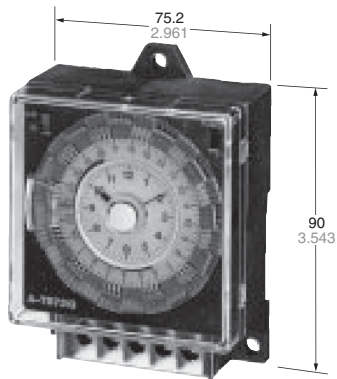


Flush mounting type



Surface mounting type

mm inch

Features

- 1. DIN72 size smart time switch**
Flush mounting type is as thin as 32mm .1260inch and depth in the box is less than 21.7mm .854inch.
- 2. Easy to read directly readable clock.**
- 3. Load can be turned on and off every 15 minutes with the 96 setting elements.**
- 4. Quartz power-failure compensation type commonly usable over 100 to 240V AC.**

Part names

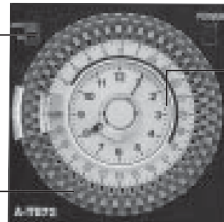
Manural switch

- Auto and manual modes are selectable for control.

Power status indicator: quartz

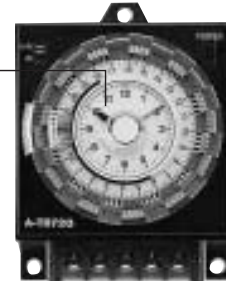
power-failure compensation type.

Frequency switchable: AC motor types.



Easy-to-read. Directly readable clock.

- Present time is trimmable every 1 minute.



ON settings are colored on the dial.

- Operation setting times are found at a glance with red indicator.

Setting elements integrated at 15 minute intervals throughout the clock circumference.

- Load can be turned on and off every 15 minutes (maximum 48 ON and OFF actions per day), allowing minute daily time control.

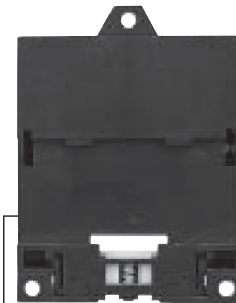


Space-saving.
Depth in the box is less than 21.7mm .854inch. (including the panel thickness.)

Quick mountable.



Power supply terminals Load terminals



DIN rail mounting possible

Product types

Type	Rated operating voltage	Flush mounting type	Surface mounting type
AC motor type	100V AC	A-TB72-D-HR1A-100V	A-TB72-DD-HR1C-100V
	110V AC	A-TB72-D-HR1A-110V	A-TB72-DD-HR1C-110V
	120V AC	A-TB72-D-HR1A-120V	A-TB72-DD-HR1C-120V
	200V AC	A-TB72-D-HR1A-200V	A-TB72-DD-HR1C-200V
	220V AC	A-TB72-D-HR1A-220V	A-TB72-DD-HR1C-220V
	240V AC	A-TB72-D-HR1A-240V	A-TB72-DD-HR1C-240V
Quartz power-failure compensation type	100 to 240V AC	A-TB72-Q-HR1A-ACF	A-TB72-QD-HR1C-ACF



Specifications

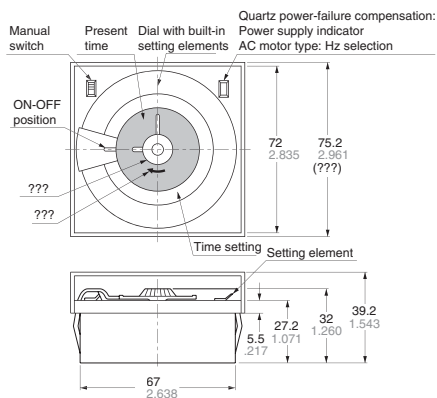
Types	Drive system	AC motor type	Quartz power-failure compensation quartz motor type	
		Voltage	100V AC, 110V AC, 120V AC 200V AC, 220V AC, 240V AC	100 to 240V AC
Rating	Frequency	50/60Hz (Switchable)	50/60Hz (Common)	
	Power consumption	1.5W or less	1W or less	
	Load	Circuit	Input/output separate circuit	
		Manual ON/AUTO	Manual switch provided	
		Capacity (Resistive load)	15A 250V AC	
	Setting	System	Built-in setting element swing type	
		Minimum unit	15-minute intervals	
		Minimum range	15 minutes	
No. of setting		Max. 48 (ON/OFF)		
	Power failure compensation	—	200 hours or more (at 25°C)	
Time accuracy	Clock accuracy	Synchronous with power supply frequency	Monthly error: Within ±15 seconds (at 25°C)	
Contact specifications	Contact arrangement	Flush mounting type: 1 Form A, Surface mounting type: 1 Form C		
	Contact type	Solder/tab common terminal: Flush mounting type, Crimp terminal or bare wires: Surface mounting type		
Life	Mechanical life (contact)	5,000,000 times or more		
	Electrical life (at rated load)	20,000 times or more (ON/OFF)		
Electrical characteristics	Allowable operating voltage range	85 to 115% of rated voltage	80 to 110% of rated voltage	
	Insulation resistance (initial)	More than 100MΩ between charged and uncharged sections More than 100MΩ between contacts (at 500V DC megger)		
	Dielectric strength (initial)	Between charged and uncharged sections: 1,500V AC/1 min. Between contacts : 1,000V AC/1 min.		
	Surge resistance	Surge voltage 7,000V (±1.2×50μsec. one time)		
	Noise resistance	Noise simulator 2,000V	Noise simulator 1,000V	
	Temperature rise	60°C or less (at 25°C)		
Mechanical characteristics	Malfunctional vibration	10 to 55Hz (amplitude: 0.3mm) for 10 minutes in each vertical, horizontal and lateral direction		
	Destructive vibration	16.7Hz (amplitude: 4.0mm) for 1 hour in each vertical, horizontal and lateral direction		
	Malfunctional shock	5G or more, 4 times in each vertical, horizontal and lateral direction		
	Destructive shock	50G or more, 5 times in each vertical, horizontal and lateral direction		
Ambient conditions	Ambient operating temperature	-10°C to +50°C +14°F to +122°F		
	Ambient operating humidity	45 to 85%		
Weight () denotes Surface mounting type		120g 4.23oz (190g 6.70oz)	100g 3.53oz (170g 6.00oz)	

Note) Protective cover is provided on A-TB72.

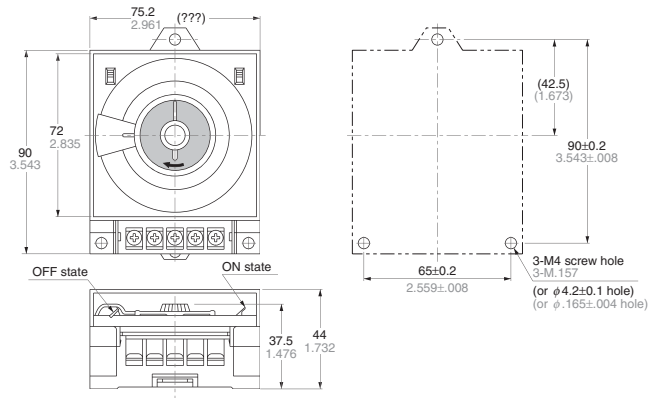
Dimensions

mm inch

• Flush mounting type

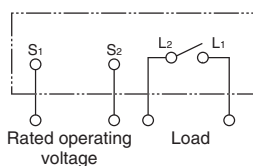


• Surface mounting type

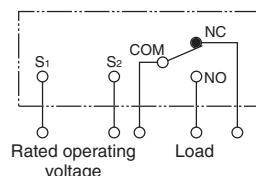


Terminal layouts and Wiring diagrams

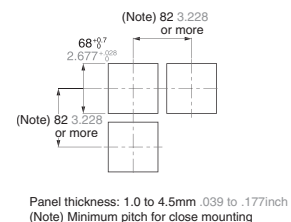
• Flush mounting type (1 Form A)



• Surface mounting type (1 Form C)



• Panel cutout dimensions



“NAIS is the global name of Matsushita Electric Works”

Precautions during usage

1. Output setting

- ON setting: Turn the setting element inward, and red mark appear around the dial.
- OFF setting: Turn the setting element outward, and the above red mark will disappear.
- Turn the setting element sufficiently until the click action is felt.

2. Clock setting

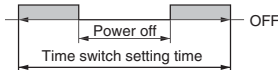
- Be sure to turn the knob at the clock center in the arrow direction to set the clock to the present time. (The dial also turns together with the clock.) Be sure to prevent reverse turning.
- do not turn the dial to set the clock.

3. Attachment

- Insert the time switch from the front of the attachment panel.
(One-touch system: Panel attachment model)
- Either use 3.8 or M4 wood screws for attachment, or use DIN rails with a width of 35 mm (ATA48011). (Direct-attachment model)

4. Contact relay operation if the power fails

- Contact relays remain closed while the power is off.



5. Power failure compensation (ATB75 series)

- An internal nickel cadmium battery is provided to compensate for power failures, but the power supply should be left on as much as possible. Turning the power supply on and off shortens the service life of the battery.
 - After continuous charging for 48 hours, the battery provides 200 hours of power failure compensation. The internal battery is fully charged, but if the battery capacitance has dropped because of natural discharging, or if the battery has discharged completely, there may be times when the switch does not operate immediately when the power is turned on. If this happens, set the clock to the proper time after the power has been back on for three to four hours.
 - Nickel cadmium batteries are a valuable commodity which can be recharged. They cannot be replaced, but if being discarded after use, please make sure they are recycled if possible.
- When discarding the battery, turn off the power supply to the time switches, and use radio pliers to disassemble the overall connections and remove the battery.

6. Precautions concerning wiring

With panel attachment models, wiring should be connected by soldering it directly, or using the #187 flat connecting probe provided as an accessory.

7. CE marking support

1) EMC directives (89/336/EEC)

The A-TB72 flat time switch conforms to EMC directives as a stand-alone time switch.

Applicable standards: EN50081-2, EN50082-2

2) Low-voltage directives (73/23/EEC)

In order to satisfy VDE0435 Part 2021, the installation conditions and precautions noted below must be observed.

1. Wiring connections

The power supply applied to the time switches should be protected by an over-current protection device that conforms to EN/IEC standards.

2. Attachment and removal

(1) With panel attachment models, the time switches are designed for attachment to a panel. The ends of the time switches should be fitted inside the panel.

(2) With direct-attachment models, the time switches are designed to be installed inside the panel. Do not touch any component of the time switch, such as the end section, while power is being supplied.

(3) When attaching or removing the switches, check first to make sure no voltage is being applied to any of the end sections.

3. Do not use these time switches in safety circuits. For example, if using the time switches in heat circuits or similar circuits, a protective circuit should be provided on the mechanical side.

8. For other information, please refer to "Precautions Concerning A-TB Time Switches (Common)".

