OMRON **Solid-state Timer**

H₃CA

DIN-sized (48 x 48, 45 x 75 mm) Timer with Digital Setting and LCD Display

- Dual power supplies for free AC/DC.
- Eight operation modes selectable with one unit.
- Any desired time can be set digitally within a range from 0.1 seconds to 9,990 hrs.
- Four external signal inputs.
- ON/OFF indicator for control output and bar indicator for remaining time.
- Conforms to UL, CSA, and CE marking.



Ordering Information

Operation/resetting	Operation mode	Terminal	Time-limit	Instantaneous	Mounting	
system			contact	contact	Surface mounting/ track mounting	Flush mounting
Time-limit operation/ self-resetting/external resetting (see note 2)	8 operation modes (selectable) (see note 3)	11-pin round socket	SPDT		H3CA-A	H3CA-A
		Front screw			H3CA-FA	
Time-limit operation/ self-resetting	ON-delay operation	8-pin round socket	DPDT		H3CA-8	H3CA-8
			SPDT	SPDT	H3CA-8H	H3CA-8H

Note: 1. Specify both the model number and supply voltage when ordering for the H3CA-8H and H3CA-8.

2. The operation/resetting system depends on the selected operation mode. For details, see "Timing Chart".

3. The 8 operation modes are as follows:

- **ON-delay** operation A:
- B:
- C: D:
- Repeat cycle operation Signal ON/OFF-delay operation (1) Signal OFF-delay operation (1)

Accessories (Order Separately)

Interval operation E:

F: One-shot and flicker operation

- Signal ON/OFF-delay operation (2) G:
- Signal OFF-delay operation (2) H:

Timer	Track mounted socket	Back connecting socket		
	(see note 1)		Screw terminal	
H3CA-A	P2CF-11	PL11	P3GA-11	
H3CA-8H/H3CA-8	P2CF-08	PL08	P3G-08	

Note: Track mounted socket can be used as a front connecting socket.

Specifications

Time Ranges

A desired time can be set within a range of 0.1 s to 9,990 hrs by combining the three thumbwheel switch modules for time setting and one module for time unit selection.

Time unit		0.1 s	1 s	0.1 min	1 min	0.1 hrs	1 hr	10 hrs
Time range	1 to 999 (3 digits)			0 0 1	0.1 S to 9	9 9 10 h		

Ratings

Item	H3CA-A/H3CA-FA	H3CA-8	H3CA-8H
Rated supply voltage	24 to 240 VAC (50/60 Hz), 100/110/120, 200/220/240 VAC, (50/60 Hz), 12 to 240 VDC (permissible ripple: 20% max.) 24 VDC, 110 VDC (permissible ripple: 20% max.) (see		
Operating voltage range	90% to 110% of rated supply voltage	85% to 110% of rated supply voltage	
Power consumption	wer consumption AC: approx. 4 VA DC: approx. 2 W		AC: approx. 10 VA/1.5 W DC: approx. 2 W
Control outputs	3 A at 250 VAC, resistive load ($\cos\phi = 1$)		

Note: Single-phase, full-wave rectified power sources may be used for 24 to 240 VDC.

Characteristics

Accuracy of operating time	±0.3% ±0.05 s				
Influence of voltage					
Influence of temperature					
Setting error	±0.5% ±0.05 s max.				
Reset time	H3CA-A/-FA: 0.5 s max. H3CA-8H/-8: 0.1 s max.				
Insulation resistance	100 MΩ min. (at 500 VDC)				
Dielectric strength	2,000 VAC, 50/60 Hz for 1 min (between current-carrying and non-current-carrying parts and between contact and control circuit) 1,000 VAC, 50/60 Hz for 1 min (between non-continuous contacts)				
Impulse withstand voltage	3 kV				
Vibration resistance	Destruction: 10 to 55 Hz with 0.75-mm double amplitude for 1 h each in three directions Malfunction: 10 to 55 Hz with 0.5-mm double amplitude for 10 min each in three directions				
Shock resistance	Destruction: 980 m/s ² Malfunction: 98 m/s ²				
Ambient temperature	Operating: -10°C to 55°C				
Ambient humidity	Operating: 35% to 85%				
Life expectancy	Mechanical: 10,000,000 operations min. (under no load at 1,800 operations/h) Electrical: 100,000 operations min. (3 A at 250 VAC, cos∳ = 1 at 1,800 operations/h) See <i>Lift-test Curve</i> for more details.				
Approved standards	UL508, CSA C22.2 No. 14, LR, NK Conforms to EN61010-1.				
EMC	(EMI) Emission Enclosure: Emission AC mains: (EMS) Immunity ESD: Immunity RF-interference: Immunity Conducted Disturbance: Immunity Burst: Immunity Surge:	EN61000-4-3: EN61000-4-6: EN61000-4-4: EN61000-4-5:	 b 1 class A 4 kV contact discharge (level 2) 8 kV air discharge (level 3) 10 V/m (Amplitude-modulated, 80 MHz to 1 GHz) (level 3); 10 V/m (Pulse-modulated, 900 MHz ±5 MHz) (level 3) 10 V (0.15 to 80 MHz) (according to EN61000-6-2) 2 kV power-line (level 3); 1 kV I/O signal-line (level 4) 1 kV line to lines (power and output lines) (level 3); 2 kV line to ground (power and output lines) (level 3) 		
	Immunity Voltage Dip/Interruption	EN61000-4-11:			
Weight	H3CA-A: approx. 110 g H3CA-FA: approx. 190 g				