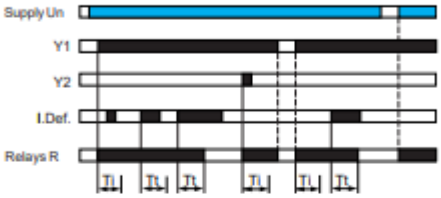
Operating principle (continued)

RM35BA10 (continued)

Single control mode

□ Single control mode (3-ph/1-ph)



This mode is designed to control a pump via an external signal. The relay output is closed when the signal is present at Y1 (contact closed). Y2 can be used to reset the relay after a current fault.

***Note**: Ti: time delay to inhibit fault monitoring on pump starting (overcurrent and undercurrent, setting on front panel)*
Tt: time delay on occurrence of a fault (overcurrent or undercurrent, setting on front panel)
I. Def.: presence of a current fault (overcurrent or undercurrent)

Double control mode

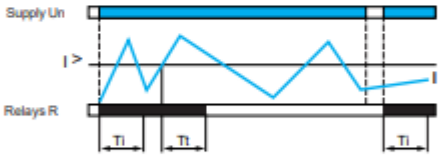
□ Double control mode (3-ph/1-ph)

This mode is designed to control a pump via two external control signals (Y1 and Y2). The output relay closes when both input signals are present (Y1 and Y2 closed). It will open as soon as one of these signals disappears.

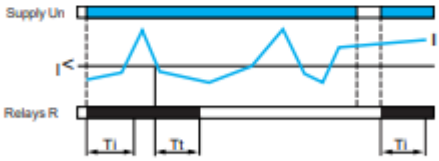
***Note**: Ti: time delay to inhibit fault monitoring on pump starting (overcurrent and undercurrent, setting on front panel)*
Tt: time delay on occurrence of a fault (overcurrent or undercurrent, setting on front panel)
I. Def.: presence of a current fault (overcurrent or undercurrent)

1-phase or 3-phase supply control mode

□ Overcurrent detection > I



□ Undercurrent detection < I



- If the control relay is configured for a 1-phase supply, it monitors the current consumed by the pump.
- If the control relay is configured for a 3-phase supply, it monitors the current, phase sequence and phase loss.
- If a phase fault is detected, the output relay opens immediately.
- On energization, if there is a phase sequence or phase loss fault, the output is unable to energize.

The overcurrent and undercurrent values are set by two separate potentiometers, graduated from 1 to 10 A.

- If a setting error occurs (low threshold greater than high threshold), the output relay opens and all the LEDs flash to signal the error.
- If a current fault occurs (overcurrent or undercurrent), the relay opens when the fault persists for longer than the threshold time delay setting.
- When the current returns to the correct value, the output relay continues to remain open. It can only be re-energized by a RESET: either by switching off the power, or by closing external contact Y2 (in single control mode).
- An inhibition time delay on energization (Ti) allows detection of current peaks on motor starting.

***Note**: Ti: time delay to inhibit fault monitoring on pump starting (overcurrent and undercurrent, setting on front panel)*
Tt: time delay on occurrence of a fault (overcurrent or undercurrent, setting on front panel)

References

RM35BA10

Function	Current range controlled	Supply voltage	Output	Reference	Weight
	A	V			kg/lb
3-phase: ■ Phase sequence ■ Phase loss ■ Overcurrent and undercurrent control **1-phase:** ■ Overcurrent and undercurrent control	1…10	■ 208…480 ∿, 3-phase ■ 230 ∿, 1-phase	1 CO 5 A	RM35BA10	0.110/ 0.243