

### RL SERIES HASE CONTROL RELAY

UL listed CSA recognized

**Monitors** 

**Phase Sequence** Loss of Any Phase even if Induced Voltage reaches 95% of Nominal Voltage

- **Under Voltage Detection**
- **Trip Delay Timer Built-in**
- **LED Relay Status Indicator**



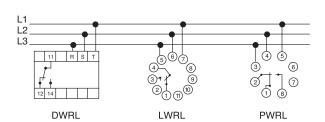
#### **MODE OF OPERATION:**

The WRL Phase Control Relay monitors the sequence loss or reversal of three phase power supplies. The output relay is energized when the phase sequence is correct and the phase voltage is above the voltage threshold set by the front knob. The output relay will de-energize after 2 seconds (built-in timer) when the phase voltage drops under the voltage threshold or when phase sequence is lost. The WRL Series is available in three voltage ranges: 230 VAC, 380 VAC and 480 VAC.

#### SPECIFICATIONS:

| Input Power                | 3 x 230 (50/60 Hz)             |
|----------------------------|--------------------------------|
|                            | 3 x 380 (50/60 Hz)             |
|                            | 3 x 480 (50/60 Hz)             |
| Maximum voltage            | 3 x 280 VAC                    |
|                            | 3 x 420 VAC                    |
|                            | 3 x 530 VAC                    |
| Minimum voltage            | 3 x 160 VAC                    |
| · ·                        | 3 x 260 VAC                    |
|                            | 3 x 340 VAC                    |
| Threshold adjustment range | 160 to 230 VAC                 |
|                            | 260 to 380 VAC                 |
|                            | 340 to 480 VAC                 |
| Max power consumption      | 2 VA                           |
| Dial accuracy              | ±10%                           |
| Temperature De-rating      | ±0.04%/°C                      |
| Dead Band                  | 4% of 480 VAC                  |
| Response Time              | 300 ms on Make                 |
| nesponse rime              | 2 sec on Break                 |
| Outmut                     | 2 Sec on break                 |
| Output                     | 40 4 050 1/40                  |
| SPDT Version (WRL) Series) | 10 Amp 250 VAC                 |
| Max. power consumption     | 2000 VA                        |
| Max. voltage               | 250 VAC                        |
| Electrical life            | 2 x 10 <sup>7</sup> operations |
| Mechanical life            | 1 x 10 <sup>6</sup> operations |
| Operating temperature      | -10°C to +60°C                 |
| Weight                     | 3.5 oz. (100g)                 |
|                            |                                |
|                            |                                |

#### **WIRING DIAGRAM:**



#### **ORDERING INFORMATION:**



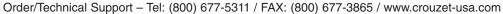




380A = 3 x 380 VAC

**480A** = 3 x 480 VAC

Products and specifications subject to change without notice.







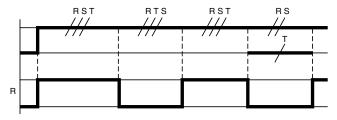
### RA SERIES

UL listed CSA recognized (220 VAC Version Only)

- **Monitors** 
  - **Phase Sequence** Loss of Any Phase even if Induced Voltage reaches 95% of Nominal Voltage
- **LED Relay Status Indicator**
- SPDT 10 Amp Relay Output



#### **MODE OF OPERATION:**



The WRL Phase Control Relay monitors the sequence loss or reversal of three phase power supplies. The output relay is energized when the phase sequence is correct and is de-energize when the phase sequence is wrong or one phase is lost. It monitors the symmetry of 3 voltages and a loss of phase even when the voltage is reinjected through a machine. The rate of asymmetry is controlled between 5% and 15% by a top mounted potentiometer.

#### **SPECIFICATIONS:**

Input Power Directly ..... 3 x 220 60 Hz from controlled voltage ±15% 3 x 380 60 Hz 3 x 440 60 Hz Power consumption ..... 3 VA at 220 V Output ..... SPDT relay Contact material ..... AgCdO

Maximum Loading ..... 10 AC resistive 8A DC inductive Maximum switching voltage ... 250 VAC 250 VDC 80 W Relay max. power rating ..... 220 VA

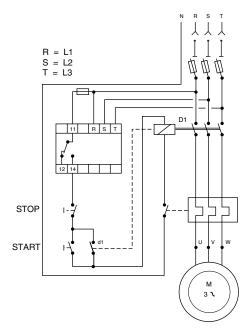
Mechanical life of relay ..... 30 x 10° operations

Electrical life of relay ...... 2 x 10<sup>5</sup> operations at 2200VA resistive load Operating temperature ..... +14°F to +140°F -10°C to +60°C

. . . . . . . . . . . . . . . . . 7 oz. (200g)

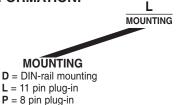
Note: The alarm threshold adjustment is 5% to 15% of asymmetry between the phases. The initial response time is .1 seconds at 5% asymmetry and 1 second at 15% after input power is applied. When a phase loss or failure occurs, the "off delay" response time is 100 ms.

#### **WIRING DIAGRAM:**

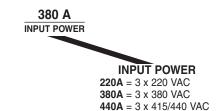


| DWRA | 11 | 12 | 14 | R | S | Т |
|------|----|----|----|---|---|---|
| LWRA | 1  | 4  | 3  | 5 | 6 | 7 |
| PWRA | 1  | 2  | 8  | 3 | 4 | 5 |

#### **ORDERING INFORMATION:**



**WRA** SERIES SERIES **WRA** 



Products and specifications subject to change without notice.

Order/Technical Support - Tel: (800) 677-5311 / FAX: (800) 677-3865 / www.crouzet-usa.com





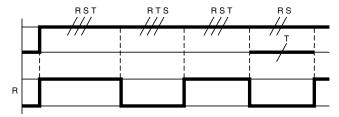
# WRA 2 SERIES PHASE CONTROL RELAY

UL listed CSA recognized (220 VAC Version Only)

- Monitors
  - Phase Sequence
    Loss of Any Phase even if Induced Voltage
    reaches 95% of Nominal Voltage
- LED Relay Status Indicator
- DPDT 5 Amp Relay Output



#### **MODE OF OPERATION:**



The WRA 2 Phase Control Relay monitors the sequence loss or reversal of three phase power supplies. The output relay is energized when the phase sequence is correct and is de-energize when the phase sequence is wrong or one phase is lost. It monitors the symmetry of 3 voltages and a loss of phase even when the voltage is reinjected through a machine. The rate of asymmetry is controlled between 5% and 15% by a top mounted potentiometer.

#### **SPECIFICATIONS:**

Power consumption 3 VA at 220 V
Output DPDT relay
Contact material AgCdO
Maximum Loading 5 A AC resistive

Maximum Loading5 Å AC resistive1 Å DC inductiveMaximum switching voltage250 VAC250 VDCRelay max. power rating1250 VA30 W

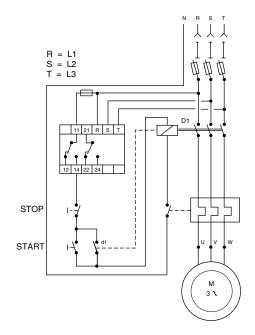
Mechanical life of relay ..... 30 x 10° operations

Electrical life of relay . . . . . .  $2 \times 10^{\circ}$  operations at 2200 VA resistive load Operating temperature . . . .  $+14^{\circ}F$  to  $+140^{\circ}F$   $-10^{\circ}C$  to  $+60^{\circ}C$ 

Weight ..... 7 oz. (200g)

**Note**: The alarm threshold adjustment is 5% to 15% of asymmetry between the phases. The initial response time is .1 seconds at 5% asymmetry and 1 second at 15% after input power is applied. When a phase loss or failure occurs, the "off delay" response time is 100 ms.

#### **WIRING DIAGRAM:**

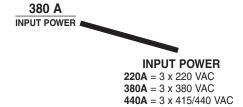


| DWRA 2 | 11 | 12 | 14 | R | S | Т | 21 | 22 | 24 |
|--------|----|----|----|---|---|---|----|----|----|
| LWRA 2 | 1  | 4  | 3  | 5 | 6 | 7 | 11 | 8  | 9  |

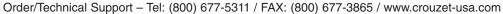
#### **ORDERING INFORMATION:**







Products and specifications subject to change without notice.



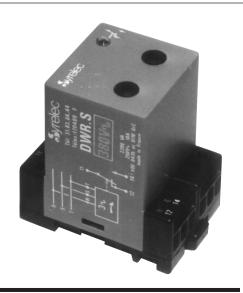




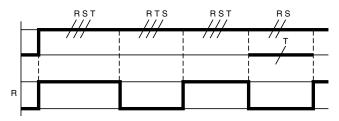
## WRS SERIES PHASE CONTROL RELAY

UL listed CSA recognized

- Monitors
   Phase Sequence
   Loss of Any Phase
- LED Indicator
- 10 Amp SPDT Output
- Low Cost



#### **MODE OF OPERATION:**



The WRS Phase Control Relay monitors the sequence loss or reversal of three phase power supplies. The output relay is energized when the phase sequence is correct and is de-energize when the phase sequence is wrong or one phase is lost.

#### **SPECIFICATIONS:**

 Input Power Directly
 3 x 220 60 Hz

 from controlled voltage ±15%
 3 x 380 60 Hz

 3 x 440 60 Hz

 Power consumption
 3 VA at 220 V

 Output
 SPDT relay

 Contact material
 AgCdO

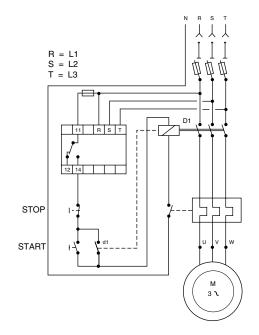
Maximum Loading...10 AC resistive1 A SC inductiveMaximum switching voltage...250 VAC250 VDCRelay max. power rating...2200 VA30 W

**Mechanical life of relay** . . . . . 30 x 10<sup>6</sup> operations

Electrical life of relay . . . . . . 2 x 10<sup>s</sup> operations at 2200 VA resistive load Operating temperature . . . . +14°F to +140°F -10°C to +60°C

Weight ..... 7 oz. (200g)

#### **WIRING DIAGRAM:**



| DWRS | 11 | 12 | 14 | R | S | Т |
|------|----|----|----|---|---|---|
| LWRS | 1  | 4  | 3  | 5 | 6 | 7 |
| PWRS | 1  | 2  | 8  | 3 | 4 | 5 |

#### **ORDERING INFORMATION:**







Products and specifications subject to change without notice.



### **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Industrial Relays category:

Click to view products by Crouzet manufacturer:

Other Similar products are found below:

6-1618400-7 686-117111 686-120111 EV250-4A-02 EV250-6A-01 FCA-125-CX8 FCA-410-138 8-1618393-1 GCA63A220VAC60HZ
GCA63A277VAC60HZ GCA63A600VAC60HZ ACC530U20 ACC730U30 1395832-1 RMIA210230AC RMIA45024AC 1423675-8
B07B032AC1-0329 B329 1617807-1 N417 P25-E5019-1 P30C42A12D1-120 2-1618398-1 PBO-18A1218 2307497 RPYA00324LT
RPYA003A120LT KR-4539-1 RT334012WG S160156115 2944795 ACC1230U20 ACC530U10 ACC730-8025B FCA-410-167 2071229-5
2-1616126-3 2-1618002-9 2297109 GCA32A24VDC GCA800A100VACDC GCA95A208VAC60HZ GCA95A24VAC50HZ
GCA95A48VDC GPBR CF30D20012 2946366 2980759 HFW12111S02