

## EDI Systems™

### Electrodeionization Systems 7,200 to 230,400 GPD

The EDI Series Electrodeionization System is a revolution in chemical-free deionization that is cost-effective for all flow rates.

No regeneration chemicals are needed. No hazardous waste stream is produced. Operation is simple, continuous, and facility requirements are reduced. The EDI systems have several different modules to choose from (see chart below). Our quality management system has been registered to ISO 9001:2008.



Each EDI system includes the following components: EDI module(s), EDI power supply, high water recovery (optional), choice of piping materials, monitoring instrumentation, and manual & automated valves. The EDI system also includes a main control panel (NEMA 4/12), which includes a PLC and OIT terminal to operate both the EDI system and components such as pre and post treatment that will interface with the system. The system is completely pre-wired and pre-piped on one skid for fast economical installation.

#### Typical Applications

- Pharmaceutical Preparations
- Biological Engineering
- Central Laboratory Water
- Power Industry
- Humidification
- Rinsing of Electronic Components
- Glassware Rinsing
- Preparation of Process Chemicals

#### Standard Features

- Skid Mounted
- Integral Power Supply
- Operational Instruments
- Epoxy Coated Steel Frame
- Pressure Gauges
- Flow Meters
- Prewired/Preplumbed
- Factory Tested

#### Optional Items

- Hot Water Sanitizable
- Various Piping Materials
- Stainless Steel Frame
- Ultraviolet Sterilizer
- Nist Traceable Instrumentation
- High Water Recovery Design
- System Validation

# Technical Data

## EDI Module Design Parameters (per module)

Parameter	Mini MK-3	Maxi MK-3	Pharm MK-3	MiniHT MK-3	PharmHT MK-3
Product Flow	2.5 to 6.7 gpm	7.5 to 20 gpm	7 to 20 gpm	2.5 to 6.7 gpm	7 to 20 gpm
Product Quality	>16 Mohm.cm	>16 Mohm.cm	>10 Mohm.cm	>10 Mohm.cm	>10 Mohm.cm
Nominal Recovery	80 to 95%	80 to 95%	80 to 95%	80 to 95%	80 to 95%
Temperature	40 to 38°C	45 to 38°C	50 to 38°C	40 to 38°C	40 to 38°C
Inlet Pressure	45 to 100 psig	45 to 100 psig	45 to 100 psig	45 to 100 psig	45 to 100 psig

Note: HT models are designed to be fully heat sanitizable.

## Product Specifications

### Electrodeionization (EDI) System Specifications @ 25°C

Model Number	Stock Number	Module Quantity	Min-Flowrate gpm (m3/hr)	Max-Flowrate gpm (m3/hr)	Feed / Product Pipe Size (In)	Maximum Recovery%	Concentrate in (mm)
EDI-MINI	1E715B-3EDI	1	2.5 (0.6)	6.7 (1.5)	¾ / ¾	95	1/2 (1.27)
EDI-1	1E615B-3EDI	1	7.5 (1.7)	20 (4.5)	1/1	95	3/4 (1.91)
EDI-2	2E618B-3EDI	2	15 (3.4)	40 (9.0)	2/2	95	3/4 (1.91)
EDI-4	4E618B-3EDI	4	30 (6.8)	80 (18.2)	2/2	95	1 (2.54)
EDI-6	6E618B-3EDI	6	45 (10.2)	120 (27.3)	3/3	95	1 (2.54)
EDI-8	8E618B-3EDI	8	60 (13.6)	160 (36.3)	3/3	95	1 (2.54)

Note: All weights and dimensions are approximate.

Feed Water Requirements*	Specifications
Feed Water Source	RO Permeate
Feed Water Conductivity Equivalent including CO <sub>2</sub>	< 40 µS/cm
Silica (SiO <sub>2</sub> )	< 1 ppm
Iron, Mn, H <sub>2</sub>	< 0.01 ppm
Total Chlorine (as Cl <sub>2</sub> )	< 0.02 ppm
Hardness (as CaCO <sub>3</sub> )	< 1.0 ppm
Dissolved Organics (TOC) (as C)	< 0.5 ppm
Operating pH Range	4 - 11

\*If any of the feed water parameters are not within the limits given, consult one of our application specialists for assistance.

Modules	Dimensions	Weights
1-2	66"W x 43"D x 86"	1400 lbs
3-4	84"W x 60"D x 86"	1700 lbs
5-6	84"W x 76"D x 86"	2000 lbs
7-8	84"W x 92"D x 86"	2300 lbs

## Ordering Information

EDI Part Number Matrix

### Number of RO Modules

1 2 4 6 8

### Module Type

E6 - MAXI MK-3      E9 - MINIHT MK-3  
 E7 - MINI MK-3      E10 - PHARMHT MK-3  
 E8 - PHARM MK-3

### Piping Materials

1 - PVC                      3 - PVDF  
 2 - PP                      4 - 316 SS

### Electrical Requirements

3 - 380/3/50              7 - 230/3/60  
 4 - 420/3/50              8 - 460/3/60  
 6 - 208/3/60              9 - 575/3/60

### High Recovery Option

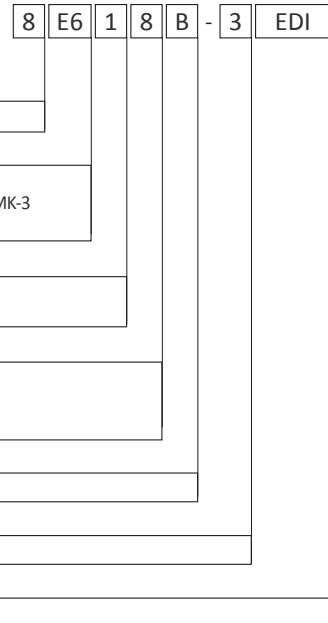
B - 316SS centrifugal

### Controller Option

3 - PLC Controller

### Unit Type

EDI - Electrodeionization system



Mar Cor Purification  
 4450 Township Line Road  
 Skippack, PA 19474-1429  
 Tel: (484) 991-0220  
 Toll Free: (800) 346-0365  
 Fax: (484) 991-0230

Mar Cor Purification  
 14550 28th Avenue North  
 Plymouth, MN 55447  
 Tel: (484) 991-0220  
 Toll Free: (800) 633-3080  
 Fax: (763) 210-3868

Mar Cor Purification  
 3250 Harvester Road - Unit 6  
 Burlington, ON L7N 3W9  
 Tel: (905) 639-7025  
 Toll Free: (800) 268-5035  
 Fax: (905) 639-0425

Mar Cor Purification  
 Sourethweg 11  
 6422 PC Heerlen  
 The Netherlands  
 Tel: (+31) 45 5471 471  
 Fax: (+31) 45 5429 695

Mar Cor Purification  
 1A International  
 Business Park, #05-01  
 Singapore 609933  
 Tel: (+65) 6227 9698  
 Fax: (+65) 6225 6848