|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Protection Operated | Protection Panel Indication | PhaseSegregation | LEDs’ on Relay | SAS HMI Alarm | CBOperation | IN/OUT |
| RED67087L Diff | TRIP INST. | 86F1 OPTD | CBF INIT. | R – Y – B | R-PH TRIP + Y-PH TRIP + B-PH TRIP + DIFF TRIP | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + DIFF OPERATED + I/T FAST SEND  | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK | OK | OK | OK | OK | OK | OK |
| RED670Z1 OPTD | TRIP INST. | 86F1 OPTD | CBF INIT. | R – Y – B | R-PH TRIP + Y-PH TRIP + B-PH TRIP + Z1/AID1/AID2 TRIP | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + 21 ZONE-1 OPTD R-PH + 21 ZONE-1 OPTD Y-PH+ 21 ZONE-1 OPTD B-PH + I/T FAST SEND + 21 ZONE-4 OPTD R-PH + 21 ZONE-4 OPTD Y-PH+ 21 ZONE-4 OPTD B-PH | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK | OK | OK | OK | OK | OK | OK |
| RED670Z2 OPTD | TRIP DELAYED | 86F1 OPTD | CBF INIT. | R – Y – B | R-PH TRIP + Y-PH TRIP + B-PH TRIP + Z2/Z3/E.F/O.C TRIP | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + 21 ZONE-2 OPTD R-PH + 21 ZONE-2 OPTD Y-PH+ 21 ZONE-2 OPTD B-PH + I/T SEND  | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK | OK | OK | OK | OK | OK | OK |
| RED670Z3 OPTD | TRIP DELAYED | 86F1 OPTD | CBF INIT. | R – Y – B | R-PH TRIP + Y-PH TRIP + B-PH TRIP + Z2/Z3/E.F/O.C TRIP | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + 21 ZONE-3 OPTD R-PH + 21 ZONE-3 OPTD Y-PH+ 21 ZONE-3 OPTD B-PH + I/T SEND  | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK | OK | OK | OK | OK | OK | OK |
| RED670Z2 AIDED | TRIP INST. | 86F1 OPTD | CBF INIT. | R – Y – B | R-PH TRIP + Y-PH TRIP + B-PH TRIP + Z1/AID1/AID2 TRIP + I/T RECEIVED + DIST/DEF CR | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + 21 CARRIER RECIVED + I/T FAST RECEIVED + 85R1 OPTD + 21 AIDED DIST TRIP + 21 CARRIER SEND + DIFF OPERATED  | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK | OK | OK | OK | OK | OK | OK |

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| Protection Operated | Protection Panel Indication | PhaseSegregation | LEDs’ on Relay | SAS HMI Alarm | CBOperation | IN/OUT |
| RED670SOTF TRIP | TRIP INST. | 86F1 OPTD | CBF INIT. | R – Y – B | R-PH TRIP + Y-PH TRIP + B-PH TRIP + Z1/AID1/AID2 TRIP + SOTF TRIP  | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + 21 DIST PROT SOTF OPTD + 21 ZONE-4 OPTD R-PH + 21 ZONE-4 OPTD Y-PH + 21 ZONE-4 OPTD B-PH | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK | OK | OK | OK | OK | OK | OK |
| RED670O/C | TRIPDELAYED | 86F1 OPTD | CBF INIT. | R – Y – B | R-PH TRIP + Y-PH TRIP + B-PH TRIP + Z2/Z3/E.F/O.C TRIP | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + DELAYED I/T SEND + 51-1 R-PH OPTD + 51-1 Y-PH OPTD + 51-1 B-PH OPTD | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK | OK | OK | OK | OK | OK | OK |
| RED670E/F | TRIP DELAYED | 86F1 OPTD | CBF INIT. | R – Y – B | Z2/Z3/E.F/O.C TRIP | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + DELAYED I/T SEND + 51N-1 OPTD  | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK | OK | OK | OK | OK | OK | OK |
| RED670DEF | TRIP DELAYED | 86F1 OPTD | CBF INIT. |  | R-PH TRIP + Y-PH TRIP + B-PH TRIP + Z2/Z3/E.F/O.C TRIP | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + DELAYED I/T SEND + 67N-1 OPTD  | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK |  | OK | OK | OK | OK | OK |
| RED670ADIED DEF | TRIP INST. | 86F1 OPTD | CBF INIT. |  | Z1/AID1/AID2 TRIP + I/T RECEIVED + DIST/DEF CR | CBF INITIATION + 86F1 OPERATED + CB CLOSE LOCKOUT + 67N-1 CARRIER RECIVED + I/T FAST RECEIVED + 85R1 OPTD + 67N-1 CARRIER SEND + 87L DIST GEN TRIP | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
| OK | OK | OK |  | OK | OK | OK | OK | OK |

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| Protection Operated | Protection Panel Indication | PhaseSegregation | LEDs’ on Relay | SAS HMI Alarm | CBOperation | IN/OUT |
| RED670DIRECT I/T86CBF(14,16) |  |  |  |  |  | FPFM DTT SEND | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
|  |  |  |  |  | OK | OK | OK | OK |
| RED67086B(10,12) |  |  |  |  |  | 86B LOCKOUT OPERATED | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
|  |  |  |  |  | OK | OK | OK | OK |
| RED670CBF TRIP |  |  |  |  | CBF TRIP | CBF INITIATION + CBF LOCKOUT OPERATED + FPFM DTT DEND | TRIP BY TC1 | CB CLOSE BLOCK | IN/OUT CHECKED |
|  |  |  |  | OK | OK | OK | OK | OK |