

Pole-Top MV Sensors (PT/CT)

For Smart Grid Deployment

The SATEC PM175 power quality analyzer may be supplied with Line Post Sensors (embedded in isolator, for voltage and current) for MV power lines of 15kV, 25kV or 35kV, replacing existing pole isolators.

The MV Sensors are designed for Compact, economical distribution power-line sensing

- No line cutting and power-down needed
- Not for dead-end use
- Linear outputs up to fault levels
- Accurate performance
- Non-hazardous voltage on output
- Weather-proof enclosure



Advantages of Sensor Monitoring

- Precise Real-Time measurements
- Supports Modbus, IEC 60870-5-101/104 and DNP3.0 protocol
- GPRS Communication
- Local display
- Memory (redundancy)
- Waveform / PQ features
- Phasors & phase rotation
- Directional Harmonics
- Neutral currents
- Complete Total Cabinet Package

Helps Detect & Manage

- Line losses
- Capacitor controls
- Voltage regulation
- Outage detection
- Load balance
- Harmonics
- Fault location
- Power theft

Sensor Specifications

ELECTRICAL RATINGS			
Insulation Class	15kV	25kV	35kV
Impulse (BIL)	110kV	150kV	200kV
Leakage Distance	15.8" 40.1 cm	24.5" 62.2 cm	36.5" 92.7 cm
Dry Arc Distance	8.8" 22.3 cm	12.6" 32 cm	17.2" 43.7 cm
Overall Height	13.2" 33.5 cm	16.6" 42.2 cm	21.8" 55.4 cm
Corona (extinction)	11kV	19kV	26kV
Low Freq. Dry Flashover	70kV	100kV	125kV
Low Freq. Wet Flashover	50kV	70kV	95kV

CURRENT SIGNAL OUTPUT	
Ratio	600A:10V
Output Burden/Load	Calibrated for a 10,000 ohm or greater load
Open Circuit Voltage	10 volts at 600 amps line current
VOLTAGE SIGNAL OUTPUT	
Divider Ratio	Depends on network
Output Impedance	Calibrated for 1 MΩ load

ACCURACY			
Sensor Native Accuracy	1% for current 0.5% for voltage		
Using SATEC PM180 Calibration	Class 0.5S		
MECHANICAL			
Insulation Class	15kV	25kV	35kV
Cantilever Strength (Ultimate)	2,800 Lbs. 1270 kg	2,800 Lbs. 1270 kg	2,800 Lbs. 1270 kg
Weight	37 Lbs. 16.8 kg	48 Lbs. 21.7 kg	59 Lbs. 26.7 kg
Shipping Weight	48 Lbs. 21.7 kg	58 Lbs. 26.3 kg	64 Lbs. 29 kg

NOTE: For vertical mounting only

OPERATING TEMPERATURE	
Temperature Range	-40°C to +65°C -40°F to +149°F
CONDUCTOR DIAMETER RANGE	
The two-sided keeper is made of aluminum (for aluminum conductor) or galvanized ductile iron (for copper conductor) and can accommodate a 0.25" to 1.25" / 6.35mm to 31.75mm diameter conductor	
BASIC CONSTRUCTION	
The pole-top sensor is molded from polysil, a high dielectric strength, anti-tracking polymer concrete developed under epri contract	

Order String

For 15kV network - LSY15

For 25kV network - LSY25

For 35kV network - LSY35

