

E-Series L

Large Reverse Osmosis Machines, 3 to 23 m³/hr



Figure 1: E4H-CE, 3 to 7 cubic meters per hour



Figure 2: E8-CE, 9 to 23 cubic meters per hour

GE has more than 30 years experience in designing and building high quality reverse osmosis systems. Our E-series RO machines (Figures 1 and 2) are designed for durable operation, high quality product water production, easy installation and straightforward control.

General Properties

Typical Applications

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

Features

- Compact design
- Energy saving Desal* membrane elements
- Micron rated pre-filter
- Automatic inlet shut-off valve
- Permeate purge on shut down (option to disable)
- Emergency stop and motor thermal protection

Instrumentation and Controls

- PLC based control system
- Single-source power connection and disconnect
- Universal transformer capable of accepting different voltages
- Permeate and concentrate flow meters
- Digital permeate conductivity meter
- Digital pH meter
- ALARMS: Low inlet pressure, motor starter overload, high temperature (38°C), high permeate conductivity, High permeate pressure, high pH
- Remote machine on/off capability
- Pre-filter, post-filter, pump discharge, primary, and final pressure gauges
- Clean frame design discourages dust or water accumulation

Table 1: Operating Parameters

Operating Pressure	6.9-15 bars
Maximum Recovery	75%
Nominal Rejection	95-98%
Operating Temperature	1-40 °C
Minimum Inlet Pressure	2 bars
Design Temperature*	25 °C

* Varying the operating temperature will affect machine productivity



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Table 2: Materials of Construction

Frame	Painted Carbon Steel
Membrane Elements	Desal AK8040F Desal AK4040TM
Membrane Housing	Stainless Steel
Low Pressure Pipe	Schedule 80 PVC
High Pressure Pipe	Stainless Steel
Control Enclosure	IEC 66
Motor Starters	IEC 66

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, 400 VAC, 50 Hz

Table 4: E-Series CE Specifications 50 Hz

Model	E4H-CE-3	E4H-CE-5	E4H-CE-7	E8-CE-9	E8-CE-14	E8-CE-23
Part Number	1232267	1232268	1232269	1232259	1232260	1232261
Flow Specifications						
Recovery Range:	50-75%	50-75%	50-75%	66-75%	66-75%	66-75%
Permeate Rate: m ³ /h	3	5	7	9	14	23
Concentrate Rate: m ³ /h	3-1	5-2	7-3	5-3	7-5	12-8
Pump and Motor						
RO Pump Model	SS2823G	SS5512D	SS8512D	SS8512D	SS12509KC	SS24006KC
RO Motor: KW (HP)	3.7 (5)	7.4 (10)	11.2 (15)	11.2 (15)	15 (20)	18.6 (25)
Membrane Elements and Filters						
Membrane Quantity	9	15	24	8	12	20
Membrane Type	AK4040TM	AK4040TM	AK4040TM	AK8040F	AK8040F	AK8040F
Array	2-1	3-2	5-3	1-1-1	2-1-1	3-2
Pre-Filter Quantity	2	2	2	7	7	7
Pre-Filter Model	LD05-20	LD05-20	LD05-20	RO.Zs 01-20-XK	RO.Zs 01-30-XK	RO.Zs 01-40-XK
Connections						
Inlet: mm	DN 40	DN 40	DN 40	DN 50	DN 50	DN 80
Permeate: mm	DN 25	DN 25	DN 25	DN 50	DN 50	DN 50
Concentrate: mm	DN 25	DN 25	DN 25	DN 40	DN 40	DN 40
Dimensions & Weights						
Height: mm (inch)	1702 (67)	1702 (67)	1702 (67)	1981 (78)	1981 (78)	1981 (78)
Width: mm (inch)	3327 (131)	3327 (131)	3327 (131)	4064 (160)	4064 (160)	4546 (179)
Depth: mm (inch)	914 (36)	914 (36)	914 (36)	1168 (46)	1168 (46)	1168 (46)
Shipping Weight Estimate: kg (lb)	500 (1100)	700 (1500)	900 (2000)	1200 (2600)	1400 (3100)	1600 (3500)

Optional Features (Consult price list for more information)

- Cold Water (CW) configuration
- High Rejection (HR) Membranes
- Fiberglass Reinforced Plastic (FRP) membrane element housings
- Clean In Place (CIP) System