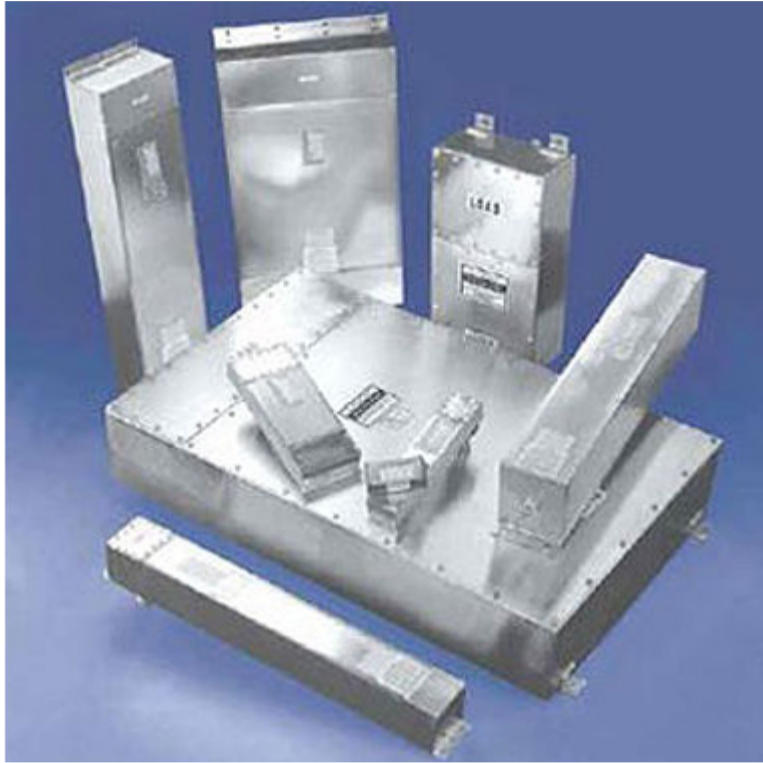


EMP Commercial and Defense Tempest Powerline Filters



ETS-Lindgren EMP/HEMP Power Line filters offer excellent multi-stage over-voltage and EMI/RFI protection. and are designed to meet point-of-entry requirements of MIL-STD-188-125-1 & -2 for Short and Intermediate Pulses, in addition to high insertion loss performance for SCIF, TEMPEST, and other military commercial applications.

Key Features

- High Frequency Response Design
- Reliable Transient Suppression Elements
- Superior Insertion Loss Performance
- Extended Filter Life
- Pulse Current
- Wide Selection of Current Ratings
- Custom Designs Available

Product Features

Configurations

These filters are available in the following configurations:

- Individual, Stand-alone Single Circuit Filters (contact factory)
- Twin Dual Circuit Filters for Single Phase Installations
- Multiple Line Panel Filters for Facility Installations
 - Single Phase
 - Three Phase Performance

Performance

All EMP/HEMP filters meet or exceed the following performance and safety criteria:

- MIL-STD-188-125-1 & -2
- MIL-F-15733
- MIL-STD-220
- UL 1283

- IEC 60939
- LVD (2006/95/EC)

Specifications

Physical Specifications

Model	Case Height ("A")	Case Width ("B")	Case Depth ("C")	Approximate Weight
LRX-2010-EMP	94.0 cm (37 in)	22.9 cm (9 in)	12.7 cm (5 in)	31.8 kg (70 lb)
LRX-2030-EMP	94.0 cm (37 in)	22.9 cm (9 in)	12.7 cm (5 in)	31.8 kg (70 lb)
LRX-2060-EMP	111.8 cm (44 in)	35.6 cm (14 in)	15.2 cm (6 in)	36.3 kg (80 lb)
LRX-2100-EMP	111.8 cm (44 in)	35.6 cm (14 in)	15.2 cm (6 in)	45.4 kg (100 lb)
LRX-2250-EMP	121.9 cm (48 in)	35.6 cm (14 in)	15.2 cm (6 in)	68.0 kg (150 lb)
LRX-2400-EMP	132.1 cm (52 in)	61.0 cm (24 in)	22.9 cm (9 in)	90.7 kg (200 lb)
LPRX-2x30-EMP	91.4 cm (36 in)	61.0 cm (24 in)	15.2 cm (6 in)	36.3 kg (80 lb)
LPRX-3x30-EMP	91.4 cm (36 in)	45.7 cm (18 in)	15.2 cm (6 in)	49.9 kg (110 lb)
LPRX-4x30-EMP	91.4 cm (36 in)	61.0 cm (24 in)	15.2 cm (6 in)	63.5 kg (140 lb)
LPRX-2x60-EMP	121.9 cm (48 in)	40.6 cm (16 in)	21.6 cm (8.5 in)	63.5 kg (140 lb)
LPRX-3x60-EMP	121.9 cm (48 in)	76.2 cm (30 in)	21.6 cm (8.5 in)	90.7 kg (200 lb)
LPRX-4x60-EMP	121.9 cm (48 in)	76.2 cm (30 in)	21.6 cm (8.5 in)	117.9 kg (260 lb)
LPRX-2x100-EMP	121.9 cm (48 in)	40.6 cm (16 in)	21.6 cm (8.5 in)	68.0 kg (150 lb)
LPRX-3x100-EMP	121.9 cm (48 in)	76.2 cm (30 in)	21.6 cm (8.5 in)	97.5 kg (215 lb)
LPRX-4x100-EMP	121.9 cm (48 in)	76.2 cm (30 in)	21.6 cm (8.5 in)	81.6 kg (180 lb)
LFPRX-2x250-EMP	188.0 cm (74 in)	50.8 cm (20 in)	35.6 cm (14 in)	163.3 kg (360 lb)
LFPRX-3x250-EMP	188.0 cm (74 in)	99.1 cm (39 in)	35.6 cm (14 in)	231.3 kg (510 lb)
LFPRX-4x250-EMP	188.0 cm (74 in)	99.1 cm (39 in)	35.6 cm (14 in)	299.4 kg (660 lb)
LFPRX-2x400-EMP	188.0 cm (74 in)	50.8 cm (20 in)	35.6 cm (14 in)	172.4 kg (380 lb)
LFPRX-3x400-EMP	188.0 cm (74 in)	99.1 cm (39 in)	35.6 cm (14 in)	244.9 kg (540 lb)
LFPRX-4x400-EMP	188.0 cm (74 in)	99.1 cm (39 in)	35.6 cm (14 in)	317.5 kg (700 lb)
LFPRX-3x600-EMP	265.4 cm (104.5 in)	119.4 cm (47 in)	50.8 cm (20 in)	430.9 kg (950 lb)
LFPRX-4x600-EMP	265.4 cm (104.5 in)	119.4 cm (47 in)	50.8 cm (20 in)	453.6 kg (1000 lb)
LFPRX-3x800-EMP	228.6 cm (90 in)	236.2 cm (93 in)	35.6 cm (14 in)	589.7 kg (1300 lb)
LFPRX-4x800-EMP	228.6 cm (90 in)	236.2 cm (93 in)	35.6 cm (14 in)	680.4 kg (1500 lb)
LFPRX-3x1250-EMP	304.8 cm (120 in)	254 cm (100 in)	50.8 cm (20 in)	771.1 kg (1700 lb)
LFPRX-4x1250-EMP	304.8 cm (120 in)	254 cm (100 in)	50.8 cm (20 in)	907.2 kg (2000 lb)

Electrical Specifications

Model	Current Rating Amp
LRX-2010-EMP	2 X 30
LRX-2030-EMP	2 X 30
LRX-2060-EMP	2 X 60
LRX-2100-EMP	2 X 100
LRX-2250-EMP	2 X 250
LRX-2400-EMP	2 X 400
LPRX-2x30-EMP	2 x 30
LPRX-3x30-EMP	3 x 30
LPRX-4x30-EMP	4 x 30
LPRX-2x60-EMP	2 x 60

LPRX-3x60-EMP	3 x 60
LPRX-4x60-EMP	4 x 60
LPRX-2x100-EMP	2 x 100
LPRX-3x100-EMP	3 x 100
LPRX-4x100-EMP	4 x 100
LFPRX-2x250-EMP	2 x 250
LFPRX-3x250-EMP	3 x 250
LFPRX-4x250-EMP	4 x 250
LFPRX-2x400-EMP	2 x 400
LFPRX-3x400-EMP	3 x 400
LFPRX-4x400-EMP	4 x 400
LFPRX-2x600-EMP	2 x 600
LFPRX-3x600-EMP	3 x 600
LFPRX-4x600-EMP	4 x 600
LFPRX-3x800-EMP	3 x 800
LFPRX-4x800-EMP	4 x 800
LFPRX-3x1250-EMP	3 x 1250
LFPRX-4x1250-EMP	4 x 1250

Pulse Suppression Performance "E2"

MIL-STD-188-125 Acceptance Test, Intermediate Pulse Current Injection, Wave-shape 1.5/3000s

Input Pulse Amplitude	MIL-STD-188-125 Requirement	Typical Filter Response
250 A	No Filter Damage or Performance Degradation	No Filter Damage or Performance Degradation

Pulse Suppression Performance "E1"

MIL-STD-188-125 Acceptance Test, Short Pulse Current Injection, Wave-sharp 20/500 ns

Input Pulse Amplitude	MIL-STD-188-125 Requirement and Filter Residual Let Through
250 A	<10 A
500 A	<10 A
1000 A	<10 A
1800 A	<10 A
2500 A	<10 A

Insertion Loss Performance

Minimum Loss in 50 System with/without Load

Frequency	Insertion Loss
14 kHz - 40 GHz	100 dB

Ratings and Characteristics

Rated Voltage	Test Voltage	Insulation Resistance	Discharge Resistors	Discharge Time	Maximum Temperature Rise on Full Load	Full Load Operating Temperature Range	Leakage Current at 250 VAC 50 Hz	Peak Surge Current
0 to 277/480 VAC 50/60 Hz	2250 VDC Each Line to Case per UL 12583 and LVD (Prior to Fitting Transient Suppressors)	>100 M (Prior to Fitting Discharge Resistors)	Fitted Internally from Each Line to Case	<30 sec.	25° C (77° F)	-25° C to 65° C (-13° F to 149° F)	<10% of Rated Current	50 kA (8/s)