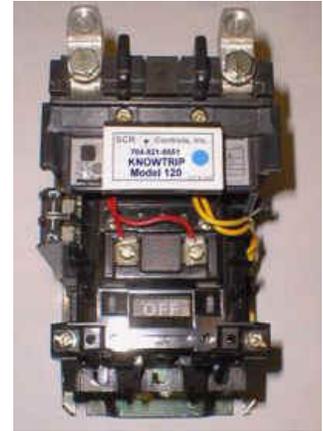


KnowTrip®

Contactor dropout, because of power line brownouts, will be eliminated when a KnowTrip® is added to the contactor. The KnowTrip® is a patented device manufactured by SCR Controls, Inc., Matthews, NC, under license from Duke Energy.

A contactor with the KnowTrip® attached will not drop out until the line voltage has dropped below 30VAC (All Model 120's). After the contactor has dropped out, it will not pull in again until the line voltage exceeds 70VAC (All Model 120's). The hysteresis prevents chatter and contactor coil burnout.



SPECIFICATIONS:

120 VAC Model

MODEL	COIL OHMS	DROP OUT	PULL IN	DIMENSIONS
Model 120HP	.5 - 7.9 ohms	30vac	70vac	4.6" x 6.2" x 2.3"
Model 120	8.0 - 35 ohms	30vac	70vac	1.75" x 1.15" x .75"
Model 120-8.5	36 - 200 ohms	30vac	70vac	1.75" x 1.15" x .75"
Model 120A	201 - 800 ohms	30vac	70vac	1.75" x 1.15" x .75"
Model 120B	801 ohms & up	30vac	70vac	1.75" x 1.15" x .75"

All Model 120's are fully automatic and are rated up to 50 °C ambient temperature.

240 VAC Model

MODEL	COIL OHMS	DROP OUT	PULL IN	DIMENSIONS
Model 240A	5 - 35 ohms	70vac	180vac	4.6" x 6.2" x 2.3"
Model 240B	36 - 150 ohms	70vac	180vac	4.6" x 6.2" x 2.3"
Model 240	151 ohms & up	70vac	180vac	4.6" x 6.2" x 2.3"

Model 240A and Model 240B are fully automatic. Model 240 is adjusted by setting a pot according to coil ohms. All units are rated up to 50 °C ambient temperature.

480 VAC Model

MODEL	COIL OHMS	DROP OUT	PULL IN	DIMENSIONS
Model 480 & RC4	40 - 150 ohms	125vac	360vac	2.0" x 3.0" x 1.4" (Model 480)
				2.0" x 3.0" x 1.4" (RC4)
Model 480	151 ohms & up	125vac	360vac	2.0" x 3.0" x 1.4"

All Model 480's are adjustable and are rated up to 50 °C ambient temperature.

KNOWTRIP® INSTALLATION:

- I1. Turn off power and measure the contactor coil resistance.
- I2. Models 120/A/B/HP and 240/A/B skip to step I6.
- I3. MODEL 480 ONLY:
 - If your coil resistance is 150 Ω or less you must install the RC4 line suppressor (go to step I4).
 - If your coil resistance is more than 150 Ω you do not need the RC4 (go to step I6)
- I4. Remove incoming power wires A and B (see Figure 1) from the contactor coil and attach them to the black wires from RC4 (see Figure 3).
- I5. Connect the yellow wires of the RC4 to the yellow wires of the Model 480. Skip to step I7.
- I6. Remove incoming power wires A and B (see Figure 1) from the contactor coil and attach them to the yellow wires of the KnowTrip® (see Figure 2).
- I7. Connect the red wires from KnowTrip® to the contactor coil.
- I8. Mount in desired location near contactor.
- I9. MODEL 480 AND 240 ONLY: Use a small screwdriver and adjust the potentiometer to match the contactor coils resistance (see Figure 4). If you do not know the coil resistance leave the potentiometer fully counter clockwise (CCW). The KnowTrip® may not work if it is not adjusted properly. To better set the potentiometer, monitor the contactor to see if it drops out. If it does, increase (CW) the setting 1/8 of a turn at a time until the contactor no longer drops out (DO NOT exceed 3/8 turn past recommend setting).

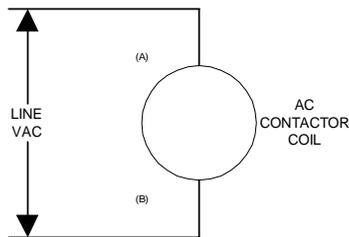


Figure 1: Contactor without KnowTrip®

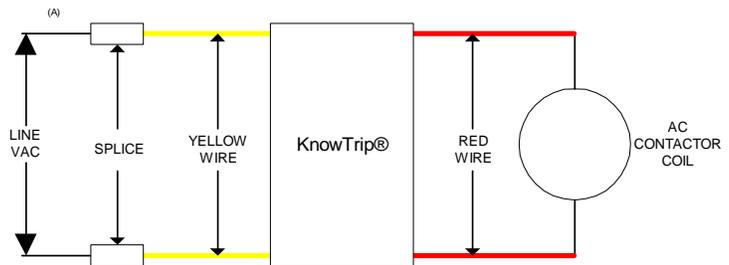


Figure 2: Contactor with KnowTrip®

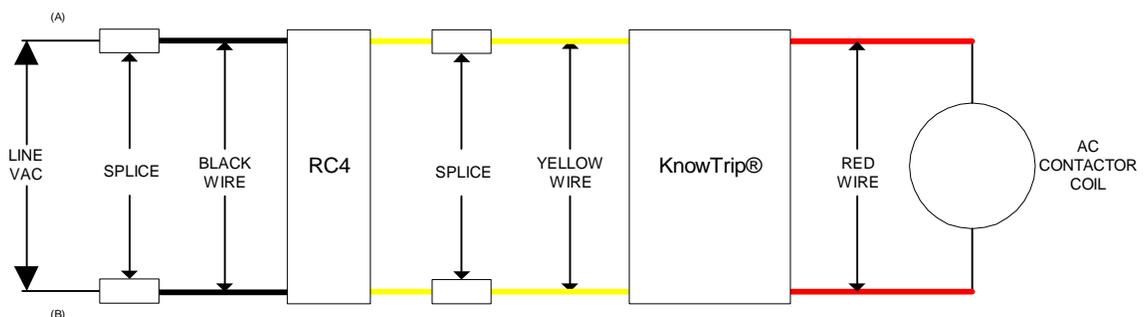


Figure 3: Contactor with RC4 and KnowTrip®

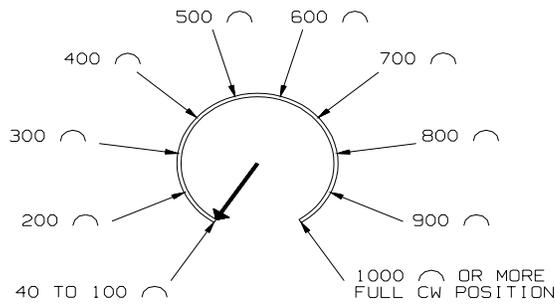


Figure 4: COIL RESISTANCE SETTING

NOTE:

A contactor may have 25% more inrush current when used with a KnowTrip[®]. This extra current could cause a problem if the contactor is used with a PLC.

WARRANTY:

The KnowTrip[®] has a one-year warranty on device parts. SCR Controls, Inc. is not responsible for lost production or damage caused by device failure.