

# E4-LE Series 50 Hz

Reverse Osmosis Machine 0.3 to 2.1 cubic meters per hour



Figure 1: E4-LE 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)

- Low-energy design reduces electrical requirements and operating costs
- 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
- Alarms: Low Inlet Pressure, Motor Starter overload

Table 1: Operating Parameters

Operating Pressure	6.9-7.6 bar (100-110 psig)
Maximum Recovery	75%
Nominal Rejection	95-98%
Operating Temperature	13-30 °C (55-85 °F)
Minimum Inlet Pressure	2 bar (30 psig)
Design Temperature	25 °C (77 °F)



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**Table 2: Materials of Construction**

Frame	Painted Carbon Steel
Membrane Elements	Desal AK4040T1305
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, 190/380 VAC

**Table 4: E4-LE Specifications - 50 Hz**

Model	E4-2200	E4-4400	E4-6600	E4-8800	E4-11000	E4-11000
ECN	1230853	1230857	1230861	1230865	1230869	1230873
DLX	1230854	1230858	1230862	1230866	1230870	1230874
Flow Specifications						
Recovery Range:	50-75%	50-75%	50-75%	50-75%	50-75%	50-75%
Permeate Rate: m <sup>3</sup> /h (gpm)	0.3 (1.5)	0.7 (3.0)	1.0 (4.5)	1.4 (6)	1.7 (7.5)	2.1 (9)
Concentrate Rate: m <sup>3</sup> /h (gpm)	0.3-0.1 (1.5-0.5)	0.7-0.2 (3.0-1.0)	1-0.3 (4.5-1.5)	1.4-0.5 (6.0-2.0)	1.7-0.6 (7.5-2.5)	2.1-0.7 (9.0-3.0)
Pump and Motor						
Pump Model	SS1816X	SS1816X	SS1816X	SS1816X	SS2812G	SS2812G
Motor: KW (HP)	1.5 (2.0)	1.5 (2.0)	1.5 (2.0)	1.5 (2.0)	2.2 (3.0)	2.2 (3.0)
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: cm (inch)	1.9(0.75)	1.9(0.75)	1.9(0.75)	1.9(0.75)	1.9(0.75)	1.9(0.75)
Permeate: cm (inch)	1.3 (0.5)	1.3 (0.5)	1.3 (0.5)	1.9(0.75)	1.9(0.75)	1.9(0.75)
Concentrate: cm (inch)	1.3 (0.5)	1.3 (0.5)	1.3 (0.5)	1.9(0.75)	1.9(0.75)	1.9(0.75)
Dimensions & Weights						
Height: cm (inch)	127 (50)	127 (50)	139 (55)	139 (55)	152 (60)	152 (60)
Width: cm (inch)	76 (30)	76 (30)	76 (30)	76 (30)	76 (30)	76 (30)
Depth: cm (inch)	51 (20)	51 (20)	51 (20)	66 (26)	66 (26)	66 (26)
Shipping Weight Estimate: kg (lb)	77 (170)	83 (185)	98 (215)	107 (235)	147 (325)	156 (345)

