

# LOW IMPEDANCE BUS DIFFERENTIAL RELAY

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## TEST DATA

**Test Data No. :** \_\_\_\_\_

Station : \_\_\_\_\_

Protected Eqpt. ID \_\_\_\_\_

Date of Test : \_\_\_\_\_

Breakers Tripped : \_\_\_\_\_

**Relay Specifications:**

Brand: \_\_\_\_\_

Model: \_\_\_\_\_

Serial No. \_\_\_\_\_

Manufacturing Date: \_\_\_\_\_

### A. BUSBAR / BAY DATA

BUS CONFIGURATION		
BUS KV		
	MAIN CT	REMARKS
BAY 1 CT RATIO		
BAY 2 CT RATIO		
BAY 3 CT RATIO		
BAY 4 CT RATIO		
BAY 5 CT RATIO		
BAY _ CT RATIO		
BAY _ CT RATIO		

### B. RELAY SETTINGS

PARAMETERS	SET VALUE
BASE CT RATIO	
OPERATING PICK-UP	
BASE POINT 1	
BASE POINT 2	
SLOPE 1	
SLOPE 2	
CT SUPERVISION ALARM	

**C. PICK-UP**

BAY	EXPECTED $I_{DIFF}$		Type of Test	PHASE A	PHASE B	PHASE C
	FOUND	LEFT				
BAY 1			Pick-up			
			Drop-out			
BAY 2			Pick-up			
			Drop-out			
BAY 3			Pick-up			
			Drop-out			
BAY 4			Pick-up			
			Drop-out			
BAY 5			Pick-up			
			Drop-out			
BAY _			Pick-up			
			Drop-out			
BAY _			Pick-up			
			Drop-out			
RELAY TARGET/INDICATION						

**D. TIME TEST**

BAY	MULTIPLES IDIFF	PHASE A		PHASE B		PHASE C	
		AMP	SEC	AMP	SEC	AMP	SEC
BAY 1	$I_{DIFF} > @ \_ \_ \_ x I_{pick-up}$						
BAY 2	$I_{DIFF} > @ \_ \_ \_ x I_{pick-up}$						
BAY 3	$I_{DIFF} > @ \_ \_ \_ x I_{pick-up}$						
BAY 4	$I_{DIFF} > @ \_ \_ \_ x I_{pick-up}$						
BAY 5	$I_{DIFF} > @ \_ \_ \_ x I_{pick-up}$						
BAY _	$I_{DIFF} > @ \_ \_ \_ x I_{pick-up}$						
BAY _	$I_{DIFF} > @ \_ \_ \_ x I_{pick-up}$						

**E. SLOPE/CHARACTERISTIC TEST**

Test No.	CT1 (A)	CT2 (A)	$I_d$ pu	$I_{res}$ pu	Remarks
1	$I_A =$ $I_B =$ $I_C =$	$I_A =$ $I_B =$ $I_C =$			
2	$I_A =$ $I_B =$ $I_C =$	$I_A =$ $I_B =$ $I_C =$			
3	$I_A =$ $I_B =$ $I_C =$	$I_A =$ $I_B =$ $I_C =$			
4	$I_A =$ $I_B =$ $I_C =$	$I_A =$ $I_B =$ $I_C =$			
COMPUTED M1 =					
COMPUTED M2 =					

**F. STABILITY TEST**

BAY	INJECTED CURRENT			PHASE A			PHASE B			PHASE C		
	PHASE A	PHASE B	PHASE C	I <sub>REST</sub>	I <sub>DIFF</sub>	Remarks	I <sub>REST</sub>	I <sub>DIFF</sub>	Remarks	I <sub>REST</sub>	I <sub>DIFF</sub>	Remarks

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**G. FUNCTIONAL TESTING / SIMULATION**

FUNCTION	CONTROLLING BREAKERS	SIMULATION USED		BREAKERS TRIPPED	REMARKS
		INJECTION	SIGNALLING		

*Tested by :*

*Concurred by :*

\_\_\_\_\_  
 Contractor - Test Engineer

\_\_\_\_\_  
 Owner's Representative

**TEST INSTRUMENTS:** \_\_\_\_\_  
 (Eqpt.ID/Make/Model/SN/  
 Date of last calibration) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_