

Reclosers

Functional Specification Guide

Types WE and WVE Reclosers

PS280024EN

Functional specification for Types WE and WVE reclosers

1. Equipment Specifications

1.1. Automatic Circuit Recloser with electronic control and oil interrupters

2. Standards

2.1. The recloser covered by this specification shall be manufactured and tested in accordance with ANSI C37.60.

3. Ratings

	<u>WE</u>	<u>WVE</u>
Maximum Design Voltage, kV	15.5	27.0
Nominal Operating Voltage, kV	2.4-14.4	24.9
Basic Insulation Level (BIL), kV	110	150
60 Hertz Withstand Voltage, kV		
Dry, One Minute	50	70
Wet, Ten Seconds	45	60
Continuous Current Rating, Amps	800	560
Interrupting Rating, Symmetric Amps	10,000 @ 14.4 kV 12,000 @ 4.8 kV	8000

4. Duty cycle

<u>TYPE</u>	<u>PERCENT OF INTERRUPTING RATING</u>	<u>NUMBER OF UNIT OPERATIONS</u>	<u>MAXIMUM CIRCUIT X/R VALUE</u>
WE	15-20	28	3
	45-55	20	7
	90-100	10	14
WVE	15-20	28	4
	45-55	20	8
	90-100	10	15

5. Recloser features

- 5.1. The recloser shall be mechanically and electrically trip free.
- 5.2. All three poles of the recloser shall be operated simultaneously by a solenoid-controlled spring operating mechanism.
- 5.3. The solenoid shall provide energy for closing the main contacts and for storing energy in the opening spring for a tripping operation.
- 5.4. The closing solenoid coil shall be connected internally phase-to-phase on the source side of the recloser through a suitable contactor.

- 5.5. Bushings shall be of wet process porcelain, terminals shall be of the universal clamp type and shall accommodate number 1/0 through 500 MCM conductor.
- 5.6. Bushing creepage distance shall be (17" for type WE, 26½" for type WVE).
- 5.7. Contact assemblies shall be of the double break type.
- 5.8. A three-stage auxiliary switch shall be provided.
- 5.9. The recloser interrupting time shall be 0.045 seconds maximum.
- 5.10. The recloser shall be shipped filled with oil to the proper level. A dipstick shall be provided for checking oil level, a low oil level sight gauge shall be provided.
- 5.11. The recloser shall be shipped mounted on a substation type frame, complete with a tank lifting windlass.
- 5.12. The mounting frame shall have a grounding pad which will accommodate two No. 2/0 to 250 MCM conductors.
- 5.13. Sensing bushing current transformers, 1000:1 ratio, for use with the static overcurrent control, shall be mounted internally in the recloser on bushings 1,3,5.

6. Approved Manufacturers

Eaton