

**Specifications:**



**MACH 3 TVSS Series**

For IEEE Cat.B Sub-Panels/  
Secondary Locations

Applications up to  
250KW Systems

Manufacturers Model No.	M3-1120-3	M3-1208-4	M3-1240-3	M3-1240-4	M3-1480-3	M3-1480-4
Common Electrical System Type:	1 $\emptyset$	3 $\emptyset$ WYE	3 $\emptyset$ Delta	3 $\emptyset$ Hi-leg	3 $\emptyset$ Delta	3 $\emptyset$ WYE
Nominal AC Line Voltage (L-N & L-L)	120/240	120/208	240	120/208/240	480	277/480
Frequency Range-USA Std.:	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Single Element "SE" Protection Modes:	L-N; L-L	L-N; L-L & N-G	L-L	L-N; L-L & N-G	L-L	L-N; L-L & N-G
AST* Voltage Limiting Performance @ 2KV/180°	<80V	<80V	<80V	<80V	<80V	<80V
Leads: #10 AWG (for 30A Breaker):	3+ Gnd.	4+ Gnd.	3+ Gnd.	4+ Gnd.Hi-Leg	3+Gnd.	4+ Gnd.
Max. Non-degrading "SE" Surge Capacity:	<b>45,000 Amps</b>	<b>45,000 Amps</b>	<b>45,000 Amps</b>	<b>45,000 Amps</b>	<b>45,000 Amps</b>	<b>45,000 Amps</b>
Max. Surge Current Per Phase:	<b>90,000 Amps</b>	<b>135,000 Amps</b>	<b>135,000 Amps</b>	<b>135,000 Amps</b>	<b>135,000 Amps</b>	<b>135,000 Amps</b>
Total Surge Capacity @ 8x20 $\mu$ Sec	<b>154,000 Amps</b>	<b>335,000 Amps</b>	<b>218,000 Amps</b>	<b>335,000 Amps</b>	<b>218,000 Amps</b>	<b>335,000 Amps</b>
Maximum Continuous Operating Voltage: (MCOV)	150/320	150/320	320	150/320/320	550	320/550
Max. Clamping Voltage - L-L:	520	520	520	520	1175	1175
Max. Clamping Voltage - L-N:	390	390	N/A	390	N/A	675
Max. Clamping Voltage - N-G:	330	390	N/A	390	N/A	390
Mfgr's. Full Replacement Warranty:	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime
Lifetime Repl. Module Guarantee:	YES	YES	YES	YES	YES	YES
Enclosure Size (HxWxD):	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "
Shipping Weight (Approx.):	5.75 Lbs.	6.5 Lbs.	5.4 Lbs.	6.5 Lbs.	5.8 Lbs.	6.75 Lbs.

**Specifications:**



**MACH 4 TVSS Series**

For IEEE Cat. C & B Main Panels/  
Primary Locations

Applications up to  
500KW Systems

Manufacturers Model No.	M4-1120-3	M4-1208-4	M4-1240-3	M4-1240-4	M4-1480-3	M4-1480-4
Common Electrical System Type:	1 $\emptyset$	3 $\emptyset$ WYE	3 $\emptyset$ Delta	3 $\emptyset$ Hi-leg	3 $\emptyset$ Delta	3 $\emptyset$ WYE
Nominal AC Line Voltage (L-N & L-L)	120/240	120/208	240	120/208/240	480	277/480
Frequency Range-USA Std.:	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Single Element "SE" Protection Modes:	L-N; L-L	L-N; L-L & N-G	L-L	L-N; L-L & N-G	L-L	L-N; L-L & N-G
Knock Out Size for Mounting:	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"
Leads: #10 AWG (for 30A Breaker):	3+ Gnd.	4+ Gnd.	3+ Gnd.	4+ Gnd.Hi-Leg	3+Gnd.	4+ Gnd.
Max. Non-degrading "SE" Surge Capacity:	<b>80,000 Amps</b>	<b>80,000 Amps</b>	<b>80,000 Amps</b>	<b>80,000 Amps</b>	<b>80,000 Amps</b>	<b>80,000 Amps</b>
Max. Surge Current Per Phase:	<b>160,000 Amps</b>	<b>160,000 Amps</b>	<b>160,000 Amps</b>	<b>160,000 Amps</b>	<b>160,000 Amps</b>	<b>160,000 Amps</b>
Total Surge Capacity @ 8x20 $\mu$ Sec	<b>260,000 Amps</b>	<b>560,000 Amps</b>	<b>420,000 Amps</b>	<b>560,000 Amps</b>	<b>420,000 Amps</b>	<b>560,000 Amps</b>
Maximum Continuous Operating Voltage: (MCOV)	150/320	150/320	320	150/320/320	550	320/550
Max. Clamping Voltage - L-L:	520	520	520	520	1175	1175
Max. Clamping Voltage - L-N:	390	390	N/A	390	N/A	675
Max. Clamping Voltage - N-G:	330	390	N/A	390	N/A	390
Mfgr's. Full Replacement Warranty:	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime
Lifetime Repl. Module Guarantee:	YES	YES	YES	YES	YES	YES
Enclosure Size (HxWxD):	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "	6 <sup>1/4</sup> "x4 <sup>1/4</sup> "x3 <sup>1/8</sup> "
Shipping Weight (Approx.):	5.2 Lbs.	5.85 Lbs.	5.5 Lbs.	5.85 Lbs.	5.8 Lbs.	6.0 Lbs.

SE\* = Single Element, Non-degrading TVSS Technology ~ MCOV<sup>2</sup> = Maximum Continuous Operating Voltage Rating ~ AST\* = Active Sine-Tracing Network for Ultra-Pure Power D:\Files\Specs\Surg\Pure Specs\Mach 3&4 Specs.pmd

~ Non-Degrading TVSS (SE) Single-Element Technology ~