

# **Three-Phase PRS**

3Ø Programmable Resettable Sectionalizer

a Radio communication between 3Ø PRS modules

The three-phase programmable sectionalizer (3Ø PRS) is specifically designed for the protection of three-phase lateral lines. It has built-in intelligence to distinguish between temporary (transient) and permanent faults on three-phase distribution systems, virtually eliminating nuisance outages. Using radio links to communicate between modules, it can automatically sectionalize faults on all three phases. The modules are fully programmable to ensure optimal coordination with system assets.

### + Features

- Coordinates three-phase operation with upstream recloser or breaker
- Synchronized dropping of all three phases protects three-phase loads and avoids downstream system imbalance
- Distinguishes between temporary and permanent faults to reduce outages
- Programmable parameters: counts, actuating current, reset time
- Historical data storage for system overview and analysis (logs up to 40 events, including operations, fault current, and line blinks)
- Simplified programming calculates settings based on upstream reclosing device
- Porcelain and polymer cutout options
- Resettable / reusable

## + 3Ø PRS best suited for

- Locations where fuse coordination is difficult to achieve
- Areas with insufficient load to justify investments in apparatus such as reclosers
- Remote locations prone to frequent faults caused by fauna and/or flora

## "In-Air" Resettable Sectionalizer

- All 3Ø PRS modules are equipped with an "in-air" resettable trunnion
- Allows for reset of the sectionalizer modules while in the cutout mounting base
- Does not require resetting with a wrench

## Load Break Operation

- Option to order the 3Ø PRS with arc chute type interrupters
- Ability to open the sectionalizer under rated load





## **Simplified Programming**

Simply connect a USB hub to the PC's USB port and then connect the three USB ports on the bottom of the 3Ø PRS modules to the connected USB hub. Programming of the 3Ø PRS units has been simplified using Three-Phase Programmable Resettable Sectionalizer programming software from Hubbell.



#### **3Ø PRS Technical Specifications**

Rated Voltage (BIL)	15 kV (110 kV BIL) 27 kV (125 kV BIL) 38 kV (150 kV / 170 kV BIL)
Rated Continuous Current	300 Amps
Minimum Line Current	10 Amps
Minimum Actuating Current	Programmable between 16A and 480A
Number of Counts	Programmable for 1, 2, 3, or 4
Reset Time	Programmable, 30 sec. to 300 sec. with resolution of 1 second
Inrush Detection Time	Less than 1 cycle
Type of Inrush Current Detected	Symmetrical and Asymmetrical
Method of Inrush Current Detection	Fourier Analysis (FFT)
Deadline Detection	$\leq$ 500mA
Total Execution Time	130msec (± 20msec)
Short Time Current Withstand, 15 Cycle (at 60Hz)	8600 Amps Symmetrical
1 Second	4000 Amps Symmetrical
3 Seconds	3200 Amps Symmetrical
Momentary Current Rating	12kA Amps Asymmetrical
Current Measurement Accuracy	± 5%
Temperature Range	-40°C to +60°C
Maximum Thermal Rating	300A continuous current
Surge Current Withstand	65 kA per ANSI C37.63
Electromagnetic Interference	Per ANSI C37.90.2
USB port	Rated IP68



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