

CMD® II 15.5-362 kV Current monitoring device



HV Switching

Non-contact non-saturating current transformer

The versatile solution for a wide variety of three-phase current measurement applications

Performance functions

- Adds current measurement capability to new and existing equipment in substations.
- Fully protects vulnerable power transformer bushings and arresters.
- Measures current in distribution lines, subtransmission lines, transmission lines, and EHV transmission lines in real-time.
- SMART GRID enabling technology via real-time data.
- Improves reliability by detecting and isolating faults closer to their origin.
- Assists in NERC (North American Electric Reliability Corporation) reliability standards compliance by providing technological differentiation for use in redundancy of current sensing to complement the already widely used practice of relaying redundancy.
- Interfaces with RTUs at switched tap points to minimize the number of customers affected by an outage and the duration due to a fault.
- When furnished with an RTU, provides invaluable real-time information to a customer's SCADA system/control center to allow timely action in implementing contingency plans to prevent widespread outages.

Technical data

Rated voltage (kV)	15.5 - 362	
Rated lightning impulse withstand voltage (kV)	110 -1300	
Rated permanent current (A)	20 - 4000	
Rated short-time current (kA)	.020 - 80	
Ambient Temperature Range (°C)	-40 to +50 standard (-50 to +50 optional)	
Input Voltage	12/24/48/125/250 VDC or 120/240 VAC	
Input Power (W)	125 rated	480 maximum
Output (relay input) (A)	1 rated	20 maximum
Output (RTU input) (V)	10 rated	120 maximum
Measurement Error	1-2 % rated	10% maximum
Relay Burden (Ω)	0.15 maximum	



Benefits

- Measures phase currents in real time.
- Outputs compatible with digital, microprocessor-based relays.
- Calibration by customer using standard CT tools & procedures.
- Electrical cabinet mounted, wired, and shipped on CapSwitcher®, RLSwitcher®.
- Self powered (no batteries at line potential).
- EM real-time data transmission.
- Applications include:
 - Capacitor Bank Protection.
 - Reactor Protection.
 - Transformer Protection.
 - Overcurrent.
 - Transmission/Distribution Lines.
 - SMART GRID information point.
 - Allows addition of CTs to protection schemes to meet NERC requirements.

Key advantages

- Compact, space saving CT solution.
- Easy retrofit of current measurement to existing equipment.
- Reduces installation costs substantially.
- Immune to CT saturation.
- Interfaces with digital protection relays or RTUs.
- Mounts on new or existing equipment.
- No foundations or structures required.
- Eliminates the need for freestanding current transformers.
- Enhances reliability through technologically differentiated current sensing.
- Sensor has no batteries or solar panels.
- Fault defections and load monitoring.

