

# Surge Protection Modules

## Solid State - Digital Low Voltage Series



3B3S-30 & 4B3S-75 Series



Asymmetrical Operation

### Description:

The low voltage series 5-pin solid-state protector modules are designed to provide superior transient and power fault protection for most data line applications, including RS-232. The 3B3S-30 is an ideal replacement for applications using 30 volt, 600 and 1500-watt avalanche and zener diodes. The 30-volt solid-state module's 75 Amp 10x1000us surge rating is over twice that of the typical 1500-watt, 30-volt avalanche or zener diode protector. The 4B3S-75 series of 5 pin protector modules are designed for superior transient and power fault protection of most secondary 'off-hook' applications. The 4B3S-75 series also features PTC (positive temperature coefficient) technology. These optional self-resetting current limiters provide effective protection from 'sneak current' faults. The PTC is vastly superior to the competition's heat coil solution, which requires that the module be replaced after each 'sneak current' event.



### Features:

- Nanosecond response time
- External failsafe mechanism that permanently grounds the module under sustained high current conditions
- Integrated Test Points
- UL & cUL listed
- Designed to meet or exceed Telcordia standards

### Benefits:

- Longer life span than conventional gas tube and carbon arrestors
- Reduced 'pass through' of dangerous transients
- Fewer service calls
- Documented safe performance
- ISO 9002 Certified Manufacturer

### Low Voltage Series Ordering Information

Model No.	Order No.	DC Voltage Breakover	Pin <sup>1</sup>	Color
3B3S-30 (Red)	750026	30VDC	gold	red
4B3S-75 (Red)	750024	75VDC (RUS Approved)	gold	red

<sup>1</sup> pin alloy refers to tip and ring pins. Unless otherwise noted, all ground pins are tin



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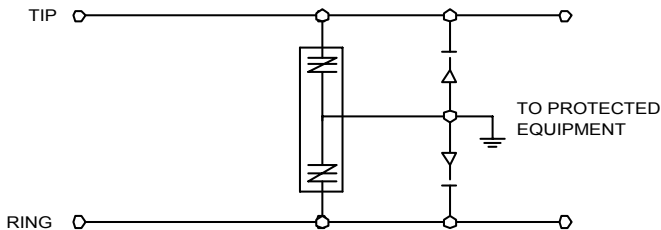


### Specifications:

	3B3S-30	4B3S-75		3B3S-30	4B3S-75
<b>DC Breakover (nominal)</b> @ 100V/□sec	30VDC (27-36V)	75VDC (60-95V)	<b>Capacitance</b>	<200 pf	<90 pf
<b>Peak Pulse Current (max)<sup>1</sup></b> @ 8 x 20 □sec @ 10 x 160 □sec @ 10 x 1000 □sec	200 150 75	250A 150A 75A	<b>Insulation Resistance</b> @ 50VDC	>100M ohms	>100M ohms
<b>Holding Current (min)</b>	50(mA)	150(mA)	<b>Fail-safe Operation</b> @ 1.0 A @ 5.0 A @ 20 A @ 60A	<50 sec <15 sec <10 sec <3 sec	<50 sec <15 sec <10 sec <3 sec
<b>Surge life (min operations)<sup>2</sup></b> @ 10A, 10 x 1000 □sec @ 100A, 10 x 1000 □sec @ 1Arms, 1 sec @ 10 Arms, 1 sec	unlimited >300 >60 >20	unlimited >300 >60 >20	<b>Current Limiters (PTC models only)</b> hold current (ma) @ 20 C = R min / max ohms =	145 4/6	145 4/6

- total surge rating is 2x listed with respect to ground during a simultaneous surge
- service life requirement as per Bellcore TR-NWT-000974
- pin alloy refers to tip and ring pins. Unless otherwise noted, all ground pins are tin

**3B3S-30**  
(Asymmetrical)



**4B3S-75**  
(Asymmetrical)

