Reclosers

Functional specification for Types WVE-38X reclosers

1. Equipment Specifications

1.1. Automatic Circuit Recloser with electronic control and oil insulation

2. Standards

2.1. The recloser covered by this specification shall be manufactured and tested in accordance with applicable ANSI, IEEE and NEMA Standards.

3. Quality

3.1. The manufacturing facility shall be independently certified to meet ISO 9001 Standards.

4. Ratings

4.1. Ratings as a minimum shall be as follows:

Maximum Design Voltage, kV	38.0
Nominal Operating Voltage, kV	34.5
Impulse withstand, 1.2 x 50 microsecond surge (BIL), Crest kV	150
Low frequency withstand voltage	
Dry, One Minute, kV	70
Wet, Ten Seconds, kV	60
Radio influence voltage measured at 1.0 MHZ, 23 kV, shall not exceed 650 microvolts.	
Frequency, Hz	50/60
Continuous current, amperes	560
Interrupting current, symmetrical amps	8,000
Cable charging current, amps	40
Magnetizing interrupting current, amps	19.6

5. Duty cycle

PERCENT OF INTERRUPTING RATING	NUMBER OF UNIT OPERATIONS	MAXIMUM CIRCUIT X/R VALUE
15-20	28	4
45-55	20	8
90-100	10	15
total:	58	

6. Mechanical Life

6.1. Minimum of 2500 operations

7. Overload Capability (after level-off rated continuous current)

Continuous Current Rating, Amps	Maximum Hours At: 125% of Continuous Current Rating	150% of Continuous Current Rating
560	4	2

8. Weights and Dimensions

Width, in.	Height, in.	Length, in.	Total Weight With Oil, lb	Oil, gal.
21 1/4	47 1/8	46 3/8	990	52

9. Clearances and Creepage (in.)

Creepage	Arcing Distance Source to Load	Arcing Distance Phase to Phase
26 1/2	12	12 1/4

10. Recloser features

10.1. The overcurrent sensing, recloser sequencing and tripping shall be electronically controlled.

10.2. The recloser shall be mechanically and electrically trip free.

10.3. All three poles of the recloser shall be operated simultaneously by a solenoid-controlled spring operating mechanism.

10.4. The solenoid shall provide energy for closing the main contacts and for storing energy in the opening spring for a tripping operation.

10.5. Current interruption shall occur in vacuum interrupters, providing long contact life.

10.6. Each vacuum interrupter shall be serialized.

10.7. Available closing voltages shall be phase to phase operating voltage (± 15%), 48 VDC, 125 VDC, 250 VDC, 120 VAC, 240 VAC.

10.8. The recloser interrupting time shall be 0.045 seconds maximum.

10.9. The recloser shall be of single tank construction with ground connector to accommodate No. 8 SOL through 2/0 STR conductor.

10.10. External stainless steel hardware shall be provided as standard.

10.11. An O-ring shall be used in a groove in the head casting to provide controlled compression.

10.12. The recloser shall be shipped with oil filled to the proper level. A vented dipstick shall be provided for checking oil level.

10.13. The bushings shall be of wet process porcelain. Bushing terminals shall be universal clamp type to accommodate 1/0 through 500 MCM conductors.

10.14. Sensing bushing current transformers, 1000:1 ratio, for use with a control, shall be mounted internally in the recloser on bushings 1,3,5.

10.15. A lever shall be provided for manually tripping the recloser.

11. Optional Accessories

11.1. The following shall be available as optional accessories:

11.1.1. External mounted MRBCT's - 600:5 or 1200:5

11.1.2. Oil level sight gage

11.1.3. Three stage auxiliary switch

11.1.4. Flat pad bushings terminals

11.1.5. Substation or pole mounting frames

11.1.6. 800 amp continuous current capability

12. Approved Manufacturers

Eaton