

Pole-Top MV Sensors (PT/CT)

For Smart Grid Deployment

SATEC PM17x series can be supplied with Line Post Sensors for replacing of existing pole isolators with voltage and current sensors for MV grids of 15kV, 25kV or 35kV.

The MV Sensors are designed for Distribution Automation to provide:

- Compact, economical power-line sensing
- No line cutting
- Not for dead-end use
- Linear outputs up to fault levels
- Accurate performance
- Non-hazardous voltage on output
- Completely sealed against moisture



Advantages of Sensor Monitoring

- Precise Real-Time measurements
- Provides DNP3.0 protocol
- GPRS Communication
- Local display
- Memory (redundancy)
- Waveform / PQ features
- Phasors & phase rotation
- Directional Harmonics
- Neutral currents
- Complete Total Cabinet Package
- Expandability

Help 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	16.4" 41.6 cm	24.5" 62.2 cm	35.3" 89.6 cm
Dry Arc Distance	8.8" 22.3 cm	12.6" 32 cm	16.3" 41.4 cm
Overall Height	13.2" 33.5 cm	16.7" 42.4 cm	20.8" 52.8 cm
Corona (extinction)	11kV	19kV	26kV
Low Freq. Dry Flashover	80kV	110kV	125kV
Low Freq. Wet Flashover	60kV	85kV	100kV

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	2% for current 1% for voltage
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Using SATEC PM17x 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	39 Lbs. 17.6 kg	49 Lbs. 22.2 kg	59 Lbs. 26.7 kg
Shipping Weight	44 Lbs. 20 kg	54 Lbs. 24.5 kg	64 Lbs. 29 kg

NOTE: For vertical mounting only

OPERATING TEMPERATURE

Temperature Range	-40°C to +65°C -40°F to +149°F
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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 - PTS 15
For 25kV network - PTS 25
For 35kV network - PTS 35