

Shelter Guard

PS-BX-02-Series



The PS-BX-02 series of controllers are designed to manage the operation of two air conditioner loads. The controller is equipped with a timer function that alternates the operation of the air conditioners, based on a set time range of 1 to 12 hours. It features thermostatic operation, which switches the air conditioners on or off based on a temperature set point range of 16 to 30°C. Provisions are made to allow both air conditioners to operate simultaneously if the conditioned room temperature exceeds the set value by a significant margin, or to operate only one air conditioner, as per the customer's preference. PS-BT-02 series models generate alarms through the two potential free relays, if any one or both air conditioners fail. The PS-BU-02 series models generate additional high temperature alarm whenever the temperature exceeds the settable value, ranging from 30 to 40°C. Both the models have provision to operate with the battery backup power, even if the utility power gets interrupted.

1. Product Highlights

- **Reliable & precise** switching operation of two air conditioners as per the set cyclic times between 1 to 12 Hrs and temperature between 16 to 30 °C.
- **Resumes current operation** only for the balance of the duty-cycle, in the event of power interruption and restoration
- **Test / Run Mode** that would set the timer operation by scaling down by a factor of 20.
- **Fire Alarm** Integration for safety.
- **Switches back** if the swapped unit is defective and generates Alarm 1. Alarm 2 is generated if both air conditioners are defective.
- **High-temperature Alarm 3** is triggered when the temperature exceeds the selected threshold.
- **Gas Equalization Protection** with intelligent time delay
- **System operation from 85 to 265 volts AC** with EMC/EMI compatibility and **battery power back up**.
- **Model selection with single and three-phase** electrical loads with Auto or both auto & Manual.
- **Provision to select switching ON/OFF** both air conditioners, when temperature is high, or skip if not preferred.



Fig 1.1 General Cyclic Timer With Temperature Controller
PS-BX-02-S-A-20-WPX



Fig 1.2 Cyclic Controller With Rotary Switch
PS-BX-02-X-B-XX-XXM



Fig 1.3 Cyclic Controller With IP-65 Grade Enclosure
PS-BX-02-X-B-XX-XXW

Fig .1 Shelter Guard

2. Application

- Cellular sites, Server rooms, data centers, Security/railway gate cabins.
- ATM cabins, Industrial or commercial applications, FOC repeater stations.
- Places like efficient & uninterrupted cooling management with two air conditioners, fire safety.

3. Electrical Connection Diagram

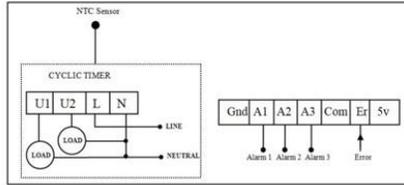


Fig 3.1 General Cyclic Timer With Temperature Controller
PS-BX-02-S-A-20-WPX

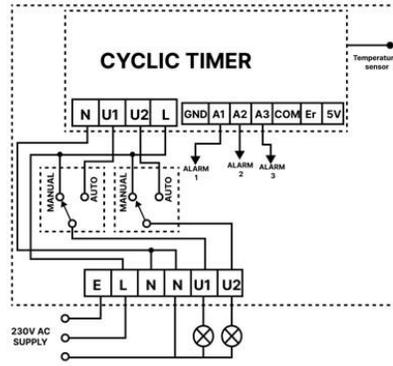


Fig 3.2 Cyclic Controller With Rotary Switch
PS-BX-02-X-B-XX-XXM

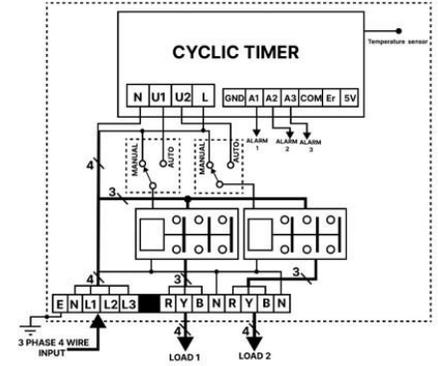


Fig 3.3 Cyclic Controller With IP- 65 Grade Enclosure
PS-BX-02-X-B-XX-XXW

Fig 3.1 Connection Diagram of Shelter Guard

4. product Selection Table

Model No.	Power Supply (V)				Frequency (Hz)		Product Name (A = Auto, B = Auto & Manual switch)	Mechanical Dimension (cm)			Load Current (Amps)
	Min		Max		Min	Max		L	W	H	
	S	T	S	T							
PS-BX-02-S-A-20-WPX	90	-	270	-	45	65	General Cyclic Timer With Temperature Controller (A)	12	12	1	Single-phase
*PS-BX-02-X-B-XX-XXM	90	160	270	460	45	65	Cyclic Controller With Rotary Switch (B)	240	176	103	Single Phase Or Three Phase
*PS-BX-02-X-B-XX-XXW	90	160	270	460	45	65	Cyclic Controller With IP- 65 Grade Enclosure (B)	310	210	140	Single Phase Or Three Phase

S-Single Phase, T-Three Phase, L- Length, W-Width, H-Height

- ***Note:1)** PS-BX-02-X-B-XX-XXM – In cases of auto manual selection, Rotary switch of 25 Amps capacity and three phase Contactors of adequate capacity, as the case may be, will be is used.
2) PS-BX-02-X-B-XX-XXW – The model PS-BX-02-X-B-XX-XXM will be enclosed inside IP – 65 grade enclosure if this model is selected

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