



# HUBBELL

SURGE PROTECTIVE DEVICES

Instruction Bulletin

## HBL3W120 HBL3W50

**INTRODUCTION** The HBL3W120 and HBL3W50 Surge Protective Devices (SPDs) are designed to provide protection at service entrance panels, load centers or electronic compartments.

### PRECAUTIONS

## ⚠ DANGER

### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E.
- This equipment must only be installed and serviced by qualified electrical personnel.
- This equipment must be effectively grounded per all applicable codes. Use an equipment grounding conductor to connect this equipment to the power system ground.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before turning on power to this equipment.

**Failure to follow these instructions will result in death or serious injury.**

## ⚠ WARNING

### INADEQUATE GROUNDING HAZARD

Do not use on ungrounded systems.

**Failure to follow these instructions can result in death or serious injury.**

## CAUTION

### HAZARD OF EQUIPMENT DAMAGE

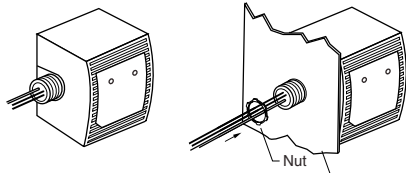
Megger® or hi-potential tests will damage this surge protective device. Turn off all power supplying the equipment and isolate the surge protective device before testing.

**Failure to follow these instructions can result in equipment damage.**

Retain for future use.

**INSTALLATION**

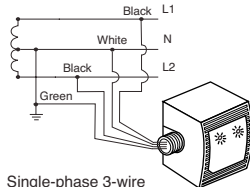
**Figure 1: Mounting Unit**



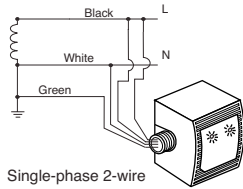
0.5 in. [13 mm] knockout (trade size)  
Actual hole size 0.875 in. [22 mm]

NOTE: The Surge Protective Device must be installed in an accessible location (not within walls).

**Figure 2: Wiring Diagrams**

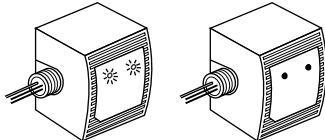


Single-phase 3-wire (+GND) 120/240 Vac



Single-phase 2-wire (+GND) 120 Vac

**Figure 3: Diagnostic Operation**



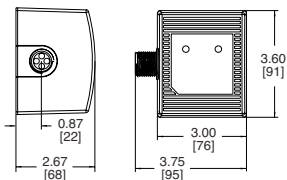
LED ON = OK      LED OFF = Fault, L1 and/or L2

LED ON = Normal Operation

LED OFF = Check breakers and connections.

Verify line voltage at point of SPD connection; if all correct replace SPD

**Figure 4: Dimensions**



Dimensions: in. [mm]

0.5 in. [13 mm] knockout (trade size)  
Actual hole size 0.875 in. [22 mm]

1. Turn off all power supplying this equipment before working on or inside equipment.
2. For mounting, see Figure 1.
3. Confirm SPD is rated for your system by comparing voltage measurements to the Line Voltage (L-L, L-N) on the product label.
4. Confirm the black wires are connected to line wires, the white wire to the neutral wire and green wire to ground (see figure 2). For the single-phase, 120/240V 3-wire application, connect one of the SPD black wires to L1 and the other black wire to L2. For the single-phase, 120V 2-wire application, connect both SPD black wires to the same line.
5. Twist conductors 1/2 turn or more for every 12 inches of length.
6. Keep conductor length as short as possible with no sharp bends.
7. Do not loop or coil wires.
8. Use on solidly grounded systems only.

**General Specifications**

System Voltage	120/240VAC
MCOV	150VAC
Short Circuit Current Rating	25 kA
I(n)	10kA (L1-N, L1-G, L2-N, L2-G)
VPR	700V L1-N, 700V L1-G, 700V L2-N, 800V L2-G
Enclosure Rating	Type 4X
Product Weight	1.8 lbs (0.9kg)
Connection Method	Parallel, #12 AWG Solid Wire
Thermal Fusing	Yes
Operating Temperature	-40° to +160° F (-40° to +70° C)
Operating Frequency	50/60 Hz
Diagnostics	Green Status LED per line
Product Standards	UL 1449-3rd Edition, CSA C22.2 No. 8-M1986, CSA C233.1-87 and CE
Product Rating	Type 1 SPD

1. Suitable for use on a circuit capable of delivering not more than 25 kA rms symmetrical Amperes.
2. Contains no serviceable parts.

Models	Voltage	Max Surge Current	Mounting	Protection
HBL3W120	120/240	120kA	Side Nipple	Surge + Overvoltage
HBL3W50	120/240	50kA	Side Nipple	Surge + Overvoltage