

# E4 Series 60 Hz

Reverse Osmosis Machine 2,200 to 13,200 gallons per day



Figure 1: E4 Series

When you mention reverse osmosis (RO), GE Water & Process Technologies is the first name to come to mind. Our E-series RO machines (Figure 1) are designed for durable operation, high quality product water production, easy installation and straightforward control.

## General Properties

### Typical Applications

- Process ingredient water
- Rinse water
- Food ingredient water

- Safe drinking water
- Boiler feed water
- Ion exchange pre-treatment

### Standard Economy Features (ECN)

- 1-micron pre-filter
- Automatic inlet shut-off valve
- Permeate and Concentrate flow meters
- Remote machine on/off capability
- Thermal Motor Protection
- Pre-filter, post-filter, primary, and final pressure gauges
- Flow control center including concentrate and recycle valves

### Deluxe (DLX) Features – in addition to ECN features

- Autoflush system
- Low inlet pressure switch
- Digital conductivity meter with programmable relay
- Alarms: Low Inlet Pressure, Motor Starter overload

Table 1: Operating Parameters

Operating Pressure	220 psig (15 bar)
Maximum Recovery	75%
Nominal Rejection	95-98%
Operating Temperature	55-85 °F (13-30 °C)
Minimum Inlet Pressure	30 psig (2 bar)
Design Temperature	77 °F (25 °C)



**Table 2: Materials of Construction**

Frame	Painted Carbon Steel
Membrane Elements	AG4040TM
Membrane Housing	Stainless Steel
Inlet Plumbing	Schedule 80 PVC
High Pressure Plumbing	Reinforced rubber hose
Permeate/Concentrate Tubing	Polyethylene, NSF approved
Control Enclosure	NEMA 1
Motor Starters	NEMA 4X
Cartridge Filter	RO,Save, 1 micron, 20-inch

**Table 3: Pump and Motor**

Pump Manufacturer	Tonkaflo
Pump Type	Multi-stage, centrifugal
Materials	SS shell/housing, Noryl* internals
Castings	SS inlet/discharge
Motor	3-phase, TEFC, 208-230/460 VAC

**Table 4: E4 Specifications - 60 Hz**

Model	E4-2200	E4-4400	E4-6600	E4-8800	E4-11000	E4-13200
ECN	1234779	1234813	1234817	1234821	1234825	1234829
DLX	1234780	1234814	1234818	1234822	1234826	1234830
Flow Specifications						
Recovery Range:	50-75%	50-75%	50-75%	50-75%	50-75%	50-75%
Permeate Rate: gpm (m <sup>3</sup> /h)	1.5 (0.3)	3 (0.7)	4.5 (1.0)	6 (1.4)	7.5 (1.7)	9 (2.1)
Concentrate Rate: gpm (m <sup>3</sup> /h)	1.5-0.5 (0.3-0.1)	3.0-1.0 (0.7-0.2)	4.5-1.5 (1-0.3)	6.0-2.0 (1.4-0.5)	7.5-2.5 (1.7-0.6)	9.0-3.0 (2.1-0.7)
Pump and Motor						
Pump Model	SS1816X	SS1816X	SS1816X	SS1816X	SS1823X	SS1823X
Motor: HP (KW)	3 (2.2)	3 (2.2)	3 (2.2)	3 (2.2)	5 (3.7)	5 (3.7)
Membrane Elements						
Quantity	1	2	3	4	5	6
Array	1	1-1	1-1-1	1-1-1-1	2-1-1-1	2-2-1-1
Connections						
Inlet: inch (cm)	0.75 (1.9)	0.75 (1.9)	0.75 (1.9)	0.75 (1.9)	0.75 (1.9)	0.75 (1.9)
Permeate: inch (cm)	0.5 (1.3)	0.5 (1.3)	0.5 (1.3)	0.75 (1.9)	0.75 (1.9)	0.75 (1.9)
Concentrate: inch (cm)	0.5 (1.3)	0.5 (1.3)	0.5 (1.3)	0.75 (1.9)	0.75 (1.9)	0.75 (1.9)
Dimensions & Weights						
Height: inch (cm)	63 (160)	65 (165)	65 (165)	65 (165)	65 (165)	65 (165)
Width: inch (cm)	27 (68)	27 (68)	27 (68)	27 (68)	27 (68)	27 (68)
Depth: inch (cm)	23 (58)	23 (58)	23 (58)	28 (71)	28 (71)	28 (71)
Shipping Weight Estimate: lb (kg)	170 (77)	185 (83)	215 (98)	235 (107)	325 (147)	345 (156)

