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REVISIONS				
LTR	DESCRIPTION	ECN	DATE	APPROVED
D	REMOVE UL REFERENCE	8660	3/16/10	JDW
E	UPDATE PER MARKUPS	9347	1/28/11	MPD
F	UPDATE SPEC WITH TEST DATA	10136	9/27/11	JDW



DRAWN	MLH	DATE	4/30/04	 10701 Airport Drive, Hayden, ID 83835, USA +1.208.772.8515 FAX +1.208.762.6034 ©2009 Transtector Systems, Inc. All rights reserved. 800.882.9110 www.transtector.com			
CHECKED	DLR	1/30/06					
ENG APPD	JDW	2/1/06					
PROJ APPD	DWR	2/1/06					
APPROVED							
TITLE Product Specification MCP 120W SM AC Surge Protection							
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				SCALE = N/A		PAGE 1 OF 4	

AC SURGE PROTECTION

Part Number	Description
1101-732	MCP 120W SM

GENERAL DESCRIPTION

The MCP 120W SM surge protection device is used to protect electronic equipment and systems from transient over-voltages. The SPD offers bipolar bi-directional Silicon Avalanche Suppressor Diode technology coupled with MOV using Transtectors' patented ASAT technology. The 1101-732 features visual status indication and dry contacts to allow remote annunciation.

TECHNICAL DATA

1.0 ELECTRICAL:

1.1.	Tested to.....	IEEE/ANSI C62.45-2002, C62.41-2002 Location Category B, IEC 61643-1
1.2.	SPD Type.....	Component Assembly
1.3.	Technology	SASD and MOV
1.4.	Frequency Range	50/60 Hz
1.5.	Modes	L-N
1.6.	Nominal Operating Voltage.....	120/208 Vac Three Phase Wye
1.7.	Maximum Continuous Operating Voltage	155 Vac
1.8.	Maximum Current Rating Of AC Panel.....	≤ 1000 A
1.9.	Breakdown Voltage Threshold V_{br}	220 V _(peak)
1.10.	SASD Overstress Limit ¹	20 kA
1.11.	MOV Limit	100 kA
1.12.	Voltage Protection Level per IEEE C62.41 and IEC 61643-1 (with 3" of lead, measured L-N)	
1.12.1.	Combination Wave (500 A @ 8x20μs)	277 V
1.12.2.	Combination Wave (10 kA @ 8x20μs)	915 V
1.12.3.	Combination Wave (20 kA @ 8x20μs)	1410 V
1.12.4.	10/1000μs Wave (750 A @ 10/1000μs)	314 V
1.13.	Standby Power:.....	< 1 W
1.14.	Response Time:.....	< 5 ns
1.15.	Power Indication	LED (Amber = Power Applied)
1.16.	Status Indication	LED (Green = Good, Dark = Replace)
1.17.	Remote Status Indication.....	3 Pin Contact Switch (NO / COM / NC)
1.18.	Maximum Contact Switch Rating.....	120 Vac, 3 A

2.0 MECHANICAL

2.1.	Location Category	Indoor only
2.2.	Method Of Mounting	Hardwired, permanently connected within suitable enclosure
2.3.	Dimensions (H x W x D)	6.63" x 4.15" x 3.25" (168 mm x 105 mm x 83 mm)
2.4.	Mounting Holes	Sized for #10 (5 mm) Hardware
2.5.	Weight (Max)	2.5 lb (1.1 kg)
2.6.	Connection Type	1/2" NPT male conduit coupling
2.7.	Wire Size	#10 AWG (mm ²)
2.8.	Wire Length	18" (460 mm)
2.9.	Contacts	Common, Normally Open, Normally Closed
2.9.1.	Wire Size	#18 AWG (0.75 mm ²)
2.9.2.	Stripping Length	0.25" (7 mm)
2.9.3.	Torque	2 lb-in (0.23 N*m)

¹Status indication will change at transient levels above SASD overstress limit. MOV protection is provided at levels up to 100kA.

3.0 ENVIRONMENTAL

- 3.1. Operating Temperature-40°C to +75°C
- 3.2. Storage Temperature-40°C to +75°C
- 3.3. Humidity ≤ 95% Non Condensing
- 3.4. Enclosure Protection Level..... IP20
- 3.5. Housing Inflammability Rating..... Noryl N190 Resin UL94 V-0

STRUCTURE

Refer to Figure 1 for minimum mechanical mounting requirements.

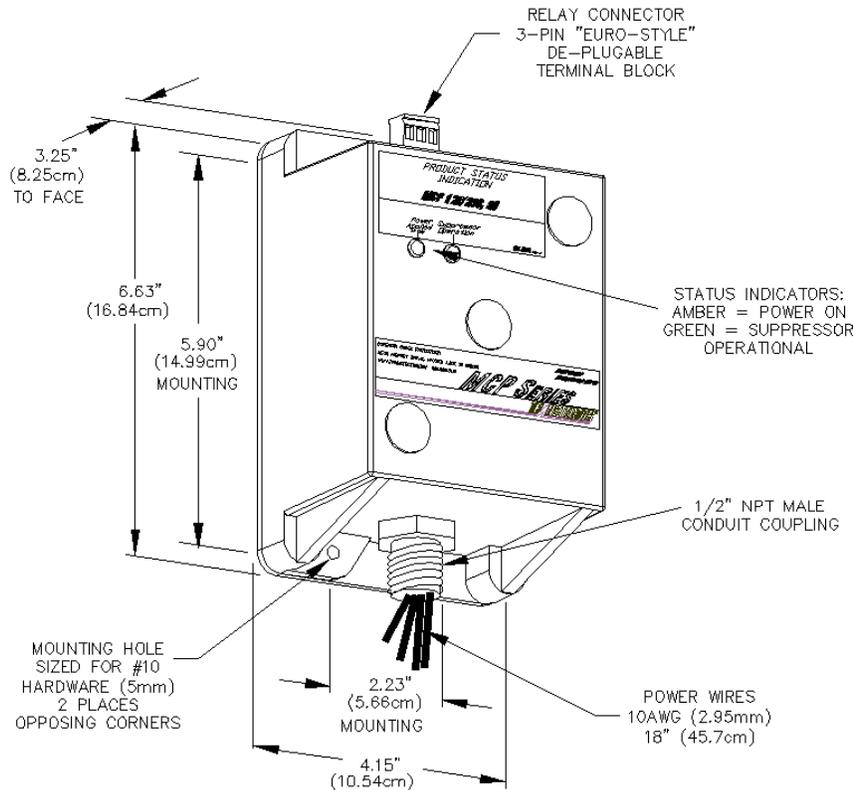


Figure 1 - Product Structure

INSTALLATION

The SPD should only be installed by a qualified electrical professional, observing all National and Local Electric Codes. Before installation, confirm that the SPD is rated for the voltage of the application. Shut off all power sources to prevent accidental electrical shock or injury. Keep all wires free of sharp bends and as short as possible. The maximum wire length should never exceed 18" (0.5 m). Refer to Figure 2 for connection details.

The SPD should be connected through a dedicated 20 Amp three-pole circuit breaker with a fault current rating not less than 5 kAC. The SPD should be installed on the load side of any transfer switch mechanism. The SPD is equipped with four #10 AWG wire leads for AC connection. The Neutral (White), L1 Phase (Black), L2 Phase (Red) and L3 Phase (Orange) wires are each 18" long.

INSTALLATION DIAGRAM FOR 120 THREE PHASE VOLTAGE

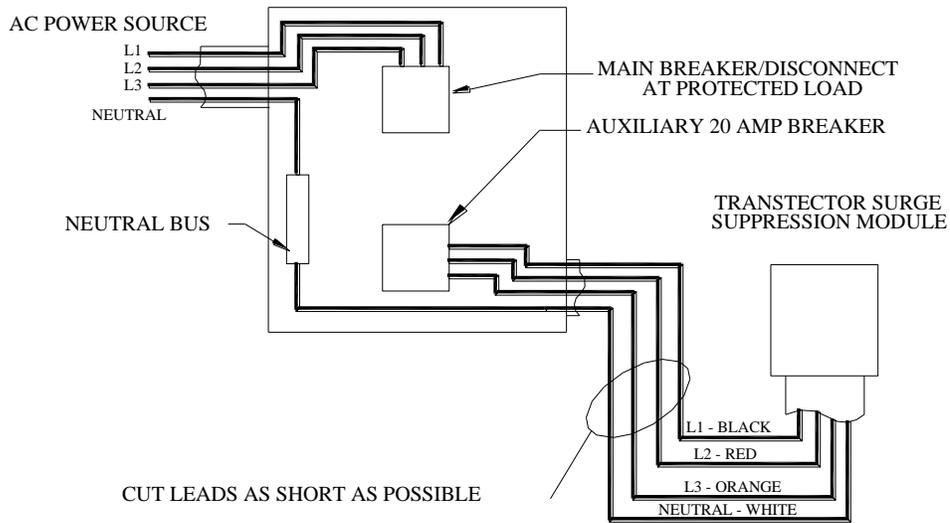


Figure 2 – Installation Diagram

Remote Annunciation

The SPD offers Form C isolated relay contacts for remote monitoring. Each suppression phase is monitored and interconnected to a single connector for ease of monitoring the status of the entire SPD. The relay contact positions are identified in a power applied state with the three terminal positions Com-NO-NC.

A typical application circuit is shown in Figure 3; a power source can be used to turn off a lamp in the event of suppressor failure.

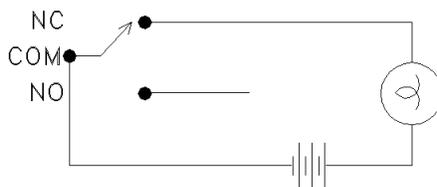


Figure 3 - Typical Annunciation Circuit

USAGE AND MAINTENANCE

The SPD should be scheduled for periodic inspection to ensure the SPD is operational and all wire connections are tight. If SPD is damaged, contact Transtector for replacement at +1.208.772.8515 or 1.800.882.9110, or online at www.transtector.com.

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