

750 FREQUENTLY ASKED QUESTIONS

1 Can I apply AC to the Trip / Close Coil Supervision circuits?

Yes provided the voltage does NOT exceed 208VAC line to line. Also, please make sure that the ground potential between the voltage source and the 750 does NOT exceed 20 volts.

2 Can I use both back RS485 ports to communicate with the 750?

Yes, they can be used simultaneously and support both the AEG Modicon Modbus protocol as well as the Harris Distributed Network Protocol (DNP).

3 Can one send open/close commands to the output relays through the communications link?

Yes and No! The 750 can operate the TRIP and the CLOSE relays through the serial communication port. However, the auxiliary relays 3 through 7 cannot directly be operated via serial communications. They can be activated by setting up a virtual logic input, setting it to a user input, assigned the function of control and made to operate any or all of the auxiliary relays. When this virtual input is asserted via the communications link, the corresponding relays will operate after the specified time delay expires (adjustable from 0 to 600 seconds).

4 Can the 51G and the 51N elements be made active at the same, if all the CT connections have been made as per the manual?

YES, the 51G and the 51N elements can be made active at the same time and they are mutually exclusive. 51N is provided by the processor looking at the vector sum of the three phase CT inputs on the standard terminals G7, H7, G8, H8, G9 and H9.

5 Can we daisy chain the communication links between 750s?

Yes you can daisy chain the communications links between 750s and a maximum of 32 devices (wiring not to exceed 4000 feet) can be connected in this manner without exceeding driver capability. However, there is NO serial communications possible between any SR device. SR relays are slave devices and the only communication possible is between an individual relay and a Master device. It is possible via logic inputs and other methods to communicate from one relay to another

6 Can you use a 3 PT delta configured system?

No. The 750 will only support a 2 PT Open - Delta configuration. Inputs will be Vab and Vcb (see manual for wiring diagram) and the relay will calculate Vca

7 No. The 750 does not do a Fast Transfer. The transfer scheme in the 750 does a complete synchrocheck, and is therefore considered to be a "slow transfer". However, it is possible to implement the 750 in a two breaker transfer scheme.

8 If a fault occurs that triggers the assertion of a protection function, does the Protection function stay blocked until it is reset? What will happen when the fault is cleared?

Three conditions will be affected; for the Trip function condition, the Protection Function stays latched until it is reset for a trip. For the Alarm and Control function conditions, the Protection function does not latch but remains until the fault condition goes away. The Latched Alarm function condition behaves the same way as the Trip function condition.

9 If the autoreclosure mechanism is blocked (BLOCK RECLOSURE function asserted), does a CLOSE BREAKER operation make any effect on the relay? Is this operation independent of the Block Reclosure function?

The Close Breaker function is independent of the Block Reclosure function. It WILL close the breaker if the Block Reclose function is asserted or not.

10 Under System Setup, Bus VT Sensing, connection type for VT s has only Delta or Wye choices and none for Open Delta? What do I do if I have an Open Delta system?

DELTA should be selected as the setpoint.

11 What are some of the consequences of using only one phase voltage for Bus or Line?

Directional features use three phases, so they will not be functional.
Power and Energy readings will not be correct as they use three phases for their calculations.
Voltage symmetrical components will be incorrect.

12 What is the accuracy of the event recorder time stamp for the 750?

The 750 Event Recorder time stamp is based on the clock resolution of 1ms. In other words, the time stamp of the event recorder will have millisecond resolution. It should also be noted that events can only occur every power frequency cycle. Even though the event time stamp has 1ms resolution, the relay generates these new events every cycle AT THE SAME TIME. Events that happen in the same cycle may have different time stamps due to the processing time between reporting of the events.

13 What is the difference between a Logic Input name and a User Input name?

User inputs are a subset of Logic Inputs. There are 20 general purpose user input FUNCTIONS (A through T) that generate outputs in response to an asserted logic input. If a user function is selected to Trip or Alarm, the name that will appear on the display and in the Event Recorder will be the User input name NOT the Logic input name. The naming of logic inputs was really implemented for the Virtual inputs function.