



# LineMaster MBP Branch Panel Protection

*The MBP panel is a high performance branch panel Surge Protection Device (SPD) designed to provide protection for branch panels or extremely critical loads in industrial, commercial, and medical environments.*



## Protection

The MBP suppressor provides state-of-the-art protection for multi-phase applications. The MBP's 90,000 Amperes surge current capability protects equipment from L-N, \*N-G surge currents and transient voltages.

## Performance

The EFI Electronics LineMaster MBP utilizes a hybrid Sine Wave Tracker™ suppression circuit in individual replaceable modules. The LineMaster MBP provides transient protection and up to -40 db noise filtration. The MBP panels have passed a pulse life test of 2,500 ANSI category C-3 surges without clamping drift.

## Applications

Initially designed and manufactured for installation on main branch panels, the MBP has also been used on Commercial and Light Industrial main service panels. The MBP makes an excellent part of an EFI Electronics cascaded suppression filter system.

FEATURES	ADVANTAGES	BENEFITS
LED suppression status indicator per phase	Provides visual indication of the suppressors status.	Allows immediate response if suppressor is damaged
90,000 peak amp capacity	Protects against nearby high energy lightning strikes.	Protects sensitive electronic equipment at all times, even during lightning storms.
Sine Wave Tracker circuitry	Provides a tight clamping window above and below the AC sine wave	Customer assurance of superior transient protection.
Modular design	Modules are user replaceable without turning power off	Allows service and maintenance without interrupting operation.

\* N-G Module is optional

# LineMaster MBP

## Product Specifications

Model	MBP120/240Y	MBP120/208Y	MBP220Y	MBP220/380Y
Max. operating voltage	150 Vac	150 Vac	250 Vac	250 Vac
Rated line voltage	120/240 V single ph, 3-wire + G	120/208 V 3-ph, 4-wire + G	220 V 1-ph, 3-wire + G	220/380 V 3-ph, 4-wire + G
Frequency	50/60 and 400 Hz	50/60 and 400 Hz	50/60 and 400 Hz	50/60 and 400 Hz
Thermal Fusing	Yes	Yes	Yes	Yes
Suppression circuit	Hybrid parallel	Hybrid parallel	Parallel	Parallel
Sine Wave Tracking	Yes	Yes	No	No
Peak transient current	90,000 Amps per phase	90,000 Amps per phase	90,000 Amps per phase	90,000 Amps per phase
EMI/RFI noise rejection	Up to -40 dB	Up to -40 dB	Up to -20 dB	Up to -20 dB
Response time	Instantaneous	Instantaneous	Instantaneous	Instantaneous
Diagnostics	LED, Suppression status indicator per phase			
Operating/Storage temp.	14° - 140°F / -40° - 160°F (-10° - 60°C / -40° - 85°C)			
Altitude	Sea level to 12,000 feet (3,658 Meters)			
Size	8" x 10" x 4.5" (203mm x 254mm x 114mm)			
Weight	11 lbs (5 kg)	11 lbs (5 kg)	11 lbs (5 kg)	11 lbs (5 kg)
Safety Approvals	UL 1449-Second Edition	UL 1449-Second Edition	UL 1449-Second Edition	UL 1449-Second Edition
UL 1449-Second Edition				
Warranty	cUL 10 year	cUL 10 year	cUL 10 year	cUL 10 year
Clamping Voltages				
Category A3 ringwave (6kV, 200 A, 100kHz)	300V	300V	585V	585V
Category B3 ringwave (6kV, 500 A, 100kHz)	380V	380V	610V	610V
Category C1 impulse (6kV 1.2x50µs, 3kA, 8x20µs)	445V	445V	695V	695V
UL 1449-Second Edition	400V	400V	700V	700V

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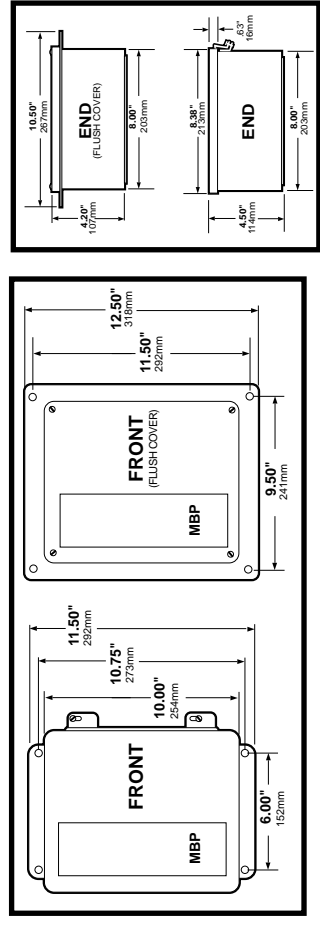
## Product Specifications (cont)

Model	MBP240D	MBP240/120D	MBP277/480Y	MBP480D
Max. operating voltage	250 Vac	250/150 Vac	320 Vac	550 Vac
Rated line voltage	240 V, 3-ph delta	240/120 V 3-ph delta	277/480 V 3-ph, 4-wire + G	480 V 3-ph delta
Frequency	50/60 and 400 Hz	50/60 and 400 Hz	50/60 and 400 Hz	50/60 and 400 Hz
Thermal Fusing	Yes	Yes	Yes	Yes
Suppression circuit	Parallel	Hybrid Parallel	Hybrid Parallel	Parallel
Sine Wave Tracking	No	Yes	Yes	No
Peak transient current	90,000 Amps per phase	90,000 Amps per phase	90,000 Amps per phase	90,000 Amps per phase
EMI/RFI noise rejection	Up to -20 dB	Up to -40 dB	Up to -40 dB	Up to -20 dB
Response time	<5 ns	Instantaneous	Instantaneous	<5 ns

### Diagnostics

Suppression status per phase  
 Operating/Storage temp. 14° - 140°F / -40° - 160°F (-10° - 60°C / -40° - 85°C)  
 Altitude Sea level to 12,000 feet (3,658 Meters)  
 Size 8" x 10" x 4.5" (203mm x 254mm x 114mm)

Weight	11 lbs (5 kg)	11 lbs (5 kg)	11 lbs (5 kg)	11 lbs (5 kg)
Safety Approvals	UL 1449-Second Edition	UL 1449-Second Edition	UL 1449-Second Edition	UL 1449-Second Edition
Warranty	cUL 10 year	cUL 10 year	cUL 10 year	cUL 10 year
Clamping Voltages	585V	585/300V	550V	1380V
Category A3 ringwave (6kV, 200 A, 100kHz)	610V	610/380V	784V	1450V
Category B3 ringwave (6kV, 500 A, 100kHz)	695V	695/445V	960V	1650V
Category C1 impulse (6kV 1.2x50µs, 3kA, 8x20µs)	1500V	800/400V	800V	3000V



LISTED 5814

Sine Wave Tracker is a trademark of EFI Electronics Corporation