

## Communication Line Protection



Powervar's Next Generation N5-2 Communication Line Protector (CLP) offers a leading-edge technology which provides a patented "Transient Blocking" and switch grade fail short device combination. The N5-2 Series protects circuits by rapidly switching to a blocked state. This technology balanced with over voltage, fast resettable sneak current protection and low surge let through provides the best level of protection for high speed communications lines and equipment.

**Applications:** Use with standard analog or digital telephone sets or lines, POTS, Trunks, ADSL and OPX cables.

**Installation:** Direct connect (plug into) existing 110 5 PIN type connection block. Each module contains protection circuit for one 2-wire communications circuit.



### Characteristics – Model Number N5-27-TBK-2

Test Methods per IEEE C62.31, UL 497, CSA C22.2, Telcordia GR 1361 and applicable sections of Telcordia GR 974.

DC Breakdown		300-400 V
AC Breakdown	60 Hz	300-400 V
Impulse Breakdown	100 V/ $\mu$ s 1000 V/ $\mu$ s	600 V 650 V
Insulation Resistance	100 Vdc	> 1 G $\Omega$
Insertion Loss	100 MHz	< 1 dB over frequency range
Return Loss	100 MHz	< 10 dB over frequency range
Capacitance Line to Line	1 MHz	12 pF typical
Capacitance Line to Ground	1 MHz	23 pF typical
Line Resistance (Line In - Line Out)		12 ohms typical
Vreset		< 14 V typical
Impulse Reset	52 V, 260 mA 135 V, 200 mA 150 V, 200 mA	< 10 ms < 10 ms < 150 ms
Impulse Life Characteristics (Per Side, Simultaneously)	100 A, 10/1000 $\mu$ s 300 A, 10/1000 $\mu$ s 500 A, 10/1000 $\mu$ s 2,000 A, 10/250 $\mu$ s 5,000 A, 20/100 $\mu$ s 20,000 A, 8/20 $\mu$ s	> 3000 operations > 1000 operations > 1000 operations > 100 operations > 10 operations > 10 operations
AC Life Characteristics	0.5 A rms continuous 1 A rms, 1 second, 600 ft. cable 1 A rms, 1 second, 1 mile cable 10 A rms, 1 second 200 A rms, 11 cycles 120 A rms, 0.1 second	> 30 seconds > 60 operations > 60 operations > 20 operations 1 operation 1 operation
Life Test Criteria Insulation Resistance Throughout the Life Test Life Test Failures Failures During Environmental Cycling w/surges		100 megohms 0.0 % 0.0 %
Fail-Short (Vented or Non-vented Gas Tube)		> 30 Arms, simultaneously
Storage and Operating Temperature		-55 to +85 °C