



EL3 SERIES SOLENOID VALVES

- For Refrigerants 22, 134a, 404A, 407A, 407C, 407F, 448A, 449A, 507, 513A
- Pilot Operated Valve
- Mount Horizontally, on Side, or in a Vertical Line
- MKC-0 Coil, Class F
-   Approved



APPLICATION

Type EL3 series is a pilot operated type solenoid valve primarily for refrigeration and air conditioning applications.

The **E3 series** are compact solenoid valves with pilot operated disc construction and are rated at 2.8 tons R-22 at 3 psi pressure drop vs. 1.6 for the A3S1. The EL3 series **may be mounted horizontally, on their side or in a vertical line.**

The **Type EL3 series** solenoid valves feature extended solder type connections as standard. One important benefit to the user is that all valves in the “**EL3**” series can be installed using either low or no silver content brazing alloy.

The MKC-0 coil is Class “F” temperature rated and is provided as standard.

For use in liquid or suction line applications.

ORDERING INSTRUCTIONS

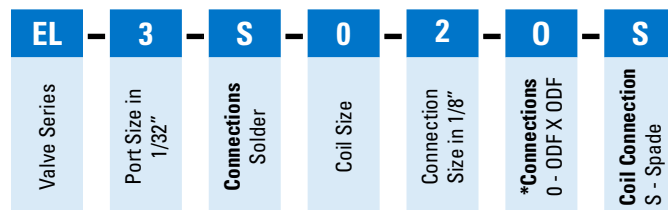
When ordering complete valves, specify Valve Type, Connections, Voltage and Cycles.

When ordering Body Assembly, specify Valve Type and Connections.

When ordering Coil Assembly ONLY, specify Coil Type, Voltage and Cycles.

**Example: MKC-0 120/60 LAM - LEADS ONLY
MKC-0TS 120/60 - TOP SPADE**

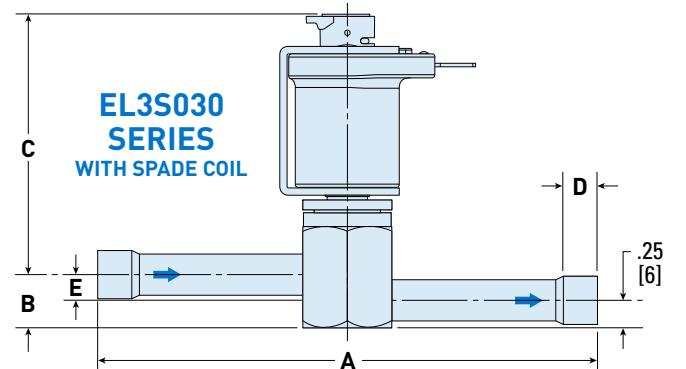
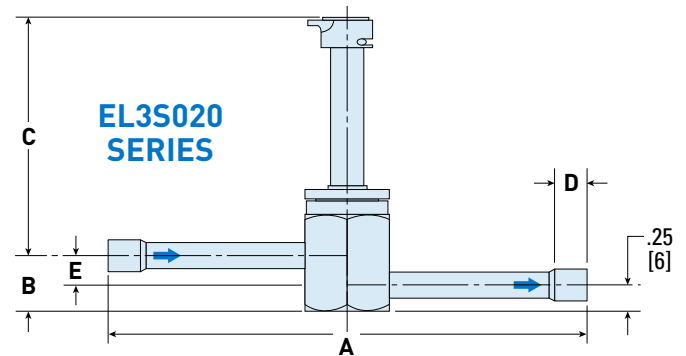
NOMENCLATURE



* Standard connections are ODF inlet x ODF outlet on EL Series valves. Minimum quantities will be required for other connections.

**U.L.: MH 4576 Volume 3 - Valve
MH 29763 Volume 2 - Coil**

DIMENSIONS



Inches (mm)

VALVE SERIES	TYPE	A	B	C	D	E
EL3	EL3S020	4.63 (117)	0.54 (14)	2.87 (73)	0.31 (8)	0.29 (.8)
	EL3S030	4.56 (116)	0.54 (14)	2.87 (73)	0.31 (8)	0.29 (8)

Maximum fluid temperature is 150°F (65°C)
Maximum ambient temperature is 78°F (25°C)

TRANSFORMER SELECTION – MKC-0

COIL KIT	VOLTAGE	IN-RUSH	HOLDING	VA
MKC-0	24/60	0.650	0.176	20
	120/60	0.133	0.033	20



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SPECIFICATIONS – MKC-0 COIL

VALVE SERIES	TYPE	STANDARD CONNECTION Inches	PORT SIZE Inches	MOPD psi (bar)		NOMINAL LIQUID CAPACITIES - Tons (Kw)												COIL RATINGS	
						REFRIGERANTS													
						22	134a	404A	407A	407C	407F	448A	449A	450A	507	513A			
						Pressure Drop – psi (bar)												STANDARD VOLTS/CYCLES	WATTS
AC	DC	3 (0.20)	2 (0.14)	3 (0.20)	3 (0.20)	3 (0.20)	3 (0.20)	3 (0.20)	3 (0.20)	2 (0.14)	3 (0.20)	2 (0.14)	AC	DC					
EL3	EL3S020	1/4 ODF x 1/4 ODF	0.10	300 (21)	300 (21)	2.22 (7.80)	1.63 (5.73)	1.42 (4.99)	1.72 (6.05)	2.09 (7.35)	1.93 (6.79)	1.91 (6.72)	1.90 (6.68)	1.52 (5.34)	1.37 (4.82)	1.31 (4.61)	24/60 120/60 12 D.C. 24 D.C.	10	10
	EL3S030	3/8 ODF x 3/8 ODF																	

Maximum rated pressure (MRP) is 500 psig (34 bar).
 Coils are available with Top Spade, DIN, and Leads only.
 EL3 Series with mounting holes are NOT standard.

REFRIGERANT LIQUID TEMPERATURE CORRECTION FACTORS

REFRIGERANT LIQUID TEMPERATURE °F (°C)	40 (5)	50 (10)	60 (15)	70 (21)	80 (27)	90 (32)	100 (38)	110 (43)	120 (49)	130 (54)	140 (69)
R-22	1.33	1.27	1.22	1.17	1.11	1.06	1.00	0.94	0.89	0.83	0.77
R-134a	1.39	1.33	1.26	1.20	1.13	1.07	1.00	0.93	0.87	0.80	0.73
R-404A	1.58	1.29	1.23	1.17	1.12	1.06	1.00	0.94	0.88	0.82	0.75
R-407A	1.42	1.36	1.29	1.22	1.15	1.07	1.00	0.92	0.84	0.76	0.67
R-407C	1.45	1.38	1.30	1.23	1.15	1.08	1.00	0.92	0.84	0.75	0.67
R-407F	1.42	1.35	1.28	1.21	1.14	1.07	1.00	0.93	0.85	0.78	0.70
R-448A	1.46	1.38	1.31	1.23	1.16	1.08	1.00	0.92	0.84	0.75	0.67
R-449A	1.44	1.37	1.30	1.22	1.15	1.08	1.00	0.92	0.84	0.76	0.68
R-450A	1.41	1.34	1.27	1.21	1.14	1.07	1.00	0.93	0.86	0.79	0.72
R-507	1.54	1.38	1.30	1.23	1.15	1.08	1.00	0.92	0.83	0.74	0.64
R-513A	1.44	1.37	1.29	1.22	1.15	1.07	1.00	0.93	0.85	0.77	0.69

Minimum operating capacity is at one psi pressure drop for pilot operated valves.
 * Liquid capacity is based on 110°F (43°C) condensing temperature, 100°F (38°C) liquid temperature and 40°F (5°C) evaporating temperature. For each 10°F (5°C) reduction in evaporating temperature, capacities are reduced by approximately 1.5%.

LIQUID CAPACITIES - IP

REFRIGERANT	TONS OF REFRIGERATION				
	PRESSURE DROP - psi*				
	1	2	3	4	5
R-22	0.83	1.17	1.44	1.66	1.86
R-134a	0.77	1.09	1.34	1.55	1.74
R-404A	0.53	0.76	0.93	1.07	1.20
R-407A	0.72	1.02	1.25	1.44	1.61
R-407C	0.78	1.11	1.36	1.57	1.75
R-407F	0.71	1.01	1.23	1.43	1.60
R-448A	0.72	1.02	1.25	1.44	1.62
R-449A	0.71	1.01	1.24	1.43	1.60
R-450A	0.72	1.02	1.25	1.44	1.62
R-507A	0.52	0.73	0.90	1.04	1.17
R-513A	0.65	0.93	1.14	1.32	1.47

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