



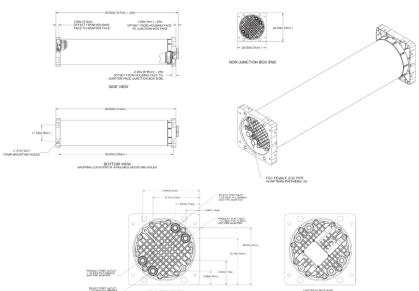


# IONPURE® VNX-CDIT RANGE OF HIGH FLOW CONTINUOUS ELECTRODEIONIZATION (CEDI) MODULES

# **IONPURE VNX MODULE - VNX30CDIT-2**

The lonpure® VNX-CDIT module is designed with proven continuous electrodeionization (CEDI) technology to produce high purity water. Performance has been optimized for suitability on most single-pass reverse osmosis feed waters. CDIT is designed for feed water with up to 4 ppm of hardness greatly widening the application window for CEDI technology.

Each VNX30-CDIT module has a nominal flow rate of 30 gpm (6.8 m $^3$ /hr). Multiple 30 gpm modules provide for system designs with flow rates up to, and greater than 1,000 gpm. VNX15-CDIT is also available and offers a nominal flow rate of 15 gpm (3.4m $^3$ /hr).



# **VNX-CDIT Series Features**

- 4 ppm as CaCO<sub>3</sub> max feed water hardness
- 2 ppm as SiO<sub>2</sub> max feed water silica
- Expanded CO<sub>2</sub> removal capabilities
- In most cases can operate on single pass RO permeate
- Thin cell technology optimized for feed water hardness tolerance
- No need for acid/caustic, neutralization systems or tank exchanges
- Significantly lower operating cost compared to conventional ion exchange systems
- Robust guaranteed leak free operation
- Continuous production of consistent quality
- Junction box for convenient and safe power connections
- Available as 30 gpm (6.8 m³/hr) or 15 gpm (3.4m³/hr) nominal flow rates

For additional information on our VNX30 series call +1 866.876.3340 or visit our website at www.ionpure.com.

#### **OPERATING ENVIRONMENT**

Installation should be indoors with no direct sunlight and should have a maximum ambient room temperature of 113°F (45°C).

#### **MATERIALS CONSTRUCTION**

- Wetted components of the VNX module consist of: PVC (adapters), nylon/ABS, polyphenylene oxide, polypropylene, silicone, ion-selective membranes, ion exchange resins and thermoplastic elastomer.
- Housing is fiberglass reinforced plastic (FRP). Standard color is white with glossy finish. Custom colors and labeling are available.
- The proprietary Flexmount™ bracket/end-block assembly is an epoxy painted aluminum casting suitable for securing modules to the frames and/or each other in lonpure® system approved configurations.

## **QUALITY ASSURANCE STANDARDS**

CE marked. Each module is factory tested to meet strict industry standards and is manufactured in an ISO 9001 and ISO 14000 quality and environmental management system. IFANCA HALAL Certified.

#### **ORDERING INFORMATION**

| Item No.  | Model No.      | Description |  |
|-----------|----------------|-------------|--|
| W3T215828 | IP-VNX30CDIT-2 | VNX30-CDIT  |  |
| W3T268747 | IP-VNX15CDIT-2 | VNX15-CDIT  |  |

- Each VNX module has four process connections; feed, concentrate feed, product and reject. PVC adapters (with dust covers) and plugs are provided with the module. High purity 50mm polypropylene adapters are also available.
- High purity 50mm butt weld connection kits adapter(4)/plug(4):

Natural Polypropylene - Part #IP-VNX-CK-PP-2

Standard 1-1/2" female socket connection kits adapter(4)/plug(4):

PVC - Part #IP-VNX-CK-PVC-2

Module electrical power connections are made through an on-board junction box.

## **Maximum Feed Water Specifications**

| Feed Water Conductivity<br>Equivalent, including CO <sub>2</sub> and Silica | < 100 µS/cm                |
|---|----------------------------|
| Feed Water Source   | RO permeate                |
| Temperature   | 41 - 113°F (5 - 45°C)      |
| Inlet Pressure  | 20 - 100 psi (1.4 - 7 bar) |
| Maximum Total Chlorine (as Cl <sub>2</sub> )                                | < 0.02 ppm                 |
| Iron (as Fe)  | < 0.01 ppm                 |
| Manganese (as Mn)   | < 0.01 ppm                 |
| Sulfide (as S <sup>2-</sup> )   | < 0.01 ppm                 |
| рН  | 4 - 11                     |
| Total Hardness (as CaCO <sub>3</sub> )                                      | < 4.0 ppm                  |
| Dissolved Organics (TOC as C)   | < 0.5 ppm                  |
| Silica (as SiO <sub>2</sub> )   | < 2.0 ppm                  |

## **Typical Module Performance**

#### **Operating Parameters**

|                    | VNX30-CDIT          | VNX15-CDIT                                |  |
|--------------------|---------------------|---|--|
| Recovery           | 80% - 90%           |   |  |
| Flow Rate: Minimum | 15 gpm (3.4 m³/hr)  | 7.5 gpm (1.7 m³/hr)<br>15 gpm (3.4 m³/hr) |  |
| Flow Rate: Nominal | 30 gpm (6.8 m³/hr)  |   |  |
| Flow Rate: Maximum | 45 gpm (10.2 m³/hr) | 22.5 gpm (5.1 m <sup>3</sup> /hr)         |  |

#### **Power Parameters**

| DC Voltage             | 0 - 600           |              |  |
|------------------------|-------------------|--------------|--|
| Hardness               | Required Amperage |              |  |
| 0 - 1.5 ppm Hardness   | 0 - 13.3 amps     | 0 - 6.6 amps |  |
| 1.5 - 2.5 ppm Hardness | 0 - 8.0 amps      | 0 - 4.0 amps |  |
| 2.5 - 4.0 ppm Hardness | 0 - 4.0 amps      | 0 - 2.0 amps |  |

## **Product Water Quality**

| Product Resistivity                 | >16 megohm-cm* | >16 megohm-cm* |  |
|-------------------------------------|----------------|----------------|--|
| Silica (SiO <sub>2</sub> ) Removal  | ≥ 95%          | ≥ 95%          |  |
| Sulphate (SO <sub>4</sub> ) Removal | ≥ 99.5%        | ≥ 99.5%        |  |
| Sodium (Na+) Removal                | ≥ 99.5%        | ≥ 99.5%        |  |
| Chloride (Cl <sup>-</sup> ) Removal | ≥ 99.5%        | ≥99.5%         |  |

<sup>\*</sup>Actual performance may be determined using the IP-Pro projection software available from lonpure.

# **PHYSICAL SPECIFICATIONS**

| Product    | Diameter         | Width           | Height          | Length           | Shipping Weight    | Operating Weight   |
|------------|------------------|-----------------|-----------------|------------------|--------------------|--------------------|
| VNX30-CDIT | 17.5" (44.45 cm) | 20.0" (50.8 cm) | 20.0" (50.8 cm) | 84.0" (213.3 cm) | 610 lbs (276.7 kg) | 825 lbs (374.2 kg) |
| VNX15-CDIT | 17.5" (44.45 cm) | 20.0" (50.8 cm) | 20.0" (50.8 cm) | 44.0" (112 cm)   | 315 lbs (143 kg)   | 420 lbs (190.5 kg) |



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