

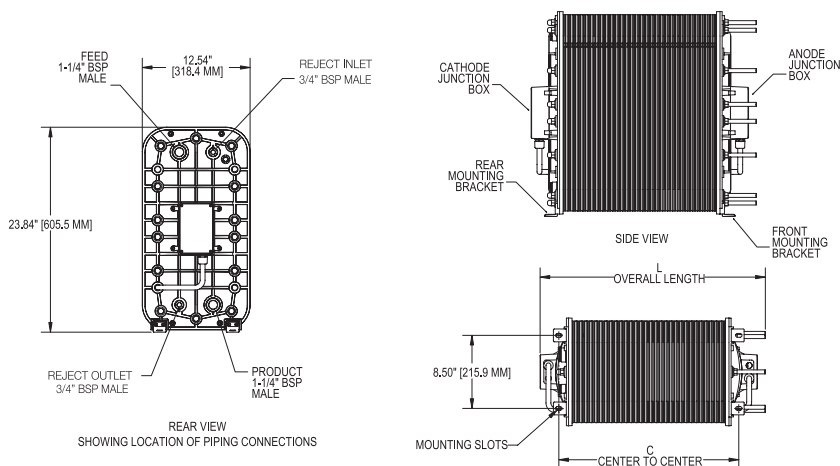


IONPURE® LX-Z CONTINUOUS ELECTRODEIONIZATION (CEDI) MODULES FOR INDUSTRIAL APPLICATIONS

IONPURE LX-Z — INDUSTRIAL CEDI MODULE

The Ionpure® LX-Z-5 modules with improved chlorine tolerance are specifically designed for a wide range of industrial deionized water applications and markets, including boiler makeup water for power plants, pharmaceutical pure water, water for hydrocarbon and chemical processing (HPI/CPI) and other high purity needs.

IONPURE CEDI modules provide a constant flow of high purity water without the need for downtime or chemical regeneration like conventional deionization methods.



LX-Z Series Features

- Significantly lower operating costs than conventional ion exchange
- Generates mixed-bed quality deionized water without the use of chemicals
- Continuous production instead of batch, with consistent quality
- Double O-ring seal guarantees leak-free operation
- No need for acid/caustic, neutralization system or exchangable DI tanks
- Resin filled concentrate for optimal performance and ease of operation
- Continuous operation
- Up to 0.05 ppm (total Cl_2) feed
- Wide range of flow from 0.22 m³/h (1 gpm) to 7.67 m³/h (33.8 gpm) per module
- Wetted materials of construction comply with NSF® 14 and NSF® 61 requirements

For additional information on our LX-Z industrial series of modules, call +1 866.876.3340 or visit our web site at www.ionpure.com.

OPERATING ENVIRONMENT

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

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.

Halal Certification. All Ionpure modules are manufactured in accordance with the Islamic Food and Nutrition Council of America standards (IFANCA), and will carry the Crescent M Halal logo.

Typical Module Performance

Operating Parameters	
Recovery	90 - 95%
DC Voltage	0 - 300
DC Amperage	1.0 - 6.0
Product Water Quality	
Product Resistivity	Minimum Flow > 17 Megohm-cm** Maximum Flow > 7 Megohm-cm**
Silica (SiO ₂) Removal	90 - 99%, depending on feed conditions

*Actual performance may be determined using the IP-Pro projection tool available from Ionpure

** Performance based on maximum Feed Water Conductivity Equivalent (40 µS/cm).

LX-Z FLOW RANGE AND WEIGHTS

Ordering Part #	Model Number	Minimum Flow Rate m ³ /hr (gpm)	Design Flow Rate m ³ /hr (gpm)	Shipping Weight kg (lbs)*	Operating Weight kg (lbs)
W3T17286	IP-LXM04Z-5	0.22 (1.0)	0.44-0.67 (2.0-3.0)	59 (130)	31 (69)
W3T17291	IP-LXM10Z-5	0.57 (2.5)	1.1-1.65 (5.0-7.5)	78 (171)	51 (113)
W3T17297	IP-LXM18Z-5	1.02 (4.5)	2.0-3.1 (9.0-13.5)	99 (217)	74 (163)
W3T17303	IP-LXM24Z-5	1.36 (6.0)	2.8-4.2 (12.5-18.8)	115 (254)	92 (103)
W3T17312	IP-LXM30Z-5	1.70 (7.5)	3.3-5.11 (15.0-22.5)	132 (291)	110 (243)
W3T17314	IP-LXM45Z-5	2.57 (11.3)	5.1-7.67 (22.5-33.8)	205 (451)	157 (345)

* Includes shipping crate

Feed Water Specifications

Feed Water Conductivity Equivalent, including CO ₂ and Silica	< 40 µS/cm
Feed Water Source	RO permeate
Temperature	5 - 45°C (41 - 113°F)
Inlet Pressure	1.4 - 6.9 bar (20 - 100 psig)
Maximum Total Chlorine (as Cl ₂)	< 0.05 ppm
Iron (as Fe)	< 0.01 ppm
Manganese (as Mn)	< 0.01 ppm
Sulfide (S ²⁻)	< 0.01 ppm
pH	4 - 11
Total Hardness (as CaCO ₃)	< 1.0 ppm
Dissolved Organics (TOC as C)	< 0.5 ppm
Silica (SiO ₂)	< 1.0 ppm

Physical Specifications

Item Number	Dimensions	
	L +/- 6.4 mm (0.25")	C +/- 3.2 mm (0.13")
LXM04Z	257 mm (10.12")	146.8 mm (5.78")
LXM10Z	347.7 mm (13.69")	235.7 mm (9.28")
LXM18Z	488.2 mm (19.22")	353.8 mm (13.93")
LXM24Z	601.7 mm (23.69")	442.7 mm (17.43")
LXM30Z	696.5 mm (27.42")	531.3 mm (20.92")
LXM45Z	907.3 mm (35.72")	747.7 mm (29.44")



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www.ionpure.com

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IONPURE® TOUCH PANEL DISPLAY IP-POWERDSP-TP

The IONPURE® Touch Panel display is designed to be a simple point-of-use display and control for the Ionpure DCR-M power rectifier and DC3 switch mode power supplies. This display provides the user complete control of up to 16 power supplies to optimize performance of a CEDI high purity water system.


The 4.3-inch display allows the user to see up to 4 CEDI power supplies at a time, allowing the user to quickly and accurately access vital information such as output voltage DC, amperage DC and resistance (Ohms). The display will also provide a visual alarm for any power supply which has an error, allowing for troubleshooting without having to power off full system and open electrical cabinet.

TOUCH PANEL DISPLAY FEATURES

- Designed specifically for use with IONPURE power supplies and CEDI modules.
- Streamline power at system with the ability to view supply monitoring and control up to 16 units from 1 display.
- Easily view real time power performance and alarms
- Access critical troubleshooting information
- 60-Day running log of power performance
- IP65 rated for protection from dust, water, oils and non-corrosive materials
- RoHS, CE complaint, and UL listed
- Provided Gasket to maintain NEMA 4X/IPS rating of cabinet.
- USB port for data extraction and firmware updates
- Supplied with DB9 (serial) to RJ45 (ethernet) cable adapter for DCR-M
- Simple ethernet connection for DC3

Overview / Page 1						
MD1	✓	0.0	VDC	0.0	ADC	0.00 Ω
MD2	✓	0.0	VDC	0.0	ADC	0.00 Ω
MD3	✓	0.0	VDC	0.0	ADC	0.00 Ω
MD4	✓	0.0	VDC	0.0	ADC	0.00 Ω

Overview Screen

Revision		Back	Alarm Code 0 - 0	
Setpoint 00.0 ENTER	External Control Yes No	Power Controller Status Stop Run		
Temperature H 00 °C x 00 °C	DC3 Runtime & Serial Number HRS: 00 S/N: 000000000			
Load Voltage 000 V		Current 00.0 A	Resistance 000.0 Ω	

Detail Screen

Specifications

PHYSICAL SPECIFICATIONS

	Width	Height	Depth
IP-TPDSP	5.04in (128mm)	4.02in (102mm)	1.97in (50mm)
Panel Cutout	4.72in (120mm)	3.70 in (94mm)	N/A

INPUTS

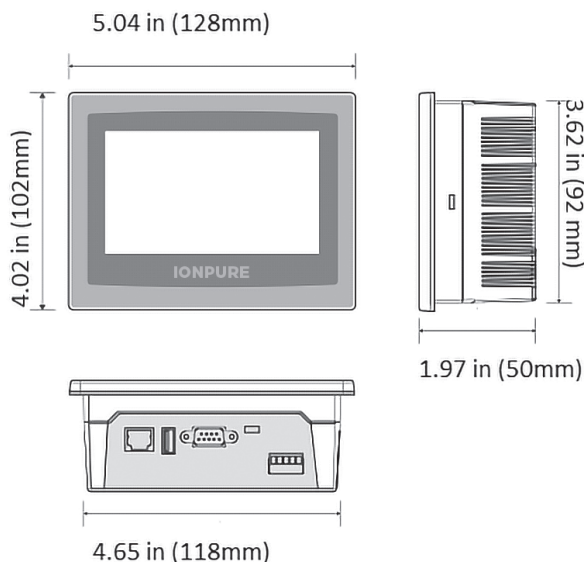
Input power	24 VDC
Ethernet	10/100BaseT
Serial (com1)	RS232C
Serial (com2)	RS422/485
USB	

GENERAL SPECIFICATIONS

Operating Temperature	0°C - 50°C (35°F - 122°F)
Storage Temperature	-20°C - 60°C (-4°F - 140°F)
Ambient Humidity	10%RH ~ 85%RH (Below 29°C (84.2°F) , Non-condensing)
Storage Humidity	10%RH ~ 85%RH (Below 39°C (102.2°F) , Non-condensing)
Dust	≥ 0.1 mg/m3
Enclosure	Plastic

PANEL SPECIFICATIONS

Panel Size	4.3"
Resolution	480 x 272
LCD	65K Color TFT
Onboard memory	128 MB SDRAM
Onboard storage	128 MB Flash
Operating System	Custom Ionpure interface running on Windows CE 6.0



Ordering Information

Order #	Model #	Description
W2T829935	IP-POWERDSP-TP	4.3" Touch Panel Display for DCR-M and DC3
ACCESSORIES		
W2T394491	IP-CABLE50CM-G2	1.6ft (50cm) Ethernet Cable
W2T394495	IP-CABLE2M-G2	6.5ft (2m) Ethernet Cable
CORRESPONDING POWER SUPPLIES		
W2T827150	IP-DC3PH600V1-M1	3-Phase DC Power Supply, 0-600V, 0-15A DC
W2T827123	IP-DCR600V15A-M*	DC RECTIFIER, 600VDC 15A DIN Rail mountable with MODBUS communication

* DCR requires separate isolation transformer, not provided.



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Ionpure® VNX Enhanced Performance High Flow Continuous Electrodeionization (CEDI) Modules

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

IONPURE VNX ENHANCED PERFORMANCE MODULES

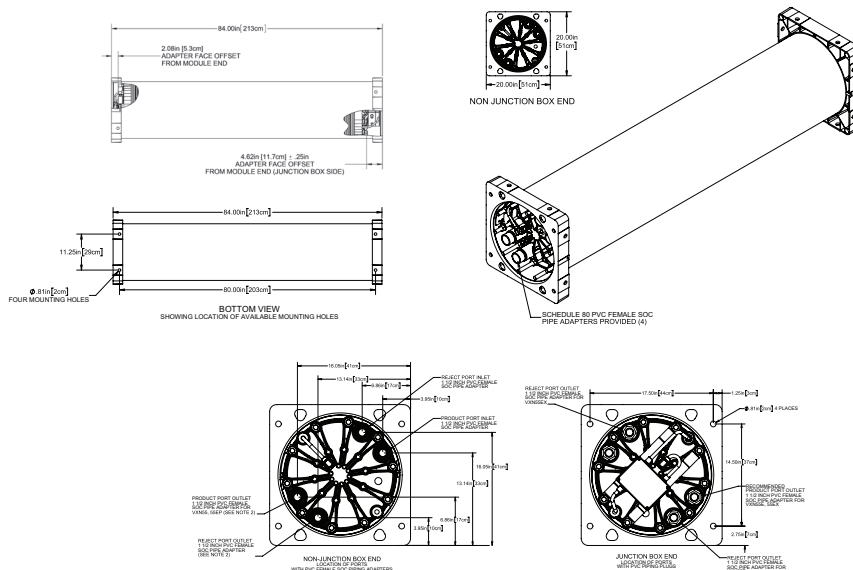
The Ionpure® VNX-EP high flow module is designed with proven continuous electrodeionization (CEDI) technology to produce high purity water. Proprietary Flexmount™ connectors create a support system for the modules, which simplifies the systems design to reduce overall capital cost.

The VNX-EP range provides ultrapure water for critical boilers in the power industry and other bulk deionization high purity applications. Multiple VNX-EP modules provide for simplified system design with flow rates up to, and greater than 1,000 gpm.

VNX55-EP Series Features

- Typically > 17 MΩ-cm product water resistivity
- Designed to meet low sodium, chloride, and sulfate requirements for super critical boilers
- Silica and Boron removal is typically > 95%
- 1 ppm maximum feed water hardness (as CaCO₃)
- Up to 95% recovery
- No need for acid/caustic, neutralization systems or DI tank exchanges
- Robust leak free sealing with through-port gasket
- Connection fittings are included
- On-board junction box
- Available as 55 gpm (12.5 m³/h) or 27.5 (6.2 m³/h) nominal flow rates

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



*VNX55-EP Module shown

OPERATING ENVIRONMENT

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

MATERIAL CONSTRUCTION

- Wetted components of the VNX module consist of: PVC (adapters), nylon/ABS, polypropylene, silicone, ion-selective membranes, ion exchange resins and thermoplastic elastomer.
- Housing is fiberglass reinforced plastic (FRP). Standard color is white with a 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 Ionpure® 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.

Halal Certification. All Ionpure modules are manufactured in accordance with the Islamic Food and Nutrition Council of America standards (IFANCA), and will carry the Crescent M Halal logo.

ORDERING INFORMATION

Item No.	Model No.	Description
W3T262280	IP-VNX55EP-2	VNX55-EP
W3T339521	IP-VNX28EP-2	VNX28-EP

- 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 50 mm polypropylene adapters are also available.
- Module electrical power connections are made through an on-board junction box.

Physical Specifications

Product	Width	Height	Length	Shipping Weight	Operating Weight
VNX55-EP	20" (50.8 cm)	20" (50.8 cm)	84" (213.3 cm)	610 lbs (276.7 kg)	825 lbs (374.2 kg)
VNX28-EP	20" (50.8 cm)	20" (50.8 cm)	44" (111.8 cm)	315 lbs (143 kg)	420 lbs (190.5 kg)

Maximum Feed Water Specifications

Feed Water Conductivity Equivalent, including CO ₂ and Silica	<40µS/cm
Feed Water Source	RO permeate or DI water
Temperature	41 - 113°F (5 - 45°C)
Inlet Pressure	20 - 100psi (1.4 - 7bar)
Maximum Total Chlorine (as Cl ₂)	< 0.02 ppm
Iron (as Fe)	< 0.01 ppm
Manganese (as Mn)	< 0.01 ppm
Sulfide (S ²⁻)	< 0.01 ppm
pH	4 - 11
Total Hardness (as CaCO ₃)	≤ 1.0 ppm
Dissolved Organics (TOC as C)	< 0.5 ppm
Silica (SiO ₂)	< 1.0 ppm

Typical Module Performance

Operating Parameters		
	VNX28-EP	VNX55-EP
Recovery	90 - 95%	
Minimum Flow	12.5 gpm (2.8m ³ /h)	25.0 gpm (5.7m ³ /H)
Nominal Flow	27.5 gpm (6.2 m ³ /h)	55.0 gpm (12.5 m ³ /h)
Maximum Flow	41.25 gpm (9.4 m ³ /h)	82.5 gpm (18.7 m ³ /h)
DC Voltage	0 - 300	
DC Amperage	1 - 6.6	1 - 13.2

Product Water Quality

Product Resistivity - RO Permeate	> 17 MΩ.cm*
Product Resistivity - DI Water	> 18 MΩ.cm*
Silica (SiO ₂) Removal	≥ 95%
Boron (B) Removal	≥ 95%
Sodium (Na ⁺) Removal	99.8%
Chloride (Cl ⁻) Removal	99.8%

*Actual performance may be determined using the IP-Pro projection software available from Ionpure.



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IONPURE® VNX55-EX HIGH FLOW CONTINUOUS ELECTRODEIONIZATION (CEDI) MODULES

IONPURE® VNX MODULE — VNX55EX-2

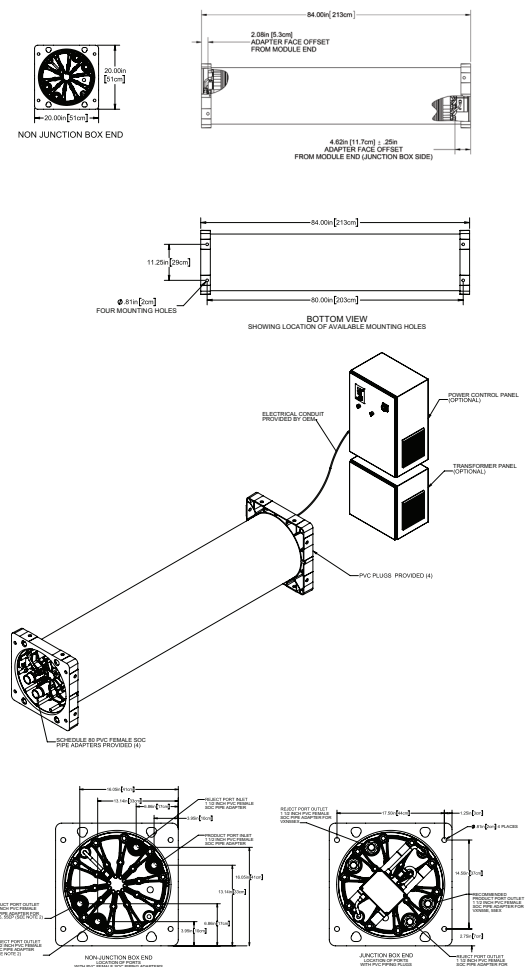
The VNX55-EX high flow module is designed with proven Ionpure® continuous electrodeionization (CEDI) technology to produce high purity water. Performance has been optimized for the critical high quality demands of the microelectronics industry.

Each VNX55-EX industrial module has a nominal flow rate of 55 gpm (12.5 m³/hr). Multiple 55 gpm modules provide for simplified system design with flow rates up to, and greater than 1,000 gpm.

VNX55-EX SERIES FEATURES

- Guaranteed 18 MΩ-cm product resistivity, optimized for microelectronics and UPW systems
- Silica and Boron removal of ≥ 99%
- Sodium and Chloride removal ≥ 99.9%
- 95 – 97.5% recovery for loop usage and high water savings
- No need for acid/caustic, neutralization systems or tank exchanges
- Significantly lowers operating costs compared to conventional ion exchange
- Robust leak-free sealing with through-port gasket
- High flow module reduces system cost and simplifies skid design
- Connection fittings are included
- On-board junction box for DC power connections
- 50 mm butt weld natural polypropylene connection kits and drawings available

For additional information on our VNX 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 temperature of 113°F (45°C).

MATERIAL CONSTRUCTION

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

ORDERING INFORMATION

1. Use model number IP-VNX55EX-2 (W3T256997) when ordering for vertical or horizontal installation.
2. 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 50 mm polypropylene adapters are also available.
3. High purity 50mm butt weld connection kits adapter (4)/plug (4):
Natural polypropylene — Model #IP-VNX-CK-PP-2
4. Standard 1.5" female socket connection kits (4)/plug (4):
PVC — Model #IP-VNX-CK-PVC-2.
5. Module electrical power connections are made through an on-board junction box.

PHYSICAL SPECIFICATIONS

Diameter	Width	Height	Length	Shipping Weight	Operating Weight
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)

MAXIMUM FEED WATER SPECIFICATIONS

Feed water conductivity equivalent, including CO ₂ and Silica	< 10 µS/cm
Feed water source	RO permeate (2 pass) or DI water
Temperature	68 - 113°F (20 - 45°C)
Inlet pressure	30 - 100 psi (2.1 - 7 bar)
Maximum total chlorine (as Cl ₂)	< 0.02 ppm
Iron (Fe)	< 0.01 ppm
Manganese (Mn)	< 0.01 ppm
Sulfide (H ₂ S)	< 0.01 ppm
pH	4 - 11
Total hardness (as CaCO ₃)	< 0.1 ppm
Dissolved organics (TOC as C)	< 0.5 ppm
Silica (SiO ₂)	< 0.5 ppm

TYPICAL MODULE PERFORMANCE

OPERATING PARAMETERS

Recovery	95 - 97.5%
Flow rate: minimum	33 gpm (7.5m ³ /hr)
Flow rate: nominal	55 gpm (12.5 m ³ /hr)
Flow rate: maximum	73.5 gpm (16.7 m ³ /hr)
DC voltage	0 - 300
DC amperage	1.0 - 13.2**

PRODUCT WATER QUALITY

Product resistivity 2-pass RO Permeate	> 17.5 megohm-cm*
Product resistivity — DI water	> 18 megohm-cm*
Silica (SiO ₂) removal	99%
Boron (B) removal	99%
Sodium (Na) removal	≥ 99.9%
Chloride (Cl) removal	≥ 99.9%

*Actual performance may be determined using the IP-Pro projection software available from Ionpure®.
**0-10 amp typical for most applications.



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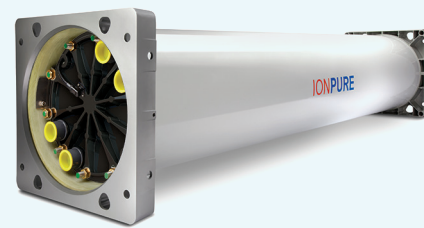
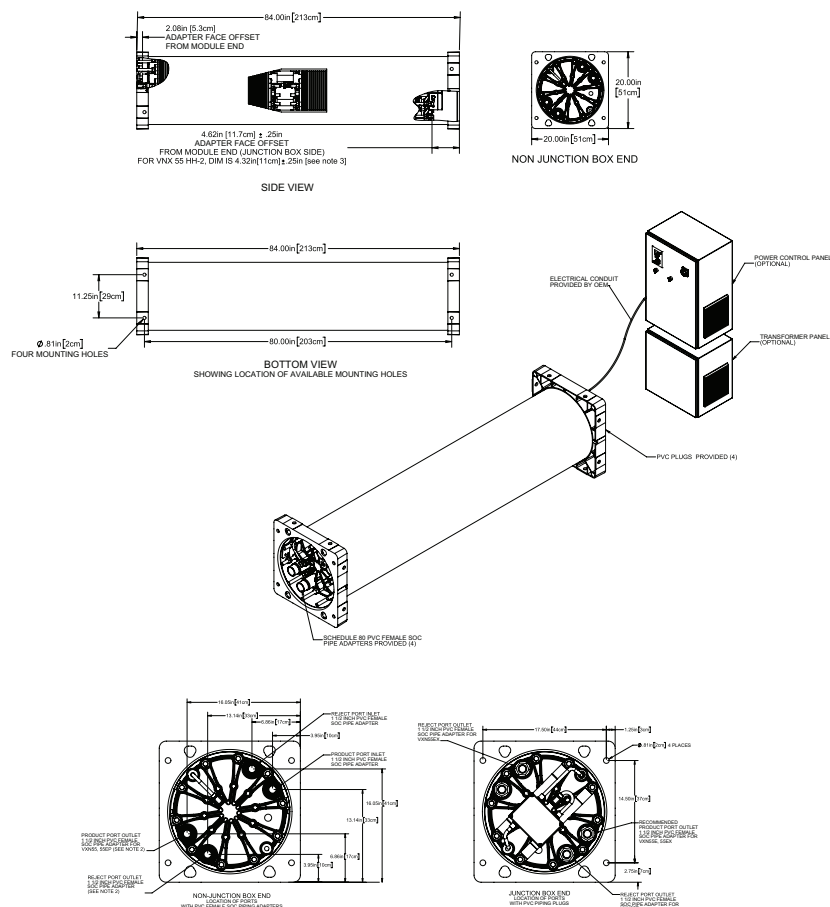
ION-VNX55EX-DS-0618

Ionpure® VNX55-ULTRA High Flow Continuous Electrodeionization (CEDI) Modules

IONPURE® VNX ULTRA MODULE

The VNX55-ULTRA high flow module is designed with proven Ionpure® continuous electrodeionization (CEDI) technology to produce ultra high purity water. Performance has been optimized for high boron removal and critical high quality demands of the microelectronics industry.

Each VNX55-ULTRA industrial module has a nominal flow rate of 55 gpm (12.5 m³/hr). Multiple 55 gpm modules provide a simplified system design with flow rates up to, and greater than, 1,000 gpm.



VNX55-ULTRA SERIES FEATURES

- Silica and Boron removal of $\geq 99.8\%$
- Guaranteed 18 M Ω -cm product resistivity, optimized for microelectronics and UPW systems*
- Sodium and chloride removal $\geq 99.9\%$
- 95–97.5% recovery for makeup usage and high water savings
- No need for acid/caustic, neutralization systems or tank exchanges
- Significantly lowers operating costs compared to conventional ion exchange
- Robust leak-free sealing with through-port gasket
- High flow module reduces system costs and simplifies skid design
- Connection fittings are included
- On-board NEMA 4X, IP67 junction box for DC power connections
- 50 mm butt weld natural polypropylene connection kits and drawings available

* Applies to DI feeds - consult performance projections for specific performance expectations.

For additional information on our
VNX 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 temperature of 113°F (45°C).

MATERIAL CONSTRUCTION

- Wetted components of the VNX module consist of: PVC (adapters), nylon/ABS, polypropylene, silicone rubber, ion-selective membranes, ion exchange resins and thermoplastic elastomer.
- Housing is fiberglass reinforced plastic (FRP). Standard color is white with a 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 frame and/or each other in Ionpure® 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.

ORDERING INFORMATION

- Use part number W3T537068, model number IP-VNX55ULTRA-2, when ordering for vertical or horizontal installation.
- 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 50 mm polypropylene adapters are also available.
- High purity 50 mm butt weld connection kits adapter (4)/plug (4): Natural polypropylene—Part number W3T17348, Model IP-VNX-CK-PP-2
- Standard 1.5" female socket connection kits (4)/plug (4): PVC—Part number W3T17350, Model IP-VNX-CK-PVC-2
- Module electrical power connections are made through an on-board junction box.

MAXIMUM FEED WATER SPECIFICATIONS

Feed water Conductivity Equivalent, including CO ₂ and Silica	< 10 µS/cm
Feed water source	RO permeate (2 pass) or DI water
Temperature	68–113°F (20–45°C)
Inlet pressure	30–100 psi (2.1–7 bar)
Maximum total chlorine (as Cl ₂)	< 0.02 ppm
Iron (Fe)	< 0.01 ppm
Manganese (Mn)	< 0.01 ppm
Sulfide (H ₂ S)	< 0.01 ppm
pH	4–11
Total hardness (as CaCO ₃)	< 0.1 ppm
Dissolved organics (TOC as C)	< 0.5 ppm
Silica (SiO ₂)	< 0.5 ppm

TYPICAL MODULE PERFORMANCE

Operating Parameters	
Recovery	95–97.5%
Flow rate: minimum	42 gpm (9.5 m ³ /hr)
Flow rate: nominal	55 gpm (12.5 m ³ /hr)
Flow rate: maximum	66 gpm (15 m ³ /hr)
DC voltage	0–600
DC amperage	1–10

Product Water Quality

Product resistivity 2-pass RO Permeate	> 17.5 Ω-cm*
Product Resistivity—DI water	> 18 Ω-cm*
Silica (SiO ₂) removal	≥ 99.8%
Boron (B) removal	≥ 99.8%
Sodium (Na) removal	≥ 99.9%
Chloride (Cl) removal	≥ 99.9%

* Actual performance projections available from Ionpure®.

PHYSICAL SPECIFICATIONS

Diameter	17.5" (44.45 cm)
Width	20.0" (50.8 cm)
Height	20.0" (50.8 cm)
Length	84.0" (213.3 cm)
Shipping Weight	610 lbs (276.7 kg)
Operating Weight	825 lbs (374.2 kg)



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DC3 POWER SUPPLY FOR IONPURE® CEDI AND NEXED® EDR MODULES

3-PHASE DC POWER CONTROLLER

Our most Advanced Power Controller to-date, Digital Communication 3-Phase switch-mode power supply (DC3) combines microprocessor-controlled DC power processing with built-in electrical isolation and MODBUS® TCP communication.

DC3 provides the best solution for providing constant control of current, voltage or power to IONPURE® Continuous Electrodeionization (CEDI) and NEXED® Electrodialysis Reversal (EDR) modules for optimized system performance and allows for a more cost effective and simplified solution for electrical system design.

DC3 is a fully enclosed, touch-safe (IP20) power supply capable of providing 0-600 Volts DC and 0-15 amps output. Its heat-sink chassis and dual fans allow for maximum heat dissipation with low noise level while maintaining a compact design.

HIGH-AMPERAGE PARALLELING ACCESSORY UNIT

For High TDS NEXED EDR application, requiring higher amperage to achieve maximum salt removal, the paralleling board accessory allows the ability to combine up to 3 DC3 units to provide up to 45-amp DC at 600VDC maximum.



DC3 Power Supply shown above.

DC3 Features and Benefits

- DC output designed to optimize IONPURE CEDI and NEXED EDR module performance
- Direct connect from line power, no isolation transformer required
- 380-480 VAC, 50/60Hz
- High efficiency, 3-phase switch mode power supply, for reduced power consumption vs traditional SCR power products
- MODBUS TCP- Ethernet connection
- Adjustable DC voltage and current via external HMI* or PLC
- On-board diagnostics and alarms
- LED Power and Status indicators
- Daisy chain thru Ethernet for monitoring of an unlimited number of power supplies from a central location
- Programmable constant control of current, voltage or power
- Combine up to 3 units for high amperage applications*
- Manufactured in the USA
- Meets applicable international standards
- Short circuit and transient protection

For additional information of IONPURE Products visit our web site at www.ionpure.com. Follow us on twitter @IONPURE_CEDI.

*Sold Separately

*Paralleling accessory required

Input Specifications

Line Voltage (Auto Ranging)	380 - 480VAC (3-Phase)
Operating Range	323 - 528VAC
Phase	Three (3) - L1, L2, L3, Ground
Frequency (Auto Ranging)	45-65Hz
Power Factor ¹	0.92

¹ Power factor calculated at full load capacity

Output Specifications

Amperage DC	0.1-15
Current Regulation	+/- 150mA
Max Compliance Voltage DC	600
Isolation (input to output) V RMS	3750 VAC
Current and Voltage Retransmit	4-20mA Analog
Power and Status Indicators	3x LED
Current Limiting	Dip Switch 0-2.5 0-4 0-6.6 0-10 0-13.2 0-15

Communications

Programming Port	USB
Programming source	PC or Thumb Drive ²
Fieldbus Protocol	Modbus TCP - Cat5+ Ethernet
TCP IP Address setting	Rotary Dial ³

² Thumb drive only for programming of IONPURE touch panel display

³ Also settable via IONPURE power panel software

ORDERING INFORMATION

Order Number	Model Number	Description
W2T827150	IP-DC3PH600V-M1	DC3 Power Supply, 3-phase 0-600V, 0-15A DC
W2T829935	IP-POWERDSP-TP	4.3" Touch Panel Display
W2T847507	IP-PB600V45A-1	Paralleling accessory, combine upto 3 DC3 Power supply for up to 45A output

Physical Specifications

	DC3 Power Supply	Paralleling Accessory
Weight	8.61 Kg (19 lbs)	1.27 Kg (2.8 lbs)
Width	22.71 cm (8.94")	8.25 cm (3.25")
Height	34.32 cm (13.51")	19.20 cm (7.56")
Depth	16.51 cm (6.5")	12.93 cm (5.09")
Power Terminal Strip	14 - 10 AWG	N/A
I/O Terminal Strip	16 - 26 AWG	3 - 14 AWG

Environmental Specifications

Ambient Operation Temperature	0 - 50 °C (32 - 122 °F)
Storage Temperature	-15 - 70 °C (5 - 158 °F)
Humidity	Relative Humidity up to 5% - 95% non-condensing
Altitude	< 6000 ft
Air Flow / Cooling	Heat-sink / Forced air

Protections

Automatic Power Stage
Over-voltage
Under-voltage
Shorted Output
Input transient
Over temperature
Chassis and Output ground
Conformal Coated



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eVOQUA
WATER TECHNOLOGIES



IONPURE® LX-HI INSTANT HOT WATER SANITIZABLE CONTINUOUS ELECTRODEIONIZATION (CEDI) MODULES

IONPURE LX-HI MODULE

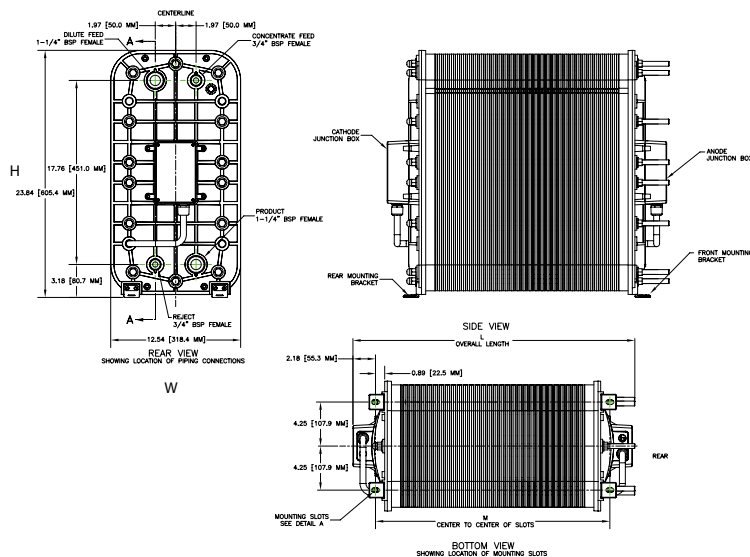
Hot water sanitization has been shown to be more effective than chemical sanitization for controlling microbial growth, primarily in the pharmaceutical and biotechnology industries and other applications where chemical-free, instant hot water sanitization is desired.

LX-HI modules are capable of continuous operation up to 140°F (60°C) allowing these modules to provide high quality water, in higher temperature applications than typical CEDI, such as steam generation in power applications, without regeneration downtime. Ease of operation, maximum reliability and low operating costs are signature features of Ionpure modules.

LX-HI Series Features

- Hot water sanitizable at 185°F/85°C ± 5°C
- Continuous operation up to 140°F (60°C)
- Patented technology for instant hot water capability - no ramp up/down required
- Higher sanitization pressure 30 psi/2.0 bar
- Double O-ring seal guarantees leak-free operation
- Proven performance after 150+ sanitizations
- Concentrate recirculation and brine injection not required
- Wetted materials of construction comply with FDA requirements

For additional information on our hot water sanitizable series of modules 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).

QUALITY ASSURANCE STANDARDS

CE marked for compliance with low voltage directive. 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.

Halal certified. All Ionpure modules are manufactured in accordance with the Islamic Food and Nutrition Council of America standards (IFANCA), and will carry the Crescent M Halal logo.

Physical Specifications

Item Number	Dimensions		
	L	H	W
LXM04HI-3	11.81" (300.0 mm)	23.84" (605.5 mm)	12.54" (318.5 mm)
LXM10HI-3	15.29" (388.6 mm)	23.84" (605.5 mm)	12.54" (318.5 mm)
LXM18HI-3	19.91" (505.7 mm)	23.84" (605.5 mm)	12.54" (318.5 mm)
LXM24HI-3	23.38" (593.9mm)	23.84" (605.5 mm)	12.54" (318.5 mm)
LXM30HI-3	27.42" (696.5mm)	23.84" (605.5 mm)	12.54" (318.5 mm)
LXM45HI-3	35.72" (907.3 mm)	23.84" (605.5 mm)	12.54" (318.5 mm)

ORDERING DETAILS

LX-HI Series Modules

Ordering Part Number	Model Number	Product Flow min. gpm (m³/hr)	Product Flow nominal gpm (m³/hr)	Product Flow max. gpm (m³/hr)	Shipping Weight* lbs (kg)	Operating Weight lbs (kg)
W3T17316	IP-LXM4HI-3	1.0 (0.22)	2.0 (0.44)	3.0 (0.67)	140 (64)	79 (36)
W3T17287	IP-LXM10HI-3	2.5 (0.55)	5.0 (1.1)	7.5 (1.65)	180 (82)	122 (55)
W3T17293	IP-LXM18HI-3	4.5 (1.1)	9.0 (2.0)	13.5 (3.1)	215 (98)	161 (73)
W3T17298	IP-LXM24HI-3	6.3 (1.4)	12.5 (2.8)	18.8 (4.2)	248 (113)	197 (89)
W3T17304	IP-LXM30HI-3	7.5 (1.65)	15.0 (3.3)	22.5 (5.11)	286 (130)	238 (108)
W3T226955	IP-LXM45HI-3	11.3 (2.55)	22.5 (5.1)	33.8 (7.67)	431 (196)	325 (148)

* includes shipping crate

Feed Water Specifications

Feed Water Conductivity Equivalent, including CO ₂ and Silica	< 40 µS/cm
Temperature	41 - 140° F (5 - 60° C)
Inlet Pressure	≤ 100psi (6.9 bar)
Maximum Total Chlorine (as Cl ₂)	< 0.02 ppm
Iron (as Fe)	< 0.01 ppm
Manganese (as Mn)	< 0.01 ppm
Sulfide (S ⁻)	< 0.01 ppm
pH	4 - 11
Total Hardness (as CaCO ₃)	< 1.0 ppm
Dissolved Organics (TOC as C)	< 0.5 ppm
Silica (SiO ₂)	< 1.0 ppm

Typical Module Performance

Operating Parameters

Typical Recovery	90 - 95%
Maximum Feed Pressure	100 psi (6.9 bar)
DC Voltage*	0 - 600
DC Amperage	0 - 10
Pressure Drop Range at Nominal Flow	20 - 30 psi (1.4 - 2.1 bar)
Maximum Feed Temperature	140°F (60°C)
Sanitization Temperature at 30 psi (2.0 bar)	185°F (85°C)

Typical Product Water Quality

Product Conductivity	< 0.1 µS/cm
Silica (SiO ₂) Removal	90 - 99%, depending on feed water

Note: Actual performance may be determined using the IP-Pro projection software available from Ionpure.
* Voltage required depends on module size



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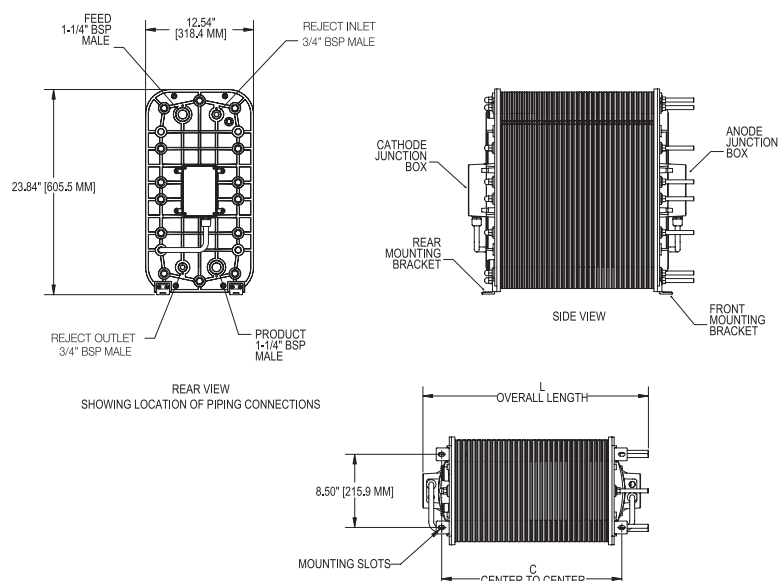


IONPURE® LX-X HIGH PURITY CONTINUOUS ELECTRODEIONIZATION (CEDI) MODULES

IONPURE LX-X — INDUSTRIAL CEDI MODULE

The Ionpure® LX-X industrial modules produce deionized water through electrodeionization for a wide range of high purity applications and markets, including boiler makeup water for power plants, pharmaceutical pure water, water for hydrocarbon and chemical processing (HPI/CPI) and other high purity needs.

IONPURE CEDI modules provide a constant flow of high purity water without the need for downtime or chemical regeneration like conventional deionization methods.



LX-X Series Features

- Generates mixed-bed quality deionized water without the use of chemicals
- Significantly lower operating costs, than conventional ion exchange
- No need for acid/caustic, neutralization system or exchangable DI tanks
- Double O-ring seal guarantees leak-free operation
- Continuous production instead of batch, with consistent quality
- Superior electrical isolation
- Wide range of flow from 0.22 m³/h (1 gpm) to 7.67 m³/h (33.8 gpm) per module
- Wetted materials of construction comply with NSF® 61 requirements

For additional information on our LX-X industrial series of modules call +1 866.876.3340 or visit our web site at www.ionpure.com.

OPERATING ENVIRONMENT

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

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.

Halal Certification. All Ionpure modules are manufactured in accordance with the Islamic Food and Nutrition Council of America standards (IFANCA), and will carry the Crescent M Halal logo.

Typical Module Performance

Operating Parameters	
Recovery	90 - 95%
Pressure Drop Range at Nominal Flow	25 - 37 psi (1.7 - 2.5 Bar)
DC Voltage	0 - 300
DC Amperage	1.0 - 6.0
Product Water Quality	
Product Resistivity	Minimum Flow > 17 Megohm-cm** Nominal Flow > 15 Megohm-cm** Maximum Flow > 7 Megohm-cm**
Silica (SiO ₂) Removal	90 - 99%, depending on feed conditions

*Actual performance may be determined using the IP-Pro projection tool available from Ionpure.

** Performance based on maximum Feed Water Conductivity Equivalent (40 µS/cm)

Feed Water Specifications

Feed Water Conductivity Equivalent, including CO ₂ and Silica	< 40 µS/cm
Feed Water Source	RO permeate
Temperature	41 - 113°F (5 - 45°C)
Inlet Pressure	≤ 100 psi (6.9 bar)
Maximum Total Chlorine (as Cl ₂)	< 0.02 ppm
Iron (as Fe)	< 0.01 ppm
Manganese (as Mn)	< 0.01 ppm
Sulfide (S ²⁻)	< 0.01 ppm
pH	4 - 11
Total Hardness (as CaCO ₃)	< 1.0 ppm
Dissolved Organics (TOC as C)	< 0.5 ppm
Silica (SiO ₂)	< 1.0 ppm

Physical Specifications

Item Number	Dimensions	
	L +/- 0.25" (6.4 mm)	C +/- 0.13" (3.2 mm)
LXM04X	10.12" (257 mm)	5.78" (146.8 mm)
LXM10X	13.69" (347.7 mm)	9.28" (235.7 mm)
LXM18X	19.22" (488.2 mm)	13.93" (353.8 mm)
LXM24X	23.69" (601.7 mm)	17.43" (442.7 mm)
LXM30X	27.42" (696.5 mm)	20.92" (531.3 mm)
LXM45X	35.72" (907.3 mm)	29.44" (747.7 mm)

LX-X FLOW RANGE AND WEIGHTS

Ordering Part #	Model #	Minimum Flow Rate m ³ /h (gpm)	Nominal Flow Rate m ³ /h (gpm)	Maximum Flow Rate m ³ /h (gpm)	Shipping Weight kg* (lbs)	Operating Weight kg (lbs)
W3T17318	IP-LXM4X-4	0.22 (1.0)	0.45 (2.0)	0.68 (3.0)	59 (130)	31 (69)
W3T17289	IP-LXM10X-4	0.57 (2.5)	1.13 (5.0)	1.70 (7.5)	78 (171)	51 (113)
W3T17295	IP-LXM18X-4	1.02 (4.5)	2.04 (9.0)	3.06 (13.5)	99 (217)	74 (163)
W3T17300	IP-LXM24X-4	1.36 (6.0)	2.73 (12.0)	4.09 (18.0)	115 (254)	92 (203)
W3T17309	IP-LXM30X-4	1.70 (7.5)	3.40 (15.0)	5.11 (22.5)	132 (291)	110 (243)
W3T187073	IP-LXM45X-4	2.57 (11.3)	5.11 (22.5)	7.67 (33.75)	205 (451)	157 (345)

* Includes shipping crate



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