

**PFAS / PFAT  
DFAS / DFAT  
SFAS / SFAT**

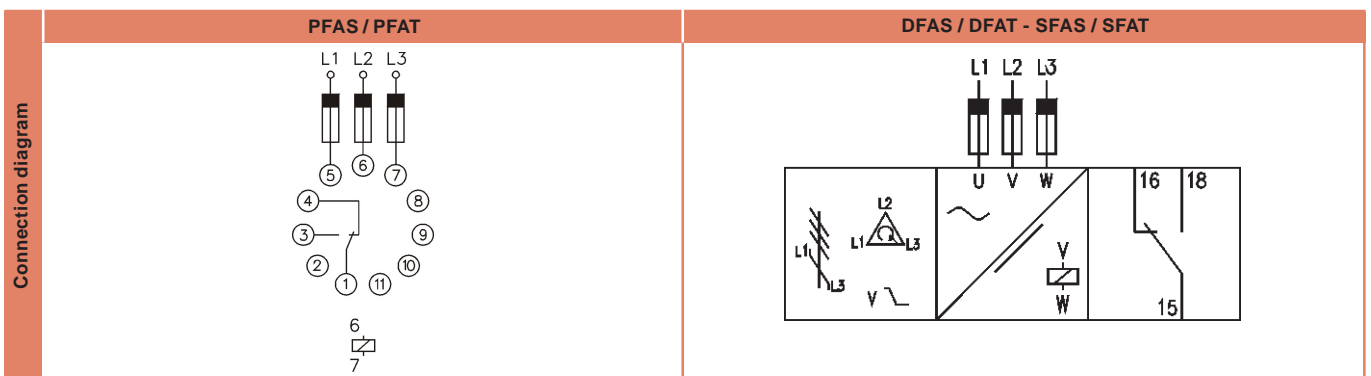
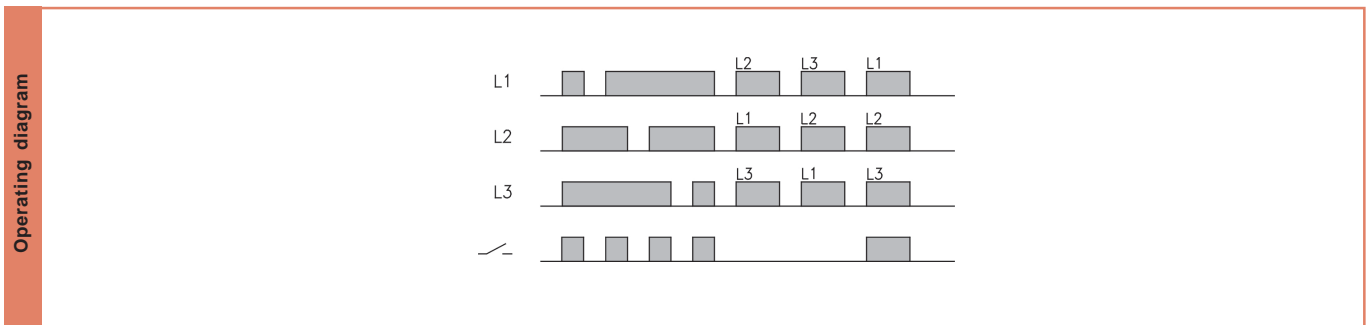


**PHASE RELAY**

Difference	Control of phase sequence, voltage fault, unbalance and rotation angle. Three-phase lines without neutral.
Connection	The three-phase line is connected to terminals 5, 6 and 7 (PFAS/T) or L1, L2 and L3 (DFAS/T - SFAS/T) in the order indicated in the connection diagram.
Operating principle	While there is no anomaly the relay remains operated, and it releases for any of the following causes: <ul style="list-style-type: none"> <li>. If the phase voltage is not correct.</li> <li>. If one or more phases are not present.</li> <li>. If the voltage drop in one or all the phases exceeds 20% of nominal voltage.</li> <li>. If rotation angle between phases is unbalanced in <math>\pm 15\%</math>.</li> </ul>
Leds indication	Power on: Green Relay on: Red
Delay on detection	2 Seg. approx., fix.
Delay on release	No.

	HOUSING	FUNCTION	OUTPUT	VOLTAGE	RANGES
Reference	P Plg-inn	FA Phase relay	S SPDT T DPDT	110 3 x 110 VAC	50 50 Hz 60 60 Hz
	D DIN rail			220 3 x 220 VAC	
	S Flush mounting			400 3 x 400 VAC	
				440 3 x 440 VAC	
			500 3 x 500 VAC		

To compose the reference, select one option of each column. Example: **PFAS 110 50**



		PFAS	PFAT	DFAS	DFAT	SFAS	SFAT	
Output relays								
	Resistive load	AC	10 A / 250 V	8 A / 250 V	10 A / 250 V	8 A / 250 V	10 A / 250 V	8 A / 250 V
		DC	0,4 A / 200 V 10 A / 24 V	0,25 A / 200 V 8 A / 24 V	0,4 A / 200 V 10 A / 24 V	0,25 A / 200 V 8 A / 24 V	0,4 A / 200 V 10 A / 24 V	0,25 A / 200 V 8 A / 24 V
	Inductive load	AC	5 A / 250 V	2,5 A / 250 V	5 A / 250 V	2,5 A / 250 V	5 A / 250 V	2,5 A / 250 V
		DC	5 A / 24 V	4 A / 24 V	5 A / 24 V	4 A / 24 V	5 A / 24 V	4 A / 24 V
	Mechanical life		> 30 x 10 <sup>6</sup> operations		> 30 x 10 <sup>6</sup> operations		> 30 x 10 <sup>6</sup> operations	
	Max. switching rate, mech.		72.000 operations / hour		72.000 operations / hour		72.000 operations / hour	
	Electrical life at full load		360 operations / hour		360 operations / hour		360 operations / hour	
	Contact material		AgNi 90/10		AgNi 90/10		AgNi 90/10	
	Maximum voltage		440 VAC		440 VAC		440 VAC	
	Operating voltage		250 VAC		250 VAC		250 VAC	
	Volt. between changeovers		2500 VAC		2500 VAC		2500 VAC	
	Voltage between contacts		1000 VAC		1000 VAC		1000 VAC	
	Voltage coil/contact		5000 VAC		5000 VAC		5000 VAC	
Distance coil/contact		10 mm		10 mm		10 mm		
Isolation resistance		> 10 <sup>4</sup> MΩ		> 10 <sup>4</sup> MΩ		> 10 <sup>4</sup> MΩ		

Supply	AC	
	PFAS/PFAT	DFAS/T - SFAS/T
	Galvanic isolation	
	Yes	
	Frequency	
50 / 60 Hz		
Operating margins		
±10% -15%		
Positive		
-		
Protected polarity		
-		

Constructive and environmental data	PFAS / PFAT	DFAS / DFAT	SFAS / SFAT	
	Voltage phase-neutral	300 V	300 V	300 V
	Overvoltage category	III	III	III
	Rated impulse voltage	4 kV	4 kV	4 kV
	Pollution degree	2	3	2
	Protection	IP 20 B	IP 20	IP 20
	Approximate weight	250 g	280 g	270 g
	Storage temperature	-50°C +85°C	-50°C +85°C	-50°C +85°C
	Operating temperature	-20°C +50°C	-20°C +50°C	-20°C +50°C
	Humidity	30~85% HR	30~85% HR	30~85% HR
	Housing	Cycloxy - Light grey	Cycloxy - Light grey	Cycloxy - Light grey
	Socket	Lexan - Light grey	-	-
	Visor leds	Lexan - Transparent	Lexan - Transparent	Lexan - Transparent
	Button, terminal block, clip	Technyl - Dark blue	Technyl - Dark blue	Technyl - Dark blue
Pins of the socket	Nickel brass	-	-	
Pins of the terminal block	-	Brass	Brass	
Approvals	Designed and manufactured under EEC standards. Electromagnetic compatibility, directives 89/366/EEC and 92/31/EEC. Electric safety, directive 73/23/EEC. Plastics: UL 91 V0			

Dimensions	PFAS / PFAT	DFAS / DFAT	SFAS / SFAT

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