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REVISIONS

REV	DESCRIPTION	ECN	DATE	APPROVED
A	PRODUCTION RELEASE		3/27/01	B. RYAN
B	UPDATE TO AUTOCAD	4176	8/1/01	JAH

TRANSIENT SUPPRESSOR SPECIFICATION FOR 120VAC, 15A, 50/60 Hz MODEL ACP 100BW3R

DRAWN	K. POPE	DATE	3/27/01
CHECKED	CVM		7/18/01
ENG APPD	DWR		7/18/01
PROJ APPD	JEB		7/18/01
APPROVED	JAH		8/1/01

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TITLE
SPECIFICATION
ACP100BW3R

SIZE	CAGE	DOCUMENT NUMBER	REV
A	30992	1400-117	B

SCALE = N/A	PRODUCT CATEGORY ACT	PAGE 1 OF 4

1. **SCOPE:** This specification covers the detail requirements for a high-speed, solid-state transient suppressor designed to protect electronic equipment and systems from transient overvoltages.

2. **PURPOSE:** This device is to eliminate the damaging effects to equipment from transient overvoltages which can appear on 120VAC, 15A, 50/60 Hz power lines.

3. **GENERAL DESCRIPTION:** The ACP100BW3R is a solid-state transient suppressor for wire-in use on 120VAC, 15A, 50/60 Hz power lines. The ACP100BW3R is both bi-polar and bi-directional; i.e., it can suppress transients of either polarity and from either direction. (source or load)

   The ACP100BW3R uses high speed silicon avalanche diodes as the suppression devices.

   A fuse in series with the suppression circuit will open if the suppressors fail due to excessive energy dissipation, and a normally “on” lamp will turn off, indicating loss of protection.

   Remote indication circuitry is provided for connection to user provided bell, lamp or other device to warn of suppressor failure.

4. **OPERATION:** When a transient overvoltage is sensed, the silicon avalanche diode (a passive, high-speed constant voltage device) goes into conduction while maintaining the voltage at a sufficiently low value to protect the attached equipment.

5. **PERFORMANCE REQUIREMENTS:**

   5.1. MECHANICAL: The construction and physical characteristics of the suppressor are as outlined herein.

   5.1.1. Enclosure Description: The suppressor is enclosed within a rigid plastic case made from UL recognized plastic. The enclosure has the physical measurements shown on sheet 4.

   5.1.2. Installation Requirements: The ACP100BW3R is intended to be installed inside of a user provided enclosure. A four position terminal strip is provided for power connections, a three position terminal strip is provided for connection to the remote indication circuitry.

   5.1.3. Material: The material meets or exceeds UL fire rating 94V0.

   5.2. ELECTRICAL: The suppressor shall perform electrically within the conditions and specifications defined herein.

   5.2.1. Suppressor Voltage Level (Minimum): The ACP100BW3R has the following suppressor voltage level:

   Hot to Neutral ±220v ±5%

   5.2.2. Suppressor Voltage Level (Maximum):

   Hot to Neutral 330v (Lowest UL 1449 Rating)

   5.2.3. Peak Power Dissipation: The peak power dissipation for a 10x1000 microsecond waveform is 12,000 watts.

5.2.4. Response Time: Less than 5 nanoseconds

5.2.5. Standby Power: Less than 0.5 watts

5.2.6. Leakage Current: Hot to Neutral @ 175v – less than 5 microamps

5.2.7. Remote Indication Terminal Strip: 120VAC max., 1 Amp max. current

5.3. ENVIRONMENTAL:

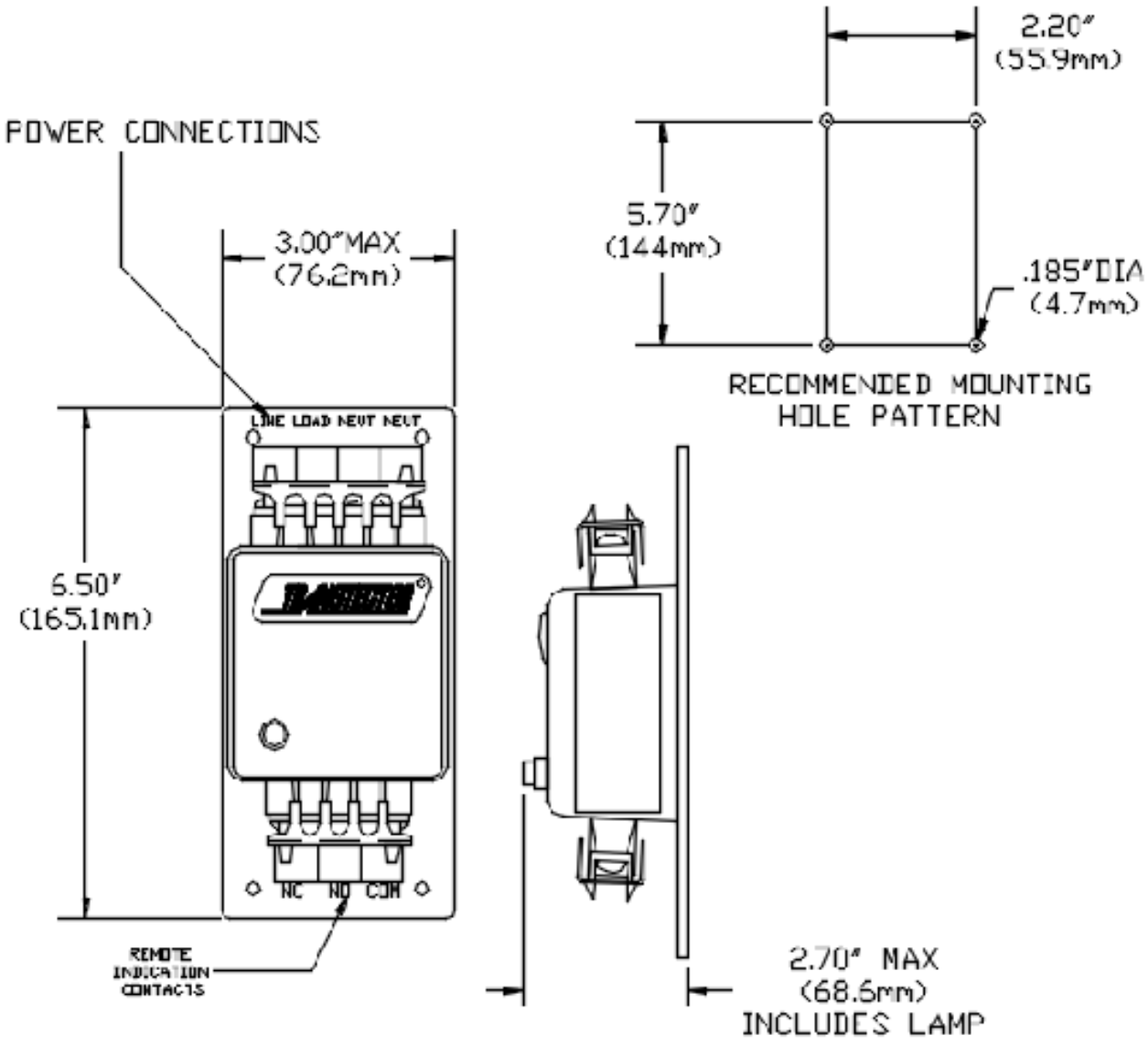
5.3.1. Operating and Storage Temperature: -20 to 65º C

5.3.2. Humidity: Less than 95%

6. PREPARATION FOR DELIVERY: Domestic and short-term storage.

6.1. PRESERVATION: Preservation shall be sufficient to afford protection during shipment and short-term storage

6.2. PACKING: Packing shall be accomplished in the manner which will insure acceptance by common carrier at the lowest rate and will afford protection against physical damage during shipment.


POWER CONNECTIONS
3.00"MAX
(76.2mm)
6.50"
(165.1mm)
LINE LOAD NEUT NEUT
NC NO COM
REMOTE
INDICATION
CONTACTS
2.20"
(55.9mm)
5.70"
(144mm)
.185"DIA
(4.7mm)
RECOMMENDED MOUNTING
HOLE PATTERN
2.70" MAX
(68.6mm)
INCLUDES LAMP