

# INSTALLATION, OPERATION, & MAINTENANCE MANUAL



ICP-110 ICP-110S ICP-40DC ICP-40DCS ICP-24ACS ICP-100 Plus ICP-120 Plus ICP-301 Plus ICP-401 Plus ICP-CRA-100 ICP-CRA-120 ICP-CRA-160DC

### **CONTENTS**

- Installation Instructions
- Dimensional Drawings
- Wiring Diagrams
- Operation and Maintenance





# INSTALLATION INSTRUCTIONS

### ICP-110, ICP-110S, ICP-40DC, ICP-40DCS, ICP-24ACS

- Disconnect power before installing.
- Mount 8 terminal base as close as possible to the power source to minimize conductor length (no longer than 18 inches).
- Wire base in accordance with wiring diagram on page 5.
- Plug ICP into octal socket.
- Re-energize.

# INSTALLATION INSTRUCTIONS

### ICP-120 Plus, ICP-301 Plus, ICP-401 Plus, ICP-100 Plus

- Disconnect power before installing.
- Mount the ICP Plus mounting bracket as close as possible to connection points. Secure mounting bracket with appropriate screws or fasteners for the material holding the bracket.
- Secure the ICP Plus into the bracket.
- Cut conductors as short as possible without straining or creating sharp bends.
- Strip ¼ inch off each conductor and insert into the appropriate terminals according to the wiring diagram on page 6. Tighten each terminal screw.

**Note:** Do not connect Neutral conductor to Ground.

### **COMMUNICATION/ALARM HOOKUP**

Note: This is any system interconnection interlock from 5 to 240 VAC or VDC. This alarm connection is an isolated, normally closed or normally open contact. It may be used to stop a process when the ICP Plus has been expended or when voltage drops below 75% of nominal voltage.

- Connect the C terminal conductor to power source of system control interface.
- Connect the NO or NC conductor to the input of the system control interface.

# INSTALLATION INSTRUCTIONS

### ICP-CRA-160DC, ICP-CRA-120, ICP-CRA-100

- Disconnect power before installing.
- Mount the ICP-CRA enclosure as close as possible to the connection points. Remove the 4 cover screws to access the mounting holes on the back of the enclosure.
- Insert conductors through the panel opening and tighten the locknut.
- Cut conductors as short as possible without straining or creating sharp bends to connect.
- Connect conductors according to wiring diagram on page 7.
- Insert the ICP(s) into the 8-pin base(s).
- Re-energize.

#### **ALARM HOOKUP**

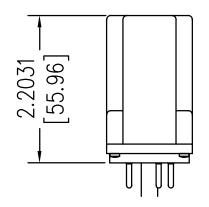
Note: This is any system interconnection interlock from 5V to 240V (AC or DC). This alarm connection is an isolated, normally closed or normally open contact. It may be used to stop a process when an ICP has been expended or when voltage drops below 75% of nominal voltage.

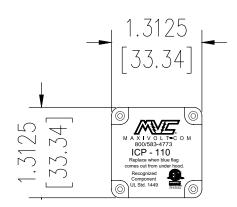
- Connect the Common conductor to the power source of system control interface.
- Connect the Normally Closed or Normally Open conductor to the input of the system control interface. The alarm interface may alternatively be connected to an audible or visual indicator.



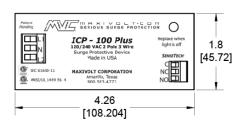
# DIMENSIONAL DRAWINGS

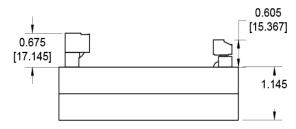
ICP-100 ICP-110S ICP-40DC ICP-40DCS ICP-24ACS



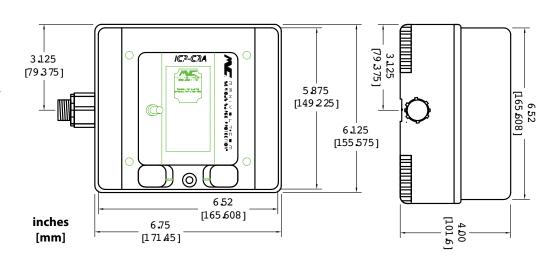


ICP-100 PLUS ICP-120 PLUS ICP-301 PLUS ICP-401 PLUS





*ICP-CRA-160DC ICP-CRA-120 ICP-CRA-100* 





# WIRING **DIAGRAMS**

### ICP-110



Terminal 7 to Phase
Terminal 2 to Neutral
Terminal 1 to Alarm

### ICP-110S ICP-24ACS



Terminal 7 to Phase
Terminal 2 to Neutral
Terminal 1 to Alarm
Terminal 6 to Load

### ICP-40DC



Terminal 7 to "+"

Terminal 2 to "-"

Terminal 1 to Alarm

### ICP-40DCS



Terminal 7 to "+"

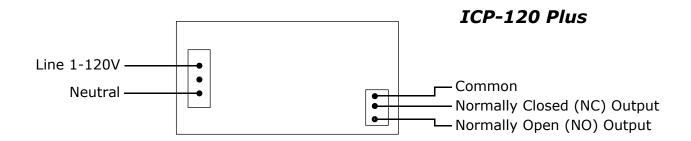
Terminal 2 to "-"

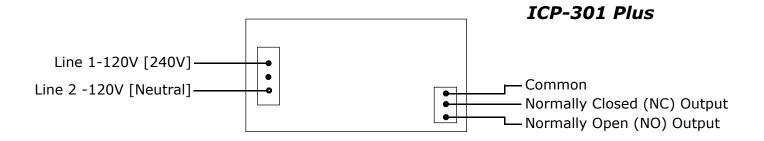
Terminal 1 to Alarm

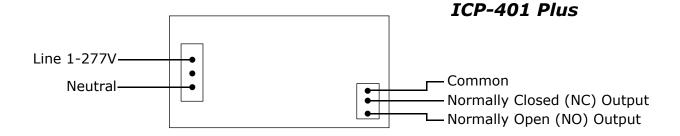
Terminal 6 to Load

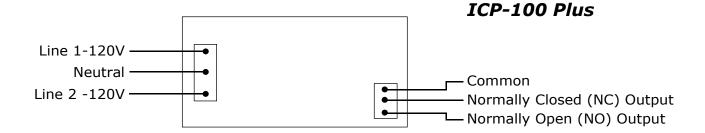


# WIRING **DIAGRAMS**



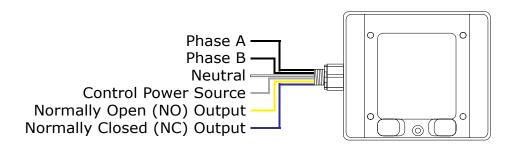




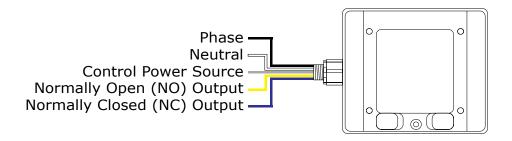




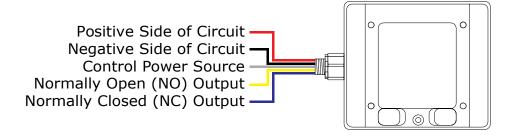
# WIRING **DIAGRAMS**



ICP-CRA-100



ICP-CRA-120



ICP-CRA-160C



# OPERATION AND MAINTENANCE

### Add the following to your routine inspection forms:

This device contains no field serviceable parts.

#### **VISUAL INSPECTION**

#### **ICP Models**

Blue flag is normally under fuse head. If blue flag is visible from above, SPD is expended and needs to be replaced.

#### **ICP Plus Models**

During normal operation, the green indicator LED will be on. If the green LED is off, check that proper voltage is being applied. If proper voltage is applied and the LED is off, the ICP Plus is expended and must be replaced.

### **ICP CRA Models**

During normal operation, the red indicator light will be off. If the red light is on, check the fuse indicator on the ICPs. The ICP has expended when blue flag appears from under the hood when looking at the unit from the top. If the fuse indicator is visible, the ICP must be replaced. The Normally Open contact will not energize if either one or both ICPs have been expended.

# **ABOUT**

Established in 1988, Maxivolt is a pioneer in the power quality industry with over a century of combined experience. Maxivolt manufactures specialized technology and provides value-added services custom-tailored to extend the life and protect the operational integrity of electrical and electronic equipment. Averted equipment failures and misoperations result in numerous long-term financial and operational benefits.

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