



Electropure EDI

High Technology Water



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Electropure EDI
High Technology Water

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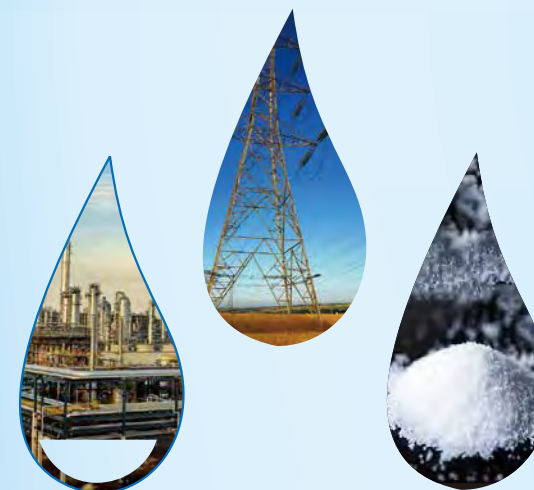
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Electropure™ EDI

技术原理 Technology Theory

三股独立水流

Electropure EDI 模块将进水流分成了三股独立的水流：

- 产水水流（最高水回收率达 99%）
- 浓水水流（通常 5~10%，可以循环回流到 RO 进水）
- 极水水流（0.5~1%，阳极和阴极的水排放）

离子选择性膜

- 阴离子选择性膜可以透过阴离子而不能透过阳离子，
- 阳离子选择性膜可以透过阳离子而不能透过阴离子。

树脂离子交换技术

Electropure EDI 从水中去除不想要的离子是通过在淡水室中将它们吸附在离子交换树脂上，然后将这些离子输送到浓水室中。在模块的淡水室中，阴离子交换树脂释放出氢氧根离子（ OH^- ）与溶解盐中的阴离子（如： Cl^- ）交换。同样，阳离子交换树脂释放出氢离子（ H^+ ）与溶解盐中的阳离子（如： Na^+ ）交换。

离子迁移

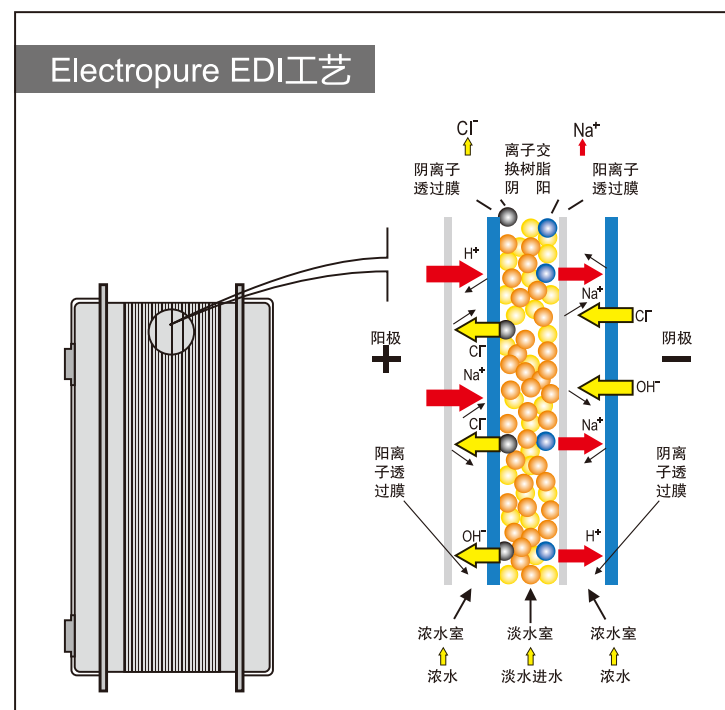
通过放置在组件两个末端的阳极（+）和阴极（-）建立一个直流（DC）电场。直流电场牵引或排斥这些吸附的离子，驱动这些被吸附的离子沿着树脂球的表面移动，然后穿过薄膜进入到浓水室。

水电解和树脂再生

在淡水室中的离子交换树脂还会发生一个重要现象，在电压梯度高的特定区域，通过水的电化学“分解”能够产生大量的 H^+ 和 OH^- 离子。这些区域中产生的 H^+ 和 OH^- 离子在混合离子交换树脂中可以使树脂和膜连续不断得到再生，并且不需要添加化学试剂。

电化学反应产生气体

- 阳极处的氧化反应产生 O_2 、 Cl_2
- 阴极处的还原反应产生 H_2



Electropure™ EDI

技术原理 Technology Theory

Three Separate Streams

The feed water to the Electropure EDI module is split into three separate streams:

- Product stream (up to 99% water recovery)
- Concentrate stream (typically 10%, may be recycled to RO feed)
- Electrode stream (0.5~1%, anolyte+catholyte to drain)

Ion-selective Membrane

Anion-selective membranes are permeable to anions but not to cations; cation-selective membranes are permeable to cations but not to anions.

Resin Ion-exchange Technology

Electropure's EDI process removes the unwanted ions from the water by adsorbing them on the resins in the purifying chambers. These unwanted ions will then be transport to the concentrate stream. In the purifying compartments of the module, the anion-exchange resins trade their hydroxyl ions (OH^-) for the anion of the dissolved salt (e.g., chloride, Cl^-). The cation-exchange resins trade their hydrogen ions (H^+) for the cation of the dissolved salt (e.g., sodium Na^+).

Ion Movement

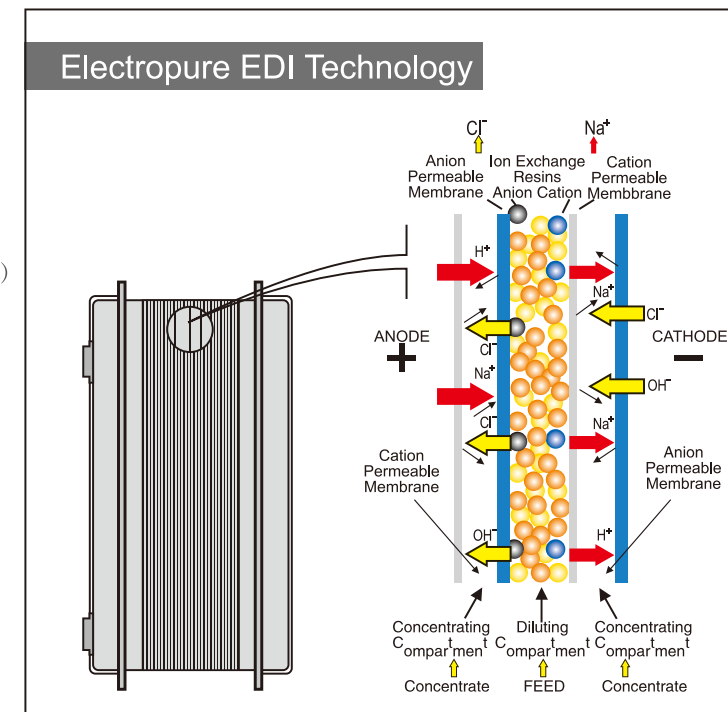
The DC electrical field is applied via the anode(+) and cathode(-) arranged at either end of the stack. The DC potential attracts or repels the adsorbed ions, forcing movement along the surface of the resin beads, through the membranes into the concentrating compartments.

Electrochemical“splitting”of Water & Regeneration of Resin

An important event occurs in the purifying compartment for the ion-exchange resins. At the designated areas of high potential gradients, significant amounts of H^+ and OH^- are produced by the electrochemical “splitting” of water. The production of H^+ and OH^- within the designated area results in constant replenishment of the resins and membranes without the addition of chemicals, and prevent bacteria from multiplying.

The electrochemical reactions produce gases

- The oxidation at the anode produces O_2 & Cl_2
- The reduction at the cathode produces H_2



Electropure™ EDI进水条件

Electropure™ EDI Inlet Conditions

Specification	Remark	Working Range	Optimum Performance
特性描述	说 明	工作范围	最优化性能
进水水源 Water Supply	RO产水直接进入，或将中间水箱的水采用1 μ m预先过滤 RO water, dorect feed,or with intermediate break tank plus filter		
pH值 pH	典型的低pH值时由于CO2的存在而导致产水质量下降 Low pH feedwater typically indicates the presence of CO2 which will decrease quality.a	5.0~9.5	7.0~7.5
当量电导率FCE Conductivity Equivalent**	离子负荷决定着EDI中工作层和抛光层的大小 Ionic load determines size of the working bed andpolishing bed within the EDI	<50 μ S/cm	2~10 μ S/cm
总CO2 Total CO2	包含CO2和HCO3- CombinedCO2 and HCO3-	<5mg/L	<2mg/L
硅 Silica	典型溶解性的，活性的 Typically dissolved,reactive	<0.5mg/L	<0.2mg/L
总硬度（以CaCO3计） Total Hardness	Ca2+ and Mg2+as CaCO3	<1mg/L在90%回收率时 <1.0mg/L At 90% Recovery	<0.5mg/L
金属 Metals	铁、锰，变价金属 Fe,Mn,transition metals	<0.01mg/L	检测不出 Not Detectable
有机物 Organics	TOC	<0.5mg/L	检测不出 Not Detectable
颗粒 Particles	建议将无颗粒的反渗透RO产水直接进入，或者将中间水箱的水采用1μm预先过滤。 Recommended direct feed particle-free RO permeate,or 1μm pre-filtration of feed from intermediate tank	SDI<0.5	SDI<0.2
氧化剂 Oxidizers	Cl2和O3类 Cl2 and O3 typically	检测不出 Not Detectable	检测不出 Not Detectable
硫 Sulfide	S ⁻	检测不出 Not Detectable	检测不出 Not Detectable
油 Oil		检测不出 Not Detectable	检测不出 Not Detectable
温度 Temperature		5 ~ 40℃	10 ~ 35℃

注： 这些技术参数仅供参考，准确的技术参数请见《Electropure EDI OEM技术手册》。
NOTE: These technical parameters are only for reference, for exact technical parameters, please see the "Electropure EDI OEM Technical Manual".

EXL系列EDI模块技术参数

EXL Series EDI Module Technical Parameter

Module Model	EXL-850	EXL-750	EXL-650	EXL-550
模块型号				
设计产水流量 Design Product Flow Range,m³/h(gpm)	8.0(35.2)	7.0(30.8)	5.5(24.2)	3.5(15.4)
最大产水流量 Maximum Product Flow,m³/h(gpm)	12.0(52.8)	10.0(44.0)	8.0(35.2)	6.0(26.4)
最小产水流量 Minimum Product Flow,m³/h(gpm)	4.0(17.6)	3.0(13.2)	2.0(8.8)	2.0(8.8)
产水电阻率 Product Resistivity, MΩ.cm	5.0~17.5	5.0~17.5	5.0~17.5	5.0~17.5
回收率 Recovery Rate,%	90~99	90~99	90~99	90~99
操作电压 Operating Voltage, VDC	200-500	200-400	200-400	200-320
设计电压 Design Voltage, VDC	500	500	500	500
操作电流 Operating Current, A	0.5~3.0	0.5~3.0	0.5~3.0	0.5~3.0
设计电流 Design Current, A	8(典型值：6A、7A、8A) 8(Typical 6A or 7A or 8A)	8(典型值：6A、7A、8A) 8(Typical 6A or 7A or 8A)	8(典型值：6A、7A、8A) 8(Typical 6A or 7A or 8A)	8(典型值：6A、7A、8A) 8(Typical 6A or 7A or 8A)
操作压力 Operating Pressure, MPa(bar)	0.15~0.5(1.5~5.0)	0.15~0.5(1.5~5.0)	0.15~0.5(1.5~5.0)	0.15~0.5(1.5~5.0)
最大进水压力 Maximum Feed Pressure, MPa(bar)	0.7 (7.0)	0.7 (7.0)	0.7 (7.0)	0.7 (7.0)
进水/产水压力降 Feed-Product Pressure Drop, MPa(bar)	0.13~0.35(1.3~3.5)	0.13~0.35(1.3~3.5)	0.13~0.35(1.3~3.5)	0.13~0.35(1.3~3.5)
浓水压力降 Concentrate Pressure Drop, MPa(bar)	0.08~0.3(0.8~3.0)	0.08~0.3(0.8~3.0)	0.08~0.3(0.8~3.0)	0.08~0.3(0.8~3.0)
极水压力降 Electrode Pressure Drop, MPa(bar)	0.09~0.3(0.9~3.0)	0.09~0.3(0.9~3.0)	0.09~0.3(0.9~3.0)	0.09~0.3(0.9~3.0)
温度范围 Range of Temperature,℃	5~35	5~35	5~35	5~35
最大操作温度 Maximum Operation Temperatnre,℃	40	40	40	40
最佳进水pH Best Feed Water pH	7.0~7.5	7.0~7.5	7.0~7.5	7.0~7.5
进水pH范围 Range of pH Feed Water	5~9.5	5~9.5	5~9.5	5~9.5
外包装重量 Outer packing weight	114kg	101kg	89kg	76kg
外包装尺寸 Outer packing size(mm)	610×510×770	610×510×770	610×510×770	610×510×770

注： 这些技术参数仅供参考，准确的技术参数请见《Electropure EDI OEM技术手册》。
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XL系列模块技术参数

XL Series EDI Module Technical Parameters

Module Model	XL-500R	XL-400R	XL-300R	XL-200R	XL-100R
模块型号					
产水流量范围 m³/h(gpm) Product Flow Range	1.3~2.3 (6~10)	0.7~1.5 (3~7)	0.3~0.9 (1½~4)	0.1~0.3 (½~1½)	0.05~0.15 (¼~¾)
最大产水流量 m³/h(gpm) Maximum Product Flow	3.0 (13)	1.9 (8½)	1.3 (5¾)	0.45 (2¼)	0.2 (1)
产水电阻率 MΩ.cm Product Ressistivity	5.0~17.5	5.0~17.5	5.0~17.5	5.0~17.5	5.0~17.5
回收率, % Recovery Rate	90~99	90~99	90~99	90~99	90~99
操作电压, VDC Operating Voltage	150~300	150~220	120~160	60~120	30~60
设计电压, VDC Design Voltage	500	400	300	200	100
操作电流, A Operating Current	0.5~3	0.5~3	0.5~3	0.5~3	0.5~3
设计电流, A Design Current	6	6	6	6	6
操作压力, MPa(bar) Operating Pressure	0.15~0.5 (1.5~5)	0.15~0.5 (1.5~5)	0.15~0.5 (1.5~5)	0.15~0.5 (1.5~5)	0.15~0.5 (1.5~5)
最大压力, MPa(bar) Maximum Pressure	0.7 (7.0)	0.7 (7.0)	0.7 (7.0)	0.7 (7.0)	0.7 (7.0)
进水/产水压力降, MPa(bar) Feed -Product Pressure Drop	0.14~0.3 (1.4~3)	0.1~0.21 (1~2.1)	0.1~0.14 (1~1.4)	0.07~0.17 (0.7~1.7)	0.07~0.17 (0.7~1.7)
浓水压力降, MPa(bar) Concentrate Pressure Drop	0.06~0.08 (0.6~0.8)	0.05~0.07 (0.5~0.7)	0.05~0.06 (0.5~0.6)	0.04~0.06 (0.4~0.6)	0.03~0.05 (0.3~0.5)
极水压力降, MPa(bar) Electrode Pressure Drop	0.14~0.19 (1.4~1.9)	0.11~0.14 (1.1~1.9)	0.09~0.11 (0.9~1.1)	0.07~0.09 (0.7~0.9)	0.05~0.08 (0.5~0.8)
温度范围, °C Temperature	5~35	5~35	5~35	5~35	5~35
最大温度, °C Maximum Temperature	40	40	40	40	40
最佳进水pH Best Feed Water pH	7.0~7.5	7.0~7.5	7.0~7.5	7.0~7.5	7.0~7.5
进水pH范围 Range of Feed Water pH	5~9.5	5~9.5	5~9.5	5~9.5	5~9.5
外包装重量 Outer packing weight(kg)	40.2	33.9	29.85	23.55	20.8
外包装尺寸 Outer packing size(mm)	700 × 350 × 560	700 × 350 × 560	700 × 350 × 560	700 × 350 × 560	700 × 350 × 560

注： 这些技术参数仅供参考，准确的技术参数请见《Electropure EDI OEM技术手册》。
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XL-SR系列卫生型模块技术参数

XL-SR Series With Sanitary Fittings EDI Module Technical Parameters

Module Model	XL-500SR	XL-400SR	XL-300SR	XL-200SR	XL-100SR
模块型号					
设计产水流量 Design Product Flow Range,m³/h(gpm)	1.3~2.5 (6 to 11)	0.7~ 1.5 (3 to 7)	0.3 ~ 0.9 (1½ to 4)	0.1~ 0.3 (½ to 1½)	0.05 ~ 0.15 (¼ to ¾)
最大产水流量 Maximum Product flow,m³/h(gpm)	3.0 (13.0)	1.9 (8½)	1.3 (5 ¾)	0.45 (2¼)	0.2 (1.0)
产水电阻率 Product Resistivity, MΩ.cm	5.0~16.0	5.0~16.0	5.0~16.0	5.0~16.0	5.0~16.0
回收率 Recovery Rate,%	90~99	90~99	90~99	90~99	90~99
操作电压 Operating Voltage, VDC	200-350	150-220	120-160	60-120	30-60
设计电压 Design Voltage, VDC	500	400	300	200	100
操作电流 Operating Current, A	0.5~3	0.5~3	0.5~3	0.5~3	0.5~3
设计电流 Design Current, A	8(典型值: 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)	8(典型值 : 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)	8(典型值 : 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)	8(典型值 : 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)	8(典型值 : 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)
最大进水压力 Maximum Feed Pressure, MPa(bar)	0.7(7.0)	0.7(7.0)	0.7(7.0)	0.7(7.0)	0.7(7.0)
进水/产水压力降 Feed-Product Pressure Drop, MPa(bar)	0.14~0.3 (1.4~3)	0.1~0.21 (1~2.1)	0.1~0.14 (1~1.4)	0.07~0.17 (0.7~1.7)	0.07~0.17 (0.7~1.7)
浓水压力降 Concentrate Pressure Drop, MPa(bar)	0.06~0.08 (0.6~0.8)	0.05~0.07 (0.5~0.7)	0.05~0.06 (0.5~0.6)	0.04~0.06 (0.4~0.6)	0.03~0.05 (0.3~0.5)
极水压力降 Electrode Pressure Drop, MPa(bar)	0.14~0.17 (1.4~1.7)	0.11~0.14 (1.1~1.4)	0.09~0.11 (0.9~1.1)	0.07~0.09 (0.7~0.9)	0.05~0.08 (0.5~0.8)
温度范围 Range of Temperature,°C	5~35	5~35	5~35	5~35	5~35
最大温度 Maximum Temperature,°C	45	45	45	45	45
最佳进水pH Best Feed Water pH	7.0~7.5	7.0~7.5	7.0~7.5	7.0~7.5	7.0~7.5
进水pH范围 Range of pH Feed Water	5~9.5	5~9.5	5~9.5	5~9.5	5~9.5

注： 这些技术参数仅供参考，准确的技术参数请见《Electropure EDI OEM技术手册》。
NOTE: These technical parameters are only for reference, for exact technical parameters, please see the “Electropure EDI OEM Technical Manual”.

高温热水消毒EDI模块优势

High Temperature Hot Water Sanitization EDI Module

- 高温EDI模块的热水消毒温度可以高达85℃
 - 高温EDI模块的热水消毒循环可以高达160次
 - 高温EDI模块可以瞬间升温和瞬间降温
 - 高温EDI模块的材料符合美国FDA标准
 - 高温EDI模块采用耐高温树脂
 - 高温EDI模块采用耐高温离子交换膜
 - 高温EDI模块采用卫生级连接方式
 - Electropure™ 高温热水消毒型EDI广泛应用于USP、WFI和纯化水系统
 - EDI膜由SnowPure公司自行研制生产
 - EDI离子膜使用寿命最长
 - EDI模块采用全球领先的树脂包技术
 - EDI模块可以实现现场拆装维修
 - 无EDI浓水内循环且不需要加盐
 - 同等条件下单个产水量模块投资最省
 - 在一定条件下完全可以采用一级反渗透技术作为前处理
- High Temperature Hot Water Sanitization EDI Module: Hot water sanitization temperature is as high as 85°C
 - High Temperature Hot Water Sanitization EDI Module: Cycle is as high as 160
 - High Temperature EDI Module: Rapid heat and cool cycle
 - High Temperature EDI Module: Material is up to USFDA standard
 - High Temperature EDI Module: High temperature-resistant resin
 - High Temperature EDI Module: High temperature-resistant Ion-exchange Membrane
 - High Temperature EDI Module: Sanitary Connections
 - Electropure™ High Temperature Hot Water Sanitization EDI Module: Widely used in USP WFI and Purified water system
 - SnowPure makes its own membrane
 - Longest life of EDI ion-exchange membrane
 - EDI module leads the global advanced technology of resin chamber
 - EDI module can be maintained at site
 - No internal circulation and no salt
 - Lowest investment under the same condition
 - Under some conditions, single-pass RO is sufficient for Pretreatment



XL-HTS系列热水消毒型模块技术参数

XL-HTS Series Hot Water Sanitization EDI Module Technical Parameters

Module Model	XL-500-HTS	XL-400-HTS	XL-300-HTS	XL-200-HTS	XL-100-HTS
模块型号					
设计产水流量 Design Product Flow Range,m³/h(gpm)	1.3~2.5 (6 to 11)	0.7~ 1.5 (3 to 7)	0.3 ~ 0.9 (1½ to 4)	0.1~ 0.3 (½ to 1½)	0.05 ~ 0.15 (¼ to ¾)
最大产水流量 Maximum Product flow,m³/h(gpm)	3.0 (13.0)	1.9 (8½)	1.3 (5 ¾)	0.45 (2¼)	0.2 (1.0)
产水电阻率 Product Resistivity, MΩ.cm	5.0~16.0	5.0~16.0	5.0~16.0	5.0~16.0	5.0~16.0
回收率 Recovery Rate,%	90~99	90~99	90~99	90~99	90~99
操作电压 Operating Voltage, VDC	200-350	150-220	120-160	60-120	30-60
设计电压 Design Voltage, VDC	500	400	300	200	100
操作电流 Operating Current, A	0.5~3	0.5~3	0.5~3	0.5~3	0.5~3
设计电流 Design Current, A	8(典型值: 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)	8(典型值 : 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)	8(典型值 : 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)	8(典型值 : 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)	8(典型值 : 6A、 7A、 8A) 8(Typical 6A or 7A or 8A)
最大进水压力 Maximum Feed Pressure, MPa(bar)	0.7(7.0)	0.7(7.0)	0.7(7.0)	0.7(7.0)	0.7(7.0)
进水/产水压力降 Feed-Product Pressure Drop, MPa(bar)	0.14~0.3 (1.4~3)	0.1~0.21 (1~2.1)	0.1~0.14 (1~1.4)	0.07~0.17 (0.7~1.7)	0.07~0.17 (0.7~1.7)
浓水压力降 Concentrate Pressure Drop, MPa(bar)	0.06~0.08 (0.6~0.8)	0.05~0.07 (0.5~0.7)	0.05~0.06 (0.5~0.6)	0.04~0.06 (0.4~0.6)	0.03~0.05 (0.3~0.5)
极水压力降 Electrode Pressure Drop, MPa(bar)	0.14~0.17 (1.4~1.7)	0.11~0.14 (1.1~1.4)	0.09~0.11 (0.9~1.1)	0.07~0.09 (0.7~0.9)	0.05~0.08 (0.5~0.8)
温度范围 Range of Temperature,℃	5~35	5~35	5~35	5~35	5~35
最大温度 Maximum Temperature,℃	45	45	45	45	45
消毒温度(在≤0.2MPa条件) Sanitization Temperature at ≤0.2MPa	72~85℃ 162~185°F	72~85℃ 162~185°F	72~85℃ 162~185°F	72~85℃ 162~185°F	72~85℃ 162~185°F
最佳进水pH Best Feed Water pH	7.0~7.5	7.0~7.5	7.0~7.5	7.0~7.5	7.0~7.5
进水pH范围 Range of pH Feed Water	5~9.5	5~9.5	5~9.5	5~9.5	5~9.5

注： 这些技术参数仅供参考，准确的技术参数请见《Electropure EDI OEM技术手册》。
NOTE: These technical parameters are only for reference, for exact technical parameters, please see the “Electropure EDI OEM Technical Manual”.

EXL-HTS系列热水消毒型模块技术参数

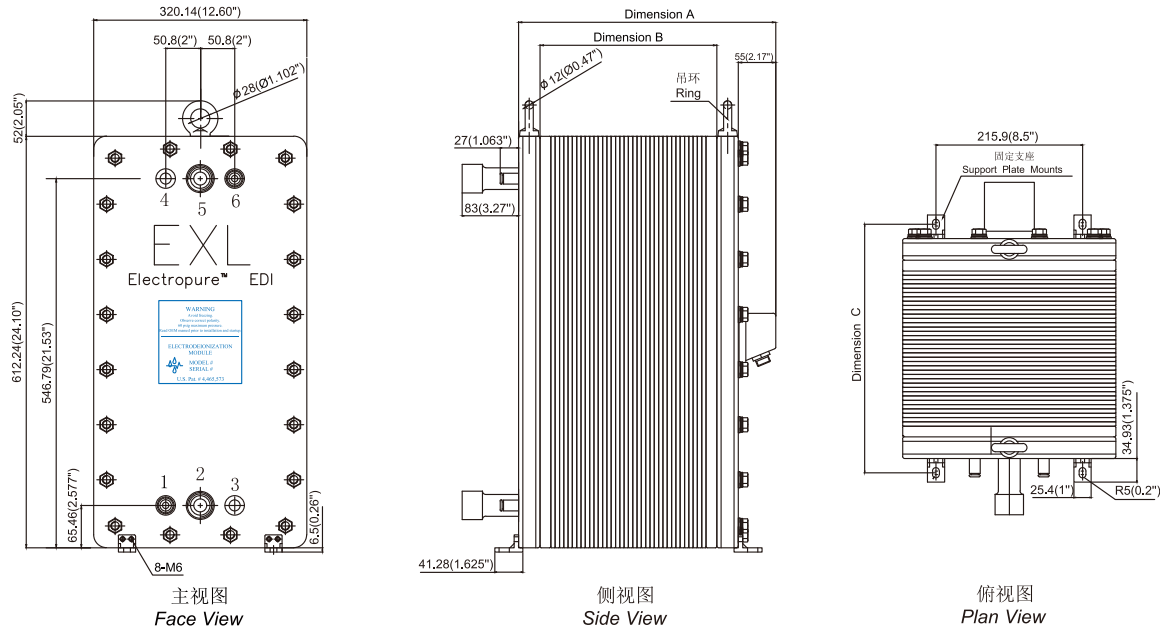
EXL-HTS Series Hot Water Sanitization EDI Module Technical Parameters

Module Model			
模块型号	EXL-710-HTS	EXL-610-HTS	EXL-510-HTS
设计产水流量 Design Product Flow Range,m³/h(gpm)	5.5~8.0(24.2~35.2)	4.0~5.5(17.6 ~24.2)	2.5~4.0(11.2 ~17.6)
最大产水流量 Maximum Product flow,m³/h(gpm)	11.0(48.4)	8.0(35.2)	6.0(26.4)
产水电阻率 Product Resistivity, MΩ.cm	5.0~16.0	5.0~16.0	5.0~16.0
回收率 Recovery Rate,%	90~99	90~99	90~99
操作电压 Operating Voltage, VDC	200-400	200-400	200-400
设计电压 Design Voltage, VDC	500	500	500
操作电流 Operating Current, A	0.5~3.0	0.5~3.0	0.5~3.0
设计电流 Design Current, A	8(典型值：6A、7A、8A) 8(Typical 6A or 7A or 8A)	8(典型值：6A、7A、8A) 8(Typical 6A or 7A or 8A)	8(典型值：6A、7A、8A) 8(Typical 6A or 7A or 8A)
进水压力 Feed Pressure, MPa(bar)	0.15~0.5(1.5~5.0)	0.15~0.5(1.5~5.0)	0.15~0.5(1.5~5.0)
最大进水压力 Maximum Feed Pressure, MPa(bar)	0.7 (7.0)	0.7 (7.0)	0.7 (7.0)
进水/产水压力降 Feed-Product Pressure Drop, MPa(bar)	0.13~0.33(1.3~3.3)	0.13~0.35(1.3~3.5)	0.13~0.35(1.3~3.5)
浓水压力降 Concentrate Pressure Drop, MPa(bar)	0.08~0.30(0.8~3.0)	0.08~0.32(0.8~3.2)	0.08~0.32(0.8~3.2)
极水压力降 Electrode Pressure Drop, MPa(bar)	0.09~0.30(0.9~3.0)	0.09~0.30(0.9~3.0)	0.09~0.30(0.9~3.0)
温度范围 Range of Temperature,℃	5~35	5~35	5~35
最大温度 Maximum Temperature,℃	45	45	45
消毒温度(在≤0.2MPa条件) Sanitization Temperature at ≤0.2MPa	72-85℃ 162-185°F	72-85℃ 162-185°F	72-85℃ 162-185°F
最佳进水pH Best Feed Water pH	7.0~7.5	7.0~7.5	7.0~7.5
进水pH范围 Range of pH Feed Water	5~9.5	5~9.5	5~9.5

注： 这些技术参数仅供参考，准确的技术参数请见《Electropure EDI OEM技术手册》。
NOTE: These technical parameters are only for reference, for exact technical parameters, please see the "Electropure EDI OEM Technical Manual".

EXL系列EDI模块外形图和尺寸

EXL Series EDI Module Drawing & Dimensions



管道接口名称 The Pipe Connector Name	EXL-850	EXL-750	EXL-650	EXL-550
1 浓水进口 Concentrate Inlet	Ø12mm 或 1/2"软管 (插入式管件) Ø12mm or 1/2 " Tube (Push in Fitting)	Ø12mm 或 1/2"软管 (插入式管件) Ø12mm or 1/2 " Tube (Push in Fitting)	Ø12mm 或 1/2"软管 (插入式管件) Ø12mm or 1/2 " Tube (Push in Fitting)	Ø12mm 或 1/2"软管 (插入式管件) Ø12mm or 1/2 " Tube (Push in Fitting)
2 淡水进口 Dilute Feed Inlet	Ø40mm 或 1-1/4"管 (+GF+活接) Ø40mm or 1-1/4" Pipe (+GF+Union)	Ø40mm 或 1-1/4"管 (+GF+活接) Ø40mm or 1-1/4" Pipe (+GF+Union)	Ø32mm 或 1"管 (+GF+活接) Ø32mm or 1" Pipe (+GF+Union)	Ø32mm 或 1"管 (+GF+活接) Ø32mm or 1" Pipe (+GF+Union)
3 极水进口 Electrode Inlet	Ø8mm 或 5/16"软管 (插入式管件) Ø8mm or 5/16 " Tube (Push in Fitting)	Ø8mm 或 5/16"软管 (插入式管件) Ø8mm or 5/16 " Tube (Push in Fitting)	Ø8mm 或 5/16"软管 (插入式管件) Ø8mm or 5/16 " Tube (Push in Fitting)	Ø8mm 或 5/16"软管 (插入式管件) Ø8mm or 5/16 " Tube (Push in Fitting)
4 极水出口 Electrode Outlet	Ø8mm 或 5/16"软管 (插入式管件) Ø8mm or 5/16 " Tube (Push in Fitting)	Ø8mm 或 5/16"软管 (插入式管件) Ø8mm or 5/16 " Tube (Push in Fitting)	Ø8mm 或 5/16"软管 (插入式管件) Ø8mm or 5/16 " Tube (Push in Fitting)	Ø8mm 或 5/16"软管 (插入式管件) Ø8mm or 5/16 " Tube (Push in Fitting)
5 产水出口 Product Outlet	Ø40mm 或 1-1/4"管 (+GF+活接) Ø40mm or 1-1/4" Pipe (+GF+Union)	Ø40mm 或 1-1/4"管 (+GF+活接) Ø40mm or 1-1/4" Pipe (+GF+Union)	Ø32mm 或 1"管 (+GF+活接) Ø32mm or 1" Pipe (+GF+Union)	Ø32mm 或 1"管 (+GF+活接) Ø32mm or 1" Pipe (+GF+Union)
6 浓水出口 Concentrate Outlet	Ø12mm 或 1/2"软管 (插入式管件) Ø12mm or 1/2 " Tube (Push in Fitting)	Ø12mm 或 1/2"软管 (插入式管件) Ø12mm or 1/2 " Tube (Push in Fitting)	Ø12mm 或 1/2"软管 (插入式管件) Ø12mm or 1/2 " Tube (Push in Fitting)	Ø12mm 或 1/2"软管 (插入式管件) Ø12mm or 1/2 " Tube (Push in Fitting)
尺寸 Dimensions	A:517mm (20.35") B:396mm (15.59") C:506mm (19.92")	A:446mm (17.56") B:325mm (12.80") C:435mm (17.13")	A:375mm (14.76") B:254mm (10.0") C:364mm (14.33")	A:318mm (12.52") B:197mm (7.76") C:307mm (12.09")

SnowPure纳滤膜进水条件控制

Operating Feed Water Specifications Of SnowPure NF

Specification	Working range	Remark
特性分类	进液控制要求	说 明
TDS	无限制 Unlimited	浓缩后低于特定条件的饱和浓度 The salt concentration after concentrate is less than specific conditions saturation concentration
总硬度 Total Hardness	无限制 Unlimited	在固定应用条件下，防止各类钙盐和镁盐结晶 Under the fixed condition, prevent the crystallization of the calcium salt and the magnesium salt
重金属 Metal	无限制 Unlimited	
有机物 Organics	无限制 Unlimited	建议Recommended < 1000mg/L Unlimited only for special use
油 Oil	建议 < 5mg/L Recommended < 5mg/L	
氧化剂 Oxidizers	活性氯 < 0.1mg/L Active Chlorine < 0.1mg/L	
SDI	< 5	
pH	4~9(清洗时2~11)	
水温 Water Temperature	5~45℃ 最大Maximum50℃	

SnowPure纳滤膜分离特性

SnowPure NF Separation Characteristics

从纳滤分离的特性图中可以看出，水中各类物质在纳滤膜分离层的截留率表现差异很大：
From the characteristic diagram of the nanofiltration(NF) seperation,we can see all kinds of materials in the water on the NF seperation membrane layer is very different:

Material Component	Chemical Symbol	Reject Rate	Transmissivity
物质组分	符 号	截留率	透过率
硫酸根离子 Sulfate ion	SO ₄ ²⁻	98.0~99.5%	2.0~0.5%
钠离子 & 氯离子 Sodium and Chloride ions	Na ⁺ 和CL ⁻	60~5%	40~95%
钙离子 & 镁离子 Calcium and Magnesium ions	Ca ²⁺ 、Mg ²⁺	85~99%	15~1%
金属离子 Metals	如：Fe、Mn、Cu、 Au、Ag、As、 Hg、Cr等	99%	1%
总有机碳 Total Organic Carbon	TOC	30~90%，取决于有 机物分子量分布及物 质结构 30~90%， Depends on the organic molecular weight distribution and structure of the material	70~10%

美国SnowPure纳滤膜典型应用

American SnowPure NF Typical Applications

美国SnowPure ExcellNano™纳滤技术具有独特的优点和明显节能效果。由于SnowPure纳滤技术独特的优势，纳滤可以广泛应用于化工、石油、冶金、电力、造纸、印染、制药、电子、半导体及汽车等众多行业的水软化、有机低分子的分级浓缩、水的除盐净化和浓缩等领域。

American SnowPure ExcellNano™ NF technology has unique advantages and obvious energy saving. SnowPure NF membrane can be widely used in the chemical industry, the petroleum industry, the metallurgy industry, power plants, the pulp & paper industry, the dyeing industry, the pharmaceutical industry, the electronics industry, the semiconductor industry, the automobile industry and other industries, for water softening, Low molecular organic classified concentrate, water deionization and purification and concentrate.

➤ 第一类：需要纳滤膜透过液

水软化
卤水脱硝
中水回用
海水预处理
废水处理(垃圾渗滤液、生物难降解类废水及含油水等)
饮用水去除杂质(含高盐分、高硬度及有毒致癌物质等)

Applications Type 1 :Want the permeate

Water softening,
Brine denitration ,
Reclaimed water reuse,
Seawater Pretreatment,
Waste water treatment (landfill leachate ,
biological refractory wastewater and oily water etc.)
Drinking water to remove impurities
(including high salinity, high hardness and toxic carcinogenic substance etc.)

➤ 第二类：需要纳滤膜浓缩液

药液浓缩领域
食品行业(糖、蛋白、果汁等)浓缩领域
重金属回收(铜、金、银等)
各类添加剂回收

Applications: Type 2 :Want the concentrate

Pharmaceutical concentration areas,
Food industry
(sugar, protein, fruit juice etc.)
Metal recovery(Copper, gold and silver etc.)
Recycling all kinds of additives

➤ 第三类：需要纳滤膜浓缩液和透过液

制药领域药液的分离与纯化
化工物料分离
废水零排放浓缩与分离领域

Applications: Type 3 :want the concentrate and permeate

Pharmaceutical separation
and purification,
Chemical material separation
Concentrate and separation for
wastewater zero discharging,

