

Bus Protection Selector Guide



Features

Device

HID

MIB

B30

B90

Applications

Applications	Device	HID	MIB	B30	B90
Low impedance Bus differential	87B			•	•
High impedance Bus differential	87B		•		
High impedance Restricted Ground Fault	87RGF		•		

Protection & Control

Protection & Control	Device	HID	MIB	B30	B90
Typical Operating Time (cycles)			<2	<1	<1
Bus differential	87B		•	•	•
IOC, Ground/Neutral/Phase	50G/N/P			G/N/P	G/N/P
TOC, Ground/Neutral/Phase	51G/N/P			G/N/P	G/N/P
Overvoltage Auxiliary/Neutral	59X/N			X/N	
Phase Undervoltage	27P			•	•
Current Transformer Supervision			•	•	•
Breaker Failure	50BF			•	•
Breaker Flashover				•	•
Lockout Functionality	86			•	•
Dynamic Bus Replica				•	•

Automation

Automation	Device	HID	MIB	B30	B90
Programmable Logic			•	•	•
FlexElements™				•	•
Settings Groups			2	6	6
Non-volatile latches (up to)				16	16/box
Contact Inputs Programmable - (up to)			4	80	96/box
Contact Outputs Programmable - (up to)			4	64	64/box
Virtual Inputs - (up to)				32	32
Virtual Outputs - (up to)				64	64
Direct Inputs/Outputs				•	•
User-Programmable LEDs (up to)			4	48	48/box
User-Programmable Push Buttons (up to)				12	12/box
User-Programmable Self Test				•	•
User Definable Displays				•	•
User Programmable Self-Test Contact				•	•
Timers			•	•	•
Selector Switch				•	•
Digital Counters				•	•
Digital Elements				•	•
IRIG-B Input				•	•

Monitoring & Metering

Monitoring & Metering	Device	HID	MIB	B30	B90
Current			•	•	•
Voltage				•	•
Symmetrical Components				•	•
Power - Apparent, Real, Reactive				•	•
Energy				•	•
Power Factor				•	•
Frequency				•	•
Event Recorder - Number of Events			24	1024	1024
Oscillography			•	•	•
Trip/Close Coil Supervision			•	•	•

Communications

Communications	Device	HID	MIB	B30	B90
RS232 Port			•	•	•
RS485 Port			•	•	•
Ethernet Port (Fiber and Copper, up to)				1	1
Direct Fiber Communications (800nm, 1330nm, 1550nm)				•	•

Protocols

Protocols	Device	HID	MIB	B30	B90
ModBus (RTU and TCP/IP)			•	•	•
DNP 3.0				•	•
IEC60870-5-104				•	•
UCA2/MMS				•	•
IEC61850				•	•
Simple Network Time Protocol (SNTP)				•	•
HTTP				•	•
TFTP				•	•
Process Bus (IEC 61850-9-2)				•	•