

### 2.4.11 Testing

#### TYPE TESTING

The table below lists the 750/760 type tests:

Standard	Test Name	Level
EIA 485	RS485 Communications Test	32 units at 4000 ft.
IEC 60068-2-30	Relative Humidity Cyclic	55°C at 95% RH
IEC 60068-2-38	Composite Temperature/Humidity	65/-10°C at 93% RH
IEC 60255-5	Dielectric Strength	2300 V AC
IEC 60255-5	Insulation Resistance	>100 M $\Omega$ / 500 V AC / 10 s
IEC 60255-21-1	Sinusoidal Vibration	2 g
IEC 60255-21-2	Shock and Bump	5 g / 10 g / 15 g
IEC 60255-21-3	Seismic	6 g
IEC 60255-22-1	Damped Oscillatory Burst, 1 MHz	2.5 kV / 1 kV
IEC 60255-22-2	Electrostatic Discharge: Air / Direct	15 kV / 8 kV
IEC 60255-22-3	Radiated RF Immunity	10 V/m
IEC 60255-22-4	Electrical Fast Transient / Burst Immunity	4 kV
IEC 60255-22-5	Surge Immunity	4 kV / 2 kV
IEC 60255-22-6	Conducted RF Immunity, 150 kHz to 80 MHz	10 V/m
IEC 60255-25	Radiated RF Emission	Group 1 Class A
IEC 60255-25	Conducted RF Emission	Group 1 Class A
IEC 60529	Ingress of Solid Objects and Water (IP)	IP40 (front), IP20 (back)
IEC 61000-4-8	Power Frequency Magnetic Field Immunity	30 A/m
IEC 61000-4-9	Pulse Magnetic Field Immunity	1000 A/m
IEC 61000-4-11	Voltage Dip; Voltage Interruption	0%, 40%, 100%
IEEE C37.90.1	Fast Transient SWC	$\pm 4$ kV
IEEE C37.90.1	Oscillatory Transient SWC	$\pm 2.5$ kV
IEEE C37.90.3	Electrostatic Discharge: Air and Direct	$\pm 15$ kV / $\pm 8$ kV

#### SIMULATION

Programmable pre-fault, fault, and post-fault parameters simulation modes. Simulation of circuit breaker and selection of whether or not to operate outputs relays.

#### PRODUCTION TESTS

Thermal cycling: Operational test at ambient, reducing to -40°C and then increasing to 60°C

Dielectric strength: 2000 VAC for 1 minute (as per UL & CE)