Star-Delta Timer With Free Power, Compact Size W38×H42mm

▣ Features

- Wide power supply range
  : 100-240VAC 50/60Hz, 24-240VDC universal
- Wide time setting range and switching time
- T1 (setting time): selectable 0.5 to 100 sec.
- T2 (switching time): selectable 0.05, 0.1, 0.2, 0.3, 0.4, 0.5 sec.
- Close and DIN rail mounting
  with the dedicated socket (PS-M8) width 41mm
- Easy mounting and installation/maintenance
  with the dedicated bracket for DIN 48×48mm
- Application: Starting large capacity motors

Please read "Caution for your safety" in operation manual before using.

▣ Ordering Information

ATS **8** **SD** – **4**

Power supply	4	100-240VAC 50/60Hz / 24-240VDC universal
Time operation	SD	Star-Delta type
Number of plug pins	8	8-pin plug type
Item	ATS	Small Analog Timer

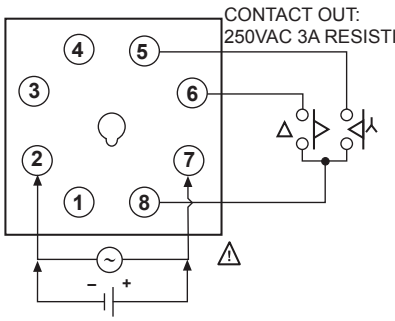
※Sockets (PG-08, PS-08(N), PS-M8) are sold separately.

▣ Specifications

Model		**ATS8SD-4**
Function		**Star-Delta Timer**
Control time setting range		0.5sec to 100sec (max. time)
Power supply		100-240VAC 50/60Hz, 24-240VDC universal
Allowable voltage range		90 to 110% of rated voltage
Power consumption		Max. 3VA (100-240VAC), Max. 1.5W (24-240VDC)
Return time		Max. 100ms
Time operation		Power ON Start type
Control output	Contact type	⅄ contact: SPST (1a), Δ contact: SPST (1a)
	Contact capacity	250VAC 3A resistive load
Relay life cycle	Mechanical	Min. 10,000,000 operations
	Electrical	Min. 100,000 operations (250VAC 3A resistive load)
Repeat error		Max. ±0.2% ±10ms
⅄ setting error		Max. ±5% ±50ms
Voltage error		Max. ±0.5%
Temperature error		Max. ±2%
⅄-Δ switching time error		Max. ±25%
Insulation resistance		100MΩ (at 500VDC megger)
Dielectric strength		2000VAC 50/60Hz for 1 min.
Noise resistance		±2kV the square wave noise (pulse width 1μs) by noise simulator
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each X, Y, Z direction for 1 hour
	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each X, Y, Z direction for 10 min.
Shock	Mechanical	300m/s² (approx. 30G) in each X, Y, Z direction 3 times
	Malfunction	100m/s² (approx. 10G) in each X, Y, Z direction 3 times
Environment	Ambient temperature	-10 to 55℃, storage: -25 to 65℃
	Ambient humidity	35 to 85%RH, storage: 35 to 85%RH
Approval		CE c UL us
Accessory		Bracket
Unit weight		Approx. 72g

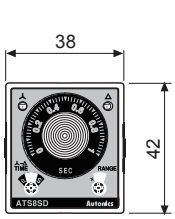
※Environment resistance is rated at no freezing or condensation.

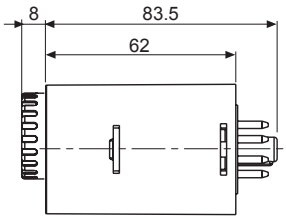
▣ Connections



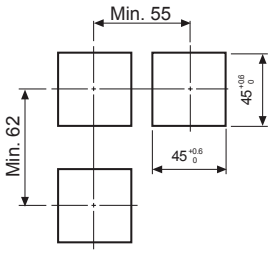
▣ Dimensions

(unit: mm)

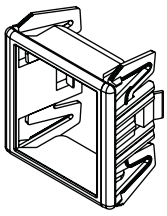


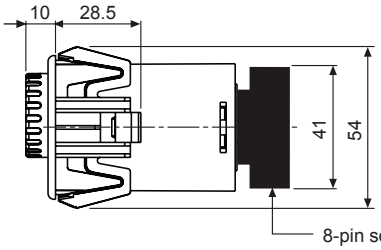


●**Panel cut-out**

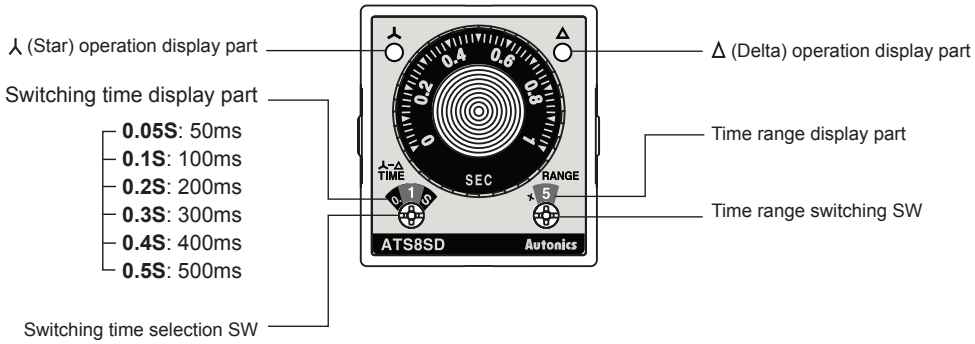


●**Bracket**





▣ Unit Description



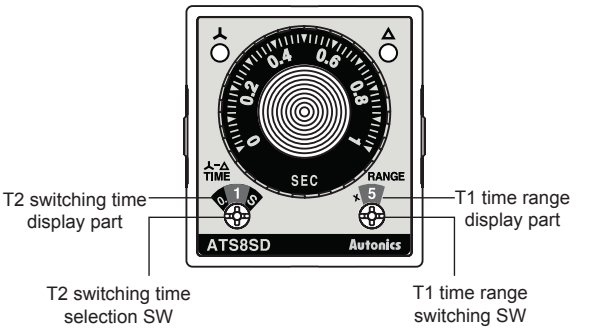
▣ Time Range

1. T1 (setting time) time

Time range	Time unit	Setting time range
5	sec	0.5 to 5sec
10		1 to 10sec
50		5 to 50sec
100		10 to 100sec

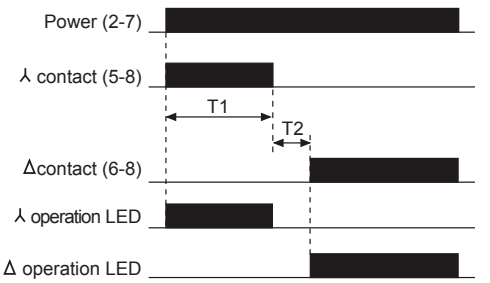
2. T2 (⅄-Δ switching time) time (unit: sec)

Switching time display part	**0.05S**	**0.1S**	**0.2S**	**0.3S**	**0.4S**	**0.5S**
T2 (⅄-Δ switching time)	0.05	0.1	0.2	0.3	0.4	0.5



▣ Operation

When power is applied, ⅄ contact will be ON. When reaching to T1 setting time, ⅄ contact will be OFF and Δ contact will be ON after switching time of T2 is passed. If the power is OFF, ⅄ contact will be OFF.

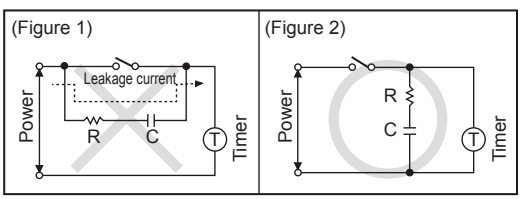


※T1: setting time (⅄ contact operation time)

※T2: ⅄-Δ switching time (⅄ contact and Δ contact are OFF simultaneously at power ON)

▣ Proper Usage

- Please supply power quickly at once with using switch or relay contact. Otherwise it may cause time error or power reset failure.
- When supplying power for a long time, timer life cycle may be shorten due to overheat of inner components of timer.
- When supplied power of timer is DC, be sure that the polarity.
- When supplying the power to the timer, connection shown in (Fig. 1) might cause malfunction due to leakage current through R and C. Please connect R and C as shown in (Fig. 2) to prevent malfunction.



- Change the setting time (T1), time range or switching time (T2). Otherwise, it might cause malfunction if changing the setting time (T1), time range or switching time (T2) during operation.
- Do not use this unit at below places.
  - Place where temperature or humidity is out of the rated specifications.
  - Place where there is condensation by temperature changes.
  - Place where there is flammable gas or corrosive gas.
  - Place where there is dust, oil or severe vibration or impact.
  - Place where strong alkalis or acids is used.
  - Place where there is direct ray of the sun.
  - Place where strong magnetic field or electric noise is generated.