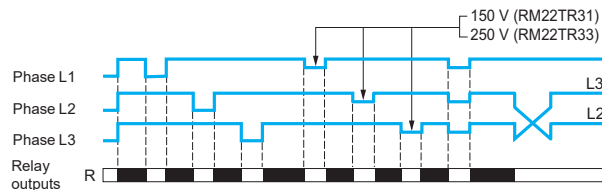


Operating principle (continued)

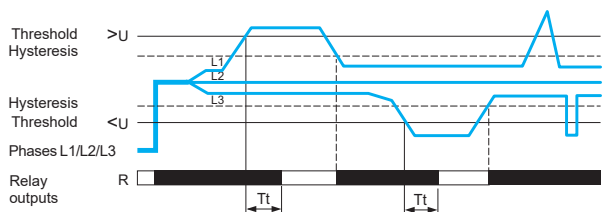
RM22TR

Phase + Undervoltage/overvoltage

- ☐ Sequence of phases L1, L2, and L3
- ☐ Phase loss



- ☐ Overvoltage and undervoltage (Off-delay)



The relay monitors its own supply voltage U_n :

- ☐ phase loss (U measured <150 V (RM22TR31) and <250 V (RM22TR33))
- ☐ undervoltage and overvoltage

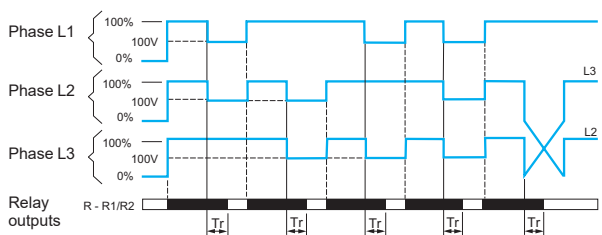
- An adjustable time delay on threshold crossing provides immunity to transients, and helps prevent spurious triggering of the output relay.
- If a voltage fault is detected, the relay opens at the end of the time delay set as On-delay or Off-delay by the user.
- On energization of the device with a detected measured fault, the relay stays open.
- In the event of phase loss, the relay opens instantly.

Note: T_t : time delay after crossing of the threshold (adjustable on the front panel)

RM22TG

Phase control

- ☐ Sequence of phases L1, L2, and L3
- ☐ Phase loss



The RM22TG relay monitors:

- ☐ correct sequencing of the three phases
- ☐ total loss of two or more of the three phases

- When the phase sequence and voltages are correct (> 183 V $\sim$), the output relays are closed and the R LED is on.
- When there is a sequencing fault or total loss of two or more phases (detected as soon as one of the voltages drops below 100 V) the relay opens instantly and the R LED goes off.
- On energization of the device with a detected measured fault, the relay stays open.

Note: T_r : response time on appearance of a fault.

Harmony Control Relays

Multifunction 3-phase control relays

RM22TA, RM22TU, RM22TR, and RM22TG

PF143402



RM22TA31

PF143405



RM22TR31

PF143400



RM22TG20

PF143403



RM22TU21

References

Function	Measurement range	Time delay	Output	Reference	Weight
V					kg/lb
■ Phase sequence ■ Phase loss ■ Asymmetry	200...240 ~	Off delay (0.1...30 s)	2 CO 8 A	RM22TA31	0.090/ 0.198
	380...480 ~	Off delay (0.1...30 s)	2 CO 8 A	RM22TA33	0.090/ 0.198
■ Phase sequence ■ Phase loss ■ Undervoltage and overvoltage	200...240 ~	On/Off delay (0.1...30 s)	2 CO 8 A	RM22TR31	0.090/ 0.198
	380...480 ~	On/Off delay (0.1...30 s)	2 CO 8 A	RM22TR33	0.090/ 0.198
■ Phase sequence ■ Phase loss ■ Undervoltage	200...240 ~	No	2 CO 8 A	RM22TU21	0.090/ 0.198
	380...480 ~	No	2 CO 8 A	RM22TU23	0.090/ 0.198
■ Phase sequence ■ Phase loss	208...480 ~	No	2 CO 8 A	RM22TG20	0.090/ 0.198