

# POWER PROTECTION



## TVSS Interceptor Series

High to Extreme Exposure  
300kA-400kA per phase



## CLEAN POWER FOR MEDIUM AND HEAVY DUTY APPLICATIONS

Electrical power has always been dirty, subject to surges, spikes, noise and other transients. In the past, this often did not matter. But with the advent of sensitive electronic equipment, clean power has become essential.

We are operating in a world where almost every business depends on relatively fragile micro-electronics, running everything from computer and telecommunications networks to manufacturing centres and medical centres. So power disturbances can disrupt operations, cripple equipment, or even lead to complete business failure.

The solution is the Interceptor series of advanced transient voltage surge suppressors from Liebert. Designed for medium and heavy duty applications with capacities from 300kA to 400kA, the Interceptor is the effective way to intercept transients, provide clean power and safeguard your organisation from the dangers of dirty power.

**A RANGE OF HIGH PERFORMANCE  
SURGE SUPPRESSORS FOR SENSITIVE  
ELECTRONIC INSTALLATIONS.  
HIGH TO EXTREME EXPOSURE  
300kA - 400kA PER PHASE**

- Stringent independent testing with ISO 9001-certified manufacture and service
- CE marked, complies with EMC and low voltage directives
- Engineered for reliability and long life with 'smart array' technology
- Extended MTBF through enhanced redundancy
- Fast response time
- Modular design for easy customisation
- User-friendly diagnosis with status LEDs
- Range of optional features
- 5 Year Warranty

# WHEN INTERCEPTOR POWER IS ESSENTIAL

Everyone who uses electronics needs surge protection. Virtually any kind of business can be affected by power disturbances, so Liebert recommends a comprehensive approach.

It is not enough just to install surge suppression and power conditioning at electrical service entrances - because transients can be created beyond that point. In fact, some 65% of all transients are generated by equipment within a building, through machinery such as lifts and air conditioning.

## THE INTERCEPTOR ACTIVE TRACKING SERIES AT A GLANCE

- Connection means: Parallel connected
- Agency listings: UL1449, UL1283, CSA, CE, BS6651
- Protection modes: All modes standard (L-N, L-G, N-G, L-L); optional-any combination
- EMI/RFI filtering: 60dB maximum from 100KHz to 100MHz
- Response time: Less than .5ns
- Enclosure: NEMA 12, IP65 standard (optional - NEMA 3R, 4, 4X, IP32, IP66 and caseless for switch gear applications)
- Line frequency: 47-63 Hertz
- Line voltage: +/-15% nominal
- Temperature: -40 to +60 degrees C
- Relative humidity: 0 to 95% noncondensing
- Altitude: 0 to 5500 metres
- Audible noise: Less than 45 dBa

### Options

A range of customisations and options are available for the Interceptor series, including

- Audible alarm
- Dual seven-digit transient counters for normal and common modes
- Additional Form C dry contacts
- Remote monitor panel
- Integral fused disconnect switch

### ■ Telecommunications and broadcasting

Voice and data networks as well as television and radio broadcasters rely on high quality power for flawless transmission.

### ■ Industrial electronics

Factories require noise free voltage to keep process control machines running at maximum productivity with minimum downtime.

### ■ Computer equipment and networks

Offices, shops, superstores and other retail businesses need clean power to maintain the integrity of computers and data.

### ■ Telecommunications switchgear and cellular facilities

Reliable power is essential to ensure networks work reliably, 24 hours a day.

### ■ Hospitals

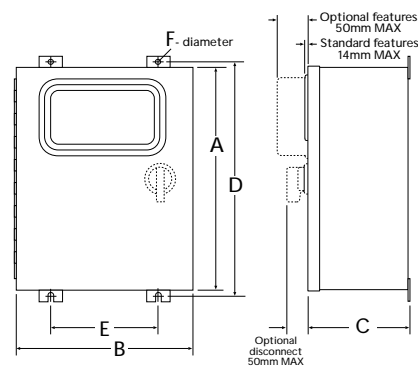
Closely controlled power is essential in critical areas such as operating theatres and intensive care.



# INSTANT REACTION WITH THE INTERCEPTOR

The Liebert Model 333 and Model 444 surge suppressors are Interceptor Series. These two models are specifically engineered to protect sensitive electronics in high-to-extreme exposure environments from high-energy transients. The Model 333 provides 300kAmps surge current capability per phase and is intended for high-exposure environments. The Model 444 provides 400kAmps surge current capability per phase and is intended for extreme exposure environments. All the products in the Interceptor Series feature field-proved MOV-based technology that responds to voltage variations almost instantaneously, effectively intercepting potentially damaging spikes and surges. Unmatched levels of redundancy provide exceptionally long mean time between failure.

Every Liebert Interceptor Series surge suppressor is backed by the unmatched resources of the nationwide Liebert service network and covered by our comprehensive 5-year parts and labour warranty. When you specify an Interceptor Series surge suppressor, you're protected as well as your equipment.



## How to specify the appropriate model

- 1) Look at chart A and find your configuration in the second column.
- 2) Find the corresponding model number in the first column.
- 3) Look at chart B (back page) to determine your voltage code from the choices available for your configuration.
- 4) Substitute the voltage code for "xxx" to complete your model number.  
(Use the first three digits of the voltage code for split phase and three phase configurations.)
- 5) For CE marked products please add 'E'. For example: SxxxN333 becomes SExxxN333.

**CHART A** Interceptor High to Extreme Exposure . 300kAmp and 400kAmp units

Model (xxx = voltage code)	Configuration	Surge current capability per phase (L-N or L-L+L-G) and per mode (8 x 20 us)					Dimensions (mm)						Weight Kg
		Phase	L-G	L-L	L-N	N-G	A	B	C	D	E	F	
<b>100kAmp Units</b>													
SxxxN333	Single Phase L-N 2 wire and ground	300kA	150kA	-	150kA	150kA	510	410	228	540	254	12	27
SxxxL330	Single Phase L-L 2 wire and ground	300kA	150kA	150kA	-	-	510	410	228	540	254	12	27
SxxxS333	Split Single Phase 3 wire and ground	300kA	150kA	-	150kA	150kA	510	510	228	540	356	12	32
SxxxY333	Three Phase Wye 4 wire and ground	300kA	150kA	-	150kA	150kA	610	510	228	642	356	12	40
SxxxD330	Three Phase Delta 3 wire and ground	300kA	150kA	150kA	-	-	610	510	228	642	356	12	40
SxxxH333	Three Phase Delta Hi-leg 4 wire & ground	300kA	150kA	-	150kA	150kA	610	510	228	642	356	12	40
<b>200kAmp Units</b>													
SxxxN444	Single Phase L-N 2 wire and ground	400kA	200kA	-	200kA	200kA	610	510	228	642	356	12	40
SxxxL440	Single Phase L-L 2 wire and ground	400kA	200kA	200kA	-	-	610	510	228	642	356	12	40
SxxxS444	Split Single Phase 3 wire and ground	400kA	200kA	-	200kA	200kA	610	510	228	642	356	12	40
SxxxY444	Three Phase Wye 4 wire and ground	400kA	200kA	-	200kA	200kA	762	610	228	794	458	12	49
SxxxD440	Three Phase Delta 3 wire and ground	400kA	200kA	200kA	-	-	762	610	228	794	458	12	49
SxxxH444	Three Phase Delta Hi-leg 4 wire and ground	400kA	200kA	-	200kA	200kA	762	610	228	794	459	12	49

## TVSS Interceptor Series

**CHART B** Nominal Voltage Codes

(substitute for xxx to complete model number)

Single Phase, 2 wire plus ground	100, 110, 120, 230, 240, 277, 346, 400, 480, 600
Split Single Phase, 3 wire plus ground	100/173, 110/190, 120/208 or 240, 230/400, 277/480, 346/600
Three Phase Delta, 3 wire plus ground	208, 240, 380, 400, 480, 600
Three Phase Delta Hi-Leg, 4 wire plus ground	120/240
Three Phase Wye, 3 or 4 wire plus ground	100/173, 110/190, 120/208, 230/400,* 277/480, 346/600

**UL 1449 Listed Ratings**

NOMINAL VOLTAGE	MODES OF PROTECTION					
	Without Disconnect			With Disconnect		
	L-N	L-G	N-G	L-N	L-G	N-G
100-120V	400V	400V	400V	500V	500V	400V
208-277V	800V	800V	800V	1000V (800V)	1000V (800V)	800V
346V	1200V	1200V	1200V	1500V	1500V	1500V
400-480V	1500V	1500V	1500V	1500V	1500V	1500V
600V	2000V	2000V	2000V	2000V	2000V	2000V

For configurations not mentioned, including caseless units for switchgear applications and ungrounded delta units, consult factory. For different levels of surge current capability per mode and/or per phase, consult factory.

Code: L-N = Line to Neutral, L-G = Line to Ground, N-G = Neutral to Ground, L-L = Line to Line.

\*Valid for 220/380 and 240/415 per IEC.

## YOU CAN TRUST THE LIEBERT NAME

For a quarter of a century Liebert has been an industry leader, renowned world-wide for our advanced computer protection equipment, including air conditioning, UPS, battery and security and environmental control systems.

Today we are one of the largest suppliers of equipment for telecommunication and computer installations, clean rooms, high security areas and many other critical applications, with an impressive customer list which includes thousands of companies, large and small, around the world.

We place a high priority on using the most advanced technology, designed and built to the stringent ISO9000 standard, and we continue to invest heavily in research and development.

All our systems are built to make the most efficient use of energy and to have the highest level of reliability. And all our products are backed by the international resources of the Liebert Corporation, the name you can trust.

**INTERCEPTOR AND OTHER LIEBERT POWER PROTECTION PRODUCTS ARE AVAILABLE FROM:**

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<http://www.liebert.com>