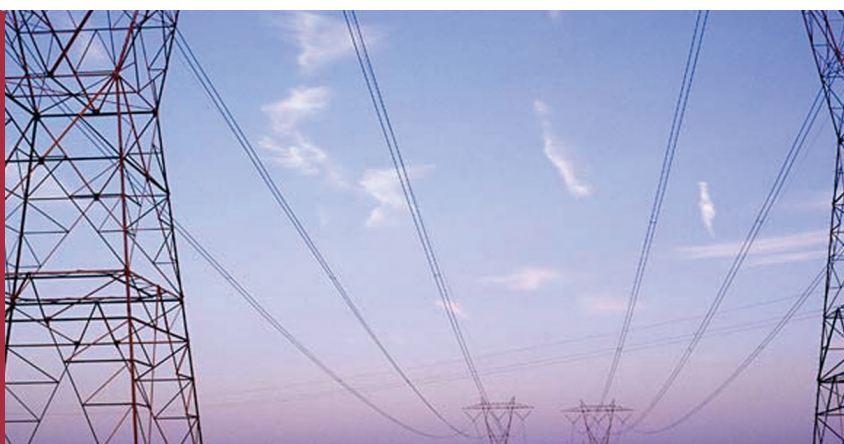


# 7DRV

**Feeder / Bus  
Differential Protection  
Bay Terminal**



**Integral Protection and  
Control Bay Unit as Terminal  
of a Distributed Bus  
Differential Protection**

## List of protection units

<b>50BF</b>	Bus Differential Bay.	<b>64</b>	Ground Overvoltage.
<b>50/51</b>	Phase Overcurrent.	<b>46</b>	Negative Sequence Overcurrent (current unbalance).
<b>50N/51N</b>	Ground Overcurrent.	<b>47</b>	Negative Sequence Overvoltage (voltage unbalance).
<b>50Q/51Q</b>	Negative Sequence Overcurrent.	<b>50D</b>	Current Detection Element.
<b>50Ns/51Ns</b>	Sensitive Ground Overcurrent.	<b>49</b>	Thermal Image Unit.
<b>51V</b>	Voltage Restraint Overcurrent.	<b>37</b>	Undercurrent Element.
<b>67</b>	Phase Directional Overcurrent.	<b>27</b>	Undervoltage Element.
<b>67N</b>	Ground Directional Overcurrent.	<b>59</b>	Overvoltage Element.
<b>67Ns</b>	Sensitive Ground Directional Overcurrent.	<b>59N</b>	Ground Overvoltage.
<b>67Na</b>	Isolated Ground Directional Overcurrent.	<b>81M/m</b>	Over/Underfrequency.
<b>67Nc</b>	Compensated Ground Directional Overcurrent.	<b>81D</b>	Frequency rate of Change.
<b>67Q</b>	Directional Negative Sequence Overcurrent.	<b>87N</b>	Restricted Earth Faults.
<b>61</b>	Residual Current Detection.	<b>78</b>	Phase Angle Measurement Element (Out-of-Step).
		<b>32P/Q</b>	Directional Power.
		<b>25</b>	Synchronism Check.
		<b>79</b>	Recloser.



## Additional Functions

- ✓ Cold Load Pick-Up.
- ✓ Trip and Close Coil Circuit Supervision.
- ✓ Breaker Monitoring (KA2) and Excessive Number of Trips.
- ✓ Fault Locator.
- ✓ Phase Sequence Selection.
- ✓ Selection of the Number of Voltage Transformers.
- ✓ Integrated Simulator.
- ✓ Four (4) Settings Groups.
- ✓ IEC and IEEE (ANSI) selectable curves.
- ✓ Control and displaying:
  - Alphanumeric Display.
  - Two (2) dedicated push-buttons for breaker control (open and close).
  - Graphic Display and dedicated Control push-buttons.
- ✓ Programmable Logic.
- ✓ Led targets.
- ✓ Configurable Digital Inputs (8 to 83).
- ✓ Configurable Auxiliary Outputs (6 to 30).
- ✓ Communications Ports:
  - One (1) front Local Port (RS232 and USB).
  - Up to three (3) remote ports: PR1 (F.O or RS232); PR2 (F.O or RS232/RS485) and PR3 (RS232/RS485)
  - Two (2) LAN Ports (RJ45) or F.O (MT-RJ) Ethernet.
  - One (1) Remote Port (CAN Protocol).
  - 100TX Port for IEC61850 Protocol.
- ✓ Communication Protocols: Procome 3.0, DNP3.0 and Modbus (selectable) and IEC61850.
- ✓ Time Synchronization (IRIG-B 003 and 123 Protocol) or via communications.
- ✓ Event Record and Metering History Log.
- ✓ Oscillographic Recording (CONTRADE 99 Format).
- ✓ Power Supply Voltage Monitoring (depending on model).
- ✓ ZivercomPlus® Communications Software.

