

# ENCL-HDPQ WEATHER RESISTANT ENCLOSURE



*User Instructions*

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## **WARNING**

Death, serious injury, or fire hazard could result from improper connection of this instrument. Read and understand this manual before connecting this instrument. Follow all installation and operating instructions while using this instrument.

Connection of this instrument must be performed in compliance with the National Electrical Code (ANSI/NFPA 70-2014) of USA and any additional safety requirements applicable to your installation.

Installation, operation, and maintenance of this instrument must be performed by qualified personnel only. The National Electrical Code defines a qualified person as “one who has the skills and knowledge related to the construction and operation of the electrical equipment and installations, and who has received safety training on the hazards involved.”

Qualified personnel who work on or near exposed energized electrical conductors must follow applicable safety related work practices and procedures including appropriate personal protective equipment in compliance with the Standard for Electrical Safety Requirements for Employee Workplaces (ANSI/NFPA 70E-2012) of USA and any additional workplace safety requirements applicable to your installation.

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## **ADVERTENCIA**

Una conexión incorrecta de este instrumento puede producir la muerte, lesiones graves y riesgo de incendio. Lea y entienda este manual antes de conectar. Observe todas las instrucciones de instalación y operación durante el uso de este instrumento.

La conexión de este instrumento a un sistema eléctrico se debe realizar en conformidad con el Código Eléctrico Nacional (ANSI/NFPA 70-2014) de los E.E.U.U., además de cualquier otra norma de seguridad correspondiente a su establecimiento.

La instalación, operación y mantenimiento de este instrumento debe ser realizada por personal calificado solamente. El Código Eléctrico Nacional define a una persona calificada como "una que esté familiarizada con la construcción y operación del equipo y con los riesgos involucrados."

El personal cualificado que trabaja encendido o acerca a los conductores eléctricos energizados expuestos debe seguir prácticas y procedimientos relacionados seguridad aplicable del trabajo incluyendo el equipo protector personal apropiado en conformidad con el estándar para los requisitos de seguridad eléctricos para los lugares de trabajo del empleado (ANSI/NFPA 70E-2012) de los E.E.U.U. y cualquier requisito de seguridad adicional del lugar de trabajo aplicable a su instalación.

## **AVERTISSEMENT**

Si l'instrument est mal connecté, la mort, des blessures graves, ou un danger d'incendie peuvent s'en suivre. Lisez attentivement ce manuel avant de connecter l'instrument. Lorsque vous utilisez l'instrument, suivez toutes les instructions d'installation et de service.

Cet instrument doit être connecté conformément au National Electrical Code (ANSI/NFPA 70-2014) des Etats-Unis et à toutes les exigences de sécurité applicables à votre installation.

Cet instrument doit être installé, utilisé et entretenu uniquement par un personnel qualifié. Selon le National Electrical Code, une personne est qualifiée si "elle connaît bien la construction et l'utilisation de l'équipement, ainsi que les dangers que cela implique".

Le personnel qualifié qui travaillent dessus ou s'approchent des conducteurs électriques activés exposés doit suivre des pratiques en matière et des procédures reliées par sûreté applicable de travail comprenant le matériel de protection personnel approprié conformément à la norme pour des conditions de sûreté électriques pour les lieux de travail des employés (ANSI/NFPA 70E-2012) des Etats-Unis et toutes les conditions de sûreté additionnelles de lieu de travail applicables à votre installation.

## **WARNUNG**

Der falsche Anschluß dieses Gerätes kann Tod, schwere Verletzungen oder Feuer verursachen. Bevor Sie dieses Instrument anschließen, müssen Sie die Anleitung lesen und verstanden haben. Bei der Verwendung dieses Instruments müssen alle Installation- und Betriebsanweisungen beachtet werden.

Der Anschluß dieses Instruments muß in Übereinstimmung mit den nationalen Bestimmungen für Elektrizität (ANSI/NFPA 70-2014) der Vereinigten Staaten, sowie allen weiteren, in Ihrem Fall anwendbaren Sicherheitsbestimmungen, vorgenommen werden.

Installation, Betrieb und Wartung dieses Instruments dürfen nur von Fachpersonal durchgeführt werden. In dem nationalen Bestimmungen für Elektrizität wird ein Fachmann als eine Person bezeichnet, welche "mit der Bauweise und dem Betrieb des Gerätes sowie den dazugehörigen Gefahren vertraut ist."

Qualifiziertes Personal, das an bearbeiten oder herausgestellte angezogene elektrische Leiter sich nähern, muß anwendbare Sicherheit bezogener Arbeit Praxis und Verfahren einschließlich passende persönliche schützende Ausrüstung gemäß dem Standard für elektrische Sicherheitsauflagen für Angestellt-Arbeitsplätze (ANSI/NFPA 70E-2012) der Vereinigten Staaten und alle zusätzlichen Arbeitsplatzsicherheitsauflagen folgen, die auf Ihre Installation anwendbar sind.

## **Safety Precautions**

The following safety precautions must be followed whenever any type of voltage or current connection is being made to the instrument.

- Connect the green safety (earth) ground first, before making any other connections.
- When connecting to electric circuits or pulse initiating equipment, open their related breakers. DO NOT install any connection of the instrument on live power lines.
- Connections must be made to the instrument first, then connect to the circuit to be monitored.
- Wear proper personal protective equipment, including safety glasses and insulated gloves when making connections to power circuits.
- Hands, shoes and floor must be dry when making any connection to a power line.
- Make sure the unit is turned OFF before connecting probes to the rear panel.
- Before each use, inspect all cables for breaks or cracks in the insulation. Replace immediately if defective.
- If the equipment is used in a manner not specified in this user's guide, the protection provided by the equipment may be impaired. These safety precautions are repeated where appropriate throughout this manual.

## Medidas de seguridad

Las medidas de seguridad siguientes deberán observarse cuando se realice cualquier tipo de conexión al instrumento.

- Antes de hacer cualquier conexión, deberá enchufarse el conector de seguridad verde a tierra.
- Cuando se haga conexiones a circuitos eléctricos o a equipo de activación por pulso, deberá abrirse sus respectivas cajas de seguridad. NO deberá hacerse ninguna conexión del instrumento en líneas eléctricas bajo tensión.
- Las conexiones deberán hacerse primero al instrumento y, luego, al circuito a ser monitorizado.
- Al hacer conexiones a circuitos eléctricos, deberá utilizar anteojos y guantes protectores.
- Sus manos, zapatos y el piso deberán estar secos en todo momento en que se haga una conexión a un cable eléctrico.
- Verifique que la unidad esté DESACTIVADA antes de conectar sondas en el panel posterior.
- Previo a cada uso, deberá verificarse que los cables no estén rotos y que el material aislante no tenga rajaduras. Reemplace de inmediato cualquier parte defectuosa.

## Mesures de Sécurité

Les mesures de sécurité suivantes doivent être prises chaque fois qu'un type de connexion quelconque est effectué sur l'instrument.

- o Connecter d'abord la prise de terre de sécurité verte (terre) avant d'effectuer toute autre connexion.
- o Ouvrir les disjoncteurs correspondants lors d'une connexion à des circuits électriques ou à des équipement de génération d'impulsions. NE PAS effectuer de connexion d'instrument sur des lignes électriques sous tension.
- o Une fois toutes les connexions de l'instrument effectuées, connecter au circuit à contrôler.
- o Porter des lunettes de protection et des gants isolants pour effectuer des connexions aux circuits électriques.
- o S'assurer que les mains, les chaussures et le sol soient secs lors de connexions à une ligne électrique.
- o S'assurer que l'unité est ÉTEINTE avant de connecter les sondes au panneau arrière.
- o Inspecter tous les câbles, avant chaque utilisation, pour s'assurer que les isolants ne sont pas coupés ou fendus. Remplacer immédiatement tous les équipements défectueux.



## Sicherheitsvorkehrungen

Die folgenden Sicherheitsvorkehrungen sind immer dann zu befolgen, wenn eine Verbindung zum Instrument hergestellt wird.

- Schließen Sie zuerst die grüne Sicherheits-/Erdleitung an, bevor Sie eine andere Verbindung herstellen.
- Öffnen Sie beim Anschluß an elektrische Stromkreise oder Impulsauslösungseinrichtungen die entsprechenden Unterbrecher. Es dürfen KEINE Anschlüsse an das Instrument unter stromführenden Spannungsleitungen montiert werden.
- Die Verbindungen müssen zuerst am Instrument und danach an der zu überwachenden Schaltung hergestellt werden.
- Tragen Sie Schutzbrillen und Isolierhandschuhe, wenn Sie Anschlüsse an den Stromkreisen vornehmen.
- Hände, Schuhe und Fußboden müssen trocken sein, wenn Sie Anschlüsse an den Stromkreisen durchführen.
- Stellen Sie sicher, daß das Gerät AUSgeschaltet ist, bevor Sie an der rückwärtigen Konsole Meßfühler anschließen.
- Prüfen Sie vor jedem Gebrauch alle Kabel auf Bruchstellen und Risse in der Isolierung. Wechseln Sie schadhafte Kabel sofort aus.

## INTRODUCTION

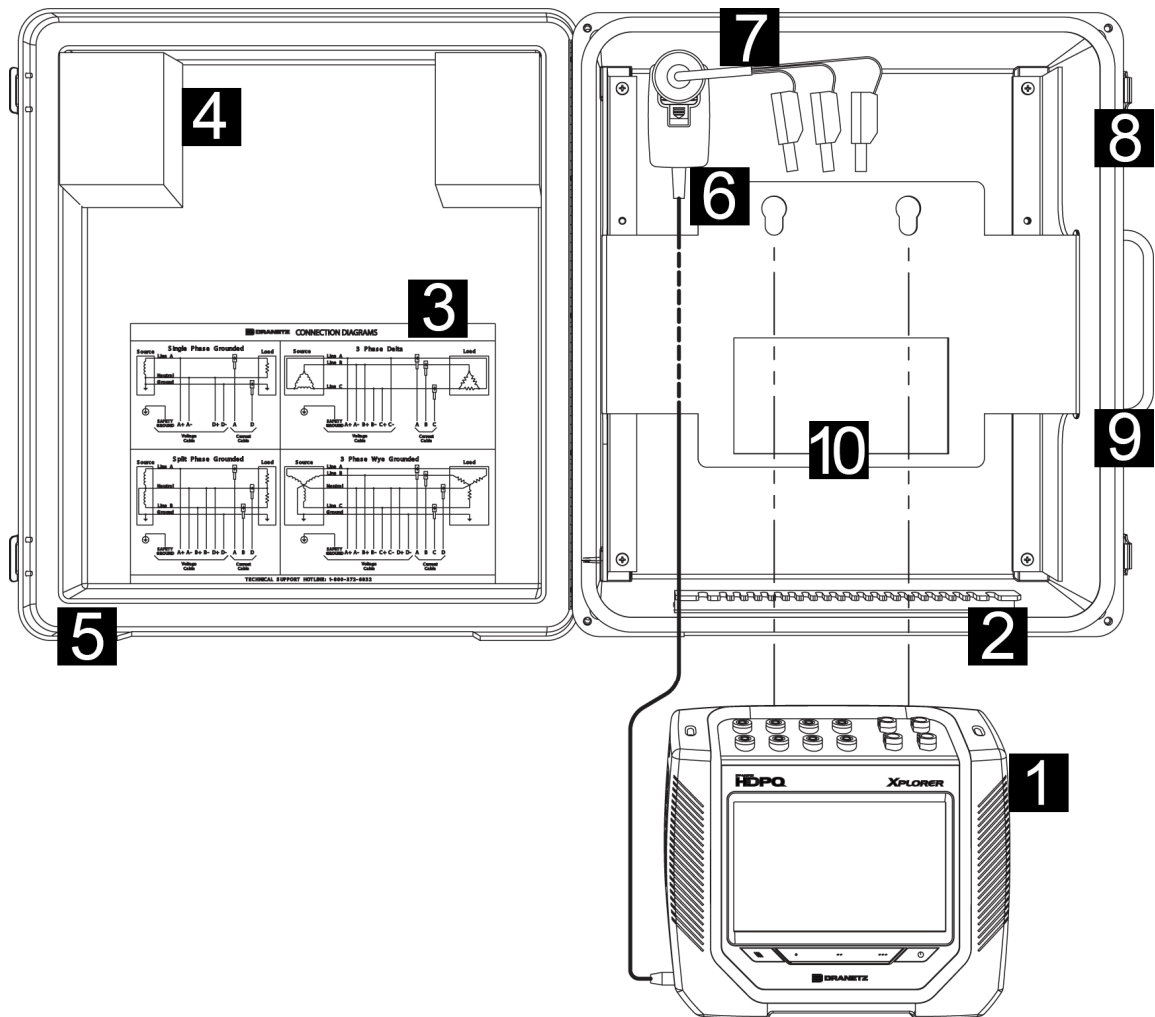
The Weather Resistant Enclosure (ENCL-HDPQ) is a customized packaging designed to keep the Dranetz HDPQ Xplorer, Guide, or Visa and its cable connections in place. The enclosure is sturdy, lightweight, weatherproof, and intended for indoor or outdoor use. The corrosion-resistant enclosure will withstand windblown dust and rain, splashing water, and ice formation.

This instruction guide contains procedures on how to install and mount the handheld instrument in the specialized enclosure. It also describes the items found inside the assembly kit along with their part numbers. Dranetz HDPQ Xplorer, Guide, or Visa operational procedures, found in pertinent sections of the User's Guide, remain unchanged. Read all Warning and Safety Precautions before attempting to connect and operate the instrument.

The available optional enclosures are described as follows.

Part Number	Description
ENCL-HDPQ-US	Weather Resistant Enclosure with US, Phase Power Cable PPC-US (118405-G1)
ENCL-HDPQ-EU	Weather Resistant Enclosure with EU, Phase Power Cable PPC-EU (118407-G1)
ENCL-HDPQ-PPA115	Weather Resistant Enclosure with Phase Power Adapter PPA115
ENCL-HDPQ-PPA230	Weather Resistant Enclosure with Phase Power Adapter PPA230

# Enclosure Assembly with Power Adapter



NOTE 1: See item descriptions and part numbers on pages 11-12.

NOTE 2: The dotted lines identify the location holes to mount the Xplorer, Guide, or Visa onto the mounting plate. See complete mounting instructions on page 17.

	Description	Part Number
1	<b>HDPQ</b> –Xplorer, Guide, or Visa is a hand-held, eight channel power quality monitor. The Xplorer, Guide, or Visa unit is not included in the enclosure assembly.	
2	<b>Cable Guide</b> - Run the cables upward from the cable guide to the back of the instrument before making the necessary power connections. The cable guide keeps the voltage and current probe cables out of the way during enclosure interior access, and ensures a tight seal across the lip of the enclosure.	85003564
3	<b>Decal, Connection Diagram</b> - Graphic representation showing the correct voltage and current connection of the following circuit configurations: Single Phase Grounded, 3 Phase Delta, Split Phase Grounded, 3 Phase Wye Grounded.	116196-G1
4	<b>Foam Blocks</b> – Two located at the top door of the enclosure. Keeps the Xplorer, Guide, or Visa from being dislodged from its mounted position.	118402-G1
5	<b>Enclosure</b> - Allows indoor or outdoor installation of the Xplorer, Guide, or Visa, while protecting it from harsh environmental conditions.	117087-G1
6	<b>AC Adapter</b> - Use to supply power to the Xplorer, Guide, or Visa, when it is inside the enclosure. The AC adapter is not included in the enclosure assembly.	
7	<b>Cable Assembly, Phase Power</b> - Use to connect the Xplorer, Guide, or Visa to AC power. Attach the three stackable safety voltage connectors into the input connectors located at the top side of the unit. The red connector goes to phase A, the black connector to neutral, and the green/yellow connector goes to ground.	118405-G1 (ENCL-HDPQ-US) or 118407-G1 (ENCL-HDPQ-EU)

	Description	Part Number
8	<b>Lockable Hasps</b> –Two hasps located at the right side of the enclosure allow the installation of a user-supplied padlock.	Built into the Enclosure
9	<b>Handle</b> – allows convenient transport of the enclosure assembly from site to site	75022540
10	<b>Mounting Plate</b> – A metal plate with 2 keyholes that mate with the 2 buttons on the back of the Xplorer, Guide, or Visa.	118401-G1



	Description	Part Number
<b>1</b>	<b>HDPQ</b> –Xplorer, Guide, or Visa is a hand-held, eight channel power quality monitor. The Xplorer, Guide, or Visa unit is not included in the enclosure assembly.	
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<b>6</b>	<b>AC Adapter</b> - Use to supply power to the Xplorer, Guide, or Visa, when it is inside the enclosure. The AC adapter is not included in the enclosure assembly.	
<b>7</b>	<b>Phase Power Adapter</b> - Use to connect the Xplorer, Guide, or Visa to AC power from one phase of the circuit being monitored. Refer to PPA-PP1R/115 or PPA-PP1R/230 User instructions for additional information.	PPA-PP1R/115 US plug or PPA-PP1R/230 Euro plug

	Description	Part Number
8	<b>Lockable Hasps</b> –Two hasps located at the right side of the enclosure allow the installation of a user-supplied padlock.	Built into the Enclosure
9	<b>Handle</b> – allows convenient transport of the enclosure assembly from site to site	75022540
10	<b>Mounting Plate</b> – A metal plate with 2 keyholes that mate with the 2 buttons on the back of the Xplorer, Guide, or Visa.	118401-G1



## Installing the Dranetz HDPQ Xplorer, Guide, or Visa into the Enclosure

### Step 1:

Unpack the Dranetz HDPQ Xplorer, Guide, or Visa.

Refer to the User's Guide for detailed instructions on unpacking the instrument and for the list of Standard and Optional Accessories. **The Dranetz HDPQ Xplorer, Guide, or Visa can be installed in the enclosure with the rubber boot covering.**

### Step 2:

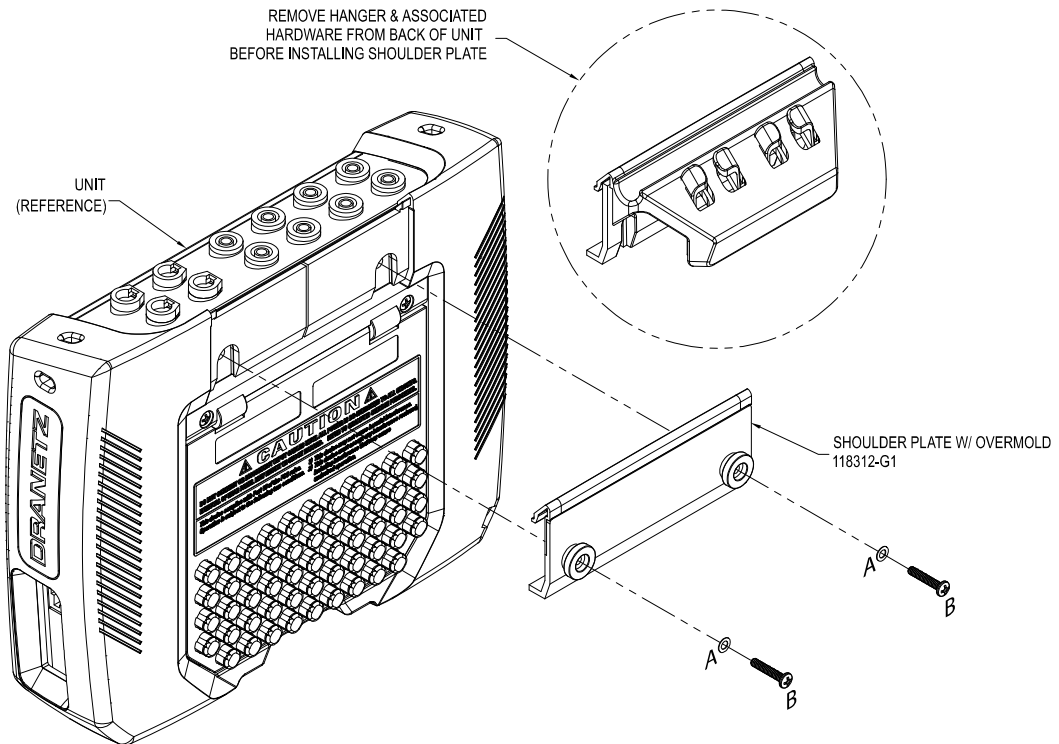
Set up the weather resistant enclosure assembly. Refer to pages 10 to 15 for the enclosure assembly and its contents. The enclosure is designed to mount the Dranetz HDPQ Xplorer, Guide, or Visa securely in place and to accommodate cable connections to the instrument.

### Step 3:

Remove the hanger bracket from the instrument by removing two #6-32 x 5/16" long screws and two flat washers from the hanger bracket.

Replace the hanger bracket with the keyhole mounting plate (P/N 118312-G1) and secure it to the instrument with the supplied hardware (two #6-32 x 3/4" inch long screws and two flat washers) as shown.

Note: The keyhole mounting plate P/N 118312-G1 is included as a standard accessory with the instrument.



**Step 4:**

**Mount the Xplorer, Guide, or Visa onto the metal mounting plate contained in the enclosure.**

Align the instrument to the keyed hole and slide down to lock it in place.

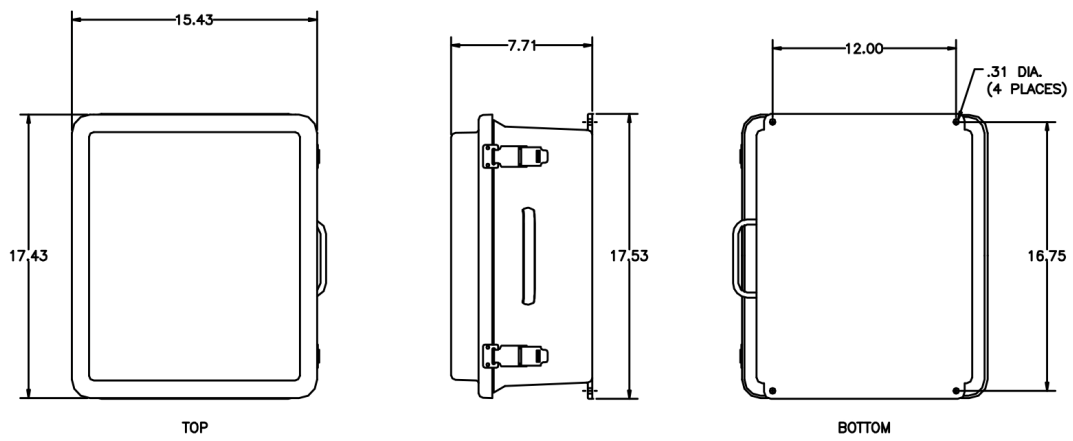
**Step 5:**

Use the power connection cables included in the Voltage Cable Set (P/N 118375-G1) to make the necessary Xplorer, Guide, or Visa circuit connections. **Run the voltage and current probe cables upward from the cable guide to the back of the instrument before making power connections to the Xplorer, Guide, or Visa.** The cable guide keeps the connection cables in place and ensures a tight seal across the lip of the enclosure.

**Step 6:**

**Follow all Warning and Safety Precautions before attempting to connect and operate the Xplorer, Guide, or Visa.** Refer to the User's Guide for circuit connection and operation instructions. Properly secure the enclosure on a flat surface near the point to be monitored with adequate mounting hardware for 20 lbs. weight.

# Enclosure Dimensions (inches)



## **Statements and Notices**

### **Statement of warranty**

All products of Dranetz are warranted to the original purchaser against defective material and workmanship for a period of one year from the date of delivery. Dranetz will repair or replace, at its option, all defective equipment that is returned, freight prepaid, during the warranty period. There will be no charge for repair provided there is no evidence that the equipment has been mishandled or abused. This warranty shall not apply to any defects resulting from improper or inadequate maintenance, buyer-supplied hardware/software interfacing, unauthorized modification or misuse of the equipment, operation outside of environmental specifications, or improper site preparation or maintenance.

### **Statement of reliability**

The information in this manual has been reviewed and is believed to be entirely reliable, however, no responsibility is assumed for any inaccuracies. All material is for informational purposes only and is subject to change without prior notice.

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