

# Harmonic filters

## Type LAF auto-switched harmonic filters

### Automatic harmonic filters

Automatically switched filters are used for compensation of variable or dynamic load conditions. They are designed to accommodate harmonic contributions from several/multiple loads. PSS™ automatic harmonic filterbank systems are a practical and cost effective solution for harmonic mitigation and improvement of system power factor.

### CPR™ extends capacitor life

Automatic power factor correction systems include our Capacitor Protection Reactors, (CPR™). CPR™ reactors protect capacitor cells from power system harmonic overload, and protect the power system from transients created during capacitor switching activities. Type LAF automatic harmonic filter systems offer all of the advantages of our standard filters, and are designed to handle harmonic currents realized between no-load to full load system conditions.

### ISO-9001 certified facility

PSS Power Factor Correction systems are designed and assembled in manufacturing facility certified by Underwriter's Laboratories to quality standard ISO 9001.

### Harmonic Distortion Controls

PSS harmonic filters include monitoring logic that control the addition or removal of filter steps to limit harmonic distortion levels to desired target power factor throughout the complete

range of facility loading curve.

### CPR™ protection included

Automatic capacitor systems using our CPR™ technology, are assembled using single-phase capacitor cells connected either delta or wye configuration. A series reactor that helps to either block or absorb harmonic frequencies (depending upon type) and avoid resonance problems protects each group of capacitor cells.

### Fully protected system

Our LAF series, automatic, de-tuned capacitor systems are supplied complete with the necessary protection features:

- Main molded case circuit breaker
- Secondary surge arrester
- High interrupting capacity fuses.
- Automatic power factor controller.
- Modular metallic enclosure
- Forced air cooling

# Harmonic filters

## Type LAF auto-switched harmonic filters

### 240 volts, Fifth harmonic, auto-switched filters

kVAR	kVAR per step	Model	
		Main circuit breaker	NO circuit breaker
100	4 X 25	LAF 0100 240 04S N1 5TH	LAF 0100 240 04S N1 5TH NB
125	5 X 25	LAF 0125 240 05S N1 5TH	LAF 0125 240 05S N1 5TH NB
150	6 X 25	LAF 0150 240 06S N1 5TH	LAF 0150 240 06S N1 5TH NB
175	7 X 25	LAF 0175 240 07S N1 5TH	LAF 0175 240 07S N1 5TH NB
200	8 X 25	LAF 0200 240 08S N1 5TH	LAF 0200 240 08S N1 5TH NB
225	9 X 25	LAF 0225 240 09S N1 5TH	LAF 0225 240 09S N1 5TH NB
250	10 X 25	LAF 0250 240 10S N1 5TH	LAF 0250 240 10S N1 5TH NB
275	11 X 25	LAF 0275 240 11S N1 5TH	LAF 0275 240 11S N1 5TH NB
300	12 X 25	LAF 0300 240 12S N1 5TH	LAF 0300 240 12S N1 5TH NB

### 480 volts, Fifth harmonic, auto-switched filters

kVAR	kVAR per step	Model	
		Main circuit breaker	NO circuit breaker
100	4 X 25	LAF 0100 480 04S N1 5TH	LAF 0100 480 04S N1 5TH NB
125	5 X 25	LAF 0125 480 05S N1 5TH	LAF 0125 480 05S N1 5TH NB
150	6 X 25	LAF 0150 480 06S N1 5TH	LAF 0150 480 06S N1 5TH NB
175	7 X 25	LAF 0175 480 07S N1 5TH	LAF 0175 480 07S N1 5TH NB
200	8 X 25	LAF 0200 480 08S N1 5TH	LAF 0200 480 08S N1 5TH NB
225	9 X 25	LAF 0225 480 09S N1 5TH	LAF 0225 480 09S N1 5TH NB
250	10 X 25	LAF 0250 480 10S N1 5TH	LAF 0250 480 10S N1 5TH NB
275	11 X 25	LAF 0275 480 11S N1 5TH	LAF 0275 480 11S N1 5TH NB
300	12 X 25	LAF 0300 480 12S N1 5TH	LAF 0300 480 12S N1 5TH NB

# Harmonic filters

## Type LAF auto-switched harmonic filters

### Dimensions: 240v and 480v, 60hz, NEMA 1 floor-standing enclosure

240 Volts, 60hz Catalog No.	# of Steps	Total kVAR	Height	Dimensions (in / mm)		Weight Lbs / Kg
				Width	Depth	
LAF 0100 240 04S N1 5TH	4	100	63 / 1600	48 / 1200	32 / 800	770 / 350
LAF 0125 240 04S N1 5TH	5	125	63 / 1600	48 / 1200	32 / 800	880 / 400
LAF 0150 240 04S N1 5TH	6	150	63 / 1600	48 / 1200	32 / 800	935 / 425
LAF 0175 240 04S N1 5TH	7	175	78 / 2000	48 / 1200	32 / 800	1100 / 500
LAF 0200 240 04S N1 5TH	8	200	78 / 2000	48 / 1200	32 / 800	1210 / 550
LAF 0225 240 04S N1 5TH	9	225	78 / 2000	71 / 1800	32 / 800	1430 / 650
LAF 0250 240 04S N1 5TH	10	250	78 / 2000	71 / 1800	32 / 800	1485 / 675
LAF 0275 240 04S N1 5TH	11	275	78 / 2000	71 / 1800	32 / 800	1540 / 700
LAF 0300 240 04S N1 5TH	12	300	78 / 2000	71 / 1800	32 / 800	1650 / 750

480 Volts, 60hz Catalog No.	# of Steps	Total kVAR	Height	Dimensions (in / mm)		Weight Lbs / Kg
				Width	Depth	
LAF 0100 480 04S N1 5TH	4	100	63 / 1600	48 / 1200	32 / 800	770 / 350
LAF 0125 480 05S N1 5TH	5	125	63 / 1600	48 / 1200	32 / 800	880 / 400
LAF 0150 480 06S N1 5TH	6	150	63 / 1600	48 / 1200	32 / 800	935 / 425
LAF 0175 480 07S N1 5TH	7	175	63 / 1600	48 / 1200	32 / 800	1100 / 500
LAF 0200 480 08S N1 5TH	8	200	63 / 1600	48 / 1200	32 / 800	1210 / 550
LAF 0225 480 09S N1 5TH	9	225	78 / 2000	71 / 1800	32 / 800	1430 / 650
LAF 0250 480 10S N1 5TH	10	250	78 / 2000	71 / 1800	32 / 800	1485 / 675
LAF 0275 480 11S N1 5TH	11	275	78 / 2000	71 / 1800	32 / 800	1540 / 700
LAF 0300 480 12S N1 5TH	12	300	78 / 2000	71 / 1800	32 / 800	1650 / 750

# Harmonic filters

## Type LAF auto-switched harmonic filters

### 240 volts, Seventh harmonic, auto-switched filters

kVAR	kVAR per step	Model	
		Main circuit breaker	NO circuit breaker
100	4 X 25	LAF 0100 240 04S N1 7TH	LAF 0100 240 04S N1 7TH NB
125	5 X 25	LAF 0125 240 05S N1 7TH	LAF 0125 240 05S N1 7TH NB
150	6 X 25	LAF 0150 240 06S N1 7TH	LAF 0150 240 06S N1 7TH NB
175	7 X 25	LAF 0175 240 07S N1 7TH	LAF 0175 240 07S N1 7TH NB
200	8 X 25	LAF 0200 240 08S N1 7TH	LAF 0200 240 08S N1 7TH NB
225	9 X 25	LAF 0225 240 09S N1 7TH	LAF 0225 240 09S N1 7TH NB
250	10 X 25	LAF 0250 240 10S N1 7TH	LAF 0250 240 10S N1 7TH NB
275	11 X 25	LAF 0275 240 11S N1 7TH	LAF 0275 240 11S N1 7TH NB
300	12 X 25	LAF 0300 240 12S N1 7TH	LAF 0300 240 12S N1 7TH NB

### 480 volts, Seventh harmonic, auto-switched filters

kVAR	kVAR per step	Model	
		Main circuit breaker	NO circuit breaker
100	4 X 25	LAF 0100 480 04S N1 7TH	LAF 0100 480 04S N1 7TH NB
125	5 X 25	LAF 0125 480 05S N1 7TH	LAF 0125 480 05S N1 7TH NB
150	6 X 25	LAF 0150 480 06S N1 7TH	LAF 0150 480 06S N1 7TH NB
175	7 X 25	LAF 0175 480 07S N1 7TH	LAF 0175 480 07S N1 7TH NB
200	8 X 25	LAF 0200 480 08S N1 7TH	LAF 0200 480 08S N1 5TH NB
225	9 X 25	LAF 0225 480 09S N1 7TH	LAF 0225 480 09S N1 7TH NB
250	10 X 25	LAF 0250 480 10S N1 7TH	LAF 0250 480 10S N1 7TH NB
275	11 X 25	LAF 0275 480 11S N1 7TH	LAF 0275 480 11S N1 7TH NB
300	12 X 25	LAF 0300 480 12S N1 7TH	LAF 0300 480 12S N1 7TH NB

# Harmonic filters

## Type LAF auto-switched harmonic filters

### Dimensions: 240v and 480v, 60hz, NEMA 1 floor-standing enclosure

240 Volts, 60hz Catalog No.	# of Steps	Total kVAR	Height	Dimensions (in / mm)		Weight Lbs / Kg
				Width	Depth	
LAF 0100 240 04S N1 7TH	4	100	63 / 1600	48 / 1200	32 / 800	770 / 350
LAF 0125 240 04S N1 7TH	5	125	63 / 1600	48 / 1200	32 / 800	880 / 400
LAF 0150 240 04S N1 7TH	6	150	63 / 1600	48 / 1200	32 / 800	935 / 425
LAF 0175 240 04S N1 7TH	7	175	78 / 2000	48 / 1200	32 / 800	1100 / 500
LAF 0200 240 04S N1 7TH	8	200	78 / 2000	48 / 1200	32 / 800	1210 / 550
LAF 0225 240 04S N1 7TH	9	225	78 / 2000	71 / 1800	32 / 800	1430 / 650
LAF 0250 240 04S N1 7TH	10	250	78 / 2000	71 / 1800	32 / 800	1485 / 675
LAF 0275 240 04S N1 7TH	11	275	78 / 2000	71 / 1800	32 / 800	1540 / 700
LAF 0300 240 04S N1 7TH	12	300	78 / 2000	71 / 1800	32 / 800	1650 / 750

480 Volts, 60hz Catalog No.	# of Steps	Total kVAR	Height	Dimensions (in / mm)		Weight Lbs / Kg
				Width	Depth	
LAF 0100 480 04S N1 7TH	4	100	63 / 1600	48 / 1200	32 / 800	770 / 350
LAF 0125 480 05S N1 7TH	5	125	63 / 1600	48 / 1200	32 / 800	880 / 400
LAF 0150 480 06S N1 7TH	6	150	63 / 1600	48 / 1200	32 / 800	935 / 425
LAF 0175 480 07S N1 7TH	7	175	63 / 1600	48 / 1200	32 / 800	1100 / 500
LAF 0200 480 08S N1 7TH	8	200	63 / 1600	48 / 1200	32 / 800	1210 / 550
LAF 0225 480 09S N1 7TH	9	225	78 / 2000	71 / 1800	32 / 800	1430 / 650
LAF 0250 480 10S N1 7TH	10	250	78 / 2000	71 / 1800	32 / 800	1485 / 675
LAF 0275 480 11S N1 7TH	11	275	78 / 2000	71 / 1800	32 / 800	1540 / 700
LAF 0300 480 12S N1 7TH	12	300	78 / 2000	71 / 1800	32 / 800	1650 / 750