



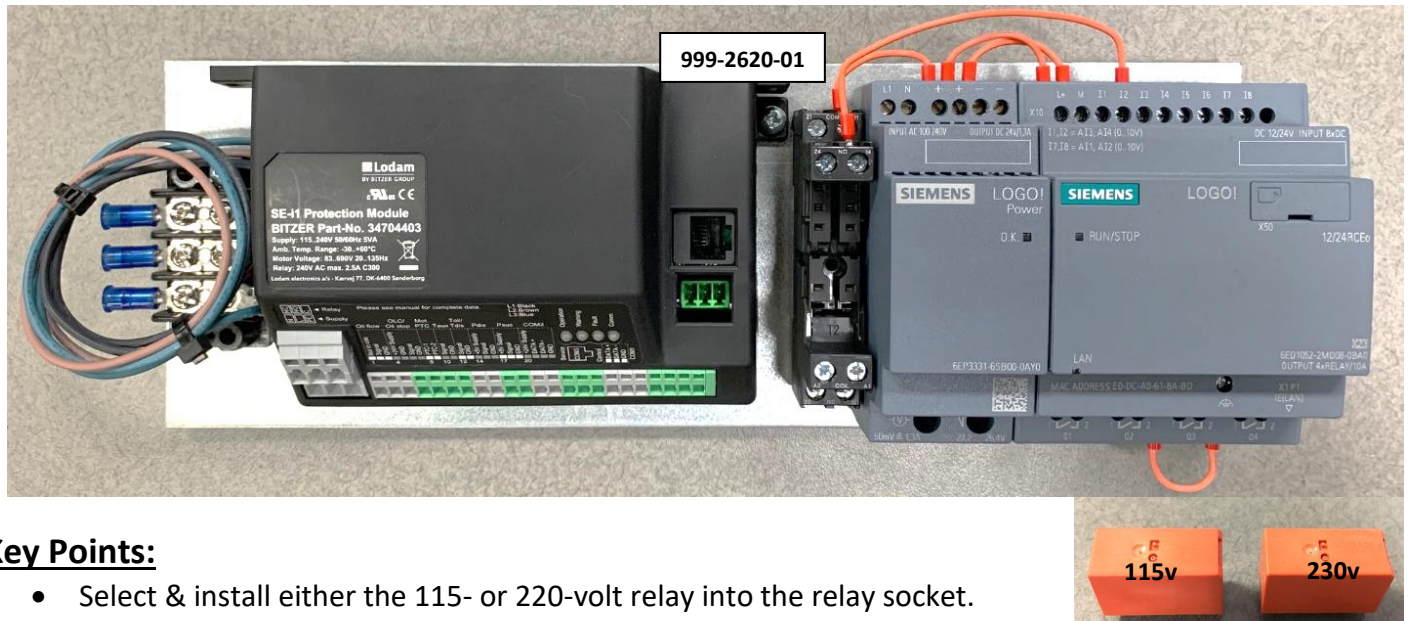
Technical Bulletin (TB-0071-08)

SEi1-S Electronic Module Kit Installation

July 2024

SE-i1-S Installation Instructions for ESC201 Conversions

This document serves as a guideline for replacing the ESC201 with the SE-i1-S kit and includes key points required to complete this upgrade. The ESC201 controller (ESC) has been discontinued as of January 1st, 2020. For more information on the SE-i1, refer to documents CT-110 Technical Information and CG-110 Reference Guide. Revision 8 updates part numbers to reflex the current offering.



Key Points:

- Select & install either the 115- or 220-volt relay into the relay socket.
- Use caution when installing the SD Micro card into the memory card tray on the Siemens LOGO! Relay module. Please review instructions prior to installation (see pg. 2).
- Review SEi1 wiring schematic and wire connections direct to SEi1 as shown (see pg.3).
- The PTC- Discharge Gas Temperature Sensor (DGTS) must be wired in series with the motor PTC's (T1, T2) and landed on SEi1 *terminals 8 & 9* (see pg. 3).
- A *new* PTC-DGTS ships with the SEi1-S kit *if replacement is required*.
- The Jumper must be installed on SEi1 module, *terminals 6 & 7* (see pg.3).
- Review the SEi1-S, Siemens Module / Relay schematic and Timing Diagram, (see pg.4).
- A **Neutral must be** provided for proper SEi1-S module operation. (see pg.4).
- Locate the ESC's Run Proof wire, it can be used for switched AC Input to Relay terminal A1 (see pg.4).
- Some existing ESC wires will not be used on the SE-i1-S module and should be removed or capped. **DON'T chase old legacy wiring, review, and understand schematics and run new wire where applicable.**
- The existing ESC 24-volt power supply transformer will not be used on the SE-i1 module.
- Do not remove the existing snap track from the panel. The SE-i1 and components are pre-mounted on a back plate which will fit into the existing snap track.
- In BITZER BEST software, the parameter "Compressor Model" must remain as "SE-C1 Replacement."

Inserting the Micro SD Card

1. Using a small flat blade screwdriver, insert the tip into the groove on the front of the SD card drawer and gently pry it out, then pull the drawer out to its fully extended position. (Figure 1)
2. Insert the SD Micro card into the tray holder of the Siemens SD card drawer. (Figure 2)
 - a. The SD Micro card **must** be inserted with the **contact traces facing up** and the **factory label facing down!** (Figure 3)

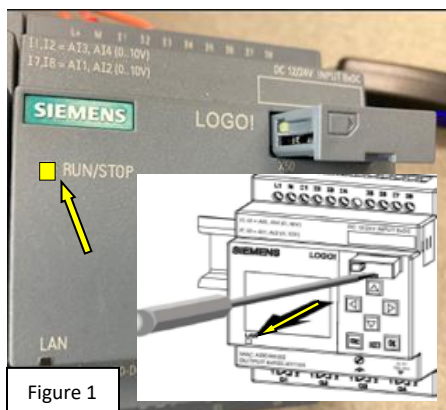
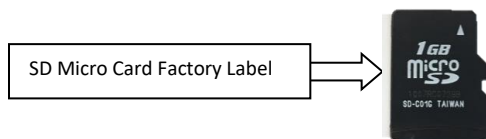


Figure 1



SD Micro Card Factory Label



Figure 2

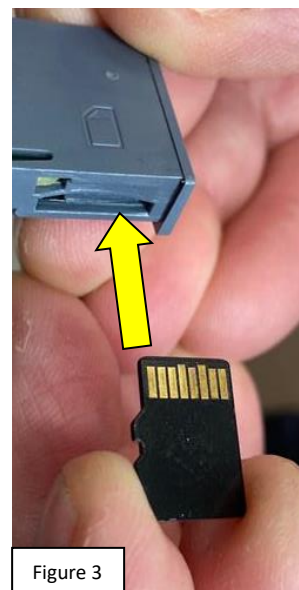


Figure 3

3. Insert the card into the tray socket correctly until you hear a **click** or feel the SD card **lock** into position!
 - a. Your finger will not push the card in far enough to engage the lock.
 - b. Use a flat blade screwdriver to push and recess the card into the locked position! (Figure 4)
4. The SD card tray drawer must be guided and slid into the module straight and smoothly. (Figure 5)

Do not push hard, if necessary pull out on the drawer, re-adjust the direction, and gently ease it in again. **Correct alignment is critical during insertion to avoid damage to drawer tray pins.**
5. Apply 24Vdc to Siemen's module and verify the "Run/Stop" led light on front lights **GREEN!** (Figure 1)

GREEN = Program Running **RED** = Program Not Running

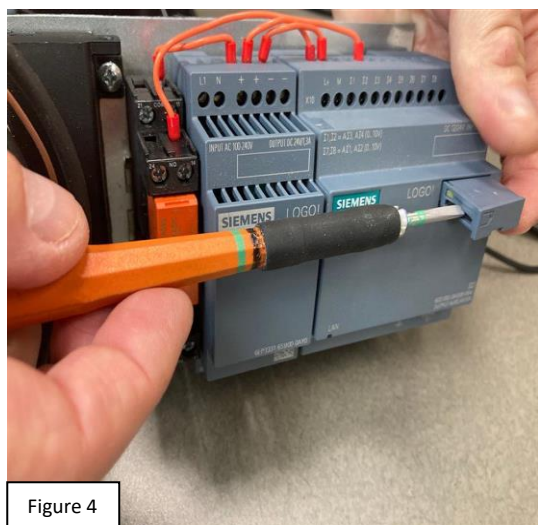


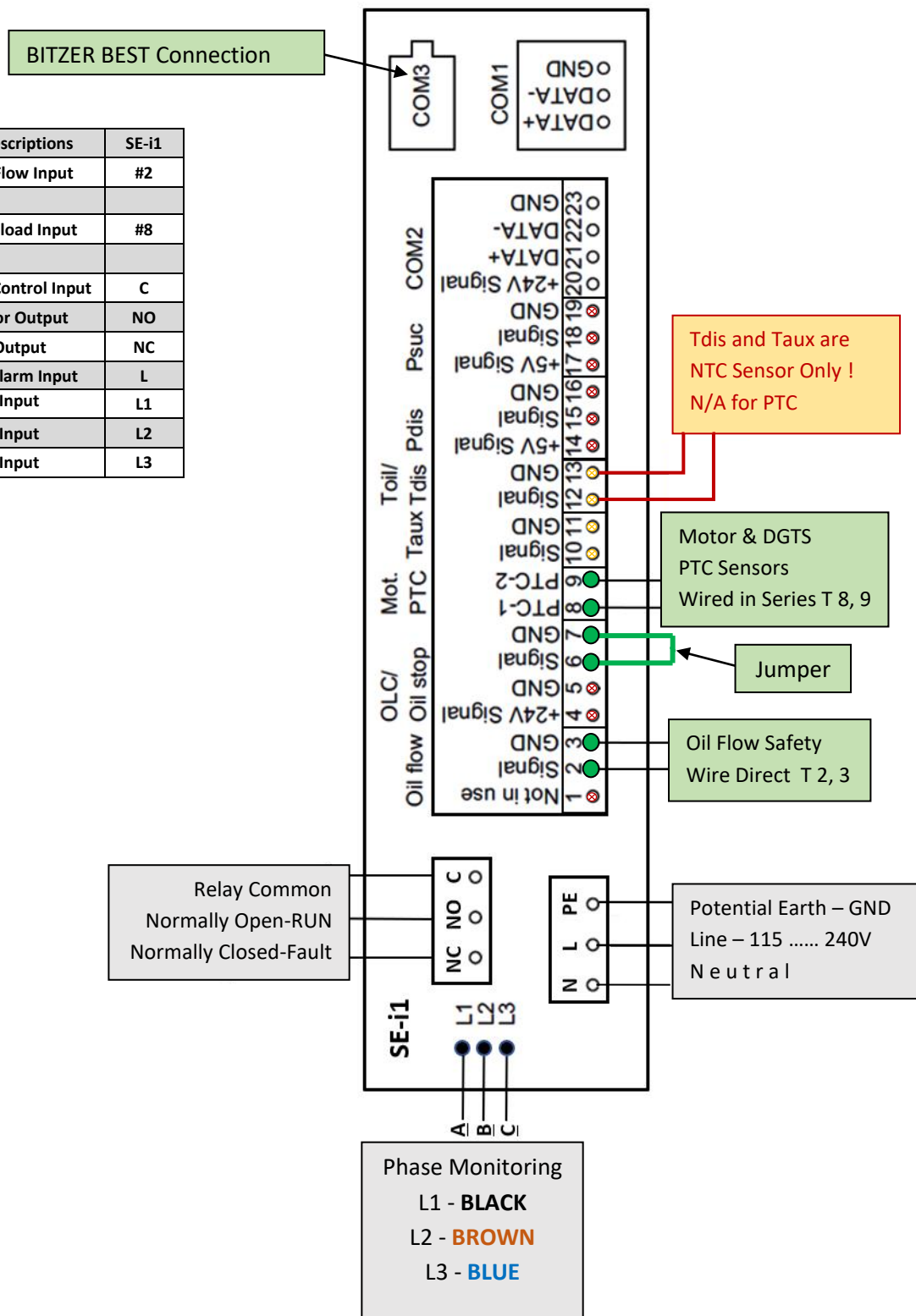
Figure 4



Figure 5

SEi1 module comes preprogrammed in the SEC1 configuration which accommodates proper configuration for the SEi1-S operation. Configuration changes are not necessary, but if the RED fault led is on the BITZER BEST tool should be connected to COM3 to determine source of fault.

ESC201	ESC-201 Descriptions	SE-I1
A5	Digital Oil Flow Input	#2
B1	Motor Overload Input	#8
C1	Compressor Control Input	C
C5	Compressor Output	NO
C10	Alarm Output	NC
C12	Control & Alarm Input	L
A	Phase Input	L1
B	Phase Input	L2
C	Phase Input	L3

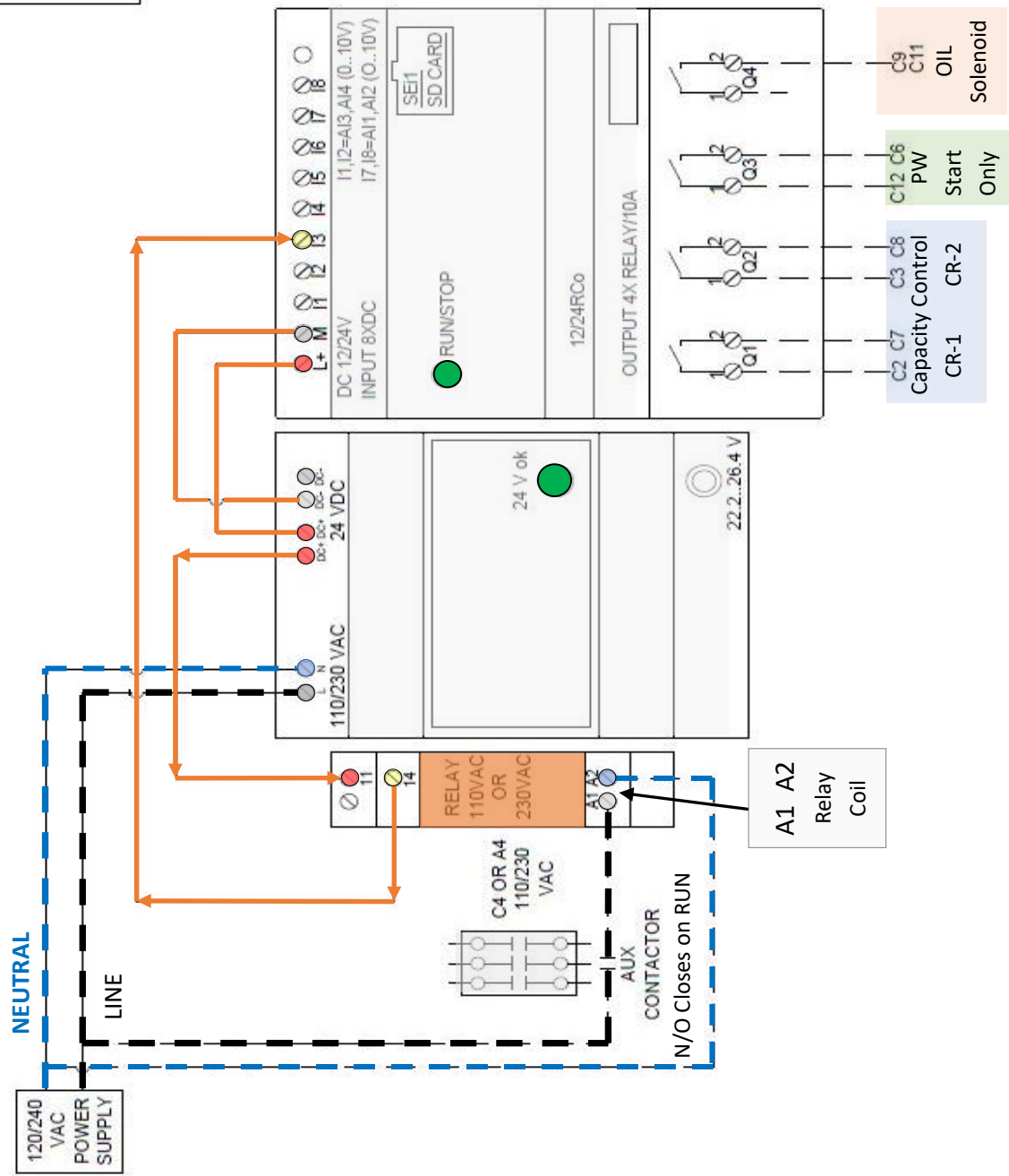


Name	Logo Input ID	Logo Output ID	Time Delay	Note
Run Proof	I3 * Apply 24Vdc Starts timing sequence. * Remove 24Vdc Resets timing program	Close Q1	7 sec	CR1
		Close Q2	7 sec	CR2
		Close Q3	0.5 sec	PW Contactor
		Close Q4	2 sec	Oil & Eco Solenoid
		Open Q1-Q4	1 sec	After loss of signal to I3

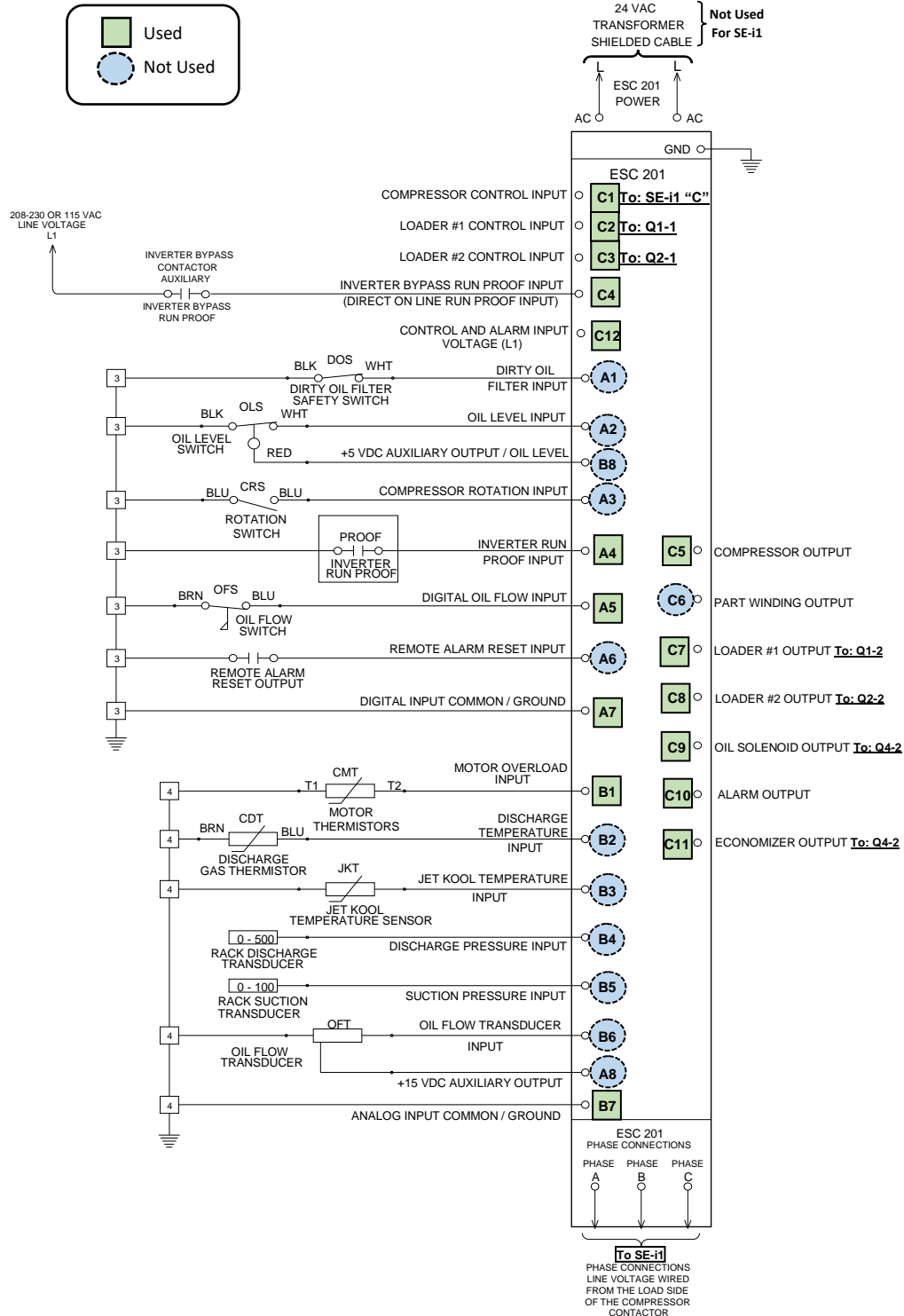
LEGEND



ESC201	Description	Logo
C2	Loader #1 Input	Q1-1
C3	Loader #2 Input	Q2-1
C6	Part Winding Output	Q3-2
C7	Loader #1 Output	Q1-2
C8	Loader #2 Output	Q2-2
C9	Compressor Control Input	Q4-2
C11	Economizer Output	Q4-2
C12	Control and Alarm Input	Q3-1



Existing ESC201 Wiring:

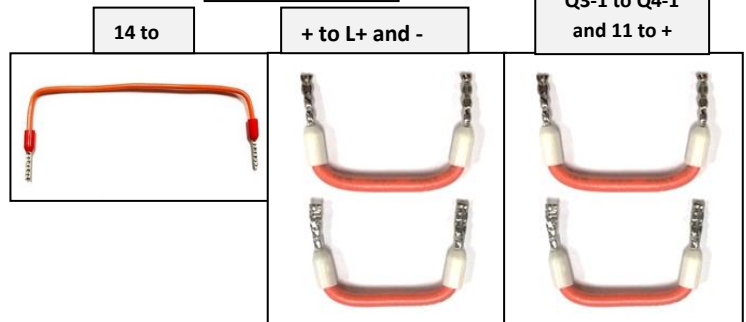


Components for Reference Included in KIT 999-2620-01:

347032-01 (DGTS - PTC)



200-0101-01



1003891



C1003320

115 Volt

C1003890

230 Volt



347044-03



BEST Tool: 344314-02 (picture below)
NOT INCLUDED - Purchased Separately.

Best Software: Download Free at URL
<https://www.bitzer.de/us/us/tools-archive/software/software/>

Required for Fault Alarms or Config. Changes

837-0006-01



835-2003-01



837-2017-SE

