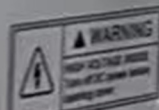




EDI
KLX Pure EDI

EDI-MODULE **KLX PURE**

KLX PURE
EDI



EDI ADVANTAGES

High and stable water quality
No acid or alkali regeneration needed
Continuous operation, easy to operate
Simple installation, low cost
Modular design, easy to expand

No regeneration pollution
Low building area requirement
Low operation and maintenance costs
Easy integration with existing treatment systems
No salt addition or brine circulation system, more reliable

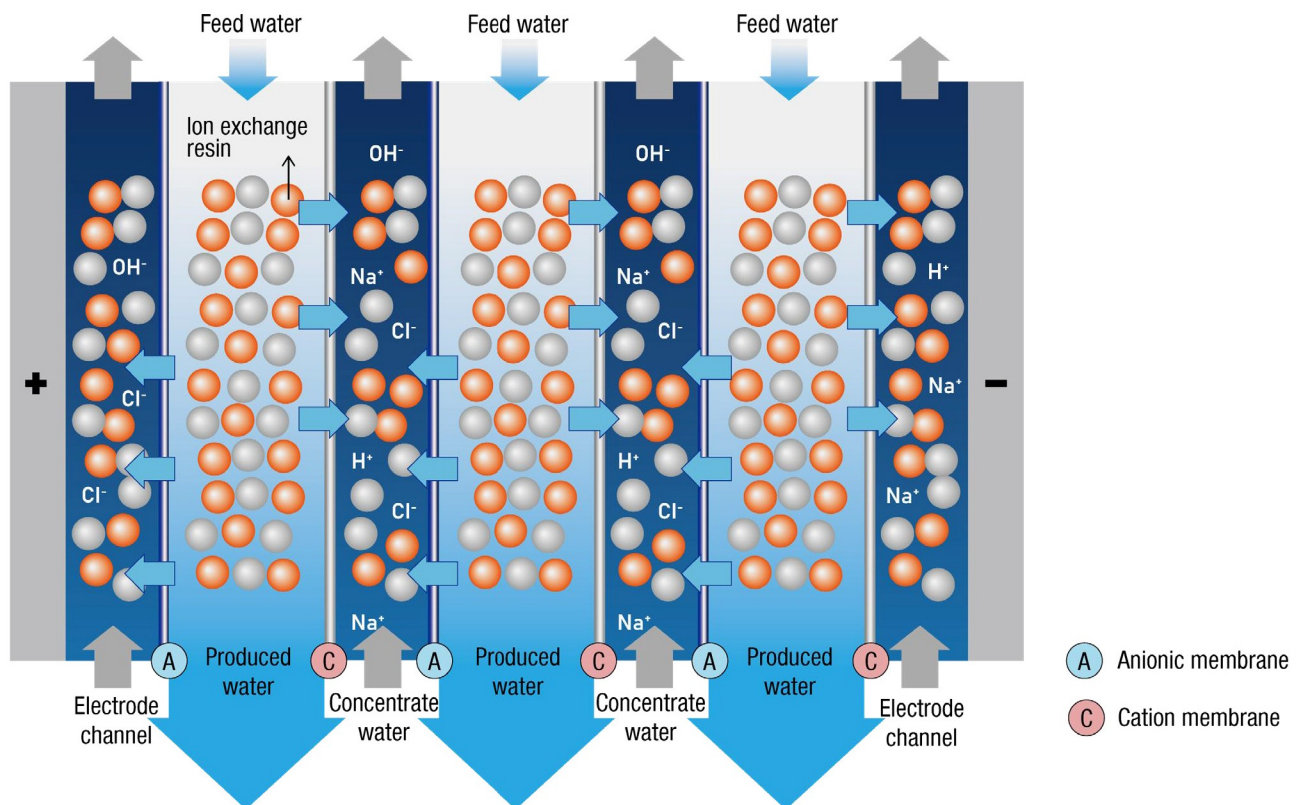


EDI



EDI PRINCIPLE

Electrodeionization (EDI) is a pure water production technology that combines ion exchange, ion exchange membranes, and ion electromigration. It cleverly integrates electrodialysis and ion exchange, using high voltage across electrodes to move charged ions in water. This process is accelerated by ion exchange resins and selective resin membranes, achieving water purification. EDI is technologically advanced, easy to operate, and environmentally friendly, representing a green revolution in pure water preparation.



EDI Feedwater Quality Requirements

- Feedwater: RO Product Water, Conductivity < 40 $\mu\text{S}/\text{cm}$ (*FCE)
- PH: 6.5-9.0
- Water Temperature: 5-35 °C
- Hardness (as CaCO_3): < 1.0 ppm
- Organics: < 0.5 ppm, TOC recommended to be zero
- Oxidizing Agent: Cl_2 < 0.05 ppm, O_3 < 0.02 ppm
- Iron, Manganese: < 0.01 ppm
- Silica: < 0.5 ppm
- Carbon Dioxide: < 5 ppm
- Oil and Grease: Not Detectable

Note: $\text{FCE } (\mu\text{S}/\text{cm}) = \text{Conductivity } (\mu\text{S}/\text{cm}) + 2.79 * (\text{Total } \text{CO}_2 \text{ ppm}) + 1.94 * (\text{Silica, ppm})$

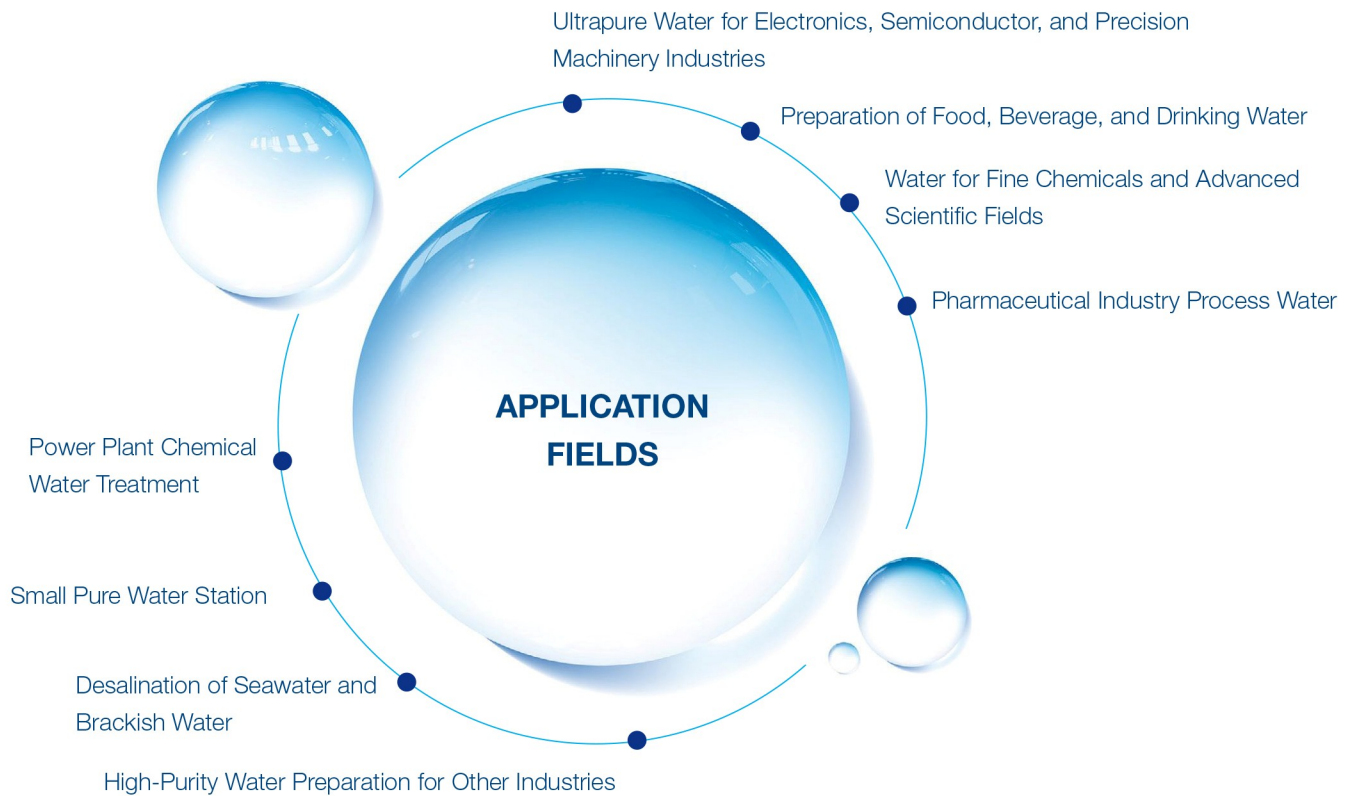
EDI Product Water Quality

- Resistivity: Greater than 15 $\text{M}\Omega$
- Silica Removal Rate: Up to 99% or below 10 ppb

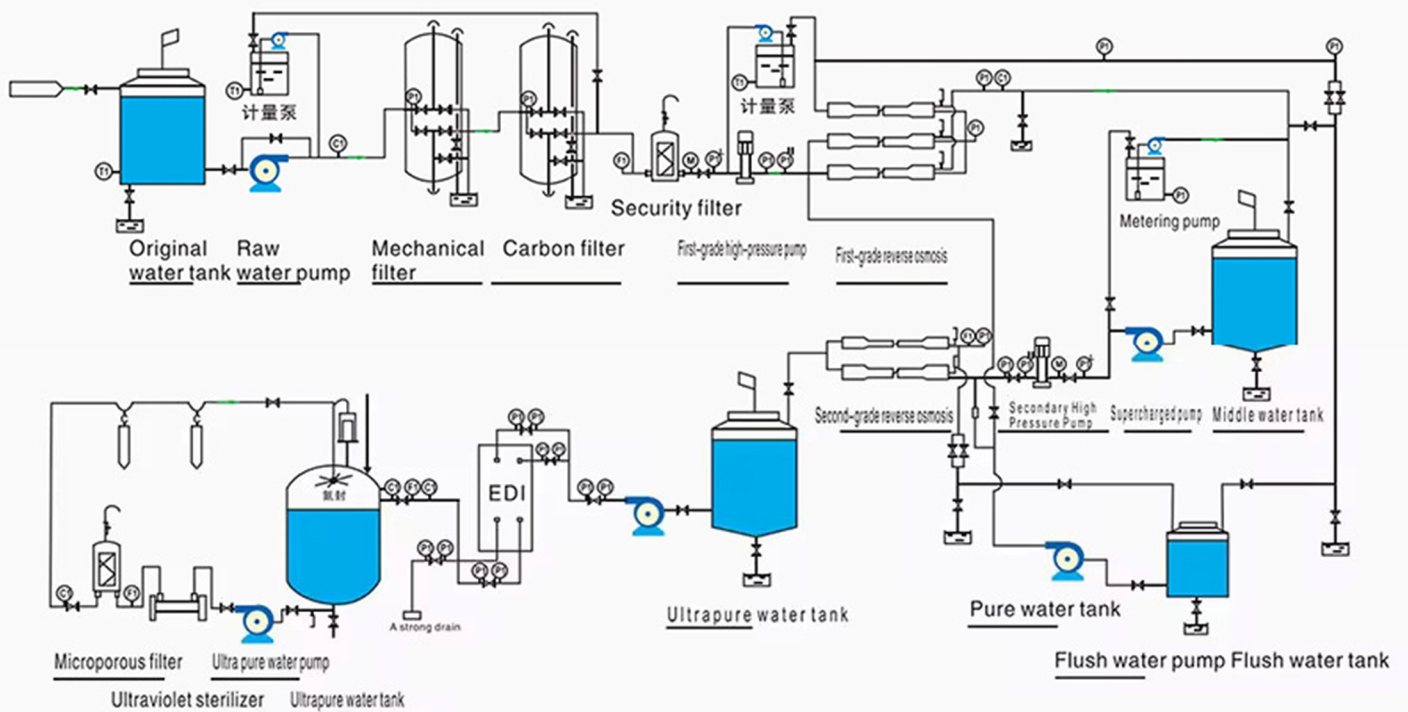


EDI
KLX Pure EDI

EDI TECHNOLOGY



EDI Process Flow Diagram

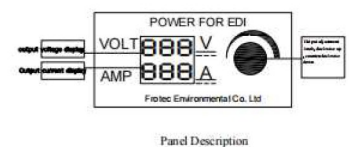
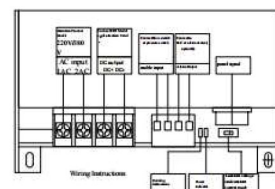
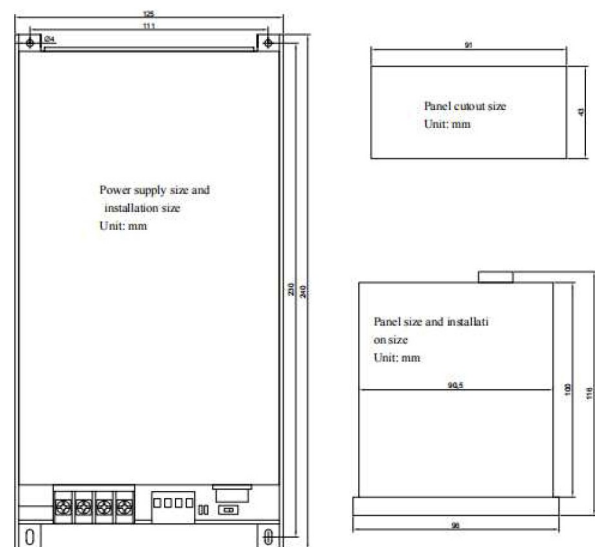


KLXseries Technical Parameters

Directly interchangeable with Siemens IONPURE modules, with compatible dimensions;

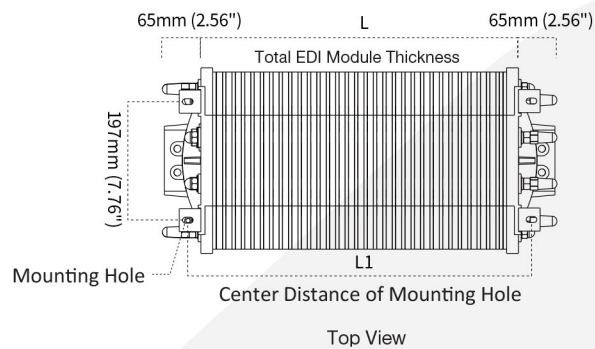
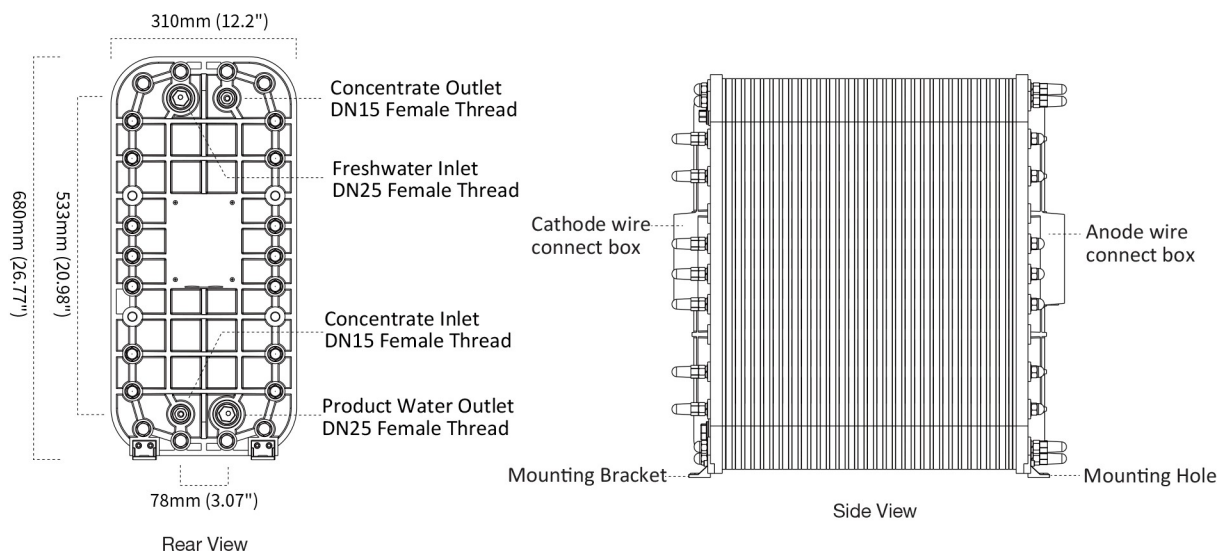
Model	KLX-500	KLX-1000	KLX-2000	KLX-3000	KLX-4000	KLX-5000	KLX-6000	KLX-7000
Working Current (A/DC)	1-6	1—6	1—6	1—6	1—6	1—6	1—6	1—6
Working Voltage	0-330	0-330	0-330	0-330	0-330	0-330	0-500	0-500
Water Production Flow m ³ /h	0.3-0.7	0.5-1.4	1.5-2.5	2.5-3.5	3-4.5	4-5.5	5-6.5	5.5-7.5
Recovery Rate %	90-95	90-95	90-95	90-95	90-95	90-95	90-95	90-95
Water Resistivity MΩ•cm	15-18.25	15-18.25	15-18.25	15-18.25	15-18.25	15-18.25	15-18.25	15-18.25
Pure Water In/Out (Male)	DN32	DN32	DN32	DN32	DN32	DN32	DN32	DN32
Thick Water In/Out (Male)	DN20	DN20	DN20	DN20	DN20	DN20	DN20	DN20
Silicon, Boron Removal Rate %	≥ 99	≥ 99	≥ 99	≥ 99	≥ 99	≥ 99	≥ 99	≥ 99
Standard Water Flow Rate L/H	500	1000	2000	3000	4000	5000	6000	7000

Power Supply



H series Technical Parameters

Model	SEDI-05H	SEDI-10H	SEDI-20H	SEDI-30H	SEDI-40H
Design Product Flow Rate m³/h	0.5	1.0	2.0	3.0	4.0
Minimum Product Flow Rate m³/h	0.3	0.7	1.4	2.4	3.2
Maximum Product Flow Rate m³/h	0.7	1.5	2.5	3.8	4.8
Recovery Rate (%)	90-95	90-95	90-95	90-95	90-95
Product Water Resistivity MΩ.cm	≥15	≥15	≥15	≥15	≥15
Operating Voltage DC V	≤200	≤200	≤340	≤340	≤340
Design Voltage DC V	0-200	0-200	0-350	0-350	0-350
Operating Current DC A	≤6	≤6	≤6	≤6	≤6
Design Current DC A	0-6	0-6	0-6	0-6	0-6
Freshwater Pressure Drop Mpa	0.10-0.30	0.10-0.30	0.15-0.40	0.15-0.40	0.15-0.40
Maximum Inlet Pressure Mpa	0.70	0.70	0.70	0.70	0.70



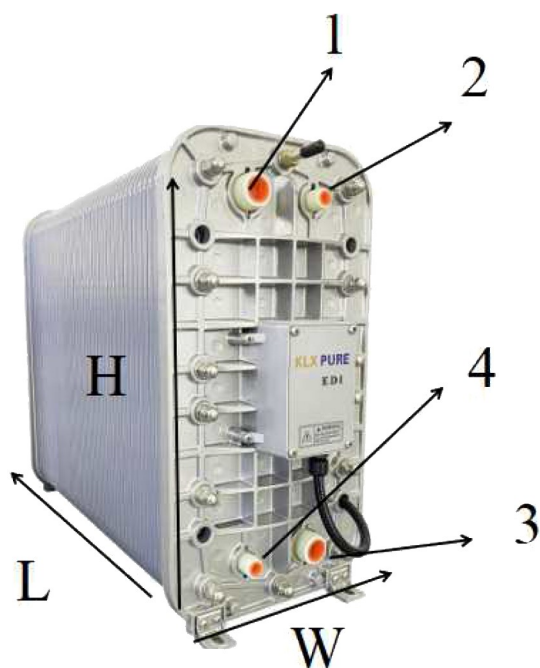
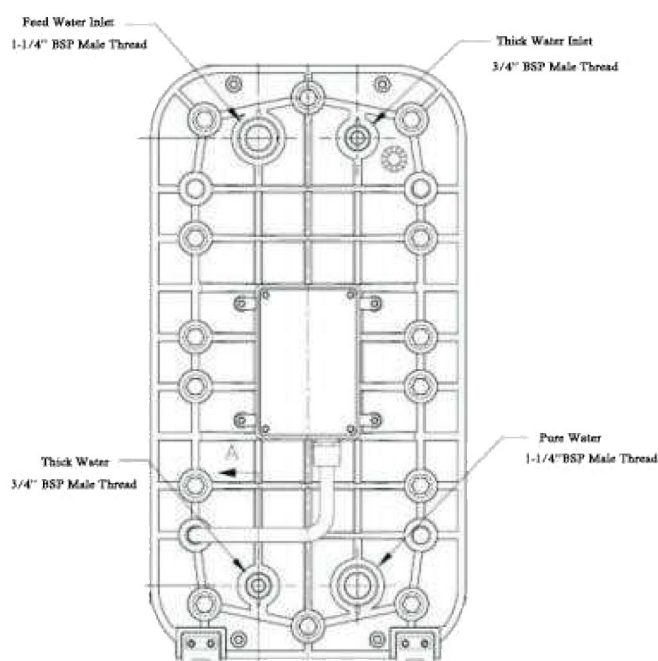
Model	SEDI-05H	SEDI-10H	SEDI-20H	SEDI-30H	SEDI-40H
L (mm)	155	220	375	530	685
L1 (mm)	200	260	415	570	725

Note: Tolerance ± 3mm.

EDI Module

Electrodeionization (500L-7000L)

Dimensions



Model	L (mm)	W (mm)	H (mm)	1	2	3	4
KLX-500	270	320	605	Pure Water Inlet DN32 M	Thick Water Outlet DN20 M	Pure Water Outlet DN32 M	Thick Water Inlet DN20 M
KLX-1000	345	320	605				
KLX-2000	500	320	605				
KLX-3000	660	320	605				
KLX-4000	820	320	605				
KLX-5000	930	320	605				
KLX-6000	1140	320	605				
KLX-7000	1223	320	605				

EDI ENGINEERING CASES

A Coking Project
3X200T/H EDI Ultrapure Water System



System Process: Double-Pass Reverse Osmosis + EDI;
Product Water Quality: Resistivity >17 MΩ

A Biomass Power Company
80 T/H Demineralized Water System



System Process: Double-Pass Reverse Osmosis + EDI;
Product Water Quality: Resistivity >17 MΩ

A Thermal Power Project
200 T/H Demineralized Water System



System Process:
Multimedia Filtration + UF + Double-Pass RO + EDI
Product Water Quality: Resistivity >17 MΩ

A Combined Heat and Power Project
4x100 T/H Demineralized Water System



System Process:
Multimedia Filtration + UF + Double-Pass RO + EDI
Product Water Quality: Resistivity >17 MΩ

EDI ENGINEERING CASES

A Waste Incineration Power Generation Project
30 T/H Demineralized Water System



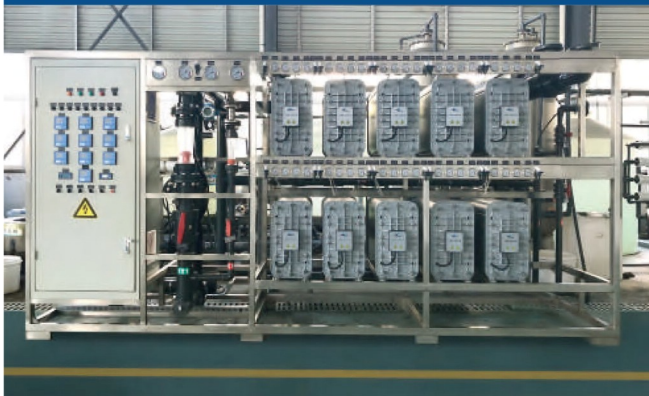
System Process: Double-Pass Reverse Osmosis + EDI;
Product Water Quality: Resistivity >17 MΩ

A Photovoltaic Project
70 T/H Ultrapure Water System



System Process: Double-Pass Reverse Osmosis + EDI;
Product Water Quality: Resistivity >17 MΩ

A Metallurgical Project
50 T/H Demineralized Water System



System Process:
Multimedia Filtration + UF + Double-Pass RO + EDI
Product Water Quality: Resistivity >17 MΩ

A Chemical Project
1200 T/H Demineralized Water System



System Process:
Multimedia Filtration + UF + Double-Pass RO + EDI
Product Water Quality: Resistivity >17 MΩ