



Triploxor



SPECIFICATIONS

CONTROL VOLTAGE	24, 120 VAC ±10%, 50/60 Hz
CONTROL SWITCH CURRENT	2 mA
POWER REQUIRED	3 VA (Approximately)
DUTY CYCLE	Continuous
OUTPUT RATING	Triplexor 24V 5A Resistive, 25 VA @ 24VAC -120V (3) 5 Amp Resistive, 1/6 hp, 211 VA @ 120 VAC, Inductive Externally Switched to Terminal #2 Quadraplexor (4) 5 Amp Resistive, 1/6 hp, 211 VA @ 120 VAC, Inductive Externally Switched to terminal #2
LIFE EXPECTANCY	Mechanical 10,000,000 Operations (Minimum) Electrical 100,000 Operations @ Rated Load
INDICATORS	LED's Show Condition of Outputs
TEMPERATURES RATING	Operate -4° to 131°F (-20° to +55°C) Storage -40° to 185°F (-40° to +85°C)
ENCLOSURE	Style "E" Lexan® Surface Mounted
TERMINATIONS	(12) #8-32 Screw Terminals
WEIGHT	12 to 14 oz.

NOTE: For Analog signal inputs, ATC offers a duplexing pump control the ATC-Digitec 3800 Panel Meter.

MODEL NUMBER

MODEL NUMBER	ARA		A		E
CONTROL VOLTAGE					
24 V Triplexor		24			
120 V Triplexor		120			
120 V Quadraplexor		120			
Triploxor				F	
Quadraplexor (120 V only)				G	

The ARA Series Triploxor and Quadraplexor are UL Listed under UL File Number E55826.

The **Triploxor and Quadraplexor Alternating Relays** are designed for use in **MULTIPLE LOAD** installations that are required to alternate in sequence while assuring equal run time on all loads. They also allow for additional loads to run in the event of excess load requirements.

The **Triploxor and Quadraplexor** have the option of automatic alterations or external clocking alterations. When the factory installed jumper is in place the alternating action is initiated by a control switch, which is common with one side of the control voltage. When the jumper is removed the alternating action is initiated by an isolated normally open switch.

ARA-XXX-AFE ALTERNATING ACTION

TRIPLEXOR: For automatic alterations a factory-installed jumper is in place between terminals 3 and 4. The alternating action is accomplished when the control switch between terminals 2 and 4 opens.

For external clocking alterations, remove the factory-installed jumper between terminals 3 and 4 and place an isolated normally open switch between terminals 2 and 3. The alternating action will occur each time this isolated switch is closed and then re-opened.

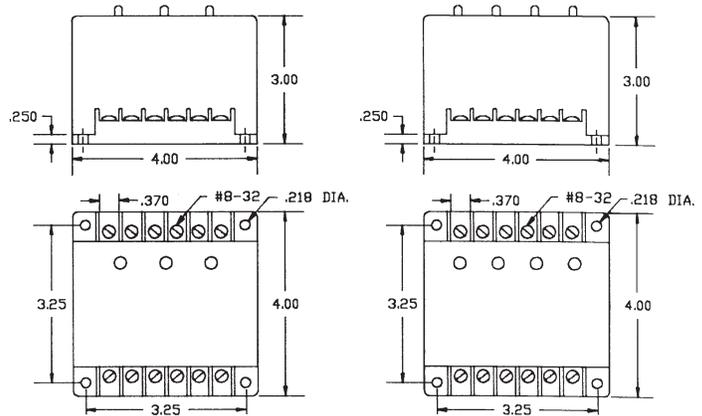
ARA-XXX-AGE

QUADRAPLEXOR: For automatic alterations, a factory installed jumper is in place between terminals 11 and 12. The alternating action is accomplished when the control switch between terminals 2 and 3 opens.

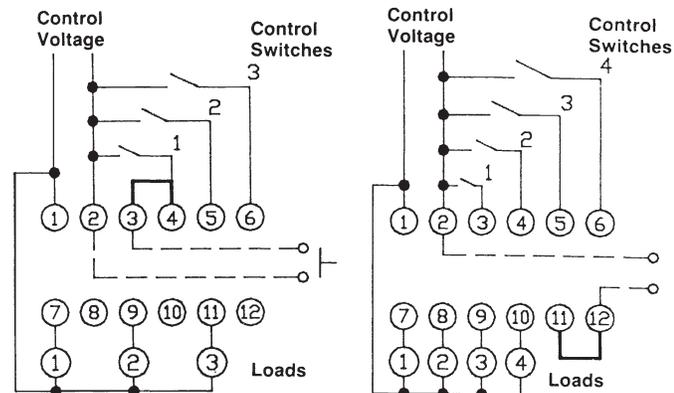
For external clocking alterations, remove the factory-installed jumper between terminals 11 and 12 and place an isolated normally open switch between terminals 2 and 12. The alternating action will occur each time this isolated switch is closed and then re-opened.

In the event of a power failure the Alternating Relays will return to their quiescent state and continue sequencing loads on one-at-a-time.

DIMENSIONS (INCHES)



WIRING



The **Expandable Alternating Relays** are designed for use in multiple load installations that are required to alternate in sequence and have the ability to accept an additional load installation in the future.

ARA-120-AME: The ARA-120-AME is a **Duplexor/Triplexor Alternating Relay**. With the selector switch in position A, this alternating relay will duplex the loads on terminals 7 and 9. With the switch in position B, the Alternating Relay will triplex the three loads on terminals 7, 9 and 11.

For automatic alterations, a factory-installed jumper is in place between terminals 3 and 4. The alternating action is accomplished when the control switch between terminals 2 and 4 opens.

For external clocking alterations, remove the factory installed jumper between terminals 3 and 4 and place an isolated normally open switch between terminals 2 and 3. The alternating action will occur each time this isolated switch is closed and then re-opened.

ARA-120-ANE: The ARA-120-ANE is a **Triplexor/Quadraplexor Alternating Relay**. With the selector switch in position A, the Alternating Relay will triplex between the loads on terminals 7, 8 and 9. With the switch in position B, the Alternating relay will quadraplex the loads on terminals 7, 8, 9 and 10.

For automatic alterations, a factory installed jumper is in place between terminals 11 and 12. The alternating action is accomplished when the control switch between terminals 2 and 3 opens. For external clocking alterations, remove the factory installed jumper between terminals 11 and 12 and place an isolated normally open switch between terminals 2 and 12. The alternating action will occur each time this isolated switch is closed and then re-opened.

In the event of a power failure the Alternating Relays will return to their quiescent state and continue sequencing loads on one-at-a-time.

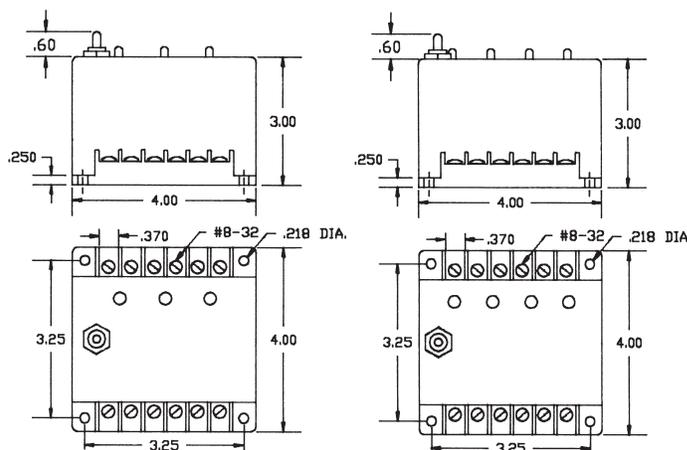


Expandable Alternating Relays

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
ARA-120-AME	Duplexor/Triplexor
ARA-120-ANE	Triplexor/Quadraplexor

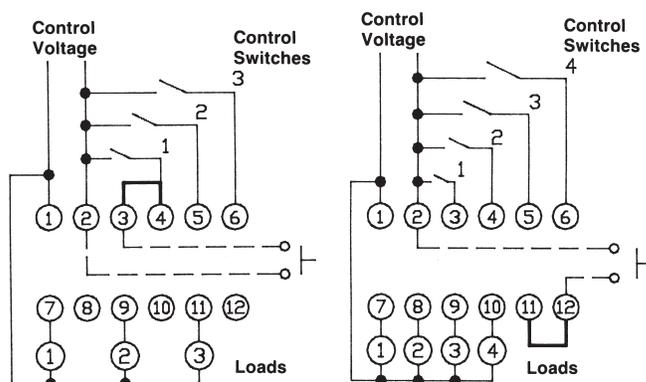
DIMENSIONS (INCHES)

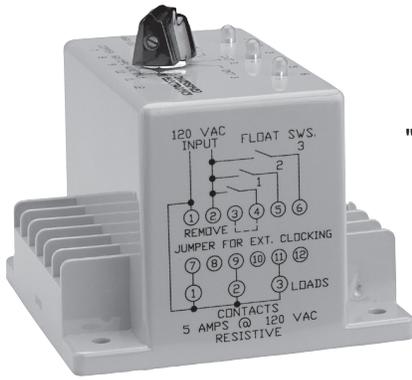


SPECIFICATIONS

CONTROL VOLTAGE	120 VAC \pm 10%, 50/60 Hz
CONTROL SWITCH CURRENT	2 mA
POWER REQUIRED	3 VA (Approximately)
DUTY CYCLE	Continuous
OUTPUT RATING	Triplexor (3) 5 Amp Resistive, 1/6 hp, 211 VA @ 120 VAC, Inductive Externally Switched to terminal #2 Quadraplexor (4) 5 Amp Resistive, 1/6 hp, 211 VA @ 120 VAC, Inductive Externally Switched to terminal #2
LIFE EXPECTANCY	Mechanical 10,000,000 Operations (Minimum) Electrical 100,000 Operations @ Rated Load
INDICATORS	LED's Show Condition of Outputs
TEMPERATURES RATING	Operate -4° to 131°F (-20° to +55°C) Storage -40° to 185°F (-40° to +85°C)
ENCLOSURE	Style "E" Lexan® Surface Mounted
TERMINATIONS	(12) #8-32 Screw Terminals
WEIGHT	12.5 to 14 oz.

WIRING





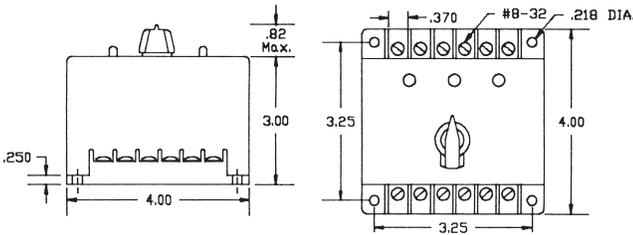
INCLUDES
"LOAD OMIT"
SWITCH

Special Function Alternating Relay

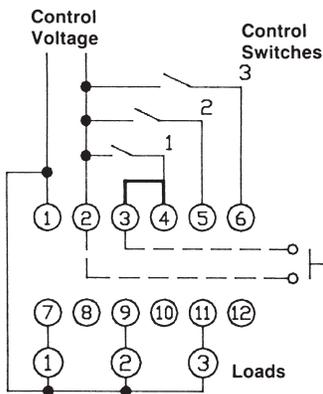
ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
ARA-120-AHE	Special Function Alternating Relay

DIMENSIONS (INCHES)



WIRING



OPERATION

The **ARA-120-AHE** is a special function **TRIPLEXOR** designed for three load installations. This model has a field selection switch that is used to omit one of the three loads for general or emergency maintenance while duplexing the remaining two loads. The ARA-120-AHE has the option of alternating on each load cycle or by external clocking. This alternating relay also allows for additional loads to run in the event of excess load requirements.

The alternating action is initiated by the control switch between terminals 2 and 4 when the factory installed jumper is in place between terminals 3 and 4.

The alternating action may be initiated externally by removing the factory installed jumper between terminals 3 and 4 and placing an isolated normally open switch between terminals 2 and 3. An alternating action will occur each time this isolated switch is closed and then re-opened.

The selection switch has the following positions:

- Normal** — Normal operation as Triplexor
- Omit 1** — Omit load #1 Duplex loads 2 and 3
- Omit 2** — Omit load #2 Duplex loads 1 and 3
- Omit 3** — Omit load #3 Duplex loads 1 and 2

In the event of a power failure, the Alternating Relay will return to its quiescent state and continue sequencing loads on one-at-a-time.

NOTE: When the "omit load" option is selected, full potential will appear on the output terminal of the omitted load when the lag switch between terminals 2 and 5 closes. It is recommended that the H-O-A switch be placed in the "off" position for the omitted load.

SPECIFICATIONS

CONTROL VOLTAGE	120 VAC \pm 10%, 50/60 Hz
CONTROL SWITCH CURRENT	2 mA
POWER REQUIRED	3 VA (Approximately)
DUTY CYCLE	Continuous
OUTPUT RATING	Triplexor (3) 5 Amp Resistive, 1/6 hp, 211 VA @ 120 VAC, Inductive Externally Switched to terminal #2
LIFE EXPECTANCY	Mechanical 10,000,000 Operations (Minimum) Electrical 100,000 Operations @ Rated Load
INDICATORS	LED's Show Condition of Outputs
TEMPERATURES RATING	Operate -4° to 131°F (-20° to +55°C) Storage -40° to 185°F (-40° to +85°C)
ENCLOSURE	Style "E" Lexan® Surface Mounted
TERMINATIONS	(12) #8-32 Screw Terminals
WEIGHT	16 oz.

OPERATION

The **ARA-120-AJE** is a special function **TRIPLEXOR** designed for three load installations. This model has a field selection switch that is used to lock the Alternating Relay into a desired sequence. The ARA-120-AJE has the option of automatically alternating on each load cycle or by external clocking. This Alternating Relay also allows for additional loads to run in the event of excess load requirements.

The alternating action is initiated by the control switch between terminals 2 and 4 when the factory installed jumper is in place between terminals 3 and 4. The alternating action may be initiated externally by removing the factory installed jumper between terminals 3 and 4 and placing an isolated normally open switch between terminals 2 and 3. The alternating action will occur each time this isolated switch is closed and then re-opened.

A four position **ROTARY SWITCH** has been incorporated to permit field selection of the sequence that is to be maintained. The selection switch has the following positions:

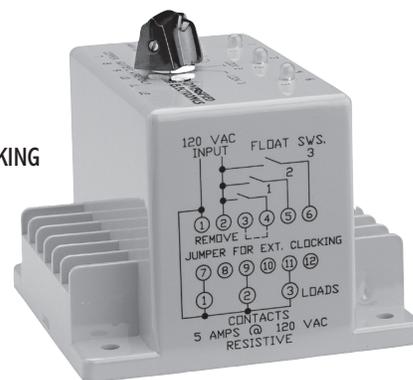
- Normal** — Normal operation as a Triplexor
- Lock 1** — Locks in sequence 1-2-3; No alternation will occur while in this position.
- Lock 2** — Locks in sequence 2-3-1; No alternation will occur while in this position.
- Lock 3** — Locks in sequence 3-1-2; No alternation will occur while in this position.

In the event of a power failure, the alternating relay will return to its quiescent state and continue sequencing loads on one-at-a-time.

SPECIFICATIONS

CONTROL VOLTAGE	120 VAC ±10%, 50/60 Hz	
CONTROL SWITCH CURRENT	2 mA	
POWER REQUIRED	3 VA (Approximately)	
DUTY CYCLE	Continuous	
OUTPUT RATING	Triplexor	(3) 5 Amp Resistive, 1/6 hp, 211 VA @ 120 VAC, Inductive Externally Switched to terminal #2
LIFE EXPECTANCY	Mechanical	10,000,000 Operations (Minimum)
	Electrical	100,000 Operations @ Rated Load
INDICATORS	LED's Show Condition of Outputs	
TEMPERATURES RATING	Operate	-4° to 131°F (-20° to +55°C)
	Storage	-40° to 185°F (-40° to +85°C)
ENCLOSURE	Style "E" Lexan® Surface Mounted	
TERMINATIONS	(12) #8-32 Screw Terminals	
WEIGHT	17 oz.	

INCLUDES
SEQUENCE LOCKING
SWITCH

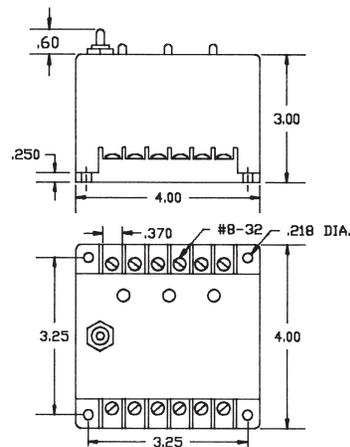


Triplexor Alternating Relay

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
ARA-120-AJE	Alternating Relay

DIMENSIONS (INCHES)



WIRING

