

# PHASE FAILURE RELAYS WITH UNDER VOLTAGE CONTROL & TRUE DELAY OFF ON TRIPPING TIME DELAY, WITH OPTIONAL PHASE SEQUENCE CONTROL

TYPES: YWRKPTUxx (spco) & YWR2KPTUxx (dpcO)

## FEATURES

- Din rail mounted
- Available SPCO or DPCO output
- Available 3 wire or 4 wire
- Adjustable under voltage control
- Optional phase sequence
- Adjustable true delay off time delay
- Self powered
- LED indication

## DESCRIPTION & MODE OF OPERATION

Phase failure relays with adjustable under voltage control, with the option of additional sequence control. Available in a din rail housing with a SPCO or DPCO output option. Both units can be specified as 3 wire or 4 wire and are self powered (no separate auxiliary supply is required). A range of nominal L-L input voltages can be specified from 110V L-L to 440V L-L, an under voltage setpoint can be set adjustable 5-25% of the specified nominal. The units will also trip on phase sequence (if specified), phase loss and on 4 wire units deviation of the Neutral. All tripping eventualities are subject to a delay, the delay being True Delay Off, adjustable 0.1-10secs as standard. If you lose everything you will still benefit from the delay timer, unlike many other types of phase failure relays. This makes these units ideal for mains to generator changeover systems where short supply interruptions are best ignored, thus eliminating false engine starts.

On the initial connection of the monitored supply the green LED will illuminate. On the supply being within the set levels, in the correct sequence (if applicable) and the Neutral connected on 4 wire units, the output relay will energise and the red LED will illuminate. On a phase loss, sequence error (if applicable), or under voltage situation after the set time delay the output relay will de-energise and the red LED will extinguish. However, note on a low voltage scenario the red LED will extinguish before the relay output have timed out and de-energised. If in a timing situation the fault condition corrects itself, any remaining delay time will be cancelled and the output relay will remain energised.

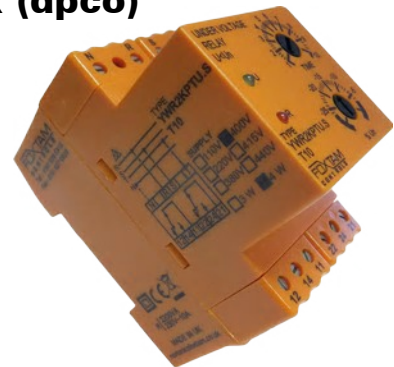
## ORDERING INFORMATION

TYPE	SEQUENCE	TIME DELAY	VOLTAGE	SYSTEM
YWRKPTU (Din rail SPCO)	*S	**T 0.1-10sec	3 x 110V	3W (3 wire)
YWR2KPTU (Din rail DPCO)		**T 0.2-20sec	3 x 220V	4W (4 wire)
		**T 0.3-30sec	3 x 380V	
			3 x 400V	
			3 x 415V	

\* Insert S if sequence is required

\*\* Insert Txxx for the required time delay

By nature a true delay off timer uses different relay technology, by the means of a magnetically latching mechanism. However, if subjected to undue physical shock, for example "in transit" the contacts maybe on initial connection be in the incorrect state. If this is the case this can be easily rectified by the connection and removal of the auxiliary supply voltage. Thus allowing the contacts to time out and return to the correct state.



## SPECIFICATIONS

### Supply & Measuring

Nominal supply:	3 x 110V AC, 3 x 220V AC 3 x 380V AC, 3 x 400V AC 3 x 415V AC
Permanent tolerance:	+15%
System:	3 or 4 wire option
Frequency:	50/60Hz
Umin adjustable:	5-25% of nominal (phase to phase)
Hysteresis:	Fixed 2%
Delay on tripping:	True delay off adjustable 0.1-10sec (standard) 1-100sec, 0.1-10min (on request)
Min on time:	300mSec required to fully charge true delay off timing capacitor
Max power consumption:	<2VA
Insulation:	2.5KV 50Hz impulse

### Relay outputs:

Output contacts:	SPCO 10Amps/250V AC1 DPCO 8Amps/250V AC1
Max breaking capacity:	SPCO 4000VA DPCO 2000VA
Mechanical life:	30 Million ops
Electrical life:	200K ops at max rated load

### General:

Operating temperature:	-20°C to +65°C
Storage temperature:	-20°C to +65°C
Max cable size:	4mm
CE marked:	Yes
In accordance with:	EN61000-6-1: 2007 EN61000-6-3: 2007 EN61010-1: 2002
Housing material:	Polycarbonate, Auto extinguishable to UL 94 V-0

## CONNECTIONS

