

TYPES VWE AND VWVE RECLOSERS

EQUIPMENT SPECIFICATIONS: Types VWE and VWVE

Automatic Circuit Recloser with electronic control and vacuum interrupters.

STANDARDS

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

QUALITY

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

RATINGS

	<u>VWE</u>	<u>VWVE</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	125
60 Hertz Withstand Voltage, kV		
Dry, One Minute	50	60
Wet, Ten Seconds	45	50
Continuous Current Rating, Amps	560	560
Interrupting Rating, Symmetric Amps	12000	12000

DUTY CYCLE

<u>TYPE</u>	<u>PERCENT OF INTERRUPTING RATING</u>	<u>NUMBER OF UNIT OPERATIONS</u>	<u>MAXIMUM CIRCUIT X/R VALUE</u>
VWE	15-20	88	4
	45-55	112	8
	90-100	32	15
VWVE	15-20	88	4
	45-55	112	8
	90-100	32	15

RECLOSER FEATURES

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

The recloser shall be mechanically and electrically trip free.

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

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

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

The closing solenoid coil shall be connected internally phase-to-phase on the source side of the recloser through a suitable contactor.

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.

Bushing creepage distance shall be (17" for type VWE, 26½ for type VWVE).

A three-stage auxiliary switch shall be provided.

The recloser interrupting time shall be 0.045 seconds maximum.

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

A lever shall be provided for manually tripping and closing the recloser.

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.

The recloser shall be shipped mounted on a substation type frame, complete with a tank lifting windlass.

The mounting frame shall have a grounding pad which will accommodate two No. 2/0 to 250 MCM conductors.

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.

1. If the recloser design employs pressurized SF₆ gas, the recloser shall be design, fabricated, tested, inspection and certified per the application rule of the ASME Boiler and Pressure Vessel Code, Section VIII , and all applicable state and local laws.
2. If the recloser contains pressurized SF₆ gas, it shall meet ANSI C37.04-1979 for pressurized metal components.
3. If the recloser design employs pressurized SF₆ gas for insulation and arc interruption, a pressure relief device is required that meets ASME Pressure Vessel Code, Section VIII.

4. Reclosers must be shipped in compliance with applicable state transportation codes. if the recloser contains SF6 gas pressurized to more than 40 psia (25 psig), any shipment of this material to our stated destination should be considered hazardous material and shall, therefore, comply with all applicable state and federal intrastate and interstate commerce regulations regarding transportation of hazardous material.

OPTIONAL ACCESSORIES

The following shall be available as optional accessories:

- External mounted MRBCT's - 600:5 or 1200:5
- Oil level sight gage
- Three stage auxiliary switch
- Flat pad bushings terminals
- Substation or pole mounting frames
- 800 amp continuous current capability

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