PROTECTION FUNCTION	ANSI CODE	OUT PUT	HV MAIN CB				HV TIE CB				IV MAIN CB (NORMAL MODE)				IV TBC CB (TRANSFER MODE)													REMARK
			TO CB TRIP COIL-1	TO CB TRIP COIL-2	CLOSE MAIN CB	LBB PROTN INITIATION	TO CB TRIP COIL-1	TO CB TRIP COIL-2	CLOSE TIE CB	LBB PROTN INITIATION	TO CB TRIP COIL-1	TO CB TRIP COIL-2	CLOSE MAIN CB	LBB PROTN INITIATION	TO CB TRIP COIL-1	TO CB TRIP COIL-2	CLOSE TBC CB	LBB PROTN INITIATION	TO LV CB TRIP COIL-1&2	LV CB CLOSE	HV MAIN CB 3PH MASTER TRIP GROUP-A/B	HV TIE CB 3PH MASTER TRIP GROUP-A/B	IV MAIN CB 3PH MASTER TRIP GROUP-A/B	LV CB 3PH MASTER TRIP	HV BUSBAR PROTECTION (M1/M2)	IV BUSBAR PROTECTION	DR TRIGGER	
DIFF PROTECTION(PDIF, 87T)	87T	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	TP	TP	–	–	IP	
HV OVER FLUXING(PVPH, 24)	24HV	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	TP	TP	–	–	IP	
HV BACKUP IMPEDANCE(PDIS) **	21HV	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	TP	TP	–	–	IP	** BUIMP BLOCK LOGIC AS PER SETTING TEMPLATE
HV DIRECTIONAL O/C & E/F PROTECTION (PTOC, 67/67N)	67, 67N	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	TP	TP	–	–	IP	
REF PROTECTION(PDIF, 64T) ##	64T	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	TP	TP	–	–	IP	## IF 1–PH TRAFO BANK USED THEN TRIPPING SHOULD BE AS PER SELECTION LOGIC OF R, Y, B AND SPARE TRANSFORMER IN SERVICE
TRANSFORMER TROUBLE TRIPS (OTI, WTI, PRV, BUCHHOLZ, OSR, ETC)##		3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	TP	TP	–	–	IP	
IV OVER FLUXING(PVPH, 24)	24HV	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	TP	TP	–	–	IP	
IV DIRECTIONAL O/C & E/F PROTECTION (PTOC, 67/67N)	67, 67N	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	TP	TP	–	–	IP	
NEUTRAL O/C	51N	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP	# ONLY FOR ALARM IF NETURAL CT CORE AVAILABLE
HV BUSBAR OPTD(PDIF, 87BB, CBF) MAIN-1	87BB	3 Ph	TP	TP	RS	IP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP	NOTE: FOR CENTRALIZED BUSBAR, TRIP MUST BE EXTENDED TO MASTER TRIP RELAY 96 A & B
HV BUSBAR OPTD(PDIF, 87BB, CBF) MAIN-2	87BB	3 Ph	TP	TP	RS	IP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP	NOTE: FOR CENTRALIZED BUSBAR, TRIP MUST BE EXTENDED TO MASTER TRIP RELAY 96 A & B
MANUAL TRIP HV MAIN CB		–	TP	TP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
MANUAL TRIP HV TIE CB		–	–	–	–	–	TP	TP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
MANUAL TRIP IV MAIN CB		–	–	–	–	–	–	–	–	–	TP	TP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
MANUAL TRIP IV TBC CB		–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	–	–	–	–	–	–	–	–	–	–	–	
HV MAIN BAY BREAKER FAIL RETRIP (RBRF, 50BF)	50BF	3 Ph	TP	TP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP	
HV MAIN BAY BREAKER FAIL BACKTRIP(RBRF, 50BF)	50BF	3 Ph	–	–	RS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	TP	IP	–	IP	
HV TIE BAY BREAKER FAIL RETRIP(RBRF, 50BF)	50BF	3 Ph	–	–	–	–	TP	TP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP	
HV TIE BAY BREAKER FAIL BACKTRIP(RBRF, 50BF)	50BF	3 Ph	–	–	–	–	–	–	RS	–	–	–	–	–	–	–	–	–	–	–	TP	–	TP	TP	IP@@	–	IP	@@ IF TIE BAY IS HALF DIA, TIE BACKTRIP TO BE EXTENDED TO BUSBAR WITH FUTURE BAY(WITHOUT CB)
IV MAIN BAY BREAKER FAIL RETRIP(RBRF, 50BF)	50BF	3 Ph	–	–	–	–	–	–	–	–	TP	TP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP	
IV MAIN BAY BREAKER FAIL BACKTRIP(RBRF, 50BF)	50BF	3 Ph	–	–	–	–	–	–	–	–	–	–	RS	–	–	–	–	–	–	–	TP	TP	–	TP	–	IP	IP	
IV TBC BAY BREAKER FAIL RETRIP(RBRF, 50BF)	50BF	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	–	–	–	–	–	–	–	–	–	–	IP	
IV TBC BAY BREAKER FAIL BACKTRIP(RBRF, 50BF)	50BF	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	RS	–	–	–	TP	TP	–	TP	–	IP	IP	
IV MAIN BUS BAR(PDIF, 87BB, CBF) OPTD	87BB	3 Ph	–	–	–	–	–	–	–	–	TP	TP	RS	IP	–	–	–	–	–	–	–	–	–	–	–	–	IP	
IV TRANSFER BUS BAR(PDIF, 87BB, CBF) OPTD	87BB	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	RS	IP	–	–	–	–	–	–	–	–	IP	NOTE: FOR CENTRALIZED BUSBAR, TRIP MUST BE EXTENDED TO MASTER TRIP RELAY 96 A & B
HV MAIN CB 3PH MASTER TRIP GR–A/B	86	3 Ph	TP	TP	RS	IP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP	
HV MAIN BAY – 96 MASTER TRIP RELAY GROUP–A/B	96	3 Ph	TP	TP	RS	IP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP	
HV TIE CB 3PH MASTER TRIP GR–A/B	86	3 Ph	–	–	–	–	TP	TP	RS	IP	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP	
IV MAIN CB 3PH MASTER TRIP GR–A/B	86	3 Ph	–	–	–	–	–	–	–	–	TP	TP	RS	IP	TP	TP	RS	IP	–	–	–	–	–	–	–	–	IP	MAIN BAY & TBC BAY ALL TRIPPINGS & INITIATION SHOULD BE SEGREGATED VIA NORMAL/TRANSFER SWITCH
IV MAIN BAY – 96 MASTER TRIP RELAY GROUP A/B	96	3 Ph	–	–	–	–	–	–	–	–	TP	TP	RS	IP	–	–	–	–	–	–	–	–	–	–	–	–	IP	
IV TBC BAY – 96 MASTER TRIP RELAY GROUP A/B	96	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	TP	TP	RS	IP	–	–	–	–	–	–	–	–	IP	
TERTIARY CB 3PH MASTER TRIP(A/B)(IFAPPLICABLE)	86	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	RS	–	–	–	–	–	–	IP	
TERTIARY NON DIRECTIONAL O/C & E/F PROTECTION (51/51N)	51,51N	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	–	–	IP	
TERTIARY VOLTAGE DISPLACEMENT PROTECTION	59N	3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	–	–	IP	
TERTIARY MECHANICAL TROUBLE TRIP		3 Ph	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	TP	–	–	IP	

RS:– INDICATES RESET STATUS FOR CB CLOSING

TP:– INDICATES TRIP FROM PROTN. FUNCTION

IP:– INDICATES INITIATION FROM PROTN FUNCTION

PROTECTION TRIP LOGIC DIAGRAM – 400/220kV ICT

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