

NO: TI-062
DATE: April 2016

PRODUCT: H3M Solid State Timer
TYPE: Discontinuation Notice

H3M Solid State Timers Discontinued; Replace with H3CR-A Multifunction Timers

Discontinuation date: March 2017

In an effort to streamline the timer product offering, the H3M timers with single timing function and specific supply voltages will be discontinued. It will be replaced with multifunction H3CR-A with wide voltage ranges. Customers can reduce the inventory of spares to support their equipment.



Affected Parts

Product discontinuation	Recommended replacement
H3M AC100/110/120 A	H3CR-A8 AC100-240/DC100-125
H3M AC100/110/120 B	H3CR-A8 AC100-240/DC100-125
H3M AC100/110/120 C	H3CR-A8 AC100-240/DC100-125
H3M AC100/110/120 D	H3CR-A8 AC100-240/DC100-125
H3M AC100/110/120 E	H3CR-A8 AC100-240/DC100-125
H3M AC200/220/240 A	H3CR-A8 AC100-240/DC100-125
H3M AC200/220/240 B	H3CR-A8 AC100-240/DC100-125
H3M AC200/220/240 C	H3CR-A8 AC100-240/DC100-125
H3M AC200/220/240 D	H3CR-A8 AC100-240/DC100-125
H3M AC200/220/240 E	H3CR-A8 AC100-240/DC100-125
H3M AC24 B	H3CR-A8 AC24-48/DC12-48
H3M DC100 A	H3CR-A8 AC100-240/DC100-125
H3M DC100 B	H3CR-A8 AC100-240/DC100-125
H3M DC100 C	H3CR-A8 AC100-240/DC100-125
H3M DC100 D	H3CR-A8 AC100-240/DC100-125
H3M DC100 E	H3CR-A8 AC100-240/DC100-125
H3M DC110 A	H3CR-A8 AC100-240/DC100-125
H3M DC110 B	H3CR-A8 AC100-240/DC100-125
H3M DC110 C	H3CR-A8 AC100-240/DC100-125
H3M DC110 D	H3CR-A8 AC100-240/DC100-125
H3M DC110 E	H3CR-A8 AC100-240/DC100-125
H3M DC12 A	H3CR-A8 AC24-48/DC12-48
H3M DC12 B	H3CR-A8 AC24-48/DC12-48
H3M DC12 C	H3CR-A8 AC24-48/DC12-48

Product discontinuation	Recommended replacement
H3M DC12 D	H3CR-A8 AC24-48/DC12-48
H3M DC12 E	H3CR-A8 AC24-48/DC12-48
H3M DC125 A	H3CR-A8 AC100-240/DC100-125
H3M DC125 B	H3CR-A8 AC100-240/DC100-125
H3M DC125 C	H3CR-A8 AC100-240/DC100-125
H3M DC125 D	H3CR-A8 AC100-240/DC100-125
H3M DC125 E	H3CR-A8 AC100-240/DC100-125
H3M DC24 A	H3CR-A8 AC24-48/DC12-48
H3M DC24 B	H3CR-A8 AC24-48/DC12-48
H3M DC24 C	H3CR-A8 AC24-48/DC12-48
H3M DC24 D	H3CR-A8 AC24-48/DC12-48
H3M DC24 E	H3CR-A8 AC24-48/DC12-48
H3M DC48 A	H3CR-A8 AC24-48/DC12-48
H3M DC48 B	H3CR-A8 AC24-48/DC12-48
H3M DC48 C	H3CR-A8 AC24-48/DC12-48
H3M DC48 D	H3CR-A8 AC24-48/DC12-48
H3M DC48 E	H3CR-A8 AC24-48/DC12-48
H3M-H AC100/110/120 A	H3CR-A8E AC100-240/DC100-125
H3M-H AC100/110/120 B	H3CR-A8E AC100-240/DC100-125
H3M-H AC100/110/120 C	H3CR-A8E AC100-240/DC100-125
H3M-H AC100/110/120 D	H3CR-A8E AC100-240/DC100-125
H3M-H AC100/110/120 E	H3CR-A8E AC100-240/DC100-125
H3M-H AC200/220/240 A	H3CR-A8E AC100-240/DC100-125
H3M-H AC200/220/240 B	H3CR-A8E AC100-240/DC100-125
H3M-H AC200/220/240 C	H3CR-A8E AC100-240/DC100-125
H3M-H AC200/220/240 D	H3CR-A8E AC100-240/DC100-125
H3M-H AC200/220/240 E	H3CR-A8E AC100-240/DC100-125
H3M-H DC100 A	H3CR-A8E AC100-240/DC100-125
H3M-H DC100 B	H3CR-A8E AC100-240/DC100-125
H3M-H DC100 C	H3CR-A8E AC100-240/DC100-125
H3M-H DC100 D	H3CR-A8E AC100-240/DC100-125
H3M-H DC100 E	H3CR-A8E AC100-240/DC100-125
H3M-H DC110 A	H3CR-A8E AC100-240/DC100-125
H3M-H DC110 B	H3CR-A8E AC100-240/DC100-125
H3M-H DC110 C	H3CR-A8E AC100-240/DC100-125
H3M-H DC110 D	H3CR-A8E AC100-240/DC100-125
H3M-H DC110 E	H3CR-A8E AC100-240/DC100-125
H3M-H DC12 B	No recommended replacement
H3M-H DC12 C	No recommended replacement
H3M-H DC125 10H D	H3CR-A8E AC100-240/DC100-125
H3M-H DC125 10M B ..	H3CR-A8E AC100-240/DC100-125
H3M-H DC125 30M C	H3CR-A8E AC100-240/DC100-125
H3M-H DC125 5M A ..	H3CR-A8E AC100-240/DC100-125

Product discontinuation	Recommended replacement
H3M-H DC24 A	H3CR-A8E AC/DC24-48
H3M-H DC24 B	H3CR-A8E AC/DC24-48
H3M-H DC24 C	H3CR-A8E AC/DC24-48
H3M-H DC24 D	H3CR-A8E AC/DC24-48
H3M-H DC24 E	H3CR-A8E AC/DC24-48
H3M-H DC48 A	H3CR-A8E AC/DC24-48
H3M-H DC48 B	H3CR-A8E AC/DC24-48
H3M-H DC48 C	H3CR-A8E AC/DC24-48
H3M-H DC48 D	H3CR-A8E AC/DC24-48
H3M-H DC48 E	H3CR-A8E AC/DC24-48

Cautions on Applying Replacements

- Dimension is changed.
Length 50mm x Width 40mm ⇒ Length 48mm x Width 48mm
Use the Y92F-74 panel mounting adapter to fit H3CR-A into the existing H3M panel cutout.
The timer fits bezel, rear of timer clips to adapter. Use with P3GA-11 or P3G-08 sockets.
- Operation mode setting is necessary.
⇒A mode (ON-delay)
- Setting method of time range is changed. There are models which upper/lower limit of time range does not correspond.
- Please operate within the applicable time range of the desired setting time.



See the detail of differences below and on the following pages.

Detail of Differences

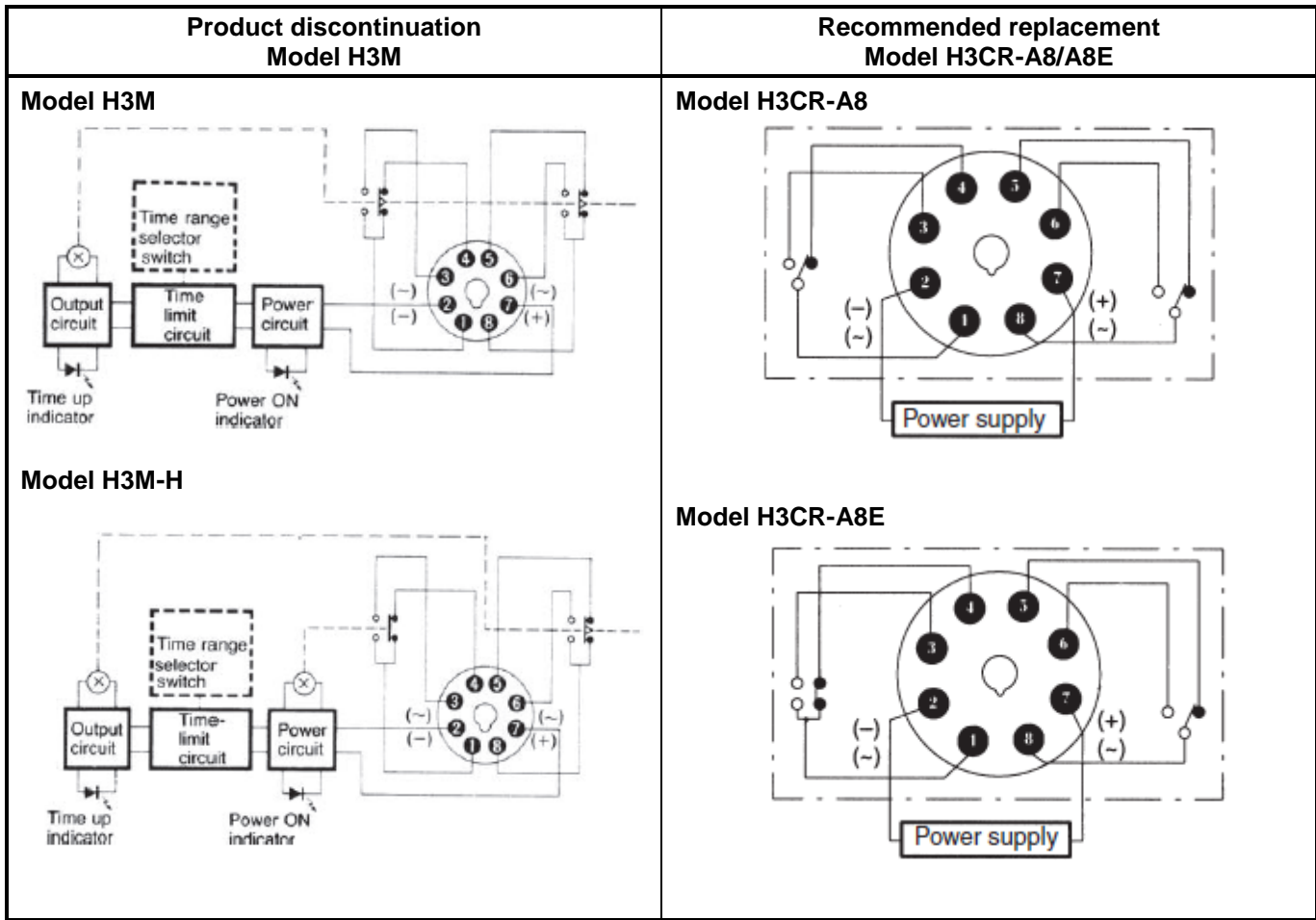
Reference Documentation

Description	Media	Publication number
H3M Timer Datasheet	PDF	L025-E1-10C

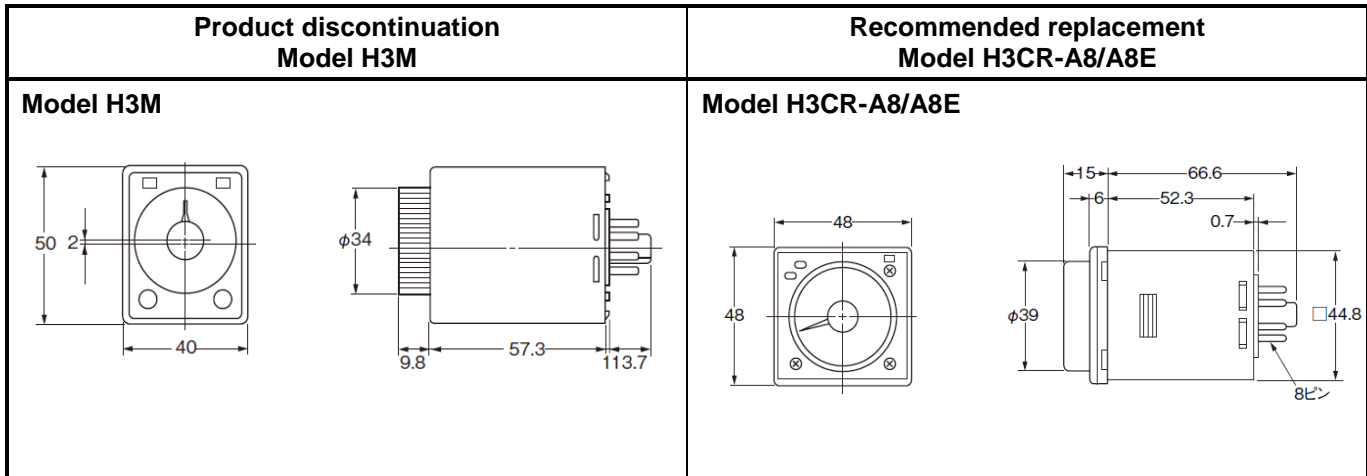
Body Color

Product discontinuation Model H3M	Recommended replacement Model H3CR-A8/A8E
Light gray (Munsell 5Y7/1) 	Light gray (Munsell 5Y7/1) 

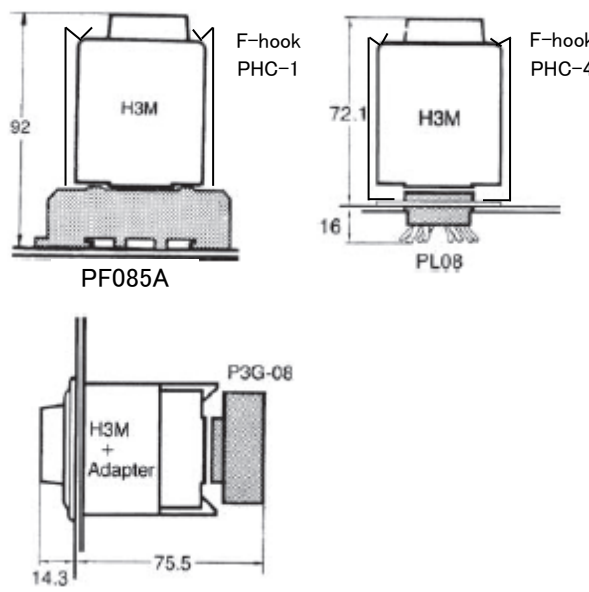
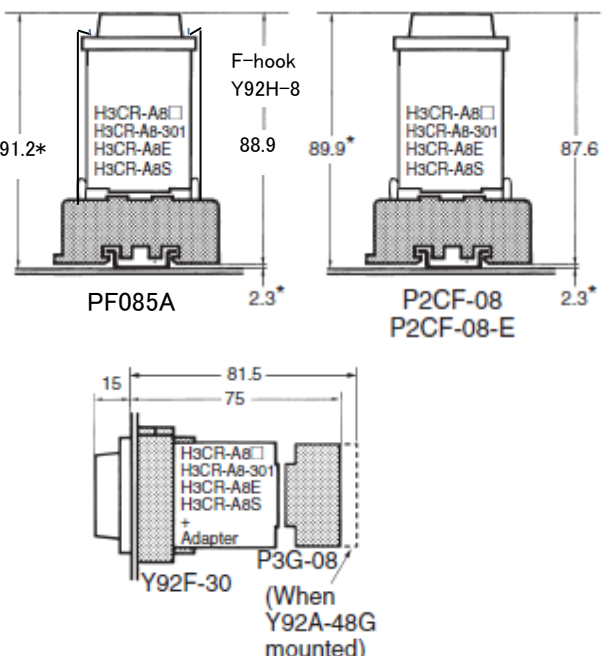
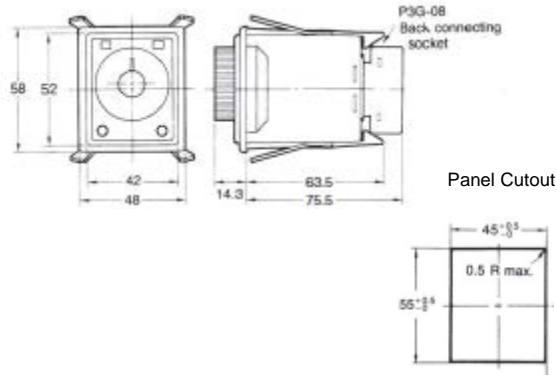
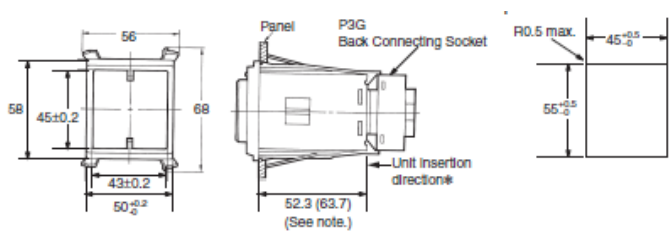
Wire Connection



Dimensions



Mounting Dimensions

Product discontinuation Model H3M	Recommended replacement Model H3CR-A8/A8E
<p>Model H3M</p> <p>• Mounting height of timer with socket</p>  <p>F-hook PHC-1</p> <p>F-hook PHC-4</p> <p>H3M</p> <p>H3M</p> <p>92</p> <p>72.1</p> <p>16</p> <p>PF085A</p> <p>PL08</p> <p>H3M + Adapter</p> <p>P3G-08</p> <p>14.3</p> <p>75.5</p>	<p>Model H3CR-A8/A8E</p> <p>• Mounting height of timer with socket</p>  <p>F-hook Y92H-8</p> <p>H3CR-A8□ H3CR-A8-301 H3CR-A8E H3CR-A8S</p> <p>H3CR-A8□ H3CR-A8-301 H3CR-A8E H3CR-A8S</p> <p>91.2*</p> <p>88.9</p> <p>89.9*</p> <p>87.6</p> <p>2.3*</p> <p>2.3*</p> <p>PF085A</p> <p>P2CF-08 P2CF-08-E</p> <p>15</p> <p>81.5</p> <p>75</p> <p>H3CR-A8□ H3CR-A8-301 H3CR-A8E H3CR-A8S + Adapter</p> <p>Y92F-30</p> <p>P3G-08</p> <p>(When Y92A-48G mounted)</p>
<p>• Dimensions with adapter (with flush mounting adapter Y92F-40)</p>  <p>P3G-08 Back connecting socket</p> <p>H3M + Adapter</p> <p>58</p> <p>52</p> <p>42</p> <p>48</p> <p>14.3</p> <p>63.5</p> <p>75.5</p> <p>Panel Cutout</p> <p>45^{+0.5}</p> <p>0.5 R max.</p> <p>55^{+0.5}</p>	<p>• Dimensions with adapter (with flush mounting adapter Y92F-74)</p>  <p>Panel</p> <p>P3G Back Connecting Socket</p> <p>H3CR-A8□ H3CR-A8-301 H3CR-A8E H3CR-A8S + Adapter</p> <p>Y92F-30</p> <p>P3G-08</p> <p>(When Y92A-48G mounted)</p> <p>58</p> <p>56</p> <p>45±0.2</p> <p>68</p> <p>43±0.2</p> <p>50±0.2</p> <p>52.9 (63.7) (See note.)</p> <p>Unit insertion direction*</p> <p>Panel Cutout</p> <p>R0.5 max.</p> <p>45^{+0.5}</p> <p>55^{+0.5}</p>

Specifications

Item	Product discontinuation Model H3M	Recommended replacement Model H3CR-A8/A8E
Operation mode	Power ON-delay	A: ON-delay* B: Flicker OFF start*, B2: Flicker ON start* E: Interval* J: One-shot* *power ON start
Output type	H3M : contact output (relay 2c(time limit)) H3M-H : contact output (relay2c(time limit+instantaneous))	H3CR-A8 : contact output (relay2c(time limit)) H3CR-A8E : contact output (relay2c (time limit+instantaneous))
Time range	Time range code A : 0.05s to 5min Time range code B : 0.1s to 10min Time range code C : 0.3s to 30min Time range code D : 0.1min to 10h Time range code E : 0.3min to 30h	0.05s to 300h

Characteristics

Item	Product discontinuation Model H3M	Recommended replacement Model H3CR-A8/A8E
Rated supply voltage	100/110/120VAC (50/60Hz) 200/220/240VAC (50/60Hz) 12VDC 24VDC 48VDC 100VDC 110VDC	H3CR-A8 100 to 240VAC (50/60Hz) / 100 to 125VDC 24 to 48VAC (50/60Hz) / 12 to 48VDC H3CR-A8E 100 to 240VAC (50/60Hz) / 100 to 125VDC 24 to 48VAC/VDC
Operating voltage range	AC : 85% to 110% of rated supply voltage DC : 80% to 110% of rated supply voltage (90% to 110% at 12VDC)	85% to 110% of rated supply voltage (90% to 110% at 12VDC)
Power consumption	AC : Approx. 5VA / Approx.2W DC : Approx. 2W	H3CR-A8 100 to 240VAC / 100 to 125VDC (when at 240VAC 60Hz) Relay ON : Approx.2VA (1.6W) Relay OFF : Approx.1.3VA(1.1W) 24 to 48VAC / 12 to 48VDC (when at 24VDC) Relay ON : Approx. 0.8W Relay OFF : Approx. 0.2W H3CR-A8E 100 to 240VAC / 100 to 125VDC (when at 240VAC, 60Hz) Relay ON/OFF : Approx. 2VA(1.6W) 24 to 48VAC/VDC (when at 24VDC) Relay ON/OFF : Approx. 0.9W
Reset time	0.1s max.	Minimum power opening time 0.1s
Control outputs	5A at 250VAC, resistive load ($\cos \phi = 1$) Minimum applied load 10mA at 5VDC (failure level: P reference value)	5A at 250VAC/30VDC, resistive load ($\cos \phi = 1$) 0.15A at 125VDC, resistive load Minimum applied load 10mA at 5VDC (failure level : P reference value)
Ambient temperature (operating)	-10°C to +50°C (with no icing)	-10°C to +55°C (with no icing)
Ambient temperature (storage)	-25°C to +65°C (with no icing)	-25°C to +65°C (with no icing)
Ambient humidity (operating)	35% to 85% RH	25% to 85% RH

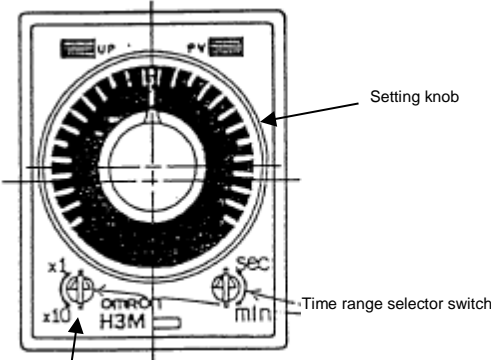
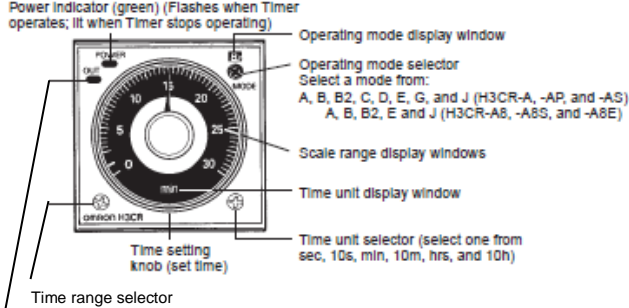
Characteristics

Item	Product discontinuation Model H3M	Recommended replacement Model H3CR-A8/A8E
Accuracy of operating time	±1% FS max. (including first value) ※For the timer with time range code A, add ±10 ms to the respective characteristics when the time range selector switches are in the x 1 s (0.05 to 0.5s) position	±0.2% FS max. (※ ±0.2%±10ms max. in range of 1.2s or 3s)
Setting error	±10% FS max. ※For the timer with time range code A, add ±10 ms to the respective characteristics when the time range selector switches are in the x 1 s (0.05 to 0.5s) position	±5% FS±50ms max.
Influence of voltage	±1% FS max. ※For the timer with time range code A, add ±10 ms to the respective characteristics when the time range selector switches are in the x 1 s (0.05 to 0.5s) position	±0.2% FS max. (※ ±0.2%±10ms max. in range of 1.2s or 3s)
Influence of temperature	±2% FS max. ※For the timer with time range code A, add ±10 ms to the respective characteristics when the time range selector switches are in the x 1 s (0.05 to 0.5s) position	±1% FS max. (※ ±0.2%±10ms max. in range of 1.2s or 3s)
Life expectancy	Mechanical: 20,000,000 operations min. Electrical: 100,000 operations min. (5A at 250VAC, resistive load)	Mechanical: 20,000,000 operations min. Electrical: 100,000 operations min. (5A 250VAC, resistive load)
Weight	Approx. 100g	Approx. 90g
Approved standards	UL, CSA, LR	UL, CSA, NK, LR, CCC, CE marking

Operation Ratings

Product discontinuation Model H3M	Recommended replacement Model H3CR-A8/A8E
<p>•Operating mode Model H3M</p> <p>Model H3M-H</p> <p>Rt: Resetting time</p>	<p>•Operating mode Model H3CR-A8 A mode : ON-delay Rt indicates reset time.</p> <p>Model H3CR-A8E A mode : ON-delay Rt indicates reset time.</p>

Operation Methods

Product discontinuation Model H3M	Recommended replacement Model H3CR-A8/A8E																																																															
<p>① Time range setting Set time range with time range selector switch (select a mode from sec and min)</p> <p>② Time multiplying setting Set time multiplying with multiplying key (select a mode from x1 and x10)</p> <p>③ Time setting Set time with setting knob</p>  <p>The time range of each timer is as shown below</p> <table border="1" data-bbox="110 1087 792 1333"> <thead> <tr> <th>Setting position of selector switch</th> <th>X1 sec X10 min</th> <th>X1 sec X10 min</th> <th>X1 sec X10 min</th> <th>X1 sec X10 min</th> </tr> </thead> <tbody> <tr> <td>A series</td> <td>0.05s~0.5s</td> <td>0.5s~5s</td> <td>0.05min~0.5min</td> <td>0.5min~5min</td> </tr> <tr> <td>B series</td> <td>0.1s~1s</td> <td>1s~10s</td> <td>0.1min~1min</td> <td>1min~10min</td> </tr> <tr> <td>C series</td> <td>0.3s~3s</td> <td>3s~30s</td> <td>0.3min~3min</td> <td>3min~30min</td> </tr> </tbody> </table> <table border="1" data-bbox="110 1228 792 1333"> <thead> <tr> <th>Setting position of selector switch</th> <th>X1 min X10 hrs</th> <th>X1 min X10 hrs</th> <th>X1 min X10 hrs</th> <th>X1 min X10 hrs</th> </tr> </thead> <tbody> <tr> <td>D series</td> <td>0.1min~1min</td> <td>1min~10min</td> <td>0.1h~1h</td> <td>1h~10h</td> </tr> <tr> <td>E series</td> <td>0.3min~3min</td> <td>3min~30min</td> <td>0.3h~3h</td> <td>3h~30h</td> </tr> </tbody> </table>	Setting position of selector switch	X1 sec X10 min	X1 sec X10 min	X1 sec X10 min	X1 sec X10 min	A series	0.05s~0.5s	0.5s~5s	0.05min~0.5min	0.5min~5min	B series	0.1s~1s	1s~10s	0.1min~1min	1min~10min	C series	0.3s~3s	3s~30s	0.3min~3min	3min~30min	Setting position of selector switch	X1 min X10 hrs	X1 min X10 hrs	X1 min X10 hrs	X1 min X10 hrs	D series	0.1min~1min	1min~10min	0.1h~1h	1h~10h	E series	0.3min~3min	3min~30min	0.3h~3h	3h~30h	<p>① Operating mode setting Set A mode (ON-delay) with operating mode selector (select a mode from A, B, B2, E, and J)</p> <p>② Time unit setting Set time unit with time unit selector (select one from sec, 10s, min, 10min, hrs, and 10h)</p> <p>③ Time range setting Set time range with time range selector (select one from 1.2, 3, 12, and 30)</p> <p>④ Time setting Set time with time setting knob</p>  <p>Power Indicator (green) (Flashes when Timer operates; lit when Timer stops operating)</p> <p>Operating mode display window</p> <p>Operating mode selector Select a mode from: A, B, B2, C, D, E, G, and J (H3CR-A, -AP, and -AS) A, B, B2, E and J (H3CR-A8, -A8S, and -A8E)</p> <p>Scale range display windows</p> <p>Time unit display window</p> <p>Time unit selector (select one from sec, 10s, min, 10m, hrs, and 10h)</p> <p>Time setting knob (set time)</p> <p>Time range selector</p> <p>Output indicator (orange) (lit when output)</p> <p>Scale range display windows changes as below by turning the Time range selector clockwise.*</p> <table border="1" data-bbox="885 1087 1339 1207"> <tbody> <tr> <td>0</td> <td>0.2</td> <td>0.4</td> <td>0.6</td> <td>0.8</td> <td>1.0</td> <td>1.2</td> </tr> <tr> <td>0</td> <td>0.5</td> <td>1</td> <td>1.5</td> <td>2</td> <td>2.5</td> <td>3</td> </tr> <tr> <td>0</td> <td>2</td> <td>4</td> <td>6</td> <td>8</td> <td>10</td> <td>12</td> </tr> <tr> <td>0</td> <td>5</td> <td>10</td> <td>15</td> <td>20</td> <td>25</td> <td>30</td> </tr> </tbody> </table>	0	0.2	0.4	0.6	0.8	1.0	1.2	0	0.5	1	1.5	2	2.5	3	0	2	4	6	8	10	12	0	5	10	15	20	25	30
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Specifications and prices in this product news are as of the issue date and are subject to change without notice. Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.