

Power OFF-delay Timer

# H3DT-HCL AC100-120



Image

Power OFF-delay Timer, 100 to 120 VAC, Time range 1 to 120 s

Rated power supply voltage	100 to 120 VAC 50/60 Hz
Control output (Type)	Relay output (SPDT)
Operating resetting	Instantaneous operation/Time-limit reset
Connecting method	Push-In Plus Terminal Block

Ratings/Specifications

As of December 23, 2024

Rated power supply voltage	100 to 120 VAC 50/60 Hz
Allowable voltage variable range	85% to 110% of rated voltage
Power consumption	Approx. 8.8 VA (at 120 VAC)
Number of time ranges	2
Operation mode	Power OFF-delay
Control output (Type)	Relay output (SPDT)
Operating resetting	Instantaneous operation/Time-limit reset
Ambient temperature range	Operating: -20 to 60 °C (with no icing) Storage: -40 to 70 °C (with no icing)
Ambient humidity range	Operating: 25 to 85 %
Accuracy of operating time	±1% FS max.
Setting error	±10% FS ±0.05 s max.
Influence of voltage	±0.5% FS max.
Influence of temperature	±2% FS max.
Insulation resistance	100 MΩ min. (at 500 VDC)
Dielectric strength	Between charged metal part and operating section: 2,900 VAC 50/60 Hz for 1 min Between control output terminals and operating circuit: 2,000 VAC 50/60 Hz 1 min Between non-continuous contacts: 1,000 VAC 50/60 Hz 1 min
Impulse withstand voltage	Between power terminals: 5 kV Between conductor terminal and operating section: 7.4 kV
Noise immunity	±1.5 kV (between power terminals), square-wave noise by noise simulator (pulse width: 100 ns/1 μs, 1-ns rise)
Static immunity	Multifunction: 4 kV, Destruction: 8 kV
Vibration resistance	Destruction: 10 to 55 Hz, 0.75 mm single amplitude each in 3 directions for 2 h Malfunction: 10 to 55 Hz, 0.5 mm single amplitude each in 3 directions for 10 min

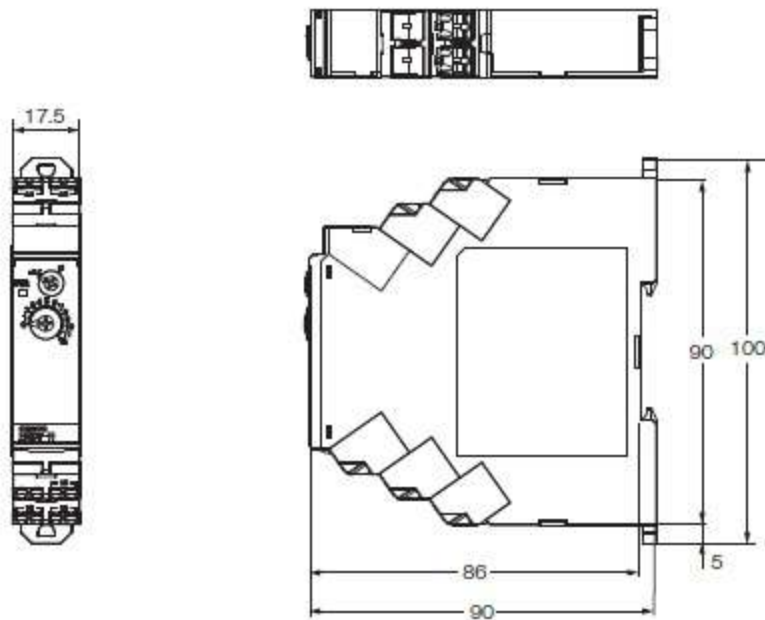
<b>Shock resistance</b>	Destruction: 1,000 m/s <sup>2</sup> , 3 times each in 6 directions Malfunction: 100 m/s <sup>2</sup> , 3 times each in 6 directions
<b>Life expectancy (relay output)</b>	Electrical: 100,000 operations min. (5 A at 250 VAC, resistive load at 360 operations/h) Mechanical: 10 million operations min. (under no load at 1,800 operations/h)
<b>Degree of protection</b>	IP30 (Terminal Block: IP20)
<b>Connecting method</b>	Push-In Plus Terminal Block
<b>Weight</b>	Approx. 90 g

As of December 23, 2024

### Dimensions

As of December 23, 2024

Outline drawing



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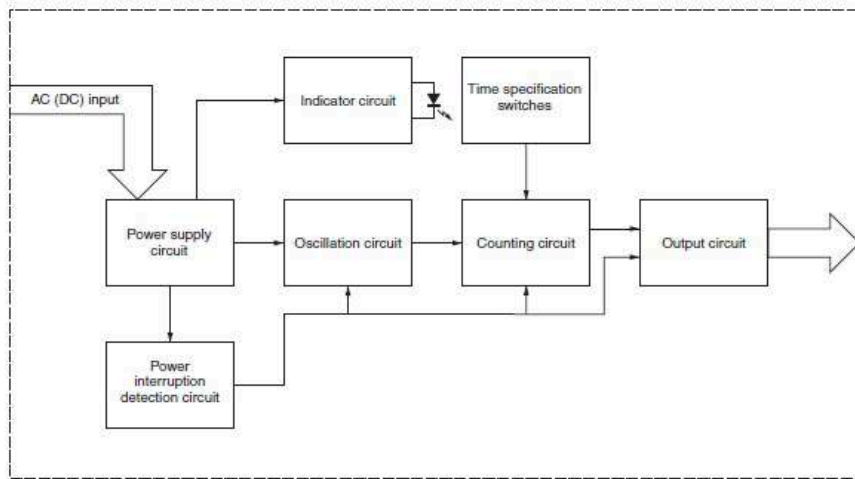
### Internal connection

As of December 23, 2024

Internal connection

# Block Diagrams

## H3DT-H



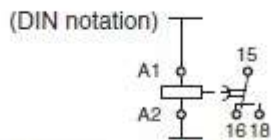
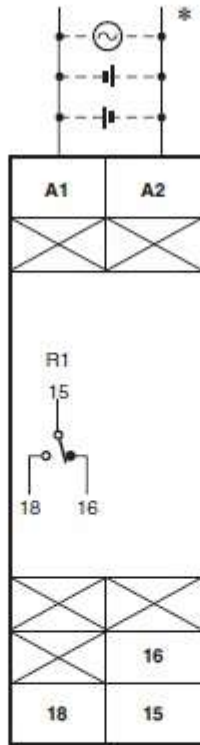
As of December 23, 2024

### Terminal arrangement

As of December 23, 2024

Terminal arrangement

# H3DT-H



**Note:** The above figure shows the terminal arrangement for a 24 to 48-VAC/DC model. Models with 100 to 120-VAC or 200 to 240-VAC power input do not have a DC input.

\* The power supply terminals do not have polarity.

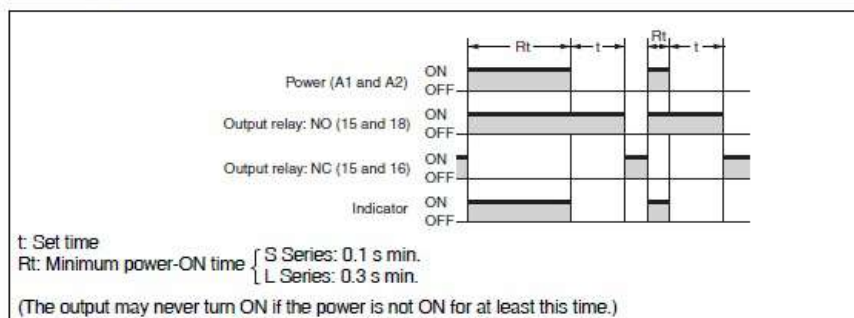
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## Operating chart

As of December 23, 2024

Operating chart

## Timing Charts



As of December 23, 2024