

## 160,000 AMP BRANCH PANEL PROTECTION

Titan E160BPF suppression panels provide maximum surge protection for large loads and branch panels. With the Titan E160BPF, design engineers can specify individual options and features for each project, such as system voltage, housing type, integral disconnect, etc.

Compliant with UL 1449 2nd Edition requirements dated February 9, 2007.



## APPLICATIONS

The Titan E160BPF is designed for installation on service entrance and branch panels, as well as electronic equipment in industrial, medical and commercial applications. The Titan E160BPF provides a 160,000 Amp peak surge current rating. Titan E160BPF surge suppressors provide excellent protection for branch panels and electronic equipment in a cascaded filter suppression system.

## SUPERIOR PERFORMANCE

The Titan E160BPF utilizes a hybrid Sine Wave Tracker™ suppression circuit in a replaceable single brick module. It provides both transient protection and up to -30 dB of noise filtration.

The EFI Electronics Titan E160BPF provides reliable operation by incorporating EFI's latest improvements. Each MOV is individually fused and the product is contained in a NEMA 1 or NEMA 3R/12 metallic housing for maximum performance. The Titan E160BPF has been tested and is UL and cUL listed.

## EASY INSTALLATION

The Titan E160BPF easily mounts adjacent to any panel board. Its compact design allows the Titan E160BPF to be mounted near the circuit breaker in order to reduce connecting leads and improve performance. Operating status lights are conveniently observed on the front cover and an audible alarm and form C dry contacts alert the user in the case of suppressor damage.

FEATURES	ADVANTAGES	BENEFITS
LED STATUS INDICATORS	Allows unit status to be viewed without disabling protection	Enables building maintenance personnel to regularly inspect suppressor
AUDIBLE ALARM AND NO/NC DRY CONTACTS STATUS INDICATOR	Provides additional indication of the suppression status	Allows the building engineer to remotely monitor Surge Protection Device status
160,000 PEAK AMP SURGE CURRENT CAPACITY	Protects against high-energy lightning strikes	Delivers protection even in the worst electrical conditions
SINE WAVE TRACKER™ CIRCUITRY	Provides a tight clamping window above and below the AC sine wave	Ensures superior transient protection
SURGE COUNTER	Allows feedback regarding number of transients	Additional data for preventive maintenance personnel

# TITAN® E160BPF Product Specifications



## PERFORMANCE

Maximum Surge Current	160 kA/Phase
Short Circuit Current Rating	200 kA 600 V Maximum
Sine Wave Tracking Circuit	Yes (Delta and Wye)
EMI/RFI Noise Rejection	-30 dB
Response Time	< 1 ns

## MECHANICAL DESCRIPTION

Dimensions	See images
Housing Ratings	NEMA 1 optional NEMA 3R/12
Weight	
NEMA 1	9.25 lbs
NEMA 3R/12	26.3 lbs
NEMA 3R/12-D	34.0 lbs

## MECHANICAL DESCRIPTION (CONT'D)

Connection Terminals	#2 AWG Terminals #4 AWG (w/Disconnect)
Mounting Method	Surface, Flush
Internal Fusing	Yes
Operating Frequency	50/60 Hz
Circuit Type	Parallel Hybrid
Storage Temperature	-40° to +160° F (-40° to +70° C)
Operating Temperature	-40° to +140° F (-40° to +60° C)
Operating Altitude	Sea level to 12,000 feet (3,658 meters)

## DIAGNOSTICS

Standard	Green Status LED's per Phase, Audible Alarm with Enable/ Disable Switch, Push to Test Diagnostics, Surge Counter, Dry Contacts
Optional	NEMA 3R/12 Enclosure, Safety Disconnect Switch

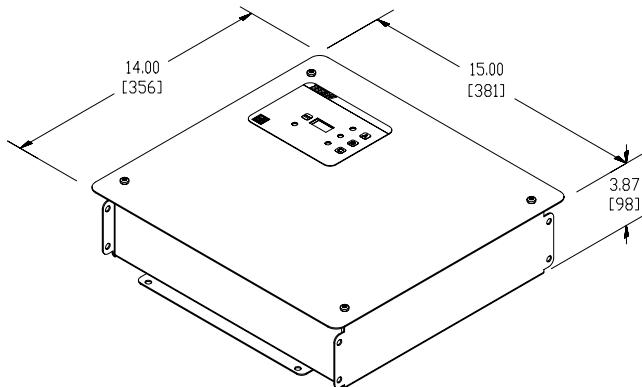
## SAFETY APPROVALS

UL<sup>®</sup> 1449 2nd Edition, 2007 requirements,  
cUL, UL 1283, CSA C22.2 No.8- M1986,  
IEEE C62.41.1-2002, C62.41.2-2002,  
C62.45-2002

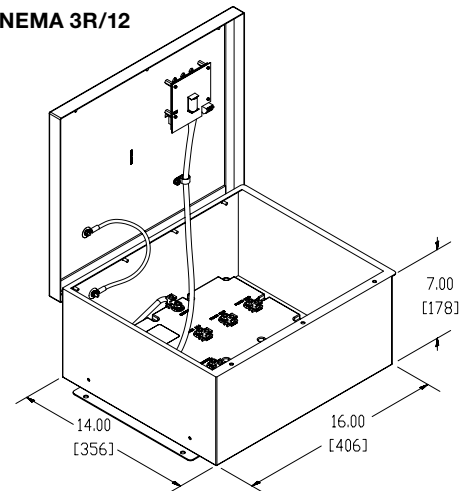
## WARRANTY

10 years on Product

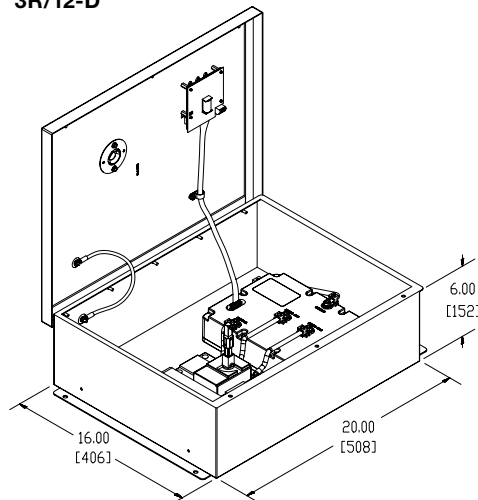
**NEMA 1**



**NEMA 3R/12**



**3R/12-D**



# TITAN® E160BPF Product Specifications



TITAN E160BPF SYSTEM DESCRIPTION					UL 1449 2-nd EDITION			
160kA (Per/Phase)	Service Voltage	Configuration	Model Number	MCOV	L-N	L-G	N-G	L-L
	120/240 wye (Single Phase)	1Ph. Wye 3-wire +G	E160BPF120/240Y *	150	500	500	500	800
	120/208 wye	3Ph. Wye 4-wire +G	E160BPF120/208Y *	150	500	500	500	800
	208 Delta High Resistance Ground	3Ph. Delta 3-wire HRG	E160BPF208HRG	300	NA	NA	NA	800
	208 Delta Ungrounded	3Ph. Delta 3-wire Ungrounded	E160BPF208U	300	NA	NA	NA	800
	220/380 wye	3Ph. Wye 4-wire +G	E160BPF220/380Y *	320	900	1200	1200	1800
	240/120 Delta split phase	3Ph. Delta 4-wire +G 'High Leg'	E160BPF240/120D	150/320	500/800	500/900	500	800
	240/120 Delta split phase	3Ph. Delta 4-wire +G 'High Leg'	E160BPF240/120D-R	150/320	500/800	500/900	500	800
	240/120 Delta split phase	3Ph. Delta 4-wire +G 'High Leg'	E160BPF240/120D-RD	150/320	500/800	600/900	500	900
	240 Delta corner ground	3Ph. Delta 3-wire +G	E160BPF240D	300	NA	NA	NA	700
	240 Delta Ungrounded	3Ph. Delta 3-wire Ungrounded	E160BPF240U	300	NA	NA	NA	700
	240 Delta corner ground	3Ph. Delta 3-wire +G	E160BPF240D-R	300	NA	NA	NA	700
	240 Delta corner ground	3Ph. Delta 3-wire +G	E160BPF240D-RD	300	NA	NA	NA	700
	277/480 wye	3Ph. Wye 4-wire +G	E160BPF277/480Y *	320	900	1200	1200	1800
	480 Delta High Resistance Ground	3Ph. Delta 3-wire HRG	E160BPF480HRG	640	NA	NA	NA	1800
	480 Delta corner ground	3Ph. Delta 3-wire +G	E160BPF480D	640	NA	NA	NA	1800
	480 Delta Ungrounded	3Ph. Delta 3-wire Ungrounded	E160BPF480U	640	NA	NA	NA	1800
	480 Delta corner ground	3Ph. Delta 3-wire +G	E160BPF480D-R	640	NA	NA	NA	1800
	480 Delta corner ground	3Ph. Delta 3-wire +G	E160BPF480D-RD	640	NA	NA	NA	1800
	347/600 wye	3Ph. Wye 4-wire +G	E160BPF347/600Y *	420	1200	1500	1500	2500
600 Delta High Resistance Ground	3Ph. Delta 3-wire +G	E160BPF600HRG	840	NA	NA	NA	2500	
600 Delta corner ground	3Ph. Delta 3-wire +G	E160BPF600D	840	NA	NA	NA	2500	
600 Delta corner ground	3Ph. Delta 3-wire +G	E160BPF600D-R	840	NA	NA	NA	2500	
600 Delta corner ground	3Ph. Delta 3-wire +G	E160BPF600D-RD	840	NA	NA	NA	2500	
600 Delta Ungrounded	3Ph. Delta 3-wire Ungrounded	E160BPF600U	840	NA	NA	NA	2500	

Standard enclosure is NEMA 1.

NOTE: \* All Configuration Wye units are available with a NEMA 3R/12 option. (Add suffix -R to part number. (Ex. E160BPF120/240Y-R))

\* All Configuration Wye units are also available with an Integral Disconnect option. (Add suffix D to part number. (Ex. E160BPF120/240Y-RD))  
Delta unit options are listed with Model Number. NEMA 3R/12 option has suffix designator R, Integral Disconnect option has suffix designator D.