

**7PA26/27/30****Auxiliary Relays for Various Applications/Trip Circuit Supervision**

Fig. 14/5 7PA2 auxiliary relays

**Description**

Due to their quality, reliability and design, these relays are optimal for applications requiring high reliability and availability such as power stations, substations, railway and industrial plants. Typical examples include petrochemical industry, chemical industry, cement industry, rolling mills etc.

The relays comply with the IEC, EN, IEEE standards (type and routine test) and bear the CE mark.

The robust switch contacts are characterized by high make/break capacity, overload capability and continuous current intensity capacity; thus perfect insulation is obtained. Direct control of high-voltage and medium-voltage switchgear is possible.

**Technical data for 7PA26 and 7PA27**

Switching contacts  
 Continuous current 10 A  
 Overload capability 80 A/200 ms  
 150 A/10 ms  
 Switching current/voltage 40 A/0.5 s/110 V DC

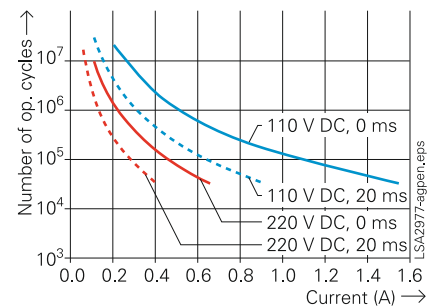
**Breaking capacity for 10<sup>5</sup> operating cycles**

V DC	Non-inductive		Inductive, 20 ms	
	1 contact	2 contacts in series	1 contact	2 contacts in series
24	6.6	12.7	3.2	6.0
60	2.6	4.9	1.4	2.7
125	1.2	2.2	0.6	1.1
220	0.6	1.1	0.3	0.6

For details see characteristics

$V_{max}$ , open contact 250 V DC/400 V AC  
 Mechanical service life 10<sup>7</sup> operating cycles  
 Operating temperature -10 °C to +55 °C  
 14 °F to 131 °F

Max. permissible humidity 93 % at 40 °C/104 °F

**Technical data for 7PA30**

Contacts  
 Permanent current 8 A  
 Instantaneous current 15 A  
 Making capacity 15 A/4 s/110 V DC  
 Breaking capacity 0.3 A/110 V DC  
 $U_{max}$  opened contact 250 V DC/400 V AC  
 Mechanical life 10<sup>7</sup> operations  
 Operating temperature -10 °C +55 °C  
 Storage temperature -30 °C +70 °C  
 Operating humidity 93 %/40 °C

**Standards**

Electrical test performed acc. to IEC 60255-5  
 Dielectric test 2 kV / 50 Hz / 1 min  
 Surge withstand test 5 kV / 1.2 / 50 μs  
 Insulation >100 MΩ / 500 V DC

Inflammability tests UL94: VO  
 Plastic materials

Degree of protection Relay: IP40  
 acc. to IEC 60529

Climatic stress test acc. to IEC 60068-2  
 Dry cold, operation -10 °C  
 Dry heat, operation +55 °C  
 Storage and transport -25 °C +70 °C

## 7PA30 Single-phase Trip circuit supervision

### Description

The relay is for supervision of the trip circuit of a circuit breaker with one trip coil. The trip circuit wiring is supervised from the positive supply to the negative supply whilst the circuit breaker is open or closed.

### Functions

The design, quality and rugged construction of the relay make it suitable for applications requiring high levels of reliability/dependability. The high degree of protection guarantees reliable operation over a wide temperature range, even under extreme environmental conditions.

The relay has been tested in accordance with IEC, EN and IEEE standards. The relay is CE marked. The supervision current is always less than 1.4 mA thus avoiding unwanted operation of the trip coil. Correct operation is shown via a green LED.

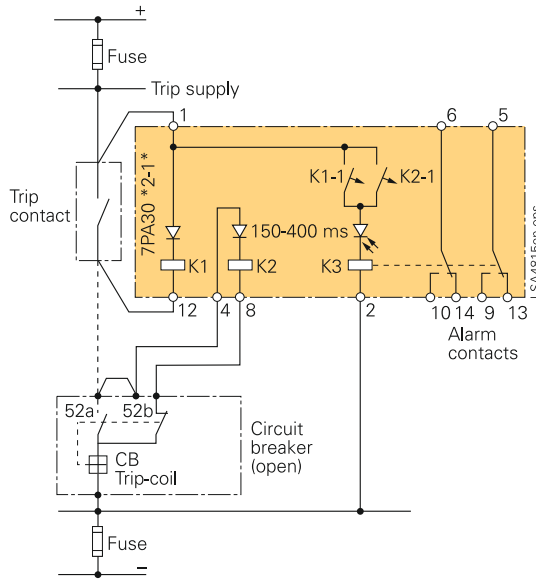


Fig. 14/9 Connection diagram for 1-phase relay

### Standard voltages and consumption

$V_N$	Voltage range	Consumption	Impedance per phase	Pickup Drop out Voltage
V DC	V DC	mA	kΩ/s	V DC
14/30	18 - 33	32	20	between 12 and 18
60	42 - 66	18	44	36 and 42
110/125	77 - 138	18	94	66 and 77
220	154 - 275	13	200	132 and 154

Drop-out time: between 150 ms and 400 ms

### Selection and ordering data

Description	Order No.
<b>7PA30 trip circuit supervision (single-phase)</b>	<b>7PA30□2-1AA00-□</b>
<i>Auxiliary voltage</i>	
24/30 V DC	1
60 V DC	2
<b>110/125 V DC</b>	<b>3</b>
220 V DC	4
<i>Socket</i>	
without socket	0
with flush-mounting socket 7XP9011-0	1
<b>with surface-mounting socket 7XP9013-0</b>	<b>2</b>

### Accessories

Description	Order No.
<i>Socket as spare part</i>	
Flush mounting	7XP9011-0
Surface mounting	7XP9013-0