

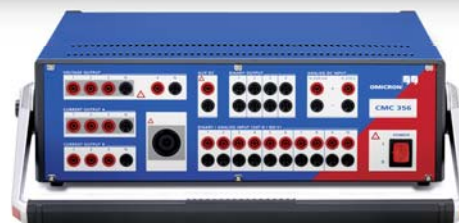
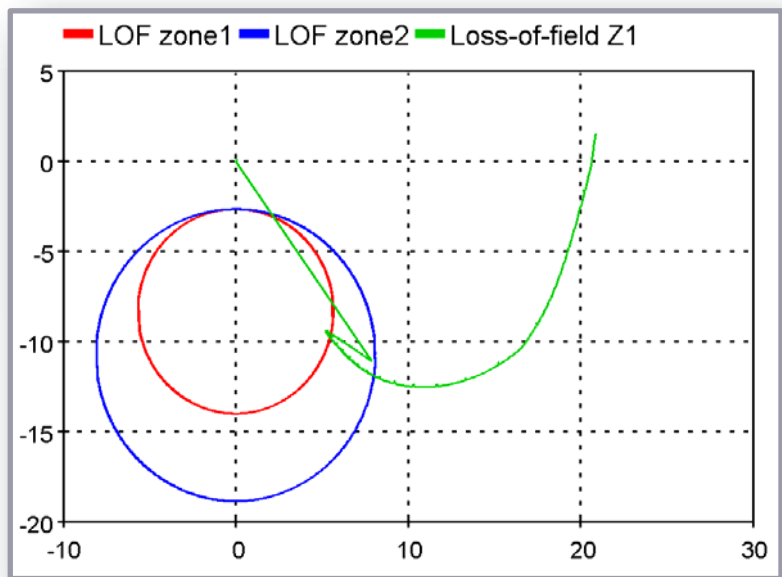
Protection Engineering

At Wells Engineering, we take pride in having the ability to provide high level problem solving skills that render solution based results. .

Wells Engineering has provided power system protection engineering for power system generation, transmission, distribution, and utilization levels. The core principles of our organization are driven by the highest standards and industry best practices. These principles are well represented through the sound judgement of our Professional Engineering staff and delivered to our clients through our engineering and consulting services.

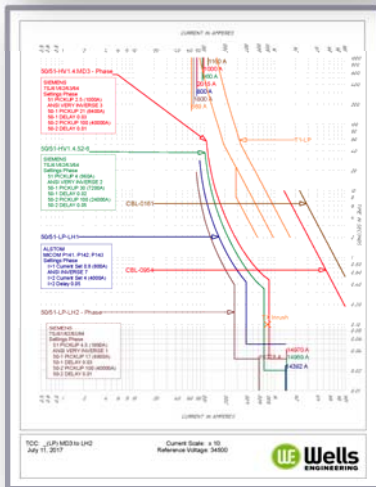
Contact us today at 859-282-7538 to learn more.

Protected Equipment	Protection Functions
Generator	21, 24, 25, 27, 32, 40, 49, 50/51, 50/51N, 50BF, 51V, 59, 59N, 60, 64F, 64G, 67/67N, 68, 79, 81O, 81U, 87G, 87N
Transformer	24, 27, 32, 49, 50/51, 50/51N, 51G, 50BF, 59, 60, 63, 67/67N, 77, 81O, 81U, 87T, 87G, Buckholz
T&D Lines	21, 25, 27, 49, 50/51, 50/51N, 50BF, 59, 67/67N, 68, 79, 81O, 81U, 87L
Substation	25, 27, 32, 49, 50/51, 50/51N, 50BF, 59, 67/67N, 81O, 81U, 87B
Feeder Protection	25, 27, 32, 49, 50/51, 50/51N, 50BF, 59, 67/67N, 87L
Capacitor Protection	46, 47, 50/51, 50/51N, 51CN, 59CG
Reactor Protection	49, 50/51, 50/51N, 87R
Synchronous Motor	14, 37, 46, 47, 49P, 49R, 50/51, 50/51N, 50BF, 51V, 55, 59, 59N, 60, 66, 81O, 81U, 87M, 90
Induction Motor	14, 37, 46, 47, 49, 50/51, 50/51N, 50BF, 51V, 55, 59, 59N, 60, 66, 87M, 90





Protection Engineering



ALL OEM'S - ELECTROMECHANICAL & DIGITAL

ABB/Westinghouse	Basler
Cooper	Eaton/Westinghouse
GE/Alstom	GE/Multilin
Schweitzer	Square D

TRANSMISSION LINE PROTECTION

Line Differential	Phase Comparison
Coordinated Directional Ground OC	Distance Protection

TRANSFORMER PROTECTION

Current Differential	Overcurrent Overload
Secondary Breakers	Switches & Reclosers
Sudden Pressure	Over temperature

BUS PROTECTION

High & Low Impedance Differential	Zone Interlocked Schemes
-----------------------------------	--------------------------

DISTRIBUTION SYSTEM PROTECTION

Overcurrent Relays	Reclosers
Fuses	System Communication

GENERATOR PROTECTION

Current Differential	Current & Voltage Unbalance
Field & Rotor Protection Schemes	Thermal Protection
Vibration Sensing	Black Start Schemes

MOTOR PROTECTION

Induction	Synchronous
-----------	-------------

LV PROTECTION

Overcurrent Settings	Bus Protection & Zone Interlock
Arc Flash Protection Relays	Auto Transfer Schemes



Phone: 859.282.7538
 Fax: 859.282.0156
 wellsengineering.com

Primary Business Address
 6900 Houston Road, Suite 38
 Florence, Kentucky 41042