

■ Surge Protection
For *Business-Critical Continuity™*

Liebert ATF Series Surge Protective Device

The Ultimate Solution To Power Disturbance Problems



When You Require The Ultimate Surge Protection

In today's world, almost every business depends on sensitive microprocessor-based electronics to conduct their day to day operations. This means that electric power line disturbances can disrupt or cripple equipment causing a major loss in productivity — and money. Liebert understands this problem and offers a way to keep these power problems from getting into your facility in the first place.

The answer is the Liebert ATF (Active Tracking™ Filter) Series. These series-connected systems provide the highest level of protection with the lowest clamping rating levels available.

By closely controlling voltage at every location along the sinewave, our Active Tracking filter technology protects sensitive electronic equipment from the potentially damaging effects of low-energy voltage transients and the ringwaves that follow. The filter also stores and releases energy to fill and reduce sinewave spikes and notches.

Proven Performance

High-energy current diversion is handled by the Interceptor's sophisticated parallel system of computer-matched MOV (metal-oxide varistor) arrays. Each array module is sand-encapsulated and screened to provide exact current sharing and prevent component degradation. Our patented, coordinated fusing is UL Listed for 200kAIC at 600VAC to ensure absolute safety, yet allow surge current capability to be attenuated.

Our manufacturing facility is ISO 9001 Registered. Surge current ratings are independently tested, so you can specify a Liebert product with complete confidence. And we back every Liebert Interceptor Series filter with the industry's only five-year warranty for on-site labor.

Features That Make The Difference

The Industry's Best Attenuation Of Voltage

Transients Proprietary Active Tracking sinewave correction filter continuously provides close voltage control at any location on the sinewave.

The Industry's Best Attenuation Of 100 kHz Ringwaves

The Active Tracking filter system minimizes the aftershocks of voltage transients and the inherent energy storage system smooths the sinewave by filling notches and reducing spikes.

Stringent Testing For Performance

- Test data package.
- ANSI/IEEE C62.11, C62.41, C62.45 Categories A, B, and C3 tested.
- Independently tested surge current ratings tested from 100kAmps to 300kAmps.
- Life cycle tested: will survive in excess of 12,000 10kAmp surges per IEEE Category C3.

Engineered For Superior Surge Current Ratings And Long Life

- Computerized "smart" array technology for surge protection.
- Unique sand-packed silver fuse network allows rated surge current to pass through without fuse operation.
- Unprecedented redundancy offers expanded mean-time-between-failure (MTBF).
- Sinewave tracking EMI/RFI filtering.
- Fast response time — less than .5 nanoseconds.
- All modes of protection.

Compatible With All Linear Loads

- Provides flexibility for a wide range of applications. Modular Design For Ease Of Customization And Service.
- Enables you to specify an Interceptor system to match the needs of a specific application. Also allows easy replacement of surge modules if required.

Sophisticated User-Friendly Diagnostics

- On-line system monitoring/testing for all suppression components in all modes of protection.
- Standard features include: audible alarm, transient counter, door LEDs indicating unit status, individual module status LEDs, and Form C dry contacts for remote system integrity monitoring and indication of undervoltage, phase and/or power loss.
- Optional features include: additional seven-digit transient counter for normal mode, additional Form C dry contacts.

Manufactured To The Most Stringent ISO Quality Standards

- ISO 9001 registration for design, manufacturing and service.

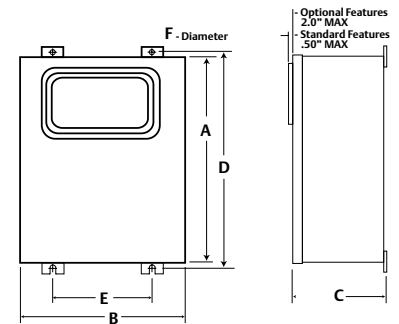
A Dedicated Service Network Protects You Too

- Dedicated service network with over 400 Liebert-trained and authorized technicians.
- Toll-free service hotline manned 24 x 7.

Specifications

Connection Type	Series connected
Protection Modes	All modes standard (Line to Neutral, Line to Ground, Neutral to Ground, Line to Line); any combination optional
EMI/RFI Filtering	Normal mode - 60 dB maximum from 10kHz to 500 MHz; Common mode 50 dB maximum from 10 kHz to 500 MHz
Response Time	less than .5 nanoseconds
Load Regulation	1% no load to full load
Enclosure	NEMA 12 standard; options include NEMA 3R, 4, 4X and caseless for switchgear applications

Line Frequency	47 to 63 Hz
Line Voltage	± 15% nominal
Temperature	-40° to +60°C
Operating Humidity	0 to 95% noncondensing
Altitude	0 to 18,000 feet
Audible Noise	Less than 45 dBa
Operational Crest Factor	3.0
Warranty	10-Years Parts and 5-Years On-Site Labor



How To Specify The Appropriate Model:

- 1) Go to **Chart A**, choose your Current Rating from column one and corresponding Configuration from column two.
- 2) Follow column two across to column three to determine your Model Number.
- 3) Refer to **Chart B** to determine the Voltage Code from the available choices. Substitute the Voltage Code for "XXX".
(Use the first three digits of the Voltage Code for split phase and three phase configurations.)
- 4) Finally, to complete your Model Number, go to the last column (Monitoring) and choose the suffix for Standard Features.

Chart A - Active Tracking® Filter Systems

Current Rating	Configuration	Model Number (xxx=voltage code)	Surge Current Capacity per phase (L-N or L-L+L-G)	Dimensions (Inches)						Weight Lbs.	Monitoring
				A	B	C	D	E	F		
											Standard Features Include:
30A	Single Phase L-L	FXXXL30	100kA	24.0	20.0	9.0	21.25	10.0	.44	40	<ul style="list-style-type: none"> Audible Alarm, Transient Counter Door LEDs indicating unit status Individual Module Status LEDs, and Form C Dry Contacts for Remote System Integrity Monitoring and Indication of Under Voltage, Phase, and/or Power Loss
30A	Single Phase L-N	FXXXN30	100kA	24.0	20.0	9.0	21.25	10.0	.44	35	
30A	Split Phase	FXXXS30	100kA	24.0	20.0	9.0	25.25	14.0	.44	45	
30A	Three Phase Delta	FXXXD30	100kA	24.0	20.0	9.0	25.25	14.0	.44	50	
30A	Three Phase Wye	FXXXY30	100kA	24.0	20.0	9.0	25.25	14.0	.44	60	
60A	Single Phase L-L	FXXXL60	100kA	24.0	20.0	9.0	21.25	10.0	.44	40	
60A	Single Phase L-N	FXXXN60	100kA	24.0	20.0	9.0	21.25	10.0	.44	35	<p>NOTES: For configurations not mentioned, including caseless units for switchgear applications and ungrounded delta units, consult factory. For different levels of surge current capacity mode and/or phase, consult factory.</p> <p>CODE: L - N = Line to Neutral L - G = Line to Ground N - G = Neutral to Ground L - L = Line to Line</p> <p>*Valid for 220/380 and 240/415 per IEC.</p>
60A	Split Phase	FXXXS60	100kA	24.0	20.0	9.0	25.25	14.0	.44	45	
60A	Three Phase Delta	FXXXD60	100kA	24.0	20.0	9.0	25.25	14.0	.44	50	
60A	Three Phase Wye	FXXXY60	100kA	24.0	20.0	9.0	25.25	14.0	.44	60	
100A	Single Phase L-L	FXXXL100	150kA	30.0	24.0	9.0	25.25	18.0	.44	65	
100A	Single Phase L-N	FXXXN100	150kA	30.0	24.0	9.0	31.25	18.0	.44	60	
100A	Split Phase	FXXXS100	150kA	30.0	24.0	9.0	31.25	18.0	.44	70	
100A	Three Phase Delta	FXXXD100	150kA	30.0	24.0	9.0	31.25	18.0	.44	70	
100A	Three Phase Wye	FXXXY100	150kA	30.0	24.0	9.0	31.25	18.0	.44	80	
125A	Single Phase L-L	FXXXL225	150kA	30.0	24.0	9.0	31.25	18.0	.44	65	
125A	Single Phase L-N	FXXXN225	150kA	30.0	24.0	9.0	31.25	18.0	.44	60	
225A	Split Phase	FXXXS225	150kA	30.0	24.0	9.0	31.25	18.0	.44	70	
225A	Three Phase Delta	FXXXD225	150kA	30.0	24.0	9.0	31.25	18.0	.44	70	
225A	Three Phase Wye	FXXXY225	150kA	30.0	24.0	9.0	31.25	18.0	.44	80	
400A	Three Phase Delta	FXXXD400	150kA	48.0	36.0	12.0	49.25	30.0	.44	275	
400A	Three Phase Wye	FXXXY400	150kA	48.0	36.0	12.0	49.25	30.0	.44	300	
800A	Three Phase Delta	FXXXD800	choose 200 or 300 kA	60.0	48.0	12.0	-	-	-	500	
800A	Three Phase Wye	FXXXY800	choose 200 or 300 kA	60.0	48.0	12.0	-	-	-	530	
1200A	Three Phase Delta	FXXXD1200	choose 200 or 300 kA	60.0	48.0	20.0	-	-	-	700	
1200A	Three Phase Wye	FXXXY1200	choose 200 or 300 kA	60.0	48.0	20.0	-	-	-	750	
2000A	Three Phase Delta	FXXXD2000	choose 200 or 300 kA	60.0	48.0	20.0	-	-	-	875	
2000A	Three Phase Wye	FXXXY2000	choose 200 or 300 kA	60.0	48.0	20.0	-	-	-	950	
4000A	Three Phase Delta	FXXXD4000	choose 200 or 300 kA	60.0	48.0	20.0	-	-	-	1175	
4000A	Three Phase Wye	FXXXY4000	choose 200 or 300 kA	60.0	48.0	20.0	-	-	-	1300	

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

Sample Model Number:
F120Y30-06

Ensuring the High Availability Of Mission-Critical Data and Applications

Emerson Network Power, a business of Emerson (NYSE:EMR), is the global leader in enabling *Business-Critical Continuity™* from grid to chip for telecommunication networks, data centers, health care and industrial facilities. Emerson Network Power provides innovative solutions and expertise in areas including AC and DC power and precision cooling systems, embedded computing and power, integrated racks and enclosures, power switching and controls, monitoring, and connectivity. All solutions are supported globally by local Emerson Network Power service technicians. Liebert AC power, precision cooling and monitoring products and services from Emerson Network Power deliver Efficiency Without Compromise™ by helping customers optimize their data center infrastructure to reduce costs and deliver high availability.

While every precaution has been taken to ensure accuracy and completeness in this literature, Liebert Corporation assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

© 2010 Liebert Corporation. All rights reserved throughout the world. Specifications subject to change without notice.

All names referred to are trademarks or registered trademarks of their respective owners.

® Liebert and the Liebert logo are registered trademarks of the Liebert Corporation.

SL-22006 (R01/10) Printed in USA

Emerson Network Power.

The global leader in enabling *Business-Critical Continuity™*.

- | | | | |
|----------------|----------------------|------------------------------|-------------------------------|
| ■ AC Power | ■ Embedded Computing | ■ Outside Plant | ■ Racks & Integrated Cabinets |
| ■ Connectivity | ■ Embedded Power | ■ Power Switching & Controls | ■ Services |
| ■ DC Power | ■ Monitoring | ■ Precision Cooling | ■ Surge Protection |