#### omron

# Solid-state Timer

#### Economical, Compact, Plug-in Timer

- Time limit, ON-delay, operation with automatic resetting.
- DIN size (36 x 36 mm), fits standard 8-pin sockets.
- Wide choice of supply voltages: 24, 100 to 120, 200 to 240 VAC, 12, 24 VDC.
- Dual LED indication for power and output status.
- Large transparent setting knob.
- Setting error rating almost matches that of a 48 x 48 timer.
- Conforms to UL and CSA, and meets CE marking requirements.





## **Ordering Information**

Stock Note: Shaded models are normally stocked.

Operation/resetting system	Time-limit contact	Mounting method	Rated time	Model
Time-limit operation/ self-resetting	SPDT	Surface mounting, flush mounting, and DIN track mounting	1 s, 3 s, 5 s, 10 s, 30 s, 60 s, 3 min, 5 min, 10 min, 30 min, 60 min, 3 hrs	H3JA-8A
	DPDT		1 s, 3 s, 5 s, 10 s, 30 s, 60 s, 3 min, 5 min, 10 min, 30 min, 60 min, 3 hrs	H3JA-8C

Note: Specify the model number, supply voltage, and rated time when ordering.



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## ■ Accessories (Order Separately)

Stock Note: Shaded models are normally stocked.

Name/specifications Flush mounting adapter		Model Y92F-31	
	1 m (ℓ) x 7.3 mm (t)	PFP-100N	
	1 m (ℓ) x 16 mm (t)	PFP-100N2	
End plate		PFP-M	
Spacer		PFP-S	
Track mounting/ Front connecting socket	8-pin	PF085A	
Back connecting socket	8-pin	P3G-08	
	8-pin, finger safe type	P3G-08 with Y92A-48G (see note 1)	
Hold-down clip (see note 2)	For PF085A Socket	Y92H-6	

Note: 1. Y92A-48G is a finger safe terminal cover which is attached to the P3G-08 Socket.

2. Hold-down Clips are sold in sets of two.

## **Specifications**

## ■ Time Ranges

Rated time	Time range	Rated time	Time range
1 s	0.1 to 1 s	3 min	0.3 to 3 min
3 s	0.3 to 3 s	5 min	0.5 to 5 min
5 s	0.5 to 5 s	10 min	1 to 10 min
10 s	1 to 10 s	30 min	3 to 30 min
30 s	3 to 30 s	60 min	6 to 60 min
60 s	6 to 60 s	3 hrs	0.3 to 3 hrs

## Ratings

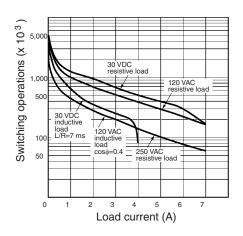
Rated supply voltage	24, 100 to 120 or 200 to 240 VAC (50/60 Hz); 24 VDC; 12 VDC (only available on H3JA-8A model)	
Operating voltage range	85% to 110% of rated supply voltage	
Power consumption	H3JA-8A         100 to 120 VAC: Approx. 3 VA (1.3 W) at 120 VAC         200 to 240 VAC: Approx. 5 VA (1.5 W) at 240 VAC         24 VAC: Approx. 1.2 VA (0.9 W) at 24 VAC         24 VDC: Approx. 0.8 W at 24 VDC         H3JA-8C         100 to 120 VAC: Approx. 3 VA (1.1 W) at 120 VAC         200 to 240 VAC: Approx. 3 VA (1.1 W) at 120 VAC         200 to 240 VAC: Approx. 5 VA (1.3 W) at 240 VAC         24 VAC: Approx. 1.3 VA (1 W) at 24 VAC         24 VAC: Approx. 0.9 W at 24 VDC	
Control outputs	H3JA-8A: 7 A at 250 VAC, resistive load H3JA-8C: 5 A at 250 VAC, resistive load	

## ■ Characteristics

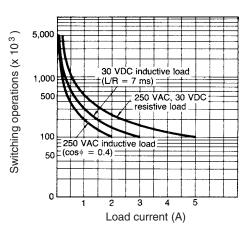
Accuracy of operating time	±2% max.		
Setting error	±7% max.		
Influence of voltage	±2% max.		
Influence of temperature	±5% max.		
Insulation resistance	100 MΩ min. (at 500 VDC)		
Dielectric strength	2,000 VAC, 50/60 Hz for 1 min (between current-carrying and non-current-carrying parts, and between contact-carrying and control circuit, and between contacts of different poles) 1,000 VAC, 50/60 Hz for 1 min (between non-continuous contacts)		
Impulse withstand voltage	3 kV (between power terminals) 4.5 kV (between current-carrying terminal and exposed non-current-carrying metal parts)		
Noise immunity	$\pm$ 1.5 kV (between power terminals) and $\pm$ 1.5 kV (between output terminals), square-wave noise by noise simulator (pulse width: 100 ns/1 $\mu$ s, 1-ns rise)		
Static immunity	Destruction: 8 kV Malfunction: 6 kV		
Vibration resistance	Destruction: 10 to 55 Hz with 0.75-mm double amplitude in 3 directions for 1 hour each. Malfunction: 10 to 55 Hz with 0.5-mm double amplitude in 3 directions for 10 minutes each.		
Shock resistance	Destruction: 1,000 m/s <sup>2</sup> Malfunction: 100 m/s <sup>2</sup>		
Ambient temperature	Operating: -10°C to 55°C Storage: -25°C to 65°C		
Ambient humidity	Operating: 35% to 85%		
Life expectancy	H3JA-8A Mechanical: 10,000,000 operations min. Electrical: 60,000 operations min. (7 A resistive load at 250 VAC, 360 operations/h) H3JA-8C Mechanical: 10,000,000 operations min. Electrical: 100,000 operations min. (5 A resistive load at 250 VAC, 360 operations/h)		
EMC	(EMI) Emission Enclosure: EN55011 Group 1 class A Emission AC Mains: EN55011 Group 1 class A (EMS) Immunity ESD: EN61000-4-2: 6 kV contact discharge (level 3) 8 kV air discharge (level 3) Immunity RF-interference from AM Radio Waves: EN61000-4-3: 10 V/m (80 MHz to 1 GHz) (level 3) Immunity Burst: EN61000-4-4: 2 kV power port and output port (level 3) 1 kV control port with capacitive clamp (level 3) Immunity Surge: EN61000-4-5: 2 kV common mode (level 3) 1 kV differential mode (level 3)		
Approved standard	UL508, CSA C22.2 No. 14, conforms to EN61812-1		
Case color	Light gray (Munsell 5Y7/1)		
Degree of protection	IP40 (panel surface)		
Weight	H3JA-8A: Approx. 50 g H3JA-8C: Approx. 60 g		

## **Engineering Data**

## H3JA-8A



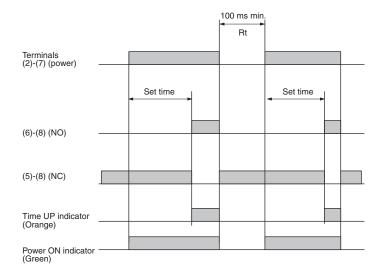
H3JA-8C



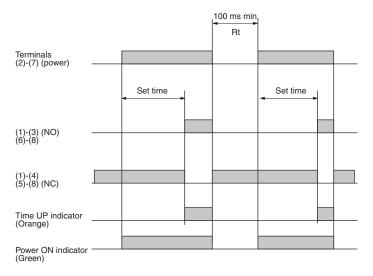
## Operation

## ■ Timing Chart

#### <u>H3JA-8A</u>

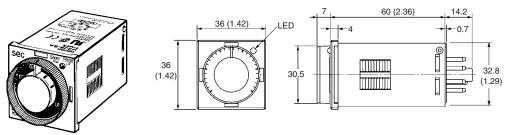


#### H3JA-8C



## Dimensions

Unit: mm (inch)



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## ■ Accessories (Order Separately

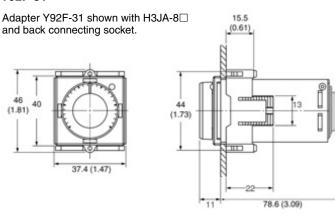
#### **Flush Mounting Adapter**

#### Y92F-31

46

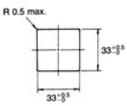
(1.81)

40



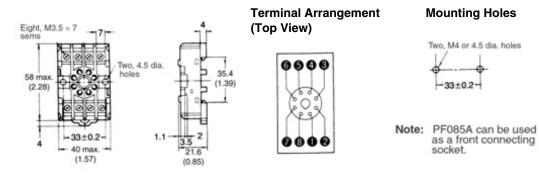
**Panel Cutout** 

Recommended panel thickness: 1 to 5 mm

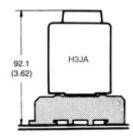


#### Track Mounting/Front Connecting Socket

#### PF085A

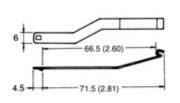


#### **Mounting Height of** Timer with Socket



#### Hold-down Clips (Set of Two Clips)

#### Y92H-6 for PF085A

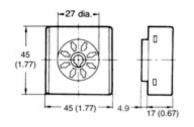




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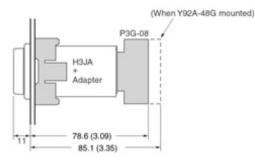
#### **Back Connecting Socket**

#### P3G-08



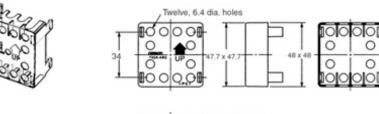
**Terminal Arrangement** (Bottom View)

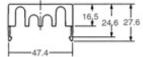




#### **Finger Safe Terminal Cover** Conforming to VDe0106/P100

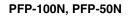
Y92A-48G (Attachments for P3G-08 Socket)

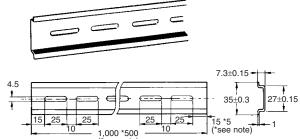




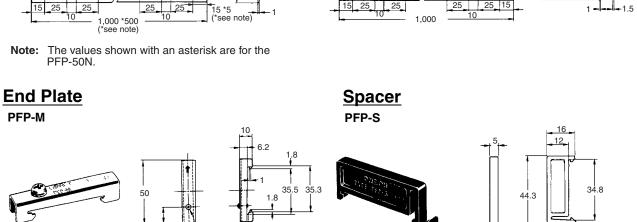
25

#### **Mounting Track**





**Note:** The values shown with an asterisk are for the PFP-50N.



15

4.5

٠

PFP-100N, PFP-50N

11.5 1 1.3 M4 x 8 pan head screw

10

- 4.8

PFP-M

16.5

16

29.2

27

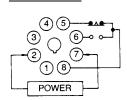
24

35±0.3

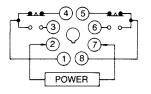
## Installation

## Terminal Arrangement

#### <u>H3JA-8A</u>







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## OMRON ELECTRONICS LLC

One Commerce Drive Schaumburg, IL 60173

#### 847-843-7900

For US technical support or other inquiries: 800-556-6766

12/03

Cat. No. L100-E3-01

OMRON CANADA, INC. 885 Milner Avenue Toronto, Ontario M1B 5V8

416-286-6465

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