AX-FRM3-TX variants

3 Fan Speed Relay Modules with 230Vac/24Vac Transformer





Product overview

The AX-FRM3-TX modules are a range of Fan Speed Relay Modules which provide high capacity, interlocked fan speed switching relays with an integrated 24Vac transformer. The relays can switch up to 12 Amps at 250Vac. Various types include switched live or volt free output contacts, 24V or 230V relay operating coils, additional valve relay, and DIN rail mount or steel enclosure options.

The units can be used to change the speeds on fan motors with multi-tapped windings and also transformer speed controlled motors. The 'break before make' design of the relay contact configuration and common switching point ensure that only one set of contacts is active at any one time, thus preventing short circuits.

Features

- Switch up to 250Vac at 12A with interlocked relays
- Interlocked relays allow only one output on at a time
- Enclosure option available
- 230Vac to 24Vac transformer 25 or 30VA option

Order codes

	24V~ output	Relay coils	Enclosure	Fan relay contacts	
AX-FRM3-TX25	25VA	24V~	DIN rail mount	Switched live	
AX-FRM3-TX25E	25VA	24V~	Enclosed	Switched live	
AX-FRM3-TX30	30VA	24V~	DIN rail mount	Switched live	
AX-FRM3-TX30E	30VA	$24V\!\!\sim\!$	Enclosed	Switched live	
A.V. ED. 12 - 1 / EV.25	25114	2417	DDI 1	G ' 1 11'	
AX-FRM3+1-TX25	25VA	24V~	DIN rail mount	Switched live	1 independent relay
AX-FRM3+1-TX25E	25VA	24V∼	Enclosed	Switched live	1 independent relay
AX-FRM3+1-TX30	30VA	$24V\sim$	DIN rail mount	Switched live	1 independent relay
AX-FRM3+1-TX30E	30VA	$24V\!\!\sim\!$	Enclosed	Switched live	1 independent relay
AX-FRM3-TX25-VF	25VA	24V~	DIN rail mount	Volt free	
AX-FRM3-TX25E-VF	25VA	$24V\sim$	Enclosed	Volt free	
AX-FRM3-TX30-VF	30VA	$24V\!\!\sim\!$	DIN rail mount	Volt free	
AX-FRM3-TX30E-VF	30VA	$24V\!\!\sim\!$	Enclosed	Volt free	
AX-FRM3-230-TX25-VF	25VA	230V~	DIN rail mount	Volt free	
AX-FRM3-230-TX25E-VF	25VA	230V~	Enclosed	Volt free	
AX-FRM3-230-TX30-VF	30VA	230V~	DIN rail mount	Volt free	
AX-FRM3-230-TX30E-VF	30VA	230V~	Enclosed	Volt free	

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Product specifications

*See below for model specific variations

AX-FRM3-TX25/30

Inputs: Power $230V \sim 50/60Hz \pm 15\%$

Digital for relays * 3 off volt-free contacts with common 0V (switching 24V~ coils)

Outputs: Supply -TX25 24V~ at 25VA max total on two pairs of terminals

Supply -TX30 24V~ at 30VA max total on two pairs of terminals

Fan Speed * Common and three switched Live, interlocked relay outputs

Load Regulation: 25% typical

Contact Rating: Fan 12A @ 250Vac resistive (max. 5A inductive)

relays

Fusing: 230Vac Input * 20mm slow blow, 6A (includes fan supply)

24Vac Output 20mm slow blow, 1.6A

Terminals: Rising clamp for 0.5-2.5mm² cable

Ambient Temperature: -10 to +50°C 0-95% RH (non condensing)

Enclosure: IP55 flame retardant ABS for DIN rail mounting

-E only Zintec

-TX30 125mm x 83mm x 62mm / 680 grams. -TX30E 164mm x 119mm x 77mm / 1455 grams.

Country of Origin: United Kingdom

AX-FRM3+1-TX25/30

Inputs: Additional relay 1 isolated pair 24V~ coil

Outputs: Additional relay NO volt free contact 12A @ 250Vac resistive (max. 5A inductive)

-TX30E 164mm x 119mm x 77mm / 1465 grams.

AX-FRM3-TX25/30-VF

Outputs: Fan Speed Common and three volt-free, interlocked relay outputs

Fusing: 230Vac Input 20mm slow blow, 1A

AX-FRM3-230-TX25/30 -VF

Inputs: Digital for relays 3 off volt-free contacts with common Neutral (switching 230V~ coils)

Outputs: Fan Speed Common and three volt-free, interlocked relay outputs

Fusing: 230Vac Input 20mm slow blow, 1A

Installation

This range of modules should be installed by a suitably qualified technician in conjunction with any guidelines for the equipment it is to be connected to and any local regulations. Field wiring should be installed to satisfy the requirements set out by the manufacturer of the equipment that the module is being connected to.

DIN Rail Version

The module should be housed within a control panel. The module can be clipped to standard "top hat" profile DIN rail by locating the top lip of the carrier on the rail and snapping it into place.

Enclosure Version

The module is housed within a ventilated enclosure which can be mounted alongside a fan coil unit. The earth stud must be connected to a suitable earth supply, with a cable sized to the local regulations in force.

Connections

Please refer to the individual connection drawings for each module type.

If more than one fan speed is selected simultaneously, the highest fan speed will have precedence.

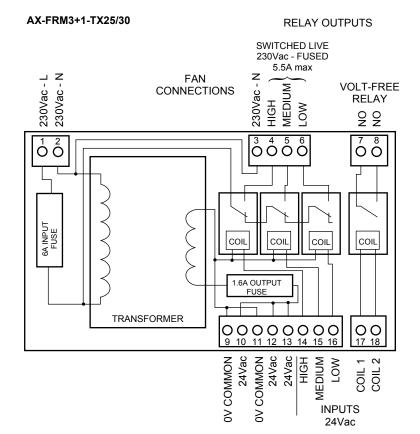
AX-FRM3-TX25/30 **RELAY OUTPUTS** SWITCHED LIVE 230Vac FUSED 5.5A max 230Vac - L FAN 230Vac -MEDIUM CONNECTIONS HGH LOW $\frac{1}{0}$ 6A INPUT FUSE COIL COIL 1.6A OUTPUT TRANSFORMER 000000 24Vac 24Vac HGH **OV COMMON** COMMON EDIUM

Datasheet contents

Every effort has been taken in the production of this data sheet to ensure accuracy. Axio do not accept responsibility for any damage, expense, injury, loss or consequential loss resulting from any errors or omissions. Axio has a policy of continuous improvement and reserves the right to change this specification without notice.

The Fan relay outputs have a common connection terminal to the Neutral supply. The switched output terminals are all switched from the fused Live supply.

The Fan relay coil connections all share the '0V Common'



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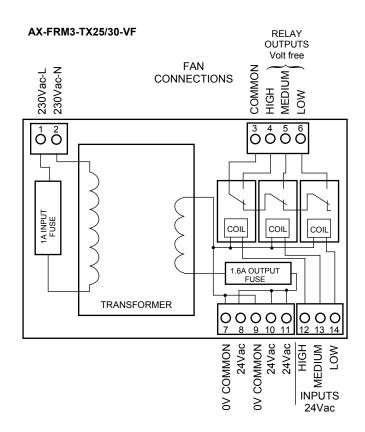
The Fan relay coil connections all share the '0V Common' connection of the transformer.

The additional relay output is volt free. The coil shares no common connections.

INPUTS

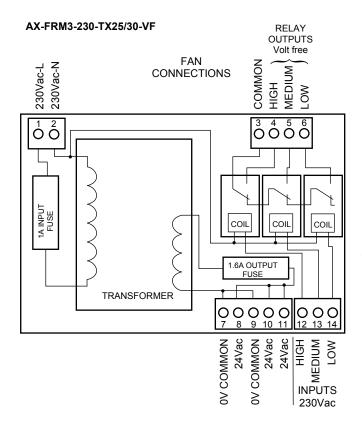
24Vac

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The Fan relay outputs have a common connection terminal.

The Fan relay coil connections all share the '0V Common' connection of the transformer.



The Fan relay outputs have a common connection terminal.

The 230V~ relay coils on this version share a common connection with the Neutral supply input.