FEDI®

The next generation of EDI

FEDI-2HF-30X FRACTIONAL ELECTRODIONIZATION

FEDI® stacks are designed to produce high purity water up to 18 MΩ.m using a patented process with double sets of electrodes per stack. FEDI® replaces mixed bed technology and produces pure water continuously without the use of regeneration chemicals.

Applications include the semiconductor, power, food & beverage and pharmaceutical industry.

Features FEDI-2HF

The stacks are designed for operation after double pass reverse osmosis. The stack has ability to produce high purity water with high flow rate using a patented "Split Flow EDI" technology.

- High stack flow up to 8.4 m^3/hr (37 gpm)
- Superior product quality up to 16 MOhms.cm
- Low voltage requirement
- Meets water specifications for high pressure boilers and gas turbines, as well as a variety of other applications

The above information provides the general characteristics and description of FEDI® stack. We believe that the above information is correct as of this printing. However, the content of this datasheet might be subject to changes with further development of the product. Make sure FEDI® stacks are operated according to Operation and Maintenance guidelines. Contact QUA for assistance in selection of FEDI® stacks for your application.

FEDI-2HF CONNECTIONS

FEDI®

The next generation of EDI

DATA SHEET

FEDI-2HF SPECIFICATIONS - STACK FLOWS

Parameters	Unit	30X
Typical Product Flow	m^3/hr gpm	6.8 30
Maximum Product Flow	m^3/hr gpm	8.4 37
Minimum Product Flow	m^3/hr gpm	4.5 20
Min. Concentrate Flow (Conc. -1 + Conc. -2)	m^3/hr gpm	0.30 1.32
Max. Concentrate Flow (Conc.1 + Conc. 2)	m^3/hr gpm	0.50 2.20
Min. Electrode Rinse Flow	m^3/hr gpm	0.06 0.26
Electrode Rinse Flow	m^3/hr gpm	0.10 0.44

Flows should be kept within these ranges for optimal performance

WEIGHT AND DIMENSIONS

Parameters	Unit	30X
Weight (Per Stack)	kg lbs.	115 253
Shipping Weight (Per Stack)	kg lbs.	152 334
Length	mm inch	685 27.0
Width	mm inch	400 15.7
Height	mm inch	619 24.4

ELECTRICAL SV OPERATION

Parameters	Unit	30X
Voltage Typical	VDC	175
Voltage Maximum	VDC	500
Current1/Current 2 Typical	AMP	4
Current 1/Current 2 Maximum	AMP	6

FEED WATER SPECIFICATIONS

Parameters	Unit	Specifications
Feed Conductivity Equivalent (FCE) (Including CO_2)*	µS/cm	< 20
pH		6 - 10
Silica (Reactive)	ppm	< 0.2
Total Hardness as $CaCO_3$	ppm	< 0.2
TOC	ppm	< 0.5
Heavy Metals (Fe, Mn etc.)	ppm	< 0.01
Free Chlorine as Cl_2	ppm	< 0.05
Feed Water SDI		< 1.0

*Feed Conductivity Equivalent, FCE, (µS/cm) = Feed water conductivity (µS/cm) + ppm CO2 x 2.83 + ppm SiO2 x 2.08

PRODUCT WATER SPECIFICATIONS

Parameters	Unit	Specifications
Product Resistivity	MΩ.cm	Up to 16
Silica (SiO_2) Reduction	%	Up to 95*

*Under specific feed conditions, refer to FEDI engineering tool

OPERATING CONDITIONS

Parameters	Unit	30X
Recovery	%	up to 95
Feed Water Temperature	°C °F	5 – 40 41 – 104
Pressure Drop (Feed to Product) @Typical Flow	BAR PSI	1.4 – 2.1 20 - 30
Recommended Operating Pressure	BAR PSI	< 4.8 < 70
Max. Feed Pressure	BAR PSI	6.9 100