1.2 s)								
Setting Error	±5 % FS ±50 ms (The value is ±5 % FS +100 ms to -0 ms max. when the C or D mode signal of the 700-HRVs are OFF.)								
Influence of Voltage	±0.2 % FS max. (±0.2 % ±10 ms max. in a range of 1.2 s)								
Influence of Temperature	±1 % FS max. (±1 % ±10 ms max. in a range of 1.2 s)								
Permissible Leakage Current									
Power Consumption	-HR52, -HRS	-HRV	-HRP, -HRC	-HRM	-HRF	-HRY	-HRQ	-HRT	
240V AC, Output ON	2.1 VA	2.5 VA	2.0 VA	2.1 VA	10 VA	12 VA	0.4 VA	—	
240V AC, Output OFF	1.3 VA	1.8 VA	2.0 VA	1.3 VA	10 VA	12 VA	0.4 VA	—	
24V DC, Output ON	0.8 W	0.9 W	0.9 W	0.8 W	1.0 W	—	0.2 W	0.3 W	
24V DC, Output OFF	0.2 W	0.3 W	0.9 W	0.2 W	1.0 W	—	0.2 W	0.2 W	
Design Specifications									
Dielectric Strength	2000V AC (1000V AC for 700-HRT), 50/60 Hz for 1 min (contact to frame) 2000V AC (1000V AC for 700-HRT), 50/60 Hz for 1 min (between control output terminals and operating circuit) 2000V AC, 50/60 Hz for 1 min (pole-to-pole) 1000V AC, 50/60 Hz for 1 min (between contacts not located next to each other) 2000V AC, 50/60 Hz for 1 min (contact to coil)								
Mechanical									
Vibration Resistance	Malfunction: 10...55 Hz with 0.5 mm double amplitude each in three directions for ten minutes each								
Shock Resistance	Malfunction: 100 m/s ² (10 G)				98 m/s ² (10 G)	294 m/s ² (10 G)	98 m/s ² (10 G)	100 m/s ² (10 G)	
Environmental									
Noise Immunity	±1.5 kV for ±600V DC				±400V for 12V DC		±1kV for 48V DC	±1.5 kV for ±600V DC	
Static Immunity	Malfunction: 8 kV								
Ambient Temperature	Operating: -10...55 °C (with no icing) Storage: -25...65 °C (with no icing)								
Ambient Humidity	Operating: 35...85 %								
Construction									
Life Expectancy (Min. Operations)	Mechanical: 20 000 000. (under no load at 1800 operations/h) Electrical: 100 000 (5 A at 250V AC, resistive load at 1800 operations/h)						Mech: 10 ⁷ Electrical: 10 ⁴		
EMC	(EMI) EN50081-2 Emission Enclosure: EN55011 Group 1 class A Emission AC Mains: EN55011 Group 1 class A (EMS) EN50082-2 Immunity ESD: EN61000-4-2: 4 kV contact discharge (level 2) 8 kV air discharge (level 3) Immunity RF-interference from AM Radio Waves: ENV50140: 10 V/m (80 MHz...1 GHz) (level 3) Immunity RF-interference from Pulse-modulated Radio Waves: ENV50204: 10 V/m (900 ±5 MHz) (level 3) Immunity Conducted Disturbance: ENV50141: 10 V (0.15...80 MHz) (level 3) Immunity Burst: EN61000-4-4: 2 kV power-line (level 3) Immunity Surge: EN61000-4-52 kV I/O signal-line (level 4) 1 kV line to line 2 kV line to ground (level 3)								
Degree of Protection	IP40 (panel surface)								
Weight	Approx. 90 g								
Certifications	CSA Certified (File No. 70751), UL Recognized (File No. E14843 Guide No. NRNT2), CE Marked, C-Tick Marked								
Standards	UL 508, CSA C22.2 No. 14, EN 61812-1, EN 61000-6-2, -6-4								